El Dorado Environmental, Inc.

2221 Goldorado Trail, El Dorado, California 95623 (916) 626-3898
Fax (916) 626-3899

95 AUG 18 PM 3:09

decrease [ ] in MW1 and 5 may be due to GW above screen (~ 9')

Mr. Terrence A. Fox
Ultramar Inc.
525 West Third Street
Hanford, California 93230

August 8, 1995

Subject: **Ground Water Monitoring Report, Second Quarter 1995**
Beacon Station #604, 1619 West First Street, Livermore, California

Dear Mr. Fox:

El Dorado Environmental, Inc. (EDE) is pleased to provide this report which documents the results of quarterly ground water monitoring conducted on June 15, 1995 at the subject site (Figure 1). Fieldwork, conducted by Doulos Environmental (Doulos), included measurements of depth to ground water, subjective analysis of ground water in wells for the presence or absence of free petroleum product, well purging, and collection of ground water samples. Doulos reports that all field activities were conducted in accordance with field procedures described in Attachment A.

Ground Water Conditions

Prior to well purging, Doulos collected depth to ground water measurements in each well at the site. Depth to ground water measurements made at the site since June 1993 are contained in Table 1. Field notes are contained in Attachment B. Current depth to ground water measurements indicate a direction of ground water flow toward the northwest (Figure 2) at a gradient of approximately 0.01 foot per foot. Ground water elevation beneath the site has decreased an average of 6.32 feet since the previous monitoring event.

Ground Water Sampling and Analysis

Ground water samples were collected from seven monitoring wells at the site. Sampling field notes are contained in Attachment B. Each sample collected was analyzed for dissolved benzene, toluene, ethylbenzene, total xylenes (BTEX), and total petroleum hydrocarbons as gasoline (TPHg) using methods approved by the U.S. Environmental Protection Agency (EPA). Analytical results since June 1993 are compiled in Table 2; copies of certified analytical reports for ground water samples collected during the current monitoring event are contained in Attachment C.

Dissolved benzene concentrations decreased in samples collected from monitoring wells MW-1, MW-3, MW-5, and MW-7. Benzene concentrations remained essentially unchanged in samples

collected from monitoring wells MW-2, MW-4, and MW-6. Figure 3 illustrates the current interpreted distribution of dissolved benzene in ground water underlying the site.

A copy of this quarterly monitoring report should be submitted to:

Ms. Eva Chu
Department of Environmental Health
Alameda County Health Care Services
80 Swan Way, Room 20
Oakland, California 94612

Mr. Cecil Fox
California Regional Water Quality Control Board, San Francisco Bay Region
2101 Webster Street, Room 500
Oakland, California 94612

The interpretations and/or conclusions contained in this report represent our professional opinions. These opinions are based on currently available information. Other than this, no warranty is implied nor intended. This report has been prepared solely for the use of Ultramar Inc. Any reliance upon or use of this report by third parties will be at such parties' sole risk.

If you have any comments or questions, please contact the undersigned at (916) 626-3898.

Regards,

EL DORADO ENVIRONMENTAL, INC.

Dale A. van Dam

Dale A. van Dam, R.G.
Hydrogeologist

DAvD/davd

encl.

TABLE 1
GROUND WATER ELEVATION DATA

Beacon Station #604
1619 West First Street, Livermore, California

Monitoring Well	Top of Riser (feet)	Depth to Top/Bottom of Screened Interval (feet)	Monitoring Date	Depth to Water (feet)	Ground Water Elevation (feet)	Physical Observation
MW-1	100.00	34/54	06/01/93	37.50	62.50	No Product
			06/22/93	38.46	61.54	No Product
			10/06/93	42.22	57.78	No Product
			01/13/94	34.52	65.48	No Product
			03/30/94	31.93	68.07	No Product
			04/25/94	33.49	66.51	No Product
			08/12/94	41.03	58.97	No Product
			12/14/94	38.63	61.37	No Product
			02/10/95	30.80	69.20	No Product
			06/15/95	25.46	74.54	No Product
MW-2	98.68	34/54	06/01/93	38.02	60.66	No Product
			06/22/93	39.07	59.61	No Product
			10/06/93	43.72	54.96	No Product
			01/13/94	35.85	62.83	No Product
			03/30/94	32.82	65.86	No Product
			04/25/94	34.76	63.92	No Product
			08/12/94	44.33	54.35	No Product
			12/14/94	40.00	58.68	No Product
			02/10/95	32.16	66.52	No Product
			06/15/95	25.93	72.75	No Product
MW-3	97.08	33/53	06/01/93	36.18	60.90	No Product
			06/22/93	37.11	59.97	No Product
			10/06/93	41.15	55.93	No Product
			01/13/94	33.95	63.13	No Product
			03/30/94	30.97	66.11	No Product
			04/25/94	32.46	64.62	No Product
			08/12/94	41.72	55.36	No Product
			12/14/94	37.62	59.46	No Product
			02/10/95	29.96	67.12	No Product
			06/15/95	23.66	73.42	No Product
MW-4	99.35	27/47	03/30/94	31.56	67.79	No Product
			04/25/94	32.73	66.62	No Product
			08/12/94	41.61	57.74	No Product
			12/14/94	38.11	61.24	No Product
			02/10/95	30.50	68.85	No Product
			06/15/95	23.63	75.72	No Product

See notes at end of table

TABLE 1
GROUND WATER ELEVATION DATA

Beacon Station #604
1619 West First Street, Livermore, California

Monitoring Well	Top of Riser (feet)	Depth to Top/Bottom of Screened Interval (feet)	Monitoring Date	Depth to Water (feet)	Ground Water Elevation (feet)	Physical Observation
MW-5	98.37	27/47	03/30/94	32.07	66.30	No Product
			04/25/94	33.65	64.72	No Product
			08/12/94	42.73	55.64	No Product
			12/14/94	38.89	59.48	No Product
			02/10/95	31.44	66.93	No Product
			06/15/95	24.99	73.38	No Product
MW-6	97.62	28/48	03/30/94	33.38	64.24	No Product
			04/25/94	35.49	62.13	No Product
			08/12/94	45.14	52.48	No Product
			12/14/94	40.99	56.63	No Product
			02/10/95	33.34	64.28	No Product
			06/15/95	26.88	70.74	No Product
MW-7	98.03	27/47	03/30/94	31.98	66.05	No Product
			04/25/94	33.56	64.47	No Product
			08/12/94	43.35	54.68	No Product
			12/14/94	39.34	58.69	No Product
			02/10/95	32.11	65.92	No Product
			06/15/95	25.51	72.52	No Product

Note: Monitoring well casing elevations were surveyed relative to an arbitrary bench mark at the top of the casing of monitoring well MW-1 with an assumed elevation of 100.00 feet.

TABLE 2
GROUND WATER SAMPLE ANALYTICAL RESULTS

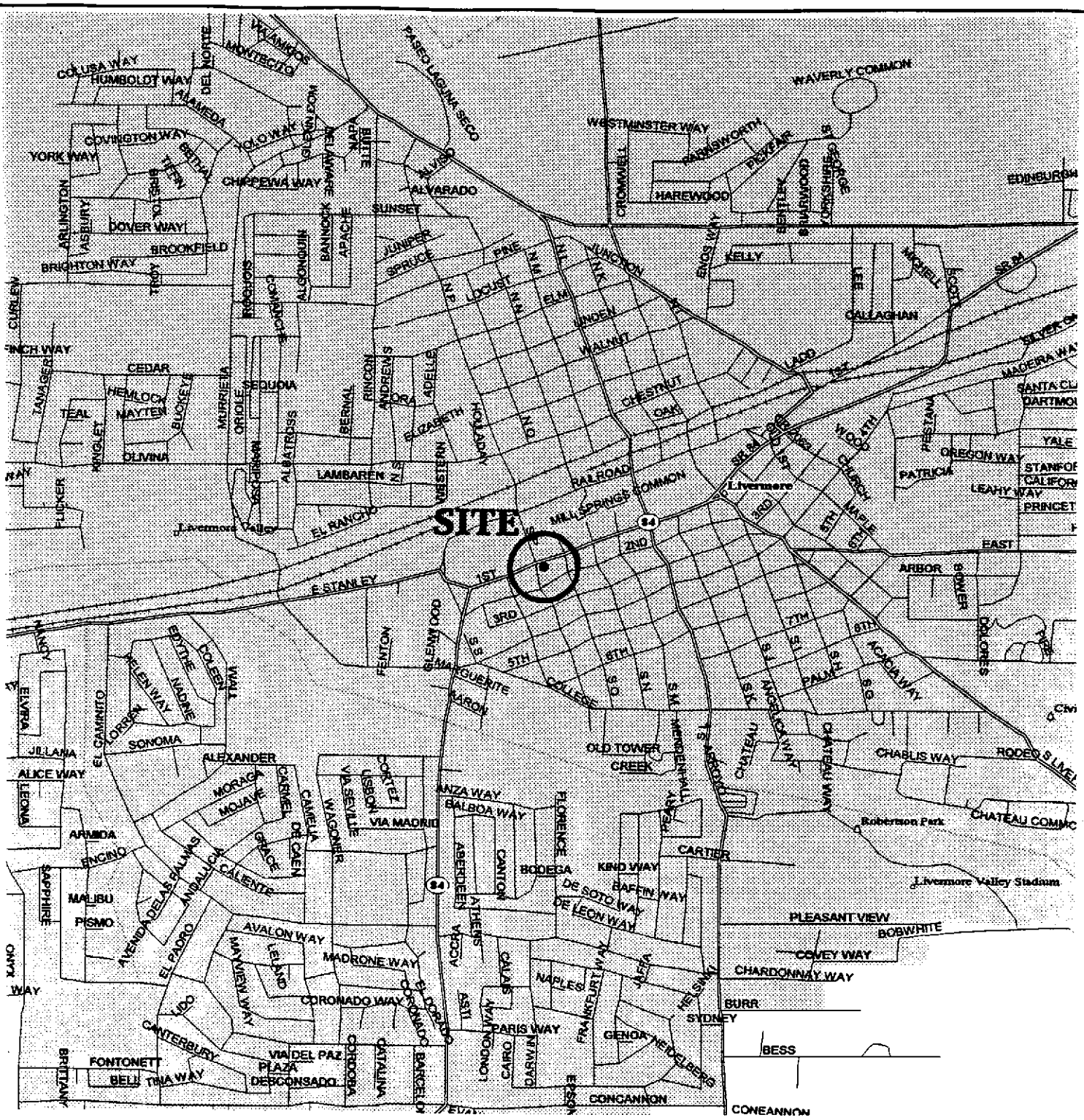
Beacon Station #604
1619 West First Street, Livermore, California
Concentrations in micrograms per Liter

Monitoring Well	Monitoring Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total Petroleum Hydrocarbons as Gasoline
MW-1	06/01/93	2200	400	<50	4900	27000
	06/22/93	8000	10000	260	10000	87000
	10/06/93	4700	6500	740	5300	40000
	01/13/94	1300	950	110	850	9400
	04/25/94	1500	1800	290	1700	11000
	08/12/94	550	330	260	1400	11000
	12/14/94	1000	1200	320	1500	11000
	02/10/95	1200	1500	280	1500	9300
	06/15/95	5.6 ?	<0.50	<0.50	<0.50	140
MW-2	06/01/93	20000	21000	3300	18000	170000
	06/22/93	19000	22000	3500	18000	160000
	10/06/93	17000	17000	3000	15000	110000
	01/13/94	20000	19000	2300	14000	93000
	04/25/94	9600	7300	840	7800	41000
	08/12/94	11000	11000	2300	11000	59000
	12/14/94	13000	13000	2200	12000	63000
	02/10/95	12000	12000	2200	11000	63000
	06/15/95	11000 ✓	12000	1900	11000	61000 ✓
MW-3	06/01/93	4.6	<0.50	<0.50	1.9	270
	06/22/93	8.2	<0.50	<0.50	0.72	160
	10/06/93	57	110	24	120	740
	01/13/94	2.6	0.67	0.78	4.2	83
	04/25/94	0.75	3.2	0.50	3.6	60
	08/12/94	7.3	14	2.6	13	310
	12/14/94	<0.50	<0.50	<0.50	<0.50	75
	02/10/95	1.4	<0.50	<0.50	1.8	96
	06/15/95	<0.50 ✓	<0.50	<0.50	<0.50	<50 ✓
MW-4	03/30/94	4.2	15	2.5	26	120
	04/25/94	<0.50	1.8	<0.50	2.1	65
	08/12/94	<0.50	<0.50	<0.50	<0.50	<50
	12/14/94	<0.50	<0.50	<0.50	<0.50	<50
	02/10/95	<0.50	<0.50	<0.50	<0.50	<50
	06/15/95	<0.50 ✓	<0.50	<0.50	<0.50	<50 ✓

TABLE 2
GROUND WATER SAMPLE ANALYTICAL RESULTS

Beacon Station #604
1619 West First Street, Livermore, California
Concentrations in micrograms per Liter

Monitoring Well	Monitoring Date	Benzene	Toluene	Ethylbenzene	Xylenes	Total Petroleum Hydrocarbons as Gasoline
MW-5	03/30/94	1300	20	<13	160	7500
	04/25/94	1100	41	130	740	6500
	08/12/94	420	2.9	41	98	4000
	12/14/94	660	<2.5	33	13	4800
	02/10/95	490	<13	23	19	5200
	06/15/95	<0.50 ?	<0.50	<0.50	<0.50	460
MW-6	03/30/94	21000	8600	1700	12000	63000
	04/25/94	22000	12000	2300	16000	77000
	08/12/94	12000	8100	2200	16000	65000
	12/14/94	18000	9500	2200	14000	65000
	02/10/95	21000	8400	2000	14000	63000
	06/15/95	20000 ✓	11000	2100	15000	75000 ✓
MW-7	03/30/94	7200	2400	1600	11000	43000
	04/25/94	3900	1000	940	6900	30000
	08/12/94	3800	1400	1300	7500	30000
	12/14/94	3600	1200	900	6400	31000
	02/10/95	4000	900	890	5100	27000
	06/15/95	920 ✓	680	740	4100	17000 ✓



SOURCE: STREET ATLAS U.S.A., DELORME MAPPING, 1994

SITE LOCATION MAP

FIGURE 1

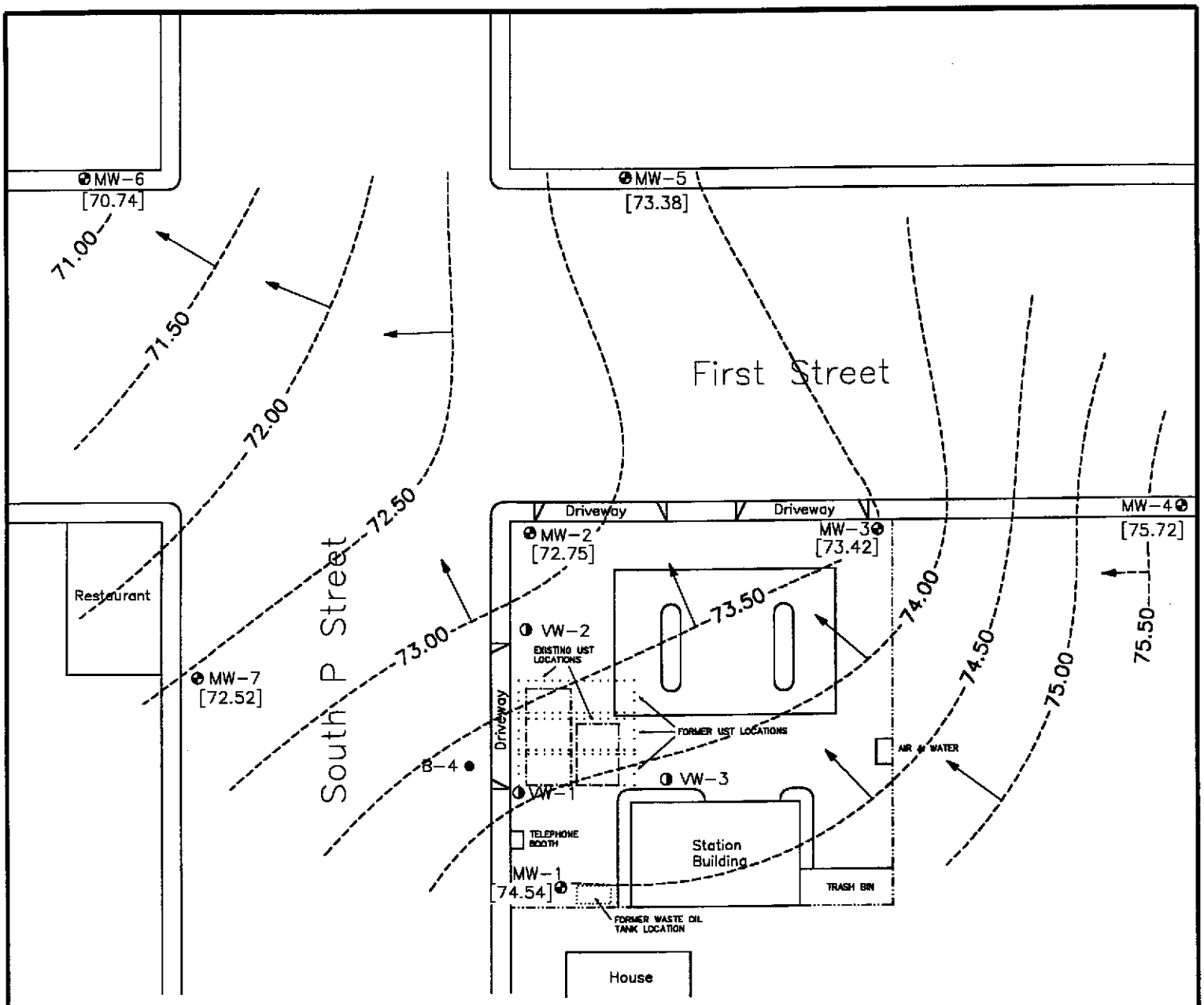
BEACON STATION #604
1619 WEST FIRST STREET
LIVERMORE, CALIFORNIA

PROJECT NUMBER: U013.01

DRAWN BY: D.A.V.D.

CHECKED BY: DVD

EL DORADO ENVIRONMENTAL, INC.



EXPLANATION

SB-4 ● Soil Boring Location and Number

VW-3 ◑ Vadose Well Location and Number

MW-5 ⊕ Monitoring Well Location and Number

[64.28] Ground Water Elevation in Feet

71.50 Line of Equal Elevation of Ground Water Measured in Feet Showing Inferred Direction of Flow

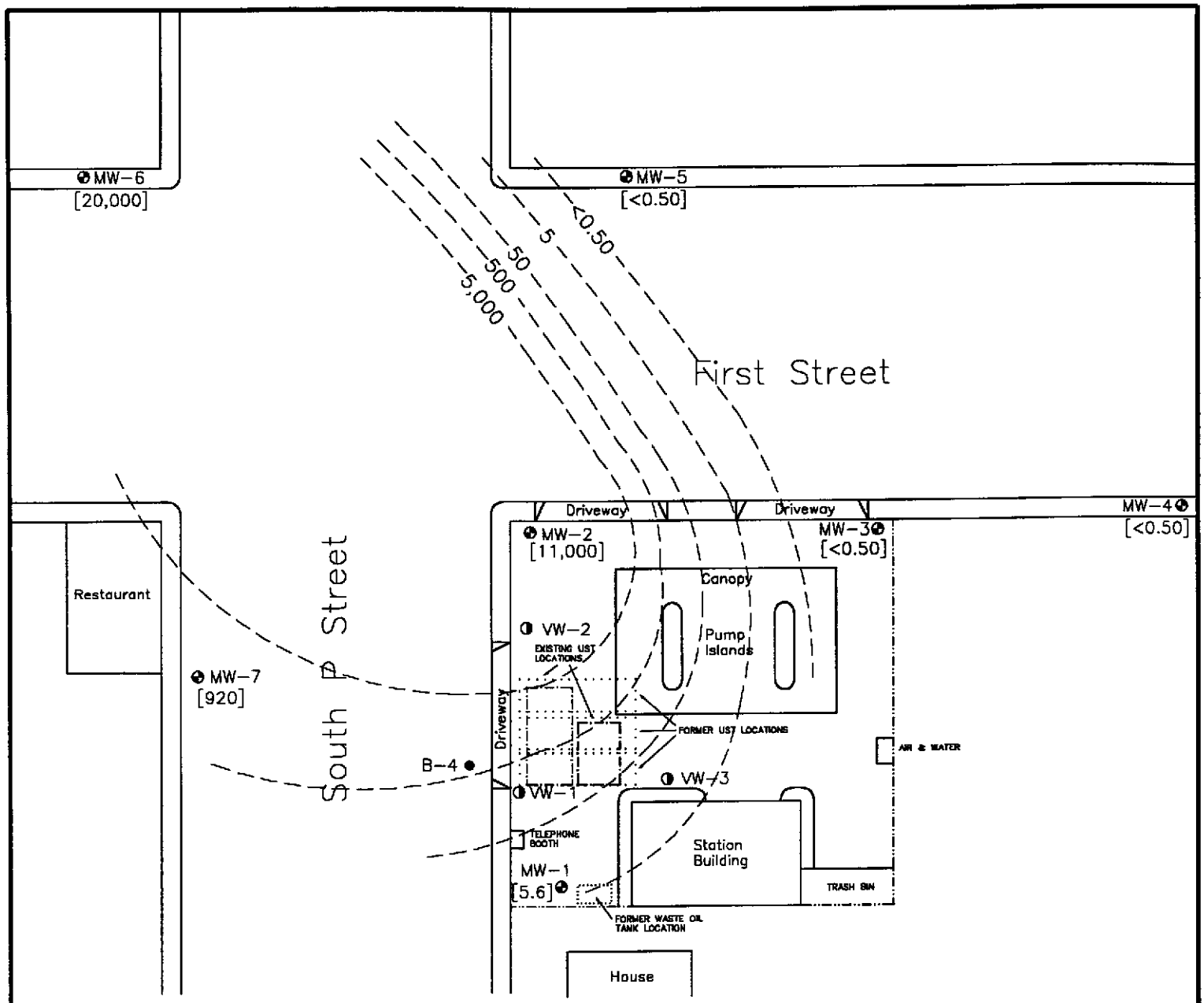
NORTH

0 40

SCALE IN FEET

SOURCE: FIGURE MODIFIED FROM DRAWING PROVIDED BY ACTON*MICKELSON*ENVIRONMENTAL, INC.

GROUND WATER CONTOUR MAP, JUNE 15, 1995	FIGURE 2
BEACON STATION #604 1619 WEST FIRST STREET LIVERMORE, CALIFORNIA	PROJECT NUMBER: U013.01 DRAWN BY: D.A.v.D.
EL DORADO ENVIRONMENTAL, INC.	CHECKED BY: DVD



EXPLANATION

- SB-4 ● Soil Boring Location and Number
- VW-3 ◑ Vadose Well Location and Number
- MW-5 ◕ Monitoring Well Location and Number
- [5.6] Benzene Concentration in Micrograms/Liter
- 50 Benzene Isoconcentration Line in Micrograms/Liter

NORTH

0 40

SCALE IN FEET

INFERRED DISTRIBUTION OF BENZENE IN GROUND WATER, JUNE 15, 1995

FIGURE 3

BEACON STATION #604
1619 WEST FIRST STREET
LIVERMORE, CALIFORNIA

PROJECT NUMBER: U013.01

DRAWN BY: D.A.v.D.

CHECKED BY: TJD

EL DORADO ENVIRONMENTAL, INC.

SOURCE: FIGURE MODIFIED FROM DRAWING PROVIDED BY ACTON*MICKELSON*ENVIRONMENTAL, INC.

ATTACHMENT A

ULTRAMAR FIELD PROCEDURES

ATTACHMENT A - ULTRAMAR FIELD PROCEDURES

The following section describes procedures used by field personnel in the performance of ground water sampling at Ultramar Inc. sites.

Ground Water Level and Total Depth Determination

A water level indicator is lowered down the well and a measurement of the depth to water from an established reference point on the casing is taken. The indicator probe is used to sound the bottom of the well and a measurement of the total depth of the well is taken. Both the water level and total depth measurements are taken to the nearest 0.01-foot.

Visual Analysis of Ground Water

Prior to purging and sampling ground water monitoring wells, a water sample is collected from each well for subjective analysis. The visual analysis involves gently lowering a clean, disposable, polyethylene bailer to approximately one-half the bailer length past the water table interface. The bailer is then retrieved, and the sample contained within the bailer is examined fro floating product or the appearance of a petroleum product sheen. If measurable free product is noted in the bailer, a water/product interface probe is used to determine the thickness of the free product to the nearest 0.01-foot. The thickness of free product is determined by subtracting the depth to product from the depth to water.

Monitoring Well Purging and Sampling

Monitoring wells are purged by removing approximately four casing volumes of water from the well using a clean disposable bailer or electrical submersible purge pump. Purge volumes are calculated prior to purging. During purging, the temperature, pH, and electric conductivity of the purge water are monitored. The well is considered to be sufficiently purged when: The four casing volumes have been removed; the temperature, pH, and conductivity values have stabilized to within 10% of the initial readings; and the ground water being removed is relatively free of suspended solids. After purging, ground water levels are allowed to stabilize to within 80% of the initial water level reading. A water sample is then collected from each well with a clean, disposable polyethylene bailer. If the well is bailed or pumped dry prior to removing the minimum volume of water, the ground water is allowed to recharge. If the well has recharged to within 80% of the initial depth to water reading within two hours, the well will continue to be purged until the minimum volume of water has been removed. If the well has not recharged to at least 80% of the initial depth to water reading within two hours, the well is considered to contain formational water and a ground water sample is collected. Ground water removed from the well is stored in 55-gallon drums at the site and labeled pending disposal.

In wells where free product is detected, the wells will be bailed to remove the free product. An estimate of the volume of product and water well be recorded. If the free product thickness is reduced to the point where a measurable thickness is no longer present in the well, a ground water sample will be collected. If free product persists throughout the purging process, a final free product thickness measurement will be taken and a ground water sample will not be collected.

Ground water samples are stored in 40-milliliter vials so that air passage through the sample is minimized (to prevent volatilization of the sample). The vial is tilted and filled slowly until an upward convex meniscus forms over the mouth of the vial. The Teflon™ side of the septum (in cap) is then placed against the meniscus, and the cap is screwed on tightly. The sample is then inverted and the bottle is tapped lightly to check for air bubbles. If an air bubble is present in the vial, the cap is removed and more sample is transferred from the bailer. The vial is then resealed and rechecked for air bubbles. The sample is then appropriately labeled and stored on ice from the time of collection through the time of delivery to the laboratory. The Chain-of-Custody form is completed to ensure sample integrity. Ground water samples are transported to a state-certified laboratory and analyzed within the U.S. Environmental Protection Agency-specified hold times for the specified analytes.

ATTACHMENT B

FIELD NOTES
DOULOS ENVIRONMENTAL COMPANY

DOULOS ENVIRONMENTAL COMPANY
GROUNDWATER/LIQUID LEVEL DATA
(measurements in feet)

Project Address: Beacon #604, 1619 West First Street — Date: 6-15-95

Livermore, CA — Project No.: 95-604-01

Recorded by: Hal Hansen

Well No.	Time	Well Elev. TOC	Depth to Ground Water	Measured Total Depth	Ground Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	10:15		25.46	54.02				SLIGHT ODOR NO SHEEN
MW-2	10:45		25.93	53.91				SLIGHT ODOR NO SHEEN
MW-3	10:20		23.66	52.62				NO ODOR NO SHEEN
MW-4	10:24		23.63	46.81				NO ODOR NO SHEEN
MW-5	10:29		24.99	46.25				NO ODOR NO SHEEN
MW-6	10:41		26.88	47.69				SLIGHT ODOR NO SHEEN
MW-7	10:35		25.51	46.70				SLIGHT ODOR NO SHEEN

NOTES:

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 1

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? (NO) YES Above TOC Below TOC
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 10
Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ (Other) 12" POMECO
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment:
_____ 2" disposable bailer
_____ 3" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer
X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" _____ 4" X 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:15
Depth of well: 54.02
Depth to water: 25.46

Recharge Measurement
Time: 11:07
Depth to water: 26.34

Calculated purge: 74.3 gal
Actual purge: 74.3 gal

Start purge: 10:50 Sampling time: 11:10

Time	Temperature	E. C.	pH	Turbidity	Volume
10:52	70.5	1763	3.40	—	1
10:54	70.4	1756	3.21	—	2
10:58	70.6	1744	3.10	—	3
11:02	70.5	1731	3.08	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature: Val Hanson

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 2

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? NO (YES) Above TOC (Below TOC)
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 6
Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ (Other) 12" FOMECO
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" _____ 4" X 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:45
Depth of well: 53.91
Depth to water: 25.93

Recharge Measurement
Time: 1:38
Depth to water: 27.03

Calculated purge: 72.7 gal
Actual purge: 72.7 gal

Start purge: 1:15 Sampling time: 1:40

Time	Temperature	E. C.	pH	Turbidity	Volume
1:19	68.7	1339	4.53	—	1
1:23	68.9	1327	4.41	—	2
1:27	68.8	1320	4.37	—	3
1:32	68.4	1314	4.31	—	4

Sample appearance: clear Lock: NONE

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: X Lock-Dolphin: X 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: BROKEN CAP has it been repaired?

