ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction

October 28, 1996
Job No. 1031

Mr. John Williamson
1511 Wellington Street
Oakland, CA 94602

Subject: **Semi-Annual Groundwater Monitoring Report**
3635 13th Avenue, Oakland, California

Dear Mr. Williamson:

We are enclosing two copies of the referenced report for your review, which presents results of the groundwater monitoring and sampling at 3635 13th Avenue, Oakland, California. A copy has also been sent to Ms. Jennifer Eberle of the Alameda County Health Care Services Agency.

If you have any questions or comments regarding the findings presented in this report, please call me at (510) 820-3224.

Sincerely,
ALL ENVIRONMENTAL, INC.

Bryan Campbell
Project Geologist

cc: Ms. Jennifer Eberle, Alameda County Health Care Services Agency
1131 Harbor Way Parkway, 2nd Floor, Alameda, CA 94502-6577

Corporate Headquarters:
3364 Mt. Diablo Blvd.
Lafayette, CA 94549
Phone: (510) 283-6000

Los Angeles Office:
111 N. Sepulveda Blvd., #250
Manhattan Beach, CA 90266
Phone: (310) 328-8878

October 28, 1996

SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING REPORT

Second Semester, 1996

STID
10/28/96 112-1

3635 13th Avenue
Oakland, CA

Project No. 1031

Prepared For

Mr. John Williamson
1511 Wellington Street
Oakland, CA 94602

Prepared By

All Environmental, Inc.
3364 Mt. Diablo Boulevard
Lafayette, CA 94549
(800) 801-3224

AEI

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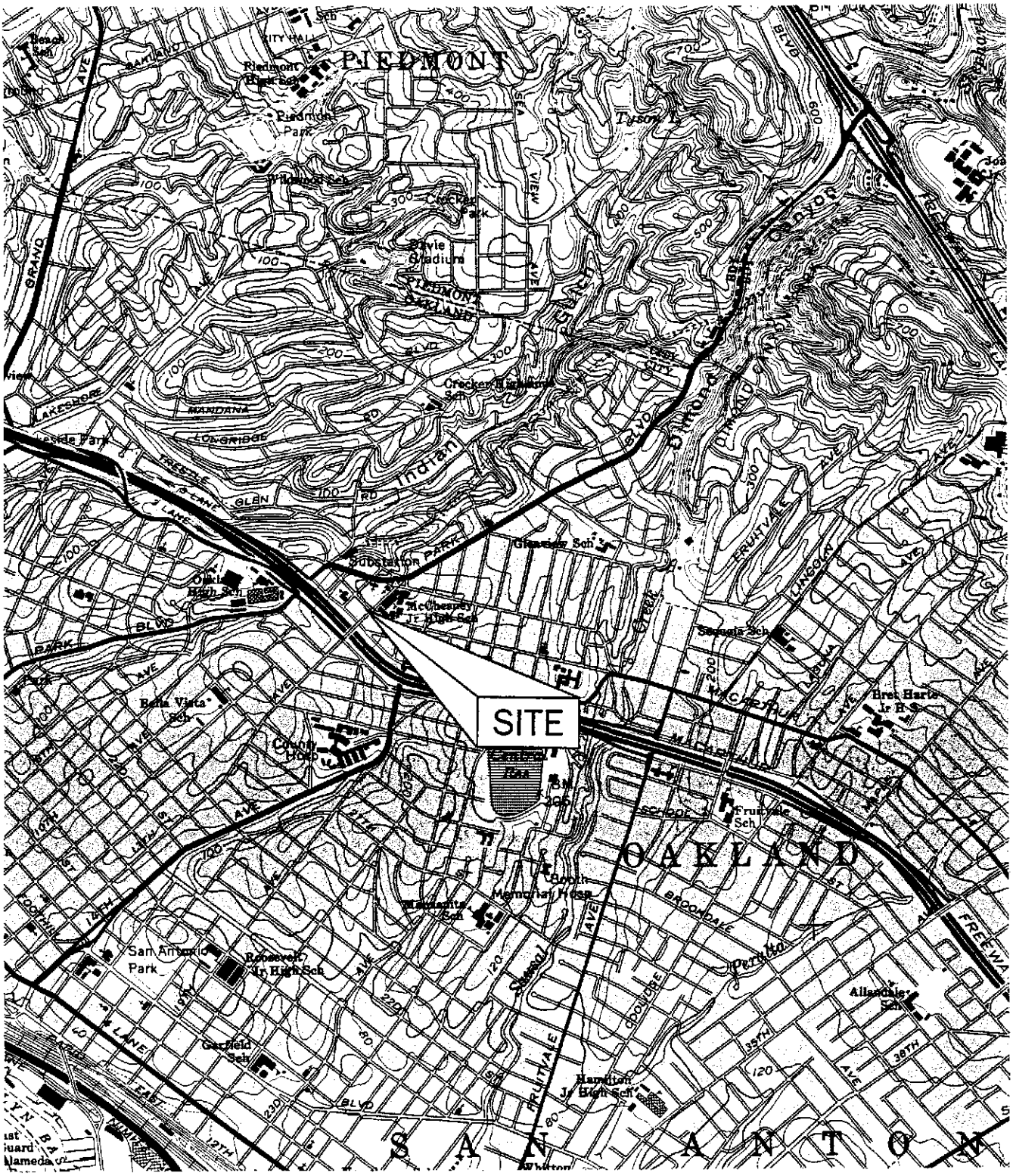
1.0 INTRODUCTION

