AEGIS ENVIRONMENTAL, INC.
1050 Melody Lane, Suite 160, Roseville, California 95678
(916) 782 2110 Fax (916) 786 7830

August 9, 1993

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

Subject: **Monitoring Well Installation and 48-Hour Pumping Test Results Report**
Former Beacon Station #546
29705 Mission Boulevard, Hayward, California

Dear Mr. Fox:

INTRODUCTION

Aegis Environmental Inc. (Aegis), has been authorized by Ultramar Inc. (Ultramar), to conduct an investigation of soil and groundwater conditions at the subject site, located at 29705 Mission Boulevard, Hayward, California (Figure 1). This letter report is based, in part, on information obtained by Aegis from Ultramar, and is subject to modification as newly acquired information may warrant.

The site is a former Beacon gasoline station that previously retailed regular-unleaded, regular-leaded, and premium-unleaded gasolines. Details of the site's former facilities, including underground storage tanks (UST) and on-site and off-site monitoring wells, are shown on Figure 2.

BACKGROUND

Previous site investigations include the following:

- In March 1987, five soil borings were drilled around the UST. Petroleum hydrocarbons were detected in soil and groundwater samples collected and analyzed.

- In April 1988, three UST containing gasoline and one UST containing waste oil were removed.
- In June and July 1988, three monitoring wells (MW-1 through MW-3) were installed. Results indicated petroleum hydrocarbons were present in groundwater beneath the site.
- In June 1989 and February 1990, a total of five additional wells (MW-4 through MW-8) were installed. Petroleum hydrocarbons have been detected in all eight wells.
- Groundwater monitoring at the site began in July 1988 and continues to date.

SCOPE

The following work was performed at the site on January 4, and April 21 through 23, 1993, according to the Aegis standard operating procedures (SOP) included as Attachment 1:

- Drilled and installed one 2-inch-diameter monitoring well, MW-9, off-site.
- Collected five soil samples from the well borings for classification and possible laboratory analysis.
- Screened soil samples for total organic vapors using a photoionization detector (PID).
- Developed well MW-9 and collected a groundwater sample.
- Submitted the groundwater sample and selected soil samples to a state-certified laboratory for analysis.
- Performed a 48-hour pumping test in monitoring well MW-8.
- Collected a groundwater sample from well MW-8 at the conclusion of the test and submitted the sample to a state-certified laboratory for analysis.
- Evaluated the pumping test data and estimated aquifer transmissivity, storativity, hydraulic conductivity, and a capture zone radius.

SOIL BORINGS

On January 4, 1993 one soil boring was drilled by Woodward Drilling Company of Rio Vista, California at the location shown on Figure 2. The boring extended to a depth of 25 feet below surface. Soil samples were collected from the boring at 5-foot intervals beginning at 5 feet below surface.

Saturated soils were encountered at approximately 14 feet below surface. Soil descriptions, classifications, PID screening results and other pertinent information were recorded on the soil boring log included as Attachment 2.

MONITORING WELL INSTALLATION

On January 4, 1993 the soil boring was completed as groundwater monitoring well MW-9 using 2-inch-diameter, Schedule 40 PVC casing. The well is screened with 0.020-inch slotted casing from 10 feet below surface to the total depth 25 feet. Static water level in MW-9 was measured at 9.80 feet below surface (top of casing). Groundwater monitoring well construction details are included with the boring log as Attachment 2.

After installation, the well was developed according to the SOP included as Attachment 1. The well was bailed dry after removal of approximately 15 gallons of water, and allowed to partially recharge. Well development water was temporarily stored on site in a 55-gallon DOT-approved drum. Development water was transported by a licensed waste hauler to Ultramar's Hanford facility for recycling.

SOIL ANALYTICAL RESULTS

A total of two soil samples were selected and submitted for laboratory analysis. Soil samples were submitted to Resna Environmental Laboratories (Resna), of Fremont, California for analysis of total petroleum hydrocarbons (TPH), as gasoline, and benzene, toluene, ethyl benzene and total xylenes (BTEX) by EPA Methods 8015 and 8020, respectively. Table 1 summarizes results of soil sample laboratory analysis.

Laboratory analysis indicated TPH, as gasoline, concentrations of 10 parts per million (ppm) in soil sample S-0104-MW9-10.5' at 10.5 feet below surface and 1.7 ppm in sample S-0104-MW9-15.5' at 15.5 feet below surface. The certified laboratory report and chain-of-custody form are included as Attachment 3.

GROUNDWATER SAMPLING AND ANALYSIS

On January 4, 1993 a groundwater sample was collected from well MW-9 according to the SOP included as Attachment 1. The groundwater sample was submitted under chain of custody to Resna for analysis of TPH, as gasoline, and BTEX by EPA Methods 8015 and 602, respectively. Laboratory analysis indicated benzene at a concentration of 990.0 ppb. Laboratory results of sample analysis for groundwater from MW-9 are summarized in Table 1. The certified laboratory report and chain-of-custody form are included as Attachment 3.

AQUIFER TEST DATA AND ANALYSIS

Aquifer testing was conducted at the site for approximately 48 hours, from 9:00 AM on April 21, to 8:05 AM on April 23, 1993. Pumping was followed by a recovery period of approximately one hour. The testing consisted of pumping from well MW-8 at an average rate of 4.7 gallons per minute (gpm), ranging from 4.3 gpm to 8.3 gpm. Groundwater level changes were recorded simultaneously with a datalogger in wells MW-7 and MW-8, while groundwater levels in other wells were periodically monitored by hand, as shown on field data sheet included as Attachment 4. When the pump was shut off, MW-8 recovered to its static level within 10 minutes.

After the groundwater level stabilized, a groundwater sample was collected from well MW-8. The groundwater sample was submitted under chain of custody to Western Environmental Science & Technology, of Davis, California for analysis of TPH, as gasoline, and BTEX by EPA Methods 8015 and 602, respectively. Laboratory analysis indicated benzene at a concentration of 480.0 ppb. Laboratory results of sample analysis for groundwater from MW-8 are summarized in Table 1. The certified laboratory report and chain-of-custody form are included as Attachment 3.

Graphs showing depth to groundwater versus time during aquifer testing are included in Attachment 5. The data indicate a relatively stable and constant drawdown in well MW-8 within the first 70 minutes of pumping. Data from well MW-7 was analyzed using the Cooper-Jacob modification of the Theis equation applied by the AQTESOLV™ program from Geraghty & Miller, and indicates a typical Theis-curve response from the aquifer. Data from well MW-8 was not analyzed.

The data analysis yielded a transmissivity estimate of 0.7195 ft^2/minute (1,036 ft^2/day) and a storativity estimate of 0.001197. A line-fitting plot of the data is included in Attachment 5. Using the depth of well MW-8, 20 feet, as the approximate thickness of the water-bearing zone, a corresponding value for hydraulic conductivity of 52 ft/day was calculated. According to Freeze and Cherry (1979), 52 ft/day is a typical hydraulic conductivity for an aquifer consisting of silty sand. This assessment is inconsistent with boring logs which indicate silty clays throughout the boring of MW-9.

Using a transmissivity (T) of 1,036 ft^2/day, a pumping rate (Q) of 5 gpm (962 ft^3/day), and an hydraulic gradient (i) of 0.02 ft/ft toward the west (from February 1993 groundwater elevation data), the downgradient capture radius $r_{dg} = Q/2\pi Ti = (962)/2(\pi)(1,036)(0.02) = 7.4$ feet. Similarly, the maximum capture zone width = $Q/Ti = 962/(1,036)(0.02) = 46$ feet.

