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West Coast Office  
Suite 370  
3250 Ocean Park Blvd.  
Santa Monica, CA 90405  
Phone: 213-452-5078  
FAX: 213-450-5787

December 3, 1992

Ms. Jennifer Eberle  
Alameda County  
Health Care Services Agency  
Department of Environmental Health  
Hazardous Materials Division  
80 Swan Way, Rm. 200  
Oakland, CA 94621

**Subject: Quarterly Groundwater Monitoring  
Aratex Services, Inc.  
330 Chestnut St.  
Oakland, CA 94607**

Dear Ms. Eberle:

This letter transmits results of groundwater monitoring conducted on November 4, 1992, at the Aratex Services facility located at 330 Chestnut Street in Oakland, California.

#### **SUMMARY OF PRIOR GROUNDWATER MONITORING**

One 2,000-gallon underground diesel storage tank, utilized by the Aratex facility for back-up boiler operation, was removed in December of 1988. The Alameda County Health Care Services Agency (ACHCSA) reviewed closure documentation and required a supplementary subsurface investigation to evaluate potential fuel hydrocarbon impact on soils or groundwater.

In spring of 1989, four 2-inch diameter groundwater monitoring wells were installed to depths ranging from 24 to 27 feet below grade. No detectable concentrations of petroleum hydrocarbons were identified in soil or groundwater samples from wells RAO-1, RAO-2, or RAO-4. However, the soil sample collected at 8 feet below grade (the capillary fringe), and groundwater samples from RAO-3 contained elevated concentrations of both TPH and BTEX. Although not measurable at the time of installation, a sheen of product was noted on the groundwater from RAO-3.

Ms. Jennifer Eberle  
Alameda County Health Care Services Agency  
December 3, 1992  
Page 2

In March 1990 and again in December 1991, RMT resampled the groundwater monitoring wells at the Aratex facility. Results of laboratory analysis of groundwater samples were similar to the Spring 1989 sample analysis results; however, in March 1990 and December 1991, 1.13 feet and 1.66 feet, respectively, of floating product were observed in groundwater monitoring well RAO-3.

### CURRENT GROUNDWATER MONITORING

Groundwater sampling, conducted on November 4, 1992, included obtaining groundwater-level measurements and groundwater samples from the three groundwater monitoring wells on site which did not contain floating product (RAO-1, RAO-2, and RAO-4). Floating product in RAO-3 was measured, bailed down, and recovery was observed.

#### Groundwater Sample Collection

Prior to sample collection, depth to groundwater or product and water was measured in each well. The three existing groundwater monitoring wells which did not contain floating product (RAO-1, RAO-2, and RAO-4) were then purged, and temperature, conductivity, and turbidity were measured and recorded on logs for the purged groundwater at least once per casing volume. Table 1 summarizes these observations. On noting stabilization of these parameters, after purging approximately three casing volumes of groundwater, each well was allowed to recharge to within 80 percent of its pre-purge volume, and groundwater samples were collected utilizing a disposable Teflon bailer. A Teflon stopcock was inserted in the bottom of the bailer and used to transfer the sample to volatile organic analysis (VOA) vials. All sample containers were supplied by the laboratory. Each sample was preserved by adjusting the pH with hydrochloric acid. Following sample collection, the samples were labeled with the date, sample-point location, and sampler's name. Groundwater samples were refrigerated for transport to a California-certified laboratory according to USEPA protocol, including chain-of-custody procedures. In addition, one trip blank accompanied the samples. Chain-of-custody documents are attached.

The purging pump was decontaminated between each boring by rinsing with tap water to remove particulates, washing with a tri-sodium phosphate solution, and rinsing with deionized water.

Ms. Jennifer Eberle  
Alameda County Health Care Services Agency  
December 3, 1992  
Page 3

### Groundwater Sample Analysis and Results

Each groundwater sample was analyzed by gas chromatography according to USEPA test method 8015, modified to detect diesel (LUFT method for TPH-d), and for aromatic volatile organics (BTEX) by USEPA test method 8020. Results are reported in micrograms per liter ( $\mu\text{g/L}$ ) with a detection limit of 10  $\mu\text{g/L}$  for TPH-d, 0.3  $\mu\text{g/L}$  for benzene, toluene, and ethylbenzene, and 0.5  $\mu\text{g/L}$  for total xylene isomers.

Results of the analysis of groundwater samples from RAO-1, RAO-2 and RAO-3 according to USEPA test methods 8020 revealed no detectable concentrations of BTEX. Analysis for TPH-d revealed no detectable concentrations of TPH-d in the samples from RAO-1 and RAO-2, and 0.84 mg/l of TPH-d in the sample from RAO-4.

= 840 ppb

### Floating Product Observations

On arrival at the site, depth to product and depth to water measurements were collected from RAO-3. Product thickness was initially approximately 1.56 feet. Product was bailed from the well utilizing a disposable bailer, for approximately 10 minutes, removing about 0.6 gallons of product. Product thickness was 0.35 feet at termination of bailing. Product thickness 2.5 hours later was 1.29 feet, and the following day was 1.37 feet.

### Disposal of Purged Groundwater

Groundwater purged during sampling operations was placed in 55-gallon D.O.T.-approved drums for on-site storage pending characterization.

↓  
follow  
up

Ms. Jennifer Eberle  
Alameda County Health Care Services Agency  
December 3, 1992  
Page 4

If you or your staff have any questions regarding our investigation or report, please contact me.

Respectfully submitted,

*Cathy L. Lielausis*  
Cathy L. Lielausis, RG, REA  
Senior Geologist



Enc: Analytical Laboratory Report/Chain-of-Custody Documents  
Table 1. Groundwater Sample Collection Data, November 4, 1992  
Site Plan

cc: Rich Hiatt, RWQCB

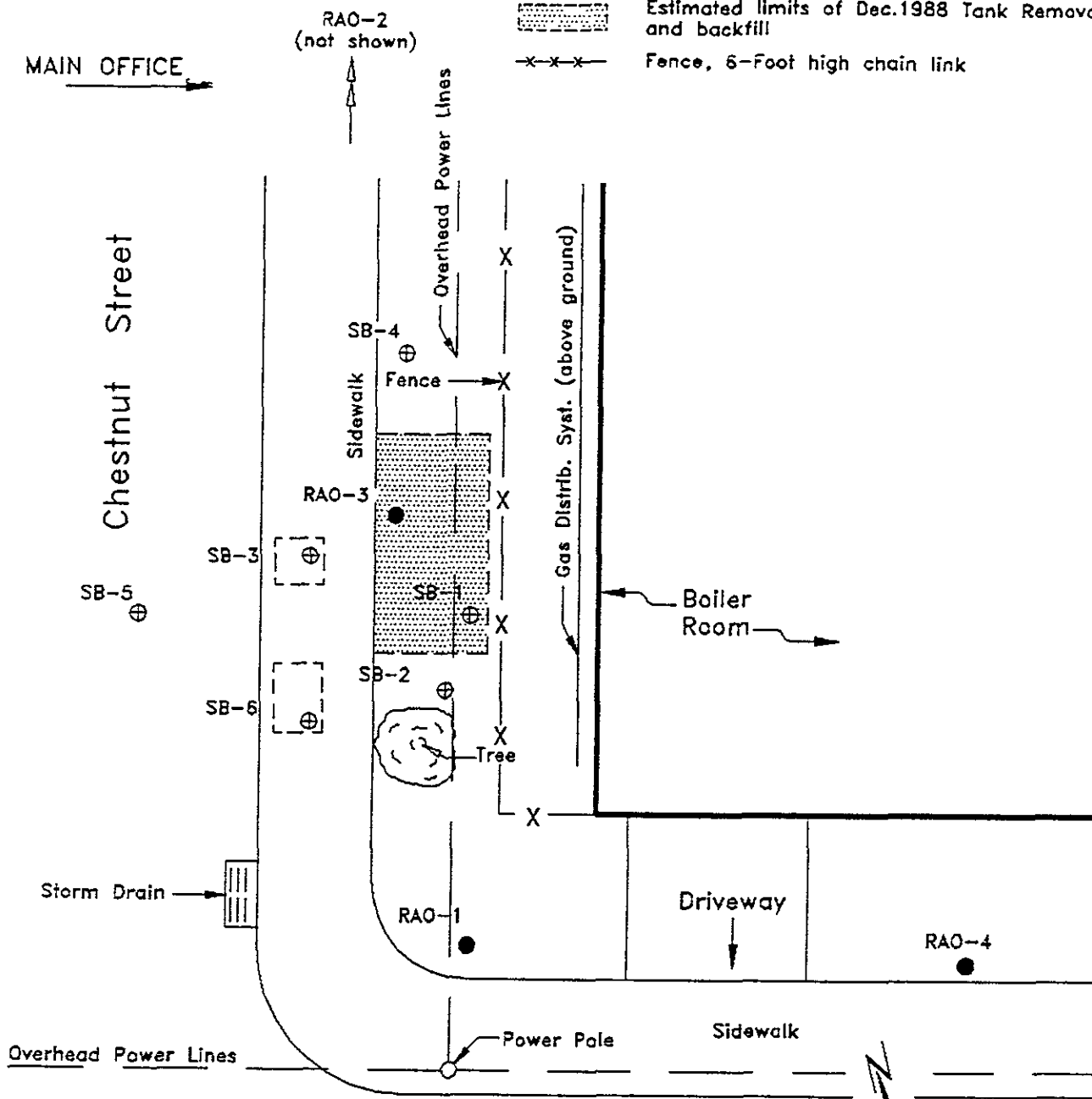
**Table 1.**  
**Groundwater Sample Collection Data, November 4, 1992**

Groundwater Monitoring Well RAO-1					
Time	Gallons Purged	Temperature (°C)	Conductivity	pH	Turbidity
11:12 am	3	22.0	1.14	6.65	very turbid
11:14 am	6	21.9	1.15	6.70	very turbid
11:21 am	9	21.8	1.16	6.78	very turbid
Groundwater samples collected at 12:30 pm					
Groundwater Monitoring Well RAO-2					
Time	Gallons Purged	Temperature (°C)	Conductivity	pH	Turbidity (NTU)
10:50 am	3.1	21.1	1.06	6.52	797
11:00 am	6.2	20.7	1.07	6.01	very turbid
11:23 am	9.3	21.1	1.06	6.75	926
Groundwater samples collected at 12:20 pm					
Groundwater Monitoring Well RAO-4					
Time	Gallons Purged	Temperature (°C)	Conductivity	pH	Turbidity
11:39 am	3.1	23.4	0.98	6.69	very turbid
11:45 am	6.2	23.1	0.99	6.76	very turbid
12:02 pm	9.3	22.3	1.00	6.78	very turbid
Groundwater samples collected at 12:40 pm					

Groundwater Level Observations November 4, 1992				
Monitoring Well	Time	Depth to Water (feet)	Top of Casing Elevation (feet above arbitrary datum)	Groundwater Elevation (feet above arbitrary datum)
RAO-1	9:46 am	8.72	19.08	10.36
RAO-2	9:43 am	8.74	19.57	10.83
RAO-3	9:58 am	product: 8.45 water: 10.01	19.30	product: 10.85 water: 9.29
RAO-4	9:48 AM	8.99	19.30	10.31

Legend :

- RAO-x ● Ground Water Monitoring Well ; RMT 6/89
- SB-x ⊕ Soil Boring ; RMT 9/90
- Plant
- ▨ Estimated limits of Dec.1988 Tank Removal and backfill
- x-x-x- Fence, 6-Foot high chain link



Interpreted Areal Extent  
of  
Petroleum Hydrocarbon Affected Area  
 Aratex Services, Inc.  
 330 Chestnut Street  
 Oakland, Ca

<b>RMT</b> NO.	OWN BY: RAS
	DATE: NOV, '992
	PROJ #: 12013 06
	FILE #: 18220306

Figure 1



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Northwest Region**

4080-C Pike Lane  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California  
(510) 825-0720 (FAX)

Client Number: RMT01RMT01  
Consultant Project Number: 12013.06  
Project ID: Santa Monica, CA  
Work Order Number: C2-11-147

November 17, 1992

Cathy Lielausis  
RMT, Inc.  
3250 Ocean Park Blvd., Ste. 370  
Santa Monica, CA 90405

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 11/05/92, under chain of custody record 23456.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,  
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen  
Laboratory Director

**Table 1**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Water**

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		01	02	03	
Client Identification		RAO-1	RAO-2	RAO-4	
Date Sampled		11/04/92	11/04/92	11/04/92	
Date Analyzed		11/12/92	11/12/92	11/12/92	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	
Toluene	0.3	<0.3	<0.3	<0.3	
Ethylbenzene	0.3	<0.3	<0.3	<0.3	
Xylene, total	0.5	<0.5	<0.5	<0.5	
BTEX, total	--	--	--	--	
Gasoline	10	<10	<10	<10	
Detection Limit Multiplier		1	1	1	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.





Client Number: RMT01RMT01  
Consultant Project Number: 12013.06  
Project ID: Santa Monica, CA  
Work Order Number: C2-11-148

**Northwest Region**

4080-C Pike Lane  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California  
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Sincerely,  
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen  
Laboratory Director

Client Number: RMT01RMT01  
 Consultant Project Number: 12013.06  
 Project ID: Santa Monica, CA  
 Work Order Number: C2-11-148

**Table 1**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons as Diesel in Water**

**Modified EPA Methods 3510/8015a**

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL Sample Number		01	02	03	
Client Identification		RAO-1	RAO-2	RAO-4	
Date Sampled		11/04/92	11/04/92	11/04/92	
Date Extracted		11/12/92	11/12/92	11/12/92	
Date Analyzed		11/14/92	11/14/92	11/14/92	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Diesel	10	<10	<10	840*	
Quantitation Limit Multiplier		1	1	1	

\* Hydrocarbons in the range of diesel found. Pattern is not characteristic of fresh diesel fuel.



4080 PIKE LANE, SUITE C  
 CONCORD, CA 94520  
 (510) 685-7852  
 (800) 423-7143

CHAIN-OF-CUSTODY RECORD  
 AND ANALYSIS REQUEST

23455

Company Name: **RMT**  
 Company Address: **3250 OCCAW PARK BLVD #370**  
 Project Manager: **C. CILLAUS**  
 Phone #: **(310) 452-5078**  
 FAX #: \_\_\_\_\_  
 Site location: **SANTA MONICA CA**  
 Client Project ID: (#) **12013100**  
 (NAME) **ARATEX DAKLAND**  
 Sampler Name (Print): **PETER HILL**

**ANALYSIS REQUEST** **OTHER**

**C211147B**  
**TBOY**

BTEX/602  8020  with MTBE

BTEX/Gas Hydrocarbons PID/POC with MTBE

Hydrocarbons GC/FID Gas  Diesel  Screen

Hydrocarbon Profile (SIMDIS)

Oil and Grease 413.1  413.2  SM 503

TPH/IR 418.1  SM 503

EDB by 504  DBCP by 504

EPA 503.1  EPA 502.2

EPA 601  EPA 8010

EPA 602  EPA 8020

EPA 608  8080  PCB only

EPA 624/PPL  8240/TAL  NBS (+)

EPA 625/PPL  8270/TAL  NBS (+)

EPA 610  8310

EP TOX Metals  Pesticides  Herbicides

TCLP Metals  VOA  Semi-VOA  Pest  Her

EPA Metals - Priority Pollutant  TAL  RCRA

CAM Metals TLC  STLC

Lead 239.2  200.7  7420  7421  6010

Organic Lead

Corrosivity  Flash Point  Reactivity

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix							Method Preserved				Sampling	
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	UNPRESERVED	OTHER (SPECIFY)	DATE
RAO-1	01	3	X	X										11/4	230
RAO-2	02	3	X	X										11/4	1220
RAO-3	03	3	X	X										11/4	1240

AT 11/13/92

TAT \_\_\_\_\_

Special Handling \_\_\_\_\_

SPECIAL DETECTION LIMITS \_\_\_\_\_

SPECIAL REPORTING REQUIREMENTS \_\_\_\_\_

QA / QC LEVEL \_\_\_\_\_

OTHER \_\_\_\_\_

Priority (24 hr)

Expedited (48 hr)

7 Business Days

Business Days

Priority

Express

OTHER \_\_\_\_\_

REMARKS

TRIP BANK WITH  
 ARATEX SERVICES CO # 23455

Lab Use Only Lot # \_\_\_\_\_ Storage Location: \_\_\_\_\_

Work Order # \_\_\_\_\_

**CUSTODY RECORD**

Relinquished by Sampler: \_\_\_\_\_ Date: 11/5/92 Time: 10:07

Relinquished by: \_\_\_\_\_ Date: 11/5/92 Time: 11:58

Relinquished by: \_\_\_\_\_ Date: 11/5/92 Time: 1:00

Received by: \_\_\_\_\_

Received by: \_\_\_\_\_

Received by Laboratory: \_\_\_\_\_

Waybill # \_\_\_\_\_