This report presents the results of the second semi-annual monitoring and sampling episode conducted at 3635 13th Avenue in Oakland, California on August 8, and September 9, 1996. The purpose of this activity is to monitor groundwater quality in the vicinity of previous underground storage tanks. This semi-annual monitoring program is being conducted at the request of the Alameda County Health Care Services Agency (ACHCSA). The monitoring was accomplished using three monitoring wells which were installed by All Environmental Inc. (AEI) on March 24, 1994, as reported by AEI (Ref. 1).

2.0 SITE DESCRIPTION AND BACKGROUND

The site is located in a largely residential zone of Oakland approximately 100 yards east of Highway 580, at the northwest corner of 13th Avenue and Excelsior Avenue, as shown in Figure 1. The property slopes gently toward the southeast and is currently paved with asphalt. The nearest significant surface water is the Central Reservoir, located approximately one quarter mile to the southeast.

Two underground gasoline tanks, with capacities of 500 and 1000 gallons, and one 250-gallon waste oil tank were removed from the site by Aqua Science Engineers, Inc. in December, 1992 (Ref. 2). Excavation and removal of an additional 360 cubic yards of soil was performed by AEI in September, 1993 (Ref. 3). Based upon the initial levels of contamination found in the soils during the tank removal and subsequent excavation, the ACHCSA requested that the property owners conduct a groundwater investigation. Three monitoring wells, MW-1 through MW-3, were installed on the site for the purpose of monitoring groundwater contamination (Ref. 1).



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FROM:
US GEOLOGICAL SURVEY
OAKLAND WEST QUADRANGLE
7.5 MINUTE SERIES
PHOTOREVISED 1980

Scale: 1 : 24000

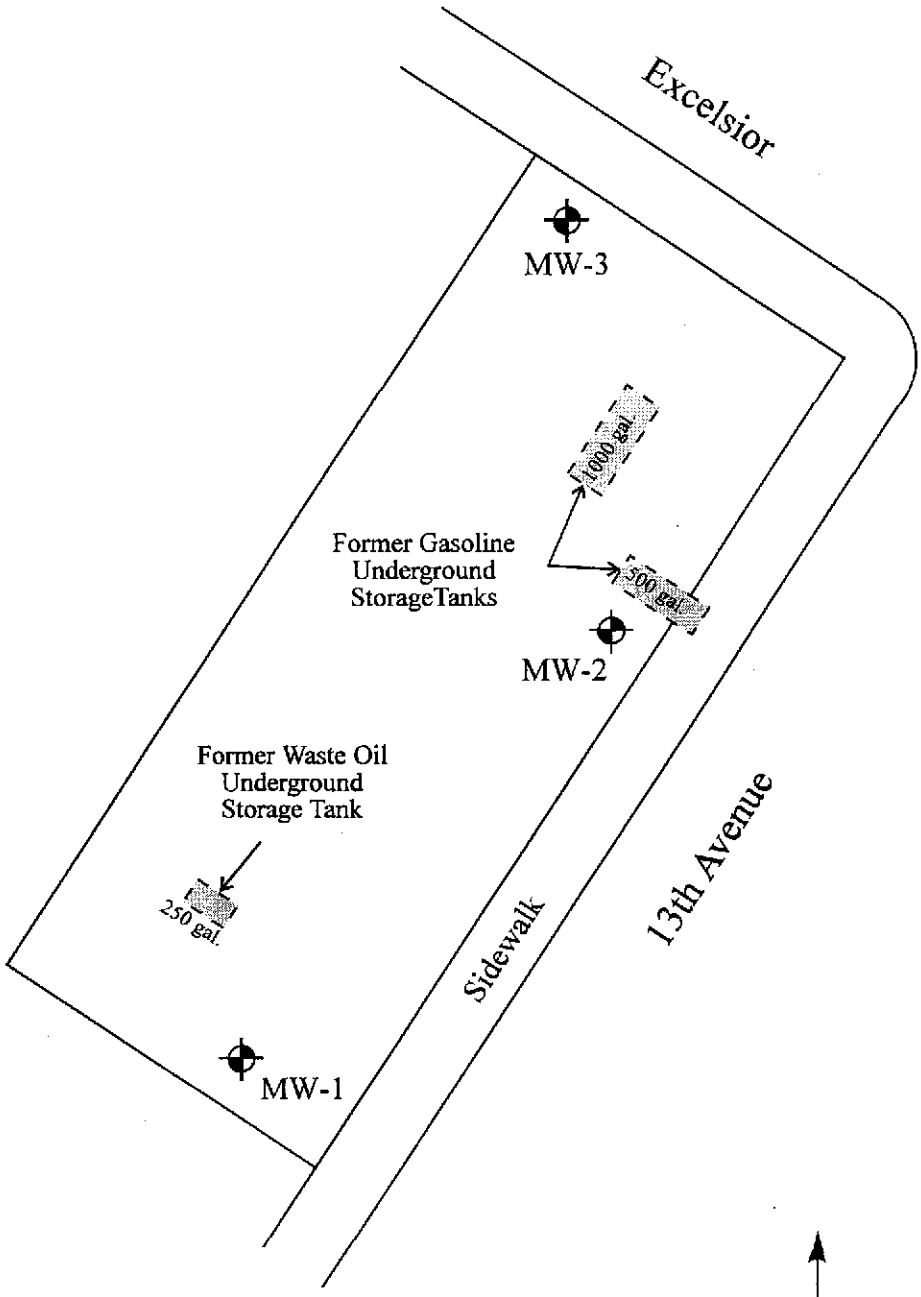
ALL ENVIRONMENTAL, INC. 3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA		
DRAWN BY:		REVISED BY:
DATE:		APPROVED BY:
SITE LOCATION MAP		
3635 13th Avenue, Oakland		DRAWING NUMBER: FIGURE 1