Signature: Hal Blanner

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 3

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? NO (YES) Above TOC (Below TOC)
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 4
Well cover type: 8" UV _____ 12" UV X 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment:
_____ 2" disposable bailer
_____ 3" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer
X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" _____ 4" X 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:20
Depth of well: 52.62
Depth to water: 23.66

Recharge Measurement
Time: 11:48
Depth to water: 24.06

Calculated purge: 75.3 gal
Actual purge: 75.3 gal

Start purge: 11:20 Sampling time: 11:50

Time	Temperature	E. C.	pH	Turbidity	Volume
11:25	70.3	1857	2.56	—	1
11:27	70.1	1848	2.45	—	2
11:33	70.4	1841	2.31	—	3
11:46	70.5	1838	2.29	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature: Hal Hansen

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 4

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? (NO) YES Above TOC Below TOC
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 14
Well cover type: 8" UV X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment:
_____ 2" disposable bailer
_____ 3" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer
X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:24
Depth of well: 46.81
Depth to water: 23.63

Recharge Measurement
Time: 12:14
Depth to water: 24.71

Calculated purge: 14.8 gal
Actual purge: 14.8 gal

Start purge: 12:05 Sampling time: 12:16

Time	Temperature	E. C.	pH	Turbidity	Volume
12:06	68.3	1997	471	—	1
12:08	68.3	1981	441	—	2
12:10	68.0	1978	4.10	—	3
12:11	68.4	1974	4.11	—	4

Sample appearance: clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature: Karl Klein

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 5

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? NO (YES) Above TOC (Below TOC)
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 4
Well cover type: 8" UV X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 3" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer X Centrifugal pump
Sampled with: Disposable bailer : X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier : 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:29
Depth of well: 46.25
Depth to water: 24.99

Recharge Measurement
Time: 12:34
Depth to water: 26.71
Calculated purge: 13.6 gal
Actual purge: 13.6 gal

Start purge : 12:25 Sampling time: 12:35

Time	Temperature	E. C.	pH	Turbidity	Volume
12:26	68.7	1437	4.31	—	1
12:27	68.6	1421	4.21	—	2
12:29	68.7	1413	4.10	—	3
12:31	68.9	1311	4.16	—	4

Sample appearance : clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature : Karl Kenser

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 6

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? NO (YES) Above TOC (Below TOC)
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): 4
Well cover type: 8" UV X 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment:
_____ 2" disposable bailer
_____ 3" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer
X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: 10:41
Depth of well: 47.69
Depth to water: 26.88

Recharge Measurement
Time: 1:04
Depth to water: 29.10

Calculated purge: 13.3 gal
Actual purge: 13.3 gal

Start purge: 12:55 Sampling time: 1:06

Time	Temperature	E. C.	pH	Turbidity	Volume
12:57	69.3	1371	4.45	—	1
12:58	69.4	1359	4.39	—	2
12:59	69.3	1340	4.37	—	3
1:02	69.1	1313	4.30	—	4

Sample appearance: Cloudy Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: _____ 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: _____

Signature: Karl Hansen

DOULOS ENVIRONMENTAL COMPANY SAMPLING INFORMATION SHEET

Client: Ultramar
Site: Beacon #604
1619 West First Street
Livermore, CA

Sampling Date: 6-15-95
Project No.: 95-604-01
Well Designation: MW- 7

Is setup of traffic control devices required? (NO) YES time: _____ hours
Is there standing water in well box? NO (YES) Above TOC (Below TOC)
Is top of casing cut level? NO (YES) If no, see remarks
Is well cap sealed and locked? NO (YES) If no, see remarks
Height of well casing riser (in inches): _____
Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
12" BK _____ 12" DPW _____ 12" CNI _____ 36" CNI _____ Other _____
General condition of wellhead assembly: Excellent (Good) Fair Poor

Purging Equipment:
_____ 2" disposable bailer
_____ 3" PVC bailer
_____ 4" PVC bailer
_____ Submersible pump
_____ Dedicated bailer
X Centrifugal pump
Sampled with: Disposable bailer: X Teflon bailer: _____

Well diameter: 2" X 4" _____ 6" _____ 8" _____
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement
Time: _____
Depth of well: 46.70
Depth to water: 25.51

Recharge Measurement
Time: 12:49
Depth to water: 26.31
Calculated purge: 13.6 gal
Actual purge: 13.6 gal

Start purge: 12:40 Sampling time: 12:51

Time	Temperature	E. C.	pH	Turbidity	Volume
12:41	69.3	1481	3.56	—	1
12:43	69.4	1478	3.47	—	2
12:45	69.3	1414	3.42	—	3
12:47	69.1	1412	3.41	—	4

Sample appearance: Clear Lock: NONE

Equipment replaced: (Check all that apply) Note condition of replaced items
2" locking cap: X Lock #3753: _____ 7/32 Allenhead: _____
4" locking cap: _____ Lock-Dolphin: X 9/16 bolt: _____
6" locking cap: _____ Pinned Allenhead (DPW): _____

Remarks: BROKEN CAP

Signature: [signature]

ATTACHMENT C

GROUND WATER SAMPLE ANALYTICAL RESULTS

MET LABORATORY

June 30, 1995
Sample Log 12067

Sheila Richgels
Fugro West, Inc.
1050 Melody Lane, Suite 160
Roseville, CA 95678

Subject: Analytical Results for 7 Water Samples
Identified as: Beacon 604 (Proj. # 94-604-01)
Received: 06/21/95

Dear Ms. Richgels:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on June 30, 1995 and describes procedures used to analyze the samples.

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 916-753-9500 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:

Joel Kiff
Senior Chemist

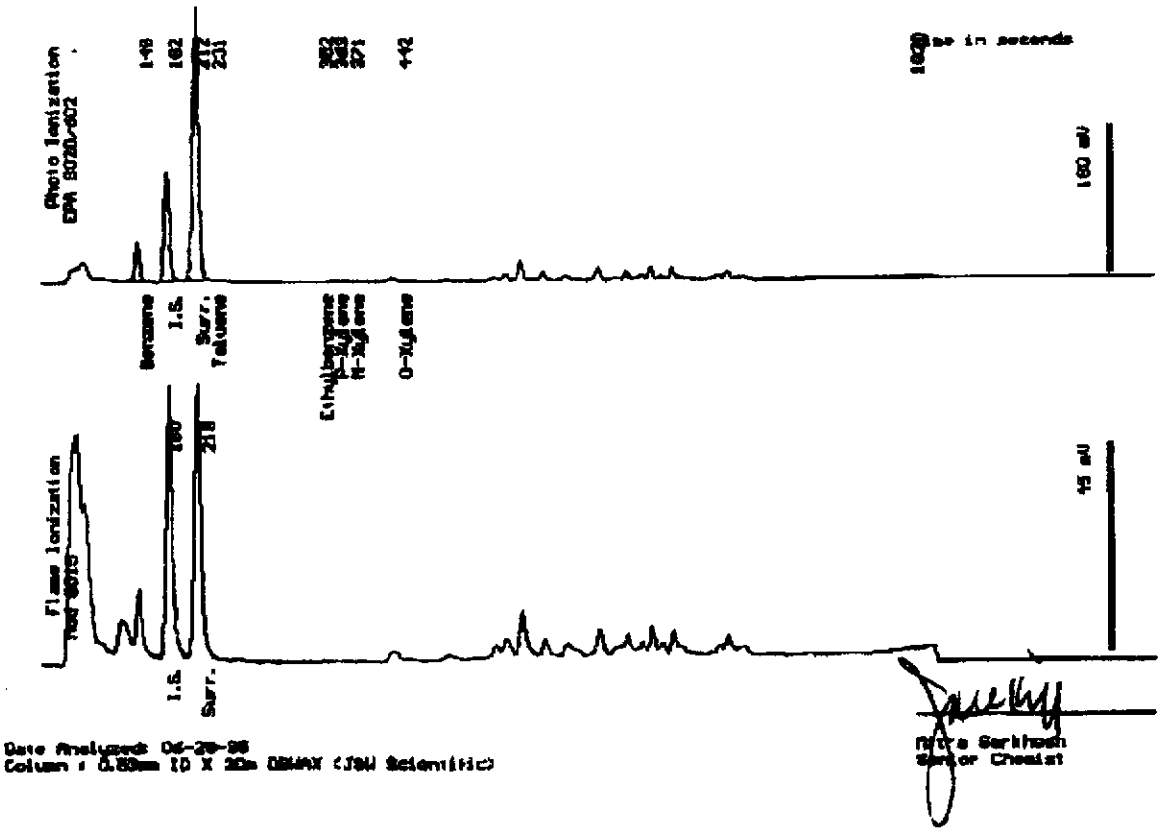
ET LABORATORY

Sample Log 12067
12067-01

Sample: MW-1

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:1 QC Batch : 2123J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	5.6
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	140
Surrogate Recovery		102 %



