RO 377



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## QUARTERLY GROUNDWATER MONITORING REPORT April 23, 2004

Sheaff's Garage 5930 College Avenue Oakland, California

ACHCSA Fuel Leak Case No. RO0000377

Prepared For:

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> GGTR Project No. 7335 August 19, 2004

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5930 College Avenue, Oakland, California

#### Introduction

This report presents the results and findings of the April 23, 2004 groundwater monitoring and sampling activities conducted by Golden Gate Tank Removal, Inc. (GGTR) at 5930 College Avenue in Oakland, California. This was the 14th quarterly monitoring event performed at the site for the three existing monitor wells, MW1 through MW3. The ACHCSA has designated the site as Fuel Leak Case No. RO000377. 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. Table 1, Historical Results of Groundwater Sample Analysis & Fluid-Level Data, 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. Gettler-Ryan, Inc. performed their biannual monitoring and sampling of GR-MW1 & GR-MW2 on April 23, 2004. Figures 2 and 3 show the location of each Gettler-Ryan well relative to the subject wells at 5930 College Avenue.

#### **Site Location and Description**

The subject commercial property is located at 5930 College Avenue, along the east side of College Avenue between Harwood Street and Chabot Road in Oakland, California. The site lies approximately 0.2 mile (1,000 feet) north of Highway 24 and approximately 2.5 miles east of Interstate 80 and the San Francisco Bay. The general location of the site is shown on the attached Figure 1, Site Location Map.

The property is currently occupied by Sheaff's Garage for the service and repair of automobiles, with no active fuel storage or distribution systems. The site is approximately 5,500 square feet in area with about 75% utilized by a covered warehouse/garage and 25% used as an exterior (uncovered) storage yard. The ground surface of the entire property is paved with concrete. The elevation of the site is approximately 195 feet above Mean Sea Level (Figure 1). Figure 2 presents a *Site Plan* showing pertinent site structures and adjacent properties.

The property is relatively flat lying with the topographic relief in the immediate vicinity of the site generally directed toward the southwest (Figure 1). Regional topographic relief appears to be directed toward the west-southwest in the general direction of the San Francisco Bay. One 675-gallon, gasoline UST and one 340-gallon waste oil UST was located beneath the sidewalk at the southwest corner of the site (Figure 2). The tanks were removed by GGTR in August 1996. A brief discussion of the tank removal activities is presented herein.

#### Site Geology and Hydrogeology

According to a Geologic Map of the San Francisco-San Jose Quadrangle published by the California Department of Conservation, the site is underlain by up to 500 feet of dissected Quaternary alluvium deposited on marine sandstone, shale and conglomerate of the Mesozoic Franciscan Complex and possibly Mesozoic, cretaceous marine sedimentary rocks of the Great Valley Sequence (thicknesses not established). Native subsurface soil encountered at the site during the additional soil and groundwater investigation activities was predominantly a moist, dark yellowish brown, clayey silt up to approximately 7 fbg, overlying a dark yellowish brown and dark greenish gray, silty clay up to approximately 15 fbg. Moist to wet, clayey silt/sand and silty clay lenses extend up to a total explored sample depth of 20 fbg. Soil observed throughout B10 and B11 was predominantly a clayey, sandy silt.

Depth to groundwater, as measured on a quarterly basis in the three onsite monitoring wells (October 1999 through February 2004) ranged between approximately 5.5 and 13 fbg. The average depth to groundwater reported during the February 2004 monitoring event was approximately 8 fbg, with an associated mean groundwater elevation of 188.42 feet. The associated groundwater gradient across the site historically has ranged between 0.005 (July 2001) and 0.032 (October 2002) foot per foot and the flow direction has fluctuated between 11° west of south (October 1999) to 71° east of north (October 2002). The gradient

measured during the February 2004 event was approximately 0.005 ft/ft directed 18° east of south. The regional groundwater flow in the vicinity of the site is assumed to be towards the west-southwest, in the direction of the San Francisco Bay, and generally following the natural topographic relief of the area. At this time, with no risk-based corrective action study performed to date at the site, shallow groundwater beneath the site is considered a potential drinking water source.

The nearest surface water body is Claremont Creek, flowing southwest, with surface water flow ending approximately 0.9 mile northeast of the site. Creek flow then appears to continue southwest via an intermittent underground culvert and an open surface channel, and generally parallels Claremont Avenue towards its intersection with College Avenue, located approximately 0.1 mile (525 feet) north of the site (Figure 1). Lake Temescal, situated at an elevation approximately 200 feet higher than the site, is located approximately 1.1 miles east of the subject property, with effluent flow directed generally southeast.

#### **Groundwater Sampling Field Procedures**

On April 23, 2004, GGTR contracted North State Labs (NSL) of South San Francisco, California to monitor and sample MW1 through MW3, 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, NSL 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. NSL then measured and recorded the depth to groundwater and presence of floating product using a Keck® electronic oil/water interface probe. NSL also measured the dissolved oxygen (DO) of the groundwater using a YSI55® DO meter and measured the oxidation-reduction potential in each well to assess the occurrence of biodegradation in shallow groundwater beneath the site. Fluid levels were measured relative to the north side of the top of each well casing to the nearest 0.01 foot.

NSL 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, NSL 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.

Samples were transferred to a refrigerator and subsequently submitted under chain-of-custody protocol to NSL's State-certified, analytical laboratory (CA ELAP #1753) in South San Francisco, California.

#### **Water Sample Analytical Methods**

On April 26, 2004, NSL submitted the groundwater samples collected from the three monitoring wells under formal chain of custody command for laboratory analysis of the following fuel constituents:

- Gasoline Range Organics (TPH-G; SW8020F)
- Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX; SW8020F)
- Methyl Tertiary-Butyl Ether (MTBE; SW8020F)
- Volatile Organic Compounds (EPA Method 8260), including lead scavengers 1,2-dibromoethane (EDB) and 1,2-dichloroethane (EDC)

NSL completed all volatile organic analyses by May 4, 2004, which is in conformance with the 14-day required time limit for analysis. NSL submitted all analytical data in electronic deliverable 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 historical monitoring events at the site are presented in Table 1. A copy of the Laboratory Certificates of Analysis, associated Chain of Custody Record, and Fluid-Level Monitoring and Well Purge/Sampling Data Sheets and s are included in the Appendix.

## **Quality Assurance / Quality Control**

Quality Assurance and Quality Control details are shown on the laboratory Certificates 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. A laboratory-supplied trip blank was returned with the groundwater samples to the laboratory and analyzed for BTEX only (Sample ID 7335-TB), the results of which are included in Table 1.

## **Groundwater Monitoring Results**

The groundwater elevations measured relative to the top of well casing in MW1 through MW3 ranged between 188.88 (MW2) and 189.07 (MW1) feet above Mean Sea Level. The associated groundwater gradient calculated for the April 23, 2004 monitoring event was 0.5 foot / 100 feet (0.005 ft/ft) directed approximately 77° east of south. The groundwater gradient and associated elevation isocontour lines are shown on Figure 3, *Groundwater Elevation Potentiometric Map*.

The table shown on the following page lists the historical data for MW1 through MW3, for mean groundwater elevation, flow direction, and groundwater slope for the site. 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. Figure 4 presents a *Rose Diagram* showing the historical hydraulic gradients (magnitude and direction) across the site.

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
10/23/02	184.50	71° east of north	3.2 foot / 100 feet
10/15/03	185.14	28° east of north	1.0 foot / 100 feet
02/02/04	188.47	18° east of south	0.5 foot / 100 feet
04/23/04	189.00	77° east of south	0.5 foot / 100 feet

#### **Discussion of Monitoring Results**

The mean groundwater elevation measured at the site during this event was approximately 0.53 foot higher than that measured during the monitoring event in February 2004 and comparable to the mean groundwater elevation reported in April 2001 (188.6 feet) and 2002 (188.94 feet). Based on the relative groundwater elevation data recorded for this event, the groundwater flow direction was directed approximately 77° east of south, representing a presumed counterclockwise shift of approximately 59° toward the north, as compared to the previous monitoring event. This groundwater flow direction has fluctuated significantly since the installation of the monitor wells in October 2001; however, is relatively similar to historical gradient directions measured during this time of year in April 2001 and 2002. The calculated gradient slope for this event (0.005 foot/foot) remains the same since the previous monitoring event in February 2004.

Using Gettler- Ryan's groundwater elevation data for GR-MW1 and GR-MW2 [(187.89 and 188.97 feet MSL respectively; April 2004 Groundwater Monitoring Data and Analytical Results (Table 1 - Appendix)] in conjunction with that for the onsite well MW1 (189.07 feet), the groundwater gradient is directed approximately 88° west of south (@ 0.019 foot per foot), almost 180 degrees opposite of the April 2004 onsite gradient

direction presented above. Figure 3 shows the approximate groundwater flow direction using the Gettler-Ryan April 2004 data.

Shallow, unconfined groundwater in the vicinity of the former UST cavity and monitored area (April 2004) was characterized by relatively moderate dissolved oxygen concentrations ranging between 18.1% (1.55 milligrams per liter, mg/L) in MW2 and 28.2% (2.57 mg/L) in MW1, signifying that aerobic biodegradation is potentially occurring beneath the site. The groundwater in each well was also initially monitored for Oxidation-Reduction Potential (ORP), which ranged between -047 millivolts in MW1 to -024 millivolts in MW2, generally signifying that anaerobic biodegradation (iron reduction range) may potentially be occurring within the shallow groundwater once the dissolved oxygen is depleted. The April 2004 ORP values are consistent with those recorded in October 2003, however have decreased slightly since the February 2004 event. The groundwater was also characterized by an average pH, specific conductivity, and temperature of 6.82, 886 micromhos per centimeter (µmhos/cm), and 66.1 Fahrenheit degrees, respectively. The temperatures recorded in MW1 during the April 2004 purging activities appeared erroneously high as compared with those in MW2 and MW3 and were not used to calculate the average temperature above.

Neither free product nor surface sheen was present in the purge water or groundwater samples in MW1 through MW3 during the April 2004 monitoring event; however, gasoline-like hydrocarbon odors were detected in the purge water removed from both MW1 and MW2. Documentation of the well purging and sampling activities is contained in the Field Data Sheets of the Appendix.

