

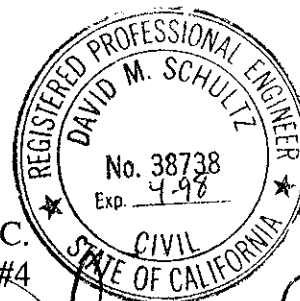


August 12, 1997

GROUNDWATER MONITORING REPORT  
JUNE 27, 1997 GROUNDWATER SAMPLING  
ASE JOB NO. 3011

at  
Zima Center Corporation  
2951 High Street  
Oakland, California 94619

Prepared by:  
AQUA SCIENCE ENGINEERS, INC.  
2411 Old Crow Canyon Road, #4  
San Ramon, CA 94583  
(510) 820-9391



## 1.0 INTRODUCTION

### Site Location (Site), See Figure 1

Zima Center Corporation  
2951 High Street  
Oakland, CA 94619

### Property Owner

Zima Center Corporation  
2951 High Street  
Oakland, CA 94619  
Attn.: Mr. Mohammad Mashhoon  
(510) 436-4700

### Environmental Consulting Firm

Aqua Science Engineers, Inc. (ASE)  
2411 Old Crow Canyon Road, #4  
San Ramon, CA 94583  
Contact: Robert Kitay, Senior Geologist  
(510) 820-9391

### Agency Review

Alameda County Health Care Services Agency (ACHCSA)  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502  
Attn.: Ms. Madhulla Logan  
(510) 293-8695

California Regional Water Quality Control Board (RWQCB),  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, CA 94612  
Contact: Mr. Kevin Graves  
(510) 286-4359

The following is a report detailing the results of the June 27, 1997, groundwater sampling at the above referenced site (Figure 2).

## 2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On June 27, 1997, ASE environmental specialist Scott Ferriman measured the depth to water in each site well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen using a product thickness bailer. A slight sheen was present on the groundwater surface of monitoring well MW-2. No free-floating hydrocarbons or sheen was present on the groundwater surface of any other monitoring well at the site. Depths to groundwater are presented in Table One.

Groundwater elevation contours are presented on Figure 2. On June 27, 1997, groundwater flowed generally to the east and south beneath the site at a gradient of 0.0316-feet/foot. This gradient is consistent with previous calculated gradients and flow directions but is not consistent with hydrocarbon distribution in groundwater which suggest a northward groundwater flow direction.

## 3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSES

Prior to sampling, monitoring wells MW-2, MW-5 and MW-6 were purged of four well casing volumes of water using dedicated polyethylene bailers. The pH, temperature and conductivity of the purge water were monitored during purging and samples were not collected until these parameters stabilized. Groundwater samples were then collected from each well using dedicated polyethylene bailers. The samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, capped, labeled and placed into an ice chest containing wet ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under chain-of-custody.

The well purge water was placed in 55-gallon steel 17H drums, labeled, and left on-site for temporary storage. Copies of the well sampling field logs are included as Appendix A.

The groundwater samples collected from monitoring wells MW-2, MW-5 and MW-6 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M and benzene, toluene, ethylbenzene, total xylenes (BTEX) and MTBE by EPA Method 8020.

The analytical results for this and previous sampling events are presented in Table Two, and the certified laboratory report and chain-of-custody form are included as Appendix B.

#### **4.0 GROUNDWATER REMEDIATION**

Between May 28, 1997 and June 24, 1997, 2,550 lbs. of Oxygen Releasing Compound (ORC) was injected into the borings along the northern and eastern sides of the existing underground storage tanks (USTs). This drilling and ORC injection was performed by fast-Tek Engineering Support Services of San Rafael, California on May 28 and 29 1997, Soils Exploration Services of Benicia, California on May 30, 1997 and En Prob Environmental Probing of Oroville, California on June 24, 1997.

On June 27, 1997 ASE environmental specialist Scott Ferriman measured the dissolved oxygen (DO) in groundwater from each monitoring well. Groundwater from monitoring well MW-5 contained 0.71 mg/l DO prior to purging and contained 8.70 mg/l after purging. 8.70 mg/l is a concentration high enough to support aerobic bacterial development. DO readings are tabulated in Table Three.

