Ian Robb
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Chevron Environmental Management Company
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Dec. 30, 2008

RE: Chevron Service Station # - 20-9339

Address 5940 College Avenue, Oakland

I have reviewed the attached report dated Dec. 30, 2008.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates (CRA) upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code section 13267(b) (1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Ian Robb

Attachment: Report

CONESTOGA-ROVERS
& ASSOCIATES

5900 Hollis Street, Suite A, Emeryville, Calfornia 94608
Telephone: 510-420-0700 Facsimile: 510-420-9170
www.CRAworld.com

December 30, 2008

Reference No. 311954

Mr. Steven Plunkett
Alameda County Environmental Health Services (ACEH)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Site Conceptual Model
Former Chevron Service Station 20-9339
5940 College Avenue
Oakland, California
Fuel Leak Case No. RO000466

Dear Mr. Plunkett:

Conestoga-Rovers & Associates is submitting the attached *Site Conceptual Model* (SCM) for the site referenced above on behalf of Chevron Environmental Management Company (Chevron). The SCM is in the format requested by ACEH. A work plan will be submitted under separate cover by December 30, 2008.

Please contact Charlotte Evans at (510) 420-3351 if you have any questions or require additional information.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Charlotte Evans

Brandon S. Wilken P.G. #7564

CE/doh/2
Enc.

cc: Mr. Ian Robb, Chevron Environmental Management Company

Former Chevron Service Station 20-9339 – 5940 College Avenue, Oakland, California
Fuel Leak Case No. RO0000466

	Description	Cited Data Sources	Data Tables	Graphics	Data Gaps	Work Necessary to fill data gap	Comments
SITE SETTING	**Site Geology** The property is located on a broad sloping alluvial plain that slopes regionally toward the west-southwest in the general direction of San Francisco Bay. Bedrock is approximately less than 100 feet below grade (fbg) at the site and consists of Cretaceous-Jurassic-aged Franciscan Complex mélange, sandstone, greenstone, serpentinite and quartz diorite. Based on the geologic map, the site is located near Holocene-age alluvial fan and fluvial deposits. These sediments are described on the map as typically brown, medium dense to dense, gravelly sand or sandy gravel that generally grades upward to sandy or silty clay. Near the fan edges, the map describes the soils as typically brown, medium dense sand that also fines upward to silty or sandy clay. The geologic map indicates that older, Pleistocene alluvial fan and fluvial deposits underlie the younger fan deposits. The Pleistocene alluvial and fluvial deposits are described as typically brown, dense, gravelly and clayey sand or clayey gravel that fines upward to sandy clay. These Pleistocene deposits are less permeable than the younger deposits above. (RWCQB, 1999) Based on historical record searches onsite soil records pre-dating the construction of the current commercial building in 1979 are not available in Chevron's or Alameda County Environmental Health Services' records. However, soil is described in the 1999 PIERS Environmental Services Inc. (Piers) *Groundwater Investigation Report* and in the 2001 Delta Environmental Consultants, Inc. (Delta) *Well Installation Report*. These reports state soils found onsite are light brown silty clay from below the paved surface to approximately 6 fbg. Silty, sandy gravel underlies the clay to approximately 11 fbg, the total depth explored during the PIERS investigation. Onsite borings SB-2 through SB-4 were advanced 3-4 feet below street level. In 2001, DELTA installed offsite monitoring wells MW-1 and MW-2 to a total depth of 21 fbg. During the installation of MW-1 across College Avenue from the site, clay with silt was encountered from below the paved surface to approximately 16 fbg. Brown silty sand underlies the clay to the total depth explored. DELTA installed MW-2 adjacent to the site, in the sidewalk, near the former underground storage tank (UST) pit. Silty sand with gravel was encountered in MW-2 from below the paved surface to approximately 11 fbg. Brick fragments encountered at 5 fbg suggest that the sands encountered in this boring are not native and most likely represent backfill material from the removal of the former, nearby USTs. Dark olive green clay underlies the sand to approximately 19 fbg. Yellowish brown silty sand was encountered at the bottom of the boring from 19 to 21 fbg. Native materials encountered at this site are consistent with the Holocene-age alluvial fan and fluvial deposits. As reported in the 2006 Golden Gate Tank Removal, Inc. (GGTR) *Additional Site Characterization and Groundwater Monitoring Report*, subsurface soil at the adjacent Former Sheaff's Garage site (5930 College Ave.) is, for the most part, similar to subsurface soil encountered at the subject site.	Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, 2000, by R.W. Graymer, U.S. Geological Survey Misc. Field Studies MF-2342. 1999 PIERS Groundwater Investigation Report 2001 DELTA Well Installation Report 2006 GGTR Additional Site Characterization and Groundwater Monitoring Report (FORMER SHEAFF'S GARAGE)		Site Plan Boring Logs Cross-Section A-A'			
	Groundwater Conditions The site is located in the East Bay Plain Groundwater Basin, at the boundary of the Berkeley and Oakland Sub Basins. Groundwater in this basin is designated as beneficial for municipal and domestic water supply as indicated in the San Francisco Bay Basin Water Quality Control Plan prepared by the California Regional Water Quality Control Board – Region 2. However, current beneficial water use of groundwater in the basin is minimal due to readily available, high-quality imported surface water.	1999 California Regional Water Quality Control Board [RWQCB], San Francisco Bay Region's East Bay Plain Ground Water Basin Beneficial Use Evaluation Report (www.swrcb.ca.gov/rwqcb2/eastbayplain.shtml)		Vicinity Map			There is an active sump pump in the patio of Barclay's Restaurant and Pub, approximately 3-4 fbg, near monitoring well MW-2. It is unknown if this affects local groundwater flow calculations. The predominant groundwater flow direction for the site differs from