The three monitoring wells were installed by AEI on March 24, 1994 at the locations shown in Figure 2. Due to delays, the wells were not developed and sampled until November, 1994, which was the first quarter of groundwater sampling. Groundwater sampling continued, on a quarterly basis, for a total of four quarters. After the fourth quarter, the ACHCSA required the continuation of groundwater monitoring on a semi-annual basis.

3.0 GEOLOGY AND HYDROGEOLOGY

The geology at the site consists of early Pleistocene older alluvium deposits of mostly silty and sandy clay. Based upon the borings drilled at the site, the subsurface materials consist mostly of silty and sandy clays of relatively low permeability, with discontinuous layers of silty sand, up to 4 feet thick.

Groundwater elevations range from 179.22 to 185.42 feet above Mean Sea Level based upon the most recent measurements. The direction of the groundwater flow direction is toward the southeast and has remained essentially the same in all episodes of monitoring and sampling. The latest estimated groundwater gradient is approximately 0.17 feet per foot. The water level measurements in each well are shown in Figure 3 and are summarized in the Table 1:



Explanation

Monitoring Well, Installed by AEI on 3/24/94.

Note: Well locations and property boundaries surveyed accurately, tank locations approximate.

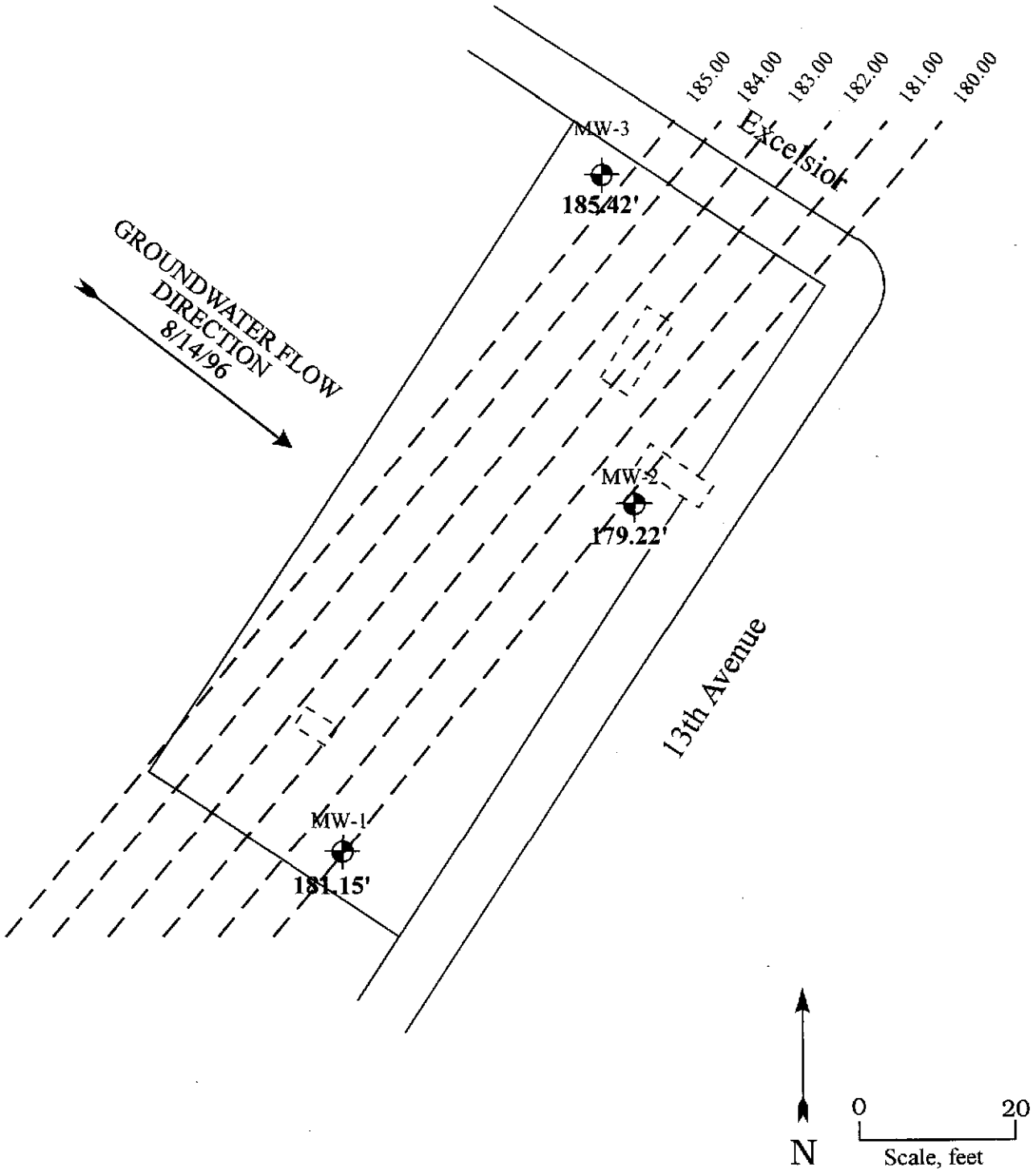
ALL ENVIRONMENTAL, INC.
3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA

DRAWN BY:		REVISED BY:
DATE:		APPROVED BY:

SITE PLAN

3635 13th Avenue, Oakland

DRAWING NUMBER:
FIGURE 2



181.15' = Groundwater Elevation

⊕ = Monitoring Well

MW-1 = Monitoring Well Number

ALL ENVIRONMENTAL, INC. 3364 MT. DIABLO BOULEVARD, LAFAYETTE, CA		
DRAWN BY:		REVISED BY:
DATE:		APPROVED BY:
GROUNDWATER GRADIENT		
3635 13th Avenue, Oakland		DRAWING NUMBER: FIGURE 3

TABLE 1 - Groundwater Elevations

DATE	MW - 1	MW - 2	MW - 3
Nov. 94	183.83	183.90	187.40
Feb. 95	184.17	184.09	187.04
May 95	183.81	184.33	181.22
Aug. 95	180.23	178.19	182.79
Feb. 96	190.32	185.10	192.71
Aug. 96	**181.15**	**179.22**	**185.42**

All elevations are reported in feet above Mean Sea Level.

4.0 WELL SAMPLING

On August 14, 1996, water was bailed from the wells and stored in 55-gallon drums. Measurements of pH, temperature, and conductivity were made during the bailing of the wells. The water level was measured before and after bailing, and returned to a static level soon after bailing was completed. The Groundwater Well Field Sampling Forms are included in Appendix A.

Groundwater was checked for sheen and free product prior to purging and sampling. A strong hydrocarbon odor and a sheen were recorded for groundwater samples collected from well MW-2. The samples were taken using a clean disposable bailer. Water was poured from the bailer into amber liter bottles and 40 ml VOA vials and capped so that no head space or visible air bubbles were within the sample containers. The samples were labeled and placed on ice in an ice chest for transportation to McCampbell Analytical Inc. under chain of custody protocol for analysis.

5.0 GROUNDWATER SAMPLE ANALYSES

Groundwater samples were collected by AEI on September 9, 1996, and were analyzed by McCampbell Analytical, Inc. (State Certification # 1644) in Pacheco, California.

Laboratory results and chain of custody documents are included in Appendix B. Previous laboratory results and chain of custody documents are included in Appendix C. Groundwater samples taken during the current monitoring episodes were analyzed by McCampbell Analytical, Inc. (State Certification # 1644) in Pacheco, California. Groundwater samples collected during the previous monitoring episodes were analyzed by Priority Environmental Labs (State Certification #1708) in Milpitas, California. Samples were analyzed for:

1. Total Petroleum Hydrocarbons (TPH) as Gasoline (EPA Method 5030/8015)
2. Methyl tert-Butyl Ether (MTBE) (EPA Method 8020/602)
3. Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX) (EPA Method 8020/602)
4. Total Petroleum Hydrocarbons (TPH) as Diesel (EPA Method 3510/8015)
5. Total Oil & Grease (TOG) (EPA Method 5520 E&F)

Tables 2 through 4 present the results of the current sampling episode along with previous sampling episodes:

TABLE 2 - Groundwater Sample Analytical Data: TPHg, BTEX, TPHd, and TOG

WELL	DATE	TPH-GASOLINE (ug/L)	MTBE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	TPH-DIESEL (ug/L)	TOG (ug/L)
MW - 1	Nov. 94	210	-	ND	ND	ND	2.3	ND	ND
	Feb. 95	140	-	ND	ND	0.6	1.5	ND	1.2
	May 95	ND	-	ND	ND	ND	ND	ND	ND
	Aug. 95	2800	-	25	6.2	22	30	ND	ND
	Feb. 96	ND	-	ND	ND	ND	ND	ND	ND
	Sept. 96	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW - 2	Nov. 94	11,000	-	35	21	7.2	50	ND	ND
	Feb. 95	4000	-	ND	ND	2.5	5.7	ND	1.6
	May 95	8600	-	95	37	37	70	ND	ND
	Aug. 95	7200	-	43	21	21	71	ND	ND
	Feb. 96	11,000	-	17	9.3	9.3	25	ND	0.6
	Sept. 96	**15,000**	**ND**	**4300**	**920**	**460**	**1600**	**1900**	**ND**
MW -3	Nov. 94	200	-	ND	ND	ND	2.0	ND	3.0
	Feb. 95	1500	-	6.6	6.4	4.2	13	ND	0.9
	May 95	710	-	2.5	3.2	3.1	16	ND	ND
	Aug. 95	310	-	3.1	2.1	2.2	11	ND	ND
	Feb. 96	400	-	1.4	2.5	2.2	7.0	ND	2.2
	Sept. 96	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

