REMEDIATION SERVICE, INT'L.
2060 KNOLL DRIVE, SUITE 200, VENTURA, CALIFORNIA 93003
(805) 644-5892 • FAX (805) 654-0720

93 OCT 25 PM 3:52

October 22, 1993

Ms. Eva Chu, Haz. Mat. Specialist
Alameda County Health Care Service
Department of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Re: Desert Petroleum Station #795
2008 First Street
Livermore, California

Dear Ms. Chu:

On Behalf of Desert Petroleum, Inc., RSI is submitting the most recent Quarterly Monitoring Report for Desert Petroleum Station No. 795, located in Livermore, California.

If you have any questions, please contact Mr. Steve Richardson at RSI.

Sincerely,

Heather Davis
Remediation Service, Int'l.

cc: Mr. John Rutherford
Desert Petroleum, Inc.

Mr. Sumadhu Arigala
RWQCB, San Francisco Bay Area
2101 Webster St., Suite 500
Oakland, CA 94612

enclosure

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QUARTERLY MONITORING REPORT
for
DESERT PETROLEUM STATION NUMBER 795
2008 First Street
Livermore, California

Prepared for:
DESERT PETROLEUM
P.O. Box 1601
Oxnard, CA 93032
(805) 644-6784

Prepared by:
RSI - REMEDIATION SERVICE, INT'L
2060 Knoll Drive, Suite 200
Ventura, CA 93003
(805) 644-5892

REGISTERED GEOLOGIST
STEVEN M. RICHARDSON
NO. 4684
STATE OF CALIFORNIA

Steven M. Richardson
R.G. #4684

October 22, 1993

TABLE OF CONTENTS

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring for Desert Petroleum Station #795. The subject property is located at 2008 First Street, Livermore, Alameda County, California (Figure 1). The site is currently occupied by a retail gasoline station with three underground storage tanks, two pump islands and an office/garage building (Figure 2).

A site assessment conducted in February, 1988 indicated that both soil and groundwater contained elevated concentrations of petroleum hydrocarbons. In September, 1988, one groundwater monitoring well was installed northwest of the tank locations.

2.0 GROUNDWATER MONITORING

2.1 Groundwater Monitoring Procedures

On September 21, 1993, groundwater monitoring well MW-1 was measured for depth to groundwater, purged and sampled. The well was measured to an accuracy of 0.01 feet and the measuring point was the top of the traffic box. The well was purged with a clean PVC bailer. Approximately four (4) casing volumes of water were removed and the pH, temperature and conductivity of the water was monitored and recorded with other pertinent information on a Water Sample Log (Appendix A). The purged water was placed in a 55 gallon DOT drum and stored on site.

The well was allowed to recharge to 100 percent of its initial static water level and a sample was collected with a disposable bailer. The sample was placed in three 40-milliliter VOA vials which were labeled, placed on ice and transported along with a trip blank to FGL, a state certified laboratory in Santa Paula, CA.

The sample was tested for total petroleum hydrocarbons (TPH) as gasoline using EPA Method 8015M and benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA method 602. The minimum detection levels for TPH was 0.1 parts per million (ppm) and 0.003 ppm for BTEX.

2.2 Groundwater Monitoring Results

The depth to groundwater in MW-1 was 38.70 feet on September 21, 1993. This reflects a decline in the groundwater level of 3.94 feet since the last measurement taken on May 11, 1993 (Table 1). Because only one groundwater monitoring well is present at the site, the direction of groundwater flow and gradient cannot be determined.

As shown on Table 2, the analytical results of the water sample collected from MW-1 showed a TPH concentration of 1.9 ppm. BTEX concentrations of 0.311 ppm benzene, 0.118 ppm toluene, 0.0338 ppm ethyl benzene and 0.112 ppm total xylenes were also detected in the sample.

The concentrations of benzene exceed the maximum contaminant levels (MCL) for drinking water as per Title 22 of the California Code of Regulations (CCR). However, the concentrations of ethylbenzene and total xylenes are below the MCL. Appendix B contains the lab report and chain of custody.

