Ultramar

Ultramar Inc.
P O Box 466
525 W Third Street
Hanford, CA 93232-0466
(209) 582-0241

209-584-6113 Credit & Wholesale
209-583-3330 Administrative
209-583-3302 Information Services
209-583-3358 Accounting

March 4, 1993

Mr. Hugh Murphy
Hazardous Material Inspector
Hayward Fire Department
22300 Foothill Boulevard
Hayward, California 94541

SUBJECT: FORMER BEACON STATION NO. 546, 29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA

Dear Mr. Murphy:

Enclosed is a copy of the quarterly ground-water monitoring report for the fourth quarter 1992 for the above-referenced Ultramar facility. Also included is a copy of the Quarter Status Report which describes the work completed this quarter and the work anticipated to be completed next quarter.

Please call if you have any question regarding this project.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox
Senior Project Manager
Marketing Environmental Department

Enclosures

cc w/encls: Mr. Vijay B. Patel, San Francisco Region, RWQCB

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ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: March 4, 1993
QUARTER ENDING: December 31, 1992

SERVICE STATION NO.: 546
ADDRESS: 29705 Mission Boulevard, Hayward, CA
COUNTY: Alameda

ULTRAMAR CONTACT: Terrence A. Fox **TEL. NO:** 209-583-5545

BACKGROUND:

In March 1987, five borings were drilled around the underground storage tanks. Hydrocarbons were detected in the soil and ground water beneath the site. In April 1988, three underground fuel storage tanks and one waste oil tank were removed. Hydrocarbons were detected beneath the fuel storage tanks. In June and July 1988, three monitoring wells (MW-1 through MW-3) were installed. Results indicated that petroleum hydrocarbons were present in the ground water beneath the site. In June 1989 and February 1990, a total of five additional wells (MW-4 through MW-8) were installed. Varying concentrations have been detected in all the wells through time.

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Performed quarterly monitoring on November 12, 1992.

RESULT OF QUARTERLY MONITORING:

Monitoring data indicates that benzene concentration decreased in MW-8 from 370 ppb to 75 ppb. The benzene concentration remained not detected in all other wells sampled.

Wells MW-4, MW-5, and MW-6 were not sampled because Ultramar has been denied access to the Holiday Bowl property.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

ACTIVITY	ESTIMATED COMPLETION DATE
Continue quarterly ground-water sampling.	
Drill an additional downgradient well.	January 15, 1993
Submit a workplan for a ground-water pump test of MW-8.	March 31, 1993

AEGIS ENVIRONMENTAL, INC.
1050 Melody Lane, Suite 160, Roseville, CA 95678 ✦ 916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

February 15, 1993

Mr. Terrence Fox
Environmental Specialist
Ultramar Inc.
525 West Third Street
Hanford, California 93232-0466

Subject: **Fourth Quarter 1992 Groundwater Monitoring Report**
Beacon Station #546
29705 Mission Boulevard, Hayward, California

Dear Mr. Fox:

Aegis Environmental, Inc. (Aegis), is pleased to provide Ultramar Inc., this report documenting the results of quarterly groundwater monitoring, conducted on November 12, 1992, at the subject site (Figure 1). The monitoring included measurements of depth to water in and total depths of five (MW-1, MW-2, MW-3, MW-7, and MW-8) of the eight wells on and off the site (Figure 2). Groundwater samples were collected from MW-2, MW-3, MW-7, and MW-8. Wells MW-4, MW-5, and MW-6 are located on adjacent property and access has been denied. Therefore, the wells were not sampled. Due to an equipment malfunction, MW-1 was not sampled.

GROUNDWATER ELEVATIONS

Aegis personnel collected measurements of the depth to groundwater in the four wells prior to purging and sampling on November 12, 1992. Current groundwater level data, and prior 1992 data only, are summarized in Table 1. Previous groundwater level data are included in Attachment 3. All measurements of depth to groundwater were made to the nearest 0.01 foot from the referenced wellhead (top-of-casing) elevations and conducted according to the Aegis standard operating procedures (SOP) included in Attachment 1. On the basis of the November 12, 1992, measurements, groundwater is estimated to flow generally to the southwest (Figure 2) at an average gradient of approximately 0.004 ft/ft. In general, groundwater levels have increased at an average of 0.25-feet compared to the September 1992 event.

GROUNDWATER SAMPLING AND ANALYSES

Aegis personnel collected groundwater samples from the four wells on November 12, 1992. The samples were collected according to the Aegis SOP included in Attachment 1, and submitted under chain-of-custody to Resna Labs, a state-certified analytical laboratory. All samples were analyzed for concentrations of: a) total petroleum hydrocarbons, as gasoline, by GC-FID/EPA Methods 5030/8015; and b) benzene, toluene, ethylbenzene, and total xylenes by GC-FID/EPA Methods 5030/602. Current analytical results, and prior 1992 analytical results only, are summarized in Table 2. Figure 3 is a distribution map of benzene in groundwater based on the data summarized in Table 2. The analytical laboratory reports and chain-of-custody form are included as Attachment 2. Previous analytical results are included in Attachment 4. Benzene concentrations have remained nondetected in MW-2, MW-3, and MW-7 and decreased in MW-8 compared to the September 1992 event. Resna Labs reported two separate analytical results for MW-8. These results will require confirmation next quarter.