ug/L = Parts Per Billion (ppb)
ND = Non-Detect

6.0 CONCLUSIONS AND RECOMMENDATIONS

The second semi-annual monitoring and sampling episode of the three groundwater monitoring wells at 3635 13th Avenue in Oakland, California was conducted on August 8, and September 9, 1996. Prior to this episode, the wells were sampled once on a semi-annual basis and four times on a quarterly basis. Analysis of groundwater samples from well MW-2 continues to indicate high levels of contamination. Contaminant concentrations in samples from wells MW-1 and MW-3 were found to be below the detection limits.

AEI

All Environmental, Inc. recommends the discontinuation of sampling for TOG in all wells since TOG levels have remained near or below the detection limit for at least four episodes of groundwater monitoring and sampling. All Environmental, Inc. also recommends the continued semi-annual monitoring and sampling of the wells. The next monitoring and sampling episode is scheduled for February, 1996, as per the requirements of the ACHCSA.

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7.0 REPORT LIMITATIONS AND SIGNATURES

This report presents a summary of work completed by All Environmental, Inc., including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field which existed at the time and location of the work.

All Environmental, Inc.

Bryan Campbell
Project Geologist

Joseph P. Derhake, PE, CAC
Principal

AEI

8.0 REFERENCES

1. Soil Boring and Monitoring Well Installation Final Report - dated December 14, 1994. Prepared by All Environmental, Inc.

2. Underground Storage Tanks Removal Final Report - dated January 20, 1993. Prepared by Aqua Science Engineers, Inc.

3. Contaminated Soil Over-Excavation Final Report - dated November 18, 1993. Prepared by All Environmental, Inc.

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ALL ENVIRONMENTAL INC. -- GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-1	
Project Name	Williamson
Job Number	1031
Project Address	3635 13th Avenue
	Oakland, CA
Date of Sampling	8/14/96
Name of Sampler	Dusty Roy
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	194.75
Depth of Well	23.10
Depth to Water	13.60
Water Elevation	181.15
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	12
Appearance of Purge Water	Clear
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 liters / 2 VOAs
Groundwater Temp/pH/Conductivity #1:	69.2°/7.36/1966
Groundwater Temp/pH/Conductivity #2:	67.5°/7.14/1794
Groundwater Temp/pH/Conductivity #3:	69.2°/7.36/1966
Appearance of Groundwater Samples	Clear
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	
No odor, rapid well recharge.	

TD - Total Depth of Well
DTW - Depth To Water

ALL ENVIRONMENTAL INC. -- GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-2	
Project Name	Williamson
Job Number	1031
Project Address	3635 13th Avenue
	Oakland, CA
Date of Sampling	8/14/96
Name of Sampler	Dusty Roy
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	194.44
Depth of Well	36.03
Depth to Water	15.22
Water Elevation	179.22
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	12
Appearance of Purge Water	Clear with a sheen
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 liters / 2 VOAs
Groundwater Temp/pH/Conductivity #1:	66.4°/7.07/1314
Groundwater Temp/pH/Conductivity #2:	66.5°/6.87/1331
Groundwater Temp/pH/Conductivity #3:	66.8°/6.80/1330
Appearance of Groundwater Samples	Clear with a sheen
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	
Strong hydrocarbon odor. Slow recharge.	

TD - Total Depth of Well
DTW - Depth To Water

ALL ENVIRONMENTAL INC. -- GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-3	
Project Name	Williamson
Job Number	1031
Project Address	3635 13th Avenue
	Oakland, CA
Date of Sampling	8/14/96
Name of Sampler	Dusty Roy
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Good
Well Cap & Lock -- OK/Replace	OK
Elevation of Top of Casing	198.93
Depth of Well	35.51
Depth to Water	13.51
Water Elevation	185.42
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	12
Appearance of Purge Water	Clear
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 liters / 2 VOAs
Groundwater Temp/pH/Conductivity #1:	66.3°/7.41/1056
Groundwater Temp/pH/Conductivity #2:	66.3°/7.32/1021
Groundwater Temp/pH/Conductivity #3:	66.3°/7.28/1018
Appearance of Groundwater Samples	Clear
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)	
Slow well recharge.	

