

**ENVIRONMENTAL OVERSIGHT, INC.**  
**CONSULTING AND WELL MONITORING SERVICES**

**QUARTERLY MONITORING REPORT**  
**3RD QTR - 1992**

for

**E-Z Serve Location # 100877**  
**525 West A Street**  
**Hayward, California**

**October 13, 1992**

**ENVIRONMENTAL OVERSIGHT, INC.**  
**CONSULTING AND WELL MONITORING SERVICES**

**E-Z Serve #100877**

Ground water monitoring wells at E-Z Serve Location #100877 were sampled on September 11, 1992 by Environmental Oversight, Inc.

No free product was found in any of the wells. Dissolved hydrocarbons, above the laboratory detection limits, were present in all six wells.

Groundwater gradient is to the northwest at approximately .0043 ft/ft.

Attached are the consolidated results from past sampling events, plot plan showing groundwater elevations, laboratory results with chain of custody documentation, and field gauging sheets.



Paul R. Martin  
Project Manager, REA #04413

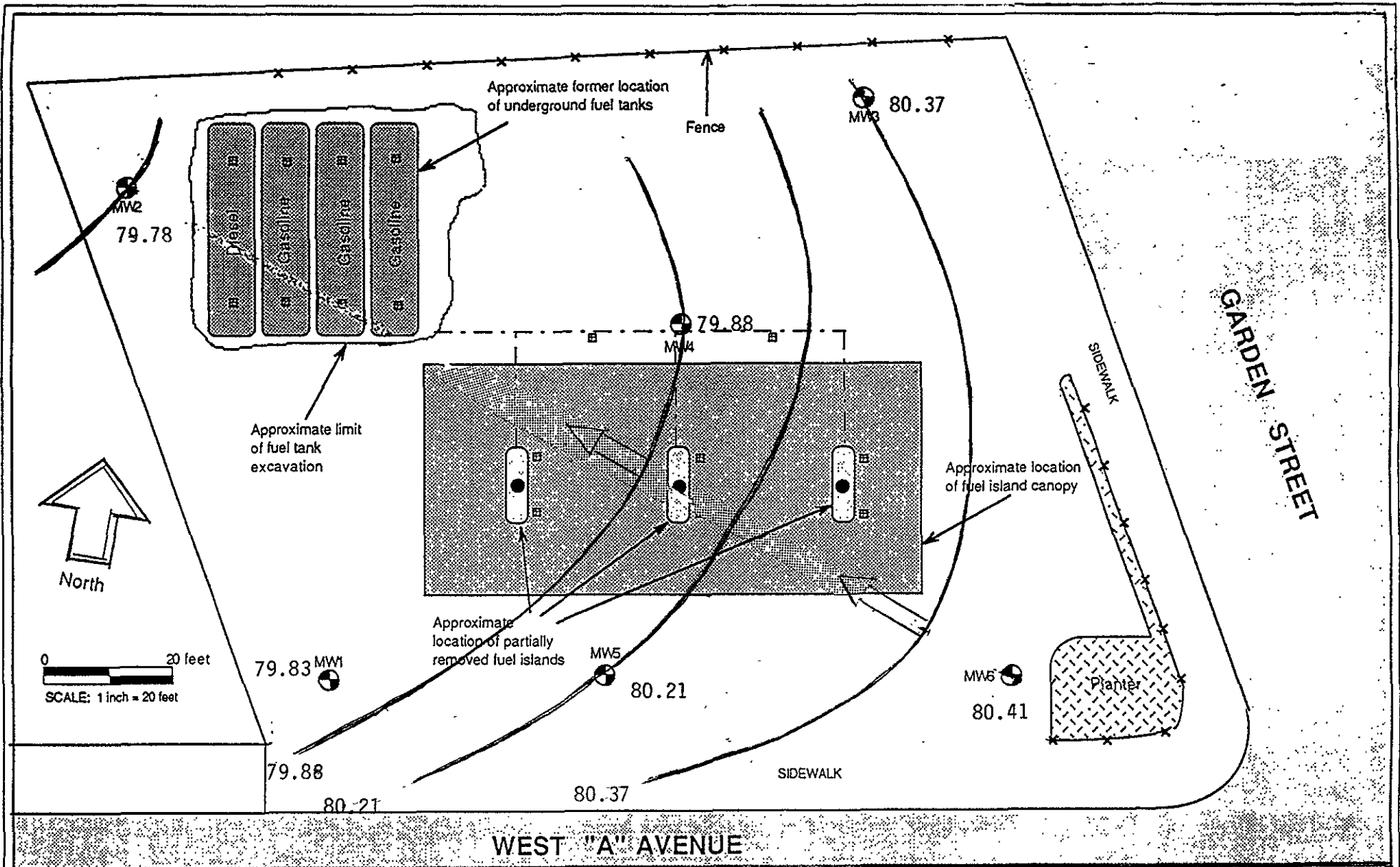


E-Z Location #100877  
 525 West A Street  
 Hayward California

MW #	Date	Well Elev (feet)	Depth to F.P. (feet)	Depth to G.W (feet)	F.P. Thickness (feet)	G.W. Elevation (feet)	(EPA 8015) TPH (ppb)	(EPA 8020)			X (ppb)
								B (ppb)	T (ppb)	E (ppb)	
MW #1	5-Feb-92	99.91		20.82	0.00	79.09	46,000	76,000	23,000	2,400	6,500
	11-Sep-92			20.08	0.00	79.83	48,000	9,000	1,200	1,800	4,600
MW #2	5-Feb-92	101.45		22.35	0.00	79.10	67,000	13,000	4,700	820	1,300
	11-Sep-92			21.67	0.00	79.78	57,000	9,000	1,400	1,200	8,400
MW #3	5-Feb-92	101.50		21.85	0.00	79.65	5,900	1,100	nd	nd	nd