Aegis recommends that a copy of this quarterly monitoring report be forwarded to the following parties:

Mr. Scott Hugenberger
San Francisco Bay Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Mr. Hugh Murphy
Hayward Fire Department
22300 Foothill Boulevard
Hayward, California 94541

This report has been prepared for the sole use of Ultramar Inc. Any reliance on this report by third parties shall be at such parties' own risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below. If you have any questions or comments, please do not hesitate to call us at (916) 782-2110.

Sincerely,

AEGIS ENVIRONMENTAL, INC.

Tom Landwehr
Senior Geologist

REGISTERED GEOLOGIST
DOUGLAS I. SHEEKS
No. 5211
STATE OF CALIFORNIA

Douglas I. Sheeks
Senior Geologist
CRG No. 5211

2-17-93
Date

TEL/DIS/law

Attachments

FIGURES:

FIGURE 1 . . . . . SITE VICINITY MAP

FIGURE 2 . . . . POTENTIOMETRIC MAP (NOVEMBER 12, 1992)

FIGURE 3 . . . . . DISTRIBUTION MAP OF BENZENE IN GROUNDWATER (NOVEMBER 12, 1992)

TABLES:

TABLE 1 . . . . . LIQUID LEVEL DATA

TABLE 2 . . . . . ANALYTICAL RESULTS: GROUNDWATER

ATTACHMENTS:

ATTACHMENT 1 . . . . . STANDARD OPERATING PROCEDURES

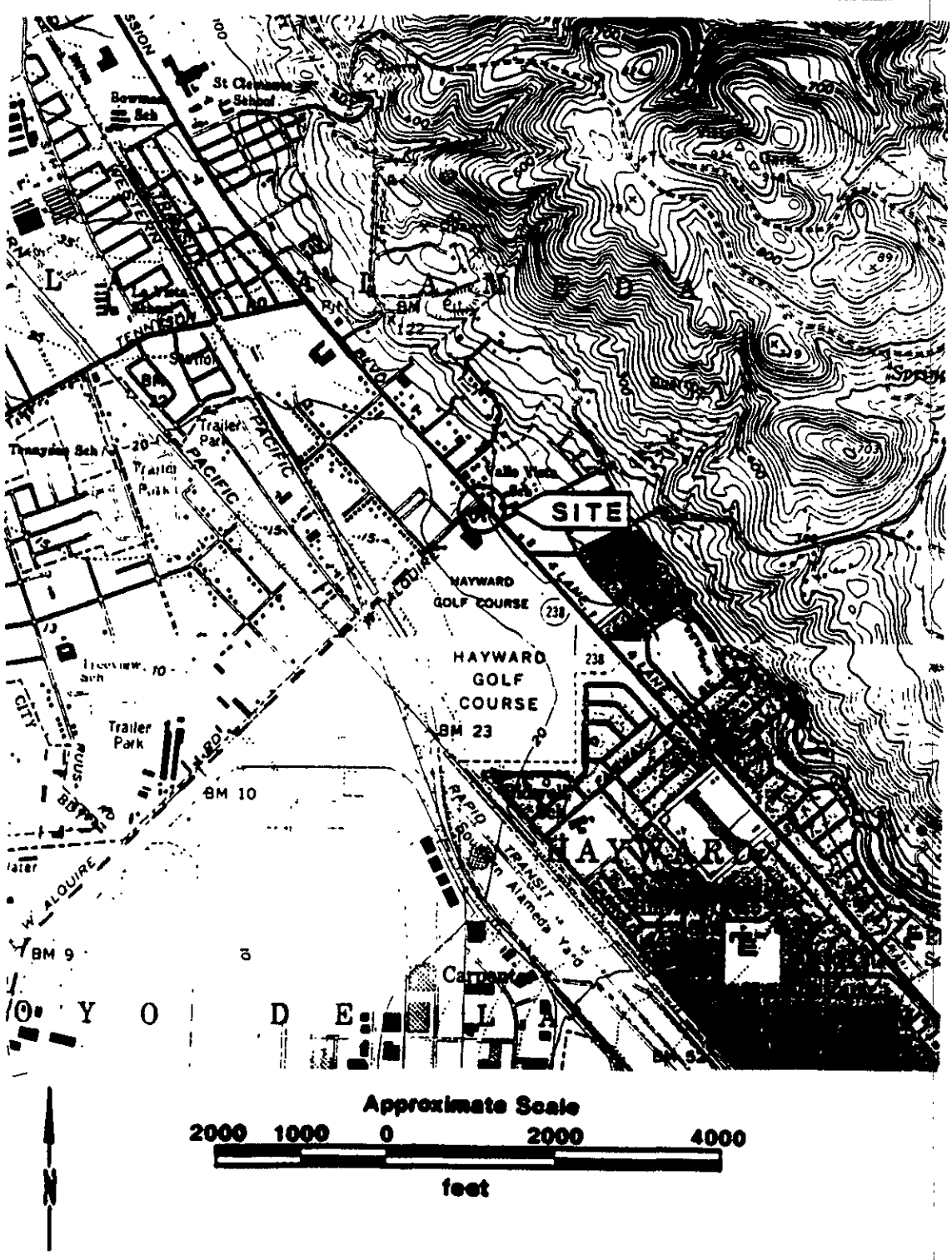
ATTACHMENT 2 . . . . . LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORM

ATTACHMENT 3 . . . . . HISTORICAL WATER LEVEL DATA

ATTACHMENT 4 . . . . . HISTORICAL ANALYTICAL DATA

ATTACHMENT 5 . . . . . FIELD DATA SHEETS

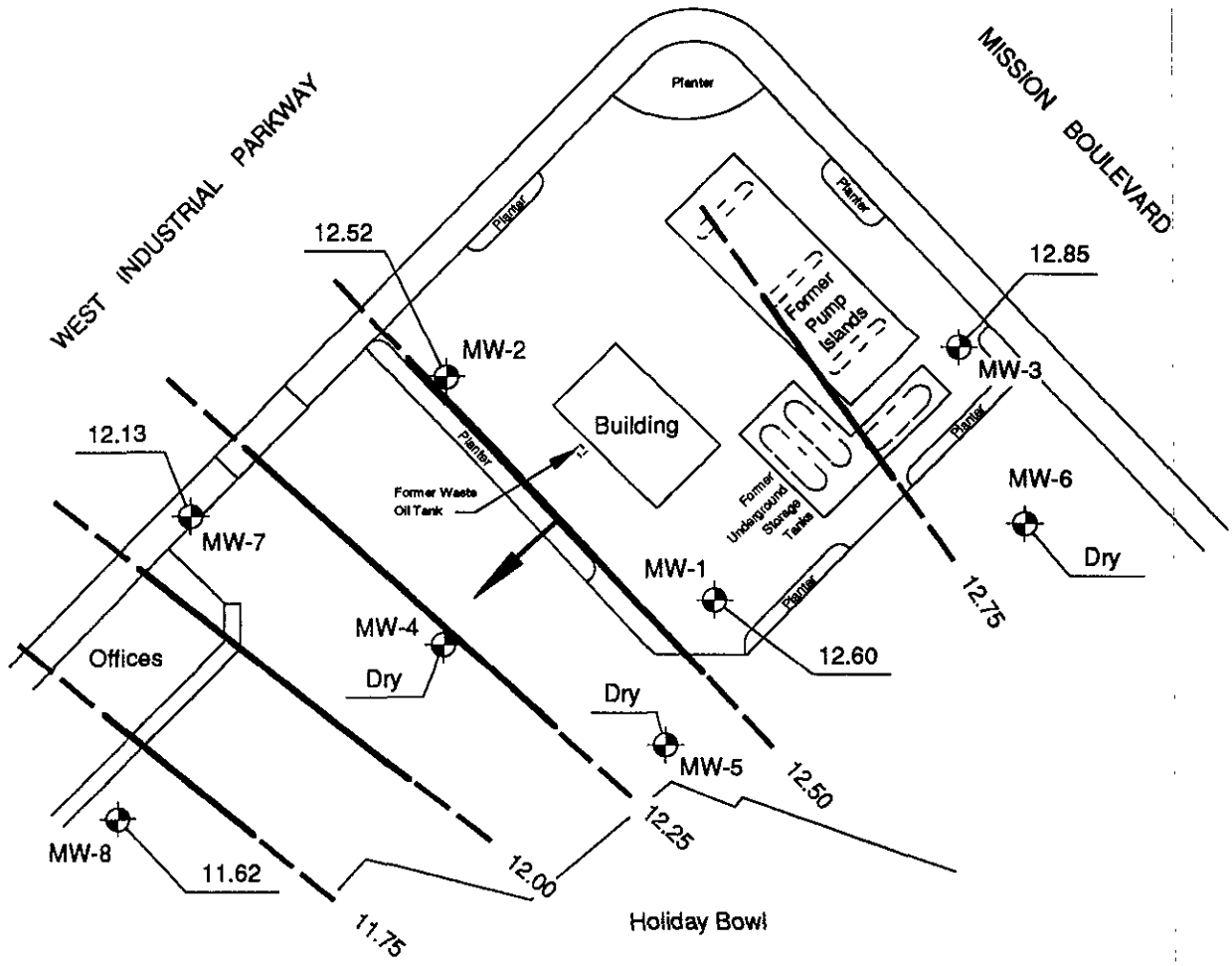
FIGURES



SITE VICINITY MAP
Former Beacon Station No. 546
29705 Mission Boulevard
Hayward, California