## **Results of Groundwater Sampling and Laboratory Analysis**

The table shown on the following page summarizes the laboratory analytical results of groundwater samples collected during the April 23, 2004 monitoring event. The table includes results reported for the groundwater samples collected (April 23, 2004) by Gettler-Ryan, Inc. from the monitor wells located at 5940 College Avenue (GR-MW1 and GR-MW2). A copy of the Laboratory Certificate of Analysis and the Chain-of-Custody Record associated with GGTR's groundwater samples is in the Appendix. Documentation of the well purging and sampling activities is contained in the Field Data Sheets of the Appendix. Included in the Appendix is a facsimile copy of Gettler-Ryan's Groundwater Monitoring Data and Analytical Results (Table 1).

April 23, 2004 Groundwater Sampling Results

Well ID	Sample ID	TPH-G (ug/L)	BTEX (ug/L)	MTBE (ug/L)	VOC/OXY (ug/L)
MW1	7335-MW1	49,200	7,910 / 1,480 / 1,810 / 10,100	85 (114*)	28,750 / NA
MW2	7335-MW2	30,400	3,570 / 322 / 1,620 / 4,140	112 (203*)	13,921 / NA
MW3	7335-MW3	7,210	227 / 39.5 / 448 / 879	ND (ND*)	2,807.9 / NA
GR-MW1	MW-1	<50	<0.5 / <0.5 / <0.5 / <1.5	NA	NA
GR-MW2	MW-2	960	8.9 / 1.0 / 2.4 / <1.5	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)

VOC – Volatile Organic Compounds (EPA Method 8260; Total Concentration)

OXY - Fuel Oxygenates (EPA Method 8260)

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

\* - MTBE concentration as confirmed by VOC and/or Fuel Oxygenate analysis

Total Petroleum Hydrocarbons as gasoline (TPH-G) decreased significantly in monitor well MW1 from 108,000 to 49,200 micrograms per liter (ug/L) as compared to the February 2004 monitoring event, and is the historically lowest concentration reported in this well since its installation in June 1998. The concentration of TPH-G reported in MW2 increased from 21,700 to 30,400 ug/L as compared to the last monitoring event, however has generally decreased as compared to the April 2001 (56,000 ug/L) and 2002 (66,700 ug/L) events. The concentration of TPH-G measured in MW3 has continued to increase slightly since the July 2002 monitoring event, and has increased since the February 2004 event from 5,140 to 7,210 ug/L. The current TPH-G concentration reported in each well continues to exceed the California Regional Water Quality Control Board's (CRWQCB) July 2003 Tier 1 Environmental Screening Level (ESL) listed for this constituent, where shallow groundwater ≤10 feet below grade (fbg) beneath the site potentially is a domestic source of drinking water (100 ug/L). No CRWQCB – Municipal Supply Water Quality Objective (MSWQO) or Maximum Contaminant Level (MCL) currently exists for this constituent.

The concentration of methyl tertiary-butyl ether (MTBE) continues to decrease in MW1 from 1,010 ug/L (1,080 ug/L, as confirmed by EPA Method 8260) to 86 ug/L (114 ug/L, EPA 8260), and in MW2, from 322 to 168 ug/L (200 ug/L; EPA Method 8260) as compared to the October 2002 event. Again, the MTBE concentrations measured in MW2 since January 2002 appear to remain relatively stable, fluctuating only slightly between 112 ug/l (April 2004) to 583 ug/l (April 2002). The highest reported concentration during this period occurred when the depth to groundwater was approximately 8.5 feet below grade, similar to the current reported groundwater level for this well. The MTBE concentration measured in MW3 has remained below the laboratory reporting limit (<0.5 ug/L) since October 2002, and continues to demonstrate a general decreasing trend. The MTBE

concentrations measured in both MW1 and MW2 continue to exceed the CRWQCB's July 2003 Tier 1 ESL and Secondary MCL listed for this chemical constituent (5 ug/L).

The benzene concentration measured in the groundwater sample collected in MW1 decreased significantly from 14,200 to 7,910 ug/L, and that in MW2 increased slightly from 2,130 to 3,570 ug/L, as compared with the February 2004 event. The benzene concentration measured in MW3 continued to slightly increase from 126 to 227 ug/L. The concentrations of toluene, ethylbenzene, and total xylenes measured in MW1 have significantly decreased since the February 2004 event and the concentrations of toluene, ethylbenzene, and total xylenes measured in MW2 and MW3 have remained relatively stable since the July 2002 event. The BTEX concentrations measured in each well continues to exceed the CRWQCB's Tier 1 ESL established for each constituent, where groundwater is potentially a threatened drinking water resource. Also the BTEX concentrations measured in MW1 and MW2 exceed the CRWQCB's Primary MCL value established for each constituent. Only the benzene concentration reported in MW3 (227 ug/L) exceeds the Primary MCL established for this constituent (1 ug/L). Respective Tier 1 ESL and MCL Values are tabulated at the end of Table 1.

The total concentration of Volatile Organic Compounds (VOCs) measured in MW1 has decreased significantly since the February 2004 event. The concentrations of 1,2-Dichloroethane (EDC) and 1,2-dibromoethane (EDB), reported in MW1 through MW3 remained below the respective laboratory reporting limit for each VOC constituent (≤100 ug/L for EDC and <50 ug/L for EDB) and do not appear to be constituents of concern at the site. The groundwater samples collected in MW1 and MW2 contained 114 and 203 ug/L MTBE (as confirmed by VOC analyses), which were similar to the MTBE concentrations reported in these wells in February 2004. The sample collected in MW1 contained 1,210 ug/L methylene chloride, which exceeds the Tier 1 ESL listed for this constituent (5.0 ug/L), and the samples collected in MW1 through MW3 also contained 559, 568, and 160 ug/L naphthalene (VOC), which exceed the Tier 1 ESL listed for this constituent (21 ug/L).

As requested by the ACHCSA in their letter dated September 8, 2003, groundwater monitoring should continue at the site on a quarterly basis. All quarterly groundwater samples should be analyzed for TPH-G, BTEX, and MTBE by SW8020F, and VOCs by EPA Method 8260. Based on the non-detectable results (except MTBE) of Fuel Oxygenates analyses reported in well groundwater samples collected in October 2003, such constituents do not appear to be chemicals of concern at the site, and as suggested in the September 2003 letter, do not need to be incorporated into the current monitoring schedule and were not analyzed during the either the February or April 2004 event. Monitoring of DO and ORP should be continued to further evaluate the biodegradation potential in the shallow groundwater beneath the site. Third Quarter 2004 monitoring activities were conducted at the site on July 19, 2004, a report of which is due on October 31, 2004.

#### GeoTracker AB2886 EDF Upload

In general accordance with State Assembly Bill 2886, GGTR uploaded the fluid-level monitoring data associated with the April 23, 2004 event in electronic deliverable format to the State Water Resources Control Board's GeoTracker Database System. The GeoTracker Upload Confirmation Number is 8107101261. An AB2886 Electronic Delivery confirmation report copy (GEO\_Well) corresponding to submittal title Fluid-Level Monitoring Data (MW1-MW3) is included in the Appendix.

GGTR also uploaded all groundwater sample analytical results associated with the April 23, 2004 event in electronic deliverable format to the State GeoTracker Database System. The GeoTracker Upload Confirmation Number is 1738158941. A confirmation report copy corresponding to Lab Number/Submittal Title 04-0597: 4/23/04 GW Analytical Data (MW1-MW3) is included in the Appendix.

#### **Waste Management**

The drummed well purge and equipment wash and rinse water (@ 25 gallons) generated during the April 2004 monitoring event was transferred directly to a D.O.T.-approved, 55-gallon drum. The drum was appropriately labeled and stored onsite in a secure area. To date, the drum remains onsite for storage use with future quarterly monitoring events and/or additional investigation activities. Upon transport and disposal of the drummed waste liquid to a State-licensed recycling facility, proper waste manifest documentation will be submitted to the ACHCSA.

## **Environmental Site History & Chronology**

In August 1996, GGTR removed two underground storage tanks (USTs) and associated fuel dispenser from the site at the locations shown in Figure 2. The following table presents a summary of the tank designations, size, type of construction and contents:

Designation	Construction	Diameter (Feet)	Length (Feet)	Volume (Gallons)	Contents
TANK 1	Steel	4	7	675	Gasoline
TANK 2	Steel	4	3.5	340	Waste Oil

GGTR removed the residual fuel from the subsurface product piping (left in place), thoroughly flushed and drained the piping, and capped both ends. GGTR over-excavated the gasoline-contaminated soil surrounding the former UST location. Analytical results of soil samples collected during the UST removal and over-excavation activities at the site are summarized in the attached Table 1. The tank removal and over-excavation activities are documented in GGTR's *Tank Removal Report*, dated October 11, 1996.

Between May 1998 and October 1999, as requested by the ACHCSA, GGTR performed a preliminary subsurface soil boring investigation at the subject property and subsequently installed three groundwater monitor wells in the vicinity of the former UST cavity. Soil

borings B1 through B3 were advanced immediately south, east, and west, respectively, of the former UST cavity. Following review and interpretation of all field and soil sample analytical data collected during these activities, additional soil borings (B4 through B6) were then advanced at the site to further assess the extent of contamination in soil and the potential impact to groundwater. These borings were converted to 2-inch-diameter groundwater monitoring wells, MW1 through MW3. The locations of the soil borings/monitor wells are shown in Figure 2.

In collaboration with Gettler-Ryan, Inc. of Dublin, California, which is conducting a separate groundwater investigation adjacent to the subject property (5940 College Avenue; Former Chevron Station), GGTR has jointly monitored and sampled each well on a quarterly basis between January 2000 and October 2002. The locations of the subject monitor wells as well as Gettler-Ryan's monitoring wells are shown on Figure 2.

Based on the residual elevated concentrations of gasoline-range hydrocarbons measured in the groundwater samples collected during the April 2001 quarterly monitoring activities, the ACHCSA, in a letter dated July 9, 2001, requested a work plan to assess whether any additional contaminant sources may potentially exist onsite that may be contributing to the elevated hydrocarbon concentration in groundwater. GGTR submitted the work plan on December 19, 2001, which was subsequently approved by the ACHCSA in a letter dated January 3, 2002. In August, October, and November 2002, GGTR implemented the approved work plan activities, details of which are presented in GGTR's June 10, 2003 Report of Additional Soil and Groundwater Investigation.