	11-Sep-92			21.13	0.00	80.37	9,400	1,200	180	550	1,100
MW #4	5-Feb-92	100.50		21.31	0.00	79.19	16,000	2,700	410	nd	3,400
	11-Sep-92			20.62	0.00	79.88	43,000	7,600	1,600	1,400	4,100

E-Z Location #100877  
 525 West A Street  
 Hayward California

MW #	Date	Well Elev (feet)	Depth to F.P. (feet)	Depth to G.W. (feet)	F.P. Thickness (feet)	G.W. Elevation (feet)	(EPA 8015) TPH (ppb)	(EPA 8020) B (ppb)	T (ppb)	E (ppb)	X (ppb)
<b>MW #5</b>											
	5-Feb-92	100.48		20.93	0.00	79.55	78,000	7,900	5,000	2,900	1,800
	11-Sep-92			20.27	0.00	80.21	49,000	4,700	400	1,400	4,100
<b>MW #6</b>											
	5-Feb-92	100.97		21.29	0.00	79.68	51,000	5,400	3,500	3,600	10,000
	11-Sep-92			20.56	0.00	80.41	24,000	2,500	830	1,400	2,300

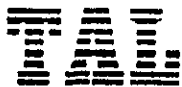


Approximate location of groundwater monitoring wells installed by Associated Soils Analysis, Inc. on February 28-28, 1992

**GROUNDWATER GRADIENT MAP**

E-Z LOCATION #100877  
525 West A Street  
Hayward, California

**ENVIRONMENTAL OVERSIGHT, INC.**  
6 Bedford Lane, Suite 100, Conroe, Texas 77384  
(409) 273-4565



September 28, 1992

Ms. Mattie MacDonald  
MacDonald and Associates  
22 Kazan Street  
Irvine, California 92714

Dear Ms. MacDonald:

Trace Analysis Laboratory received seven water samples on September 18, 1992 for your E-Z Serve Project No. 100877, Hayward, CA (our custody log number 2498).

These samples were analyzed for Total Petroleum Hydrocarbons as Gasoline and Benzene, Toluene, Ethylbenzene and Xylenes. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Jennifer Pekol', written over the typed name.