TD - Total Depth of Well
DTW - Depth To Water

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: Williamson	Date Sampled: 09/09/96
		Date Received: 09/09/96
	Client Contact: Brain Campbell	Date Extracted: 09/11-09/12/96
	Client P.O:	Date Analyzed: 09/11-09/12/96

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
68794	MW-1	W	ND	ND	ND	ND	ND	ND	102
68795	MW-2	W	15,000,a	---	4300	920	460	1600	100
68796	MW-3	W	ND	ND	ND	ND	ND	ND	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: Williamson	Date Sampled: 09/09/96
		Date Received: 09/09/96
	Client Contact: Brain Campbell	Date Extracted: 09/09/96
	Client P.O:	Date Analyzed: 09/09/96

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
68794	MW-1	W	ND	99
68795	MW-2	W	1900,d	100
68796	MW-3	W	ND	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

All Environmental, Inc. 3364 Mt. Diablo Blvd. Lafayette, CA 94549	Client Project ID: Williamson	Date Sampled: 09/09/96
		Date Received: 09/09/96
	Client Contact: Brain Campbell	Date Extracted: 09/18/96
	Client P.O:	Date Analyzed: 09/18/96

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
68794	MW-1	W	ND
68795	MW-2	W	ND
68796	MW-3	W	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L and soil and sludge samples in mg/kg

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/11/96 Matrix: Water

Analyte	Concentration (ug/L) Sample (#68100)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	98.2	104.4	100.0	98.2	104.4	6.1
Benzene	0.0	10.2	9.9	10.0	102.0	99.0	3.0
Toluene	0.0	10.0	10.1	10.0	100.0	101.0	1.0
Ethyl Benzene	0.0	10.0	10.3	10.0	100.0	103.0	3.0
Xylenes	0.0	29.1	30.1	30.0	97.0	100.3	3.4
TPH (diesel)	0	159	150	150	106	100	6.1
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/09/96 Matrix: Water

Analyte	Concentration (ug/L) Sample (#68100)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	103.9	104.7	100.0	103.9	104.7	0.8
Benzene	0.0	9.8	9.5	10.0	98.0	95.0	3.1
Toluene	0.0	9.7	9.4	10.0	97.0	94.0	3.1
Ethyl Benzene	0.0	9.5	9.3	10.0	95.0	93.0	2.1
Xylenes	0.0	27.8	27.3	30.0	92.7	91.0	1.8
TPH (diesel)	0	153	152	150	102	101	1.0
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/18/96 Matrix: Water

Analyte	Concentration (ug/L) Sample (#68913)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPH (diesel)	0	151	160	150	101	107	5.9
TRPH (oil & grease)	0	22600	22400	23700	95	95	0.9

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

7140 AALE 78

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

COMPANY: ALL ENVIRONMENTAL INC.
3364 MT DIABLO BLVD
LAFAYETTE CA 94549

REPORT TO: BRIAN
BILL TO:
PHONE NO.: 510-283-6000
FAX NO.: 510-283-6121
PROJECT NO.:
PROJECT NAME: WILLIAMSON
PROJECT LOCATION: OAKLAND

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO_3	ICE	OTHER
(+) MW-1		9/6/96		4		X								
MW-2		"		4		X								
(+) MW-3		"		4		X								
ICE/T	✓		✓											
[illegible]	[illegible]	[illegible]												
[illegible]	PACE ABSENT ✓	APPROPRIATE CONTAINERS ✓												

ANALYSIS REQUEST

BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/5520 B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 501/8010	BTEX & MTBE	EPA 608/8080	EPA 608/8080 – PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM – 17 Metals	EPA – Priority Pollutant Metals	LUFT Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI
X	X	X													
X	X	X													
X	X	X													

OTHER

COMMENTS

68794
68795
68796

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Dusty Ray	9/9/96	2:45pm	Angela Rydelius
RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 09, 1996 PEL # 9602010

ALL ENVIRONMENTAL, INC.

Attn: Dusty Roy

Re: Three water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: Williamson
Project number: 1031

Date sampled: Feb 07, 1996 Date submitted: Feb 08, 1996
Date extracted: Feb 08-09, 1996 Date analyzed: Feb 08-09, 1996

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	11000	N.D.	17	11	9.3	25	0.6
MW-3	400	N.D.	1.4	2.5	2.2	7.0	2.2
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	105.4%	87.0%	90.0%	87.3%	90.2%	87.4%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

ACC ENVIRONMENTAL, INC.
2641 Crow Canyon Road, Ste. 5
San Ramon, CA 94583
(510) 820-3224 FAX: (510) 838-2687

PEL # 9602010

INV # 26775

Chain of Custody

DATE: 2/2/96 PAGE: 1 OF: 1

AEI PROJECT MANAGER: Dusty Roy
PROJECT NAME: Williamson
PROJECT NUMBER: 1031
SIGNATURE: Dusty Roy
TOTAL # OF CONTAINERS: 12
RECD. GOOD COND./COLD: Yes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030/8015)	TPH-Gasoline (EPA 5030/8015) w/ BTEX (EPA 602/8020)	TPH-Diesel (EPA 3510/3550/8015)	PURGEABLE AROMATICS BTEX (EPA 602/8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130/7190/7480/7580/7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY, CORROSIVITY, IGNITABILITY (Title 22, CCR sections 12-6)			NUMBER OF CONTAINERS
MW-1	2/2/96		W		X	X		X								4
MW-2	↓		↓		X	X		X								4
MW-3					X	X		X								4

ANALYTICAL LAB:
ADDRESS:
PHONE: ( ) - FAX: ( ) -
INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1
Dusty Roy
Signature
DUSTY ROY
Printed Name
AEI
Company
Time 9:30 a.m. Date 2/2/96

RECEIVED BY: 1
Signature
Printed Name
PEL
Company
Time 9:31 Date 2/2/96

RELINQUISHED BY: 2
Signature
Printed Name
Company
Time Date

RECEIVED BY: 2
Signature
Printed Name
Company
Time Date

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

August 22, 1995 PEL # 9508061

ALL ENVIRONMENTAL, INC.