	Description	Cited Data Sources	Data Tables	Graphics	Data Gaps	Work Necessary to fill data gap	Comments
	Regional topography slopes gently to the west-southwest toward the San Francisco Bay. Depth to groundwater beneath the site ranges from approximately 6 to 13 fbg, apparently influenced by seasonal precipitation. Local groundwater flow varies, but predominately to the west, roughly following the slope of topography. Joint groundwater monitoring and sampling with the adjacent former Sheaff's Garage site wells has occurred since 2001. Groundwater flow direction is calculated only when the subject site and former Sheaff's Garage monitoring wells are monitored on the same day. The site is approximately 2.5 miles east of San Francisco Bay and is approximately 195 feet above mean sea level. The nearest surface water body is Claremont Creek, approximately 0.9 miles northeast of the site. According to the 3Q2008 GGTR *Groundwater Monitoring Report*, Claremont Creek is channeled to both the west and east of the site. To the west, storm flow from the creek is directed into a 90" reinforced clay pipe underground conduit (confirmed by City of Oakland Engineering Maps). To the east the creek flows within an open channel. Both branches coalesce a few hundred feet south of the site.	2SA2008 G-R Quarterly Monitoring Report Former Sheaff's Garage 3Q2008 Quarterly Monitoring Report (geotracker.swrcb.ca.gov)		2SA2008 QMR Hydrocarbon Concentration Map			predominant flow direction calculated for the Former Sheaff's Garage site as presented in their most recent quarterly monitoring report
	Soil Conditions The property was redeveloped as the current commercial property in 1979, according to property title information. The current building is 2 stories, with the bottom level approximately 3-4 feet below street level and is comprised of commercial suites, Barclay's Restaurant and Pub, and parking. The current building and access pathways cover 100% of the property. Prior to construction, the site was excavated to an unknown depth, thought to be at least 6 fbg. During a 1999 Subsurface Investigation, Piers advanced four onsite borings, but collected only grab-groundwater samples. Soils were screened for hydrocarbon odor and staining, a hydrocarbon odor was detected only in SB-3 at 9 fbg. Piers advanced these borings onsite and inside the building, which is constructed at various depths below the street level. Boring SB-1 was advanced at street level to a total depth of 9 fbg. Piers advanced SB-2 inside the parking area, approximately 3.5 feet below street level to a total depth of 11 fbg. SB-3 is located in a walkway area approximately 4 feet below street level and was advanced to 10 fbg. SB-4 is located inside Barclay's Restaurant and Pub, approximately 4 feet below street level and was advanced to 9 fbg. These depths are based on rough field measurements and differ slightly from the depths presented in the Piers report. A site walkthrough shows that SB-2 and SB-3 are clearly not at the same depth below street level as they are presented in the PIERS report. Adjusting for depth below street level (the former Chevron station was at street level) the Piers borings were advanced to a maximum depth of 14 feet below street level. In 2000, Delta installed offsite monitoring wells MW-1 and MW-2. No hydrocarbons were detected in soil samples from MW-1. Hydrocarbon concentrations detected in soil from MW-2 at 4.5 fbg were below the most stringent Environmental Screening Levels (ESLs) for residential sites where groundwater is a current or potential drinking water source, presented in Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater prepared by the California Regional Water Quality Control Board San Francisco Bay Region Interim Final - November 2007 (revised May 2008). Delta concluded no additional soil characterization was needed. Since Delta submitted the report in 2001, 19 groundwater monitoring events have occurred. Of the 19 groundwater monitoring, 14 occurred concurrently with monitoring at the former Sheaff's Garage site and provide a record of groundwater flow direction and gradient.	1999 PIERS Groundwater Investigation Report 2001 DELTA Well Installation Report	Cumulative Soil Analytical Data	Site Plan			100% of the site is currently developed and used by the commercial tenants.