#### **5.0 CONCLUSIONS**

Elevated hydrocarbon concentrations were detected in groundwater samples collected from monitoring wells MW-2 and MW-5, although these concentrations have decreased by approximately 50% since last quarter. No detectable TPH-G, BTEX and MTBE concentrations were detected in groundwater samples collected from monitoring well MW-6.

Benzene concentrations in groundwater samples collected from monitoring wells MW-2 and MW-5 exceeded the California Department of Toxic Substances Control (DTSC) maximum contaminant level (MCL) for drinking water. The toluene concentration in groundwater samples collected from monitoring well MW-5 exceeded the DTSC recommended action level (RAL) for drinking water. The total xylenes concentration in groundwater samples collected from monitoring well MW-5 exceeded DTSC MCLs for drinking water.

#### **6.0 RECOMMENDATIONS**

The next sampling event is scheduled for September 1997.

#### **7.0 REPORT LIMITATIONS**

The results of this report represent the conditions at the time of the groundwater sampling at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the

laboratory. It does not fully characterize the site for contamination resulting from sources other than the underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to provide environmental consulting services for this project and trust that this report meets your needs. Please feel free to call us at (510) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.



Scott T. Ferriman  
Environmental Specialist

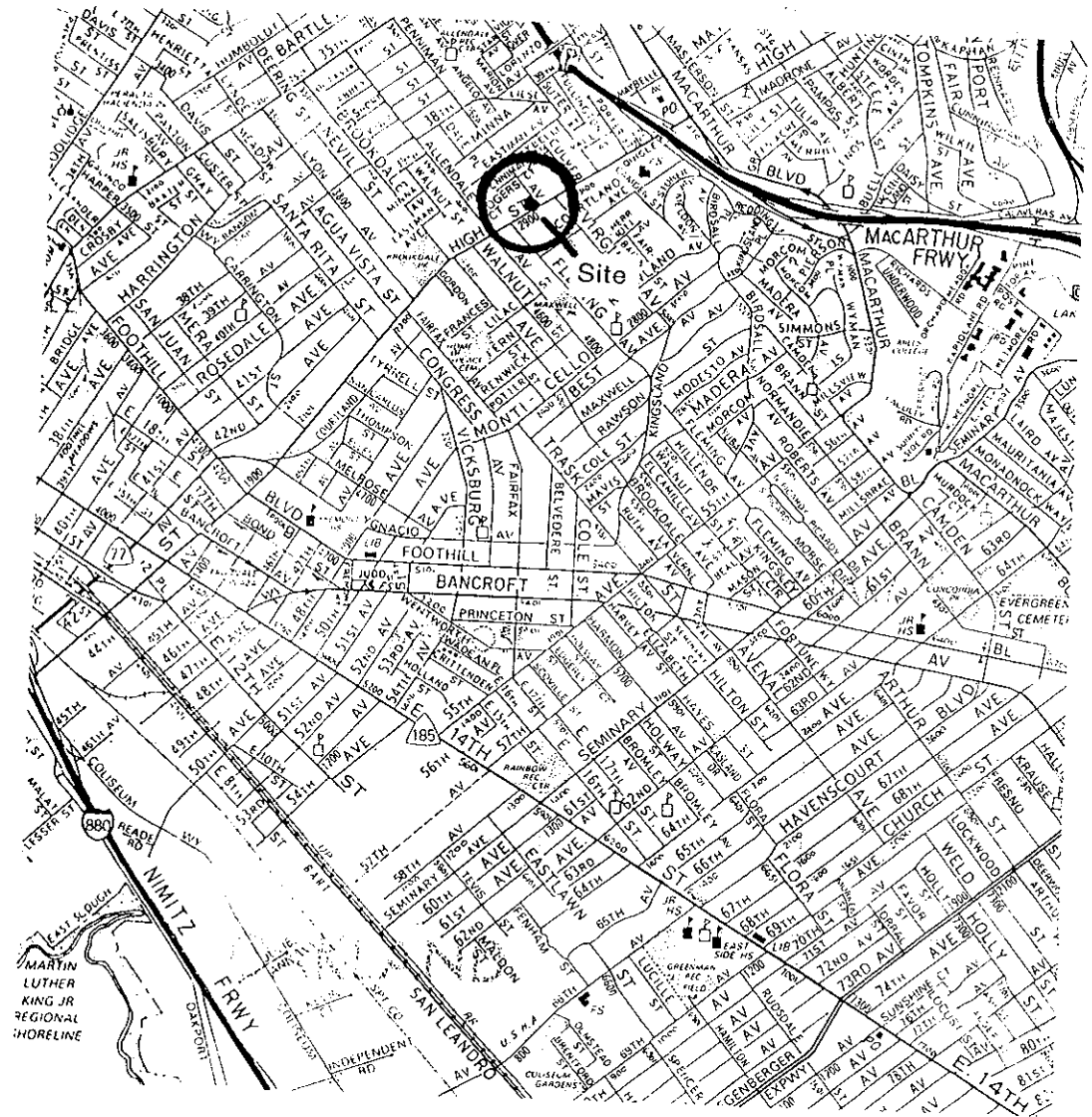
Attachments: Figures 1 and 2  
Tables One and Two  
Appendices A and B