RECOMMENDATIONS

It is recommended that copies of this letter report be submitted to the following agencies:

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

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

REMARKS/SIGNATURES

The interpretations contained in this letter report represent our professional opinions. These opinions are based on currently available information and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This letter report has been prepared solely for the use of Ultramar Inc. Any reliance on this letter report by third parties shall be at such parties' sole risk. The work described herein was performed under the review and supervision of the professional geologist, registered with the State of California, whose signature appears below.

Sincerely,

AEGIS ENVIRONMENTAL, INC.

Larry W. Braybrooks
Project Geologist

Paul Graff
Registered Geologist
CRG No. 5600

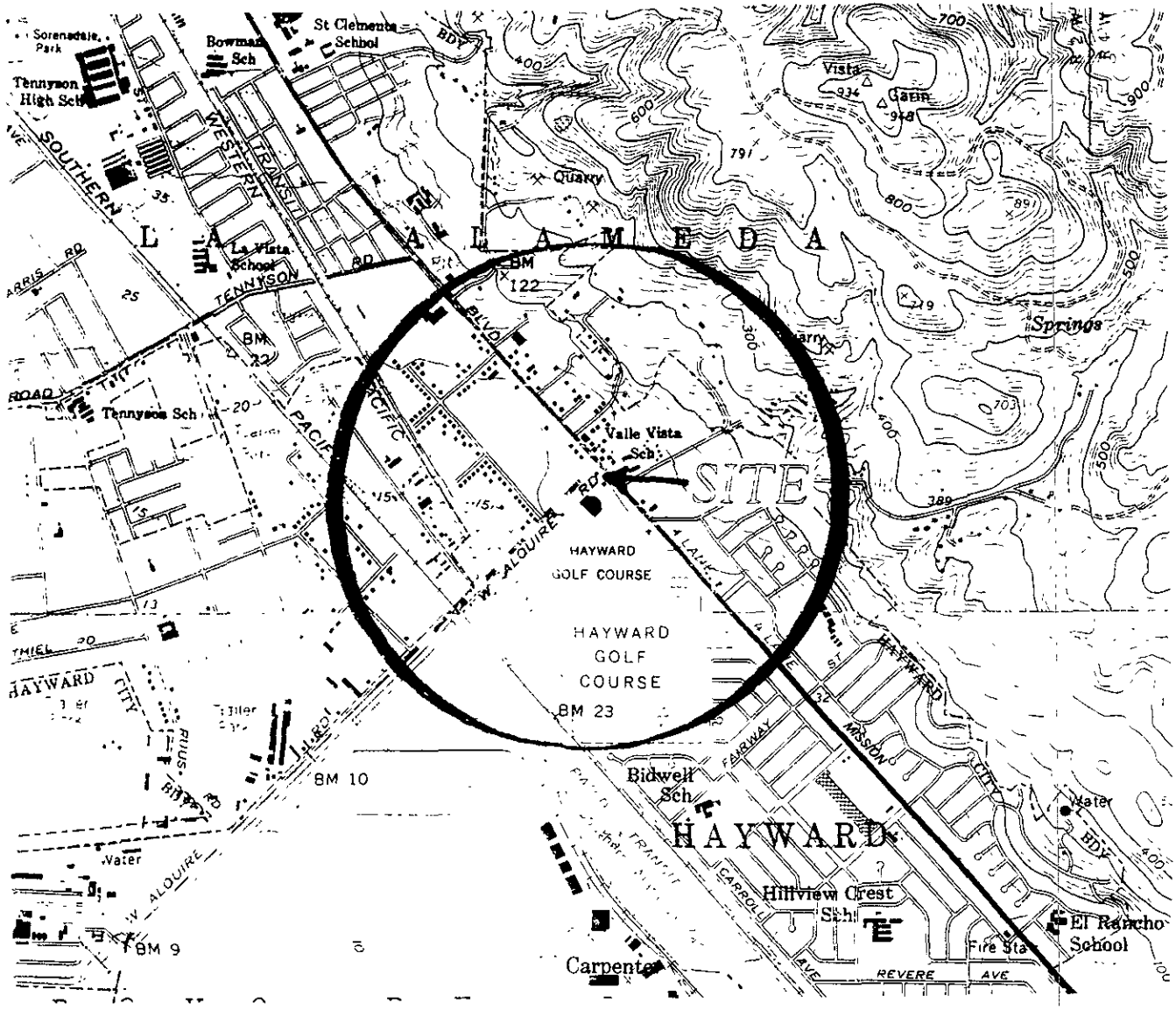
8/19/93
Date

REGISTERED GEOLOGIST
PAUL GRAFF
No. 5600
Exp. 6/30/95
STATE OF CALIFORNIA

LWB/sdh

Attachments

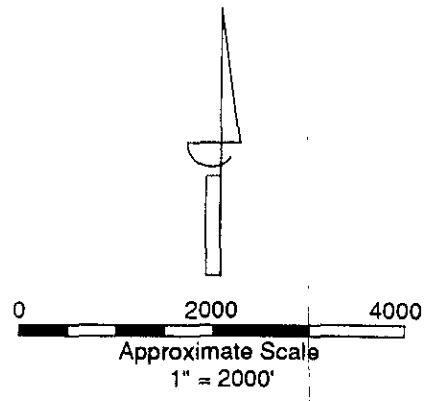
FIGURES



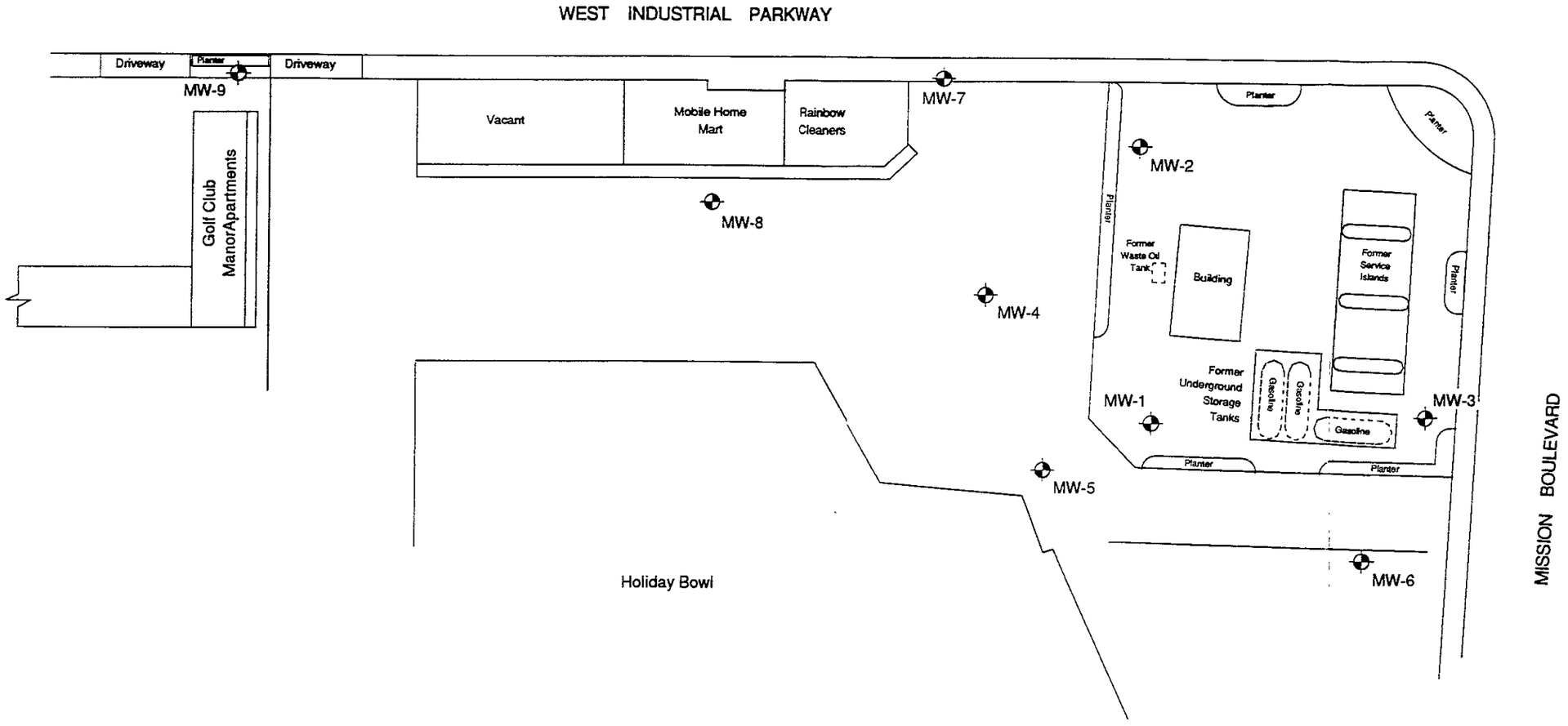
GENERAL NOTES:

BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
HAYWARD & NEWARK, CA.
1959, PHOTOREVISED 1980.