	Description	Cited Data Sources	Data Tables	Graphics	Data Gaps	Work Necessary to fill data gap	Comments
	Source Area According to the 2001 Delta *Well Installation Report*, a Chevron service station occupied the site from 1938 to 1968. Former site facilities consisted of four USTs, one dispenser island, an office building and a separate auto service building. It is assumed that the tanks and piping were removed after the station closed. According to first hand accounts via personal communication, soil was excavated from the site in 1979 during site redevelopment to an uncertain depth. The current building was built in most areas approximately four feet below street level. Accounting for typical foundation and building construction, a majority of the site was likely excavated to at least six feet below street level.			Boring Logs Cross-Section A-A'	No soil samples collected in assumed source area.	CRA proposes to advance 3 additional borings in the source area and collect soil and grab-groundwater samples. The work plan is being submitted under separate cover, dated December 30, 2008.	The ACEH letter dated September 11, 2008 states soil data was collected after the UST tank and piping removal. CRA was not able to find this data in Chevron or ACEH records. 100% of the site is currently developed and used by the commercial tenants.
	Dissolved Plume/Groundwater Depth to groundwater beneath the site ranges from approximately 6 to 13 fbg. Groundwater flow direction at the site varies from west to south. Flow direction is based on data collected from the monitoring wells associated with the site and from monitoring wells associated with the adjacent former Sheaff's Garage site, when joint monitoring and sampling is completed on the same day. On December 6, 2000, Delta installed monitoring well MW-1 downgradient from the site and MW-2 in the vicinity of the former USTs. The first sampling event took place on January 3, 2001. Initial concentrations of total petroleum hydrocarbons as gasoline (TPHg) were detected at 930 micrograms per liter (µg/L) in MW-1, and 2,100 µg/L in MW-2. Benzene was initially detected at concentrations of 2.9 µg/L in MW-1, and 110 µg/L in MW-2. Methyl tertiary butyl ether (MTBE) was initially detected at concentrations of 14 µg/L in MW-1 and 83 µg/L in MW-2. After two quarters of sampling, MTBE decreased below laboratory detection limits in both MW-1 and MW-2. MTBE was removed from the sampling schedule during the 2002 monitoring and sampling event. According to the Air Resources Board website, a part of the California Environmental Protection Agency, MTBE was approved for use as a fuel additive in 1979. Since the station closed in 1968 and was redeveloped as the current building in 1979, it is not possible that MTBE was released due to Chevron station operations. The second semi-annual 2008 monitoring and sampling event took place on October 15, 2008. No TPHg or benzene was detected in MW-1. In MW-2, 480 µg/L TPHg and 1.3 µg/L benzene were detected. Since the initial monitoring and sampling event, concentrations of petroleum hydrocarbons have steadily decreased at the site. Geologic data from the above referenced geologic map, soil boring logs and groundwater monitoring data indicate that no lithologic units appear to exist beneath the site which could trap hydrocarbons. From 2001 to present, groundwater beneath the site has never been deeper than approximately 13 fbg. Soil boring logs indicate that silty sand is screened at the bottom of the wells. The site wells are therefore appropriately screened to monitor any potential floating dissolved petroleum hydrocarbons.	2SA2008 G-R QMR For more information see: (http://www.arb.ca.gov/fuels/gasoline/cbgmtbe.htm)	Cumulative Soil Analytical Data Cumulative Grab-Groundwater Analytical Table Monitoring Well Construction Detail Table	Site Plan 2SA2008 G-R Hydrocarbon Concentration Map Trend Graph Cross-Section A-A'	In the September 11, 2008 letter, ACEH requests additional lateral and vertical plume characterization.	Due to the lack of analytical data in and around the site, and the adjacent hydrocarbon source area at the Sheaff's Garage site, CRA proposes advancing three borings to verify that a source area is present on the former Chevron station site prior to performing further delineation of a dissolved groundwater plume. This was submitted under separate cover on December 30, 2008.	The groundwater monitoring network includes the concurrently monitored Sheaff's Garage wells.

	Description	Cited Data Sources	Data Tables	Graphics	Data Gaps	Work Necessary to fill data gap	Comments
	Vapor No vapor investigations have been conducted at the site.						
	Remediation Soil excavation of unknown dimensions occurred in 1979 during site redevelopment. Given the current building dimensions, a majority of the site was likely excavated to depths of 6 feet below street level. No record of additional remediation has been located.				Building reports for the current structure are currently unavailable to CRA.	CRA plans to survey additional government records for any reports that might provide site excavation and construction details.	
	Subsurface Investigations ***1999 Subsurface Investigation:*** In August and September, 1999, Piers advanced soil borings SB-1 through SB-4 in the vicinity of the suspected former UST pit. Grab-groundwater samples were collected from each boring. TPHg was detected at a maximum concentration of 190,000 µg/L in SB-4. Benzene was detected at a maximum concentration of 3,500 µg/L in SB-3. MTBE was detected at a maximum concentration of 1,100 µg/L in SB-4. ***2000 Monitoring Well Installation:*** In December, 2006, Delta installed monitoring wells MW-1 (downgradient of the site) and MW-2 (in the vicinity of the former USTs) to a depth of 21 fbg. No TPHg, benzene or MTBE was detected in soil samples collected during the well installations.	1999 PIERS Groundwater Investigation Report 2001 DELTA Well Installation Report	Cumulative Soil Table Cumulative Grab Groundwater Table	Site Plan			No soil analytical data could be found for soil samples collected during UST tank removal. Soil samples were not collected during the 1999 SSI. During construction of current building, which covers nearly 100% of the property and has underground structures, soil excavation occurred.
	Preferential Pathways CRA contacted underground service alert (USA) to locate underground utilities in the vicinity of the site. A private utility locator was contracted to locate any additional subsurface utilities. These utilities and their locations are indicated on the site plan. A reinforced clay pipe 90 inches in diameter is located on the western side of College Ave., across from the site. According to City of Oakland records, this culvert diverts storm water from nearby Claremont Creek. The exact depth of the culvert is unknown. Depths of other utilities were measured to be no greater that 6 fbg. CRA compiled well data from a Department of Water Resources (DWR) Well Survey in October, 2008. There are no municipal or irrigation wells within a 2,000 foot radius from the site. Excluding wells associated with the adjacent former Sheaff's Garage site, the nearest wells, approximately 75 feet from the site, are used for monitoring at the Dreyer's Grand Ice Cream site. A cathodic well once existed approximately 800 feet from the site. DWR records show undefined wells or borings are approximately 1,700 feet away. Given the likely size of the dissolved plume related to the site, no wells in DWR records appear to be potential receptors. An enclosed, active sump pump operates as needed below the stairway on the west side of the current building.		DWR Well Survey Table	Site Plan with Utility Survey Data	CRA is not aware of the operational details of the sump pump. The sump's discharge location is also currently unknown.	CRA will attempt to obtain the operational details of the sump and discharge point information with the property owner.	