cc: Ms. Madhulla Logan, Alameda County Health Care Services Agency  
Mr. Kevin Graves, RWQCB, San Francisco Bay Region

## **FIGURES**



NORTH



SITE LOCATION MAP

ZIMA CENTER CORPORATION  
2951 HIGH STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.      FIGURE 1



NORTH

SCALE  
1" = 30'

PENNIMAN AVENUE

SIDEWALK

RESIDENTIAL

EXISTING USTS

FORMER UST

BUILDING

PUMP ISLANDS


SIDEWALK


HIGH STREET


PUMP ISLANDS

PROPERTY LIMITS

**LEGEND**

MW-6  
(89.77')  
 Monitoring well with groundwater elevation

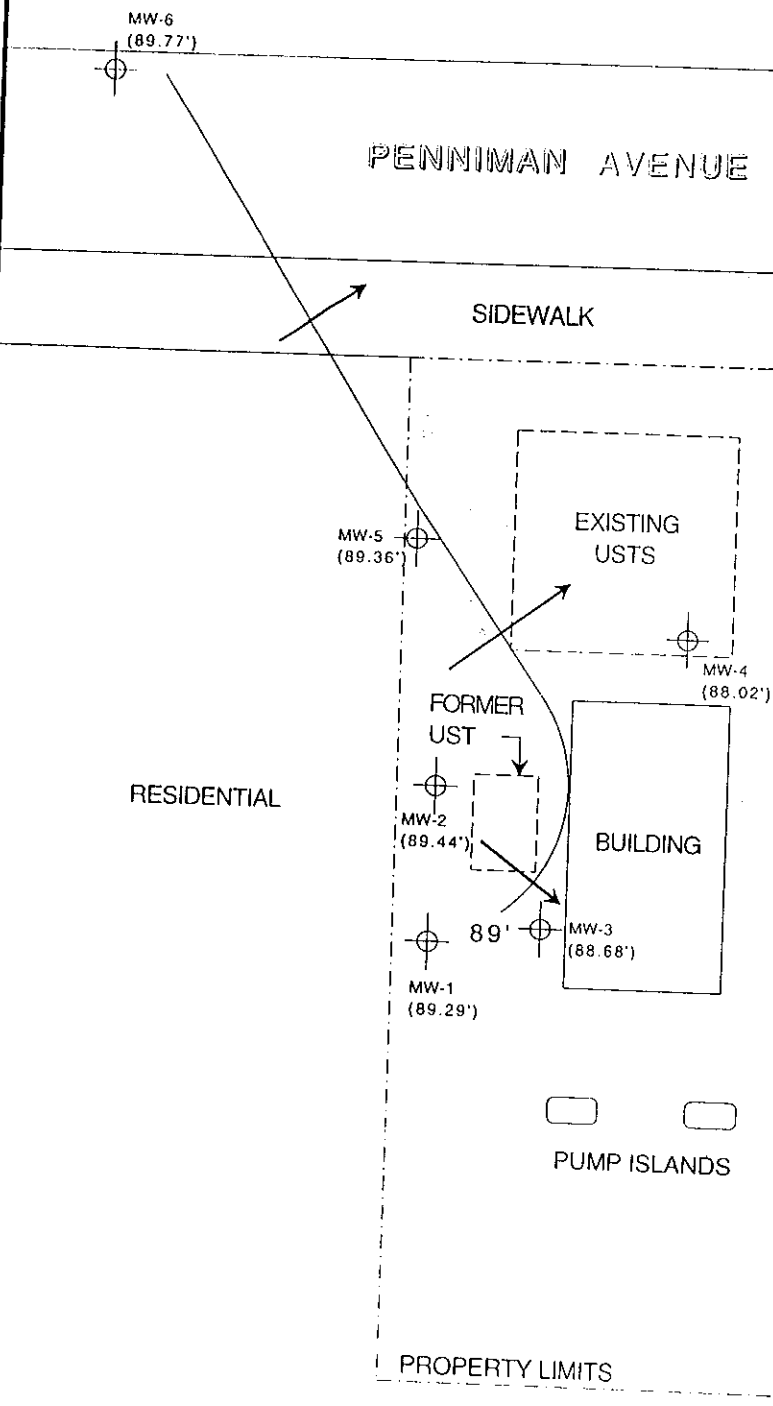
89'  
 Groundwater elevation contour

 Groundwater flow direction

**GROUNDWATER ELEVATION  
CONTOUR MAP - 6/27/97**

ZIMA CENTER CORPORATION  
2951 HIGH STREET  
OAKLAND, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC. | **FIGURE 3**





## TABLES

**TABLE ONE**  
**Summary of Groundwater Well Survey Data**

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-1	02-23-95	97.62	5.89	91.73
	05-26-95		5.20	92.42
	08-23-95		8.67	88.95
	12-13-96		4.61	93.01
	01-16-97		3.79	93.83
	03-27-97		5.87	91.75
	06-27-97		8.33	89.29
MW-2	02-23-95	97.87	6.81	91.06
	05-26-95		4.90	92.97
	08-23-95		8.33	89.54
	12-13-96		6.85	91.02
	01-16-97		1.54	96.33
	03-27-97		5.51	92.36
	06-27-97		8.43	89.44
MW-3	02-23-95	97.03	4.21	92.82
	05-26-95		6.44	90.59
	08-23-95		8.69	88.34
	12-13-96		5.60	91.43
	01-16-97		5.28	91.75
	03-27-97		6.64	90.39
	06-27-97		8.35	88.68
MW-4	02-23-95	96.77	6.25	92.07
	05-26-95		6.18	90.59
	08-23-95		8.55	88.22
	12-13-96		5.86	90.91