Date Analyzed 06-20-95
Column : 0.53mm ID X 30m DB624 (J&W Scientific)

Nora Sarkhosh
Senior Chemist

WEST LABORATORY

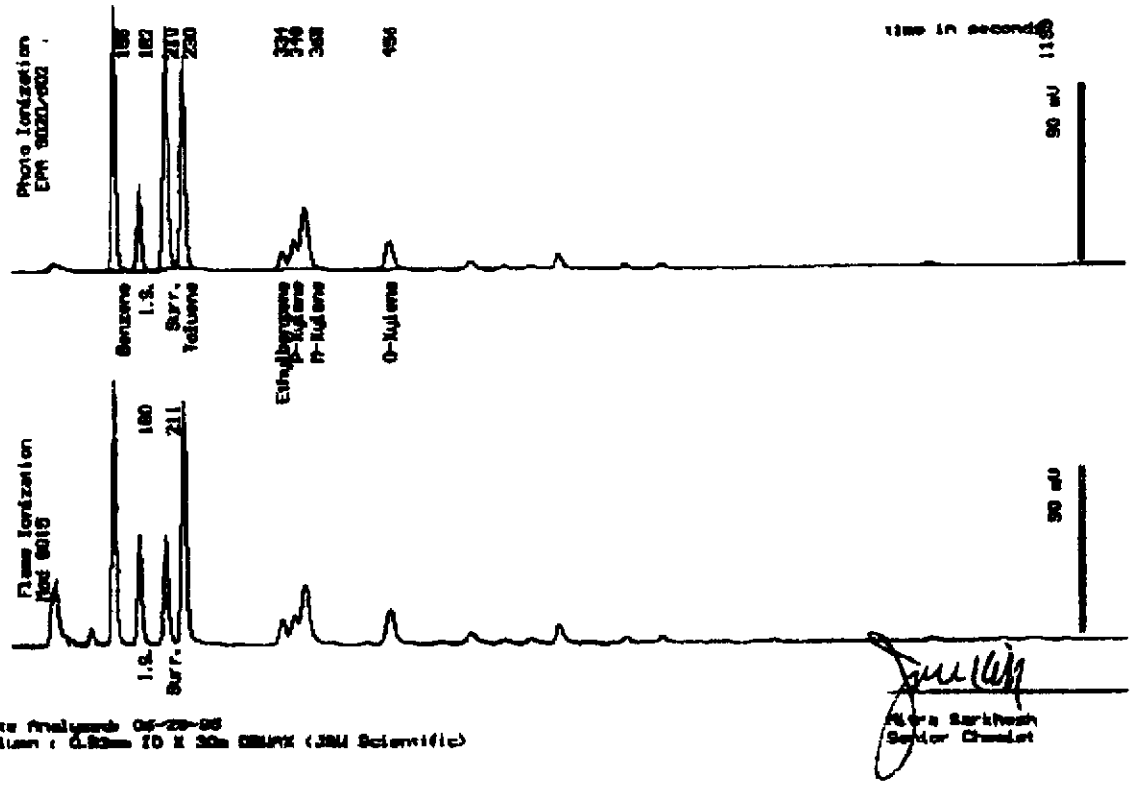
Sample Log 12067

12067-02

Sample: MW-2

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:250 QC Batch : 4125J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(130)	11000
Toluene	(130)	12000
Ethylbenzene	(130)	1900
Total Xylenes	(130)	11000
TPH as Gasoline	(13000)	61000
Surrogate Recovery		85 %



Date Analyzed: 06-29-95
Column : 0.53mm ID X 30m DB624 (J&W Scientific)

Mira Sarkisian
Senior Chemist

LABORATORY

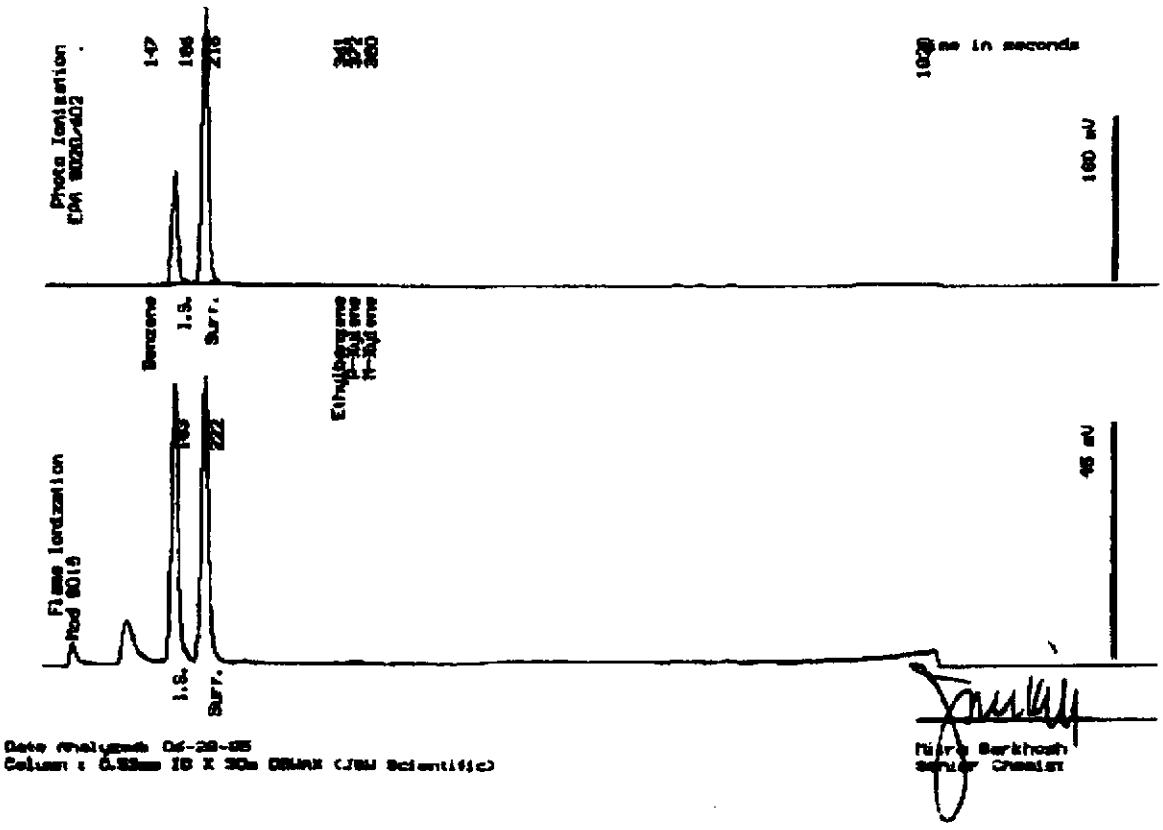
Sample Log 12067

12067-02

Sample: MW-3

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:1 QC Batch : 2123J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		102 %