Jennifer Pekol  
Project Specialist

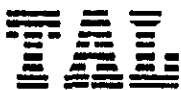
Enclosures

**Trace Analysis Laboratory, Inc.**

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960

Facsimile (510) 783-1512



LOG NUMBER: 2498  
 DATE SAMPLED: 09/11/92  
 DATE RECEIVED: 09/18/92  
 DATE ANALYZED: 09/23/92  
 DATE REPORTED: 09/28/92

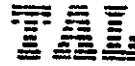
CUSTOMER: E-Z Serve Petroleum Marketing Company  
 REQUESTER: Mattie MacDonald of MacDonald and Associates  
 PROJECT: No. 100877, Hayward, CA

Sample Type: Water

Method and Constituent:	Units	MW 1		MW 2		MW 3	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/l	48,000	450	57,000	450	9,400	110
Modified EPA Method 8020 for:							
Benzene	ug/l	9,000	180	9,000	180	1,200	45
Toluene	ug/l	1,200	220	1,400	220	180	55
Ethylbenzene	ug/l	1,800	270	1,200	270	550	68
Xylenes	ug/l	4,600	700	8,400	700	1,100	180

Method and Constituent:	Units	MW 4		MW 5		MW 6	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Gasoline	ug/l	43,000	110	49,000	110	24,000	110
Modified EPA Method 8020 for:							
Benzene	ug/l	7,600	45	4,700	45	2,500	45
Toluene	ug/l	1,600	55	400	55	830	55
Ethylbenzene	ug/l	1,400	68	1,400	68	1,400	68
Xylenes	ug/l	4,100	180	4,100	180	2,300	180

Concentrations reported as ND were not detected at or above the reporting limit.



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PAGE: Two

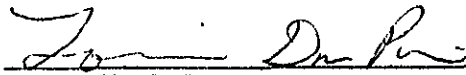
Sample Type: Water

Method and Constituent:	Units	MW 7		Method Blank	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
DHS Method:					
Total Petroleum Hydrocarbons as Gasoline	ug/l	20,000	110	ND	50
Modified EPA Method 8020 for:					
Benzene	ug/l	2,500	45	ND	0.50
Toluene	ug/l	770	55	ND	0.50
Ethylbenzene	ug/l	1,300	68	ND	0.50
Xylenes	ug/l	2,300	180	ND	1.5

QC Summary:

% Recovery: 72  
% RPD: 0.0

Concentrations reported as ND were not detected at or above the reporting limit.

  
Louis W. DuPuis  
Quality Assurance/Quality Control Manager





# ENVIRONMENTAL OVERSIGHT, INC.

6 Bedford Lane, Suite 100  
 Conroe, Texas 77384  
 (409) - 273-4530

## MONITORING WELL PURGING AND SAMPLING RECORD

Date 9/11/92  
 Client EZ Serve  
 Location # 100877  
 Address 525 West A Street  
Hayward, CA  
 Sampler Matt

**Number of Barrels on Site**

Empty	2
Full	6
Delivered	

Well Number	1	2	3	4	5	6
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**Prior to Purging**

Time	5:25	5:20	4:20	5:05	5:40	6:05
Depth to FP						
Depth to GW	20.08	21.67	21.13	20.62	20.27	20.56
Depth of Well	29.92	30.12	30.33	30.13	30.52	29.95

**During Purging**

Time			5:15	5:45		
Vol. in Well	6.59	5.66	6.16	6.37	6.87	6.29
Vol. Removed	20 gals	17 gals	20	20	20.00	20 gals

**After Purging**

Time	8:00	8:30	5:50	6:25	7:00	7:25
Temp	64.8	68.5	68.7	67.2	72.80	66.4
pH	5.58	6.50	6.38	6.28	7.41	5.81
Conductivity	0950	1060	0980	0960	0880	0940

