TANK PROTECT ENGINEERING
of Northern California, Inc.

Juliet Shin
Senior Hazds Material Specialist
Alameda Cty Health Agcy

January 23, 1997

Mr. Michael Yue
21995 Mission Blvd.
Hayward, CA 94541

Re: First Quarter Report, 1997, Fountain Cleaners, 2008 Encinal Ave, Alameda, CA 94501

Dear Mr. Yue:

Tank Protect Engineering of Northern California, Inc. (TPE) is pleased to submit this quarterly letter report of environmental services conducted at the subject site. Previous work conducted at the site is summarized and work conducted during the subject quarter is presented in detail.

BACKGROUND

On June 9, 1994 monitoring well MW-1 was installed at the subject site in reply to soil contamination discovered during tank removal on July 11, 1989. Chemical analyses from soil and groundwater samples collected during installation detected elevated levels of total petroleum hydrocarbons as diesel (TPHD), as gasoline (TPHG), oil and grease (O&G), methyl t-butyl ether, benzene, toluene, ethylbenzene, and xylenes (MBTEX), and chlorinated hydrocarbons (CHC). Groundwater monitoring conducted during this quarter is in response to Alameda County Health Care Services Agency (ACHCSA) letter dated May 22,1996 Required Investigations at Fountain Cleaners, Located at 2006 Encinal Avenue, Alameda CA.

2821 Whipple Road, Union City, CA 94587-1233 ■ (510) 429-8088 ■ (800) 523-8088 ■ Fax (510) 429-8089

Work performed by TPE during fourth quarter, 1996:

- October 9, 1996 - Collected 1 groundwater sample from well MW-1 and analyzed the sample and 1 trip blank sample for TPHD, TPHG, O&G, MBTEX, and CHC's. Additionally analyzed one trip blank sample for TPHG and MBTEX.

- October 25, 1996 - TPE submitted a Fourth Quarter Report, 1996, Fountain Cleaners, 2006 Encinal Avenue, Alameda CA 94501 to the client for approval and submittal to ACHCSA.

WORK PERFORMED BY TPE DURING FIRST QUARTER, 1997:

- January 10, 1997 - Collected 1 groundwater sample from well MW-1 and analyzed the sample and 1 trip blank sample for TPHD, TPHG, O&G, MBTEX, and CHC's. Additionally analyzed one trip blank sample for TPHG and MBTEX.

Details of the above scope of work are presented below.

Depth to Groundwater Measurement

On January 10, 1997 depth-to-groundwater was measured from top-of-casing (TOC) in well MW-1 to the nearest 0.01 foot using an electronic Solinst water level meter. A minimum of 3 repetitive measurements were made for each level determination to ensure accuracy.

Depth to groundwater in well MW-1 was 5.08 feet.

Groundwater Sampling and Analytical Results

On January 10, 1997 a groundwater sample was collected from groundwater monitoring well MW-1. Before sampling, the well was purged of about 27 liters of groundwater using a dedicated polyethylene bailer and until the temperature, conductivity, and pH of the water in the well had stabilized (see attached Record of Water Sampling). The water sample was collected in laboratory provided, sterilized, one liter amber glass bottles and 40-milliliter glass vials having Teflon-lined screw caps and labeled with

project name, date and time collected, sample number, and sampler name. The sample was immediately stored in an iced-cooler for transport to California State Department of Health Services (DHS) certified Entech Analytical Labs, Inc. located in Sunnyvale, California accompanied by chain-of-custody documentation.

The groundwater samples from well MW-1 was analyzed for hydrocarbons (TPHD and TPHG), O&G, MBTEX and CHC's by the United States Environmental Protection Agency Methods 8015M, SM5520, 8020 and 8010, respectively. Trip blank sample (MW-2) was analyzed for TPHG and MBTEX by EPA methods 8015M and 8020, respectively.

The well was checked for floating product using a dedicated, disposable polyethylene bailer. Sheen, and odor were detected during purging.

Purge water is stored on site in a 55-gallon drum labeled to show material stored, known or suspected chemical contaminant, date filled, expected removal date, company name, contact person, and telephone number.

See attached protocols for TPE's sample handling, groundwater monitoring well sampling, and quality assurance and quality control procedures.

Chemical analyses detected TPHD, TPHG, ethylbenzene and xylenes at concentrations of 530 parts per billion (ppb), 3,800 ppb, 53 ppb, and 88 ppb, respectively. All other analyses were nondetectable. TPHG and MBTEX chemicals were nondetectable for the trip blank sample, MW-2.

Analytical results are summarized in attached Table 1 and documented in an attached certified analytical report and a chain-of-custody.

RECOMMENDATIONS

Groundwater levels were 2.44 feet higher this quarter. Chemical concentrations were lower during this quarterly monitoring event. Chemical concentrations can fluctuate in accordance with groundwater levels. TPE recommends continued quarterly groundwater sampling to monitor for TPHD, TPHG, O&G, MBTEX and CHC's.

The next sampling event is due on about April 10, 1997.

An additional copy of this letter report is included for your delivery to:

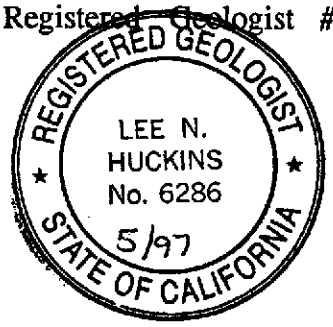
Ms. Juliet Shin
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

TPE recommends that this quarterly letter report be submitted with a cover letter from Mr. Michael Yue.

If you have any questions, please call TPE at (510) 429-8088.

Sincerely,

Lee N. Huckins
Registered Geologist #6286



Jeff Farhoomand, M.S.
Principal Engineer

TABLE 1
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS
(ppb[1])

Sample ID Name	Date	TPHD	TPHG	Methyl t-Butyl Ether	Benzene	Toluene	Ethyl-benzene	Xylenes	Oil & Grease
MW-1	10/09/96[2]	<50	22,000	120	610	54	670	2,400	<5,000
	01/10/97[2]	530	3,800	<5.0	<0.5	<0.5	53	88	<5,000
MW-2[3]	10/09/96	NA[4]	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5	NA
	01/10/97	<50	<50.0	<5.0	<0.5	<0.5	<0.5	<0.5	<5,000

1 PARTS PER BILLION
2 ALSO ANALYZED FOR CHLORINATED HYDROCARBONS BY EPA METHOD 8010; ALL RESULTS WERE NONDETECTABLE.
3 TRIP BLANK
4 NOT ANALYZED

RECORD OF WATER SAMPLING

PROJECT NO.: 388 DATE: 1-10-97

PROJECT NAME: M. Yue

PROJECT LOCATION: 2006 Encinal

SAMPLER: LNH

ANALYSES: TPHD, TPHG, MBTEX & 8010

WELL DEPTH (from construction detail): _____

WELL DEPTH (measured): 9.10 SOFT BOTTOM?: No

DEPTH TO WATER: 5.08 TIME: 9:39

PRESSURE (circle one)?: YES OR NO

IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?

WELL NO.: MW-1

WELL DIAMETER: 2"

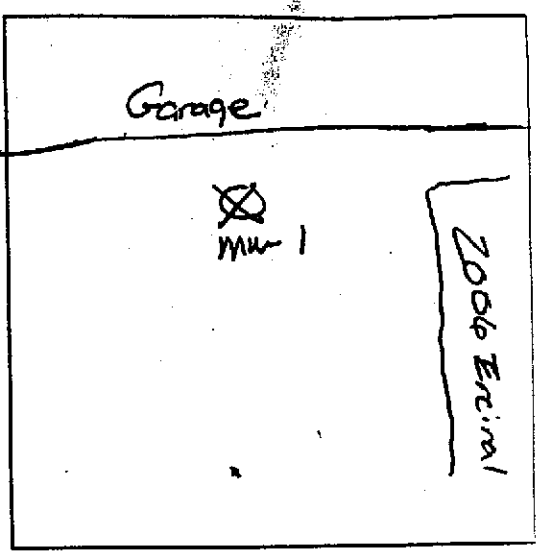
TOC ELEV: _____

LOCK NO.: 605

WATER VOLUME IN WELL: 2.24

[2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT]

[6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]



LOCATION MAP

CALCULATED PURGE VOL. (GAL): 6.72 (L): 26 ACTUAL PURGE VOL. (GAL): _____ (L): 27

PURGE METHOD: Poly SAMPLE METHOD: Poly

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (L)	Temp (Deg. F)	pH	EC	Clarity	Turbidity (NTU)	Remarks
955		5	58.9	6.67	1090			odor Diesel?
958		10	60.6	6.68	1050			
1000		15	60.6	6.67	1020			sheen
1003		20	60.2	6.63	1090			"
1006		25	60.3	6.61	974			"
1008		26	60.2	6.60	971			"
		27	60.5	6.60	959			"
1015	well		sampled				1831	

SIGNATURE: Lee Hacker

WATER VOL. IN DRUM: 10

NEED NEW DRUM?: No

SAMPLE HANDLING PROCEDURES

Soil and groundwater samples will be packaged carefully to avoid breakage or contamination and will be delivered to the laboratory in an iced-cooler. The following sample packaging requirements will be followed.

- Sample bottle/sleeve lids will not be mixed. All sample lids will stay with the original containers and have custody seals affixed to them.

- Samples will be secured in coolers to maintain custody, control temperature and prevent breakage during transportation to the laboratory.

- A chain-of-custody form will be completed for all samples and accompany the sample cooler to the laboratory.

- Ice, blue ice or dry ice (dry ice will be used for preserving soil samples collected for the Alameda County Water District) will be used to cool samples during transport to the laboratory.

- Water samples will be cooled with crushed ice. In the Alameda County Water District, water samples will be buried in the crushed ice with a thermometer, and the laboratory will be requested to record thermometer temperature at the time of receipt.

- Each sample will be identified by affixing a pressure sensitive, gummed label or standardized tag on the container(s). This label will contain the site identification, sample identification number, date and time of sample collection and the collector's initials.

- Soil samples collected in brass tubes will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes will

be labeled, sealed in quart size bags and placed in an iced-cooler for transport to the laboratory.

All groundwater sample containers will be precleaned and will be obtained from a State Department of Health Services certified analytical laboratory.

Sample Control/Chain-of-Custody: All field personnel will refer to this workplan to verify the methods to be employed during sample collection. All sample gathering activities will be recorded in the site file; all sample transfers will be documented in the chain-of-custody; samples will be identified with labels; all sample bottles will be custody-sealed. All information is to be recorded in waterproof ink. All TPE field personnel are personally responsible for sample collection and the care and custody of collected samples until the samples are transferred or properly dispatched.

The custody record will be completed by the field technician or professional who has been designated by the TPE project manager as being responsible for sample shipment to the appropriate laboratory. The custody record will include, among other things, the following information: site identification, name of person collecting the samples, date and time samples were collected, type of sampling conducted (composite/grab), location of sampling station, number and type of containers used and signature of the TPE person relinquishing samples to a non-TPE person with the date and time of transfer noted. The relinquishing individual will also put all the specific shipping data on the custody record.

Records will be maintained by a designated TPE field employee for each sample: site identification, sampling location, station number, date, time, sampler's name, designation of the sample as a grab or composite, notation of the type of sample (e.g., groundwater, soil boring, etc.), preservatives used, onsite measurement data and other observations or remarks.

GROUNDWATER MONITORING WELL SAMPLING PROCEDURES

Groundwater monitoring wells will not be sampled until at least 24 to 72 hours (according to local regulatory guidelines) after well development. Groundwater samples will be obtained using a bladder pump, clear Teflon bailer or dedicated polyethylene bailer. Prior to collecting samples, the sampling equipment will be thoroughly decontaminated to prevent introduction of contaminants into the well and to avoid cross-contamination. Monitoring wells will be sampled after 3 to 10 wetted casing volumes of groundwater have been evacuated and pH, electrical conductivity and temperature have stabilized as measured with a Hydac Digital Tester. If the well is emptied before 3 to 10 well volumes are removed, the sample will be taken when the water level in the well recovers to 80% or more of its initial water level.

When a water sample is collected, turbidity of the water will be measured and recorded with a digital turbidimeter. Degree of turbidity will be measured and recorded in nephelometric turbidity units (NTU).

TPE will also measure the thickness of any floating product in the monitoring wells using an interface probe or clear Teflon or polyethylene bailer. The floating product will be measured after well development but prior to the collection of groundwater samples. If floating product is present in the well, TPE will recommend to the client that product removal be commenced immediately and reported to the appropriate regulatory agency.

Unless specifically waived or changed by the local, prevailing regulatory agency, water samples will be handled and preserved according to the latest United States Environmental Protection Agency methods as described in the Federal Register (Volume 44, No. 233, Page 69544, Table ll) for the type of analysis to be performed.

Development and/or purge water will be stored on site in labeled containers. The disposal of the containers and development and/or purge water is the responsibility of the client.

MEASUREMENTS

Purged Water Parameter: During purging, discharged water will be measured for the following parameters.

Parameter	Units of Measurement
pH	None
Electrical Conductivity	Micromhos
Temperature	Degrees F or C
Depth to Water	Feet/Hundredths
Volume of Water Discharged	Gallons
Turbidity	NTU

Documentation: All parameter measurements will be documented in writing on TPE development logs.

QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

The overall objectives of the field sampling program include generation of reliable data that will support development of a remedial action plan. Sample quality will be checked by the use of proper sampling, handling and testing methods. Additional sample quality control methods may include the use of background samples, equipment rinsate samples and trip and field blanks. Chain-of-custody forms, use of a qualified laboratory, acceptable detection limits and proper sample preservation and holding times also provide assurance of accurate analytical data.

TPE will follow a quality assurance and quality control (QA/QC) program in the field to ensure that all samples collected and field measurements taken are representative of actual field and environmental conditions and that data obtained are accurate and reproducible. These activities and laboratory QA/QC procedures are described below.

Field Samples: Additional samples may be taken in the field to evaluate both sampling and analytical methods. Three basic categories of QA/QC samples that may be collected are trip blanks, field blanks and duplicate samples.

Trip blanks are a check for cross-contamination during sample collection, shipment, and laboratory analysis. They are water samples that remain with the collected samples during transportation and are analyzed along with the field samples to check for residual contamination. Analytically confirmed organic-free water will be used for organic parameters and deionized water for metal parameters. Blanks will be prepared by the laboratory supplying the sample containers. The blanks will be numbered, packaged and sealed in the same manner as the other samples. One trip blank will be used for each sample set of less than 20 samples. At least 5% blanks will be used for sets greater than 20 samples. The trip blank is not to be opened by either the sample collectors or the handlers.

The field blank is a water sample that is taken into the field and is opened and exposed at the sampling point to detect contamination from air exposure. The water

sample is poured into appropriate containers to simulate actual sampling conditions. Contamination due to air exposure can vary considerably from site to site.

The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels. Full documentation of these collection and decoy procedures will be made in the site log book.

Duplicate samples are identical sample pairs (collected in the same place and at the same time), placed in identical containers. For soils, adjacent sample liners will be analyzed. For the purpose of data reporting, one is arbitrarily designated the sample, and the other is designated as a duplicate sample. Both sets of results are reported to give an indication of the precision of sampling and analytical methods.

The laboratory's precision will be assessed without the laboratory's knowledge by labeling one of the duplicates with false identifying information. Data quality will be evaluated on the basis of the duplicate results.

Laboratory QA/QC: Execution of a strict QA/QC program is an essential ingredient in high-quality analytical results. By using accredited laboratory techniques and analytical procedures, estimates of the experimental values can be very close to the actual value of the environmental sample. The experimental value is monitored for its precision and accuracy by performing QC tests designed to measure the amount of random and systematic errors and to signal when correction of these errors is needed.

The QA/QC program describes methods for performing QC tests. These methods involve analyzing method blanks, calibration standards, check standards (both independent and the United States Environmental Protection Agency-certified standards), duplicates, replicates and sample spikes. Internal QC also requires adherence to written methods, procedural documentation and the observance of good laboratory practices.

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Tank Protect Engineering
2821 Whipple Road
Union City, CA 94587
Attn: Lee Huckins

Date:	1/20/97
Date Received:	1/13/97
Date Analyzed:	1/14-1/16/97
Project #:	388 011097
P.O. #:	1372
Sampled By:	Client

Certified Analytical Report

Water Sample Analysis:

Test	*MW-1*	*MW-2*	*Units*	*PQL*	*EPA Method #*
Sample Matrix	Water	Water			
Sample Date	1/10/97	1/10/97			
Sample Time	1015	1020			
Lab #	D1468	D1469			
Oil and Grease	**ND**	**na**	mg/liter	5.0 mg/l	413.2
DF-Diesel	1				
TPH-Diesel	**530[3]**	**na**	µg/liter	50.0 µg/l	8015M
DF-Gas/BTEX	8	1			
TPH-Gas	**3,800**	**ND**	µg/liter	50.0 µg/l	8015M
MTBE	**ND**	**ND**	µg/liter	5.0 µg/l	8020
Benzene	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Toluene	**ND**	**ND**	µg/liter	0.5 µg/l	8020
Ethyl Benzene	**53**	**ND**	µg/liter	0.5 µg/l	8020
Xylenes	**88**	**ND**	µg/liter	0.5 µg/l	8020
Volatile Organics	**ND**	**na**	µg/liter	See Worksheet	8010

1. DLR=DF x PQL
2. na: not analyzed
3. TPH-Diesel chromatogram for Lab #D1468, although within the reporting range, does not match the typical Diesel pattern
4. See Organic Analysis Worksheet for individual compounds, detection limits, and analysis date
5. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

Entech Analytical Labs, Inc.

CA ELAP# 1369

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Certified Analytical Report: EPA Method #8010

Client:	Tank Protect Engineering
Sample Matrix:	Water
Lab #:	D1468
Sample ID:	MW-1

Date:	1/20/97
Date Received:	1/13/97
Date Analyzed	1/15/97
Dilution Factor	5^3

Compound	*Concentration Found*	*PQL*	*Compound*	*Concentration Found*	*PQL*
Bromodichloromethane	**ND**	0.5 ppb	**trans-1,2-Dichloroethene**	**ND**	0.5 ppb
Bromoform	**ND**	1.0 ppb	**1,2-Dichloropropane**	**ND**	0.5 ppb
Bromomethane	**ND**	1.0 ppb	**cis-1,3-Dichloropropene**	**ND**	0.5 ppb
Carbon Tetrachloride	**ND**	0.5 ppb	**trans-1,3-Dichloropropene**	**ND**	0.5 ppb
Chlorobenzene	**ND**	0.5 ppb	**Methylene Chloride**	**ND**	3.0 ppb
Chloroethane	**ND**	1.0 ppb	**1,1,2,2-Tetrachloroethane**	**ND**	0.5 ppb
Chloroform	**ND**	1.0 ppb	**Tetrachloroethene**	**ND**	0.5 ppb
Chloromethane	**ND**	0.5 ppb	**1,1,1-Trichloroethane**	**ND**	0.5 ppb
Dibromochloromethane	**ND**	1.0 ppb	**1,1,2-Trichloroethane**	**ND**	0.5 ppb
Dichlorodifluoromethane	**ND**	0.5 ppb	**Trichloroethene**	**ND**	0.5 ppb
1,2-Dichlorobenzene	**ND**	0.5 ppb	**Trichlorofluoromethane**	**ND**	0.5 ppb
1,3-Dichlorobenzene	**ND**	0.5 ppb	**Vinyl Chloride**	**ND**	0.5 ppb
1,4-Dichlorobenzene	**ND**	0.5 ppb			
1,1-Dichloroethane	**ND**	0.5 ppb			
1,2-Dichloroethane	**ND**	0.5 ppb			
1,1-Dichloroethene	**ND**	0.5 ppb			

Surrogate	**Recovery (%)**
2-Bromo-1-Chloropropane	104

1. DLR=DF x PQL
2. Reporting Units (ppb): Soil (µg/kg); Water (µg/liter)
3. Sample diluted due to high concentrations of non-target compounds
4. Analysis performed by Entech Analytical Labs, Inc. (CAELAP #1369)
5. This worksheet is an integral part of the Certified Analytical Report for Lab #D1468 and should not be reproduced except in full without the written consent of Entech Analytical Labs, Inc.

Michael N. Golden, Lab Director

DF=Dilution Factor
DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
ND=None Detected at or above DLR

TANK PROTECT ENGINEERING
of Northern California, Inc.
2821 Whipple Rd., Union City, CA 94587-1233
(510) 429-8088 ■ (800) 523-8088 ■ Fax (510) 429-8089

LAB: Entech

TURNAROUND: 15 day

P.O. #: 1372

PAGE 1 OF 1

CHAIN OF CUSTODY

PROJECT NO.: 388.01097

SITE NAME & ADDRESS: 2008 Encinal M. Ave Alameda

SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER:
Lee Huckins
2821 WHIPPLE ROAD, UNION CITY, CA 94587 (415) 429-8088

ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION	(1) TYPE OF CONTAINER	TOTAL LIGHT HC	AROMATIC HC (BTX)	TOTAL HEAVY HC	OIL & GREASE	VOC SCAN (Method 8010)	OTHER	REMARKS
mw-1	1/10	1015		X		2-1 Liter 4-40ml	X	X	X	X	X		D1468
mw-2	1/10	1020		X	(also TB)	2-40ml	X	X					5 months D1469
					VT 01/13/97								

Relinquished by : (Signature)	Date / Time	Received by : (Signature)	Relinquished by : (Signature)	Date / Time	Received by : (Signature)
Lee Huckins	1/13/97 8:20	Jennifer Ellison	✓		
Relinquished by : (Signature)	Date / Time	Received by : (Signature)	Relinquished by : (Signature)	Date / Time	Received by : (Signature)
Relinquished by : (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

DATE: _____