WEST ALQUIRE ROAD HAS BEEN
CHANGED TO
WEST INDUSTRIAL PARKWAY



AEGIS ENVIRONMENTAL, INC.		SITE LOCATION MAP	FIGURE 1
DRAWN BY Ed Bernard	DATE September 29, 1992	Beacon Station # 546 29705 Mission Boulevard Hayward, CA	PROJECT NUMBER 10-92067
REVISED BY Ed Bernard	DATE February 11, 1993		
REVIEWED BY	DATE		



LEGEND

Monitoring Well

NOTES

Site Sketch After
Site Map By Ultramar
August 5, 1992

All locations Are Approximate

0 50 100
Approximate Scale
1" = 50'

AGS ENVIRONMENTAL, INC.		SITE VICINITY MAP	FIGURE 2
DRAWN BY D Hada	DATE November 16 1992	Beacon Station # 546 29705 Mission Boulevard Hayward, CA	PROJECT NUMBER 10-92067
REVISED BY	DATE		
REVIEWED BY	DATE		

TABLES

TABLE 1

ANALYTICAL RESULTS: SOIL AND GROUNDWATER

Former Beacon Station #546
29705 Mission Boulevard, Hayward, California
(All results in parts-per-million)

Sample ID	Date Collected	Sample Depth (feet)	Total Petroleum Hydrocarbons	Aromatic Volatile Organics			
			Gasoline	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Soil							
S-0104-MW9-10.5'	01/04/93	10.5	10	0.045	0.009	0.007	0.026
S-0104-MW9-15.5'	01/04/93	15.5	1.7	0.036	<0.005	0.011	0.012
Groundwater							
MW-9	01/04/93	NA	67.000	0.990	0.067	1.000	2.900
MW-8	04/23/93	NA	7.400	0.480	0.0082	0.550	0.510

NOTE: < = Below indicated laboratory detection limit.
NA = Not applicable

ATTACHMENT 1

STANDARD OPERATING PROCEDURES

AEGIS ENVIRONMENTAL, INC.
STANDARD OPERATING PROCEDURES
RE: SOIL BORING SAMPLING
SOP-1

During drilling, soil samples for chemical analysis are collected in thin-walled brass tubes, of varying diameters and lengths (e.g., 4 or 6 inches long by 2 inches outside diameter). Three or four of the selected tubes, plus a spacer tube, are set in an 18-inch long split-barrel sampler of the appropriate inside-diameter.

Where possible, the split-barrel sampler is driven its entire length either hydraulically or using a 140-pound drop hammer. The sampler is extracted from the borehole and the brass tubes, containing the soil samples, are removed. Upon removal from the sampler, the selected brass tubes are either immediately trimmed and capped with aluminum foil or "Teflon" sheets and plastic caps or the samples are extruded from the tubes and sealed within other appropriate cleaned sample containers (e.g., glass jar). The samples are then hermetically sealed, labeled, and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. These procedures minimize the potential for cross-contamination and volatilization of VOC prior to chemical analysis.

One soil sample collected at each sampling interval is analyzed in the field using either a portable photoionization detector (PID), flame ionization detector, organic vapor analyzer, catalytic gas detector, or an explosimeter. The purpose of this field analysis is to qualitatively determine the presence or absence of hydrocarbons, and the samples to be analyzed at the laboratory. The soil sample is sealed in either a brass tube, glass jar, or plastic bag to allow for some volatilization of VOC. The PID is then used to measure the concentrations of hydrocarbons within the containers's headspace. The data is recorded on both field notes and the boring logs at the depth corresponding to the sampling point.

Other soil samples are collected to document the soil and/or stratigraphic profile beneath the project site, and estimate the relative permeability of the subsurface materials. All drilling and sampling equipment are either steam cleaned or washed in solution and doubly rinsed in deionized water prior to use at each site and between boreholes to minimize the potential for cross-contamination.

In the event the soil 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 PROCEDURES
RE: SOIL CLASSIFICATION
SOP-3

Soil samples are classified according to the Unified Soil Classification System. Representative portions of the samples may be submitted under strict chain-of-custody to an analytical laboratory for further examination and verification of the in-field classification, and analysis of soil mechanical and/or petrophysical properties. The soil types are indicated on logs of either excavations or borings together with depths corresponding to the sampling points, and other pertinent information.

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: HOLLOW-STEM AUGER MONITORING WELL INSTALLATION AND DEVELOPMENT
SOP-6

Boreholes for monitoring wells are drilled using a truck-mounted, hollow-stem auger drill rig. The borehole diameter will be a minimum of 4 inches larger than the outside-diameter of the casing when installing well screen. The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at desired intervals. Soil samples are collected by either hammering or hydraulically pushing a conventional split-barrel sampler containing pre-cleaned 2-inch-diameter brass tubes. A geologist or engineer from Aegis Environmental, Inc., continuously logs each borehole during drilling and constantly checks drill cuttings for indications of both the first occurrence of groundwater and volatile hydrocarbons using either a portable photoionization detector, flame ionization detector, or an explosimeter. The sampler is rinsed between samples and either steam-cleaned or washed with all other drilling equipment between borings to minimize the potential for cross-contamination.

Monitoring wells are cased with threaded, factory-perforated and blank Schedule 40 PVC. The perforated interval consists of slotted casing, generally with 0.020 inch wide by 1.5-inch long slots, with 42 slots per foot. A PVC cap may be secured to the bottom of the casing with stainless steel screws; no solvents or cements are used. Centering devices may be fastened to the casing to assure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and/or steam-cleaned, or may be purchased as pre-cleaned, prior to installation.

After setting the casing inside the hollow-stem auger, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally 1 foot above the perforated interval. A 1 to 2-foot thick bentonite plug is set above this filter material to prevent grout from infiltrating into the filter pack. Either neat cement, containing about 5 percent bentonite, or sand-cement grout is then tremmied into the annular space from the top of the bentonite plug to near surface. A traffic-rated vault is installed around each wellhead for wells located in parking lots or driveways, while steel "stovepipes" are usually set over wellheads in landscaped areas.

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing fine material from the filter pack that may pass into the well. Well development techniques used may include pumping, surging, bailing, swabbing, jetting, flushing, and air-lifting. All development water is collected either in drums or tanks for temporary storage, and properly disposed of depending on laboratory analytical results. To minimize the potential for cross-contamination between wells, all development equipment are either steam-cleaned or properly washed prior to use.

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) 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 "Measured Total Depth" of the well.

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.

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 (DTW) 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 or similar 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

MONITORING WELL CONSTRUCTION DETAILS AND BORING LOG

FIELD BORING/MONITORING WELL LOG

AEGIS ENVIRONMENTAL, INC.