8/5/92

Figure
1



LEGEND

- Monitoring Well
- Potentiometric Surface Contour Line (Dashed Where Inferred)
- 12.60 — Groundwater Elevation in Feet
- Estimated Direction of Groundwater Flow

Hydraulic Gradient = 0.004 ft/ft
Contour Interval = 0.25 ft

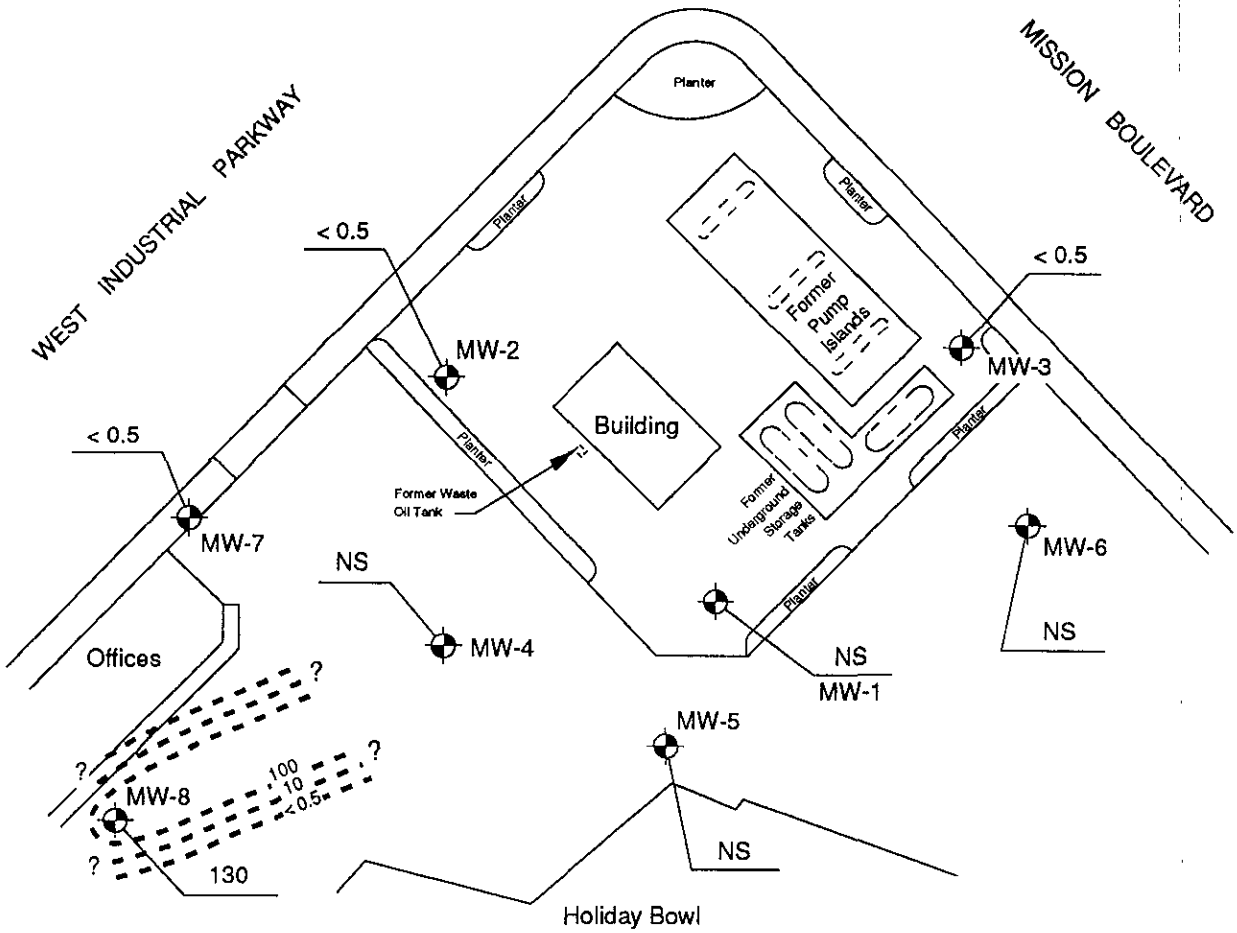
NOTES

Site Sketch After
Client Supplied Site Map
(August 5, 1992)

All Locations Are Approximate

0 60 120
Approximate Scale
1" = 60'