	01-16-97		5.79	90.98
	03-27-97		7.37	89.40
	06-27-97		8.75	88.02
MW-5	12-13-96	98.32	6.25	92.07
	01-16-97		6.32	92.00
	03-27-97		7.51	90.81
	06-27-97		8.96	89.36
MW-6	01-16-97	98.16	5.12	93.04
	03-27-97		6.55	91.61
	06-27-97		8.39	89.77

**TABLE TWO**  
**Summary of Chemical Analysis of GROUNDWATER Samples**  
 All results are in parts per billion

Sample I.D.	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
<u>MW-1</u>						
02-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
05-26-95	<50	<0.5	<0.5	<0.5	<0.5	---
08-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
<u>MW-2</u>						
02-23-95	3,300	9.6	13	8	28	---
05-26-95	4,600	39	18	21	39	---
08-23-95	<50	15	6	10	15	---
12-13-96	1,900	110	110	120	330	65
03-27-97	3,900	34	20	86	140	200
06-27-97	2,400	18	<5	6	8.8	2,000
<u>MW-3</u>						
02-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
05-26-95	<50	<0.5	<0.5	<0.5	<0.5	---
08-23-95	<50	<0.5	<0.5	<0.5	<0.5	---
<u>MW-4</u>						
06-26-96	2,500	230	64	99	110	5,700
03-27-97	6,200	300	150	160	310	7,100
<u>MW-5</u>						
12-13-96	3,600	180	350	81	510	430
03-27-97	120,000	28,000	16,000	2,600	10,000	64,000
06-27-97	63,000	10,000	2,400	290	4,500	43,000
<u>MW-6</u>						
01-13-97	<50	<0.5	<0.5	<0.5	<0.5	<5
03-27-97	<50	<0.5	<0.5	<0.5	<0.5	<5
06-27-97	<50	<0.5	<0.5	<0.5	<0.5	<5
EPA METHOD	5030/ 8015M	8020	8020	8020	8020	8020
DTSC MCL	NE	1	100*	680	1,750	NE

Notes:

DTSC MCL = California Department of Toxic Substances Control maximum contaminant level for drinking water