	Description	Cited Data Sources	Data Tables	Graphics	Data Gaps	Work Necessary to fill data gap	Comments
	Nearby Release Sites There are three open environmental cases near the site listed on the Alameda County Environmental Health Services Local Oversight Program website: Sheaff's Garage, 5390 College Avenue, RO0000377 According to reports from GGTR, the former Sheaff's Garage operated as an auto repair facility and utilized a gasoline UST and used oil UST at the site. The USTs were located beneath the sidewalk in front of the building. In August 1996, both steel USTs and associated fuel dispensers were removed. Fuel product piping was flushed and left in place. GGTR performed limited excavation of the UST pit area. Soil and groundwater investigations indicated elevated TPHg, benzene, MTBE and tetrachloroethylene (PCE) concentrations near the former UST pit. To monitor this area, GGTR installed three groundwater monitoring wells that have monitored quarterly or semi-annually since 2001. In July 2008, ACEHS requested additional vertical and horizontal plume characterization at the former Sheaff's Garage site. Dreyer's Grand Ice Cream, 5929 College Avenue, RO0000153 This site is located to the southwest, across College Avenue and downgradient of the former Chevron site. Soil and groundwater investigations initiated in 1989 indicated motor fuel, oil and grease impacts to soil and groundwater. Monitoring wells were installed in 1991 and 1993 and were monitored quarterly until 1999. Shell Station No. 13-5685, 6039 College Avenue, RO0000469 This open case is currently a Shell fuel station located northwest and roughly crossgradient of the subject site. The site has operated as a fuel station since 1940, and several potential sources of petroleum hydrocarbons have been identified. Groundwater monitoring has occurred since 1990 and groundwater extraction has occurred since 1999. Impact at this Shell station does not likely impact the former Chevron site due to its distance and crossgradient location.	Former Sheaff's Garage 3Q2008 Quarterly Monitoring Report For more information, see: (http://geotracker.swrcb.ca.gov) For more information, see: (http://geotracker.swrcb.ca.gov)		Nearby Release Site Plan			
	Drivers Due to the lack of analytical data in and around the site, and the adjacent hydrocarbon source area at the Sheaff's Garage site, need to verify that a source area is present on the former Chevron station site prior to performing further delineation of a dissolved groundwater plume.				Need to verify assumed source area.	CRA proposes to advance 3 additional borings in the source area and collect soil and grab-groundwater samples. The work plan is being submitted under separate cover, dated December 30, 2008.	
	Proposed Work Plan A work plan for source area characterization will be submitted under separate cover on December 30, 2008.						

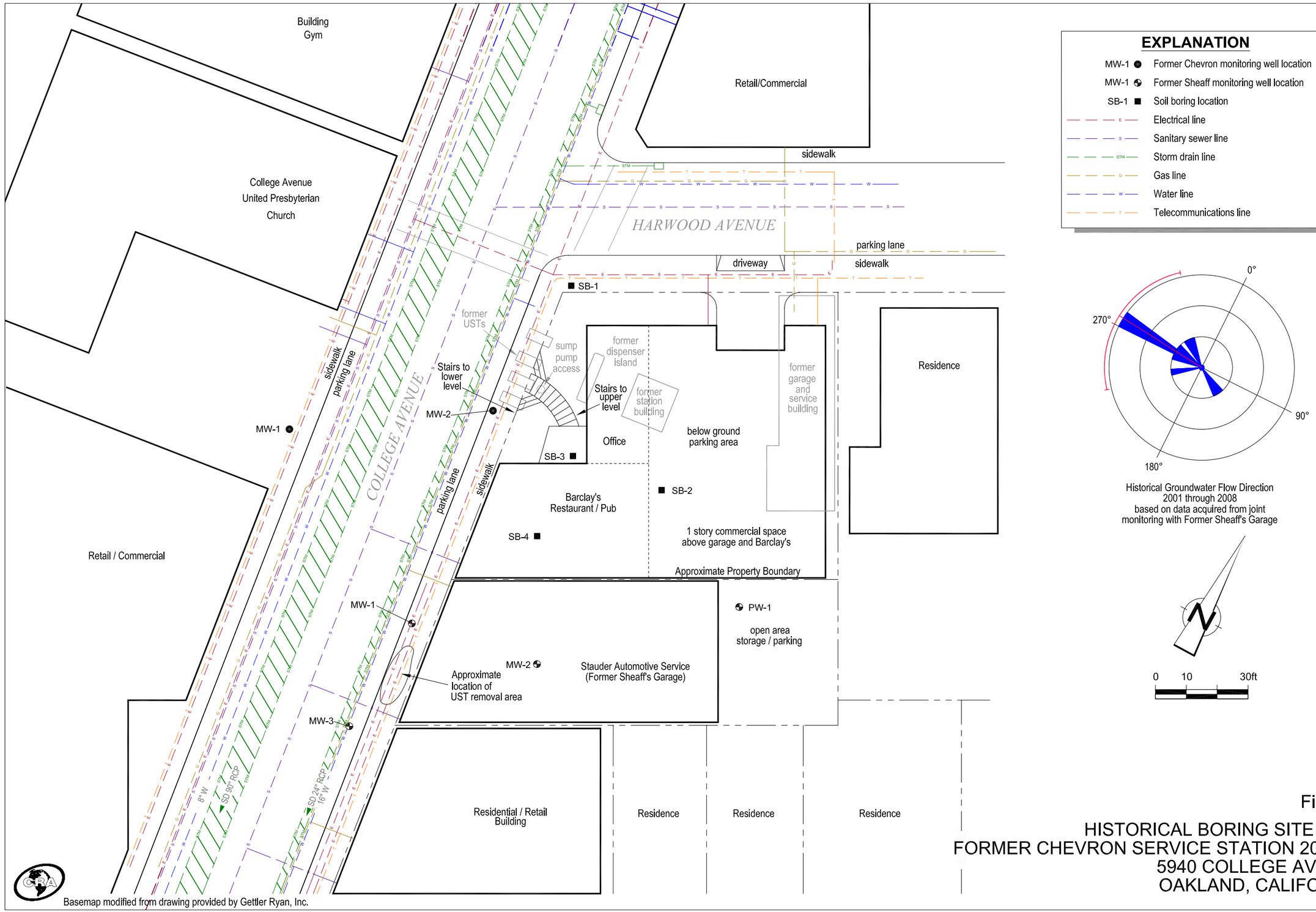


Figure 2

HISTORICAL BORING SITE PLAN
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA

Basemap modified from drawing provided by Gettler Ryan, Inc.

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM002.DWG

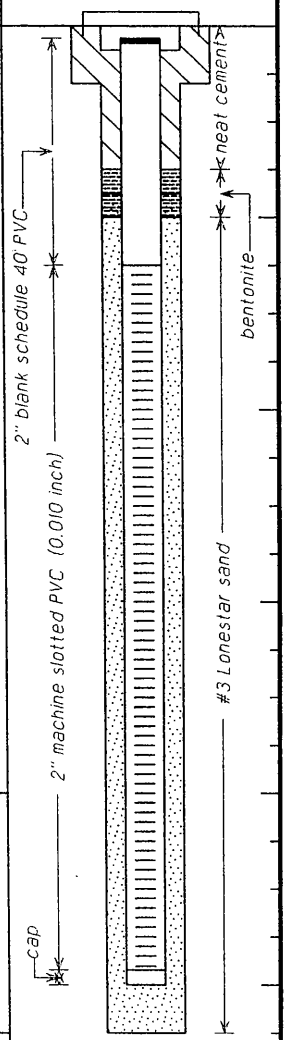
Gettler-Ryan, Inc.

Log of Boring MW-1

PROJECT: *Former Chevron Service Station No. 20-9339*	LOCATION: *5940 College Avenue, Oakland, California*
GR PROJECT NO. : *346521.02*	CASING ELEVATION: *196.51*
DATE STARTED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *21 feet*
DRILLING COMPANY: *Cascade Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							Concrete.
						CL	CLAY (CL) - reddish brown (5YR 4/4), dry, very stiff; 85% clay, 10% silt, 5% angular fine gravel.
4	6.1	17	MW-1-4.5				At 5 feet color changes to very dark gray (7.5YR 3/1), becomes moist; 90% clay, 10% silt.
8	5.5	34	MW-1-9.5				At 10 feet becomes hard; includes some brick fragments.
12							
	10.6	32	MW-1-14.5				
16						SM	SILTY SAND (SM) - brown (10YR 5/3), moist, dense; 75% fine sand, 25% silt.
	24.0	>100	MW-1-19.5				At 20 feet color changes to light yellowish brown (10YR 6/4), becomes wet, very dense.
20							Bottom of boring at 21 feet bgs.
24							(* = converted to equivalent standard penetration blows/foot.)
28							

WELL DIAGRAM



JOB NUMBER: *346521.02*

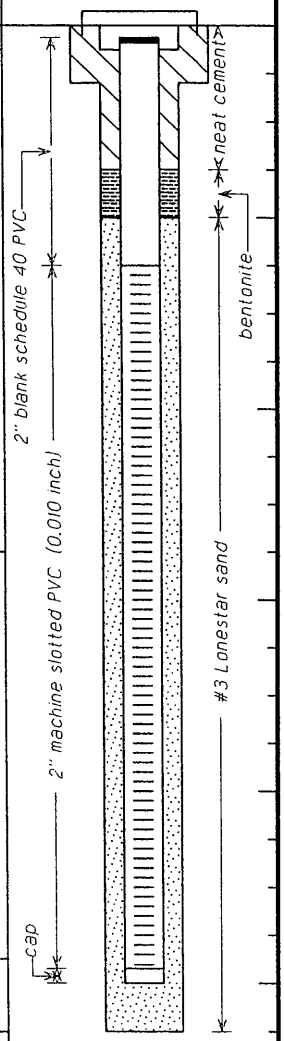
Gettler-Ryan, Inc.

