RO-377

QUARTERLY GROUNDWATER MONITORING REPORT
July 9, 2002

Sheaff's Garage
5930 College Avenue
Oakland, California
STID # 514

Prepared For:

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GGTR Project No. 7335
August 19, 2002

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QUARTERLY GROUNDWATER MONITORING REPORT
July 9, 2002

5930 College Avenue, Oakland, California

Introduction

This report presents the results and findings of the July 9, 2002 groundwater monitoring and sampling activities conducted by Golden Gate Tank Removal, Inc. (GGTR) at 5930 College Avenue in Oakland, California. This was the 10th quarterly monitoring event performed at the site for the three existing monitor wells, MW1 through MW3. The Local Oversight Program of the Alameda County Health Care Services Agency (ACHCSA) Environmental Protection Division designated the site as case STID #514. Figure 1, *Site Location Map*, shows the general location of the subject property in Oakland, California. The site, adjacent properties, and associated features are shown on the revised Figure 2, *Site Plan*. The groundwater elevation isocontour lines and associated gradient is shown on Figure 3, *Groundwater Potentiometric Map*. Figure 4, *Historical Groundwater Monitoring Results at 5930 College Avenue*, provides a tabulated summary of the laboratory results of historical groundwater sample analyses and fluid-level monitoring data at the site.

Gettler-Ryan, Inc. of Dublin, California is currently conducting a separate groundwater investigation for the former Chevron Station #20-9339 located adjacent to the north side of the subject property at 5940 College Avenue. Two groundwater monitoring wells (GR-MW1 & GR-MW2) are used to evaluate the hydrocarbon concentrations in groundwater at this site.

GGTR and Gettler-Ryan, Inc. has conducted joint monitoring and sampling activities at the associated sites on a quarterly basis since October 2000. As of the April 8, 2002 monitoring event, Gettler-Ryan has decreased their monitoring schedule to a biannual basis. Monitoring and sampling of GR-MW1 & GR-MW2 was not performed during July 2002. Figures 2 and 3 show the location of each Gettler-Ryan well relative to the subject wells at 5930 College Avenue.

Results of Groundwater Sampling and Laboratory Analysis

The table shown below summarizes the laboratory analytical results of groundwater samples collected during the July 9, 2002 monitoring event. A copy of the associated Laboratory Certificate of Analysis and the Chain-of-Custody Record is in the Appendix. Documentation of the well purging and sampling activities is contained in the Field Data Sheets of the Appendix.

Table – July 9, 2002 Groundwater Sampling Results

Well ID	Sample ID	TPH-G (ug/L)	BTEX (ug/L)	MTBE (ug/L)
MW1	7335-MW1	110,000	20,300 / 13,300 / 4,060 / 19,800	746 (570*)
MW2	7335-MW2	37,100	5,340 / 890 / 2,110 / 6,920	303 (298*)
MW3	7335-MW3	2,320	37.1 / 4.7 / 98.5 / 187	28.3 (20*)
GR-MW1	MW-1-W	NA	NA	NA
GR-MW2	MW-2-W	NA	NA	NA

Notes:
TPH-G - Total Petroleum Hydrocarbons as Gasoline (EPA Methods 5030/8020F)
BTEX - Benzene / Toluene / Ethylbenzene / Xylenes (EPA Methods 5030/8020F)
MTBE - Methyl Tertiary Butyl Ether (EPA Method 5030/8020F)
ug/L - micrograms per liter (equivalent to parts per billion - ppb)
ND - not detected above laboratory reporting limit (See QC/QA, Lab Report)
NA - not analyzed during this event
* - concentration as confirmed by EPA Method 8260

Total Petroleum Hydrocarbons as gasoline (TPH-G) slightly decreased in monitor well MW1 from 111,000 to 110,000 micrograms per liter (ug/L), as compared to the April 2002 monitoring event. The concentration of TPH-G reported in MW2 decreased from 66,700 to 37,100 ug/L as compared to the last quarterly monitoring event and is similar to concentrations reported in February (36,000 ug/L) and July (39,000 ug/L) 2001, during which the depth to groundwater ranged between 10.55 and 11.05 feet below the top of well casing. The concentration of TPH-G measured in MW3 decreased significantly from 11,700 to 2,320 ug/L since the last monitoring event and is historically at its lowest TPH-G concentration since commencement of well monitoring in October 1999.

The concentration of methyl tertiary-butyl ether (MTBE) decreased slightly in MW1 from 814 to 746 ug/L (570 ug/L, as confirmed by EPA Method 8260), and in MW2, from 583 to 303 ug/L (298 ug/L; EPA Method 8260) as compared to the April 2002 event. Since January 2000, the concentration of MTBE reported in MW3 has remained relatively stable, fluctuating slightly from 35 ug/l (February/July 2001) to 81.7 ug/l (January 2002). The current concentration measured in this well (28.3 ug/L) is comparable to that reported during the February/July 2001 monitoring events, during which the depth to water ranged between 8.73 and 8.85 feet below the top of well casing.

The benzene concentration measured in the groundwater sample collected in MW1 decreased slightly from 21,200 to 20,300 ug/L and decreased significantly in the sample

collected in MW2 (10,200 to 5,340 ug/L) and MW3 (540 to 37.1 ug/L) since the April 2002 monitoring event. The concentrations of toluene (13,300 ug/L), ethylbenzene (4,060 ug/L), and total xylenes (19,800 ug/L) measured in MW1 have remained relatively stable since the January 2002 sampling event. The toluene, ethylbenzene, and total xylenes measured in MW2 and MW3 have significantly decreased since the April 2002 and are relatively similar to respective concentrations reported in each well during the July 2001 event.

The concentration of 1,2-Dichlorethane reported in MW1 decreased from 361 to 3 ug/L since the April 2002 event. All other fuel oxygenate concentrations in MW1 through MW3, except MTBE, are below the respective laboratory reporting limit (≤100 ug/L).

Results of Groundwater Elevation Measurements

The groundwater elevations measured relative to the top of well casing in MW1 through MW3 ranged from 186.50 (MW1) to 186.73 (MW2) feet above Mean Sea Level. The associated groundwater gradient calculated for the July 9, 2002 monitoring event was 0.7 foot / 100 feet (0.007 ft/ft) directed approximately 51° east of south. The groundwater gradient and associated elevation isocontour lines are shown on Figure 3.