Boring #	MW# 9 Sheet 1 Of 2
Project Name:	Beacon Station ID # 546
Address:	29705 Mission Blvd, Hayward Job # 92-067
Logged By:	J. Giorgi Pro. Mgr: J. Giorgi Edited By:
Drilling Contractor:	Woodward Drilling Company
Drill Rig Type/Method:	Mobile B-57 / HSA
Drillers Name:	Erik Forsstrom
Borehole Dia./Drill Bit Type	Total Depth: 25
	8 1/4 inches / Clay Bit
Hammer Wt:	140 lbs Drop: 30 inches
Start Time:	9:15 Date: 1-4-93
Completion Time:	13:00 Date: 1-4-93
Backfilled Time:	Date:

Sketch Map Of Site Area With Boring Locations

	1st Water			
Boring Depth in Feet				
Casing Depth in Feet				
Water Depth in Feet				
Time				
Date				

Sampler Type Length	Sample Condition	Casing Type & Size	Driven (in.)	Recovered (in.)	Annulus Filler	Blow Count (6 in.)	PID/OVA (ppmv)	Depth Sample Recovery	Depth Feet (Below Surface)	USCS	
									0		
											Concrete (sidewalk) and fill material
									1		0 - 1.0
GS										CL	Clay with silt, brownish black, moist,
									2		no product odor
									3		
									4		
									5		
CMSS	E		6	6		7				CL	Same as above (SAA) and hard
	E		6	6		17			6		
	E		6	6		29	0				
									7		
									8		
									9		
									10		
CMSS	E		6	6		5	50			CL	SAA except, light olive gray to some
	E		6	6		6			11		bluish gray and moderate yellowish
	E		6	6		15					brown, slight product odor
									12		

■ Sample sent to Laboratory for chemical analysis

E = Excellent
P = Poor

ACCESS ENVIRONMENTAL, INC.

Boring # MW# 9 | Sheet 2 Of 2

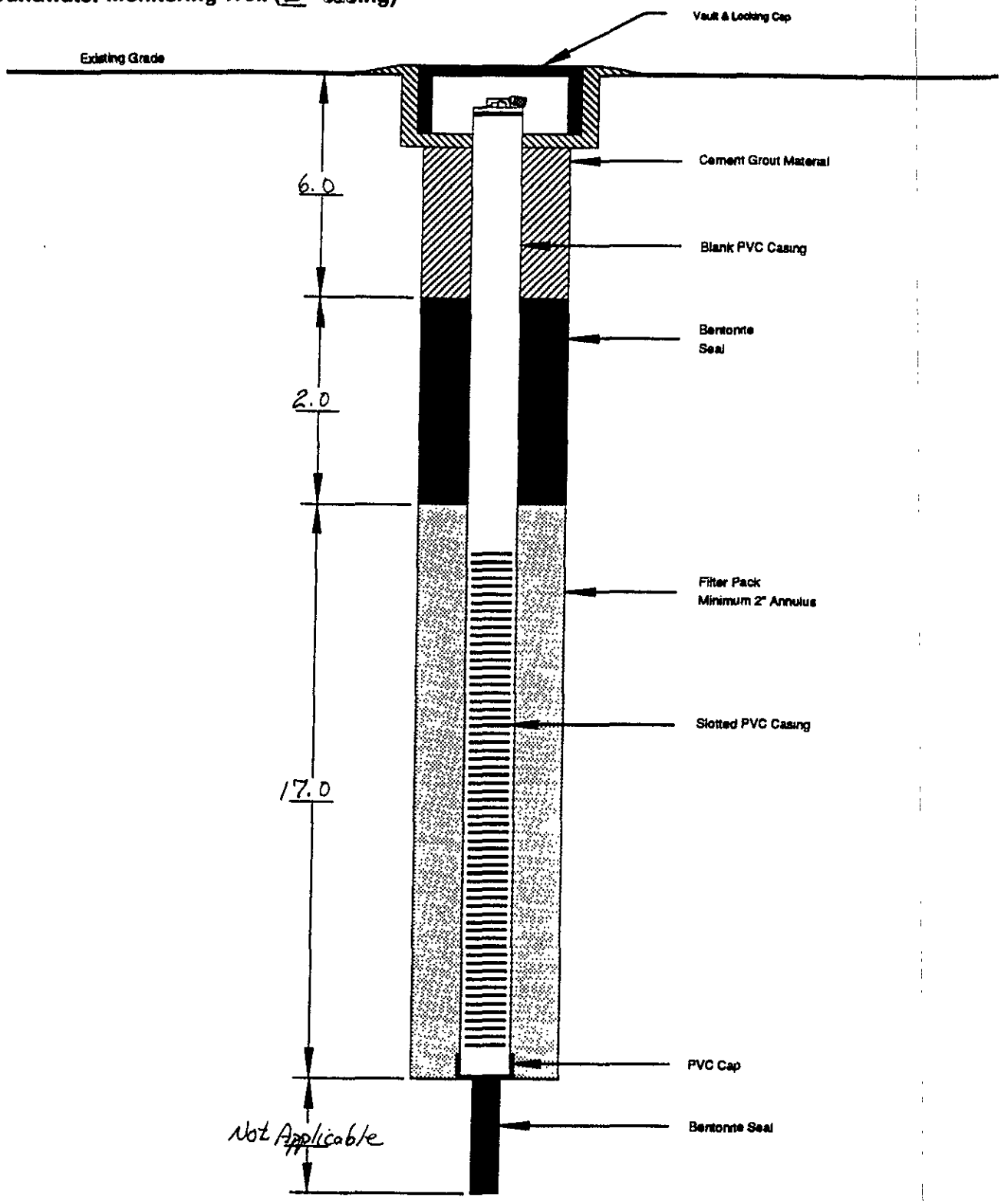
Project Name: Beacon Station #546

Address: 29705 Mission Blvd, Hayward, CA

Job # 92-067

Sampler Type Length	Sample Condition	Casing Type & Size	Driven (in.)	Recovered (in.)	Annulus Filler	Blow Count (6 in.)	PID/OVA (ppmv)	Depth Sample Recovery	Depth Feet (Below Surface)	USCS	
									13		
									14		
								▼			First water at 14.5 feet below grade
									15		
CMSS	E		6	6		6	50			CL	SAA except more silt, less olive gray,
	E		6	6		14			16		more moderate yellowish brown, and
	E		6	6		16					no bluish green
									17		
									18		
									19		
									20		
CMSS	E		6	6		5	5			CL	SAA except dark yellowish orange to
	E		6	6		8			21		moderate brown, no product odor
	P		6	2		13					
									22		
									23		
									24		
									25		Total Depth = 25 feet below grade
CMSS	E		6	6		9	0			CL	SAA
	E		6	6		12			26		
	P		6	1		13					
									27		
									28		
									29		
									30		

Groundwater Monitoring Well (2" casing)



(NOT TO SCALE)

ARCHS ENVIRONMENTAL, INC.

Typical Groundwater Monitoring Well
Construction Details (2" Casing)

Client Name Ultramar Inc
Street 29705 Mission Blvd., Hayward, CA
City, State Hayward, CA

JOB NUMBER
92-067

FIGURE
MW-9

ATTACHMENT 3

ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY-FORMS: SOIL AND GROUNDWATER

92-0675
RECEIVED
JAN 2 1 1993
Ans'd. CF 1/21/93

~~90-067~~

Environmental Laboratories

RESNA
Working To Restore Nature

ANALYSIS REPORT

1020lab.frm

Attention:	Mr. John Giorgi	Date Sampled:	01-04-93
	Aegis	Date Received:	01-06-93
	1050 Melody Lane, Ste 160	BTEX Analyzed:	01-06-93
	Roseville, CA 95678	TPHg Analyzed:	01-06-93
Project:	90-067, Station 546	TPHd Analyzed:	NR
	Hayward	Matrix:	Soil

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit:	0.005	0.005	0.005	0.005	1.0	10
SAMPLE Laboratory Identification						
S-0104-MW9-10.5' S1301028	0.045	0.009	0.007	0.026	10	NR
S-0104-MW9-15.5' S1301029	0.036	ND	0.011	0.012	1.7	NR

ppm = parts per million = mg/kg = milligrams per kilogram.
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.

M Tague
Laboratory Representative

January 7, 1993
Date Reported

RESNA ENVIRONMENTAL LABORATORY IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. E1211)
42501 Albrae Street • Fremont, CA 94538 • Phone: (510) 623-0775 • (800) 247-5223 • FAX: (510) 651-8754

ANALYSIS REPORT

1020lab.frm

Attention:	Mr. John Giorgi	Date Sampled:	01-04-93
	Aegis	Date Received:	01-06-93
	1050 Melody Lane, Ste 160	BTEX Analyzed:	01-06-93
	Roseville, CA 95678	TPHg Analyzed:	01-06-93
Project:	90-067, Station 546	TPHd Analyzed:	NR
	Hayward	Matrix:	Soil

	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd
	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit:	0.005	0.005	0.005	0.005	1.0	10
SAMPLE Laboratory Identification						
S-0104-SP1(COMPOSITE) S1301030	ND	0.006	0.012	0.040	2.2	NR

ppm = parts per million = mg/kg = milligrams per kilogram.
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.

M Tague
Laboratory Representative

January 7, 1993
Date Reported

ANALYSIS REPORT

1020lab.frm

Attention: Ms. Sheila Richgels
Aegis Environmental
1050 Melody Ln., Ste 160
Roseville, CA 95678
Project: 12110.0L, Project 92-067
Station #546, Hayward

Date Sampled: 01-04-93
Date Received: 01-06-93
BTEX Analyzed: 01-06-93
TPHg Analyzed: 01-06-93
TPHd Analyzed: NR
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-9 W1301031	990	67	1000	2900	67000	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

January 11, 1993
Date Reported

Ultramar Inc.
CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No.	Sampler (Print Name)			ANALYSES								Date	Form No. 1 of 1
546	John Giurgi											1-[illegible]-93	
Project No. 92-067	Sampler (Signature) John Giurgi												
Project Location Hayward, CA	Affiliation Aegis Environmental												
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)	[illegible]				No. of Containers	REMARKS	
S-0104-MW-9-10.5'	1-4-93			X	X						1		
S-0104-MW-9-15.5'				X	X						1		
S-0104-SP1				X	X		X				3	Check for 1	
MW-9		14:00		X	X						2	40ml VOA's	
												2 of the samples were	
												sent out next day	

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
John Giurgi	1/5/93	[illegible]			
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time

Report To:

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

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

32-8003 1/90

May 3, 1993
Sample Log 6304 92-067

RECEIVED
MAY 13 1993
Ans'd CF/AJS
CHC

Clark Owen
Aegis Environmental Consultants, Inc.
1050 Melody Lane, Suite 160
Roseville, CA 95678

Subject: Analytical Results for 1 Water Sample
Identified as: Project # 92-067 (Beacon 546)
Received: 04/23/93

Dear Mr. Owen:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on May 3, 1993 and describes procedures used to analyze the samples.

Sample(s) were received in 40-milliliter glass vials sealed with TFE lined septae and plastic screw-caps. Each sample was transported and received under documented chain of custody and stored at 4 degrees C until analysis was performed.

Sample(s) were analyzed using the following method(s):

"BTEX" (EPA Method 602/Purge-and-Trap)
"TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)

Please refer to the following table(s) for summarized analytical results and contact us at 916-757-4650 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:

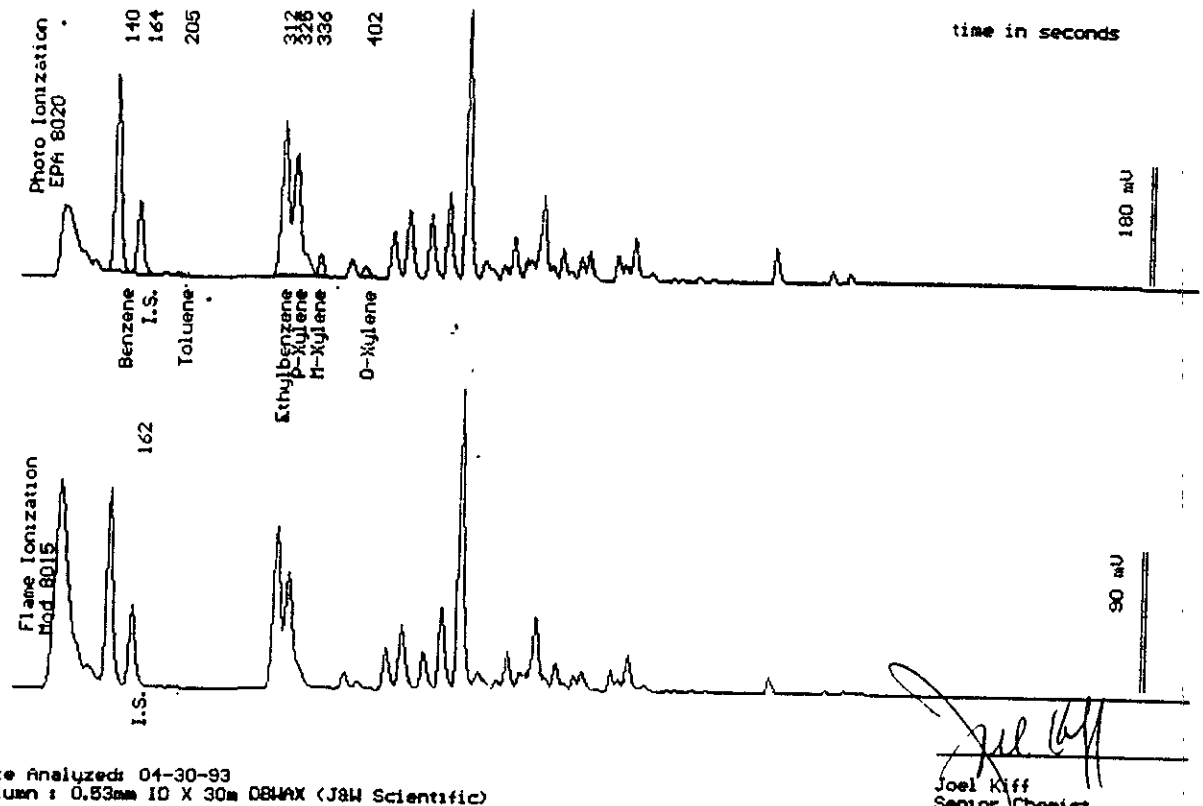
Joel Kiff
Senior Chemist

Sample Log 6304
6304-1

Sample: **MW-8**

From : Project # 92-067 (Beacon 546)
Sampled : 04/23/93
Dilution : 1:10 QC Batch : 4002e
Matrix : Water

Parameter	(MDL) ug/L	Measured Value ug/L
Benzene	(5.0)	480
Toluene	(5.0)	8.2
Ethylbenzene	(5.0)	550
Total Xylenes	(5.0)	510
TPH as Gasoline	(500)	7400



Date Analyzed: 04-30-93
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Joel Kiff
Senior Chemist

Western Environmental Science & Technology · 45133 County Road 32B · Davis, CA 95616 · 916 753-9500 · FAX: 916 757-4652