Log of Boring MW-2

PROJECT: *Former Chevron Service Station No. 20-9339*	LOCATION: *5940 College Avenue, Oakland, California*
GR PROJECT NO. : *346521.02*	CASING ELEVATION: *197.35*
DATE STARTED: *12/06/00*	WL (ft. bgs): *10* DATE: *12/06/00* TIME: *14:25*
DATE FINISHED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *21 feet*
DRILLING COMPANY: *Cascade Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							Concrete.
						SM	SILTY SAND WITH GRAVEL (SM) – brown (7.5YR 4/3), dry, soft; 65% fine sand, 20% angular gravel, 15% silt.
4	1.4	42	MW-2-4.5				At 5 feet includes brick fragments.
8	3.6	37	MW-2-9.5				At 8 feet becomes wet, dense. ▽
						CL	CLAY (CL) – dark olive green (5Y 3/2), moist, hard; 90% clay, 10% silt.
12	4.2	42	MW-2-14.5				At 5 feet color changes to dark grayish brown (2.5Y 4/2).
16							
20	8.9	42	MW-2-19.5			SM	SILTY SAND (SM) – yellowish brown (10YR 5/6), moist, dense; 85% fine sand, 15% silt.
							Bottom of boring at 21 feet bgs.
24							(* = converted to equivalent standard penetration blows/foot.)
28							

WELL DIAGRAM



JOB NUMBER: *346521.02*

PIERS Environmental Services — Exploratory Boring Log

Project No. _____ Client: R Elwood

Location: 5942 College Ave. Oakland

Drilling Method: 3" Hand Auger Permit: N/A

Boring # SB-1 Date 8-31-99

Logged By: BH

Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth	USGS	Lithology Description Detail	H20	Well Const. Mark
					concrete w/ 3/4" Drain rock		
				CL	Low Plasticity CLAY, 30-35% silt, light brown, med-stiff		
			5'				
				GM	Silty/Sandy GRAVEL w/ 15% clay, Angular, poor graded, slight Hydrocarbon odor.		
SB-1		water	▽				
			10'		BOH		
			15'				
			20'				
			25'				
			30'				
			35'				
			40'				

Portland Cement

PIERS Environmental Services

Exploratory Boring Log

Project No. _____ Client: P. Elwood

Location: 5942 College Ave. Oakland

Drilling Method: 3" dia. Hand Auger Permit: N/A

Boring # SB-2 Date 8-31-99

Logged By: BH

Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth USGS	Lithology Description Detail	H20	Well Const. Mark
				Conc. w/ 3/4" rock (drain)		
			CL	low Plast. CLAY, light brown, 30% silt		
			5'	med stiff		
			CL	Same 40% silt.		
SB-2		water ▽	10'			
				Bottom		
			15'			
			20'			
			25'			
			30'			
				*Note: Depths calculated From basement floor, approx. 3.5' below sidewalk elevation.		
			35'			
			40'			

1 Portland Cement

Environmental Restoration Services Exploratory Boring Log

Project No. _____ Client: P. Elwood Boring # SB3 Date 8/31/99

Location: 5942 College Ave Oakland Logged By: BH

Drilling Method: 3" Hand Auger Permit: N/A Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth USGS	Lithology Description	Well Const.
				concrete / 3/4 drain Rock	
			CL	Low Plast. CLAY, 30-35% silt, light brown. med. stiff	
			5'		
			SM	Silty Sandy GRAVEL 15% clay. light greenish grey med. dense. mod. Hydro carbon odor.	Portland Cement
SB-3		water ▽	10'		
			15'		
			20'		
			25'		
			30'		
			35'		
			40'		

PIERS Environmental Services

Exploratory Boring Log

Project No _____ Client: P Elwood

Location: 5942 College Ave Oakland

Drilling Method: 3"dia Hand Auger Permit: N/A

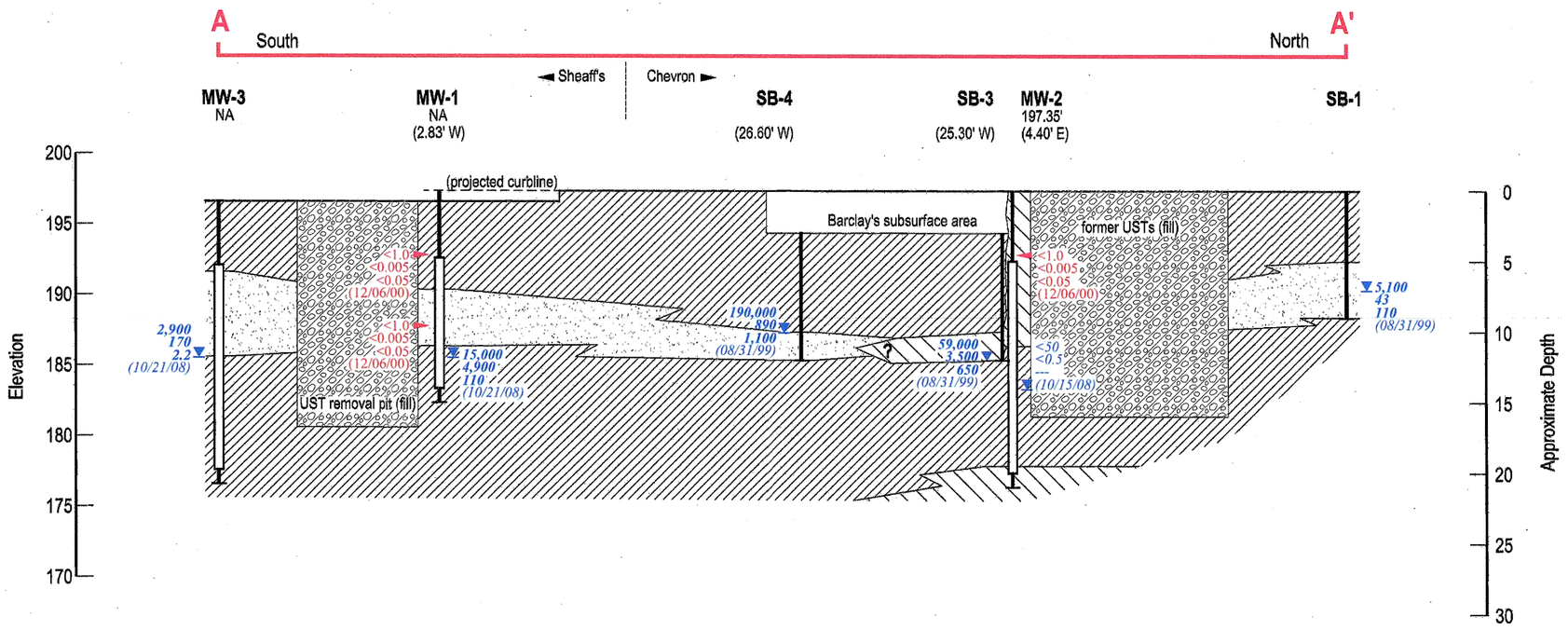
Boring # SB-4 Date 9/1/99

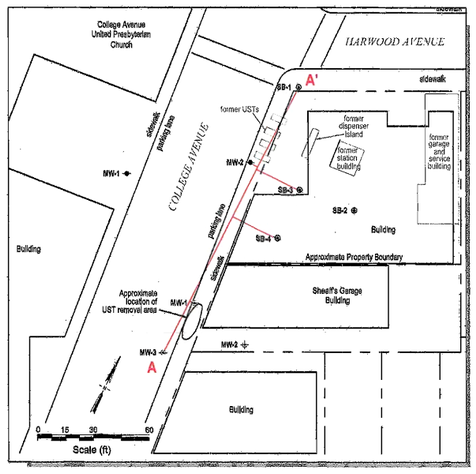
Logged By: BH

Page 1 of 1

Sample No	Blow Count	Sample Type	Location Depth	USGS	Lithology Description Detail	H20	Well Const
					concrete/sand/gravel		Mark
				CL	Low Plasticity CLAY, 30-35% silt, light brown, med stiff		Portland Cement
			5'				
SB-4		water ▽		GM	Silty GRAVEL, 30% silt w/ 20% clay Med dense, wet strong Hydrocarbon odor		
					BoH @ ±9 feet		
			10'				
			15'				
			20'				
			25'				
			30'				
			35'				
			40'				

Note: Depths calc from basement floor, approx 3 5 feet below sidewalk elevation





EXPLANATION

- = Low Permeability Soils
  - CL - Low plasticity Clay
  - ML - Silt
  - SC - Clayey Sand
- = Moderate Permeability Soils
  - SM - Silty Sand
- = High Permeability Soils
  - GM - Silty Gravel
- = Fill

Well ID — Well Designation
Elev. (offset) — Top of Casing Elevation
Groundwater Monitoring Well (gray / faded indicates abandoned)
Well Screen Interval
Bottom of boring

Approximate sample location

Depth of Groundwater

TPHg
Benzene
MTBE
(Date) Hydrocarbon concentrations in Soil, mg/kg

TPHg
Benzene
MTBE
(Date) Hydrocarbon concentrations in Groundwater, µg/L

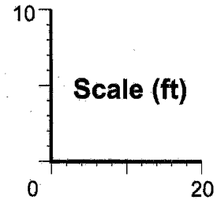


FIGURE 3

GEOLOGIC CROSS SECTION A-A'
CHEVRON 20-9339
5940 COLLEGE AVENUE
Oakland, California

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PIERS
Environmental
Services, Inc.

1330 S Bascom Ave , Suite F
San Jose, CA 95128

Tel (408) 559-1248 Fax (408) 559-1224

REPORT OF FINDINGS
GROUNDWATER INVESTIGATION

AT
5940 COLLEGE AVE., OAKLAND, CA.