The table shown below lists the historical data for MW1 through MW3 on mean groundwater elevation, flow direction, and groundwater slope for the site. Note that the groundwater elevations prior to April 25, 2001 are referenced to an arbitrary site-specific datum point (MW1; north side of top of well casing) with an assumed elevation of 50 feet. This arbitrary datum point is not referenced to Mean Sea Level.

Table - Mean Groundwater Elevation, Flow Direction, and Gradient

Measurement Date	Mean Groundwater Elevation (feet)	Groundwater Flow Direction	Gradient (feet / 100 feet)
10/07/99	39.87	11° west of south	0.67 foot / 100 feet
01/26/00	43.1	23° west of north	9.12 feet / 100 feet
10/25/00	39.96	40° east of north	0.64 foot / 100 feet
04/25/01	188.6	55° west of north	0.69 foot / 100 feet
07/10/01	186.26	4° east of north	0.5 foot / 100 feet
10/08/01	184.99	48° east of north	1.6 feet / 100 feet
01/07/02	191.63	52° west of south	2.3 feet / 100 feet
04/08/02	188.94	43° east of south	0.6 foot / 100 feet
07/09/02	**186.63**	**51° west of north**	**0.7 foot / 100 feet**

Discussion of Monitoring Results

The mean groundwater elevation measured at the site during this event was approximately 2.31 feet lower than that measured in April 2002 and comparable to the mean elevation reported in July 2001 (186.26 feet). Based on the relative groundwater elevation data recorded for this event, the groundwater flow direction was directed approximately 51° west of north, an assumed clockwise shift of approximately 171° toward the west, as compared to the previous monitoring event. This groundwater flow direction is comparable to that recorded during the April 2001 event; however, has fluctuated significantly since the installation of the monitor wells in October 2001. The calculated gradient slope for this event (0.007 foot/foot) has remained relatively equal to that measured for the previous monitoring event (0.006 foot/foot).

Groundwater in the vicinity of the former UST cavity (July 2002) was characterized by a relatively low dissolved oxygen concentration ranging between 1.6% (0.14 milligrams per liter, mg/L) in MW1 and 2.4% (0.22 mg/L) in MW3. The groundwater was also characterized by an average pH, specific conductivity, and temperature of 7.72, 737 micromhos per centimeter (µmhos/cm), and 68.4 Fahrenheit degrees, respectively.

Neither free product nor surface sheen was present in the purge water or groundwater samples in MW1 through MW3 during the July 2002 monitoring event; however, gasoline-like hydrocarbon odors were again observed in the purge water removed from each of the three groundwater wells during this monitoring event.

Proposed Investigation Activities

In August and September 2002, GGTR is scheduled to implement the proposed activities discussed in our *December 2001 Work Plan for Additional Soil & Groundwater Investigation* to evaluate both the potential of other onsite sources contributing to the elevated dissolved-phase hydrocarbons and whether subsurface utilities along College Avenue are potentially acting as migratory pathways for on- and off-site contaminant migration. GGTR will initially conduct the subsurface UST product piping excavation, removal, and soil sampling activities. Upon receipt and evaluation of the analytical data, GGTR will return to the site and conduct soil boring and sampling activities (B7 through B10; see work plan). The ACHCSA approved the work plan in their letter dated January 3, 2002.

Following receipt and interpretation of all data collected during the additional investigation activities as well as data from historical quarterly groundwater monitoring activities, GGTR will evaluate the need to further assess the lateral extent of the hydrocarbon plume in the direct vicinity of the site and, if warranted, prepare a corrective action plan for abatement of the hydrocarbon-effected groundwater.

The next consecutive groundwater monitoring event is tentatively scheduled during the week of October 11, 2002. The actual date will be based on the outcome of the additional investigation activities performed at the site.

Water Sample Analytical Methods

The groundwater samples collected from the three monitoring wells on July 9, 2002 were analyzed for the following fuel constituents:

- TPH as Gasoline (TPH-G; EPA Methods 5030/8020F)
- Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX; EPA Methods 5030B/8020F)
- Methyl Tertiary-Butyl Ether (MTBE; EPA Method 5030/8020F); Verified by EPA Method 8260B
- Fuel Oxygenates (EPA Method 8260)

North State Laboratory (NSL) of South San Francisco, California analyzed the groundwater samples on July 12 and 15, 2002. NSL submitted all analytical data in EDD format in accordance with the State Water Resources Control Board Assembly Bill 2886 for submission to the State's GeoTracker database system. The analytical results for this event as well as those reported during each previous monitoring event are tabulated in Figure 4. A copy of the Laboratory Certificate of Analysis, Field Data Sheets and Chain of Custody Forms are included in the Appendix.

Field Procedures

GGTR monitored and sampled MW1 through MW3 on July 9, 2002, in accordance with the requirements and procedures of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) and the ACHCSA. Prior to purging and sampling, GGTR removed the well cover and locking compression cap from each well and allowed the groundwater in each well column to stabilize for approximately 25 minutes. GGTR then measured and recorded the depth to groundwater and presence of floating using a Keck® electronic oil/water interface probe. Fluid levels were measured relative to the north side of the top of each well casing to the nearest 0.01 foot.

GGTR than purged a minimum of three casing volumes from each well using a direct current, centrifugal purge pump, and simultaneously monitored and recorded the pH, temperature, and specific conductivity of the purged well water. Well purge water was transferred directly to a 55-gallon, D.O.T.-approved steel drum. After the groundwater in each well recharged to approximately 80% of its original level, GGTR collected a groundwater sample by lowering a disposable, bottom-fill, polyvinyl chloride (PVC) bailer to just below the well's air-water interface. The bailer was immediately removed from the well and the groundwater was carefully decanted from the bailer into pre-cleaned, laboratory-provided sample containers. All volatile organic analysis (VOA) vials were

inverted and checked to insure that no entrapped air was present. The samples were sealed with Teflon caps, properly labeled, and stored in a cooler chilled to approximately 4°C. GGTR than submitted the samples under chain-of-custody protocol to the State-certified, NSL (CA ELAP #1753) in South San Francisco, California.

Quality Assurance / Quality Control

Quality Assurance and Quality Control details are shown on the laboratory Certificate of Analysis in the Appendix. The laboratory reported no quality assurance or quality control problems during the laboratory analysis procedures. All samples were analyzed within specified laboratory holding times.

Waste Management

The drummed well purge and equipment wash and rinse water (@ 25 gallons) generated during the July 2002 monitoring event was transported to GGTR's storage facility in San Francisco, California. On August 5, 2002, Clearwater Environmental pumped the purge and equipment wash and rinse water from the drum into a tanker truck and transported the non-RCRA hazardous waste liquid under uniform waste manifest No. 21530716 to the Alviso Independent Oil facility in Alviso, California. A copy of the liquid waste manifest is appended.

Project History and Chronology

During 1996, GGTR removed two underground storage tanks (UST) and fuel dispenser from a the general site location shown on Figure 2. The following table shows a summary of the tank designations, size, type of construction and contents:

Designation	Construction	diameter	length	size	contents
		(feet)	(feet)	(gallons)	
TANK 1	steel	4	7	675	gasoline
TANK 2	steel	4	3.5	340	waste oil

The ages of the tanks are unknown but are believed to be between 40 and 60 years old. During the UST removal there was evidence of a gasoline leak in surrounding soils and GGTR over-excavated gasoline-contaminated soil from surrounding the former UST location. The removal and over-excavation was documented in the GGTR's *Tank Removal Report* dated October 11, 1996.

The following list of activities shows the significant investigation and remedial action performed at the site:

08/06/96	Underground storage tanks 1 and 2 were removed and samples recovered
08/15/96	A work plan was submitted by GGTR for over excavation and disposal of gasoline-contaminated soil surrounding the UST
09/30/96	Over-excavation of gasoline-contaminated soil performed
10/01/96	Last of additional excavation soil disposed of at a Class II facility
10/11/96	TANK REMOVAL REPORT published by GGTR
12/30/96	ACHSA submitted letter requiring soil and groundwater investigation
03/10/97	GGTR authorized to prepare a work plan for additional investigation
04/01/97	GGTR submitted work plan for a Soil and Groundwater Investigation
04/21/97	ACHSA submitted letter authorizing work plan
05/06/98	GGTR drills borings B! through B3
05/20/98	GGTR drills borings B4 (Monitoring Well MW1)
05/27/98	GGTR develops monitoring well MW1
06/01/98	GGTR measures, purges and samples monitoring well MW1
06/17/98	GGTR submitted Soil and Groundwater Investigation Report
07/21/98	GGTR submitted Work Plan Addendum for installation of two additional groundwater monitoring wells
09/10/98	GGTR measures, purges and samples monitoring well MW1 then submits a groundwater monitoring report
10/02/99	GGTR drills two borings (B5 and B6) and converts them to groundwater monitoring Wells (MW2 and MW3)
10/04/99	GGTR develops monitoring wells MW2 and MW3

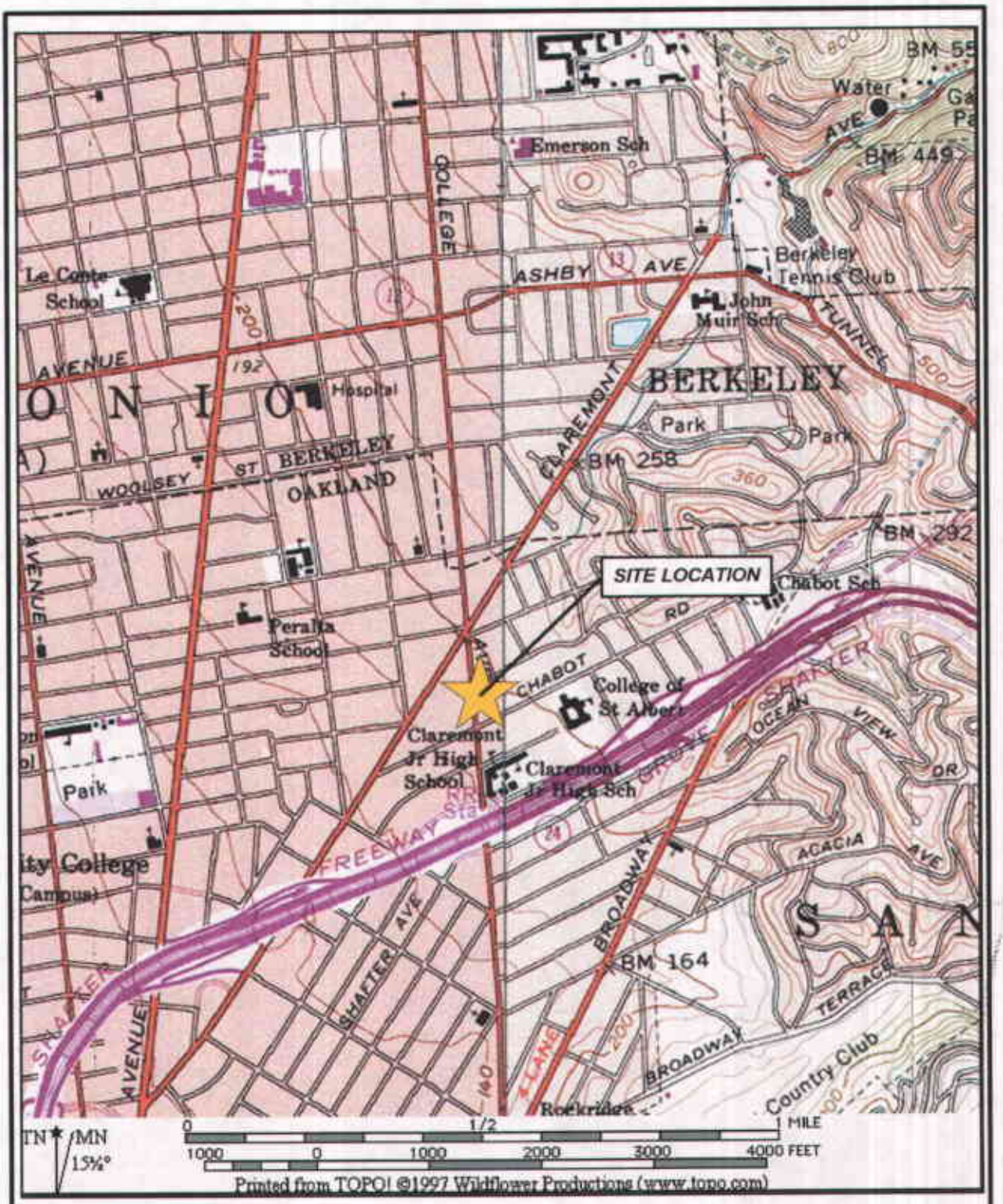
10/07/99	GGTR surveys monitoring wells MW2 / MW3; measures, purges and samples monitoring wells MW1, MW2 and MW3 then submits a groundwater monitoring report
10/22/99	GGTR submitted Summary Report
11/24/99	HCS submitted letter requiring quarterly monitoring and setting parameters for January 2000 analyses
01/26/00	GGTR measures, purges and samples monitoring wells MW1, MW2 and MW3 then submits a groundwater monitoring report
10/25/00	GGTR and Gettler-Ryan, Inc. perform joint groundwater monitoring activities; GGTR measures, purges and samples monitoring wells MW1, MW2 and MW3 then submits a groundwater monitoring report
04/25/01	GGTR and Gettler-Ryan, Inc. perform joint groundwater monitoring activities; GGTR surveys, measures and samples monitoring wells MW1, MW2 and MW3 then submits a groundwater monitoring report
07/10/01	GGTR and Gettler-Ryan, Inc. perform joint groundwater monitoring activities; GGTR measures and samples monitoring wells MW1, MW2 and MW3 then submits a groundwater monitoring report
10/08/01	GGTR and Gettler-Ryan, Inc. perform joint groundwater monitoring activities; GGTR monitors and samples MW1, MW2 and MW3.
11/28/01	GGTR submits October 2001 Groundwater Monitoring Report to the ACHCSA
12/19/01	GGTR submits Work Plan for Additional Soil & Groundwater Investigation to the ACHCSA
01/03/02	ACHCSA submits work plan implementation request letter.
01/07/02	GGTR monitors and samples MW1, MW2 and MW3.
01/13/02	Gettler-Ryan, Inc. monitors and samples GR-MW1 &GR-MW2.
02/11/02	GGTR submits January 7, 2001 Groundwater Monitoring Report to the ACHCSA
04/08/02	GGTR monitors and samples MW1, MW2 and MW3.
04/08/02	Gettler-Ryan, Inc. monitors and samples GR-MW1 &GR-MW2.
05/15/02	GGTR submits April 8, 2002 Groundwater Monitoring Report to the ACHCSA
07/09/02	**GGTR monitors and samples MW1, MW2 and MW3; Gettler-Ryan, Inc. currently on bi-annual sampling basis**
08/19/02	**GGTR submits July 9, 2002 Groundwater Monitoring Report to the ACHCSA**

Report Distribution

A copy of this quarterly groundwater monitoring report be submitted to the following site representatives:

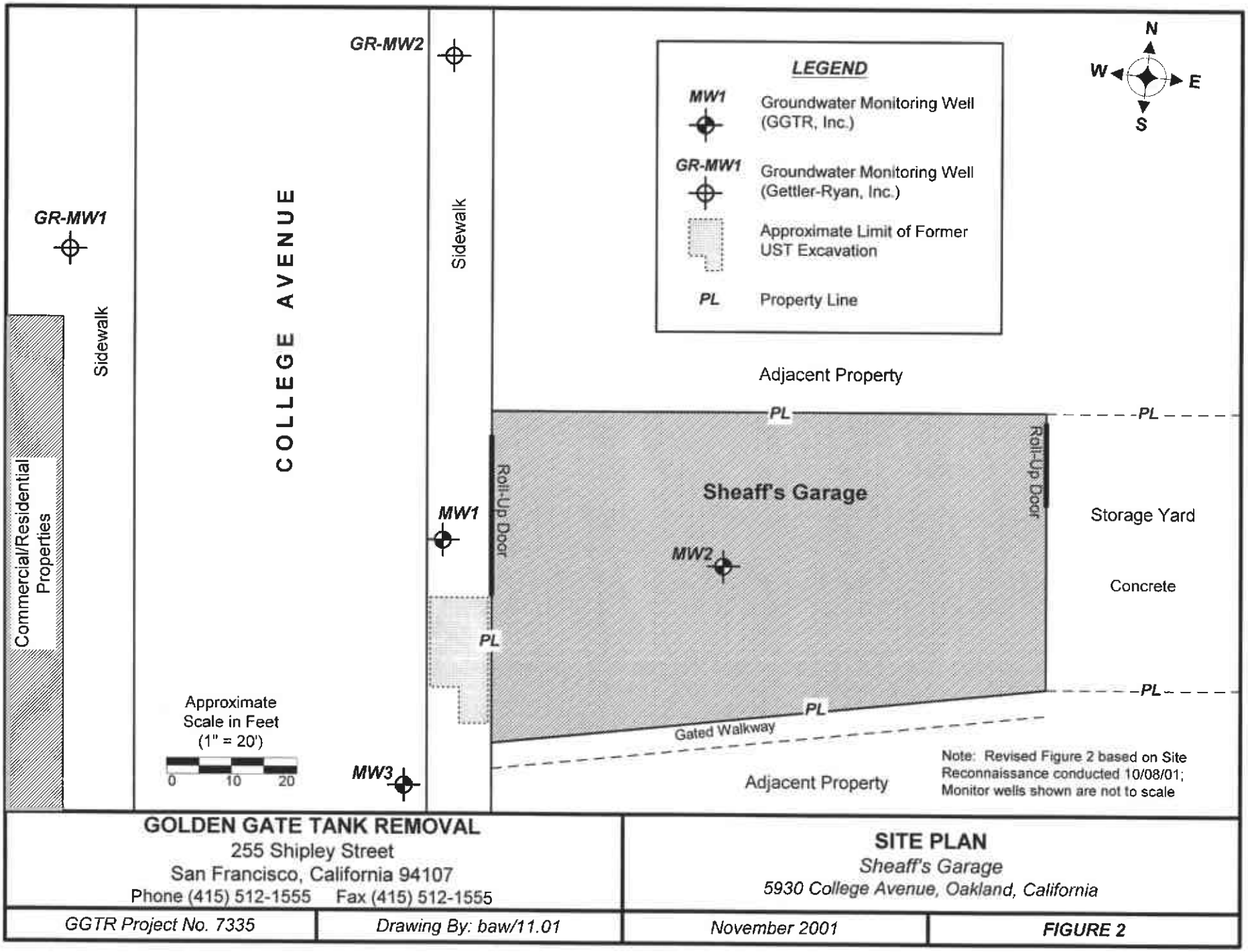
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
Attention: Ms. Eva Chu

Mr. Brian Sheaff
William G. Sheaff Trust
1945 Parkside Drive
Concord, CA 94519



GOLDEN GATE TANK REMOVAL, INC. 255 Shipley Street San Francisco, California 94107 Ph (415) 512-1555 Fx (415) 512-0964	**SITE LOCATION MAP** Sheaff's Garage 5930 College Avenue Oakland, California

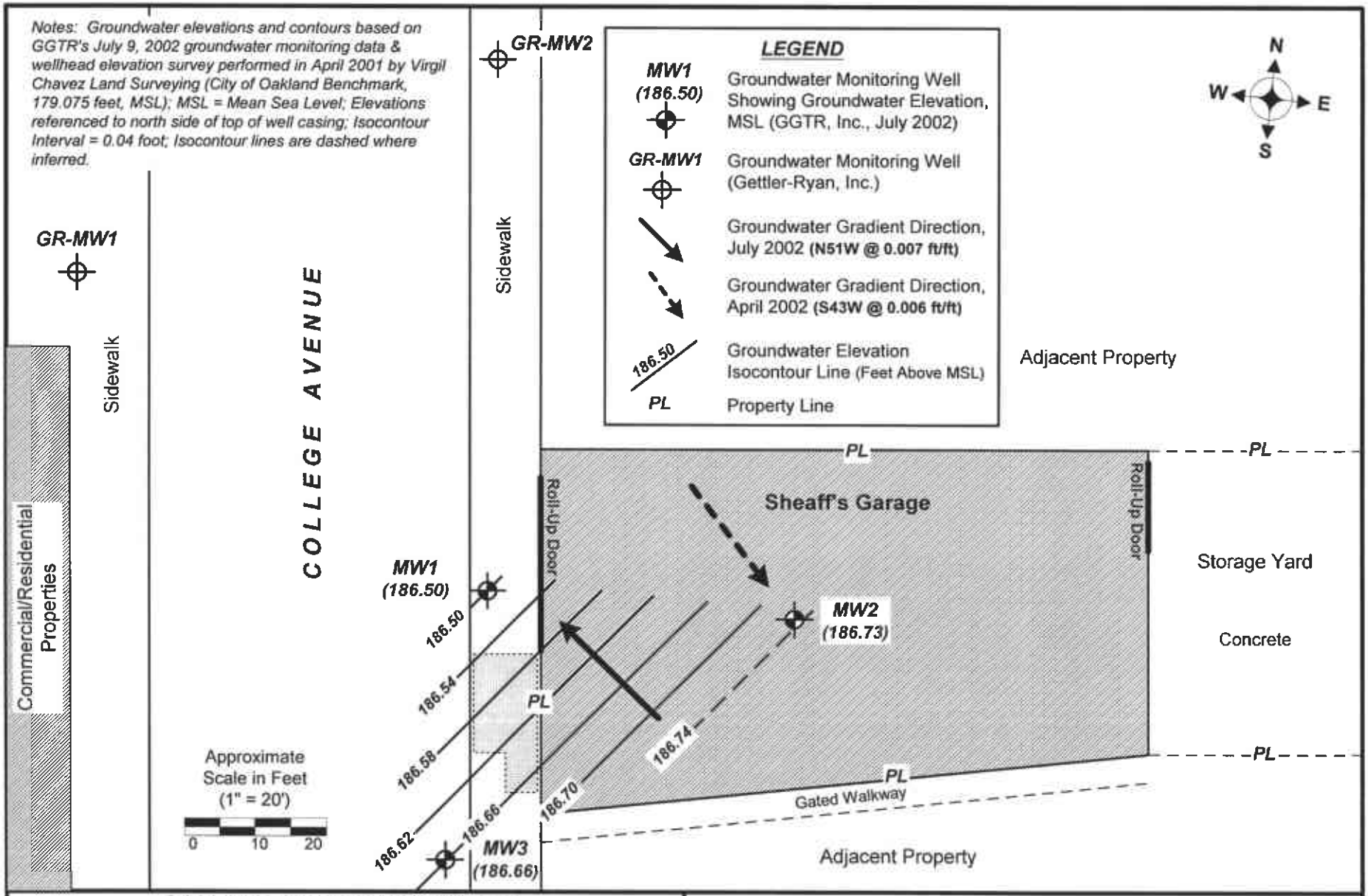
GGTR Project No. 7335	*Dwg: baw/11.01*	*December 2001*	***Figure 1***



GOLDEN GATE TANK REMOVAL
255 Shipley Street
San Francisco, California 94107
Phone (415) 512-1555 Fax (415) 512-1555

SITE PLAN
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	Drawing By: baw/11.01	November 2001	**FIGURE 2**



GOLDEN GATE TANK REMOVAL
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GROUNDWATER POTENTIOMETRIC MAP
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	Fn: 7335.F3.GEM.07.02	Revision By: baw/07.02	**FIGURE 3**

Figure 4 - Historical Groundwater Monitoring Results at 5930 College Avenue

Well ID	Sample Date	Casing Elevation (Feet/MSL)	DTW (Feet/ TOC)	Water Elevation (Feet/MSL)	Product/ Odor/ Sheen	TPH-G (ug/L)	TEPH (ug/L)	Total VOCs (ug/L)	MTBE (ug/L)	B/T/E/X (ug/L)
MW1	06/01/98	50.00 [1]	4.81	45.19	slight sheen	160,000	ND	--	1,900	28,000 / 21,000 / 3,800 / 21,000
	09/10/98	50.00 [1]	7.50	42.50	odor	290,000	ND	--	440	<50 / 25,000 / 7,100 / 32,000
	10/07/99	50.00 [1]	10.04	39.96	odor	85,000	ND	--	1,100	20,000 / 13,000 / 3,800 / 17,000
	01/26/00	50.00 [1]	8.26	41.74	slight sheen	130,000	--	--	470	25,000 / 18,000 / 4,500 / 22,000
	10/25/00	50.00 [1]	10.10	39.90	odor	130,000	--	ND	1,300	23,000 / 12,000 / 3,900 / 18,000
	02/02/01	50.00 [1]	9.61	40.39	odor	128,000	--	--	780	19,000 / 11,000 / 3,800 / 18,000
	04/25/01	195.90	7.39	188.51	odor	120,000	--	--	900	21,000 / 13,000 / 390 / 18,000
	07/10/01	195.90	9.72	186.18	odor	79,000	--	--	660	15,000 / 7,800 / 3000 / 15,000
	10/08/01	195.90	10.88	185.02	sheen/odor	112,000	--	--	374	25,300 / 11,800 / 4,280 / 20,600
	01/07/02	195.90	4.34	191.56	odor	96,100	--	--	596 [3]	21,100 / 13,500 / 4,160 / 21,900
	04/08/02	195.90	6.84	189.06	slight odor	111,000	--	1,040 [2]	814 (679[3])	21,200 / 13,400 / 4,230 / 21,000
	07/09/02	**195.90**	**9.40**	**186.50**	**slight odor**	**110,000**	--	**573 [4]**	**746 (570[3])**	**20,300 / 13,300 / 4,060 / 19,800**
MW2	10/07/99	51.42 [1]	11.49	39.93	slight/odor	18,000	ND	--	490	3,000 / 1,700 / 1,000 / 3,900
	01/26/00	51.42 [1]	7.85	43.57	none	42,000	--	--	560	9,300 / 2,200 / 2,300 / 7,700
	10/25/00	51.42 [1]	11.57	39.85	slight/odor	31,000	--	ND	500	5,500 / 370 / 1,700 / 2,600
	02/02/01	51.42 [1]	10.77	40.65	odor	36,000	--	--	400	4,300 / 530 / 1,800 / 4,500
	04/25/01	197.28	8.52	188.76	odor	56,000	--	--	460	6,700 / 1700 / 2,600 / 8,200
	07/10/01	197.28	11.05	186.23	odor	39,000	--	--	180	6,200 / 730 / 2,300 / 6,100
	10/08/01	197.28	12.79	184.49	sheen/odor	40,700	--	--	6,460	6,310 / 399 / 2,100 / 5,320
	01/07/02	197.28	4.92	192.36	odor	59,600	--	--	366 [3]	10,300 / 3,250 / 4,180 / 14,400
	04/08/02	197.28	8.40	188.88	slight odor	66,700	--	--	583 [3]	10,200 / 2,670 / 3,840 / 13,200
	07/09/02	**197.28**	**10.55**	**186.73**	**slight odor**	**37,100**	--	**298 (MTBE)**	**303 (298[3])**	**5,340 / 890 / 2,110 / 6,920**
MW3	10/07/99	49.39 [1]	9.67	39.72	none	6,600	ND	--	390	310 / 110 / 430 / 1,000
	01/26/00	49.39 [1]	5.40	43.99	none	3,300	--	--	40	110 / 8 / 100 / 32
	10/25/00	49.39 [1]	9.24	40.15	slight odor	4,500	--	ND	ND	100 / 2 / 120 / 130
	02/02/01	49.39 [1]	8.73	40.66	slight odor	2,900	--	--	35	35 / 3 / 160 / 298
	04/25/01	195.22	6.61	188.61	slight odor	8,400	--	--	56	260 / 33 / 290 / 510
	07/10/01	195.22	8.85	186.37	slight odor	12,000	--	--	35	39 / 10 / 690 / 1600
	10/08/01	195.22	9.75	185.47	sheen/odor	4,913	--	--	52	108 / 4 / 99 / 133
	01/07/02	195.22	4.25	190.97	sheen/odor	7,260	--	--	81.7 [3]	723 / 138 / 492 / 887
	04/08/02	195.22	6.33	188.89	odor	11,700	--	--	ND [3]	540 / 108 / 706 / 1,710
	07/09/02	**195.22**	**8.56**	**186.66**	**odor**	**2,320**	--	**20 (MTBE)**	**28.3 (20[3])**	**37.1 / 4.7 / 98.5 / 187**

Table Notes on Following Page

Figure 4 - Historical Groundwater Monitoring Results at 5930 College Avenue

NOTES:

DTW - depth to water relative to top of well casing; ug/L - micrograms per liter (equivalent to parts per billion)
TPH-G - Total Petroleum Hydrocarbons as Gasoline; TEPH - Total Extractable Petroleum Hydrocarbons (EPA Methods 5030/8015M)
Volatile Organic Compounds by EPA Method 8260
MTBE - Methyl Tertiary Butyl Ether; BTEX - Benzene / Toluene / Ethylbenzene / Total Xylenes (EPA Methods 5030/8020)
MSL - Mean Sea Level
TOC - Top of Well Casing (north side)
[1] - Arbitrary datum point with assumed elevation of 50 feet used prior to MSL survey on April 26, 2001
[2] - Fuel oxygenate concentrations reported as 1,2-Dichloroethane (361 ug/l) and MTBE (679 ug/l)
[3] - Concentration confirmed by EPA Methods 5030B/8260A
[4] - Fuel oxygenate concentrations reported as 1,2-Dichloroethane (3 ug/l) and MTBE (570 ug/l)
ND - not detected above laboratory reporting limit
-- - not analyzed for this constituent

APPENDIX

LABORATORY CERTIFICATES OF ANALYSIS, CHAIN OF CUSTODY FORMS, & FIELD DATA SHEETS

LIQUID WASTE MANIFEST

QUARTERLY GROUNDWATER MONITORING REPORT
July 9, 2002

Sheaff's Garage
5930 College Avenue
Oakland, California
STID # 514

GGTR Project No. 7335
August 19, 2002

North State Laboratory
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0916
Client: Golden Gate Tank
Project: 7335/5980 COLLEGE AVE. OAKLAND, CA

Date Reported: 07/17/2002

Gasoline,BTEX and MTBE by Methods SW8020F

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0916-01 Client ID: 7335-MW1				07/09/2002	W
Benzene	SW8020F	20300	UG/L		07/15/2002
Ethylbenzene	SW8020F	4060	UG/L		07/15/2002
Gasoline Range Organics	SW8020F	110000	UG/L		07/15/2002
Methyl-tert-butyl ether	SW8020F	*746	UG/L		07/15/2002
Toluene	SW8020F	13300	UG/L		07/15/2002
Xylenes	SW8020F	19800	UG/L		07/15/2002
Sample: 02-0916-02 Client ID: 7335-MW2				07/09/2002	W
Benzene	SW8020F	5340	UG/L		07/15/2002
Ethylbenzene	SW8020F	2110	UG/L		07/15/2002
Gasoline Range Organics	SW8020F	37100	UG/L		07/15/2002
Methyl-tert-butyl ether	SW8020F	*303	UG/L		07/15/2002
Toluene	SW8020F	890	UG/L		07/15/2002
Xylenes	SW8020F	6920	UG/L		07/15/2002
Sample: 02-0916-03 Client ID: 7335-MW3				07/09/2002	W
Benzene	SW8020F	37.1	UG/L		07/12/2002
Ethylbenzene	SW8020F	98.5	UG/L		07/12/2002
Gasoline Range Organics	SW8020F	2320	UG/L		07/12/2002
Methyl-tert-butyl ether	SW8020F	*28.3	UG/L		07/12/2002
Toluene	SW8020F	4.7	UG/L		07/12/2002
Xylenes	SW8020F	187	UG/L		07/12/2002

*Confirmed for MTBE by GC/MS Method 8260

North State Laboratory
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 02-0916
Client: Golden Gate Tank
Project: 7335/5980 COLLEGE AVE. OAKLAND, CA

Date Reported: 07/17/2002

Gasoline,BTEX and MTBE by Methods SW8020F

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Gasoline Range	SW8020F	50	UG/L	ND	95/90	5
Benzene	SW8020F	0.5	UG/L	ND	93/89	4
Toluene	SW8020F	0.5	UG/L	ND	92/89	3
Ethylbenzene	SW8020F	0.5	UG/L	ND	93/89	4
Xylenes	SW8020F	1.0	UG/L	ND	94/89	5
Methyl-tert-butyl	SW8020F	0.5	UG/L	ND	90/91	1

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy, Laboratory Director

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0916
Client : Golden Gate Tank
Project : 7335/5980 COLLEGE AVE. OAKLAND, CA

Date Sampled : 07/09/2002
Date Analyzed: 07/12/2002
Date Reported: 07/18/2002

Volatile Organics by GC/MS Method 8260

Laboratory Number	02-0916-01	02-0916-02	02-0916-03
Client ID	7335-MW1	7335-MW2	7335-MW3
Matrix	W	W	W
Analyte	UG/L	UG/L	UG/L
Methyl-tert-butyl ether	570	298	20
Ethyl tert-butyl ether	ND<1	ND<1	ND<1
tert-Amyl methyl ether	ND<1	ND<1	ND<1
Di-isopropyl ether (DIPE)	ND<1	ND<1	ND<1
tert-Butyl alcohol	ND<50	ND<50	ND<50
1,2-Dichloroethane	3	ND<1	ND<1
1,2-Dibromoethane	ND<1	ND<1	ND<1
Ethanol	ND<100	ND<100	ND<100
SUR-Dibromofluoromethane	106	100	101
SUR-Toluene-d8	96	98	98
SUR-4-Bromofluorobenzene	84	86	79

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C E R T I F I C A T E O F A N A L Y S I S

Job Number: 02-0916
Client : Golden Gate Tank
Project : 7335/5980 COLLEGE AVE. OAKLAND, CA

Date Sampled : 07/09/2002
Date Analyzed: 07/12/2002
Date Reported: 07/18/2002

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Laboratory Number	02-0916	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Ethanol	ND<100				
Methyl-tert-butyl ether	ND<1				
Di-isopropyl ether (DIPE)	ND<1				
tert-butyl Alcohol	ND<50				
Ethyl tert-butyl ether	ND<1				
tert-Amyl methyl ether	ND<1				
1,1-Dichloroethene	ND<1	82/94	14	61-121	25
1,2-Dichloroethane	ND<1				
Benzene	ND<1	92/78	16	74-135	21
1,2-Dibromoethane	ND<1				
Trichloroethene	ND<2	84/80	5	69-129	20
Toluene	ND<1	116/114	2	61-141	19
Chlorobenzene	ND<2	114/110	4	70-139	19
SUR-Dibromofluoromethane	106	109/108	1	67-129	21
SUR-Toluene-d8	97	96/95	1	72-119	16
SUR-4-Bromofluorobenzene	80	85/81	5	78-121	19

Reviewed and Approved

John A. Murphy
Laboratory Director

02-0916

North State Labs

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080
Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis
Lab Job No.:_____ Page 1 of 1

Client: GOLDEN GATE TANK REMOVAL, INC.	Report to: BRENT WHEELER	Phone: 415.572.1555	Turnaround Time
Mailing Address: 255 SHIPLEY ST. S.F., CA 94107	Billing to: SAME	Fax: 415.572.0964	A.S.A.P.
		email: GGTRDATA@AOL	Date: 7/9/02
		PO# 7335	Sampler: BAW

Project / Site Address / Global ID: 7335
5980 COLLEGE AVE., OAKLAND, CA

Analysis Requested

EDF ☒

Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH-D (8015)	BTEX (8020)	FUEL OXY (8260)	Field Point ID
7335-MW1	WATER	4 40ml VOAs	HCl	7/9/02 1235	X	X	X	
7335-MW2	"	"	"	1250	X	X	X	
7335-MW3	"	"	"	1305	X	X	X	

Relinquished by:		Date: 7/11/2	Time: 4:10 P	Received by: NSLABS	Lab Comments/ Hazards
Relinquished by:		Date:	Time:	Received by:	
Relinquished by:		Date:	Time:	Received by:	

GROUNDWATER WELL MONITORING
FIELD DATA SHEET

Project Number 7335 Site Name 6330 COLLEGE AVE Date 7/9/02
Well Number MW1 Sampler BAU

Notes, including field conditions, persons on site, methods used, weather SUNNY; CLOUDSKIES 80°F; MONITOR DTW W/ OIL/H2O INTERFACE PROBE; MONITOR DISSOLVED O2 W/ YSI 55 METER; RINSE 2 3 GAL CASING VOLUMES FROM MW1 - MW3; MONITOR PH, TEMP, + EC OF PURGE WATER; COLLECT GW SAMPLE USING DISPOSABLE BAILER; SUBMIT SAMPLES TO LAB.

TOC

Well Depth 19.57 ft. time of sample 1235 Depth to water 9.90 ft (10.17)
Well Diameter 2" sheen or free product NONE

Volume Height of water		Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
Column	5.17 ft.	(0.16)	0.65	0.83 gals.	3	2.48 gal

Quality of purge water CLEAR; SLIGHT HYDROCARBON ODOR; NO SHEEN

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
1207	0 gals	7.55	836	69.5	CLEAR; SLIGHT HC ODOR
1210	1 gals	7.67	789	68.5	"
1212	2 gals	7.59	792	68.2	"
1214	3 gals	7.48	802	68.0	"
1216	4 gals	7.38	800	67.8	"
	gals				
	gals				
	gals				

Additional comments D.O.: 0.14 mg/l (1.6%) @ 20.0°C
30% FREE PRODUCT LAYER @ 10.2 FT BGS; DTW @ 1225 = 10.15 (OK 1 SAMPLE)

TOTAL DRUM VOLUME = 25 GALLONS

255 Shipley Street • San Francisco, Ca. 94107 • Tel.: 415/512-1555 • Fax: 415/512-0964
General Engineering Contractor License No. 616521

GROUNDWATER WELL MONITORING
FIELD DATA SHEET

Project Number 7335 Site Name 5930 Oglesby A.F. Date 7/9/02
Well Number MW2 Sampler BAD

Notes, including field conditions, persons on site, methods used, weather SEE MW1

Well Depth 19.70 ft. time of sample 1250 Depth to water 10.65 TOC ft (10.13)
Well Diameter 2" sheen or free product NONE

Volume Height of water	Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
Column 9.15 ft	(0.16)	0.65	1.46 gals.	3	= 4.39 gal

Quality of purge water CLEAR (0/ SLIGHT HYDROCARBON ODOR; N - SHEEN

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
1135	0 gals	7.75	874	71.1	CLEAR; SLIGHT HC ODOR
1137	1 gals	7.67	852	69.4	"
1140	2 gals	7.50	353	69.4	"
1142	3 gals	7.44	862	69.8	"
1144	4 gals	7.38	854	69.4	"
1146	5 gals	7.28	857	70.3	"
	gals				
	gals				

Additional comments D.O.: 0.21 mg/l (2.3%) @ 18.0°C
3.5" FREE PRODUCT (GASOLINE) @ 12.0 FTOC. DTW @ 1157 = 15.7 FTOC.
DTW @ 1245 = 11.65' FTOC (OK TO SAMPLE)

GROUNDWATER WELL MONITORING
FIELD DATA SHEET

Project Number 7335 Site Name 5930 COLLEGE AVE. Date 7/9/02
Well Number MW3 Sampler BRW

Notes, including field conditions, persons on site, methods used, weather SEE MW1

Well Depth 18.87 ft. time of sample 1305 Depth to water 8.56 ft TOC (10:10)
Well Diameter 2" sheen or free product NONE

Volume Height of water		Diameter 2 inch	4 inch	Volume	Number of well volumes	total gallons to purge
Column	10.31 ft.	(0.16)	0.65	1.65 gals.	3	4.95 gal

Quality of purge water SLIGHTLY TURBID TO CLEAR; SLIGHT HYDROCARBON ODOR

TIME	VOLUME PURGED	pH	CONDUCTIVITY	TEMP	NOTES
1107	0 gals	9.08	573	70.6	SLIGHTLY TURBID; SLIGHT ODOR
1110	1 gals	7.66	543	67.9	CLEAR; SLIGHT ODOR
1112	2 gals	7.48	595	67.3	"
1115	3 gals	7.21	589	67.3	"
1117	4 gals	8.17	575	67.1	"
1119	5 gals	8.29	557	66.7	"
1121	6 gals	8.48	562	67.6	"
1123	7 gals	8.50	553	67.2	"

Additional comments DO: 0.22 mg/L (2.4%) @ 17.5°C
80% RECHARGE LEVEL = 10.2 FTOC; DTW @ 1126 = 16.6 FTOC.
DTW @ 1205 = 13.5 FTOC., DTW @ 1300 = 11.70 FTOC
(BOX TO SOURCE)

255 Shipley Street • San Francisco, Ca. 94107 • Tel.: 415/512-1555 • Fax: 415/512-0964
General Engineering Contractor License No. 618521

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-99)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	CA [illegible]
Manifest Document No.	30716
2. Page 1 of 1	
Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address	BRIAN SHEAF C/O MR. WILLIAM SHEAF TRUST 61 DUNBAR SAN RAMON CA 94583
4. Generator's Phone	(925)828-7441
A. State Manifest Document Number	21530716
B. State Generator's ID	
5. Transporter 1 Company Name	CLEARWATER ENVIRONMENTAL
6. US EPA ID Number	CAR000007013
C. State Transporter's ID [Reserved.]	
D. Transporter's Phone	(510)476-1740
7. Transporter 2 Company Name	
8. US EPA ID Number	
E. State Transporter's ID [Reserved.]	
F. Transporter's Phone	
9. Designated Facility Name and Site Address	ALVISO INDEPENDENT OIL 5002 ARCHER STREET ALVISO CA 95002
10. US EPA ID Number	CAD [illegible]
G. State Facility's ID	
H. Facility's Phone	(510)476-1740

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. ~~WASTE COMBUSTIBLE LIQUID, NOS 3 UN 1993 PG III~~ (OIL/WATER) NON RCRA HAZARDOUS WASTE LIQUID	001	TT	00625	G	State 223 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
11A. BRSH0001-GAS, GAS

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
WEAR PPE, EMERGENCY CONTACT: KIRK HAYWARD 510-476-1740 ERG# SITE: 5930 COLLEGE AVE OAKLAND GOLDEN GATE TANK JOB# 7335

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRENT WEISSER FOR BRIAN SHEAF
Signature: [signature]
Month Day Year: 08 05 02

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jorge Orozco
Signature: [signature]
Month Day Year: 08 05 02

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR / TRANSPORTER / FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

21530716

DTSC 8022A (1/99)
EPA 8700—22

Yellow: GENERATOR RETAINS