Date Analyzed: 06-28-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Barkhosh
Senior Chemist

WEST LABORATORY

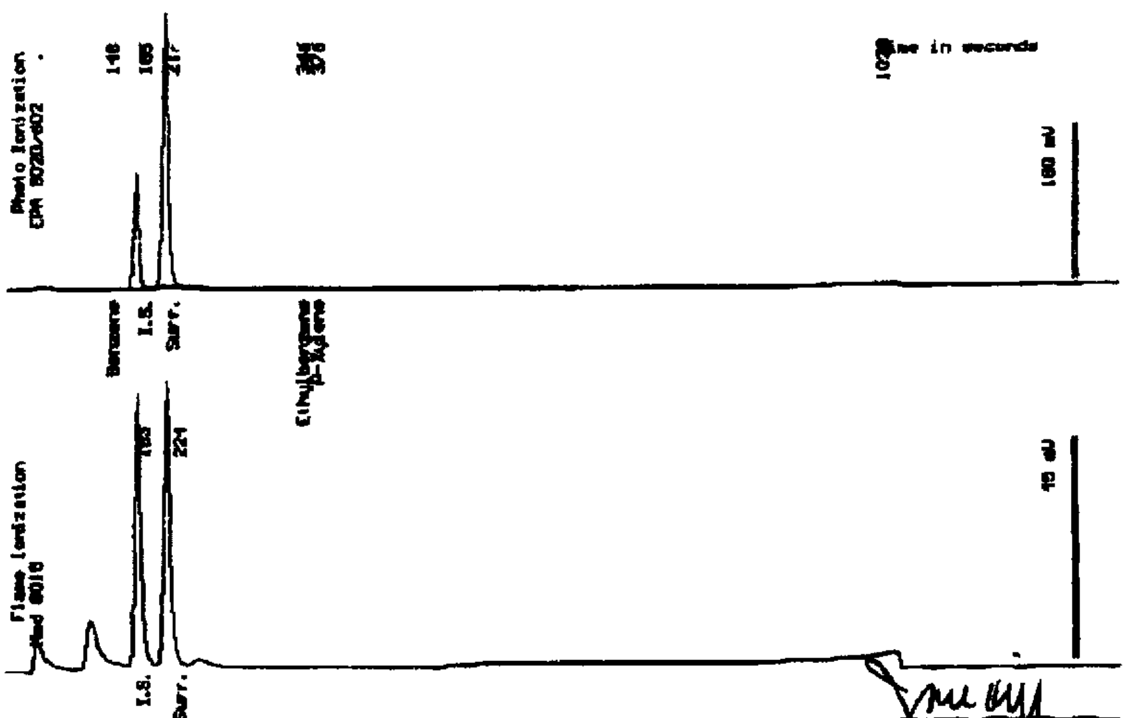
Sample Log 12067

12067-04

Sample: MW-4

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:1 QC Batch : 2123J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		105 %



Date Analyzed: 06-20-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Senior Chemist

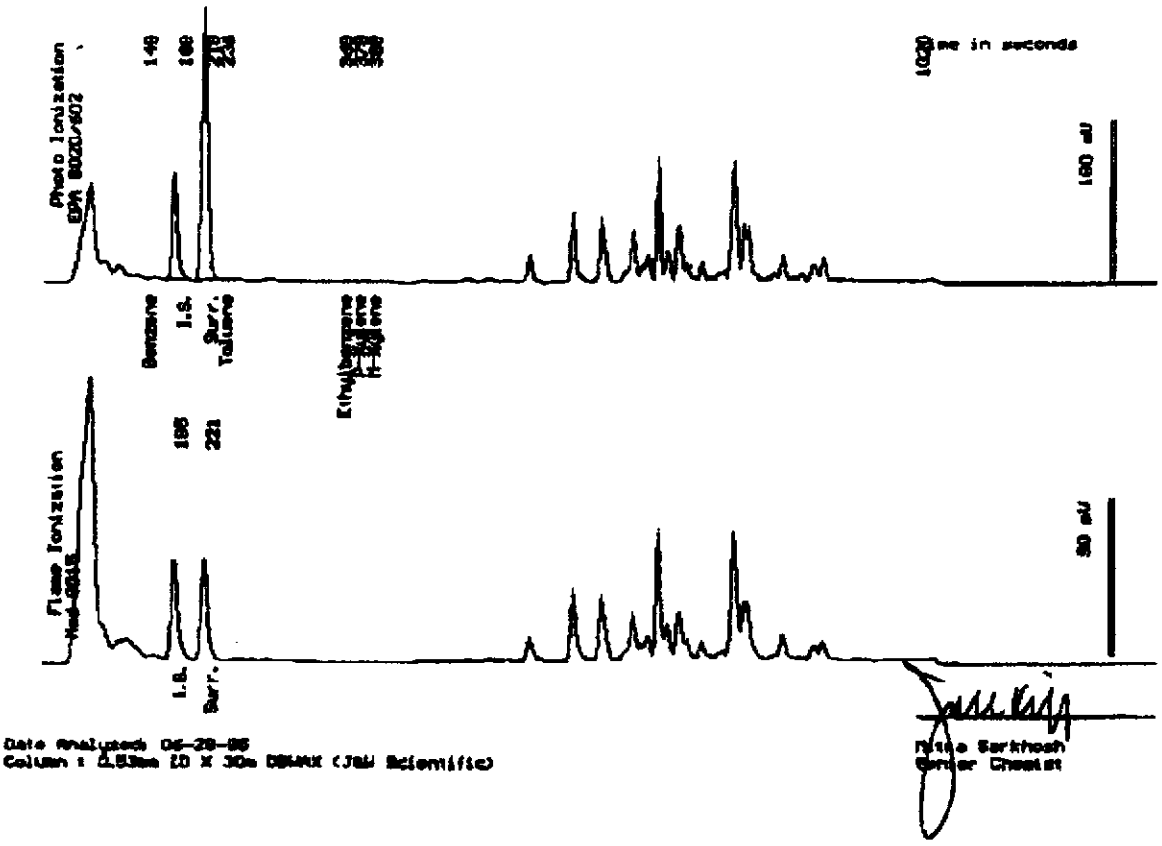
LABORATORY

Sample Log 12067
12067-05

Sample: MW-5

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:1 QC Batch : 2123J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.50)	<.50
Toluene	(.50)	<.50
Ethylbenzene	(.50)	<.50
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	460
Surrogate Recovery		98 %



Date Analyzed 06-28-95
Column : 0.53mm ID X 30m DB-624 (J&W Scientific)