3.0 LIMITATIONS

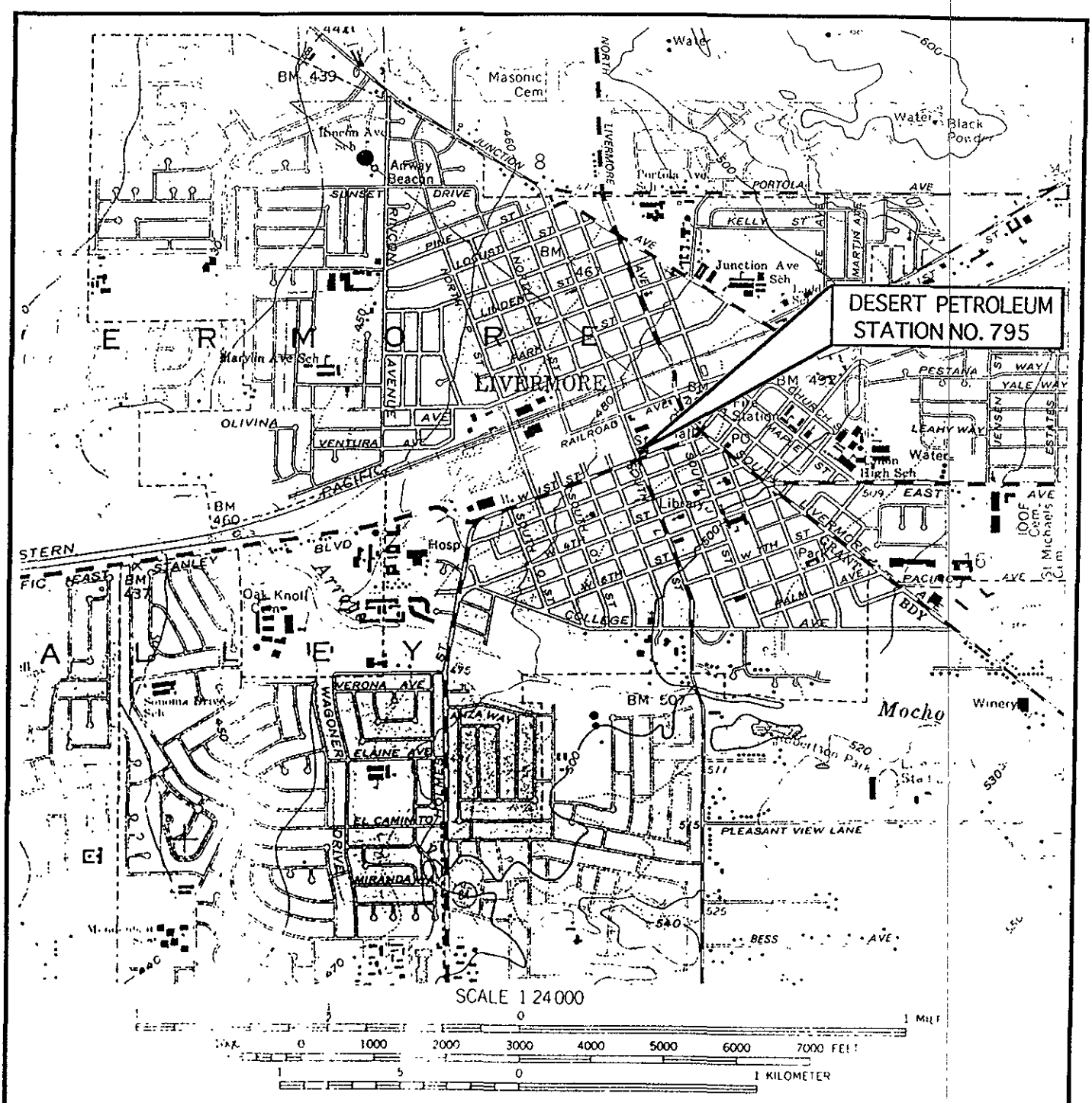
The discussion, conclusion and any recommendations presented in this report are based on the professional performance of the personnel who conducted the investigations, the observations of the field personnel, the results of laboratory analyses performed by a state certified laboratory, any referenced documents and our understanding of the regulations of the State of California and any other applicable local regulations.

Variations in the soil and groundwater conditions may exist beyond the points explored in this investigation.

The services performed by Remediation Service, Int'l have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the State of California.

Please note that contamination of soil and/or groundwater must be reported to the appropriate agencies in a timely manner. No other warranty, expressed or implied, is made.

FIGURES



FROM U.S.G.S. 7.5' TOPOGRAPHIC QUADRANGLE "LIVERMORE, CALIFORNIA," 1961, PHOTOREVISED 1980

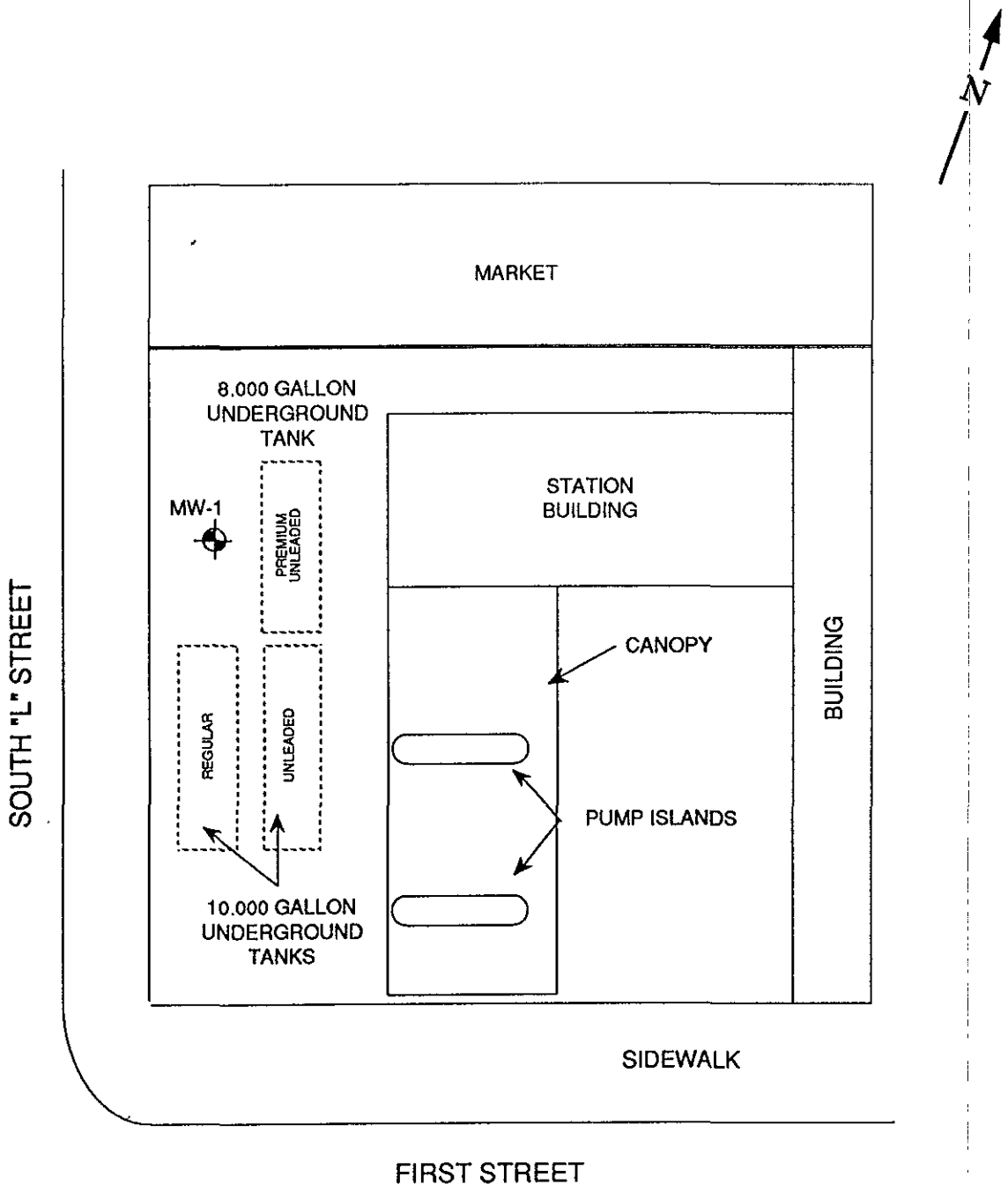
N

DESERT PETROLEUM, INC.

DESERT PETROLEUM STATION #795
2008 FIRST STREET,
LIVERMORE, CA

FIGURE 1 - LOCATION MAP

RSI - REMEDIATION SERVICE, INT'L



LEGEND

MONITORING WELL LOCATION

SCALE IN FEET

0 15 30

DESERT PETROLEUM, INC
DESERT PETROLEUM STATION #795 2008 FIRST STREET LIVERMORE, CALIFORNIA FIGURE 2 - SITE PLAN
RSI REMEDIATION SERVICE, INT'L.

TABLES

TABLE 1
GROUNDWATER DATA
DESERT PETROLEUM STATION #795
LIVERMORE, CA

Measurements are in feet.

Well	Date Measured	Depth to Water	Well Head Elevation	Water Table Elevation	Change in Elevation
MW-1	9/22/88	60.50	487.00	426.50	
	8/2/90	43.10		443.90	17.40
	10/10/91	66.39		420.61	-23.29
	1/8/92	68.72		418.28	-2.33
	5/11/93	34.76		452.24	33.96
	9/21/93	38.70		448.30	-3.94

TABLE 2
SUMMARY OF LABORATORY ANALYSIS OF GROUNDWATER
DESERT PETROLEUM STATION #795

Concentrations are in parts per million (mg/l)

WELL #	DATE SAMPLED	TPH	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
MW-1	8/2/90	24.00	1.300	1.300	0.400	2.700
	10/10/91	2.20	0.430	0.170	0.100	0.290
	1/8/92	1.20	0.200	0.120	0.030	0.150
	5/11/93	0.96	0.066	0.008	0.041	0.090
	9/21/93	1.90	0.311	0.118	0.0338	0.112
Title 22 CCR MCL		—	0.001	—	0.680	1.750

TPH = Total petroleum hydrocarbons (gasoline)

APPENDICES

APPENDIX A

WATER SAMPLE LOGS

WATER SAMPLE LOG

CLIENT: DESERT PETROLEUM DATE: 9/21/93
PROJECT: DP 795
LOCATION: 2008 First Street, Livermore, CA.

WELL NUMBER: **MW-1**

WEATHER CONDITIONS: Clear, sunny, slight breeze.
FIELD OBSERVATIONS: The lock needs to be replaced with an RSI model.
Currently the locking plate is easy to break into.

TOTAL DEPTH OF WELL: 76.65 feet CASING DIAMETER: 2 inches
DEPTH TO FREE PRODUCT: NONE ONE WELL VOLUME = 6.19 gallons
DEPTH TO WATER: 38.70 feet PURGING METHOD: PVC Bailer
DEPTHS MEASURED FROM: Top of traffic box.

WELL PURGING DATA

Time	Discharge (gallons)	pH	Temp in F.	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Turbidity)
18:29	5	7.29	69.3	11.23	Tan/gray, no HC odor, silty
18:43	10	7.38	68.5	11.35	Tan/gray, minor HC odor, silty
18:53	15	7.44	66.6	11.23	Tan/gray, minor HC odor, minor sheen
19:09	20	7.49	67.0	11.18	Tan/gray, minor HC odor, minor sheen
19:24	25	7.51	66.8	11.22	Tan/gray, minor HC odor, no sheen

TOTAL DISCHARGE: 25 gallons CASING VOLUMES REMOVED: 4

TIME SAMPLE COLLECTED: 19:30
DEPTH TO WATER AT TIME OF SAMPLE: 38.71 feet PERCENT RECHARGE: 100
METHOD OF SAMPLE COLLECTION: Disposable bailer
APPEARANCE OF SAMPLE: Clear with some sediment
AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 x 40 ml. VOA
SAMPLE TRANSPORTED TO: FGL, Santa Paula

SAMPLED BY: EPM

RSI - REMEDIATION SERVICE, INT'L

APPENDIX B

LABORATORY REPORTS
AND
CHAIN OF CUSTODY

FGL ENVIRONMENTAL

Analytical Chemists

October 14, 1993

LAB No: SP 305442-1

RSI
2060 Knoll Dr. Ste 200
Ventura , CA 93003

RE: Organic Analysis
Matrix: Monitoring Well

Sampling Site: DP-795
Sample Description: MW-1
Sampled by : Eamon Moriarty
Container : VOA
Preservatives:

Sampled : September 21, 1993
Received : September 23, 1993
Extracted : N/A
Analyzed : September 30, 1993
QA/QC ID# : SP 93092901R1

LUFT ANALYSIS

CONSTITUENT	EPA METHOD	UNITS	SAMPLE DLR	SAMPLE RESULTS	LAB DLR	BLANK RESULTS
BTEX						
Benzene	602	ug/L	0.3	311	0.3	ND
Ethyl Benzene	602	ug/L	0.3	33.8	0.3	ND
Toluene	602	ug/L	0.3	118	0.3	0.4
Xylene	602	ug/L	0.3	112	0.3	ND
TPH-Gas	8015M	mg/L	0.1	1.9	0.1	ND

DLR = Detection Limit for Reporting Purposes. MCL = Maximum Contaminant Level (--- indicates none determined.)
ug/L = Micrograms Per Liter (ppb) ND = Not Detected at or above the DLR.

If you have any questions please call.

FGL ENVIRONMENTAL

H. Neal Hutchison, B.S.
Organic Laboratory Manager

Darrell H. Nelson, B.S.
Laboratory Director

VT

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PH: 209/942-0181
FAX: 209/942-0423

Field Office
Visalia, CA
PH: 209/734-9473
FAX: 209/734-8435
Mobile: 209/737-2399

FGL ENVIRONMENTAL

Analytical Chemists

October 14, 1993

LAB No: SP 305442-2

RSI
2060 Knoll Dr. Ste 200
Ventura , CA 93003

RE: Organic Analysis
Matrix: Lab. Blank Water

Sampling Site: DP-795
Sample Description: Field Blank
Sampled by : Eamon Moriarty
Container : VOA
Preservatives:

Sampled : September 21, 1993
Received : September 23, 1993
Extracted : N/A
Analyzed : September 30, 1993
QA/QC ID# : SP 93092901R1

LUFT ANALYSIS

CONSTITUENT	EPA METHOD	UNITS	SAMPLE DLR	SAMPLE RESULTS	LAB DLR	BLANK RESULTS
BTEX						
Benzene	602	ug/L	0.3	ND	0.3	ND
Ethyl Benzene	602	ug/L	0.3	ND	0.3	ND
Toluene	602	ug/L	0.3	ND	0.3	0.4
Xylene	602	ug/L	0.3	ND	0.3	ND
TPH-Gas	8015M	mg/L	0.1	ND	0.1	ND

DLR = Detection Limit for Reporting Purposes. MCL = Maximum Contaminant Level (--- indicates none determined.)
ug/L = Micrograms Per Liter (ppb) ND = Not Detected at or above the DLR.

If you have any questions please call.

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FRUIT GROWERS LABORATORY, INC.

Lab 9/24/93

CHAIN-OF-CUSTODY

Date: 09-23-93
Client: RSI
Address: 2060 Knoll Dr. Ste 200
Ventura, CA 93003
Phone: (805)-~~654~~-5892
Fax: (805)-654-0720

Project name: DP-795
Contact person: Eamon Moriarty
Sampler(s): Eamon Moriarty
Comp sampler setup: Date: __/__/__ Time: __:__
Time: _____ Mileage: _____
Purchase order number: _____
QA/QC report required: Yes ____ No X
Lab number: 305442

Sample Number	Location/Description	Date Sampled	Time Sampled	Type of Sample: Composite(C) Grab (G)	Number of Containers	Type of Containers: (B)Brass (V) VOA (G) Glass (P) Plastic	(S) Soil (SL)Sludge (O) Oil	(SW) Surface Water (MW) Monitoring Well (GW) Ground Water (TB) Travel Blank (WW) Wastewater (S) Spike (DW) Drinking Water	(P) Potable (NP) None Potable	Preservative: NaHSO4, HCL, H2SO4, HNO3, pH <2 NaOH pH>9 or pH>12 ; Na2S2O3 if chlorinated Other	BTEX	TPH-G	Sample Condition: Temperature _____ (L) Leaking, (B) Broken (HS) VOA Headspace	Custody Seal (Y) (N)
	MW-1	09-21-93	19:20	G	3	V	/	MW	NP	HCl	X	X		
	Field Blank	"	19:30	"	"	"	"	TB	P	"	X	X		

Misc. notes:

Rush results due by:
Final sample disposition:
Lab disposal: _____ Return to Client: _____
Meth. of disp.: _____ Date of ret.: __/__/__

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Eamon Moriarty	9/23/93	14:50	H. Kolakowski	9/23/93	14:50

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