The following chronological list of activities shows the significant UST removal and investigative activities performed at the site to date:

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 B1 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
10/04/00	groundwater monitoring report
10/02/99	GGTR drills two borings (B5 and B6) and converts them to groundwater
10/04/99	monitoring Wells (MW2 and MW3) GGTR develops monitoring wells MW2 and MW3
10/07/99	GGTR develops monitoring wells WW2 and WW3 GGTR surveys monitoring wells MW2 / MW3; measures, purges and samples
10/07/33	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
07/10/01	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;
10100701	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 07/09/02	GGTR submits April 8, 2002 Groundwater Monitoring Report to the ACHCSA GGTR monitors and samples MW1, MW2 and MW3; Gettler-Ryan, Inc. currently
07/09/02	on bi-annual sampling basis
08/19/02	GGTR submits July 9, 2002 Groundwater Monitoring Report to the ACHCSA
08/24/02-	GOTIC submits vary 9, 2002 Groundwater Montoring Report to the Methodri
08/30/02	GGTR conducts December 2001 work plan subsurface fuel piping removal and site
	restoration activities.
10/15/02	Gettler-Ryan, Inc. monitors and samples GR-MW1 & GR-MW2.
10/23/02	GGTR monitors and samples MW1, MW2 and MW3.
10/30/02 &	
11/01/02	GGTR conducts December 2001 work plan additional soil boring activities
12/30/02	GGTR submits October 23, 2002 Groundwater Monitoring Report to the ACHCSA
06/10/03	GGTR submits Report of Additional Soil and Groundwater Investigation to the
	ACHCSA

09/08/03	ACHCSA submits Report Review Letter
10/15/03	GGTR conducts 3 <sup>rd</sup> Quarter 2003 Monitoring & Sampling (MW1-MW3)
10/31/03	GGTR submits October 15, 2003 Groundwater Monitoring Report to the ACHCSA
02/02/04	GGTR conducts 1 <sup>st</sup> Quarter 2004 Monitoring & Sampling (MW1-MW3)
03/29/04	GGTR submits February 2, 2004 Groundwater Monitoring Report to the ACHCSA
04/23/04	GGTR conducts 2 <sup>nd</sup> Quarter 2004 Monitoring & Sampling (MW1-MW3)
03/29/04	GGTR submits April 23, 2004 Groundwater Monitoring Report to the
	ACHCSA

## **Report Distribution**

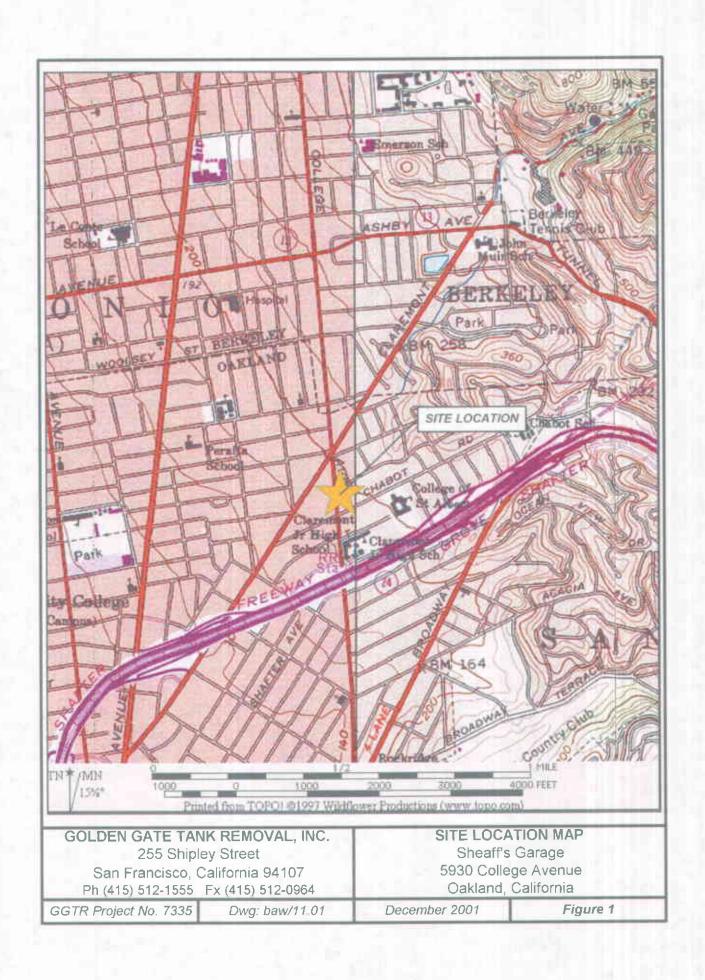
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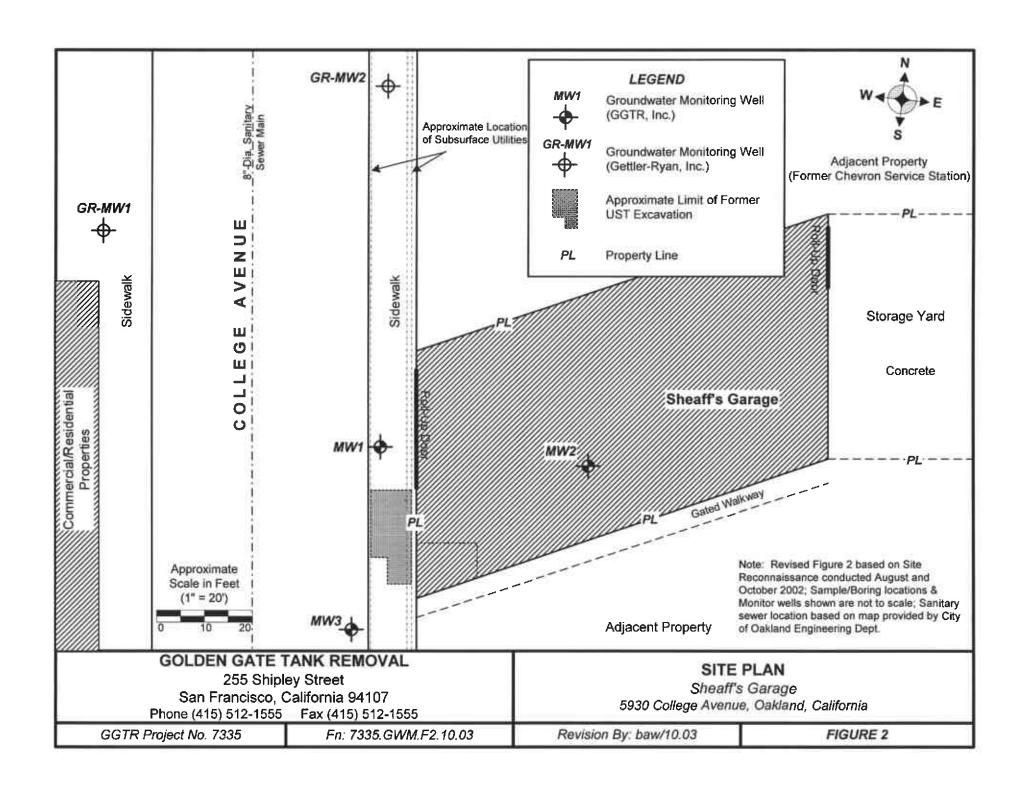
Alameda County Health Care Services Agency Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 Attention: Mr. Don Hwang

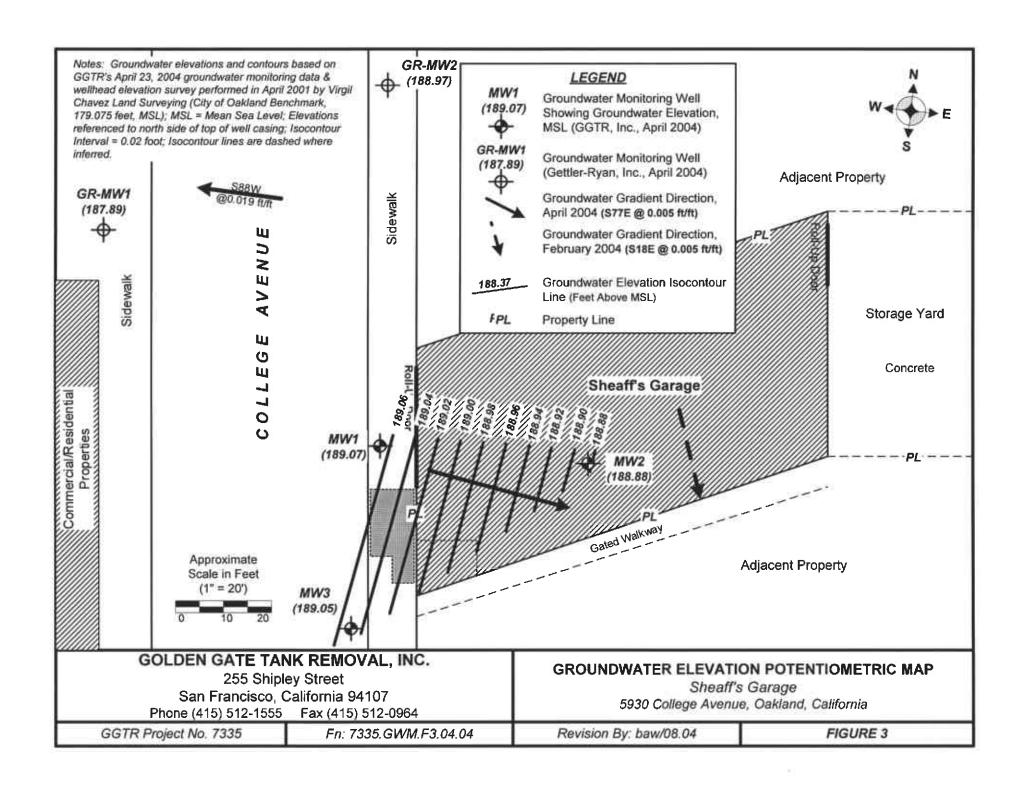
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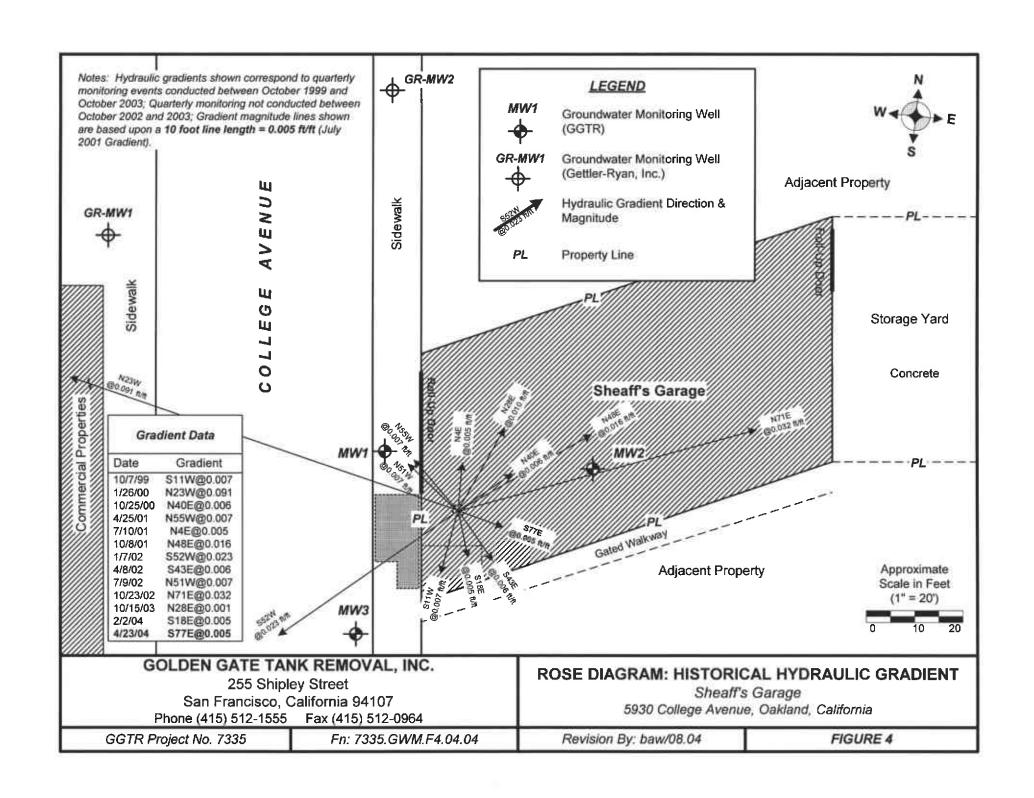