Attn: Mike Killoran

Re: Three water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: Williamson
Project number: 1031

Date sampled: Aug 18, 1995 Date submitted: Aug 19, 1995
Date extracted: Aug 19-21, 1995 Date analyzed: Aug 19-21, 1995

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
MW-1	2800	N.D.	25	6.2	22	30	N.D.
MW-2	7200	N.D.	43	21	21	71	N.D.
MW-3	310	N.D.	3.1	2.1	2.2	11	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	109.4%	83.2%	105.7%	97.0%	97.9%	91.1%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	10
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PRIORITY ENVIRONMEN

PEL # 9508061

INV # 26261

Chain of Custody

1764 Houret Ct. Milpitas,CA.95035 Tel:408-946-9636 Fax:40

___/___/___ PAGE: ___ OF ___

PROJECT MGR.: Mike Killoran
COMPANY: AIS Environmental, Inc.
ADDRESS:
PHONE: 510-820-3224 FAX:
SIGNATURE:

ANALYSIS REPORT

SAMPLE ID	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030.8015)	TPH-Gasoline(5030.8015) w/BTEX(EPA 602.8020)	TPH-Diesel (EPA 3510/3550.8015)	PURGEABLE AROMATICS BTEX (EPA 602.8020)	TOTAL OIL & GREASE (EPA 5520 C.D&F)	PESTICIDES/PCB (EPA 608.8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	CHLORINATED HYDROCARBONS (EPA 601.8010)										NUMBER OF CONTAINERS
MW-1	8/18/95		water		X	X		X													
MW-2	↓		↓		+	+		+													
MW-3	↓		↓		+	+		+													

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NAME:	Williamson	TOTAL # OF CONTAINERS	18
PROJECT NUMBER:	1031	RECD. GOOD COND./COLD	

INSTRUCTIONS & COMMENTS:

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
Michael J. Killoran	DAVID DUONG		
SIGNATURE:	SIGNATURE:	SIGNATURE:	SIGNATURE:
Date: 8/18/95 Time: 3:45	Date: 08/18/95 Time: 3:45 PM	Date: Time:	Date: Time:
COMPANY:	COMPANY: PEL	COMPANY:	COMPANY:

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

May 26, 1995 PEL # 9505077

ALL ENVIRONMENTAL, INC.

Attn: Mike Killoren

Re: Three water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: Williamson
Project number: 1031

Date sampled: May 23-24, 1995 Date submitted: May 24, 1995
Date extracted: May 24-25, 1995 Date analyzed: May 24-25, 1995

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
MW-1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	8600	N.D.	95	37	37	70	N.D.
MW-3	710	N.D.	2.5	3.2	3.1	16	N.D.
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	83.7%	94.0%	86.4%	94.2%	88.4%	102.9%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

ALL ENVIRONMENTAL, INC.
2641 Crow Canyon Road, Ste. 5
San Ramon, CA 94583
(510) 820-3224 FAX: (510) 838-2687

PEL # 9505077

INV # 25982

Chain of Custody

DATE: 5/24/95 PAGE: 1 OF: 1

AEI PROJECT MANAGER: Mike Killoran
PROJECT NAME: Williamson
PROJECT NUMBER: 1031
SIGNATURE:
TOTAL # OF CONTAINERS: 12
RECD. GOOD COND./COLD: yes

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030/8015)	TPH-Gasoline (EPA 5030/8015) w/ BTEX (EPA 602/8020)	TPH-Diesel (EPA 3510/3550/8015)	PURGEABLE AROMATICS BTEX (EPA 602/8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130,7190,7420,7580,7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY, CORROSIVITY, IGNITABILITY (Title 22, CCR 66261.21-5)			NUMBER OF CONTAINERS
MW-1	5/23/95		W		X	X		X								4
MW-2	5/24/95		W		X	X		X								4
MW-3	5/24/95		W		X	X		X								4

ANALYTICAL LAB: Priority Labs
ADDRESS:
PHONE: ( ) - FAX: ( ) -
INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
Signature	Signature	Signature	Signature
Michael J. Killoran	[illegible]		
Printed Name	Printed Name	Printed Name	Printed Name
AEI	PEL		
Company	Company	Company	Company
Time 2:22 Date 5/24/95	Time 2:20 PM Date 5/24/95	Time Date	Time Date

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

February 27, 1995 PEL # 9502084

ALL ENVIRONMENTAL, INC.

Attn: Charles Kissick

Re: Three water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: Williamson
Project number: 1031

Date sampled: Feb 22-23, 1995 Date submitted: Feb 24, 1995
Date extracted: Feb 24-25, 1995 Date analyzed: Feb 24-25, 1995

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)	Oil & Grease (mg/L)
MW-1	140	N.D.	N.D.	N.D.	0.6	1.5	1.2
MW-2	4400	N.D.	N.D.	N.D.	2.5	5.7	1.6
MW-3	1500	N.D.	6.6	6.4	4.2	13	0.9
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	106.2%	91.7%	82.0%	103.2%	92.3%	103.1%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

Chain of Custody

AEI ENVIRONMENTAL, INC.
2641 Crow Canyon Road, Ste. 5
San Ramon, CA 94583
(510) 820-3224 FAX: (510) 838-2687

PEL # 9502084

INV # 25711

DATE: 2/23/95 PAGE: 1 OF 1

AEI PROJECT MANAGER: Charles Kissick
PROJECT NAME: Williamson
PROJECT NUMBER: 1031
SIGNATURE: Chr Kic
TOTAL # OF CONTAINERS: 12
RECD. GOOD COND./COLD: YES

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030/8015)	TPH-Gasoline (EPA 5030/8015) w/ BTEX (EPA 602/8020)	TPH-Diesel (EPA 3510/3550/8015)	PURGEABLE AROMATICS BTEX (EPA 602/8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 624/8240)	LUFT Metals (EPA 7130/7190/7420/7580/7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY, CORROSIVITY, IGNITABILITY (Title 22, CCR 66261.21-24)			NUMBER OF CONTAINERS
MW-1	2/22/95		Water		X	X		X								4
MW-2	2/23/95		↓		X	X		X								4
MW-3	↓		↓		X	X		X								4

ANALYTICAL LAB: PEL
ADDRESS:
PHONE: (408) 496-9636 FAX: ( ) 496-9663
INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
Signature: J Anderson	Signature:	Signature:	Signature:
Printed Name: Jennifer Anderson	Printed Name:	Printed Name:	Printed Name:
Company: AEI	Company: PEL	Company:	Company:
Time: 11:30 Date: 2/24/95	Time: 11:35 Date: 2/24/95	Time: Date:	Time: Date:

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

November 26, 1994 PEL # 9411068

ALL ENVIRONMENTAL, INC.

Attn: Charles Kissick
Re: Three water samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: Williamson
Project number: 1031

Date sampled: Nov 22, 1994 Date submitted: Nov 22, 1994
Date extracted: Nov 22-25, 1994 Date analyzed: Nov 22-25, 1994

RESULTS:

SAMPLE I.D.	Gasoline (ug/L)	Diesel (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)	Oil & Grease (mg/L)
MW-1	210	N.D.	N.D.	N.D.	N.D.	2.3	N.D.
MW-2	11000	N.D.	35	21	7.2	50	N.D.
MW-3	200	N.D.	N.D.	N.D.	N.D.	2.0	3.0
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	88.5%	101.2%	88.3%	90.2%	91.0%	100.5%	---
Detection limit	50	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	3510 / 8015	602	602	602	602	5520 C & F

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

ALL ENVIRONMENTAL, INC.
2641 Crow Canyon Road, Ste. 5
San Ramon, CA 94583
(510) 820-3224 FAX: (510) 838-2687

PEL # 9411068

INV # 25460

Chain of Custody

DATE: 11/22/94 PAGE: 1 OF: 1

AEI PROJECT MANAGER: Charles Kissick
PROJECT NAME: Williamson
PROJECT NUMBER: 1031
SIGNATURE: Chas Kiss
TOTAL # OF CONTAINERS: 12
RECD. GOOD COND./COLD: YES

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	MATRIX	TPH-Gasoline (EPA 5030,8015)	TPH-Gasoline (EPA 5030,8015) w/ BTEX (EPA 602,8020)	TPH-Diesel (EPA 3510/3550,8015)	PURGEABLE AROMATICS BTEX (EPA 602,8020)	TOTAL OIL & GREASE (EPA 5520 E&F)	TOTAL LEAD (AA) (EPA 7420)	VOLATILE ORGANIC COMPOUNDS (EPA 8240)	LUFT Metals (EPA 7130,7190,7420,7380,7950)	STLC CAM 17 (EPA 1310/6010)	RCI REACTIVITY, CORROSIVITY, IGNITABILITY (Title 22, CCR 66261.21-23)			NUMBER OF CONTAINERS
MW-1	11/22/94		Water		X	X		X								4
MW-2	↓		↓		X	X		X								4
MW-3	↓		↓		X	X		X								4

ANALYTICAL LAB: Peiority Env. Labs
ADDRESS: 1764 Houret Ct. Milpitas CA 95035
PHONE: (408) 946 - 9636 FAX: ( ) 946 - 9663

INSTRUCTIONS/COMMENTS:

RELINQUISHED BY: 1	RECEIVED BY: 1	RELINQUISHED BY: 2	RECEIVED BY: 2
Signature: Chas Kiss	Signature: David Duong	Signature:	Signature:
Printed Name: Charles Kissick	Printed Name: DAVID DUONG	Printed Name:	Printed Name:
Company: All Env. Inc.	Company: PEL	Company:	Company:
Time: 3:10 Date: 11/22/94	Time: 3:10 PM Date: 11/22/94	Time: Date:	Time: Date: