REMEDIATION SERVICE, INT'L.

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91 OCT 25 PM 1:25

October 23, 1991

Mr. Gil Wister
Alameda County Health Care Services Agency
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, California 94621

Subject: **QUARTERLY GROUND WATER MONITORING REPORT FOR DESERT PETROLEUM STATION # 795, 2008 FIRST STREET, LIVERMORE, CALIFORNIA**

Dear Mr. Wister:

Remediation Service Int'l. (RSI) is pleased to present the results of quarterly ground water monitoring at the above referenced site.

INTRODUCTION

This report presents the results of quarterly ground water monitoring for Desert Petroleum Station #795 located at 2008 First Street, Livermore, California (see Figure 1 - Site Location Map). The site is currently occupied by a retail gasoline station with three underground storage tanks, two pump islands and an office/garage building. Two of the tanks have storage capacities of 10,000 gallons and contain regular leaded and unleaded gasoline. The other tank contains 8,000 gallons of premium unleaded gasoline (see Figure 2 - Plot Plan). A site assessment was conducted by On-Site Technologies in August, 1988 and consisted of four soil borings, one of which was converted into a ground water monitoring well. Results of the soil sample analysis showed gasoline contamination to be present in all the borings. The last ground water sampling conducted in August, 1990 showed hydrocarbon concentrations above the state action levels.

GROUND WATER SAMPLING PROCEDURES

On July 18, 1991, the one ground water monitoring well was measured for depth to ground water, purged and sampled. The well, previously identified as GX-136, will now be identified as MW-1.

The well was purged with a clean PVC bailer and new rope. Approximately four (4) casing volumes of water was removed and Ph, temperature and conductivity of the water was monitored and recorded with all other pertinent information on a Water Sample Log (see Attachment 1 for Water Sample Log). The purged water was placed in a 55 gallon DOT drum and stored on site.

The well was allowed to recharge to approximately 100 percent of its initial static water level and a sample was collected with a disposable bailer. The samples were collected into two 40-milliliter VOA vials which were labeled, placed on ice and transported to Anametrix Inc., a state certified laboratory.

The sample was tested for total petroleum hydrocarbons (TPH) as gasoline using EPA method 5030 and benzene, toluene, ethylbenzene and total xylenes (BTEX) using modified EPA method 8020. The minimum detection level for TPH was 50 parts per billion (ppb) and 0.5 ppb for BTEX.

RESULTS

The depth to ground water in MW-1 was 66.39 feet on October 10, 1991. This reflects a drop in the ground water level of over 23 feet since the last measurement of depth to ground water, 43.10 feet, taken on August 2, 1990. Because only one ground water monitoring well is present at the site, the direction of ground water flow and gradient cannot be determined.

Analytical results of the water sample collected from MW-1 showed elevated concentrations of TPH (as gasoline) and BTEX compounds. As shown in Table 1, the concentrations are less than those detected during the last sampling episode and are probably the result of the drop in ground water level. (see Attachment 2 for Laboratory Report and Chain-of-Custody).

TABLE 2
ANALYTICAL RESULTS OF GROUND WATER SAMPLES
(µg/l)

WELL NUMBER	DATE SAMPLED	TPH (GASOLINE)	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES
MW-1	8-2-90	24,000	1,300	1,300	400	2,700
	10-10-91	2,200	430	170	100	290

LIMITATIONS
The discussion and recommendation presented in this report are based on the following:

1. The professional performance of the personnel who conducted the investigations.

2. The observations of the field personnel.

3. The results of laboratory analyses performed by a state certified laboratory.

4. Any referenced documents.

5. Our understanding of the regulations of the State of California; also, if applicable, other local regulations.

It is possible that variations in the soil and groundwater conditions could 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.

If you have any questions regarding this report, please call.

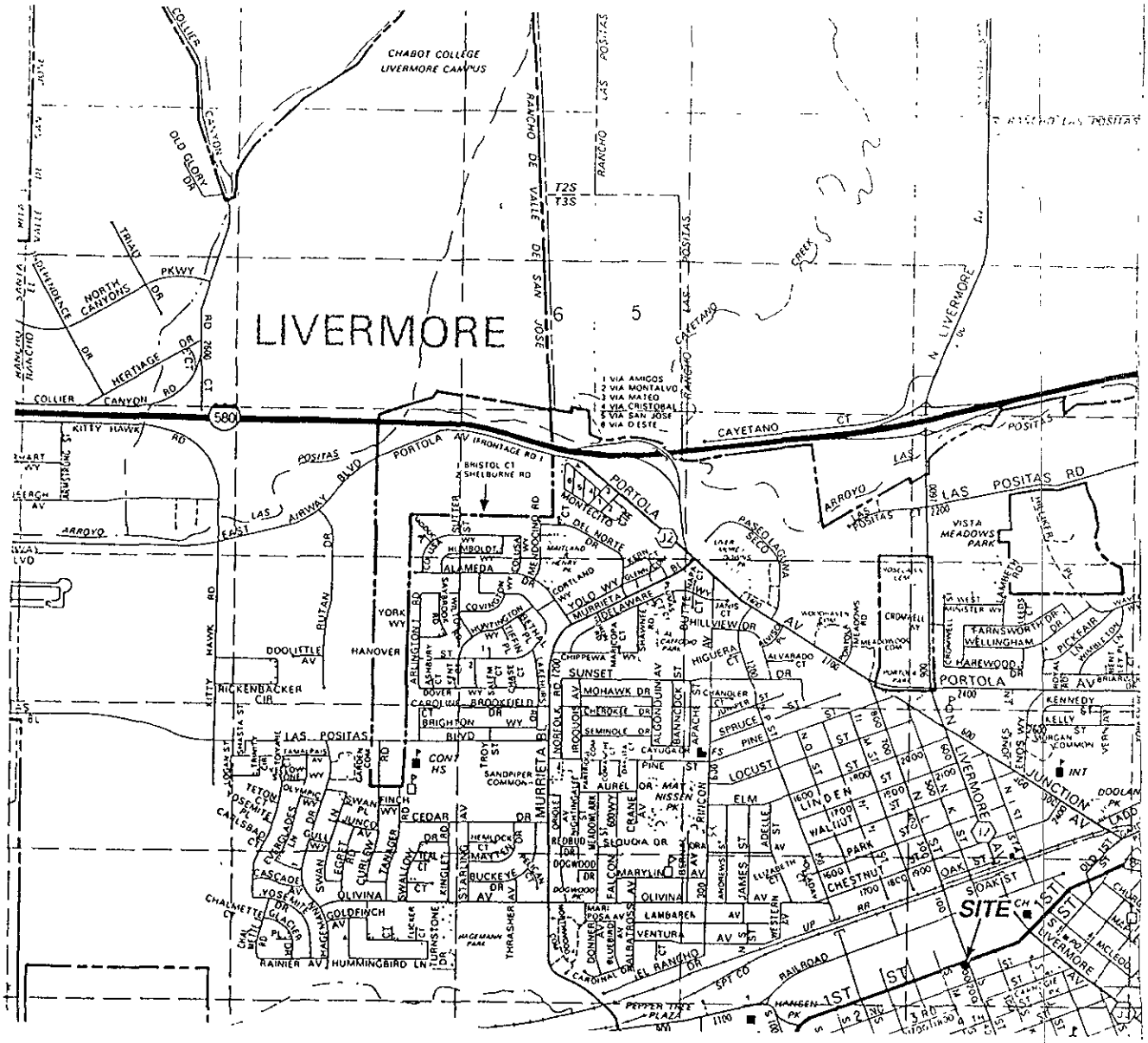
Respectfully submitted,

Steven M. Richardson, R.G. #4684
Senior Project Manager

Brian Mossman
Project Geologist

Enclosures: Figures
Attachment 1 - Water Sample Log
Attachment 2 - Laboratory Report and Chain-of-Custody

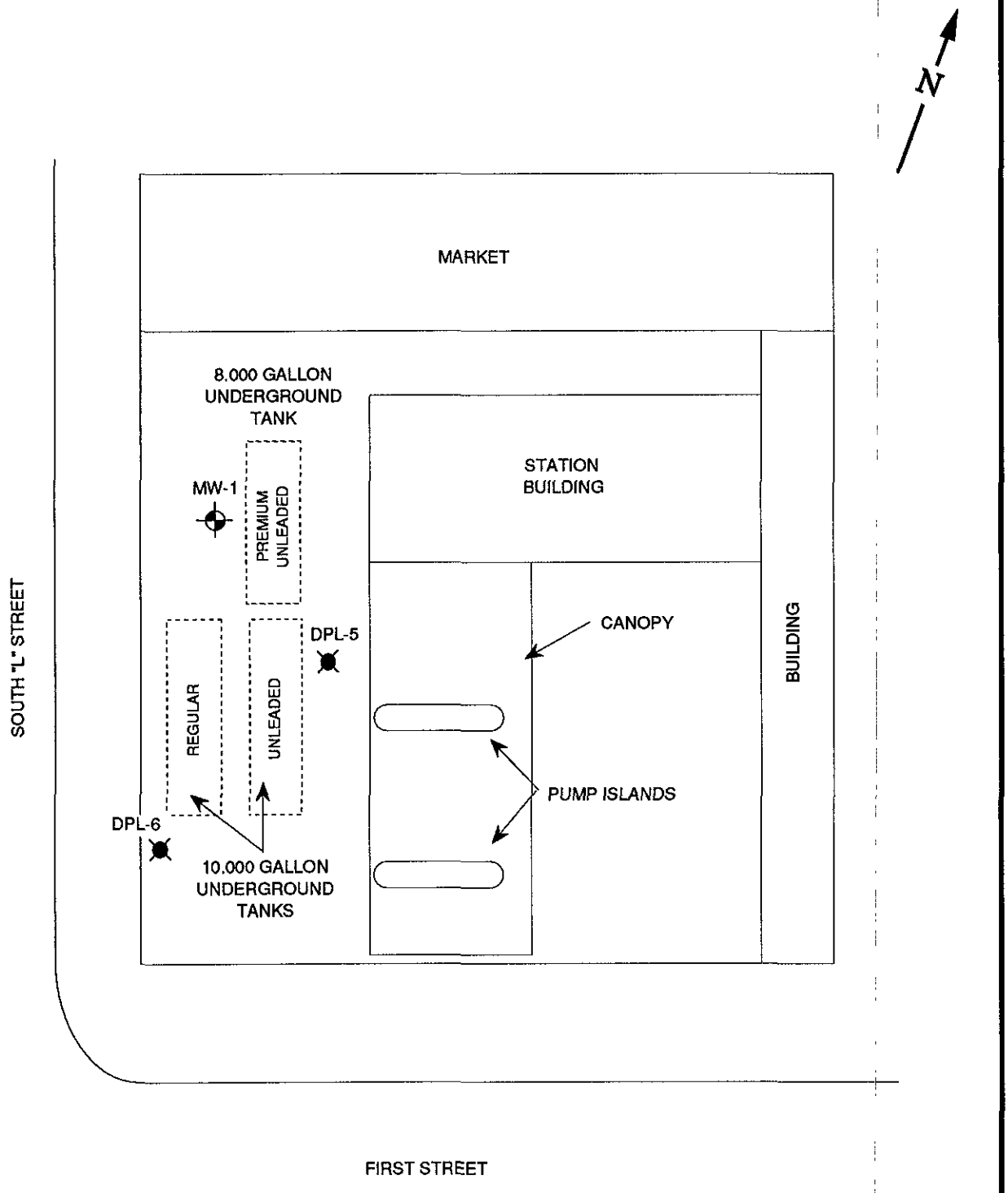
FIGURES



DESERT PETROLEUM

DESERT PETROLEUM STATION #795,
2008 FIRST STREET,
LIVERMORE, CALIFORNIA
LOCATION MAP

RSI REMEDIATION SERVICE, INT'L.



LEGEND

ON-SITE TECHNOLOGIES
MONITORING WELL LOCATION

ON-SITE TECHNOLOGIES
BOREHOLE LOCATION

SCALE IN FEET
0 15 30

DESERT PETROLEUM

DESERT PETROLEUM STATION #795
2008 FIRST STREET, LIVERMORE, CALIFORNIA
FIGURE 2 - PLOT PLAN

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ATTACHMENT 1

WATER SAMPLE LOG

WATER SAMPLE LOG

CLIENT: DESERT PET. DATE: 10/10/91

PROJECT: DP 795

LOCATION: LIVERMORE

WELL NUMBER: MW-1

WEATHER CONDITIONS: SUNNY & WARM

FIELD OBSERVATIONS:

TOTAL DEPTH OF WELL: 78 CASING DIAMETER: 2"

DEPTH TO FREE PRODUCT: — ONE WELL VOLUME = 2

43.10 DEPTH TO WATER: 66.39 PURGING METHOD: PVC BAILER

DEPTHS MEASURED FROM: WELL COVER

INDICATOR PARAMETERS

Time	Discharge (gallons)	pH	Temp in F.	Specific Conductance (µmhos/cm)	Comments (Color, Odor, Tubidity)
15:13	0	7.68	78.2	1.07	✓ LT BRN, NONE, LOW
15:19	2	7.66	76.2	1.05	BROWN, NONE, MOD
15:24	3	7.84	76.5	1.02	" " "
15:28	4	8.15	76.9	1.00	" " "
15:33	5	7.62	76.0	1.03	" " "
15:37	6	7.55	76.3	1.02	" " "
15:42	8	7.47	75.7	1.05	" " "

TOTAL DISCHARGE: 8 gallons CASING VOLUMES REMOVED: 4

TIME SAMPLE COLLECTED: 4:20

DEPTH TO WATER AT TIME OF SAMPLE: 66.72 PERCENT RECHARGE: 100

METHOD OF SAMPLE COLLECTION: Disposable Bailer

APPEARANCE OF SAMPLE: Slightly silty

AMOUNT AND SIZE OF SAMPLE CONTAINERS: 3 - 40 ml VOA Vials

SAMPLE TRANSPORTED TO:

SAMPLED BY: S. Richardson

RSI

ATTACHMENT 2

LABORATORY REPORT AND CHAIN-OF-CUSTODY