**Comments:**

# **ENVIRONMENTAL OVERSIGHT, INC.**

## **CONSULTING AND WELL MONITORING SERVICES**

### **Ground Water Monitoring Wells**

#### **FIELD METHODS AND SAMPLING TECHNIQUES**

Proper sampling techniques must be followed to assure that samples represent actual field conditions and that samples are labeled, preserved, and transported properly to retain sample integrity. This exhibit describes procedures to be followed by Environmental Oversight, Inc. (EOI) during collection of samples of ground water. Sampling guidance documents from the American Society of Testing and Materials (ASTM), U.S. Environmental Protection Agency (EPA), California Department of Health Services (DHS) and the California State Water Resources Control Board will be followed for all sampling procedures. Actual sampling procedures to be employed will be based on field conditions and may differ from those described herein.

#### **Water Level and LPH Thickness Measurements**

The static water level and LPH thickness in each well will be measured prior to purging or sampling.

The depth to water/product will be measured using an electronic interface probe. The wire of the interface probe is marked at 0.01 foot intervals. One tone is emitted from the interface probe if LPH is encountered; another tone for water. The wire of the interface probe will be lowered slowly until LPH or water is encountered. At this point, the mark on the interface wire opposite the permanent reference point on the top of the well casing, or the north side if a mark is not present, will be read to the nearest 0.01 foot and recorded. If the first encountered substance is LPH, the probe will be lowered until the tone corresponding to water is emitted. This depth will also be recorded. The difference between the two depths corresponds to the LPH thickness. The interface probe will be cleaned with an Alconox solution and rinsed in deionized water between measurements in different wells.

#### **Well Evacuation**

After the static water level in a well is determined and prior to collection of a ground water sample, stagnant water will be removed from the well casing and the surrounding gravel pack by bailing pumping, or with a vacuum truck, utilizing dedicated or decontaminated equipment. At least three casing volumes of water will be removed from each well from which a sample is collected. The volume of water in the casing will be determined from the known elevation of the water surface, the well bottom elevation, and the well diameter.

If the well is bailed or pumped during purging, samples will be collected and field analyzed for pH, temperature, and specific conductance.

All purged water will be containerized and properly handled and documented for disposal. If the containers are stored on site, a label specifying the date of purging, source, and the known or suspected nature of the contents will be affixed to each container.

## **Sample Collection, Preservation, and Handling**

After purging, a new polyethylene disposable bailer will be used to collect samples for analysis. The bailer is attached to a new disposable rope and lowered slowly into the water to avoid agitation of the collected sample. Containers for volatile organic analyses will be filled completely so that no airspace remains in the vial after sealing.

All sample containers will be prewashed and prepared at the analyzing laboratory in accordance with quality assurance/quality control protocols of the laboratory. Only sample containers appropriate for the intended analyses will be used.

## **Conductivity, Temperature, and pH**

Specific conductance, water temperature, and pH measurements will be made when a water sample is collected. Regardless of the sample collection method, a representative water sample will be placed in a transfer bottle used solely for field parameter determinations. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring two or all three of the parameters may also be used.

All instruments will be calibrated in accordance with manufacturer methods. All probes will be thoroughly cleaned and rinsed with fresh water prior to any measurements.

## **Sample Custody**

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few people as possible will handle the samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled.

Each label will contain the following information:

- Name of collector
- Project number
- Date and time of collection
- Place of collection
- Well number or identification
- Preservative (if any)

A chain of custody record will be filled out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record will contain the following information

- Project number
- Signature of collector, sampler, or recorder
- Date and time of collection
- Place of collection
- Sample type
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample
- Laboratory sample number
- Date and time of sample receipt
- Analysis requested

Samples will always be accompanied by a chain-of custody record. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record. Samples will be packed properly for shipment and dispatched to the appropriate laboratory for analysis. The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

### **Field Records**

Information to field sampling must be recorded. Records should include the following:

- Name of the sampler
- Location of the sampling activity
- Description of sampling points
- Date and time of collection measurement
- Well measurements of free product and ground water elevations
- Volume of liquid removed
- Field testing results for conductivity, pH, and temperature
- Unusual conditions