\* = DTSC recommended action level; MCL not established

NE = DTSC MCLs and RALs not established

--- = Not Analyzed

**TABLE THREE**  
**Summary of Dissolved Oxygen Results in Groundwater**  
**All Results in Parts Per Million**

Sample I.D. -----	Before Purging -----	After Purging -----
<u>MW-1</u> 06-27-97	0.99	---
<u>MW-2</u> 06-27-97	0.86	0.94
<u>MW-3</u> 06-27-97	1.26	---
<u>MW-4</u> 06-27-97	0.97	---
<u>MW-5</u> 06-27-97	0.71	8.70
<u>MW-6</u> 06-27-97	0.61	0.89

Notes:

--- = Well not purged

# **APPENDIX A**

Well Sampling Field Logs



## WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center Corporation, 2951 High Street Oakland, CA  
Job #: 3011 Date of sampling: 6-27-97  
Well Name: MW-1 Sampled by: SM  
Total depth of well (feet): \_\_\_\_\_ Well diameter (inches): 2"  
Depth to water before sampling (feet): 8.33  
Thickness of floating product if any: none  
Depth of well casing in water (feet): \_\_\_\_\_  
Number of gallons per well casing volume (gallons): \_\_\_\_\_  
Number of well casing volumes to be removed: \_\_\_\_\_  
Req'd volume of groundwater to be purged before sampling (gallons): \_\_\_\_\_  
Equipment used to purge the well: \_\_\_\_\_  
Time Evacuation Began: \_\_\_\_\_ Time Evacuation Finished: \_\_\_\_\_  
Approximate volume of groundwater purged: \_\_\_\_\_  
Did the well go dry?: \_\_\_\_\_ After how many gallons: \_\_\_\_\_  
Time samples were collected: \_\_\_\_\_  
Depth to water at time of sampling: \_\_\_\_\_  
Percent recovery at time of sampling: \_\_\_\_\_  
Samples collected with: \_\_\_\_\_  
Sample color: \_\_\_\_\_ Odor: \_\_\_\_\_  
Description of sediment in sample: \_\_\_\_\_

*Not Sampled*

### SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____



# WELL SAMPLING FIELD LOG

Project Name and Address: Zima Park - Corporation, 2951 High Street, Oakland, CA  
 Job #: 3011 Date of sampling: 6-27-97  
 Well Name: MW-2 Sampled by: SC  
 Total depth of well (feet): 19.82 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 8.43  
 Thickness of floating product if any: Slight Sheen  
 Depth of well casing in water (feet): 11.39  
 Number of gallons per well casing volume (gallons): 1.9  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 8  
 Equipment used to purge the well: Dedicated Poly Barrel  
 Time Evacuation Began: 12:45 Time Evacuation Finished: 13:10  
 Approximate volume of groundwater purged: 8  
 Did the well go dry?: no After how many gallons: -  
 Time samples were collected: 13:15  
 Depth to water at time of sampling: 8.62  
 Percent recovery at time of sampling: 98%  
 Samples collected with: Dedicated Poly Barrel  
 Sample color: clear Odor: Moderate HC odor  
 Description of sediment in sample: Small amount of Brown silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>67.7</u>	<u>7.77</u>	<u>833</u>
<u>2</u>	<u>66.2</u>	<u>7.68</u>	<u>798</u>
<u>3</u>	<u>65.8</u>	<u>7.74</u>	<u>794</u>
<u>4</u>	<u>65.6</u>	<u>7.76</u>	<u>792</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-2</u>	<u>3</u>	<u>90 ml VOA<sub>2</sub></u>	<u>Hex</u>	<u>Yes</u>	<u>TPH<sub>2</sub> / BTEX / MTBE</u>



## WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center Corporation, 2951 High Street, Oakland, CA  
Job #: 3011 Date of sampling: 6-27-97  
Well Name: MW-3 Sampled by: SW  
Total depth of well (feet): \_\_\_\_\_ Well diameter (inches): 2"  
Depth to water before sampling (feet): 8.35  
Thickness of floating product if any: none  
Depth of well casing in water (feet): \_\_\_\_\_  
Number of gallons per well casing volume (gallons): \_\_\_\_\_  
Number of well casing volumes to be removed: \_\_\_\_\_  
Req'd volume of groundwater to be purged before sampling (gallons): \_\_\_\_\_  
Equipment used to purge the well: \_\_\_\_\_  
Time Evacuation Began: \_\_\_\_\_ Time Evacuation Finished: \_\_\_\_\_  
Approximate volume of groundwater purged: \_\_\_\_\_  
Did the well go dry?: \_\_\_\_\_ After how many gallons: \_\_\_\_\_  
Time samples were collected: \_\_\_\_\_  
Depth to water at time of sampling: \_\_\_\_\_  
Percent recovery at time of sampling: \_\_\_\_\_  
Samples collected with: \_\_\_\_\_  
Sample color: \_\_\_\_\_ Odor: \_\_\_\_\_  
Description of sediment in sample: \_\_\_\_\_

*Not Sampled*

### SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis





## WELL SAMPLING FIELD LOG

Project Name and Address: Zirnia Center Corporation, 2951 High Street, Oakland, CA  
Job #: 304 Date of sampling: 6-27-97  
Well Name: MW-4 Sampled by: SL  
Total depth of well (feet): \_\_\_\_\_ Well diameter (inches): 4"  
Depth to water before sampling (feet): 8.75  
Thickness of floating product if any: None  
Depth of well casing in water (feet): \_\_\_\_\_  
Number of gallons per well casing volume (gallons): \_\_\_\_\_  
Number of well casing volumes to be removed: \_\_\_\_\_  
Req'd volume of groundwater to be purged before sampling (gallons): \_\_\_\_\_  
Equipment used to purge the well: \_\_\_\_\_  
Time Evacuation Began: \_\_\_\_\_ Time Evacuation Finished: \_\_\_\_\_  
Approximate volume of groundwater purged: \_\_\_\_\_  
Did the well go dry?: \_\_\_\_\_ After how many gallons: \_\_\_\_\_  
Time samples were collected: \_\_\_\_\_  
Depth to water at time of sampling: \_\_\_\_\_  
Percent recovery at time of sampling: \_\_\_\_\_  
Samples collected with: \_\_\_\_\_  
Sample color: \_\_\_\_\_ Odor: \_\_\_\_\_  
Description of sediment in sample: \_\_\_\_\_

*Not Sampled*

### SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
--------	-----------------	-------------------------	------	-------	----------



# WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center Corporation, 2951 High Street, Oakland, CA  
 Job #: 3011 Date of sampling: 6-27-97  
 Well Name: MW-5 Sampled by: SC  
 Total depth of well (feet): 29.32 Well diameter (inches): 2'  
 Depth to water before sampling (feet): 8.96  
 Thickness of floating product if any: none  
 Depth of well casing in water (feet): 20.36  
 Number of gallons per well casing volume (gallons): 3.5  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 14  
 Equipment used to purge the well: Dedicated Poly Barrel  
 Time Evacuation Began: 13:30 Time Evacuation Finished: 14:05  
 Approximate volume of groundwater purged: 14  
 Did the well go dry?: no After how many gallons: --  
 Time samples were collected: 14:15  
 Depth to water at time of sampling: 9.06  
 Percent recovery at time of sampling: 99%  
 Samples collected with: Dedicated Poly Barrel  
 Sample color: Cloudy Odor: Moderate HE odor  
 Description of sediment in sample: Small amount of brown silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
<u>1</u>	<u>69.4</u>	<u>7.78</u>	<u>1875</u>
<u>2</u>	<u>68.5</u>	<u>8.16</u>	<u>1759</u>
<u>3</u>	<u>68.1</u>	<u>8.62</u>	<u>1681</u>
<u>4</u>	<u>67.9</u>	<u>8.57</u>	<u>1676</u>

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
<u>MW-5</u>	<u>3</u>	<u>40 ml VOA's</u>	<u>Her</u>	<u>Yes</u>	<u>TPH, BTEX, MTBE</u>