Ultramar Inc.
CHAIN OF CUSTODY REPORT

West Analytical

BEACON

Beacon Station No.	Sampler (Print Name)			ANALYSES								Date	Form No.
546	Jeff Wendt											4-23-93	1 of 1
Project No.	Sampler (Signature)												
92-067	JWendt												
Project Location	Affiliation												
Mission Blvd. Hayward	Agis												
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (gasoline)	TPH (diesel)					No. of Containers	REMARKS	
MW-8	4-23-93	8 Am		X	X						3		

Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
JWendt Agis	4-23-93	3.50pm	Cathy Ross	4/23	3:50pm
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
C Ross	4/23	4:10pm			
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
				4/23/93	16:05

Report To:
Clark Owen
1050 Melody Ln. #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 4

PUMPING TEST FIELD DATA

24705 Mission Blvd., Hayward

9208.1 Start test @ 9AM 4-21-93 Depth to water Run @ 29' 92-067

Time	Flow GPM	Pumping well mw-8	mw-7	mw-2	mw-3	mw-1	mw-6	mw-5	mw-4	mw-	mw-	Comments
4-20-93 9:06 AM	0	12.23	—	—	—	—	—	—	—			
9:26 AM	4.7	18.35	—	—	—	—	—	—	—			
9:35 AM pump max	4.8	18.92	—	—	—	—	—	—	—			
9:52 AM	4.8	19.26	—	—	—	—	—	—	—			
4-21-93 8:35 AM	0	12.33	13.90	18.45	21.89	19.54	18.98	18.64	17.65	Begin test @ 9AM		4-21-
9:01 AM	8.3	22.64	—	—	—	—	—	—	—			strong odor in mw-4
9:08 AM	5.8	29.70	13.91	—	—	—	—	—	17.66			
9:16 AM	5.5	30.55	—	—	—	—	—	—	—			
9:27 AM	5.1	29.75	13.95	18.45	21.89	19.53	18.98	18.63	17.69			
9:49 AM	~~5.4~~ 4.9	27.25	14.01	18.46	21.89	19.54	18.97	18.66	17.73			
10:04 AM	5.0	29.15	—	—	—	—	—	—	—			
10:18 AM	5.0	29.60	14.05	18.46	21.89	19.54	18.97	18.66	17.75			
10:45 AM	5.0	30.40	14.07	18.46	21.89	19.54	18.97	18.66	17.77			
12:15 pm	5.0	30.45	14.15	18.49	21.88	19.57	18.97	18.71	17.83			
1:00 pm	4.8	30.30	14.16	18.50	21.89	19.57	18.97	18.72	17.85			
2:00 pm	4.8	30.40	14.20	18.52	21.90	19.59	18.98	18.75	17.88			
3:00 pm	4.7	30.40	14.21	18.53	21.90	19.60	18.98	18.75	17.89			
4:00 pm	4.7	30.35	14.23	18.54	21.90	19.60	18.98	18.75	17.90			
5:00 pm	4.6	30.40	14.23	18.54	21.89	19.60	18.98	18.76	17.90			
6:00 pm	4.6	30.30	14.24	18.55	21.89	19.61	18.98	18.76	17.91			
7:00 pm	4.6	30.40	14.24	18.55	21.89	19.61	18.98	18.77	17.92			
8:00 pm	4.6	30.40	14.25	18.56	21.89	19.62	18.98	18.77	17.93			
11:00 pm	4.6	30.40	14.28	18.58	21.90	19.63	18.99	18.79	17.95			
4-22-93 2:00 AM	4.6	30.40	14.31	18.60	21.92	19.65	19.00	18.81	17.97			
7:00 AM	4.5	30.40	14.33	18.63	21.94	19.68	19.03	18.84	17.99			
8:00 AM	4.4	30.40	14.34	18.64	21.95	19.69	19.04	18.85	18.00			
10:30 AM	4.4	30.40	14.36	18.65	21.96	19.71	19.05	18.87	18.02			
												stopped collecting water from mw-4 mw-5 & mw-6

29705 Mission Blvd., Hayward

Date: 4-20-

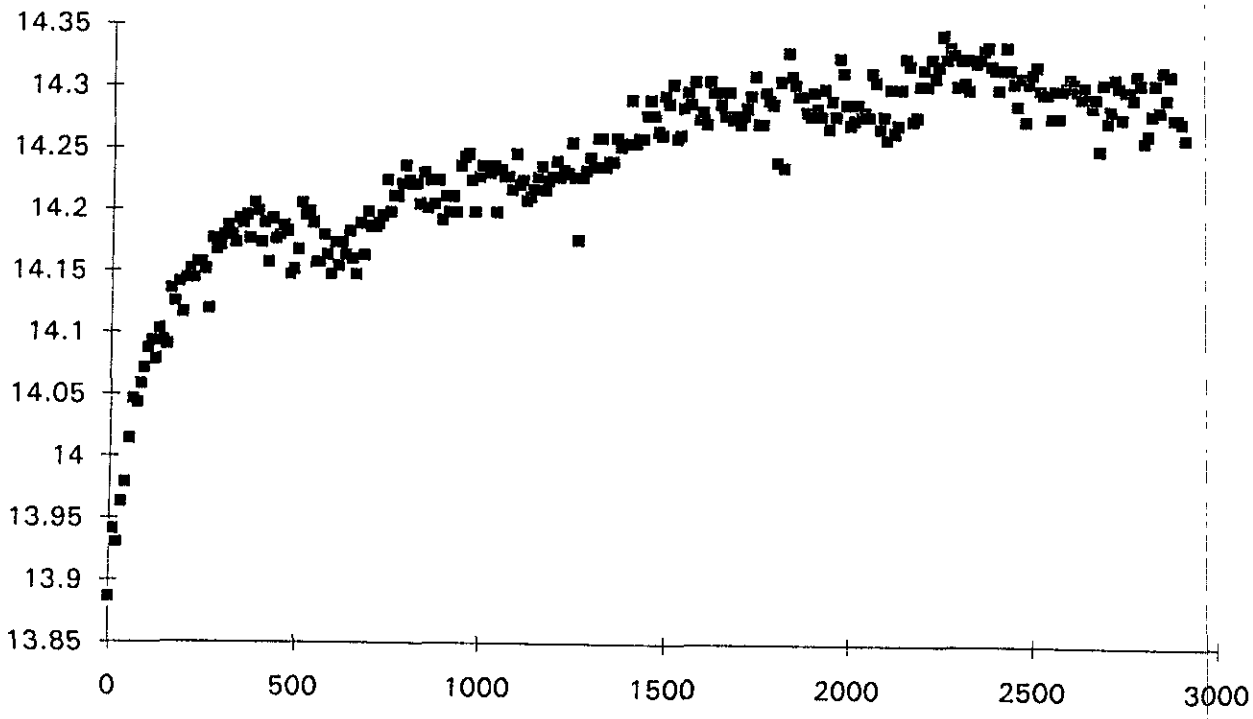
Depth to water

Time	Flow GPM	Pump Well mw-8	mw-7	mw-2	mw-3	mw-1	mw-9	mw-	mw-	mw-	mw-	Comments
4-22-93 1:00 pm	4.3	30.40	14.37	18.66	21.97	19.71	8.20					
2:00 pm	4.3	"	14.37	18.66	21.97	19.71	8.20					
3:00 pm	4.4	"	14.38	18.66	21.96	19.71	8.19					
4:00 pm	4.4	"	14.37	18.66	21.96	19.71	8.18					
5:00 pm	4.3	"	14.37	18.66	21.96	19.71	8.18					
7:00 pm	4.3	"	14.37	18.66	21.97	19.71	8.18					
8:00 pm	4.3	"	14.36	18.66	21.96	19.71	8.19					
4-23-93 7:30 AM	4.3	"	14.37	18.66	21.97	19.72	8.19					

Stop pump @ 8:05 AM 4-23-93

ATTACHMENT 5

PUMPING TEST DATA EVALUATION


14.35
14.3
14.25
14.2
14.15
14.1
14.05
14
13.95
13.9
13.85
0
500
1000
1500
2000
2500
3000

SE2000
Environmental Logger
04/23 15:36

Unit# 92-067 Test 1

INPUT 2: Level (F) TOC

Reference	13.900
SG	1.000
Linearity	0.000
Scale factor	10.065
Offset	0.024
Delay mSEC	50.000

Step 0 04/21 09:56:33

Elapsed Time	INPUT 2
0.0000	13.887
10.0000	13.941
20.0000	13.931
30.0000	13.963
40.0000	13.979
50.0000	14.014
60.0000	14.046
70.0000	14.043
80.0000	14.058
90.0000	14.071
100.000	14.087
110.000	14.093
120.000	14.078
130.000	14.103
140.000	14.093
150.000	14.090
160.000	14.135
170.000	14.125
180.000	14.141
190.000	14.116
200.000	14.144
210.000	14.151
220.000	14.144
230.000	14.157
240.000	14.157
250.000	14.151
260.000	14.119
270.000	14.176
280.000	14.167
290.000	14.170
300.000	14.179
310.000	14.186
320.000	14.179
330.000	14.173
340.000	14.192
350.000	14.189
360.000	14.195
370.000	14.176
380.000	14.205
390.000	14.198
400.000	14.173
410.000	14.189
420.000	14.157
430.000	14.192
440.000	14.176
450.000	14.179
460.000	14.186
470.000	14.182
480.000	14.147
490.000	14.151
500.000	14.167
510.000	14.205
520.000	14.195
530.000	14.198
540.000	14.189
550.000	14.157
560.000	14.157
570.000	14.179
580.000	14.163
590.000	14.147
600.000	14.173
610.000	14.154
620.000	14.173
630.000	14.163
640.000	14.182
650.000	14.160
660.000	14.147
670.000	14.189
680.000	14.163
690.000	14.198
700.000	14.186
710.000	14.186
720.000	14.189
730.000	14.195
740.000	14.224
750.000	14.198
760.000	14.211
770.000	14.211
780.000	14.221
790.000	14.236
800.000	14.224
810.000	14.221
820.000	14.221
830.000	14.205
840.000	14.230
850.000	14.201
860.000	14.224
870.000	14.205
880.000	14.224
890.000	14.192
900.000	14.211
910.000	14.198
920.000	14.211
930.000	14.198
940.000	14.236
950.000	14.243
960.000	14.246
970.000	14.224
980.000	14.198
990.000	14.227
1000.00	14.236
1010.00	14.236
1020.00	14.230
1030.00	14.236
1040.00	14.198
1050.00	14.233
1060.00	14.227
1070.00	14.227
1080.00	14.217
1090.00	14.246
1100.00	14.221
1110.00	14.224
1120.00	14.208
1130.00	14.211
1140.00	14.217
1150.00	14.227
1160.00	14.236
1170.00	14.217
1180.00	14.224
1190.00	14.227
1200.00	14.240
1210.00	14.227
1220.00	14.233
1230.00	14.230
1240.00	14.255
1250.00	14.227
1260.00	14.176

1270.00	14.227
1280.00	14.233
1290.00	14.243
1300.00	14.236
1310.00	14.259
1320.00	14.259
1330.00	14.236
1340.00	14.240
1350.00	14.240
1360.00	14.259
1370.00	14.252
1380.00	14.255
1390.00	14.255
1400.00	14.290
1410.00	14.255
1420.00	14.259
1430.00	14.259
1440.00	14.278
1450.00	14.290
1460.00	14.278
1470.00	14.265
1480.00	14.262
1490.00	14.294
1500.00	14.287
1510.00	14.303
1520.00	14.259
1530.00	14.262
1540.00	14.284
1550.00	14.297
1560.00	14.287
1570.00	14.306
1580.00	14.275
1590.00	14.281
1600.00	14.271
1610.00	14.306
1620.00	14.297
1630.00	14.297
1640.00	14.287
1650.00	14.278
1660.00	14.297
1670.00	14.275
1680.00	14.278
1690.00	14.271
1700.00	14.278
1710.00	14.284
1720.00	14.294
1730.00	14.310
1740.00	14.271
1750.00	14.271

1760.00	14.297
1770.00	14.290
1780.00	14.287
1790.00	14.240
1800.00	14.306
1810.00	14.236
1820.00	14.329
1830.00	14.310
1840.00	14.303
1850.00	14.294
1860.00	14.294
1870.00	14.281
1880.00	14.278
1890.00	14.297
1900.00	14.284
1910.00	14.278
1920.00	14.300
1930.00	14.268
1940.00	14.290
1950.00	14.278
1960.00	14.325
1970.00	14.313
1980.00	14.287
1990.00	14.271
2000.00	14.275
2010.00	14.287
2020.00	14.278
2030.00	14.281
2040.00	14.278
2050.00	14.313
2060.00	14.306
2070.00	14.268
2080.00	14.278
2090.00	14.259
2100.00	14.300
2110.00	14.265
2120.00	14.271
2130.00	14.300
2140.00	14.325
2150.00	14.319
2160.00	14.275
2170.00	14.278
2180.00	14.303
2190.00	14.316
2200.00	14.303
2210.00	14.325
2220.00	14.310
2230.00	14.319
2240.00	14.344

2250.00	14.325
2260.00	14.335
2270.00	14.329
2280.00	14.303
2290.00	14.325
2300.00	14.306
2310.00	14.300
2320.00	14.325
2330.00	14.322
2340.00	14.325
2350.00	14.332
2360.00	14.335
2370.00	14.319
2380.00	14.316
2390.00	14.300
2400.00	14.316
2410.00	14.335
2420.00	14.316
2430.00	14.306
2440.00	14.287
2450.00	14.310
2460.00	14.275
2470.00	14.306
2480.00	14.313
2490.00	14.319
2500.00	14.300
2510.00	14.297
2520.00	14.297
2530.00	14.278
2540.00	14.300
2550.00	14.278
2560.00	14.300
2570.00	14.303
2580.00	14.310
2590.00	14.306
2600.00	14.300
2610.00	14.294
2620.00	14.303
2630.00	14.294
2640.00	14.287
2650.00	14.294
2660.00	14.252
2670.00	14.306
2680.00	14.275
2690.00	14.284
2700.00	14.310
2710.00	14.303
2720.00	14.278
2730.00	14.300