TABLE 1
Historical Results of Groundwater Sample Analysis & Fluid-Level Data
5930 College Avenue, Oakland, CA

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)	
	06/01/98	50.00 <sup>1</sup>	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	# 5		470	25,000 / 18,000 / 4,500 / 22,000	
	10/25/00	50.00	10.10	39.90	odor	130,000	227	ND	1,300	23,000 / 12,000 / 3,900 / 18,000	
	02/02/01	50.00 <sup>T</sup>	9.61	40.39	odor	128,000			780	19,000 / 11,000 / 3,800 / 18,000	
MW1	04/25/01	195,90	7.39	188.51	odor	120,000	## C		900	21,000 / 13,000 / 390 / 18,000	
IAT AA T	07/10/01	195.90	9.72	186.18	odor	79,000	#00	**	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		- 24	596 <sup>3</sup>	21,100 / 13,500 / 4,160 / 21,900	
	04/08/02	195.90	6.84	189.06	slight odor	111,000	-	1,040 <sup>2</sup>	814 (679³)	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 <sup>3</sup> )	20,300 / 13,300 / 4,060 / 19,800	
	10/23/02	195.90	11.04	184.86	none	54,100	***	41,482 5	$1,010 (1,080^3)$	10,800 / 3,870 / 2,320 / 9,440	
	10/15/03	195.90	10.80	185.10	none	90,700	-	47,837 <sup>8</sup>	534 (724)	17,800 / 4,740 / 3,150 / 13,900	
	02/02/04	195.90	7.35	188.55	none	108,000		50,118 <sup>12</sup>	216 (194³)	14,200 / 7,420 / 3,450 / 19,800	
_	04/23/04	195.90	6.83	189.07	slight odor	49,200		28,750 <sup>15</sup>	85 (114 <sup>3</sup> )	7,910 / 1,480 / 1,810 / 10,100	
		Laboratory I	Reporting I	imit		50	5,000	<50	0.5(1)	0.5 / 0.5 / 0.5 / 1.0	
		CRWQCB M	ISWQO (N	ICL)		NC	NC	Varies	5 11	1 / 150 / 700 / 1,750	
		CRWQCB.	July 2003 1	ESL		100/500	100/640	Varies	5/1,800	1.0 (46) / 40 (130) / 30 (290) / 13 (13)	

**Table Notes Following** 

TABLE 1 (Cont'd)

# Historical Results of Groundwater Sample Analysis & Fluid-Level Data 5930 College Avenue, Oakland, CA

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)
	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	7.85	43.57	none	42,000		2.55	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	***	5	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
3 53310	07/10/01	197.28	11.05	186.23	odor	39,000			180	6,200 / 730 / 2,300 / 6,100
MW2	10/08/01	197.28	12.79	184.49	sheen/odor	40,700	1.75	1.25	6,460	6,310 / 399 / 2,100 / 5,320
	01/07/02	197.28	4.92	192.36	odor	59,600		***	366 <sup>3</sup>	10,300 / 3,250 / 4,180 / 14,400
	04/08/02	197.28	8.40	188.88	slight odor	66,700	5-46	***	583 <sup>3</sup>	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 <sup>3</sup>	5,340 / 890 / 2,110 / 6,920
	10/23/02	197.28	13.85	183.43	none	13,300		8,686 6	322 (360 <sup>3</sup>	2,420 / 216 / 922 / 1,470
	10/15/03	197.28	12.38	184.90	none	11,300	1 ***	6,642 9	264 (3223	2,660 / 51 / 1,180 / 1,220
	02/02/04	197.28	8.80	188.48	none	21,700		8,020 13	168 (200 <sup>3</sup>	2,130 / 51 / 1,030 / 2,060
	04/23/04	197.28	8.40	188.88	Slight odor	30,400		13,921 16	112 (2033	3,570 / 322 / 1,620 / 4,140
		Laboratory I	Reporting 1	Limit		50	5,000	≤50	0.5(1)	0.5 / 0.5 / 0.5 / 1.0
		CRWQCB N	ISWQO (N	MCL)		NC	NC	Varies	5 11	1 / 150 / 700 / 1,750
		CRWQCB	July 2003	ESL		100/500	100/640	Varies	5/1,800	1.0 (46) / 40 (130) / 30 (290) / 13 (13)

**Table Notes Following** 

#### TABLE 1 (Cont'd)

#### Historical Results of Groundwater Sample Analysis & Fluid-Level Data 5930 College Avenue, Oakland, CA

Well ID	Sample Date	TOC 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)	
	10/07/99	49.39 <sup>1</sup>	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 <sup>1</sup>	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	***	(44)	35	35 / 3 / 160 / 298	
	04/25/01	195.22	6.61	188.61	slight odor	8,400	225	<u>≈</u>	56	260 / 33 / 290 / 510	
B 43310	07/10/01	195.22	8.85	186.37	slight odor	12,000			35	39 / 10 / 690 / 1600	
MW3	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	***	44	81.7 3	723 / 138 / 492 / 887	
	04/08/02	195.22	6.33	188.89	odor	11,700	#£3		ND 3	540 / 108 / 706 / 1.710	
	07/09/02	195.22	195.22 8.56 186.66		odor	2,320	220	20 (MTBE)	28.3 (20 <sup>3</sup> )	37.1 / 4.7 / 98.5 / 187	
	10/23/02	195.22	10.02	185.20	Sheen/odor	2,830		865 7	ND (ND 3)	ND (ND 3)	46.8 / 4.7 / 43.6 / 65.5
	10/15/03	195.22	9.80	185.42	Sheen/odor	3,040	***	436 10	ND (ND 3)	91.3 / 8.4 / 69.9 / 148	
	02/02/04	195.22	6.85	188.37	Sheen/odor	5,140	++0	769.5 14	ND (ND 3)	126 / 8 7 / 134 / 238	
	04/23/04	195.22	6.17	189.05	none	7,210		2,807.9 17	ND (ND 3)	227 / 39.5 / 448 / 879	
TB	02/02/04			NA			***	544	23	ND / ND / ND / ND	
	04/23/04			NA			220	122	22%	ND / ND / ND / ND	
		Laboratory	Reporting L	imit		50	5,000	≤50	0.5(1)	0.5 / 0.5 / 0.5 / 1.0	
		CRWQCB N				NC	NC	Varies	5 11	1 / 150 / 700 / 1,750	
		CRWQCB				100/500	100/640	Varies	5/1,800	1.0 (46) / 40 (130) / 30 (290) / 13 (13	

TABLE 1 NOTES: TOC - top of well casing (north side)

DTW - depth to water relative to TOC

ug/L - micrograms per liter (equivalent to parts per billion) TPH-G - Total Petroleum Hydrocarbons as Gasoline (SW8020F)

TEPH - Total Extractable Petroleum Hydrocarbons [EPA Methods 5030/8015M & EPA 1664 (B10 Only)]

Total VOCs - Total Volatile Organic Compounds by EPA Method 8260

MTBE - Methyl Tertiary Butyl Ether (EPA Method 8260)

BTEX - Benzene / Toluene / Ethylbenzene / Total Xylenes (SW8020F)

MSL - Mean Sea Level; TB = Trip Blank (7335-TB)

ND - not detected above laboratory reporting limit

NC - no criteria established; NA - not applicable

- - not analyzed for this constituent

fbg - feet below grade surface

#### TABLE 1 (Cont'd)

#### Historical Results of Groundwater Sample Analysis & Fluid-Level Data 5930 College Avenue, Oakland, CA

#### TABLE 1 NOTES (Cont'd):

- <sup>1</sup> Arbitrary datum point with assumed elevation of 50 feet used prior to MSL survey on April 26, 2001
- <sup>2</sup> Fuel oxygenate concentrations reported as 1,2-Dichloroethane (361 ug/l) and MTBE (679 ug/l)
- <sup>3</sup> Concentration confirmed by EPA Method 8260 (analysis of VOCs of Fuel Oxygenates)
- <sup>4</sup> Fuel oxygenate concentrations reported as 1,2-Dichloroethane (3 ug/l) and MTBE (570 ug/l)
- 5 VOC concentrations reported as 1,080 ug/l MTBE, 14,500 ug/l benzene, 5,370 ug/l toluene, 3,360 ug/l ethylbenzene, 13,700 ug/l total xylenes, 96 ug/l isopropylbenzene, 292 ug/l n-propylbenzene, 1,730 ug/l 1,3,5-trimethylbenzene, 500 ug/l 1,2,4-trimethylbenzene, 15 ug/l sec-butylbenzene, 61 ug/l n-butylbenzene, and 778 ug/l naphthalene
- <sup>6</sup> VOC concentrations reported as 360 ug/l MTBE, 3,430 ug/l benzene, 319 ug/l toluene, 1,210 ug/l ethylbenzene, 1,960 ug/l total xylenes, 59 ug/l isopropylbenzene, 148 ug/l n-propylbenzene, 631 ug/l 1.3.5-trimethylbenzene, 153 ug/l 1.2.4-trimethylbenzene. 14 ug/l sec-butylbenzene, 43 ug/l n-butylbenzene, and 359 ug/l naphthalene
- <sup>7</sup>-VOC concentrations reported as 9 ug/l chloroform, 74 ug/l benzene, 9 ug/l toluene, 72 ug/l ethylbenzene, 109 ug/l total xylenes, 42 ug/l isopropylbenzene, 112 ug/l n-propylbenzene, 216 ug/l 1,3,5-trimethylbenzene, 100 ug/l 1,2,4-trimethylbenzene, 20 ug/l sec-butylbenzene, 59 ug/l n-butylbenzene, and 43 ug/l naphthalene
- 8 VOC concentrations reported as 724 ug/l MTBE, 19,300 ug/l benzene, 5,070 ug/l toluene, 3,230 ug/l ethylbenzene, 15,470 ug/l total xylenes, 288 ug/l n-propylbenzene, 565 ug/l 1,3,5-trimethylbenzene, 2,150 ug/l 1,2,4-trimethylbenzene, 1,040 ug/l naphthalene, and ND<50 ug/L 1,2-dibromoethane (EDB) & ND<100 ug/L 1,2-dichloroethane (EDC)
- 9 VOC concentrations reported as 322 ug/l MTBE, 2,580 ug/l benzene, 53 ug/l toluene, 1,190 ug/l ethylbenzene, 1,045 ug/l total xylenes, 75 ug/l isopropylbenzene, 210 ug/l n-propylbenzene, 140 ug/l 1,3,5-trimethylbenzene, 529 ug/l 1,2,4-trimethylbenzene, 56 ug/l n-butylbenzene, 442 ug/l naphthalene, and ND<5 ug/L 1,2-dibromoethane (EDB) & ND<10 ug/L 1,2-dichloroethane (EDC)
- <sup>10</sup> VOC concentrations reported as 79 ug/l benzene, 8.3 ug/l toluene, 65 ug/l ethylbenzene, 118.6 ug/l total xylenes, 21 ug/l isopropylbenzene, 62 ug/l n-propylbenzene, 11 ug/l 1,3,5-trimethylbenzene, 30 ug/l 1,2,4-trimethylbenzene. 13 ug/l n-butylbenzene, 28 ug/l naphthalene, and ND<0.5 ug/L 1,2-dibromoethane (EDB) & ND<1 ug/L 1,2-dichloroethane (EDC)
- 11 Secondary Maximum Contaminant Level established by CRWQCB
- 12 VOC concentrations reported as 194 ug/l MTBE, 14,700 ug/l benzene, 7,620 ug/l toluene, 3,940 ug/l ethylbenzene, 18,710 ug/l total xylenes, 47 ug/l 4-methyl-2-pentanone, 116 ug/l isopropylbenzene, 342 ug/l n-propylbenzene, 701 ug/l 1,3,5-trimethylbenzene, 2,690 ug/l 1,2,4-trimethylbenzene, 66 ug/l n-butylbenzene, 992 ug/l naphthalene, and ND<50 ug/L 1,2-dibromoethane (EDB) & ND<100 ug/L 1,2-dichloroethane (EDC)
- <sup>13</sup> VOC concentrations reported as 200 ug/l MTBE, 2,370 ug/l benzene, 92 ug/l toluene, 1,200 ug/l ethylbenzene, 2,024 ug/l total xylenes, 73 ug/l isopropylbenzene, 186 ug/l n-propylbenzene, 306 ug/l 1,3,5-trimethylbenzene, 1,090 ug/l 1,2,4-trimethylbenzene,
- 66 ug/l n-butylbenzene, 413 ug/l naphthalene, and ND<5 ug/L 1,2-dibromoethane (EDB) & ND<10 ug/L 1,2-dichloroethane (EDC) <sup>14</sup> - VOC concentrations reported as 110 ug/l benzene, 6.4 ug/l toluene, 148 ug/l ethylbenzene, 238.1 ug/l total xylenes,
- 23 ug/l isopropylbenzene, 83 ug/l n-propylbenzene, 22 ug/l 1,3.5-trimethylbenzene, 68 ug/l 1,2.4-trimethylbenzene,
- 38 ug/l n-butylbenzene, 33 ug/l naphthalene, and ND<0.5 ug/L 1.2-dibromoethane (EDB) & ND<1 ug/L 1.2-dichloroethane (EDC)
- 15 VOC concentrations reported as 1,210 ug/l methylene chloride, 114 ug/l MTBE, 10,300 ug/l benzene, 1,960 ug/l toluene, 2,220 ug/l ethylbenzene, 10.230 ug/l total xylenes, 180 ug/l n-propylbenzene, 417 ug/l 1,3,5-trimethylbenzene, 1,560 ug/l 1,2,4-trimethylbenzene, 559 ug/l naphthalene, and ND<50 ug/L 1,2-dibromoethane (EDB) & ND<100 ug/L 1,2-dichloroethane (EDC)

#### TABLE 1 (Cont'd)

# Historical Results of Groundwater Sample Analysis & Fluid-Level Data 5930 College Avenue, Oakland, CA

#### TABLE 1 NOTES (Cont'd):

- <sup>16</sup> VOC concentrations reported as 203 ug/l MTBE, 4,570 ug/l benzene, 511 ug/l toluene, 1,760 ug/l ethylbenzene, 4,055 ug/l total xylenes, 215 ug/l isopropylbenzene, 469 ug/l 1,3,5-trimethylbenzene, 1,570 ug/l 1,2,4-trimethylbenzene, 568 ug/l naphthalene, and ND<5 ug/L 1,2-dibromoethane (EDB) & ND<10 ug/L 1,2-dichloroethane (EDC)</p>
- 17 VOC concentrations reported as 341 ug/l benzene, 42.9 ug/l toluene, 547 ug/l ethylbenzene, 1,185 ug/l total xylenes,
   29 ug/l isopropylbenzene, 82 ug/l n-propylbenzene, 60 ug/l 1,3,5-trimethylbenzene, 337 ug/l 1,2,4-trimethylbenzene,
   24 ug/l n-butylbenzene, 160 ug/l naphthalene, and ND<0.5 ug/L 1,2-dibromoethane (EDB) & ND<1 ug/L 1,2-dichloroethane (EDC)</li>

CRWQCB MSWQO (Primary MCL) = California Regional Water Quality Control Board, Municipal Supply Water Quality Objective;
Primary Maximum Contaminant Level

CRWQCB/ESL = California Regional Water Quality Control Board's Tier 1Environmental (Risk-Based) Screening Level; Levels shown are for Groundwater < 10 fbg (3 meters), which IS / IS NOT a threatened drinking water resource.

### **APPENDIX**

LABORATORY CERTIFICATES OF ANALYSIS
CHAIN OF CUSTODY FORM
FLUID-LEVEL MONITORING DATA SHEET
WELL PURGING/SAMPLING DATA SHEETS
GETTLER-RYAN GROUNDWATER MONITORING DATA SHEET
GEOTRACKER AB2886 UPLOAD CONFIRMATION FORMS

#### QUARTERLY GROUNDWATER MONITORING REPORT April 23, 2004

Sheaff's Garage 5930 College Avenue Oakland, California ACHCSA Fuel Leak Case No. RO0000377

> GGTR Project No. 7335 August 19, 2004



# Case Narrative

Client: Golden Gate Tank Removal

Project:

5930 COLLEGE AVE, OAKLAND

Lab No:

04-0597

Date Received:

04/26/2004

Date reported: 05/04/2004

Four water samples were analyzed for VOCs by method 8260B GC/MS, gasoline by method 8015M, BTEX and MTBE by method 8021B. No errors were noted during analysis. QC/QA samples were within acceptance limits. No MS/MSD were analyzed for 8015M/8021B because of insufficient amount of sample supplied; the LCS/LCSD results were reported instead.

John A. Murphy

Laboratory Director



#### CERTIFICATE OF ANALYSIS

Lab Number:

04-0597

Client:

Golden Gate Tank

Project:

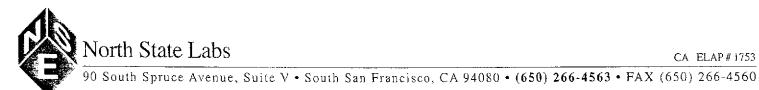
5930 COLLEGE AVE, OAKLAND

Date Reported: 05/04/2004

Gasoline, BTEX and MTBE by Methods 8015M/8021B

Analyte	Method	Result	Unit Date S	Sampled:	<u>Date Analyze</u> d
Sample: 04-0597-01 Clien	t ID: 7335-	MW-1	04/23	/2004	W
Benzene	SW8020F	7910	UG/L		04/30/2004
Ethylbenzene	SW8020F	1810	UG/L		04/30/2004
Gasoline Range Organics	SW8020F	49200	UG/L		04/30/2004
Methyl-tert-butyl ether	SW8020F	*85	UG/L		04/30/2004
Toluene	SW8020F	1480	UG/L		04/30/2004
Xylenes	SW8020F	10100	UG/L		04/30/2004
Sample: 04-0597-02 Clien	nt ID: 7335-	-MW-2	04/23	3/2004	W
Benzene	SW8020F	3570	UG/L		04/30/2004
Ethylbenzene	SW8020F	1620	UG/L		04/30/2004
Gasoline Range Organics	SW8020F	30400	UG/L		04/30/2004
Methyl-tert-butyl ether	SW8020F	*112	UG/L		04/30/2004
Toluene	SW8020F	322	UG/L		04/30/2004
Xylenes	SW8020F	4140	UG/L		04/30/2004
Sample: 04-0597-03 Clie	nt ID: 7335	-MW-3	04/2	3/2004	M
Benzene	SW8020F	227	UG/L		04/28/2004
Ethylbenzene	SW8020F	448	UG/L		04/28/2004
Gasoline Range Organics	SW8020F	7210	UG/L		04/28/2004
Methyl-tert-butyl ether	SW8020F	*ND<0.5	UG/L		04/28/2004
Toluene	SW8020F	39.5	UG/L		04/28/2004
Xylenes	SW8020F	879	UG/L		04/28/2004

<sup>\*</sup>Confirmed by GC/MS method 8260B.



CERTIFICATE OF ANALYSIS

Lab Number:

04-0597

Client:

Golden Gate Tank

Project:

5930 COLLEGE AVE, OAKLAND

Date Reported: 05/04/2004

Gasoline, BTEX and MTBE by Methods 8015M/8021B

Analyte	Method	Result	Unit Date	Sampled	Date Analyzed
Sample: 04-0597-04	Client ID: 7335-	-TB	04/23	3/2004	W
Benzene	SW8020F	ND<0.5	UG/L		04/30/2004
Ethylbenzene	SW8020F	ND<0.5	UG/L		04/30/2004
Toluene	SW8020F	ND<0.5	UG/L		04/30/2004
Xylenes	SW8020F	ND<1.0	UG/L		04/30/2004



#### ERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number:

04 - 0597

Client:

Golden Gate Tank

Project:

5930 COLLEGE AVE, OAKLAND

Date Reported: 05/04/2004

Gasoline, BTEX and MTBE by Methods 8015M/8021B

Analyte	Method	Reporting Unit Limit		Blank	Avg MS/MSD Recovery	RPD
Gasoline Range Organics	SW8020F	50	UG/L	ND	125/112	11
Benzene	SW8020F	0.5	UG/L	ND	104/93	11
Toluene	SW8020F	0.5	UG/L	ND	108/97	11
Ethylbenzene	SW8020F	0.5	UG/L	ND	100/91	9
Xylenes	SW8020F	1.0	UG/L	ND	107/97	10
Methyl-tert-butyl ether	SW8020F	0.5	UG/L	ND	113/101	11

ELAP Certificate NO:1753

Reviewed and Approved

Soratory Director

of 3 Page



#### CERTIFICATE OF ANALYSIS

Job Number: 04-0597

Client : Golden Gate Tank

Project : 5930 COLLEGE AVE, OAKLAND

Date Sampled : 04/23/2004

Date Analyzed: 05/04/2004 Date Reported: 05/04/2004

#### Volatile Organics by GC/MS Method 8260

I all and the second are	04 0505 03	04 0505 00	04 0507 03
Laboratory Number	04-0597-01	04-0597-02	04-0597-03
Client ID	7335-MW-1	7335-MW-2	7335-MW-3
Matrix	W	M	W
Analyte	UG/L	UG/L	UG/L
Bromochloromethane	ND<100	ND<100	ND<1
Dichlorodifluoromethane	ND<100	ND<100	ND<1
Chloromethane	ND<100	ND<100	ND<1
Vinyl chloride	ND<50	ND<50	ND<0.5
Bromomethane	ND<100	ND<100	ND<1
Chloroethane	ND<100	ND<100	ND<1
Trichlorofluoromethane	ND<100	ND<100	ND<1
1,1-Dichloroethene	ND<50	ND<50	ND<0.5
Acetone	ND<1000	ND<1000	ND<10
Methylene chloride	1210	ND<500	ND<5
trans-1,2-Dichloroethene	ND<100	ND<100	ND<1
Methyl-tert-butyl ether	114	203	ND<0.5
1,1-Dichloroethane	ND<50	ND<50	ND<0.5
2,2-Dichloropropane	ND<100	ND<100	ND<1
cis-1,2-Dichloroethene	ND<100	ND<100	ND<1
2-Butanone	ND<500	ND<500	ND<5
Chloroform	ND<50	ND<50	ND<0.5
Carbon tetrachloride	ND<50	ND<50	ND<0.5
1,1-Dichloropropene	ND<100	ND<100	ND<1
Benzene	10300	4570	341
1,2-Dichloroethane	ND<100	ND<100	ND<1
Trichloroethene	ND<50	ND<50	ND<0.5
1,2-Dichloropropane	ND<100	ND<100	ND<1
Dibromomethane	ND<100	ND<100	ND<1
Bromodichloromethane	ND<100	ND<100	ND<1
trans-1,3-Dichloropropene	ND<100	ND<100	ND<1
4-Methyl-2-pentanone	ND<100	ND<100	ND<1
Toluene	1960	511	42.9
cis-1,3-Dichloropropene	ND<100	ND<100	ND<1
1,1,2-Trichloroethane	ND<100	ND<100	ND<1
Tetrachloroethene	ND<50	ND<50	ND<0.5
1,3-Dichloropropane	ND<100	ND<100	ND<1
2-Hexanone	ND<100	ND<100	ND<1
Dibromochloromethane	ND<100	ND<100	ND<1
1,2-Dibromoethane	ND<50	ND<50	ND<0.5

Comments:



#### CERTIFICATE OF ANALYSIS

Job Number: 04-0597

Client

: Golden Gate Tank

Project : 5930 COLLEGE AVE, OAKLAND

Date Sampled : 04/23/2004

Date Analyzed: 05/04/2004

Date Reported: 05/04/2004

#### Volatile Organics by GC/MS Method 8260

Laboratory Number	04-0597-01	04-0597-02	04-0597-03
Client ID	7335-MW-1	7335-MW-2	7335-MW-3
Matrix	W	W	W
Analyte			
Midiyee	UG/L	UG/L	UG/L
Chlorobenzene	ND<100	ND<100	ND<1
1,1,1,2-Tetrachloroethane	ND<100	ND<100	ND<1
Ethylbenzene	2220	1760	547
Xylene, Isomers m & p	6820	3590	1010
o-Xylene	3410	465	175
Styrene	ND<100	ND<100	ND<1
Bromoform	ND<100	ND<100	ND<1
Isopropylbenzene	ND<100	ND<100	29
Bromobenzene	ND<100	ND<100	ND<1
1,1,2,2-Tetrachloroethane	ND<100	ND<100	ND<1
n-Propylbenzene	180	215	82
2-Chlorotoluene	ND<100	ND<100	ND<1
4-Chlorotoluene	ND<100	ND<100	ND<1
1,3,5-Trimethylbenzene	417	469	60
tert-Butylbenzene	ND<100	ND<100	ND<1
1,2,4-Trimethylbenzene	1560	1570	337
1,3-Dichlorobenzene	ND<100	ND<100	ND<1
1,4-Dichlorobenzene	ND<100	ND<100	ND<1
sec-Butylbenzene	ND<100	ND<100	ND<1
1,2-Dichlorobenzene	ND<100	ND<100	ND<1
n-Butylbenzene	ND<100	ND<100	24
Naphthalene	559	568	160
1,2,4-Trichlorobenzene	ND<100	ND<100	ND<1
Hexachlorobutadiene	ND<100	ND<100	ND<1
1,2,3-Trichlorobenzene	ND<100	ND<100	ND<1
1,2,3-Trichloropropane	ND<100	ND<100	ND<1
Acetonitrile	ND<500	ND<500	ND<5
Acrylonitrile	ND<100	ND<100	ND<1
Isobutanol	ND<500	ND<500	ND<5
1,1,1-Trichloroethane	ND<100	ND<100	ND<1
SUR-Dibromofluoromethane	101	119	125
SUR-Toluene-d8	105	110	109
SUR-4-Bromofluorobenzene	91	95	102
SUR-1,2-Dichloroethane-d4	88	107	115

#### Comments:



#### CERTIFICATE OF ANALYSIS

Job Number: 04-0597

Date Sampled : 04/23/2004

Client

: Golden Gate Tank

Date Analyzed: 05/04/2004

Project

: 5930 COLLEGE AVE, OAKLAND

Date Reported: 05/04/2004

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

Laboratory Number	04-0597	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	M			
Analyte	Results UG/L	%Recoveries			
Bromochloromethane	ND<1				
Dichlorodifluoromethane	ND<1				
Chloromethane	ND<1				
Vinyl chloride	ND<0.5				
Bromomethane	ND<1				
Chloroethane	ND<1				
Trichlorofluoromethane	ND<1				
1,1-Dichloroethene	ND<0.5	127/115	10	61-128	25
Acetone	ND<10				
Methylene chloride trans-1,2-Dichloroethene	ND<5				
Methyl-tert-butyl ether	ND<1 ND<0.5				
1,1-Dichloroethane	ND<0.5				
2,2-Dichloropropane	ND<1				
cis-1,2-Dichloroethene	ND<1				
2-Butanone	ND<5				
Chloroform	ND<0.5				
Carbon tetrachloride	ND<0.5				
1,1-Dichloropropene	ND<1				
Benzene	ND<0.5	130/125	4	74-135	21
1,2-Dichloroethane	ND<1				
Trichloroethene	ND<0.5	117/105	11	69-129	20
1,2-Dichloropropane	ND<1				
Dibromomethane	ND<1				
Bromodichloromethane	ND<1				
trans-1,3-Dichloropropene	ND<1				
4-Methyl-2-pentanone	ND<1				
Toluene	ND<0.5	140/130	9	61-141	19
cis-1,3-Dichloropropene	ND<1				
1,1,2-Trichloroethane	ND<1				
Tetrachloroethene	ND<0.5				
1,3-Dichloropropane	ND<1				
2-Hexanone	ND<1				
Dibromochloromethane	ND<1				
1,2-Dibromoethane Chlorobenzene	ND<0.5	105/110		20 120	10
	ND<1	125/110	13	70-139	19
1,1,1,2-Tetrachloroethane Ethylbenzene	ND<1 ND<0.5				
Xylene, Isomers m & p	ND<0.5 ND<1				
o-Xylene	ND<1				
Styrene	ND<0.5 ND<1				
Pritate	MD <t< td=""><td></td><td></td><td></td><td></td></t<>				



#### CERTIFICATE ANALYSIS O F

Job Number: 04-0597

Date Sampled: 04/23/2004

Client

: Golden Gate Tank

Date Analyzed: 05/04/2004

Project

: 5930 COLLEGE AVE, OAKLAND

Date Reported: 05/04/2004

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

Laboratory Number	04-0597	MS/MSD	RPD	Recovery	RPD
Client ID	Blank	Recovery		Limit	Limit
Matrix	W	W			
Analyte	Results UG/L	%Recoveries			
Bromoform	ND<1				
Isopropylbenzene	ND<1				
Bromobenzene	ND<1				
1,1,2,2-Tetrachloroethane	ND<1	•			
n-Propylbenzene	ND<1				
2-Chlorotoluene	ND<1				
4-Chlorotoluene	ND<1				
1,3,5-Trimethylbenzene	ND<1				
tert-Butylbenzene	ND<1				
1,2,4-Trimethylbenzene	ND<1				
1,3-Dichlorobenzene	ND<1				
1,4-Dichlorobenzene	ND<1				
sec-Butylbenzene	ND<1				
1,2-Dichlorobenzene	ND<1				
n-Butylbenzene	ND<1				
Naphthalene	ND<1				
1,2,4-Trichlorobenzene	ND<1				
Hexachlorobutadiene	ND<1				
1,2,3-Trichlorobenzene	ND<1				
1,2,3-Trichloropropane	ND < 1				
Acetonitrile	ND<5				
Acrylonitrile	ND<1				
Isobutanol	ND<5				
1,1,1-Trichloroethane	ND<1				
SUR-Dibromofluoromethane	108	115/122	6	67-129	21
SUR-Toluene-d8	106	108/110	2	72-119	16
SUR-4-Bromofluorobenzene	93	97/98	1	78-121	19
SUR-1,2-Dichloroethane-d4	<b>)</b> 96	105/114	8	85-115	25
Reviewed and Approved	/				



# 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_

***			T 5 ===				Phone: 415,512,1555			55		
Client: GGTV				to: BROT WITE	tur				2.096	-		STD TAT
Mailing Address: 66	TIZ		Billing	to:			email:	<u>112.21</u>	<u> </u>		Date: 04-23-04	
7.555	SHIPLEY GUID	1 1	-> 5A	SAME			PO# 733 5				Sample	
7	<u> </u>						<del></del>	7	<del>7</del> /	7	1	
Project / Site Address	/ Global ID	): TO 600 IC	2112	Analy	ysis 💢	14		≱ _	/			/ EDF 🖾
				Pres. Sampling Date / Time								Field Point ID
5930 COLLEGE	Sample	Container	Pres.	Sampling	E 3							/ Fleid Form 15
Sample ID	Туре	No. / Type		Date / Time	<del>-   ^~ - ×</del> 9		<del></del>	<del> </del>				7335-MW-1
	GHVOND GH	414015	HCA	4.23.04/1220		<u> </u>		<u> </u>				7335-MW-Z
7335-MW-1	1			1100	X	<u>,</u>	<u> </u>	<u> </u>				7335 · MW·3
7335-MW-2	-\tilde{\triangle}	V		1 1135	<u> </u>	X						7335 - M3
7335- MW-3	1B 05H	2/10/5	<b>↓</b>	V / 0830			X					<u> </u>
7375-113	190				_		ļ <u> </u>					
										<b></b>		
							<u> </u>				-	
										<u> </u>	ļ. <u> </u>	
	<del>                                     </del>							<u> </u>			<b> </b>	
							<u> </u>			<del> </del>	ļ	
			<u> </u>								<u> </u>	
		<del> </del>	<u> </u>	<del>                                     </del>								
			ļ									
			<u> </u>	, 7:		Recei	ved by: 4			2		Lab Comments/
Relinquished by: VM	N ATCIN	15001		Date: 4-25 of Time			eceived by:				Hazards	
Relinquished by:				Date: Time			ceived by:					
Relinquished by:				Date: Time	e:	Kecer	veu by.	·····				

# NORTH STATE LABS

# FLUID-LEVEL MONITORING DATA

Project No:		7335		Date:	APRIL 23 2004
Project/Site	Location:	5930 aw	GE NE (	JAKAMIS U	
Technician	Kith	MUNSON		Method:	EU GRONK
Boring/ Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	
Mw-I	6.83			14.50	@110O
MW-Z	8.40			19-65	Q155
MW-3_	6.17			18.95	@ 1050

Measurements referenced to top of well casing.

Page \_\_\_\_ of \_\_\_

# NORTH STATE LABS

## WELL PURGING/SAMPLING DATA

Project Number. 1335	Dat	e: <u> </u>	04 23 01	4		
Project / Site Location: 5930 CC		ME_				
Sampler/Technician: KWW ATK					r	
Casing/Borehole Diameter (inches)	0.75/1.75	2/8	4/8	4/10	6/10	6/12
Casing/Borehole Volumes (gallons/foot)	0.02/0.13	0.2/0.9	0.7/1.2	0.7/1.6	1.5/2.2_	1.5/3.1

Casing/Borehole Diameter (inches)	0.75/1.75		4/8	4/10	0/10	0/12	-{	
Casing/Borehole Volumes (gallons/foot)	0.02/0.13	0.2/0.9	0.7/1.2	0.7/1.6	1.5/2.2	1.5/3.1		
							_	
Well No. MW-\		Well No.	MW-	)				
AASTI LOTAL		17 022 2 101		<u> </u>				
A mark 197-11 manda (1970)	Et (too)	A Total V	Well Depth		19.65	Ft.(toc)		
	_ Ft,(toc)	B. Depth			8.40			
B. Depth To Water <u>4.83</u>				D)	11.25		Į	
C. Water Height (A-B)			Height (A-l		11.03	In.	i	
D. Well Casing Diameter 7	_ In.		Casing Dian			ш.		
E. Casing Volume Constant			; Volume C		_			
(from above table) .L			above table)		-12	=	Ì	
F. Three (3) Casing or	 1. <del>5</del> 3	F. Three	(3) Casing	or		ひむ		
	Gals.	Boreho	ole Volume	s (CxEx3)	4.75	_Gals.	}	
G. 80% Recharge Level	<u> </u>	G. 80% I	Recharge Le	evel				
[B+(ExC)] § 3	φ Ft.	[B+(E			10.65	Ft.	l	
[B+(EXC)]	<u> </u>	(2	) ]			_	1	
D F #1		Purge E	vent #1				1	
Purge Event #1		1 targe D	Start Time	. 1145				
Start Time: 12.10			Finish Tim				- 1	
Finish Time: 1215		1			i e			
Purge Volume: 5 575			_	カシ F:9mu	)		-	
Recharge #1		Recharg	<u>re #1</u>	سرور م				
Depth to Water: 6.95		1	Depth to Water: 5.45 Time Measured: 1200					
Time Measured: 1270			Time Mea	isured: 1700	)			
Purge Event #2		Purge I	Event #2					
Start Time:		1	Start Tim-					
Finish 'ime:		1	Finish Time:					
Purge Volume:		Purge Volume:						
Recharge #2		Recharge #2						
Depth to Water:		Depth to Water:						
Time Measured:			Time Measured:					
Time Wondings.		-						
Well Fluid Parameters:		Well I	luid Parar	meters:				
(Casing or Borehole V	(chimes)	1, 422	((	Casing or Bo	orebole Vo	olumes)		
		2	0	<u>1</u> 1.5		<u>2.5</u>	<u>3</u>	
0 1 1.5 2		3		<u> </u>	<u>2</u> ७78		_ کاما ،	
ph 684 697 675		.76 pH		\$ 6	679		, ] ]	
T(°F) 50.4 81.5 51.6			1179	153	Fun		ils	
Cond. 1113 1104 1105	w	eg Cond.	55 14.1		1100	·	•••	
DO 2.57 129.2				•				
Turbidity		ORP	•					
ORP - 047		1	1					
Summary Data:			mary Data					
Total Gallons Purged:5		Gallons Pu						
Purge device: bc-60		, –	Purge device: bc-60					
Sampling Device: big. BAILER		Sam	pling Devic	e: bisp, BAji	ZO ←			
Sample Collection Time: VIW		Sam	ple Collecti	on Time:	ew.			
Sample Appearance: Tenz. 445.	<b>₩</b> ^;7			ance: Per		<u>. 2002 .</u>	<u> </u>	
	Total Volum			w Location				
Drums Remaining Onsite:	Total rotal	#E	. Сию. (2710	,, 2000000		•		

# NORTH STATE LABS

# WELL PURGING/SAMPLING DATA

Project Number:	7335_		Date:	04 23.	04	
Project / Site Location:	59 <u>30 40</u>	MIGE	ME			
•	OHUM					
Sampler/Technician:		MUSON	3			
Casing/Borehole Diameter		0.75/1.75	2/8 4/	8 4/10	6/10	6/12
Casing/Borehole Volumes		0.02/0.13	0.2/0.9 0.7/	1.2 0.7/1.6	1.5/2.2	1.5/3.1
Well No. MW 3	······································		Well No.			
			_			
A. Total Well Depth	18:95	Ft.(toc)	A. Total Well D	epth		Ft.(toc)
B. Depth To Water	6.17		B. Depth To Wa	ater		
C. Water Height (A-B)	12.78	Ft.	C. Water Heigh			Ft.
D. Well Casing Diameter	<u> </u>	In.	D. Well Casing			In.
E. Casing Volume Constant	nt		E. Casing Volu			
(from above table)	· l-		(from above			
F. Three (3) Casing or		2 40	F. Three (3) Ca			
Borehole Volumes (Cx	Ex3) <u>750</u>	Gals.		lumes (CxEx3)		Gals.
G. 80% Recharge Level			G. 80% Rechar	ge Level		T74
[B+(ExC)]	8.77	Ft.	[B+(ExC)]		-	Ft.
D 75 . 411			Demos Frant #	7		
Purge Event #1			Purge Event #	<u>t</u> Time:		ļ
Start Time: 1115	,		1	Time:		Ì
			i e	Volume:		ļ
Purge Volume:	s enco		Recharge #1	VOILING.		{
Recharge #1 Depth to Water:	· - >			h to Water:		
Time Measured				Measured:		
Time Measured	" 11.1.1.D			1110110111111		1
Purge Event #2			Purge Event #	<del>‡</del> 2		l
Start Time:				Time:		
Finish Time:			Finis	يا Time:		
Purge Volume:			Purg	ge Volume:		
Recharge #2			Recharge #2			
Depth to Water	C:		•	th to Water:		
Time Measure	đ:		Tim	e Measured:		
Well Fluid Parameter			Well Fluid I	carameters: (Casing or Bo	wahola Vo	himes)
1	or Borebole Vo				2	<u>2.5</u> <u>3</u>
$\begin{array}{c c} 0 & 1 \\ \hline 0 & 7.06 \end{array}$	<u>#% 2</u>	<u>₩</u> <u>3</u>		<u>1</u> <u>1.5</u>	<u> </u>	<del>7.7</del> ×
bir 6.14	4.93 448	40 46 10 46	· 1 x ·			
T (°F) 65.2 64.8  Cond. 411 514	40 <del>-</del>	くのか	Cond.			
DO 2-34/243			DO			
Turbidity			Turbidity			
ORP -031			ORP			
Summary Data:			Summary !			
Total Gallons Purged:	4		Total Gallo			
Purge device: 50-60			Purge device			
Sampling Device: 615	P. BAILED.		Sampling I			
Sample Collection Tir				llection Time:		
Sample Appearance:			Sample Ap			
Drums Remaining On	eita:	Total Volum	e Gals	(Show Location	on Site Pl	an)

Table 1
Groundwater Monitoring Data and Analytical Results
Former Chevron Service Station #209339

5940 College Avenue Oakland, California

				Оакјапа, С	Sillotius					=
	e e e e e e e e e e e e e e e e e e e	DTW	GWE	TPH-G	В	<b>1</b>	£	X	MTBE	11:56am
WELL ID?	TOC*	(A)	(msl)	(ppb)	(ppb)	(ppb)	(ppb)	(ppl)	(pph)	≌
DATE	(%)	U.V		<u> </u>						777
MW-1							2.7	7.6	14/<2.03	From-Gettler-Ry
01/03/01	196.91	12.75	184,16	930'	<u>2.9</u>		2.0	3.3	5.3/<2.0 <sup>3</sup>	66 ti
04/25/01	196.91	9,23	187.68	2104	2.0	1.5		0.96	<2.5	•
07/09/01	196.91	11,86	185.05	290 <sup>5</sup>	1.8	2.0	2,5	<1.5	<2.5	\$
10/08/01	196.91	13.49	183.42	200	< 0.50	<0.50	<0.50	<0.50	<2.5	
	196.91	7.33	189.58	<50	<0.50	< 0.50	<0.50		<2.5	្នាព្ធ
01/13/02	196.91	7.45	189.46	670	< 0.50	<2.0	<1.0	5,6		
04/08/02	196,91	13.68	183.23	260	0.62	0.82	<0.50	<1.5		
10/15/02	196.91	6.82	190.09	1,700	1.3	<5.0	<2.0	<5.0		
04/15/03		13.72	183.19	350	<2.0	0.7	<2.0	<5.0		
10/31/03	196.91	9.02	187.89	<50	<0.5	<0.5	<0.5	<1,5	_	
04/23/04	196.91	9.02	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							
							,	المرجع يناهد الم	£∫a	
MW-2	ڹ			2,100	110	11	63	25	83/2.23	<u>+</u>
01/03/01	197.35	12.48	184.87	2,100 1,700 <sup>4</sup>	150	12	30	15	150/<2.0 <sup>3</sup>	925
04/25/01	197.35	8.90	188.45	2,500 <sup>3</sup>	200	21	55	26	<50	양
07/09/01	197.35	11.44	185,91			2.8	29	9. <b>8</b>	<2.5	+925 551 7899
10/08/01	197.35	13.37	183.98	4,200	87	2.9	<2.5	4,4	27/<2.03	989
01/13/02	197.35	6.55	190.80	410	<b>2</b> 0	2.9 1. <b>7</b>	17	17	<2.5	
04/08/02	197.35	8.37	188.98	4,000	70		16	<6.0		
10/15/02	197.35	13.00	184_35	3,100	41	2.2		<7.5	<del></del>	
04/15/03	197.35	7.58	189.77	2,400	37	<2.5	12	<7.5	-	t
	197.35	13.02	184.33	2,300	12	3.4	4.8			T-451
10/31/03	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5		
04/23/04	197,03									P. 00:
									4.	P.002/004
TRIP BLANK										
TB-LB				<50	<0.50	< 0.50	< 0.50	< 0.50	<2.5	F-446
01/03/01		<del></del>		<50	<0.50	<0.50	< 0.50	< 0.50	<2.5	46
04/25/01	M-4		**		<0.50	< 0.50	<0.50	< 0.50	<2.5	
07/09/01				<50	~0.50					

Table 1

## Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339

5940 College Avenue Oakland, California

			Control College (147, 127, 127, 127)	and a family at the con-			<b>.</b>	×	MTBE
WELL ID/	тос*	DTW	GWE (msl)			(ppb)	(ppb)	(ppb)	(pph)
DATE	00	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	The state of the s						
QA							.0.50		<2.5
				<50	<0.50	<0.50	<0:50	ر,۱>	
10/08/01				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
01/13/02					<0.50	< 0.50	< 0.50	<1.5	<2.5
04/08/02				<50				<1.5	
				<50	< 0.50	< 0.50	<0.50	71.5	
10/15/02	_			<50	<0.5	< 0.5	<0.5	<1,5	
04/15/03						<0.5	<0.5	<t.5< td=""><td></td></t.5<>	
19/31/03				<50	<0.5				<b>₩B</b>
				<50	<0.5	< 0.5	< 0.5	<1.5	
04/23/04	-								

#### Table 1

### Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339
5940 College Avenue
Oakland, California

rν	DT.	ΑN	i Air	TT	an	15.
ĽA	Г	, R.J.	н.	11	Oì.	٠٠.

TOC = Top of Casing	TPH-G = Total Petroleum Hydrocarbons as Gasoline	MTBE = Methyl tertiary butyl ether
•	B = Benzene	(ppb) = Parts per billion
(fl.) = Feet	T=Toluene	= Not Measured/Not Analyzed
DTW = Depth to Water  GWE = Groundwater Elevation	E = Ethylbenzene	QA = Quality Assurance/Trip Blank
	X = Xylenes	
(msl) = Mean sea level	A - Ajiches	

- \* TOC elevations were surveyed on December 27, 2000, by Virgil Chavez Land Surveying. The benchmark used for the survey was a City of Oakland benchmark being a cut square in the top of curb, at the curb return at the northeast corner of College Avenue and Miles Avenue, (Benchmark Elev. = 179.075 feet, msl).
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- 2 Laboratory report indicates gasoline C6-C12.
- MTBE by EPA Method 8260.
- 4 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.

## **Electronic Submittal Information**

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Confirmation Number: 1738158941

**Date/Time of Submittal: 8/26/2004 6:59:29 AM** 

Facility Global ID: T0600102112

Facility Name: SHEAFFS SERVICE GARAGE

Submittal Title: 04-0597: 04/23/04 GW Analytical Data (MW1-MW3)

**Submittal Type:** GW Monitoring Report

#### Click here to view the detections report for this upload.

SHEAFFS SERVICE GARAGE Regional Board - Case #: 01-2296

5930 COLLEGE AVE OAKLAND, CA 94618 SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)

Local Agency (lead agency) - Case #: 514 ALAMEDA COUNTY LOP - (UNK)

QUARTER CONF # TITLE Q2 2004 1738158941 04-0597: 04/23/04 GW Analytical Data (MW1-MW3)

SUBMITTED BY SUBMIT DATE **STATUS** 

PENDING REVIEW Tracy Wallace 8/26/2004

#### SAMPLE DETECTIONS REPORT

# FIELD POINTS SAMPLED # FIELD POINTS WITH DETECTIONS 3 # FIELD POINTS WITH WATER SAMPLE DETECTIONS ABOVE MCL WATER SAMPLE MATRIX TYPES

#### METHOD QA/QC REPORT

SW8020F, SW8260B METHODS USED TESTED FOR REQUIRED ANALYTES?

MISSING PARAMETERS NOT TESTED:

- SW8020F REQUIRES ETBE TO BE TESTED
- SW8020F REQUIRES TAME TO BE TESTED
- SW8020F REQUIRES DIPE TO BE TESTED
- SW8020F REQUIRES TBA TO BE TESTED
- SW8260B REQUIRES ETBE TO BE TESTED
- SW8260B REQUIRES TAME TO BE TESTED
- SW8260B REQUIRES DIPE TO BE TESTED
- SW8260B REQUIRES TBA TO BE TESTED

LAB NOTE DATA QUALIFIERS

Υ

#### QA/QC FOR 8021/8260 SERIES SAMPLES

0 TECHNICAL HOLDING TIME VIOLATIONS METHOD HOLDING TIME VIOLATIONS LAB BLANK DETECTIONS ABOVE REPORTING DETECTION LIMIT 0 LAB BLANK DETECTIONS DO ALL BATCHES WITH THE 8021/8260 SERIES INCLUDE THE FOLLOWING? - LAB METHOD BLANK

Ν - MATRIX SPIKE Ν - MATRIX SPIKE DUPLICATE

- BLANK SPIKE

I-STANDARD SURROGATE USED		N			
8021/8260 SERIES					
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) % RECOVERY BETWEEN 65-135%					
MATRIX SPIKE / MATRIX SPIKE DUPLICATE(S) RPD LESS THAN 30%					
SURROGATE SPIKES % RECOVERY BETWEEN 85-115%					
<b>DUPLICATES % RECOVERY BETWE</b>	EEN 70-130%	Υ			
	EEN 70-130%	n/a n/a			
COLLECTED	DETECTIONS	S > REPDL			
• •					
N	·	,			
	CE DUPLICATE(S) RPD LESS THAN IVERY BETWEEN 85-115% DUPLICATES % RECOVERY BETWEEN 85-115%  21/8260 SERIES CE DUPLICATE(S) % RECOVERY BETWEEN 70-125% DUPLICATES % RECOVERY BETWEEN 70-125% DUPLICATES % RECOVERY BETWEEN 70-125%	8021/8260 SERIES (E DUPLICATE(S) % RECOVERY BETWEEN 65-135% (E DUPLICATE(S) RPD LESS THAN 30% (VERY BETWEEN 85-115% DUPLICATES % RECOVERY BETWEEN 70-130%  21/8260 SERIES (E DUPLICATE(S) % RECOVERY BETWEEN 65-135% (E DUPLICATE(S) RPD LESS THAN 30% (VERY BETWEEN 70-125% DUPLICATES % RECOVERY BETWEEN 70-130%  COLLECTED  DETECTIONS  O  DETECTIONS			

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Submittal Title:

Fluid-Level Monitoring Data; MW1-MW3

(04/23/04)

Submittal Date/Time: 8/26/2004 7:02:10 AM

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