# WELL SAMPLING FIELD LOG

Project Name and Address: Zima Center Corporation, 2951 High Street, Oakland, CA  
 Job #: 3011 Date of sampling: 6-27-97  
 Well Name: MW-6 Sampled by: SC  
 Total depth of well (feet): 28.24 Well diameter (inches): 2"  
 Depth to water before sampling (feet): 8.39  
 Thickness of floating product if any: None  
 Depth of well casing in water (feet): 19.85  
 Number of gallons per well casing volume (gallons): 3.4  
 Number of well casing volumes to be removed: 4  
 Req'd volume of groundwater to be purged before sampling (gallons): 13  
 Equipment used to purge the well: Dedicated Poly Barrel  
 Time Evacuation Began: 14:30 Time Evacuation Finished: 15:00  
 Approximate volume of groundwater purged: 13  
 Did the well go dry?: no After how many gallons: -  
 Time samples were collected: 15:10  
 Depth to water at time of sampling: 8.47  
 Percent recovery at time of sampling: 98%  
 Samples collected with: Dedicated Poly Barrel  
 Sample color: clear Odor: None  
 Description of sediment in sample: small amount of Tan Silt

## CHEMICAL DATA

Volume Purged	Temp	pH	Conductivity
1	69.9	9.56	606
2	68.5	9.18	567
3	68.2	9.06	552
4	67.8	9.01	

## SAMPLES COLLECTED

Sample	# of containers	Volume & type container	Pres	Iced?	Analysis
MW-6	3	40 ml VOA	Her	Yes	TPHs / BTEX / MTBE

## **APPENDIX B**

Analytical Report and Chain of Custody  
for Groundwater Samples

# CHROMALAB, INC.

Environmental Services (SDB)

July 14, 1997

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman.

Project: ZIMA CENTER CORPORATION  
Received: June 27, 1997

Submission #: 9706354  
Revised from July 9, 1997  
Project#: 3011


re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod


Client Sample ID: MW-2  
Spl#: 137511  
Sampled: June 27, 1997

Matrix: WATER  
Run#: 7619

Analyzed: July 8, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	2400	500	N.D.	77	10
MTBE	2000	50	N.D.	113	10
BENZENE	18	5.0	N.D.	103	10
TOLUENE	N.D.	5.0	N.D.	100	10
ETHYL BENZENE	6.0	5.0	N.D.	103	10
XYLENES	8.8	5.0	N.D.	100	10

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

510-837-4853

1220 Quarry Lane • Pleasanton, California 94566-4756  
(510) 484-1919 • Facsimile (510) 484-1096  
Federal ID #68-0140157

MV V132 O: BTEXQC02  
KAYVAN 09

# CHROMALAB, INC.

Environmental Services (SDB)

July 14, 1997

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman.

Project: ZIMA CENTER CORPORATION  
Received: June 27, 1997

Project#: 3011

Submission #: 9706354  
Revised from July 9, 1997

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-5

Spl#: 137513

Sampled: June 27, 1997

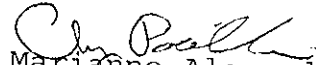
Matrix: WATER

Run#: 7667

Analyzed: July 8, 1997

<u>ANALYTE</u>	<u>RESULT</u> (ug/L)	<u>REPORTING</u> <u>LIMIT</u> (ug/L)	<u>BLANK</u> <u>RESULT</u> (ug/L)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	63000	25000	N.D.	87	500
MTBE	43000	2500	N.D.	110	500
BENZENE	10000	250	N.D.	103	500
TOLUENE	2400	250	N.D.	96	500
ETHYL BENZENE	290	250	N.D.	99	500
XYLENES	4500	250	N.D.	95	500

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

510-837-4853

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(510) 484-1919 • Facsimile (510) 484-1096  
Federal ID #68-0140157

MV 1132 O: BTEXQC02  
KAYVAN 09

# CHROMALAB, INC.

Environmental Services (SDB)

July 14, 1997

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman.

Submission #: 9706354  
Revised from July 9, 1997

Project: ZIMA CENTER CORPORATION  
Received: June 27, 1997

Project#: 3011

re: One sample for Gasoline BTEX MTBE analysis.  
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-5B

Spl#: 137512

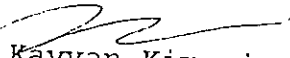
Sampled: June 27, 1997


Matrix: WATER

Run#: 7619

Analyzed: July 3, 1997

<u>ANALYTE</u>	<u>RESULT</u>	<u>REPORTING</u>	<u>BLANK</u>	<u>BLANK</u>	<u>DILUTION</u>
	<u>(ug/L)</u>	<u>LIMIT</u>	<u>RESULT</u>	<u>SPIKE</u>	<u>FACTOR</u>
		<u>(ug/L)</u>	<u>(ug/L)</u>	<u>(%)</u>	
GASOLINE	67000	25000	N.D.	77	500
MTBE	49000	2500	N.D.	113	500
BENZENE	8200	250	N.D.	103	500
TOLUENE	1100	250	N.D.	100	500
ETHYL BENZENE	N.D.	250	N.D.	103	500
XYLENES	7100	250	N.D.	100	500