Nikki Sarkhosh
Senior Chemist

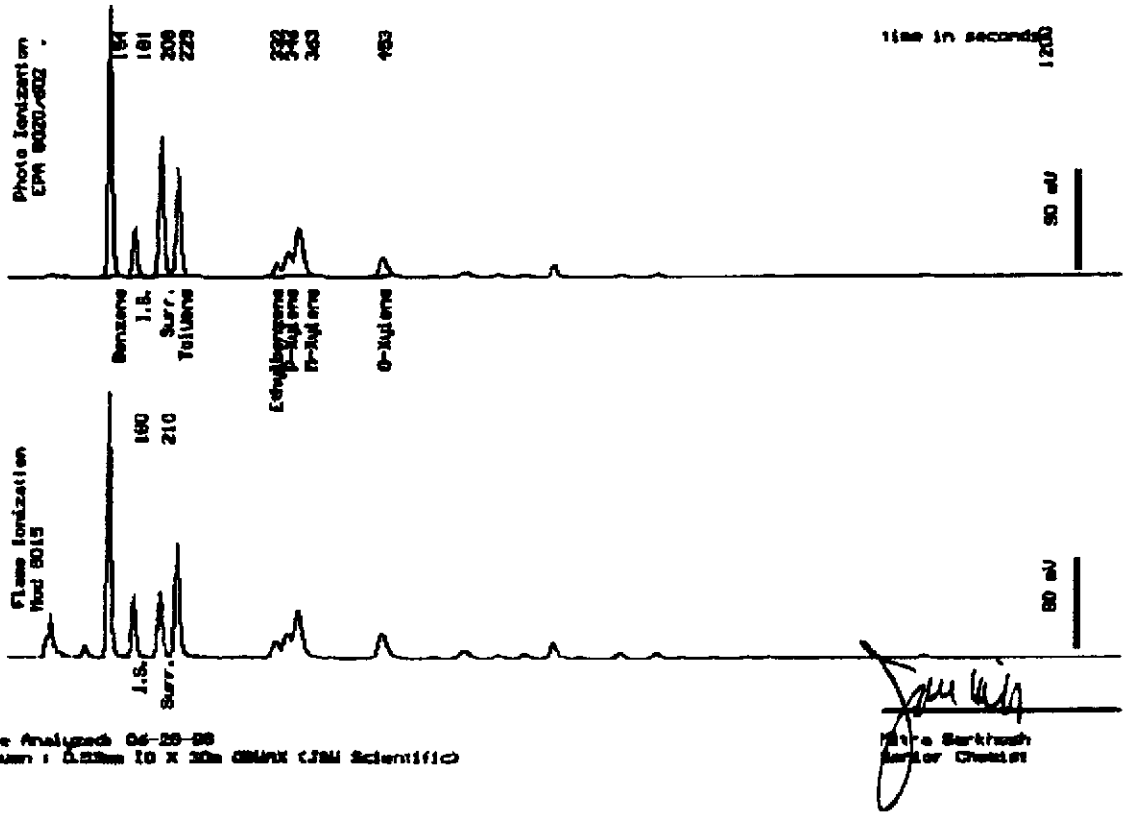
MCT LABORATORY

Sample Log 12067
12067-06

Sample: MW-6

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:250 QC Batch : 4125J
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(130)	20000
Toluene	(130)	11000
Ethylbenzene	(130)	2100
Total Xylenes	(130)	15000
TPH as Gasoline	(13000)	75000
Surrogate Recovery		85 %



Date Analyzed 06-20-95
Column : 0.53mm ID x 30m DBWAX (J&W Scientific)

Maria Barkhash
Senior Chemist

LABORATORY

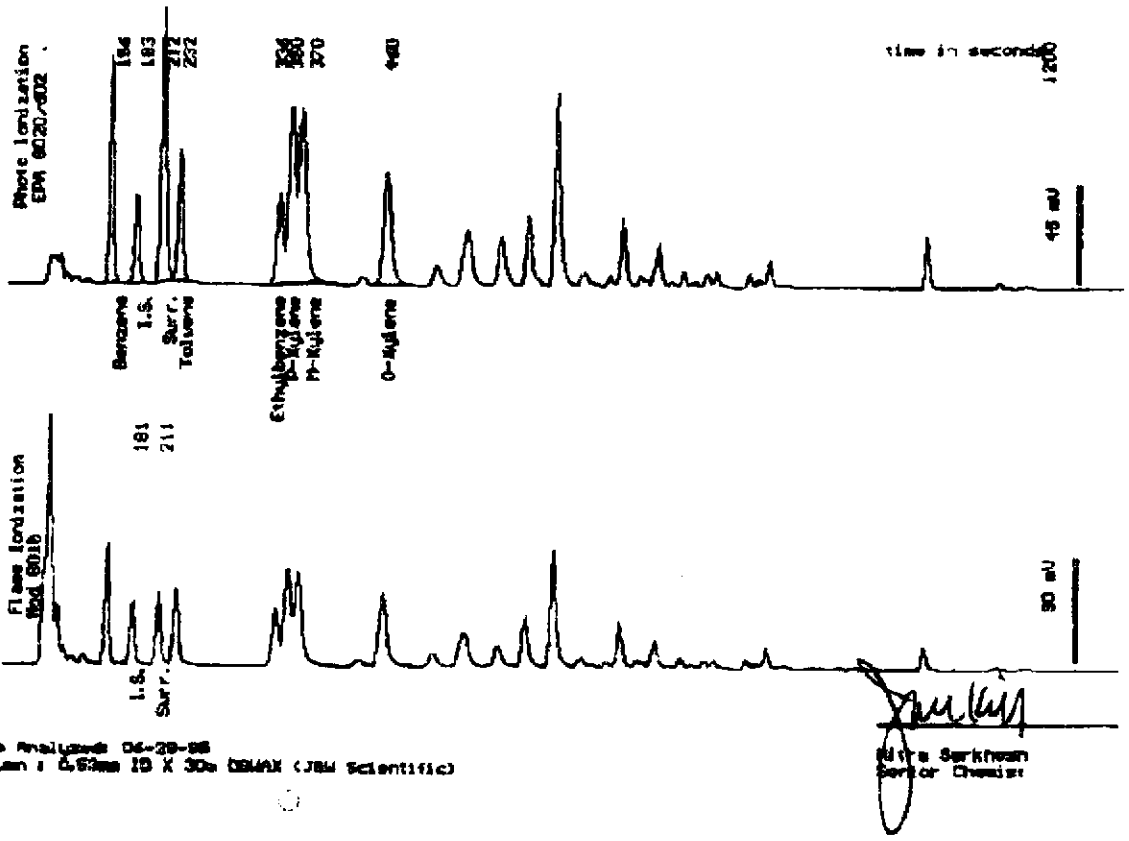
Sample Log 12067

12067-07

Sample: MW-7

From : Beacon 604 (Proj. # 94-604-01)
Sampled : 06/15/95
Dilution : 1:25 QC Batch : 4125F
Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(13)	920
Toluene	(13)	680
Ethylbenzene	(13)	740
Total Xylenes	(13)	4100
TPH as Gasoline	(1300)	17000
Surrogate Recovery		88 %



Date Analyzed: 06-29-95
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Nitra Serkhsan
Senior Chemist

Ultramar

Ultramar Inc.

CHAIN OF CUSTODY REPORT

BEACON

Beacon Station No. Beacon 604	Sampler (Print Name) Hal Hansen			ANALYSES				Date 6-15-95	Form No. 1 of 1
Project No. 94-604-01	Sampler (Signature) Hal Hansen							Standard TAT	
Project Location Livermore, CA	Affiliation Doulos Environmental								
Sample No./Identification	Date	Time	Lab No.	BTEX	TPH (Gasoline)	TPH (Diesel)	No. of Containers	REMARKS	
MW-1	6-15-95	1110	12067-01	X	X		2		
MW-2		1140	12067-02						
MW-3		1150	12067-03						
MW-4		1216	12067-04						
MW-5		1235	12067-05					RECEIVED	
MW-6		106	12067-06					DATE 6/21 TIME 1010	
MW-7		1251	12067-07					TEMP 00 C INITIAL [illegible]	
			12067-					WEST. LAB	

Relinquished by:(Signature/Affiliation)	Date	Time	Received by:(Signature/Affiliation)	Date	Time
Hal Hansen Doulos Env.					
Relinquished by:(Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
Relinquished by:(Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)	Date	Time
			[signature]	6/21/95	1010

Report To: Sheila Richgels
Fugro West, Inc.
1050 Melody Lane, Suite 160
Roseville, CA 95678

Bill To: Ultramar
525 W. 3rd Street
Hanford, CA 93230
Attention: Terry Fox