2740.00	14.300	
2750.00	14.294	
2760.00	14.313	
2770.00	14.306	
2780.00	14.259	
2790.00	14.265	
2800.00	14.281	
2810.00	14.306	
2820.00	14.284	
2830.00	14.316	
2840.00	14.294	
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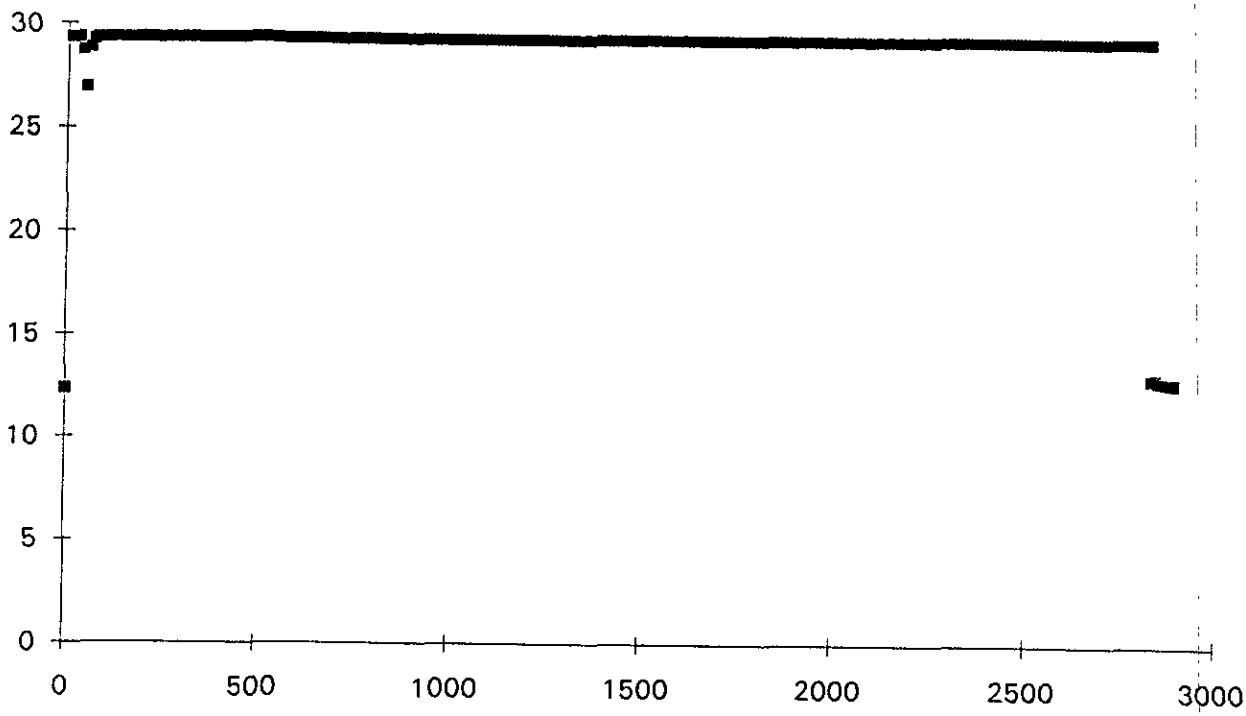
2880.00	14.275	
2890.00	14.262	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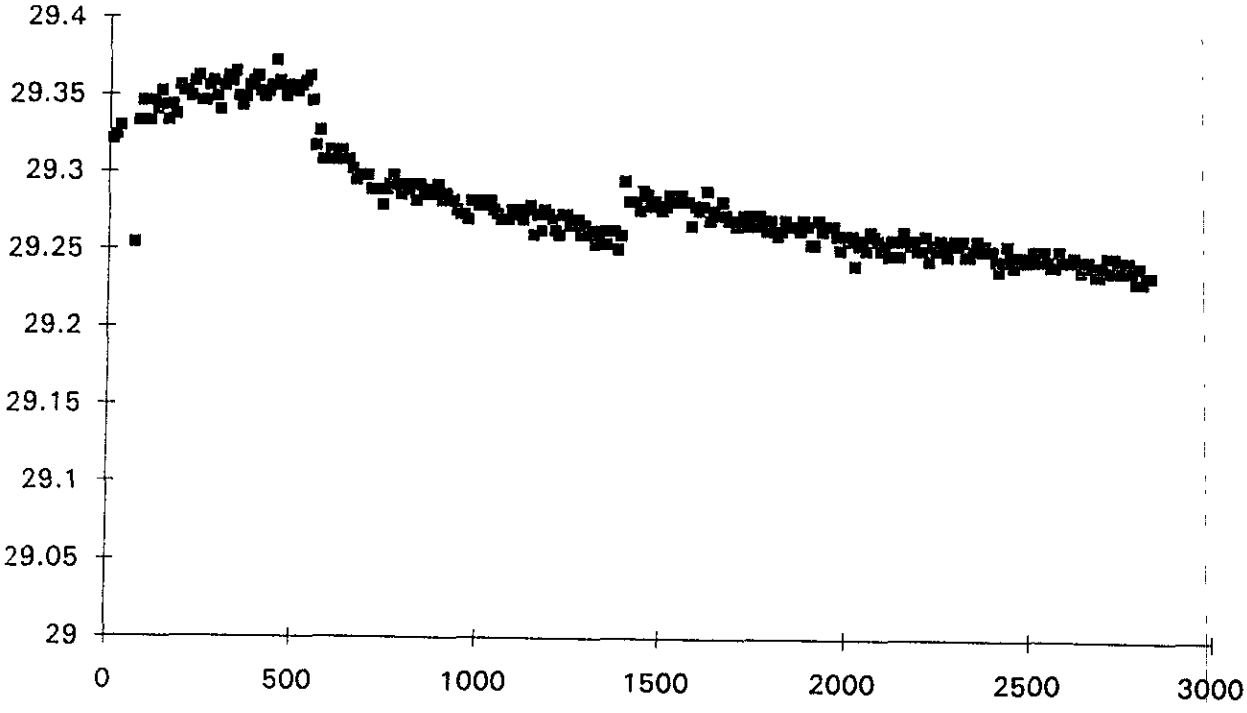
1000
1500
2000
2500
3000


29.4
29.35
29.3
29.25
29.2
29.15
29.1
29.05
29
0
500
1000
1500
2000
2500
3000

SE2000	
Environmental Logger	
04/23 15:33	
Unit# 92-067 Test 1	
INPUT 1: Level (F) TOC	
Reference	12.330
SG	1.000
Linearity	0.000
Scale factor	10.079
Offset	0.001
Delay mSEC	50.000
Step 0 04/21 09:56:33	
Elapsed Time	INPUT 1
----------	---------
0.0000	12.330
10.0000	29.321
20.0000	29.324
30.0000	29.330
40.0000	28.706
50.0000	26.901
60.0000	28.846
70.0000	29.254
80.0000	29.333
90.0000	29.346
100.000	29.346
110.000	29.333
120.000	29.346
130.000	29.340
140.000	29.352
150.000	29.343
160.000	29.333
170.000	29.343
180.000	29.337
190.000	29.356
200.000	29.352
210.000	29.352
220.000	29.349
230.000	29.359
240.000	29.362
250.000	29.346
260.000	29.346
270.000	29.356
280.000	29.359
290.000	29.349
300.000	29.340
310.000	29.356
320.000	29.362
330.000	29.359
340.000	29.365
350.000	29.349
360.000	29.343
370.000	29.349
380.000	29.356
390.000	29.359
400.000	29.362
410.000	29.352
420.000	29.349
430.000	29.352
440.000	29.356
450.000	29.372
460.000	29.359
470.000	29.356
480.000	29.349
490.000	29.356
500.000	29.352
510.000	29.352
520.000	29.356
530.000	29.359
540.000	29.362
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590.000	29.308
600.000	29.314
610.000	29.308
620.000	29.311
630.000	29.314
640.000	29.308
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660.000	29.302
670.000	29.295
680.000	29.298
690.000	29.298
700.000	29.298
710.000	29.289
720.000	29.289
730.000	29.289
740.000	29.279
750.000	29.289
760.000	29.292
770.000	29.298
780.000	29.292
790.000	29.286
800.000	29.292
810.000	29.289
820.000	29.292
830.000	29.282
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850.000	29.286
860.000	29.289
870.000	29.286
880.000	29.289
890.000	29.292
900.000	29.282
910.000	29.286
920.000	29.282
930.000	29.282
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950.000	29.273
960.000	29.273
970.000	29.270
980.000	29.282
990.000	29.282
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1030.00	29.282
1040.00	29.276
1050.00	29.273
1060.00	29.270
1070.00	29.270
1080.00	29.270
1090.00	29.276
1100.00	29.276
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1160.00	29.273
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1180.00	29.276
1190.00	29.273
1200.00	29.270
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1220.00	29.260
1230.00	29.273
1240.00	29.273
1250.00	29.266
1260.00	29.266

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1330.00	29.260	
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1370.00	29.263	
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1900.00	29.254	
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2680.00	29.235	
2690.00	29.241	
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2870.00	12.778	
2880.00	12.753	
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