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

510-837-4853

1220 Quarry Lane • Pleasanton, California 94566-4756  
(510) 484-1919 • Facsimile (510) 484-1096  
Federal ID #68-0140157

MV V132 O: BTEXQC02  
KAYVAN 09

# CHROMALAB, INC.

Environmental Services (SDB)

July 9, 1997

Submission #: 9706354

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman.

Project: ZIMA CENTER CORPORATION

Project#: 3011

Received: June 27, 1997

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-6

Spl#: 137514

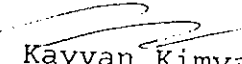
Sampled: June 27, 1997

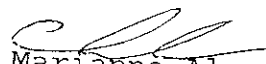
Matrix: WATER

Run#: 7667

Analyzed: July 8, 1997

<u>ANALYTE</u>	<u>RESULT</u> (ug/L)	<u>REPORTING</u> <u>LIMIT</u> (ug/L)	<u>BLANK</u> <u>RESULT</u> (ug/L)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	N.D.	50	N.D.	87	1
MTBE	N.D.	5.0	N.D.	110	1
BENZENE	N.D.	0.50	N.D.	103	1
TOLUENE	N.D.	0.50	N.D.	96	1
ETHYL BENZENE	N.D.	0.50	N.D.	99	1
XYLENES	N.D.	0.50	N.D.	95	1

  
Kayvan Kimyai  
Chemist

  
Marianne Alexander  
Gas/BTEX Supervisor

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Federal ID #68-0140157

MV V132 O: BTEXQC02  
KAYVAN 11



223/137511-121-1

34401

Aqua Science Engineers, Inc.  
 2411 Old Crow Canyon Road, #4,  
 San Ramon, CA 94583  
 (510) 820-9391 - FAX (510) 837-4853

# Chain of Custody

DATE 6-27-97 PAGE (OF 1)

SAMPLERS (SIGNATURE) Scott Ferrarini  
 (PHONE NO.) 510-820-9391

PROJECT NAME Zima Center Corporation  
 ADDRESS 2951 High Street, Oakland, CA NO. 3011

## ANALYSIS REQUEST

SPECIAL INSTRUCTIONS:

5-Day

SAMPLE ID.	DATE	TIME	MATRIX	NO. OF SAMPLES	TPH- GASOLINE (EPA 5030/8015)	TPH- GASOLINE/BTEX/MTH (EPA 5030/8015-8020)	TPH- DIESEL (EPA 3510/8015)	PURGABLE AROMATICS (EPA 602/8020)	PURGABLE HALOCARBONS (EPA 601/8010)	VOLATILE ORGANICS (EPA 624/8240)	BASE/NEUTRALS, ACIDS (EPA 625/8270)	OIL & GREASE (EPA 5520 E&F or B&F)	LUFT METALS (5) (EPA 6010+7000)	TITLE 22 (CAM 17) (EPA 6010+7000)	TCLP (EPA 1311/1310)	STLC- CAM WET (EPA 1311/1310)	REACTIVITY CORROSIIVITY IGNITABILITY												
					MW-2	6/27/97	13:15	water	3 vials		X																		
MW-5-B		13:25				X																							
MW-5		14:15				X																							
MW-6		15:10				X																							

JBM #: 9706354 REP: 110  
 CLIENT: AGE  
 JE: 07/07/97  
 CF #: 34401

RELINQUISHED BY:  
Scott Ferrarini 6/27/97  
 (signature) (time)  
 Scott Ferrarini 6/27/97  
 (printed name) (date)  
 Company- AXE, INC

RECEIVED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RELINQUISHED BY:  
 (signature) (time)  
 (printed name) (date)  
 Company-

RECEIVED BY LABORATORY:  
Chris Rouilly 6/27/97  
 (signature) (time)  
Chris Rouilly 6/27/97  
 (signature) (time)  
 (printed name) (date)  
 Company- Chronalab

COMMENTS: