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ETIC ENGINEERING

FOURTH QUARTER 2003
GROUNDWATER MONITORING REPORT

STROUGH FAMILY TRUST OF 1983
VAL STROUGH SITE
327 34th STREET
OAKLAND, CALIFORNIA

Prepared For:

Mr. Don Strough
Strough Family Trust of 1983
PO Box 489
Orinda, California 94563

Prepared By:

ETIC Engineering, Inc
1333 Broadway, Suite 1015
Oakland, CA 94612

January 21, 2003

Fourth Quarter 2003
Groundwater Monitoring Report

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SITE CONTACTS

Site Name:	Val Strough Chevrolet
Site Address:	327 34th Street Oakland, California
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1.0 INTRODUCTION

At the request of the Strough Family Trust of 1983, ETIC Engineering, Inc. has prepared this *Fourth Quarter 2003 Groundwater Monitoring Report* for the Val Strough Chevrolet site located in Oakland, California. This report covers site activities through 12 December 2003, the date of the most recent monitoring event. Groundwater monitoring results, well construction details, and groundwater monitoring plan are provided in the attached figures and tables. Groundwater monitoring protocols, field data, and analytical results are provided in the attached appendixes.

GENERAL SITE INFORMATION

Site name:	Val Strough Chevrolet
Site address:	327 34th Street, Oakland, California
Current property owner:	Strough Family Trust of 1983
Current site use:	Active Val Strough Sales and Service Center
Current phase of project:	Groundwater monitoring, onsite investigation
Tanks at site:	Two former tanks (1 gasoline, 1 waste-oil) removed 1993
Number of wells:	7 (all onsite)

GROUNDWATER MONITORING SUMMARY

Gauging and sampling date:	12 December 2003
Wells gauged and sampled:	MW1, MW4-MW7
Wells gauged only:	MW2, MW3
Groundwater flow direction:	South-southwest
Groundwater gradient:	0.02 to 0.03
Liquid-phase hydrocarbons:	Observed in MW2 and MW3
Laboratory:	Severn Trent Laboratories, Inc (STL) of San Francisco, Pleasanton, California

Analyses performed:

- Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl t-butyl ether (MTBE) by EPA Method 8260B.
- Total Extractable Petroleum Hydrocarbon (TEPH) with Silica Gel Clean-up by modified EPA Method 8015.

2.0 SITE BACKGROUND

2.1 SITE LOCATION AND LAND USE

Val Strough Chevrolet is an active automobile dealership and service center located at 327 34th Street, Oakland, California on the southwest corner of the intersection of Broadway (Auto Row) and 34th Street (Figure 1). The property is located south of Interstate 580. Land use in the area is primarily mixed commercial.

The site topography has a slight grade toward the south. The site is located in the San Francisco Bay area, approximately 2 miles east of the San Francisco Bay. The nearest surface water body is Lake Merritt, which is located approximately one mile south of the site.

2.2 SITE HISTORY AND PREVIOUS INVESTIGATIONS

A 1,000-gallon gasoline underground storage tank (UST) was installed in 1975 and a 1,000-gallon waste-oil UST was installed prior to 1949. Between 4 and 5 March 1993, the two 1,000-gallon USTs containing unleaded gasoline and waste oil were excavated and removed from the site. The chemicals of potential concern (COPCs) at the site include TPH-g; TPH as diesel (TPH-d); TPH as motor oil; BTEX; and MTBE. Confirmation soil samples were collected at the bottom of each end of the UST excavations, at approximately 9.5 to 11 feet below ground surface (bgs). Soil samples beneath the gasoline UST contained TPH-g concentrations of 130 milligrams per kilogram (mg/kg), toluene at 0.20 mg/kg, ethylbenzene at 4.9 mg/kg, and total xylenes at 7.8 mg/kg. The COPCs were not detected in soil samples beneath the waste-oil UST.

In July 1993, GeoPlexes, Inc. installed three groundwater monitoring wells (MW1-MW3) downgradient of the USTs (see Table 1 for construction details). MW1 is located southeast, approximately 10 feet from the waste-oil UST. MW2 is located approximately 15 feet south and downgradient of the gasoline UST. MW3 is located downgradient from MW2 and the two USTs (approximately 40 feet south of the USTs). Figures 2 and 3 show the monitoring well locations.

Soil samples collected from each of the monitoring wells (MW1-MW3) were submitted to a state-certified laboratory for analysis. Soil samples from MW1 were below laboratory reporting limits for the COPCs. Soil samples from MW2 contained elevated TPH and BTEX concentrations. Soil samples from boring MW3 (downgradient of MW2) contained TPH, which were not further quantified by the laboratory due to heavy gasoline/or aged gasoline. TPH-g and benzene were detected in the capillary zone soils and in soils beneath the water table. Upon completion of MW3, 0.16 foot of floating liquid-phase hydrocarbons (LPH) was observed in this well. The LPH was determined to consist of gasoline-range hydrocarbons. Groundwater quality data are summarized in Table 2.

In June 1998, two additional groundwater monitoring wells (MW4 and MW5) and one soil boring (B-6) were installed to further characterize the lateral extent of the TPH plume. The monitoring wells were completed to a total depth of 31 feet bgs and B-6 was advanced to 26 feet bgs. Analytical results for the COPCs were not detected, except trace benzene levels in MW4 (0.045 parts per billion [ppb]). All five monitoring wells were sampled and tested (see Table 3).

In July 2000, two additional groundwater monitoring wells (MW6 and MW7) were installed downgradient of the plume on the east and west sides of a box culvert in the eastern portion of the site. The underground box culvert (Former Tributary of Glen Echo Creek) in the east side of the site (below parking lot area) was also investigated in July 2000. The box culvert transecting the site is a re-enforced concrete box measuring 5 feet wide by 6 feet high. The total depth of the concrete box is approximately 17 feet bgs. A cave-in occurred along the box culvert alignment during winter 1983. The caved-in section of the culvert was replaced and lined with a 5-foot-diameter pipe. The flow-line in the culvert at the time was 22.5 feet bgs.

2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY

The area is underlain by the Quaternary Temescal Formation, which consists of interfingering layers of clayey gravel, sandy silty clay, and various clay-silt-sand mixtures. The formation varies in thickness to a maximum depth of approximately 60 feet. Underlying the Temescal Formation is the Quaternary Alameda Formation, which consists of unconsolidated continental and marine gravels, sands, silts, and clays, with some shells and organic material in various places. The formation has a maximum known thickness of 1,050 feet (Radbruck, 1957). The site has an elevation of approximately 61 feet above mean sea level (Environmental Data Resources, Inc., 2003).

The site is located in the East Bay Plain Groundwater Basin. Regional groundwater flow is to the south, in the general direction of the San Francisco Bay (RWQCB, 1995). A current groundwater elevation contour map (with rose diagram) is presented as Figure 2.

2.4 SITE GEOLOGY AND HYDROGEOLOGY

The geology and hydrogeology of the site have been evaluated using soil boring logs from previous investigations at the site. In general, the lithology at the site consists of silty clays, sandy clays, or clays from the surface to depths ranging from 20 to 22 feet bgs. Silty sand has been encountered from approximately 26 feet bgs to the total depth explored in borings MW1 through MW4 (approximately 31 feet bgs). Sandy clay has been observed in MW2 at approximately 35 feet bgs. The total depth explored to date beneath the site is 35 feet bgs.

In December 2003, groundwater occurred at an average depth of 20.5 feet bgs. Figure 2 depicts a rose diagram showing flow directions for the shallow water-bearing zone beneath the site. As shown in the rose diagram, the prevailing groundwater flow direction has been toward the southwest, with an average hydraulic gradient of approximately 0.02 to 0.03 foot/foot. The rose

diagram was prepared using groundwater monitoring data from July 1993 through December 2003. Historical and current groundwater monitoring data are presented in Table 2.

3.0 PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

The following sections of this report present information relevant to the methods employed during the collection of groundwater samples from site wells.

The scope of work for the quarterly groundwater monitoring event at the site included:

- Checking for LPH in all wells.
- Gauging depth to groundwater in all wells.
- Purging wells to be sampled.
- Collecting and analyzing groundwater samples from wells with no LPH.
- Calculating the groundwater gradient and flow direction.
- Preparing a written report summarizing the results of the monitoring event.

3.1 GROUNDWATER GAUGING

Wells were opened prior to gauging to allow the groundwater level to equilibrate with atmospheric pressure. The depth to groundwater and depth to LPH, if present, were then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements were made from a permanent reference point at the top of the well casing. Wells with a sheen or measurable LPH were not purged or sampled.

The groundwater elevation map (Figure 2) for this monitoring event was constructed using depth-to-groundwater measurements collected during the current sampling event. Depth-to-groundwater measurements and calculated groundwater elevations are presented in Table 2. Field data forms are presented in Appendix B.

3.2 WELL PURGING

After the wells were gauged, each well was purged a minimum of 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters including pH, temperature, and electrical conductance were measured during purging to ensure that these parameters had stabilized before groundwater was sampled. Groundwater in each well was purged using an inertial pump (WaTerra). After the well was purged, the water level was checked to ensure that the well had recharged to at least 80 percent of its pre-purge water level.

3.3 GROUNDWATER SAMPLING

After purging, groundwater in each well was sampled using dedicated tubing and an inertial pump (WaTerra). Samples collected for volatile organic analysis were placed in Teflon septum-sealed 40-milliliter glass vials in a manner in which no bubbles accumulated in the container.

Each sample bottle was labeled with the site name, well number, date, sampler's initials, and preservative. The samples were placed in a cooler with ice to minimize the potential loss of volatile constituents and delivered to STL San Francisco, a state-certified laboratory. The information for each sample was entered on a chain-of-custody form prior to transport to the laboratory. Groundwater analytical results and chain-of-custody documentation are presented in Appendix C.

Purge water produced during the monitoring event was temporarily stored onsite in 55-gallon drums.

4.0 RESULTS

The following sections of this report present the results of the depth-to-groundwater measurements and the analytical laboratory results for the groundwater samples that were collected as a part of this monitoring event.

4.1 LIQUID-PHASE HYDROCARBON MONITORING

Wells were monitored for the presence of LPH using a disposable bailer and/or interface probe. LPH was measured at a thickness of 0.16 feet in monitoring well MW2 and 0.01 feet in monitoring well MW3.

4.2 GROUNDWATER ELEVATION AND GRADIENT

Groundwater elevations in the monitoring wells during this monitoring event ranged between 41.69 feet above mean sea level (msl) at MW5 and 43.42 feet msl at MW1. Groundwater elevations are presented in Figure 2. Groundwater flow direction is to the south-southwest with a gradient ranging from 0.02 to 0.03 foot/foot. At the request of the Alameda County Health Services Agency (ACHSA), a rose diagram is also presented on Figure 2.

4.3 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples were collected from wells MW1, MW4, MW5, MW6, and MW7. Wells MW2 and MW3 were not sampled on 12 December due to the presence of LPH. Samples were analyzed by STL San Francisco for TPH-g, BTEX, and MTBE by EPA Method 8260B, and for TEPH with silica gel clean-up by modified EPA Method 8015. Analytical results for this and prior monitoring events are presented in Table 2. Analytical results for this monitoring event are presented on Figure 3. Copies of the chain-of-custody and laboratory analytical reports for the groundwater samples are presented in Appendix C.

The following observations are made comparing the current analytical results with the results of the previous sampling event.

- Concentrations of TPH-g and TPH-mo were below laboratory reporting limits in each of the monitoring wells sampled, however, reporting limits in several samples were raised due to high levels of analyte present in the samples. In previous monitoring events, only MW1 and MW7 were below laboratory reporting limits for TPH-g and TPH-mo.
- TPH-d was detected in MW1 and MW6 at concentrations of 58 µg/L, and 51 µg/L, respectively. Historically, MW1 and MW6 were below laboratory reporting limits for TPH-d
- BTEX concentrations were below the laboratory reporting limits in monitoring wells

MW4-MW7, however, as with the TPH-g analysis above, the reporting limits in several samples were raised due to high levels of analyte present in the samples. Total xylenes were detected at 1.1 µg/L in MW1. Trace concentrations of xylenes have been detected in MW1 in previous sampling events. With the exception of MW4, historic BTEX concentrations have been below or slightly above laboratory reporting limits in the wells sampled. MW4 was below laboratory reporting limits for BTEX in the previous monitoring event.

- MTBE concentrations ranged from below laboratory reporting limits (MW1 and MW7) to 1,000 µg/L (MW4). In monitoring wells where MTBE has been detected, the concentrations are similar to or have declined since the previous monitoring events.

4.4 WORK PROPOSED FOR NEXT QUARTER

Groundwater will be monitored in accordance with the attached groundwater monitoring schedule presented as Table 3, but will be re-evaluated after four consecutive quarters of monitoring.

5.0 REFERENCES

Environmental Data Resources. 2003. EDR Radius Map with GeoCheck, Strough Family Trust, 327 34th Street, Oakland, California. September 10.

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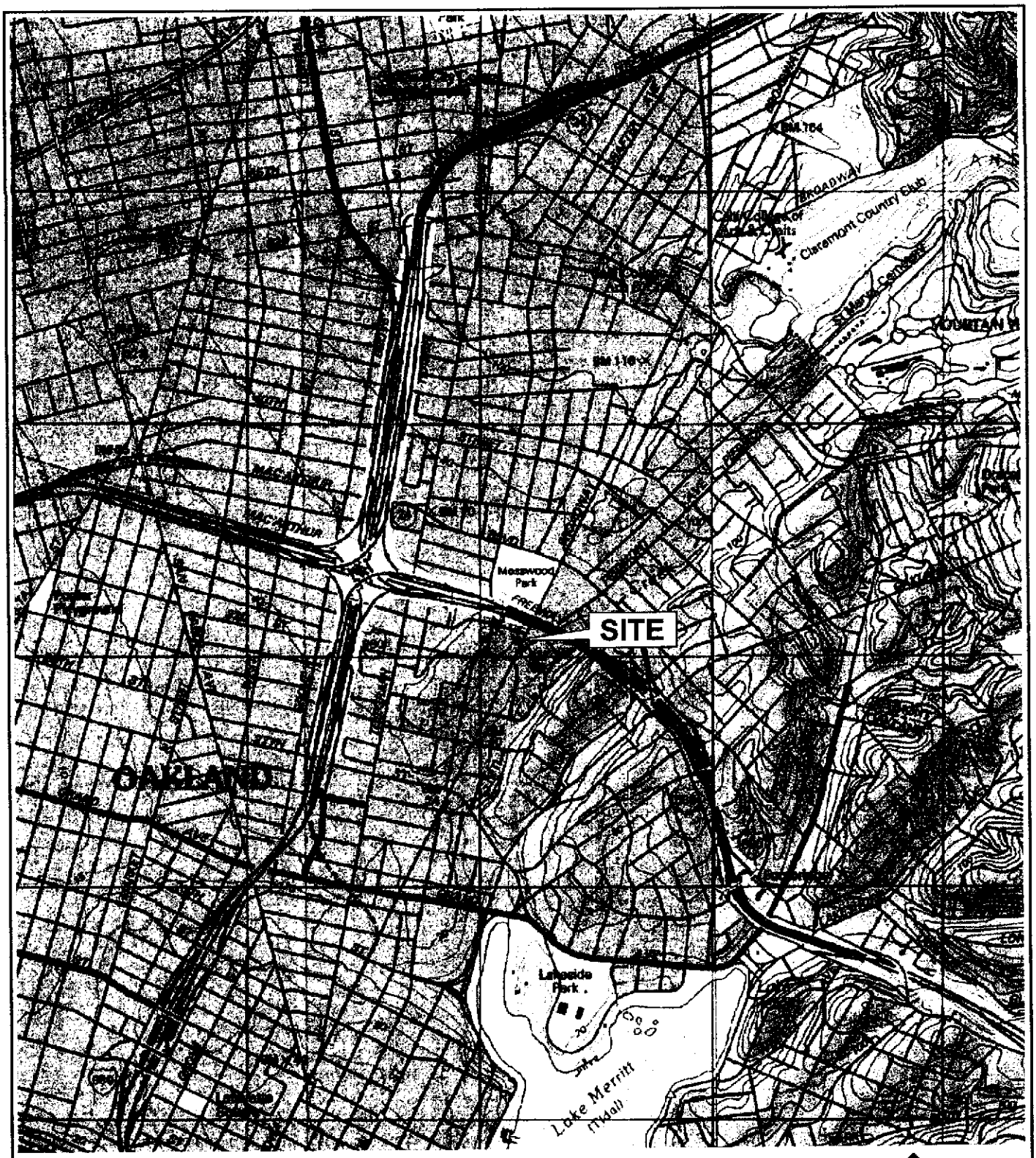
Radbruck, Dorothy H. 1957. Areal and Engineering Geology of the Oakland West Quadrangle, California, United States Geologic Survey Miscellaneous Geologic Investigations Map I-239.

Regional Water Quality Control Board (RWQCB), 1995. Water Quality Control Plan, San Francisco Bay Basin (Region 2). June 21.

Figures



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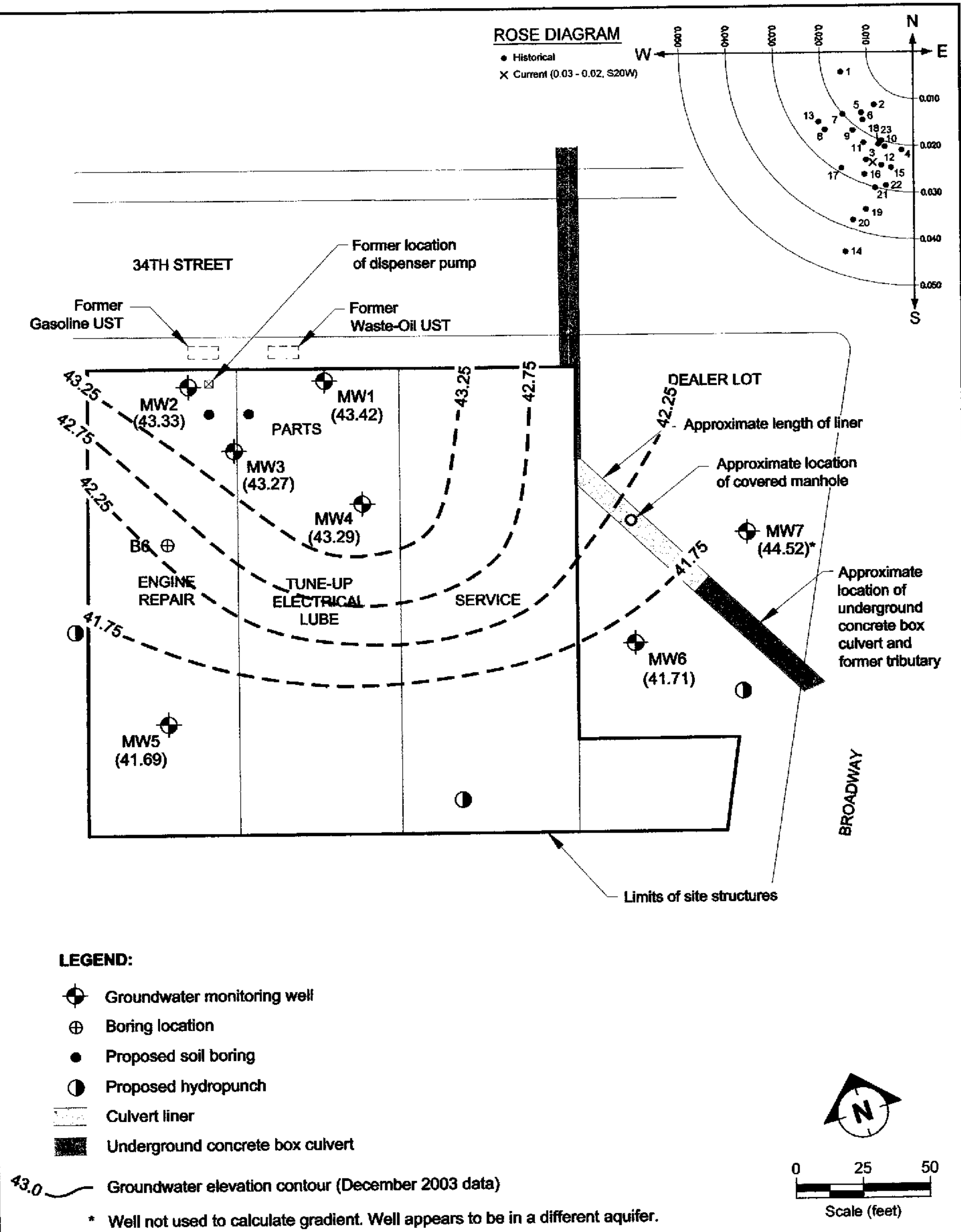
SITE VICINITY MAP
STROUGH FAMILY TRUST
327 34TH STREET
OAKLAND, CALIFORNIA

FIGURE: 1

FILENAME: QWR_402003.DWG 01/09/04



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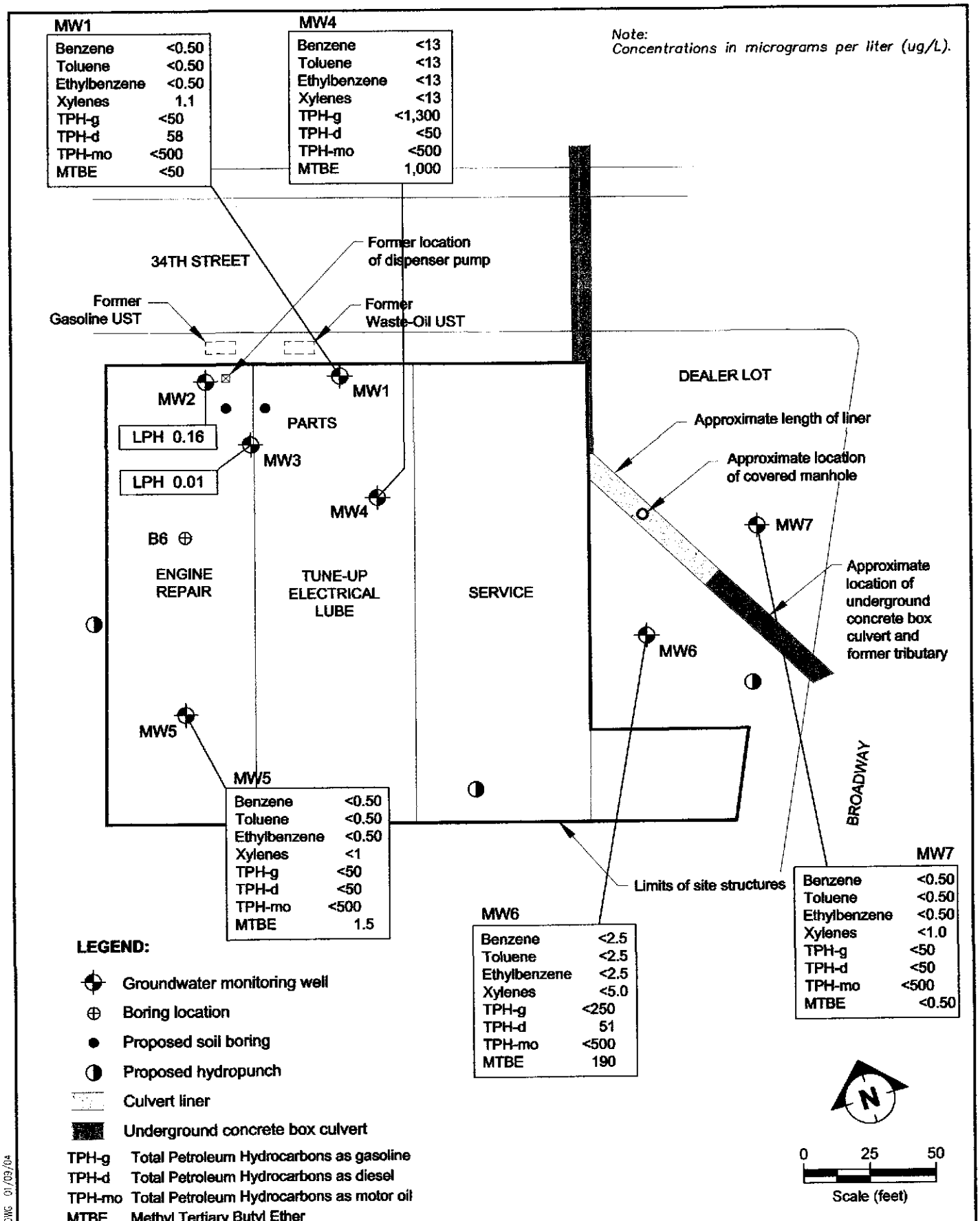
DECEMBER 2003 GROUNDWATER CONTOUR MAP AND ROSE DIAGRAM
STROUGH FAMILY TRUST
327 34TH STREET
OAKLAND, CALIFORNIA

FIGURE: 2

FILENAME: QMR_402003.DWG 01/09/04



FILENAME: CMR_4Q2003.DWG 01/09/04

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DECEMBER 2003 GROUNDWATER ANALYTICAL DATA
STROUGH FAMILY TRUST
327 34TH STREET
OAKLAND, CALIFORNIA

FIGURE: **3**

Tables

TABLE 1 WELL CONSTRUCTION DETAILS
STROUGH FAMILY TRUST, 327 34th STREET OAKLAND, CALIFORINA

Well ID	Well Installation Date	Top-of-Casing Elevation[a] (feet)	Casing Material	Total Depth of Borehole (ft bgs)	Casing Diameter (inches)	Screened Interval (ft bgs)	Slot Size (inches)	Filter Pack Interval (ft bgs)	Filter Pack Material
MW1	07/19/93	64.69	PVC	32	2	17-32	0.020	15-32	Gravel Pack
MW2	07/20/93	65.95	PVC	33	2	18-33	0.020	16-33	Gravel Pack
MW3	07/20/93	65.99	PVC	34	2	18-34	0.020	16-34	Gravel Pack
MW4	06/26/98	63.35	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW5	06/26/98	65.59	PVC	31	2	15-31	0.020	13-31.5	Lonestar #3 Sand
MW6	07/17/00	59.60	PVC	31.5	2	10-30	0.020	8-30	Lonestar #3 Sand
MW7	07/17/00	59.47	PVC	36.5	2	15-35	0.020	13-35	Lonestar #3 Sand

a Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level.
PVC Polyvinyl chloride.
ft bgs Feet below ground surface.

TABLE 2 GROUNDWATER QUALITY DATA, STROUGH FAMILY TRUST, 327-34TH STREET, OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	LPH Thickness (feet)	Concentration (µg/L)								Concentrations (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW1	07/27/93	100.00	a	20.79	79.21	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	--	--	--	--	--	--	--	--	--	--	--
MW1	10/02/97	100.00	a	21.22	78.78	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<2.0	--	--	--	--	--	--	--	--	--
MW1	06/30/98	100.00	a	18.21	81.79	0.00	<0.50	<0.50	2.1	0.6	84	--	--	2.1	204	5	6.16	0.15	0.046	55	<0.10	<0.10	2
MW1	07/29/98	100.00	a	18.74	81.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	08/26/98	100.00	a	19.28	80.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	10/01/98	100.00	a	19.93	80.07	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	192	3.6	6.49	--	--	--	--	--	--
MW1	10/30/98	100.00	a	20.22	79.78	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/30/98	100.00	a	19.99	80.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/28/98	100.00	a	19.81	80.19	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	01/25/99	100.00	a	19.62	80.38	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	389	3.4	6.72	--	--	--	--	--	--
MW1	02/26/99	100.00	a	17.18	82.82	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	03/24/99	100.00	a	17.28	82.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/12/99	100.00	a	17.91	82.09	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	12/15/99	100.00	a	21.01	78.99	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--	3.31	6.52	--	--	--	--	--	--
MW1	03/20/00	100.00	a	16.25	83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	07/20/00	100.00	a	19.63	80.37	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	3.4	120	7.37	6.66	0.13	<0.01	54	<0.10	3.4	<0.2
MW1	10/11/00	100.00	a	20.80	79.20	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	04/10-11/01	100.00	a	18.81	81.19	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	1.2	117	NR	NR	<0.10	0.045	57	<0.10	6.6	0.15
MW1	07/10/01	100.00	a	20.51	79.49	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	11/20/01	64.69	b	21.36	43.33	0.00	<0.50	1.3	<0.50	0.81	<50	<50	<300	<2.0	--[c]	0.65	6.47	0.32	1.8	63	<0.10	--	<0.20
MW1	02/19/02	64.69	b	18.95	45.74	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	05/21/02	64.69	b	19.82	44.87	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	120	0.96	6.25	<0.10	0.5	58	<0.10	5.5	<0.20
MW1	06/27/03	64.69	b	19.93	44.76	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW1	09/29/03	64.69	b	21.24	43.45	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	<0.50	--	--	--	--	--	--	--	--	--
MW1	**12/12/03**	**64.69**	**b**	**21.27**	**43.42**	**0.00**	**<0.50**	**<0.50**	**<0.50**	**1.1**	**<50**	**58**	**<500**	**<50**	--	--	--	--	--	--	--	--	--
MW2	07/27/93	101.27	a	22.10	79.17	0.00	10,000	27,000	2,900	20,000	120,000	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/02/97	101.27	a	22.91	78.36	0.43	*	*	*	*	*	--	--	*	--	--	--	--	--	--	--	--	--
MW2	06/30/98	101.27	a	19.69	81.58	0.45	7,300	18,000	2,500	15,600	72,000	--	--	5,500	185	2.2	5.98	--	--	--	--	--	--
MW2	07/29/98	101.27	a	20.11	81.16	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	08/26/98	101.27	a	20.54	80.73	0.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	10/01/98	101.27	a	21.52	79.75	0.42	6,400	17,000	2,600	17,000	84,000	--	--	2,000	--	2.7	6.47	--	--	--	--	--	--
MW2	10/30/98	101.27	a	21.54	79.73	0.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	11/30/98	101.27	a	21.21	80.06	0.04	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/28/98	101.27	a	21.10	80.17	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	01/25/99	101.27	a	20.80	80.47	0.01	9,000	26,000	3,800	27,500	130,000	--	--	5,800	386	0.3	6.69	--	--	--	--	--	--
MW2	02/26/99	101.27	a	18.00	83.27	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	03/24/99	101.27	a	18.27	83.00	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/12/99	101.27	a	19.08	82.19	trace	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	12/15-16/99	101.27	a	22.42	78.85	0.025	*	*	*	*	*	*	*	*	--	*	*	--	--	--	--	--	--
MW2	03/20/00	101.27	a	17.09	84.18	0.026	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	07/20/00	101.27	a	20.86	80.41	0.017	*	*	*	*	*	*	*	*	--	--	--	--	--	--	--	--	--
MW2	10/11/00	101.27	a	22.10	79.17	0.00	--	--	--	--	--	--	--	--	*	0.88	6.37	*	*	*	*	*	*
MW2	04/10-11/01	101.27	a	19.98	81.29	0.00	8,000	22,000	2,600	23,500	150,000	1,500	<600	3,600	--	--	--	--	--	--	--	--	--
MW2	07/10/01	101.27	a	21.85	79.42	0.00	5,900	15,000	2,300	12,100	83,000	5,700	<1,500	2,800	168	NR	NR	3.1	2.5	16	0.14	0.19	<0.20
															--	--	--	--	--	--	--	--	--

TABLE 2 GROUNDWATER QUALITY DATA, STROUGH FAMILY TRUST, 327-34TH STREET, OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	LPH Thickness (feet)	Concentration (µg/L)								Concentrations (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW2	11/20/01	65.95	b	22.75	43.20	0.00	--	--	--	--	--	--	--	--	120	NR	6.15	1.8	2	16	<0.10	--	<0.20
MW2	02/19/02	65.95	b	20.12	45.83	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	05/21/02	65.95	b	21.10	44.85	0.00	8,600	25,000	3,500	26,000	150,000	31,000	<3,000	4,800	160	0.88	5.99	3.9	1.7	13	<0.10	0.54	<0.20
MW2	06/27/03	65.95	b	21.48	44.47	0.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW2	09/29/03	65.95	b	23.04	42.91	0.48	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW2[c]	**12/12/03**	**65.95**	**b**	**22.75**	**43.31**	**0.16**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3	07/27/93	101.29	a	22.28	79.01	0.02	9,100	24,000	5,300	33,000	330,000	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/02/97	101.29	a	22.71	78.58	0.03	4,200	11,000	1,800	10,600	36,000	--	--	3,500	--	--	--	--	--	--	--	--	--
MW3	06/30/98	101.29	a	19.47	81.82	0.00	4,800	11,000	1,200	7,100	51,000	--	--	3,900	300	2	6.03	1.4	9.8	13	1.4	<0.10	2.4
MW3	07/29/98	101.29	a	20.01	81.28	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	08/26/98	101.29	a	20.62	80.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	10/01/98	101.29	a	21.33	79.96	0.00	3,900	8,500	1,200	6,000	38,000	--	--	2,300	240	2	6.65	--	--	--	--	--	--
MW3	10/30/98	101.29	a	21.62	79.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/30/98	101.29	a	21.31	79.98	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/28/98	101.29	a	21.15	80.14	0.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	01/25/99	101.29	a	20.79	80.50	0.00	4,000	10,000	1,200	6,700	5,100	--	--	2,900	238	1	7.01	--	--	--	--	--	--
MW3	02/26/99	101.29	a	18.02	83.27	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	03/24/99	101.29	a	18.37	82.92	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/12/99	101.29	a	19.22	82.07	0.0083	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	12/15-16/99	101.29	a	22.43	78.86	0.00	*	*	*	*	*	*	*	*	--	*	*	--	--	--	--	--	--
MW3	03/20/00	101.29	a	17.14	84.15	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	07/20/00	101.29	a	20.98	80.31	0.00	5,700	14,000	1,600	9,300	69,000	2,900	<300	3,300	128	2.05	6.73	3.9	6.6	20	<0.10	0.55	<0.20
MW3	10/11/00	101.29	a	22.24	79.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	04/10-11/01	101.29	a	20.70	80.59	0.00	7,200	<0.001	2,300	12,900	110,000	4,700	<1,500	4,300	137	NR	NR	1	6	8.2	<0.10	0.13	<0.20
MW3	07/10/01	101.29	a	21.97	79.32	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	11/20/01	65.99	b	22.80	43.19	0.00	6,300	16,000	2,400	14,900	100,000	5,900	<900	4,000	120	2.93	6.67	0.84	12	31	<0.10	--	<0.20
MW3	02/19/02	65.99	b	20.11	45.88	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	05/21/02	65.99	b	21.20	44.79	0.00	6,500	17,000	2,200	12,700	91,000	14,000	<3,000	2,200	130	1.01	6.62	4.2	9.6	25	<0.10	0.77	<0.20
MW3	06/27/03	65.99	b	21.32	44.67	sheen	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW3	09/29/03	65.99	b	22.79	43.20	sheen	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW3[c]	**12/12/03**	**65.99**	**b**	**22.73**	**43.27**	**0.01**	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
MW4	06/30/98	98.65	a	16.93	81.72	0.00	22,000	930	850	2,100	10,000	--	--	1,800	222	2.6	6.18	0.14	4.3	14	0.8	0.8	1.5
MW4	07/29/98	98.65	a	17.48	81.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	08/26/98	98.65	a	18.65	80.00	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	10/01/98	98.65	a	18.74	79.91	0.00	570	46	130	36	1,100	--	--	1,300	320	3.4	<0.001	--	--	--	--	--	--
MW4	10/30/98	98.65	a	19.02	79.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/30/98	98.65	a	18.74	79.91	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/28/98	98.65	a	18.60	80.05	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	01/25-26/99	98.65	a	18.32	80.33	0.00	230	<8.3	<8.3	<8.3	290	--	--	1,300	475	6.7	7	--	--	--	--	--	--
MW4	02/26/99	98.65	a	15.81	82.84	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	03/24/99	98.65	a	16.01	82.64	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/12/99	98.65	a	17.71	80.94	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	12/15-16/99	98.65	a	19.83	78.82	0.00	5.8	<0.50	<0.50	<0.50	<50	--	--	1,400	--	1.75	7.02	--	--	--	--	--	--

TABLE 2 GROUNDWATER QUALITY DATA, STROUGH FAMILY TRUST, 327-34TH STREET, OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	LPH Thickness (feet)	Concentration (µg/L)								Concentrations (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW4	03/20/00	98.65	a	14.9	83.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	07/20/00	98.65	a	18.38	80.27	0.00	91	4.6	19	12.9	210	<50	<300	1,500	126	3.88	6.67	9.5	5.3	11	<0.10	0.04	<0.20
MW4	10/11/00	98.65	a	19.61	79.04	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	04/10-11/01	98.65	a	17.55	81.10	0.00	110	<5.0	<5.0	<5.0	350	<50	<300	1,100	107	NR	NR	0.8	6.3	10	<0.10	<0.05	<0.20
MW4	07/10/01	98.65	a	19.34	79.31	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	11/20/01	63.35	b	20.16	43.19	0.00	<2.5	4	<2.5	3.7	96	<50	<300	2,500	130	0.83	6.51	1.6	10	11	<0.10	--	<0.20
MW4	02/19/02	63.35	b	17.34	46.01	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	05/21/02	63.35	b	18.57	44.78	0.00	340	5.7	70	<1.0	940	83	<300	1,600	150	1.65	6.32	3.1	8.4	9	<0.10	0.06	<0.20
MW4	06/27/03	63.35	b	18.72	44.63	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW4	09/29/03	63.35	b	20.11	43.24	0.00	<5.0	<5.0	<5.0	<10	1,100	<50[d]	<500	1,700	--	--	--	--	--	--	--	--	--
MW4	**12/12/03**	**63.35**	**b**	**20.06**	**43.29**	**0.00**	**<13**	**<13**	**<13**	**<13**	**<1,300**	**<50**	**<500**	**1,000**	--	--	--	--	--	--	--	--	--
MW5	06/30/98	100.9	a	20.60	80.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	23	220	4.3	6.1	--	--	--	--	--	--
MW5	07/29/98	100.9	a	21.52	79.38	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	08/26/98	100.9	a	22.21	78.69	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	10/01/98	100.9	a	22.95	77.95	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	256	4.8	6.71	--	--	--	--	--	--
MW5	10/30/98	100.9	a	23.23	77.67	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	11/30/98	100.9	a	23.12	77.78	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/28/98	100.9	a	23.18	77.72	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	01/25-26/99	100.9	a	22.61	78.29	0.00	<1.0	<1.0	<1.0	<1.0	<50	--	--	<2.0	305	9.7	7.04	--	--	--	--	--	--
MW5	02/26/99	100.9	a	19.78	81.12	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	03/24/99	100.9	a	20.25	80.65	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/12/99	100.9	a	21.06	79.84	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	12/15-16/99	100.9	a	24.19	76.71	0.00	<0.50	<0.50	<0.50	<0.50	<50	--	--	<0.50	--	2.72	7.19	--	--	--	--	--	--
MW5	03/20/00	100.9	a	19.15	81.75	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	07/20/00	100.9	a	21.84	79.06	0.00	<0.50	0.98	<0.50	<0.50	<50	<50	<300	1.9	134	5.58	6.35	0.11	0.017	49	<0.10	3.9	<0.20
MW5	10/11/00	100.9	a	23.4	77.50	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	04/10-11/01	100.9	a	22.3	78.60	0.00	<0.50	2.6	<0.50	0.6	<50	<50	<300	1.5	183	66	NR	<0.10	0.042	45	<0.10	2.9	0.11
MW5	07/10/01	100.9	a	23.64	77.26	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	11/20/01	65.59	b	24.65	40.94	0.00	0.83	12	1.2	11	140	860	2,500	10	--[e]	66	6.01	0.2	2.5	42	<0.10	--	<0.20
MW5	02/19/02	65.59	b	22.37	43.22	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	05/21/02	65.59	b	23.10	42.49	0.00	<0.50	<0.50	<0.50	<0.50	<50	2,200	<300	<2.0	140	66	6.3	<0.1	0.22	44	<0.10	3	<0.20
MW5	06/27/03	65.59	b	23.07	42.52	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	09/29/03	65.59	b	24.38	41.21	0.00	<0.50	0.52	7.1	35	100	<50[d]	<500	1.4	--	--	--	--	--	--	--	--	--
MW5	**12/12/03**	**65.59**	**b**	**23.90**	**41.69**	**0.00**	**<0.50**	**<0.50**	**<0.50**	**<1**	**<50**	**<50**	**<500**	**1.5**	--	--	--	--	--	--	--	--	--
MW6	07/20/00	96.60	a	18.30	78.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	160	122	2.72	6.66	120	1.9	53	6	0.05	<0.20
MW6	10/11/00	96.60	a	18.69	77.91	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	04/10-11/01	96.60	a	17.85	78.75	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	180	142	NR	NR	22	2.2	0.69	5.2	<0.05	<0.20
MW6	07/10/01	96.60	a	18.43	78.17	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	11/20/01	59.60	b	18.67	40.93	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	450	100	2.03	6.44	29	5.2	1.1	3.4	--	<0.20
MW6	02/19/02	59.60	b	17.40	42.20	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	05/21/02	59.60	b	17.68	41.92	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	170	100	0.76	6.6	11	3.4	1.4	8.9	0.65	<0.20
MW6	06/27/03	59.60	b	17.73	41.87	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	09/29/03	59.60	b	18.48	41.12	0.00	<1.0	<1.0	<1.0	<2.0	230[d]	<50	<500	340	--	--	--	--	--	--	--	--	--

TABLE 2 GROUNDWATER QUALITY DATA, STROUGH FAMILY TRUST, 327-34TH STREET, OAKLAND, CALIFORNIA

Well Number	Date	Casing Elevation (feet)		Depth to Water (feet)	GW Elevation (feet)	LPH Thickness (feet)	Concentration (µg/L)								Concentrations (mg/L)								
							Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	TPH-d	TPH-mo	MTBE	CO_2 (lab)	DO (field)	pH (field)	Fe(II)	Mn	SO_4	$N\text{-}NH_3$	$N\text{-}NO_3$	$o\text{-}PO_4$
MW6	**12/12/03**	**59.60**	**b**	**17.89**	**41.71**	**0.00**	**<2.5**	**<2.5**	**<2.5**	**<5.0**	**<250**	**51**	**<500**	**190**	--	--	--	--	--	--	--	--	--
MW7	07/20/00	96.75	a	15.93	80.82	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	32.2	7.15	7.43	<0.1	0.002	7.5	<0.10	2.6	0.13
MW7	10/11/00	96.75	a	16.90	79.85	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	04/10-11/01	96.75	a	15.80	80.95	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	77.6	NR	NR	0.18	0.048	49	<0.10	2.7	0.31
MW7	07/10/01	96.75	a	16.71	80.04	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	11/20/01	59.47	b	16.17	43.30	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<2.0	62	0.96	7.11	0.16	1.8	63	<0.10	--	<0.20
MW7	02/19/02	59.47	b	14.92	44.55	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW7	05/21/02	59.47	b	15.18	44.29	0.00	<0.50	<0.50	<0.50	<0.50	<50	<50	<300	<0.50	68	1.03	7.57	0.11	0.35	51	<0.10	2.8	0.11
MW7	06/27/03	59.47	b	16.28	43.19	0.00	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW7	09/29/03	59.47	b	16.88	42.59	0.00	<0.50	<0.50	<0.50	<1.0	<50	<50	<500	0.62	--	--	--	--	--	--	--	--	--
MW7	**12/12/03**	**59.47**	**b**	**14.95**	**44.52**	**0.00**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<50**	**<50**	**<500**	**<0.50**	--	--	--	--	--	--	--	--	--

Shaded areas denotes detected compunds above laboratory detection limits during this monitoring event.

LPH Liquid-phase hydrocarbons.
CO_2 Carbon dioxide.
DO Dissolved oxygen.
Fe(II) Ferrous iron.
Mn Manganese.
SO_4 Sulfate.
$N\text{-}NH_3$ Ammonia.
$N\text{-}NO_3$ Nitrate.
$o\text{-}PO_4$ Ortho-Phosphate.
GW Groundwater
TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-mo Total Petroleum Hydrocarbons as motor oil.
MTBE Methyl tertiary butyl ether.
NR Not reported.
µg/L Micrograms per liter.
mg/L Milligrams per liter.
* Free product; sample not analyzed.
-- Not analyzed or not sampled.
< Less than the laboratory reporting limits.
a Elevations are referenced to monitoring well MW1, with assumed datum of 100.00 feet.
b Elevations based on a survey conducted August 2002 and referenced benchmark with known elevation (NGVD 29) of 60.40 feet above mean sea level
c Analysis not conducted due to broken sample containers.
d Hydrocarbon reported in the gasoline range does not match laboratory gasoline standard.
e Groundwater elevation in wells with product are corrected by multiplying the specific gravity of gasoline (0.69) by the product thickness and adding this value to the water elevation.

TABLE 3 GROUNDWATER MONITORING SCHEDULE

STROUGH FAMILY TRUST, 327 34th STREET, OAKLAND, CALIFORNIA

Well Number	Groundwater Gauging Frequency	Groundwater Sampling and Analysis Frequency		
		BTEX and TPH-g	MTBE	TEPH
MW1	Q	Q	Q	Q
MW2	Q	Q	Q	Q
MW3	Q	Q	Q	Q
MW4	Q	Q	Q	Q
MW5	Q	Q	Q	Q
MW6	Q	Q	Q	Q
MW7	Q	Q	Q	Q

Q = Quarterly.

BTEX = Benzene, toluene, ethylbenzene, total xylenes.
MTBE = Methyl tertiary butyl ether.
TPH-g = Total Petroleum Hydrocarbons as gasoline.
TEPH = Total Extractable Petroleum Hydrocarbons.

TEPH includes TPH-diesel and TPH-motor oil.

Appendix A

Field Protocols

PROTOCOLS FOR QUARTERLY GROUNDWATER MONITORING

GROUNDWATER GAUGING

Wells are opened prior to gauging to allow the groundwater level in the wells to equilibrate with atmospheric pressure. The depth to groundwater and depth to liquid-phase hydrocarbons, if present, are then measured to the nearest 0.01 feet using an electronic water level meter or optical interface probe. The measurements are made from a permanent reference point at the top of the well casing. If less than 1 foot of water is measured in a well, the water is bailed from the well and, if the well does not recover, the well is considered "functionally dry." Wells with a sheen or measurable liquid-phase hydrocarbons are generally not purged or sampled.

WELL PURGING

After the wells are gauged, each well is purged of approximately 3 well casing volumes of water to provide representative groundwater samples for analysis. Field parameters of pH, temperature, and electrical conductance are measured during purging to ensure that these parameters have stabilized before groundwater in a well is sampled. Groundwater in each well is purged using an inertial pump (WaTerra), an electric submersible pump, or a bailer. After the well is purged, the water level is checked to ensure that the well has recharged to at least 80 percent of its original water level.

GROUNDWATER SAMPLING

After purging, groundwater in each well is sampled using dedicated tubing and an inertial pump (WaTerra) or a factory-cleaned disposable bailer. Samples from extraction wells are typically collected from sample ports associated with the groundwater remediation system. Samples collected for volatile organic analysis are placed in Teflon septum-sealed 40-milliliter glass vials. Samples collected for diesel analysis are placed in 1-liter amber glass bottles. Each sample bottle is labeled with the site name, well number, date, sampler's initials, and preservative. The samples are placed in a cooler with ice for delivery to a state-certified laboratory. The information for each sample is entered on a chain-of-custody form prior to transport to the laboratory.

Appendix B

Field Documents

ETIC
Engineering, Inc.

MONITORING WELL DATA FORM

Client: STROUGH FAMILY TRUST	Date: 12-12-03
Project Number: TMSFT.6	Station Number: SFT
Site Location: 327 34TH ST. OAKLAND , CA.	Samplers: WJ/PP

MONITORING WELL NUMBER	DEPTH TO WATER (TOC)	DEPTH TO PRODUCT (TOC)	APPARENT PRODUCT THICKNESS	AMOUNT OF PRODUCT REMOVED	MONITORING WELL INTEGRITY	DEPTH TO BOTTOM (TOC)	GENERAL FIELD COMMENTS
MW1	21.27					30.65	2"
MW2*	22.75	22.59				32.20	2"
MW3*	22.73	22.72				32.09	2"
MW4	20.06					27.31	2"
MW5	23.90					26.52	2"
MW6	17.89					28.10	2"
MW7	14.95					34.60	2"

* POSSIBLE LPH - USE IP AND CONFIRM WITH BAILER

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW1 Date: 12-12-03

Project No: TMSFT.6 Personnel: AWM / PP

GAUGING DATA

Water Level Measuring Method: WATER LEVEL METER Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	30.65	−	21.27	=	9.38	X	1	2	4	6	1.50	=	4.50
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: *(gpm)*

Time	7:38	7:40	7:42			
Volume Purge (gal)	2	4	6			
Temperature (C)	18.76	18.75	18.73			
pH	6.37	6.36	6.30			
Spec Cond (umhos)	969	961	973			
Turbidity/Color	SLTY / BRN	SLTY / BRN	SLTY / BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	—	—	—			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: LPH WELLS DETECT WITH IP , CONFIRM WITH BAILER .

3.6% .33 MG/L / 5.6 .55 / 12.1 - 1.10

132.9 / 132.0 / 145.6

SAMPLING DATA

Time Sampled: 7:45 Approximate Depth to Water During Sampling: *(feet)*

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW1	3	voas	HCL	40ml		TPH-g,BTEX,MTBE
MW1	2	amber	NONE	1L		TPH-d,TEHo

Total Purge Volume: 6 *(gallons)* Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name:	STROUGH FAMILY TRUST	Well No: MW4	Date: 12.12.03
Project No:	TMSFT.6	Personnel: WT / DF	

GAUGING DATA

Water Level Measuring Method: WATER LEVEL METER Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	27.31 Remote	=	20.06	=	7.25	X	1	2	4	6	1.16	=	3.48
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: (gpm)

Time	8:07	8:08	8:09			
Volume Purge (gal)	1	2	3			
Temperature (°C)	19.13	19.16	19.17			
pH	6.67	6.65	6.64			
SpecCond (umhos)	682	659	646			
Turbidity/Color	BRN / BRN	BRN / BRN	BRN / BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	-	-	-			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: LPH WELLS DETECT WITH IP , CONFIRM WITH BAILER .

DO	9.1 / .83	6.6 / .60	6.9 / .65
ORP	135.2	131.6	127.0

SAMPLING DATA

Time Sampled: 8:10 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW4	3	voas	HCL	40ml		TPH-g,BTEX,MTBE
MW4	2	amber	NONE	1L		TPH-d,TEHo

Total Purge Volume: 3 (gallons) Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name:	STROUGH FAMILY TRUST	Well No:	MW5	Date:	12-12-03
Project No:	TMSFT.6	Personnel:	WT / RF		

GAUGING DATA

Water Level Measuring Method: WATER LEVEL METER Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	24.52	−	23.90	=	2.62	X	1	2	4	6	.41	=	1.25
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: *(gpm)*

Time	8:29	8:30	8:31			
Volume Purge (gal)	.50	1.0	1.5			
Temperature (°C)	18.33	18.32	18.23			
pH	6.09	6.10	6.09			
Spec Cond (umhos)	506	515	521			
Turbidity/Color	BRN / BRN	BRN / BRN	BRN / BRN	/	/	/
Odor (Y/N)	N	N	N			
Casing Volumes	-	-	-			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: LPH WELLS DETECT WITH IP , CONFIRM WITH BAILER .

31.4 / 2.95	29.1 / 2.77	29.2 / 2.74
192.7	196.8	199.6

SAMPLING DATA

Time Sampled: 8:35 Approximate Depth to Water During Sampling: *(feet)*

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW5	3	voas	HCL	40ml	/	TPH-g,BTEX,MTBE
MW5	2	amber	NONE	1L	/	TPH-d,TEHo
					/	
					/	

Total Purge Volume: 1.5 *(gallons)* Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST | Well No: MW6 | Date: 12-12-03

Project No: TMSFT.6 | Personnel: WP / LPP

GAUGING DATA

Water Level Measuring Method: WATER LEVEL METER | Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	28.10	−	17.89	=	10.21	X	1	2	4	6	1.63	=	4.90
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA | Purge Depth: | Purge Rate: (gpm)

Time	6:46	6:49	6:52			
Volume Purge (gal)	2	4	6			
Temperature (C)	18.80	18.73	18.72			
pH	6.76	6.76	6.76			
Spec Cond. (umhos)	664	657	639			
Turbidity/Color	BLK / BLK	BLK / BLK	BLK / BLK			
Odor (Y/N)	Y	Y	Y			
Casing Volumes	-	-	-			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: LPH WELLS DETECT WITH IP , CONFIRM WITH BAILER .

DO: 2.3 / 1.21 | 2.4 / 1.23 | 5.1 / 1.47

ORP: -125.9 | -133.5 | -122.9

SAMPLING DATA

Time Sampled: 6:55 | Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW6	3	voas	HCL	40ml		TPH-g,BTEX,MTBE
MW6	2	amber	NONE	1L		TPH-d,TEHo

Total Purge Volume: 6 (gallons) | Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING

GROUNDWATER PURGE AND SAMPLE

Project Name: STROUGH FAMILY TRUST Well No: MW7 Date: 12.12.03

Project No: TMSFT.6 Personnel: MW

GAUGING DATA

Water Level Measuring Method: WATER LEVEL METER Measuring Point Description:

WELL PURGE VOLUME CALCULATION	Total Depth (feet)		Depth to Water (feet)		Water Column (feet)		Multiplier for Casing Diameter				Casing Volume (gal)		Total Purge Volume (gal)
	34.60	−	14.95	=	19.65	X	1	2	4	6	3.14	=	9.43
							0.04	0.16	0.64	1.44			

PURGING DATA

Purge Method: WATERRA Purge Depth: Purge Rate: (gpm)

Time	7:05	7:08	7:11			
Volume Purge (gal)	3	6	9			
Temperature (°C)	20.10	20.27	19.97			
pH	6.85	6.83	6.85			
Spec Cond (umhos)	643	642	654			
Turbidity/Color	BRN / BRN	BRN / BRN	BRN / BRN			
Odor (Y/N)	N	N	N			
Casing Volumes	−	−	−			
Dewatered (Y/N)	N	N	N			

Comments/Observbations: LPH WELLS DETECT WITH IP , CONFIRM WITH BAILER .

DO	12.3 / 1.15	14.5 / 1.30	11.2 / 1.04
ORP	22.4	62.2	77.0

SAMPLING DATA

Time Sampled: 7:15 Approximate Depth to Water During Sampling: (feet)

Comments:

Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
MW7	3	voas	HCL	40ml		TPH-g,BTEX,MTBE
MW7	2	amber	NONE	1L		TPH-d,TEHo

Total Purge Volume: 9 (gallons) Disposal:

Weather Conditions: OK

Condition of Well Box and Casing at Time of Sampling: OK

Well Head Conditions Requiring Correction: NONE

Problems Encountered During Purging and Sampling: NONE

Comments:

ETIC ENGINEERING

Appendix C

Laboratory Analytical Reports

SEVERN TRENT STL

Submission#: 2003-12-0455

ETIC Oakland

December 22, 2003

1333 Broadway, Suite 1015
Oakland, CA 94612

Attn.: Luis Fraticelli

Project#: TMSFT.9
Project: Strough Family Trust

Attached is our report for your samples received on 12/12/2003 16:30
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 01/26/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2003-12-0455

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW1	12/12/2003 07:45	Water	1
MW4	12/12/2003 08:10	Water	2
MW5	12/12/2003 08:35	Water	3
MW6	12/12/2003 06:55	Water	4
MW7	12/12/2003 07:15	Water	5

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s): 5030B
Sample ID: MW1
Sampled: 12/12/2003 07:45
Matrix: Water

Test(s): 8260B
Lab ID: 2003-12-0455 - 1
Extracted: 12/18/2003 00:19
QC Batch#: 2003/12/17-02.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/18/2003 00:19	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/18/2003 00:19	
Benzene	ND	0.50	ug/L	1.00	12/18/2003 00:19	
Toluene	ND	0.50	ug/L	1.00	12/18/2003 00:19	
Ethylbenzene	ND	0.50	ug/L	1.00	12/18/2003 00:19	
Total xylenes	1.1	1.0	ug/L	1.00	12/18/2003 00:19	
Surrogate(s)						
1,2-Dichloroethane-d4	94.0	76-114	%	1.00	12/18/2003 00:19	
Toluene-d8	91.2	88-110	%	1.00	12/18/2003 00:19	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW4**	Lab ID:	2003-12-0455 - 2
Sampled:	12/12/2003 08:10	Extracted:	12/18/2003 01:25
Matrix:	Water	QC Batch#:	2003/12/17-02.64

Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1300	ug/L	25.00	12/18/2003 01:25	
Methyl tert-butyl ether (MTBE)	1000	13	ug/L	25.00	12/18/2003 01:25	
Benzene	ND	13	ug/L	25.00	12/18/2003 01:25	
Toluene	ND	13	ug/L	25.00	12/18/2003 01:25	
Ethylbenzene	ND	13	ug/L	25.00	12/18/2003 01:25	
Total xylenes	ND	25	ug/L	25.00	12/18/2003 01:25	
Surrogate(s)						
1,2-Dichloroethane-d4	96.6	76-114	%	25.00	12/18/2003 01:25	
Toluene-d8	91.8	88-110	%	25.00	12/18/2003 01:25	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW5**	Lab ID:	2003-12-0455 - 3
Sampled:	12/12/2003 08:35	Extracted:	12/18/2003 01:47
Matrix:	Water	QC Batch#:	2003/12/17-02.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/18/2003 01:47	
Methyl tert-butyl ether (MTBE)	1.5	0.50	ug/L	1.00	12/18/2003 01:47	
Benzene	ND	0.50	ug/L	1.00	12/18/2003 01:47	
Toluene	ND	0.50	ug/L	1.00	12/18/2003 01:47	
Ethylbenzene	ND	0.50	ug/L	1.00	12/18/2003 01:47	
Total xylenes	ND	1.0	ug/L	1.00	12/18/2003 01:47	
Surrogate(s)						
1,2-Dichloroethane-d4	95.5	76-114	%	1.00	12/18/2003 01:47	
Toluene-d8	95.5	88-110	%	1.00	12/18/2003 01:47	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s): 5030B
Test(s): 8260B
Sample ID: **MW6**
Lab ID: 2003-12-0455 - 4
Sampled: 12/12/2003 06:55
Extracted: 12/18/2003 02:09
Matrix: Water
QC Batch#: 2003/12/17-02.64
Analysis Flag: o (See Legend and Note Section)

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	250	ug/L	5.00	12/18/2003 02:09	
Methyl tert-butyl ether (MTBE)	190	2.5	ug/L	5.00	12/18/2003 02:09	
Benzene	ND	2.5	ug/L	5.00	12/18/2003 02:09	
Toluene	ND	2.5	ug/L	5.00	12/18/2003 02:09	
Ethylbenzene	ND	2.5	ug/L	5.00	12/18/2003 02:09	
Total xylenes	ND	5.0	ug/L	5.00	12/18/2003 02:09	
Surrogate(s)						
1,2-Dichloroethane-d4	95.4	76-114	%	5.00	12/18/2003 02:09	
Toluene-d8	94.6	88-110	%	5.00	12/18/2003 02:09	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW7	Lab ID:	2003-12-0455 - 5
Sampled:	12/12/2003 07:15	Extracted:	12/18/2003 02:31
Matrix:	Water	QC Batch#:	2003/12/17-02.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	12/18/2003 02:31	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	12/18/2003 02:31	
Benzene	ND	0.50	ug/L	1.00	12/18/2003 02:31	
Toluene	ND	0.50	ug/L	1.00	12/18/2003 02:31	
Ethylbenzene	ND	0.50	ug/L	1.00	12/18/2003 02:31	
Total xylenes	ND	1.0	ug/L	1.00	12/18/2003 02:31	
Surrogate(s)						
1,2-Dichloroethane-d4	96.4	76-114	%	1.00	12/18/2003 02:31	
Toluene-d8	90.7	88-110	%	1.00	12/18/2003 02:31	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 5030B — Test(s): 8260B

Method Blank — **Water** — **QC Batch # 2003/12/17-02.64**

MB: 2003/12/17-02.64-040 — Date Extracted: 12/17/2003 18:40

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	12/17/2003 18:40	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	12/17/2003 18:40	
Benzene	ND	0.5	ug/L	12/17/2003 18:40	
Toluene	ND	0.5	ug/L	12/17/2003 18:40	
Ethylbenzene	ND	0.5	ug/L	12/17/2003 18:40	
Total xylenes	ND	1.0	ug/L	12/17/2003 18:40	
Surrogates(s)					
1,2-Dichloroethane-d4	93.4	76-114	%	12/17/2003 18:40	
Toluene-d8	96.6	88-110	%	12/17/2003 18:40	

Fuel Oxygenates by 8260B

ETIC Oakland
Attn.: Luis Fraticelli

1333 Broadway, Suite 1015
Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2003/12/17-02.64**

LCS 2003/12/17-02.64-055 Extracted: 12/17/2003 Analyzed: 12/17/2003 17:55

LCSD 2003/12/17-02.64-017 Extracted: 12/17/2003 Analyzed: 12/17/2003 18:17

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	26.8	25.9	25.0	107.2	103.6	3.4	65-165	20		
Benzene	24.7	24.5	25.0	98.8	98.0	0.8	69-129	20		
Toluene	25.7	26.0	25.0	102.8	104.0	1.2	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	488	479	500	97.6	95.8		76-114			
Toluene-d8	462	471	500	92.4	94.2		88-110			

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Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2003/12/17-02.64**

MW1 >> MS

MS: 2003/12/17-02.64-041 Extracted: 12/18/2003 Lab ID: 2003-12-0455 - 001
Analyzed: 12/18/2003 00:41
Dilution: 1.00

MSD: 2003/12/17-02.64-003 Extracted: 12/18/2003 Analyzed: 12/18/2003 01:03
Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	24.0	26.5	ND	25.0	96.0	106.0	9.9	65-165	20		
Benzene	23.7	25.6	ND	25.0	94.8	102.4	7.7	69-129	20		
Toluene	24.6	26.5	ND	25.0	98.4	106.0	7.4	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	448	471		500	89.6	94.2		76-114			
Toluene-d8	482	454		500	96.4	90.8		88-110			

Fuel Oxygenates by 8260B

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Legend and Notes

Analysis Flag

o

Reporting limits were raised due to high level of analyte present in the sample.

SEVERN TRENT STL

Submission #: 2003-12-0455

TEPH w/ Silica Gel Clean-up

ETIC Oakland
Attn.: Luis Fraticelli

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW1	12/12/2003 07:45	Water	1
MW4	12/12/2003 08:10	Water	2
MW5	12/12/2003 08:35	Water	3
MW6	12/12/2003 06:55	Water	4
MW7	12/12/2003 07:15	Water	5

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**MW1**	Lab ID:	2003-12-0455 - 1
Sampled:	12/12/2003 07:45	Extracted:	12/19/2003 10:11
Matrix:	Water	QC Batch#:	2003/12/19-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	58	50	ug/L	1.00	12/19/2003 14:21	ndp
Motor Oil	ND	500	ug/L	1.00	12/19/2003 14:21	
Surrogate(s)						
o-Terphenyl	76.7	60-130	%	1.00	12/19/2003 14:21	

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**MW4**	Lab ID:	2003-12-0455 - 2
Sampled:	12/12/2003 08:10	Extracted:	12/16/2003 05:33
Matrix:	Water	QC Batch#:	2003/12/16-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	12/16/2003 15:03	
Motor Oil	ND	500	ug/L	1.00	12/16/2003 15:03	
Surrogate(s)						
o-Terphenyl	84.1	60-130	%	1.00	12/16/2003 15:03	

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Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**MW5**	Lab ID:	2003-12-0455 - 3
Sampled:	12/12/2003 08:35	Extracted:	12/19/2003 10:11
Matrix:	Water	QC Batch#:	2003/12/19-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	12/19/2003 14:52	
Motor Oil	ND	500	ug/L	1.00	12/19/2003 14:52	
Surrogate(s)						
o-Terphenyl	82.9	60-130	%	1.00	12/19/2003 14:52	

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**MW6**	Lab ID:	2003-12-0455 - 4
Sampled:	12/12/2003 06:55	Extracted:	12/19/2003 10:11
Matrix:	Water	QC Batch#:	2003/12/19-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	51	50	ug/L	1.00	12/19/2003 15:23	ndp
Motor Oil	ND	500	ug/L	1.00	12/19/2003 15:23	
Surrogate(s)						
o-Terphenyl	83.4	60-130	%	1.00	12/19/2003 15:23	

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Prep(s):	3510/8015M	Test(s):	8015M
Sample ID:	**MW7**	Lab ID:	2003-12-0455 - 5
Sampled:	12/12/2003 07:15	Extracted:	12/16/2003 05:33
Matrix:	Water	QC Batch#:	2003/12/16-01.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	50	ug/L	1.00	12/16/2003 16:04	
Motor Oil	ND	500	ug/L	1.00	12/16/2003 16:04	
Surrogate(s)						
o-Terphenyl	83.7	60-130	%	1.00	12/16/2003 16:04	

TEPH w/ Silica Gel Clean-up

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 3510/8015M
Method Blank
MB: 2003/12/16-01.10-003

Water

Test(s): 8015M
QC Batch # 2003/12/16-01.10
Date Extracted: 12/16/2003 05:33

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	93.2	50	ug/L	12/16/2003 14:32	b
Motor Oil	ND	500	ug/L	12/16/2003 14:32	
Surrogates(s)					
o-Terphenyl	84.3	60-130	%	12/16/2003 14:32	

TEPH w/ Silica Gel Clean-up

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Attn.: Luis Fraticelli

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 3510/8015M
Method Blank
MB: 2003/12/19-01.10-001

Water

Test(s): 8015M
QC Batch # 2003/12/19-01.10
Date Extracted: 12/19/2003 10:11

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	50	ug/L	12/19/2003 14:21	
Motor Oil	ND	500	ug/L	12/19/2003 14:21	
Surrogates(s)					
o-Terphenyl	85.8	60-130	%	12/19/2003 14:21	

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike **Water** **QC Batch # 2003/12/16-01.10**

LCS 2003/12/16-01.10-001 Extracted: 12/16/2003 Analyzed: 12/16/2003 15:03
LCSD 2003/12/16-01.10-002 Extracted: 12/16/2003 Analyzed: 12/16/2003 15:34

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	902	843	1000	90.2	84.3	6.8	60-130	25		
Surrogates(s)										
o-Terphenyl	16.5	16.4	20.0	82.4	82.2		60-130	0		

TEPH w/ Silica Gel Clean-up

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Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Batch QC Report

Prep(s): 3510/8015M

Test(s): 8015M

Laboratory Control Spike **Water** **QC Batch # 2003/12/19-01.10**

LCS 2003/12/19-01.10-002 Extracted: 12/19/2003 Analyzed: 12/19/2003 14:52
LCSD 2003/12/19-01.10-003 Extracted: 12/19/2003 Analyzed: 12/19/2003 15:23

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Diesel	917	935	1000	91.7	93.5	1.9	60-130	25		
Surrogates(s)										
o-Terphenyl	17.3	17.7	20.0	86.4	88.3		60-130	0		

TEPH w/ Silica Gel Clean-up

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Oakland, CA 94612
Phone: (510) 208-1600 Fax: (510) 208-1604

Project: TMSFT.9
Strough Family Trust

Received: 12/12/2003 16:30

Legend and Notes

Result Flag

b

Analyte was found in the method blank at a concentration greater than the reporting limit.

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

Page 1

SEVERN TRENT SERVICES

STL

Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
Phone: (925) 484-1919 • Fax: (925) 484-1096
Email: info@chromalab.com

2003-12-0455

Reference #: 81122

Date 12.12.03 Page 1 of 1

From

Proj.Mgr	LUIS FRATICELLI
Company	ETIC
Address	1333 BROADWAY,STE. 1015 OAKLAND CA. 94612
Sampler (Signature)	[signature]
Phone (510)208-1600	Fax/Email (510)208-1604

Analysis Request

Sample ID	Date	Time	Matrix	Pres rv.	TPH (EPA 8260) X Gas w/ X BTEX X MTBE	TPH-d and TEPH-o by 8015 with silica gel clean-up	EDF	Number of Containers
MW1	12/12	1:45	W	HCL	X	X	X	
MW2			W	HCL	X	X	X	5
MW3			W	HCL	X	X	X	
MW4		9:10	W	HCL	X	X	X	
MW5		9:35	W	HCL	X	X	X	5
MW6		6:55	W	HCL	X	X	X	5
MW7		7:15	W	HCL	X	X	X	5
								5

Project Info.

Project Name: STROUGH FAMILY TRUST

Project#: TMSFT.9

PO#: 2780

Credit Card#:

T A T: Std 5 Day | 72h | 48h | 24h

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 EDF

Special Instructions / Comments:

GLOBAL ID#

Sample Receipt

# of Containers:

Head Space:

Temp: 4.1

Conforms to record:

Other

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: [signature] Time: 10:15	Signature: [signature] Time: 11:30	Signature Time
Printed Name: [illegible] Date: 12/12/03	Printed Name: R Allen Date: 12-12-03	Printed Name Date
Company: ETIC	Company: STL-SF	Company

1) Received by:	2) Received by:	3) Received by:
Signature: [signature] Time: 10:25	Signature Time	Signature: [signature] Time: 16:30
Printed Name: Allen Date: 12-12-03	Printed Name Date	Printed Name: M. VILLANUEVA Date: 12/12/03
Company: STL-SF	Company	Company: STL SF

Rev 05/01

Luis Fraticelli - coc0000270349.pdf

SEVERN TRENT SERVICES

STL

Chain of Custody

1220 Quarry Lane ● Pleasanton CA 94566-4756
Phone: (925) 484-1919 ● Fax: (925) 484-1096
Email: info@chromalab.com

Reference #: _____

Date 12.12.03 Page 1 of 1

From

Proj.Mgr	LUIS FRATICELLI
Company	ETIC
Address	1333 BROADWAY,STE. 1015 OAKLAND CA. 94612
Sampler (Signature)	WYNN PACULAN
Phone (510)208-1600	Fax/Email(510)208-1604

Analysis Request

Sample ID	Date	Time	Matrix	Preserv.	TPH (EPA 8260) X Gas w/ X BTEX X MTBE	TPH-d and TEPH-o by 8015 with silica gel clean-up	EDF	Number of Containers
MW1	12/12	7:45	W	HCL	X	X	X	5
MW2			W	HCL	X	X	X	5
MW3			W	HCL	X	X	X	5
MW4		9:10	W	HCL	X	X	X	5
MW5		8:35	W	HCL	X	X	X	5
MW6		6:55	W	HCL	X	X	X	5
MW7		7:15	W	HCL	X	X	X	5

Project Info.

Project Name: **STROUGH FAMILY TRUST**

Project# **TMSFT.9**

PO#: 2780

Credit Card#:

Sample Receipt

of Containers:

Head Space:

Temp:

Conforms to record:

Other

TAT: Std 5 Day | 72h | 48h | 24h

Report: ☐ Routine ☐ Level 2 ☐ Level 3 ☐ Level 4 (EDF)

Special Instructions / Comments:

GLOBAL ID#

1) Relinquished by:	2) Relinquished by:	3) Relinquished by:
Signature: 10:15	Signature:	Signature:
Time	Time	Time
Printed Name: WYNN PACULAN 12/12/03	Printed Name:	Printed Name:
Date	Date	Date
Company: ETIC	Company:	Company:

1) Received by:	2) Received by:	3) Received by:
Signature: 10'25	Signature:	Signature:
Time	Time	Time
Printed Name: 12-12-03	Printed Name:	Printed Name:
Date	Date	Date
Company: STL-SF	Company:	Company:

Rev 05/01