AEGIS ENVIRONMENTAL, INC.		POTENTIOMETRIC SURFACE MAP November 12, 1992	FIGURE 2
DRAWN BY: D. Hada	DATE: December 7, 1992	Beacon Station #546 29705 Mission Boulevard Hayward, CA	
REVISED BY:	DATE:		PROJECT NUMBER: 92-773
REVIEWED BY: DLS	DATE: 12-30-92		



LEGEND

⊕	Monitoring Well
130	Benzene Concentration (parts-per-billion)
- - - - -	Inferred Iso-Concentration Limits
< 0.5	Detection Limit
NS	Not Sampled

Contour Interval = Exponential

NOTES

Site Sketch After
Client Supplied Site Map
(August 5, 1992)

All Locations Are Approximate

0 60 120
Approximate Scale
1" = 60'

AEGIS ENVIRONMENTAL, INC.	DISTRIBUTION MAP OF BENZENE IN GROUNDWATER November 12, 1992	FIGURE 3
DRAWN BY: D. Hada / DATE: December 7, 1992	Beacon Station #546 29705 Mission Boulevard Hayward, CA	PROJECT NUMBER: 92-773
REVISED BY / DATE:		
REVIEWED BY: / DATE: 2/11/93		

TABLES

TABLE 1

LIQUID LEVEL DATA

BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	Well Depth	Comments
MW-1	04/15/92	37.46	22.10	15.36		
	07/07/92		23.40	14.06		
	09/23/92		24.61	12.85		
	11/12/92		24.87	12.59	---	Heavy sheen
MW-2	04/15/93	35.95	20.88	15.07		
	07/07/92		21.95	14.00		
	09/23/92		23.15	12.80		
	11/12/92		23.43	12.52	---	
MW-3	04/15/92	40.28	24.59	15.69		
	07/07/92		25.90	14.38		
	09/23/92		27.09	13.19		
	11/12/92		27.43	12.85	33.94	
MW-4	04/15/92	34.94	---	---		
	07/07/92		---	---		
	09/23/92		---	---		
	11/12/92		---	---	39.20	

NOTES:
[1] = Measurement and reference elevation taken from notch/mark on top north side of well casing.
[2] = Elevation referenced to mean sea level.
--- = Not measured/not observed.
Well Depth = Measurement from top of casing to bottom of well.

TABLE 1 (CONTINUED)

LIQUID LEVEL DATA

BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	Well Depth	Comments
MW-5	04/15/92	36.37	—	—		
	07/07/92		—	—		
	09/23/92		—	—		
	11/12/92		—	—	—	
MW-6	04/15/92	37.43	—	—		
	07/07/92		—	—		
	09/23/92		—	—		
	11/12/92		—	—	—	
MW-7	04/15/92	30.50	16.00	14.50		
	07/07/92		17.10	13.40		
	09/23/92		18.21	12.29		
	11/12/92		18.37	12.13	33.94	
MW-8	04/15/92	28.48	14.30	14.18		
	07/07/92		15.60	12.88		
	09/23/92		16.66	11.82		
	11/12/92		16.86	11.62	39.20	

NOTES:
1 = Measurement and reference elevation taken from notch/mark on top north side of well casing.
2 = Elevation referenced to mean sea level.
--- = Not measured/not observed.
Well Depth = Measurement from top of casing to bottom of well.

TABLE 2

ANALYTICAL RESULTS: GROUNDWATER

BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(All results in parts-per-billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-1	04/15/92	8,900	710	11	150	440
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92	<50	<0.5	<0.5	<0.5	<0.5
	11/12/92	---	---	---	---	---
MW-2	04/15/92	1,200	21	4.8	56	26
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92	<50	<0.5	<0.5	<0.5	<0.5
	11/12/92	<50	<0.5	<0.5	1.7	0.9
MW-3	04/15/92	69	2.8	<0.5	<0.5	<0.5
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92	<50	<0.5	<0.5	<0.5	<0.5
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5
MW-4	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92	---	---	---	---	---
	11/12/92	---	---	---	---	---

NOTES: < = Below indicated detection limit.
--- = Not analyzed.

TABLE 2 (CONTINUED)

ANALYTICAL RESULTS: GROUNDWATER

BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(All results in parts-per-billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-5	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92	---	---	---	---	---
	11/12/92	---	---	---	---	---
MW-6	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92	---	---	---	---	---
	11/12/92	---	---	---	---	---
MW-7	04/15/92	1,600	21	1.2	2.0	1.2
	07/07/92	320	<0.5	<0.5	<0.5	<0.5
	09/23/92	90	<0.5	<0.5	<0.5	<0.5
	11/12/92	<50	<0.5	<0.5	<0.5	<0.5
MW-8	04/15/92	40,000	1,900	34	1,200	1,800
	07/07/92	19,000	560	14	32	630
	09/23/92	4,200	370	<5.0	<5.0	150
	11/12/92	5,100	75	<2.5	<2.5	110

NOTES: < = Below indicated detection limit.
--- = Not analyzed.

ATTACHMENT 1

STANDARD OPERATING PROCEDURES

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURES
RE: SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES
SOP-4

Sample identification and chain-of-custody procedures ensure sample integrity, and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to its arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s), and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURES
RE: LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL
SOP-5

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at method-specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;

2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;

3. Standard operating procedures describing routine and periodic instrument maintenance;

4. "Out-of-Control"/Corrective Action documentation procedures; and,

5. Multi-level review of raw data and client reports.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURE
RE: GROUNDWATER PURGING AND SAMPLING
SOP-7

Prior to water sampling, each well is purged by evacuating a minimum of three wetted well-casing volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity, or pH stabilize, a maximum of ten well-bore volumes of groundwater have been recovered, or the well is bailed dry. When practical, the groundwater sample should be collected when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a "Teflon" bailer, PVC bailer, or stainless steel bladder pump with a "Teflon" bladder. If the sampling system is dedicated to the well, then the bailer is usually "Teflon," but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analysis (VOA) vials, with "Teflon" septa, are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample is put on hold at the laboratory. When required, a trip blank is prepared at the laboratory and placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam cleaned or properly washed between use. As a second precautionary measure, wells are sampled in order of least to highest concentrations as established by available previous analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such as when in the field, or in a refrigerator at Aegis' office.

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURE
RE: MEASURING LIQUID LEVELS USING WATER LEVEL OR INTERFACE PROBE
SOP-12

Field equipment used for liquid-level gauging typically includes the measuring probe (water-level or interface), light filter(s), and product bailer(s). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the probe tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "depth to water" (DTW).

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case. After grounding the probe, the top of the well casing is fitted with a light filter to insure that sunlight does not interfere with the operation of the probe's optical mechanism.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water indicator and the DTW measurement is made accordingly. The steady tone indicates floating hydrocarbons. In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indicator and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When floating product is indicated by the probe's response, a product bailer is lowered partially through the product-water interface to confirm the product on the water surface, and as further indication of product thickness, particularly in cases where the product layer is quite thin. This measurement is recorded on the data sheet as "product thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with TSP solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

ATTACHMENT 2

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORM

ANALYSIS REPORT

1020lab.frm

Attention:	Ms. Sheila Richgels	Date Sampled:	11-12-92
	Aegis Environmental	Date Received:	11-18-92
	1050 Melody Ln., Ste 160	BTEX Analyzed:	11-18-92
	Roseville, CA 95678	TPHg Analyzed:	11-18-92
Project:	19505-L, Project #92-773	TPHd Analyzed:	NR
	Station #546, Hayward	Matrix:	Water

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit:	0.5	0.5	0.5	0.5	50	50
SAMPLE Laboratory Identification						
MW-3 W1211313	ND	ND	ND	ND	ND	NR
MW-2 W1211314	ND	ND	1.7	0.9	ND	NR
MW-7 W1211315	ND	ND	ND	ND	ND	NR

ppb = parts per billion = µg/L = micrograms per liter.
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd--Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

JM Tague
Laboratory Representative

November 25, 1992
Date Reported

ANALYSIS REPORT

1020lab.frm

Attention:	Ms. Sheila Richgels	Date Sampled:	11-12-92
	Aegis Environmental	Date Received:	11-18-92
	1050 Melody Ln., Ste 160	BTEX Analyzed:	11-18-92
	Roseville, CA 95678	TPHg Analyzed:	11-18-92
Project:	19505-L, Project #92-773	TPHd Analyzed:	NR
	Station #546, Hayward	Matrix:	Water

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit:	2.5	2.5	2.5	2.5	50	50
SAMPLE Laboratory Identification						
MW-8(vial #1) W1211316	130	7.1	29	52	3700	NR
MW-8(vial #2) W1211316A	75	ND	ND	110	5100	NR

ppb = parts per billion = µg/L = micrograms per liter.
ND = Not detected. Compound(s) may be present at concentrations below the detection limit.
NR = Analysis not requested.

ANALYTICAL PROCEDURES

BTEX-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020/602, which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

TPHg--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

TPHd--Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Laboratory Representative

November 25, 1992
Date Reported

Resna-Fremont
510-651-1101

Ultramar Inc.
CHAIN OF CUSTODY REPORT

RECEIVED 92-773
DEC 0 2 1992
Ans'd FEB 5730

BEACON

Beacon Station No.	Sampler (Print Name)	ANALYSES	Date	Form No.
546	Mike Wesney		11-18-92	1 of 1
Project No.	Sampler (Signature)			
92-773	Mike Wesney			
Project Location	Affiliation			
29705 Mission Blvd. Hayward, CA	Aegis Environmental			

Please use Tri-Regional Detection Limits

Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)	No. of Containers	REMARKS
MW 3	11-12-92	4:56	W121313	X	X		2	
MW 2		5:20	314					
MW 7		5:46	315					
MW 8		6:10	316					

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Mike Wesney	11-18	11:19	Mary Hofusky	11/18	11:20
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Mary Hofusky	11/18/92	3:30	Courtney Green	11/18/92	3:30
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Report To:
Sheila Richgels
Aegis Environmental
1050 Melody Lane, Suite 160
Roseville, CA 95678

Bill to: ULTRAMAR INC.
525 West Third Street
Hanford, CA 93230
Attention: Terry Fox

WHITE: Return to Client with Report YELLOW: Laboratory Copy PINK: Originator Copy

32 8003 1/90

ATTACHMENT 3

HISTORICAL WATER LEVEL DATA

TABLE 1

WATER LEVEL DATA

FORMER BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]
MW-1	06/28/90	37.46	23.77	13.69
	04/15/92		22.10	15.36
	07/07/92		23.40	14.06
	09/23/92*		24.61	12.85
MW-2	06/28/90	35.95	22.41	13.54
	04/15/92		20.88	15.07
	07/07/92		21.95	14.00
	09/23/92*		23.15	12.80
MW-3	06/28/90	40.28	26.29	13.99
	04/15/92		24.59	15.69
	07/07/92		25.90	14.38
	09/23/92*		27.09	13.19
MW-4	06/28/90	34.94	21.67	13.27
	04/15/92		NA	NA
	07/07/92		NA	NA
	09/23/92*		NA	NA
MW-5	06/28/90	36.37	22.87	13.50
	04/15/92		NA	NA
	07/07/92		NA	NA
	09/23/92*		NA	NA

NOTES:
[1] = Measurement and reference elevation taken from notch/mark on top north side of well casing.
[2] = Elevation referenced to (mean sea level or arbitrary benchmark).
* = Data collected prior to 09/23/92 are from a previous consultant.
NA = Not accessible.

TABLE 1 (CONTINUED)

WATER LEVEL DATA

FORMER BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing)[1]	Depth to Groundwater[1]	Groundwater Elevation[2]
MW-6	06/28/90	37.43	23.52	13.91
	04/15/92		NA	NA
	07/07/92		NA	NA
	09/23/92*		NA	NA
MW-7	06/28/90	30.50	17.60	12.90
	04/15/92		16.00	14.50
	07/07/92		17.10	13.40
	09/23/92*		18.21	12.29
MW-8	06/28/90	28.48	15.57	12.91
	04/15/92		14.30	14.18
	07/07/92		15.60	12.88
	09/23/92*		16.66	11.82

NOTES:
[1] = Measurement and reference elevation taken from notch/mark on top north side of well casing.
[2] = Elevation referenced to (mean sea level or arbitrary benchmark).
* = Data collected prior to 09/23/92 are from a previous consultant.
NA = Not accessible.

ATTACHMENT 4

HISTORICAL ANALYTICAL DATA

TABLE 2

ANALYTICAL RESULTS: GROUNDWATER

FORMER BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(All results in parts-per-billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-1	06/28/90	1,700	160	64	69	260
	04/15/92	8,900	710	11	150	440
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92*	<50	<0.5	<0.5	<0.5	<0.5
MW-2	06/28/90	900	110	4.8	72	68
	04/15/92	1,200	21	<0.5	56	26
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92*	<50	<50	<0.5	<0.5	<0.5
MW-3	06/28/90	<50	<0.5	<0.5	<0.5	<0.5
	04/15/92	69	1.8	<0.5	<0.5	<0.5
	07/07/92	<50	<0.5	<0.5	<0.5	<0.5
	09/23/92*	<50	<0.5	<0.5	<0.5	<0.5
MW-4	06/28/90	4,600	600	410	110	460
	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92*	---	---	---	---	---

NOTES:
--- = Not analyzed.
< = Below the indicated detection limits as labeled in the laboratory analytical results.
* = Analytical results prior to 09/23/92 are from a previous consultant.

TABLE 2 (CONTINUED)

ANALYTICAL RESULTS: GROUNDWATER

FORMER BEACON STATION #546
29705 MISSION BOULEVARD, HAYWARD, CALIFORNIA
(All results in parts-per-billion)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
		Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-5	06/28/90	12,000	2,900	240	630	930
	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92*	---	---	---	---	---
MW-6	06/28/90	<50	<0.5	<0.5	<0.5	<0.5
	04/15/92	---	---	---	---	---
	07/07/92	---	---	---	---	---
	09/23/92*	---	---	---	---	---
MW-7	06/28/90	960	23	<0.5	90	<0.5
	04/15/92	1,600	21	1.2	2.0	1.2
	07/07/92	320	<0.5	<0.5	<0.5	<0.5
	09/23/92*	90	<0.5	<0.5	<0.5	<0.5
MW-8	06/28/90	20,000	800	190	0.6	380
	04/15/92	40,000	1,900	34	1,200	1,800
	07/07/92	19,000	560	14	32	630
	09/23/92*	4,200	370	<5.0	<5.0	150

NOTES:
--- = Not analyzed.
< = Below the indicated detection limits as labeled in the laboratory analytical results.
* = Analytical results prior to 09/23/92 are from a previous consultant.

ATTACHMENT 5

FIELD DATA SHEETS

AEGIS ENVIRONMENTAL, INC.
GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet)

Project Address: 29705 Mission Blvd, Hayward (# 546) Date: 11-12-92
Recorded by: Mike Wesney Project No.: 92-773

Well No.	Time	Measured Total Depth	Depth to Gr. Water	Depth to Product	Product Thickness	Comments (TOC/TOB) (product skimmer in well)
MW-1	4:50	N/A	24.87	24.86	.01	Having sheen
MW-2	4:38	38.78	23.43	N/A	N/A	
MW-3	4:35	37.75	27.43	↓	↓	
MW-7	4:45	33.94	18.37			
MW-8	4:56	39.20	16.86	↓	↓	

Notes:

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 29705 Mission Blvd

Project No: 92-773
Well Designation: MW 2

Purging Equipment:
___ 2" PVC bailer
___ 4 PVC bailer
X Submersible pump
___ Dedicated bailer

Sampled with disposal bailer or other: ___
Well recharged to 80% recovery.

Well Diameter:	2"	3"	4"	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 38.78
Depth to water: 23.43

Calculated purge: 42.90 l
Actual purge: 42.90 l

Start purge: 4:59
Sampling time: 5:20
Sampling Date: 11-12-92

Time	Temp.	E.C.	pH	Turbidity	Volume
5:14	62.3	.87	2.25		38
5:15	65.6	.88	2.79		2
5:16	66.6	.88	2.49		2

Sample appearance: clear

QC samples collected at this well: ___

Lock: 3753

Remarks: ___

Signature: Mike Mooney
Review: [illegible]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 29705 Mission Blvd

Project No: 92-773
Well Designation: MW 3

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X Submersible pump
___ Dedicated bailer

Sampled with disposal bailer or other: ___
Well recharged to 80% recovery.

Well Diameter:	2"	3"	4" X	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 37.75
Depth to water: 27.43

Calculated purge: 29 gal
Actual purge: 29 gal

Start purge: 4:40
Sampling time: 4:56
Sampling Date: 11-12-92

Time	Temp.	E.C.	pH	Turbidity	Volume
4:49	64.4	2.12	0.91		25
4:50	65.5	2.01	0.90		2
4:51	66.2	1.62	1.55		2

Sample appearance: clear

QC samples collected at this well: —

Lock: 3753

Remarks: ___

Signature: Mike Wesney
Review: [signature]

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 29705 Mission Blvd

Project No: 92-773
Well Designation: MW7

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X Submersible pump
___ Dedicated bailer

Sampled with disposal bailer or other: ___
Well recharged to 80% recovery.

Well Diameter:	2"	3"	4" X	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 33.94
Depth to water: 18.37

Calculated purge: 42 gal
Actual purge: 42 gal

Start purge: 5:28
Sampling time: 5:46
Sampling Date: ___

Time	Temp.	E.C.	pH	Turbidity	Volume
5:40	61.5	.116	83		38
5:41	63.9	.196	1.45		2
5:42	65.6	1.01	1.43		2

Sample appearance: clear

QC samples collected at this well: /

Lock: 3753

Remarks: ___

Signature: Mike Weaney
Review: OK

AEGIS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Beacon
Site: 29705 Mission Blvd

Project No: 92773
Well Designation: MW8

Purging Equipment:
___ 2" PVC bailer
___ 4" PVC bailer
X Submersible pump
___ Dedicated bailer

Sampled with disposal bailer or other: ___
Well recharged to 80% recovery.

Well Diameter:	2"	3"	4" X	6"	8"	
Purge Vol. Multiplier:	0.163	0.367	0.653	1.47	2.61	gal/ft.

Depth of well: 39.20
Depth to water: 16.86

Calculated purge: 58gal
Actual purge: 58gal

Start purge: 5:48
Sampling time: 6:10
Sampling Date: 11-12-92

Time	Temp.	E.C.	pH	Turbidity	Volume
6:05	65.8	1.39	2.05		54
6:06	67.5	1.38	2.10		2
6:07	67.9	1.46	2.42		2

Sample appearance: clear

QC samples collected at this well: /

Lock: 3753

Remarks: ___

Signature: Mike Heaney
Review: OK