Prepared for	Mr Patrick Ellwood 1345 Grand Ave Piedmont, CA 94610
Submitted to	Ms Eva Chu Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Second Floor Alameda, CA 94502
Prepared by	PIERS Environmental Services Bennett T Halsted, Project Manager 1330 South Bascom Ave #F San Jose, CA 95128

SEPTEMBER 27, 1999

1.0 INTRODUCTION

The purpose of this report is to present the findings of a preliminary investigation to determine the presence of hydrocarbons in the groundwater in the vicinity of a historic fuel service site This report first reviews the known site history, describes the site vicinity, presents investigation protocols and analytical results and concludes with a recommendation for further investigation

1.1 Site Location

The site is located in a commercial/residential district of Oakland, California on property at 5940 College Ave (Figure 1)

1 2 Background

The subject site was the location of a gasoline station prior to 1968, utilizing underground gasoline storage tanks

2 0 INVESTIGATIVE SCOPE OF WORK

Because assessment research showed a historic fuel service use at the site an investigation into a potential historic impact to groundwater was recommended After tracing existing fuel lines toward the suspected former tank locations, PIERS recovered groundwater grab samples from four locations around the suspected former tank locations

2.1 Boring Locations

On August 3, and September 1, 1999, four borings were constructed on site to determine the presence of hydrocarbons in the groundwater Soil borings SB-1 through SB-4 were constructed in the vicinity of the suspected former tank location The boring locations are shown in Figure 2

2 2 Reconnaissance Boring Installation and Groundwater Sampling

Prior to mobilization of the drilling equipment on-site, and prior to leaving the site, all associated equipment was thoroughly cleaned to removed all soil, oil, grease, mud, tar, etc The cleaning process consisted of high pressure steam cleaning of the drilling equipment and a high-pressure hot water final rinse Before drilling the borings, all drill stems, bits, and other down-hole equipment were cleaned

2.2.1 **Soil Boring Procedure**

The borings were advanced using a three inch diameter hand auger to a depth that penetrated a minimum of one foot beneath the water table. All of the soil recovered from the boring was logged under the supervision of a registered civil engineer. Visual and olfactory observations of petroleum hydrocarbons were made and recorded on the boring logs.

2.2.2 **Groundwater Grab Sampling Procedures**

After completion, each boring was allowed to recharge with groundwater. Then, a new, disposable bailer was inserted into the boring for recovery of a groundwater grab sample. The groundwater was emptied into sample containers obtained directly from the analytical laboratory. An effort was made to minimize exposure of the sample to air.

Sample containers were labeled with self-adhesive tags. Field personnel labeled each tag, using waterproof ink, with the following information: Sampling location and number; Project name; Date and time samples were collected; Treatment (preservatives, filtered, etc.); Name of sampler.

Subsequent to collection, the samples were immediately stored on ice in an appropriate ice chest. Samples were transferred under Chain-of-Custody procedures to a State Certified Laboratory.

The borings were backfilled immediately after completion of the sampling and removal of the well casings, with a cement grout mixture containing approximately 3% bentonite.

2.2.3 **Laboratory Analyses**

The following analyses was performed by Entech Analytical Labs of Sunnyvale on groundwater samples obtained from each boring:

TPH-gas (EPA Method 8015M); BTEX, MTBE (EPA Method 8020)

The results of the groundwater samples were as follows:

Results in Parts Per Billion (PPB)

Sample#	TPH/g	Benzene	Toluene	EthylBenzene	Xylene	MTBE
SB1	5100	43	34	40	ND	110
SB2	ND	ND	ND	ND	ND	ND
SB3	59,000	3500	310	2000	1900	650
SB4	190,000	890	110	4000	7500	1100 → ND w/ 8240

The following analyses was performed by Entech Analytical Labs of Sunnyvale on groundwater sample obtained from boring SB-4:

Oxygenates (EPA Method 8240)

The results of the groundwater sample indicated non-detectable levels of the fuel oxygenating constituents tested.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Due to the moderate level of Total Petroleum Hydrocarbons as gasoline (TPH/g) in groundwater grab samples recovered at the former station location, it appears that the either contaminates have migrated on to the subject site from the neighboring site or, there has been a historical fuel release at subject site. A determination of groundwater gradient direction would need to be made in order to ascertain the contaminate source.

PIERS recommends that two wells be installed at the subject site, or the neighboring site to determine groundwater gradient direction.

LIMITATIONS

The observations and conclusions presented in this report are professional opinions based on the scope of work outlined herein. This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. The opinions presented apply to site conditions existing at the time of our study and cannot apply to site conditions or changes of which we are not aware or have not had the opportunity to evaluate. This investigation was conducted solely to evaluate environmental conditions of the groundwater with respect to hydrocarbons identified during historic research work. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available. Additional work, including subsurface investigation, can reduce the inherent uncertainties associated with this type of investigation. It must be recognized that any conclusions drawn from these data rely on the integrity of the information available at the time of investigation and that a full and complete determination of environmental contamination and risks cannot be made.

Respectfully submitted this 27th day of September, 1999,

Bennett T. Halsted
Project Manager

Samuel H. Halsted PE
C.E. 14095

BORING LOGS

PIERS Environmental Services — Exploratory Boring Log

Project No. _____ Client: D. Elwood

Location: 5342 College Ave. Oakland

Drilling Method: 3" Hand Auger Permit: N/A

Boring # SB-1 Date 8-31-99

Logged By: BH

Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth	USGS	Lithology Description Detail	H20	Well Const. Mark
					concrete w/ 3/4" Drain rock		
				CL	Low Plasticity CLAY, 30-35% silt light brown, med-stiff		
			5'				
				GM	Silty/Sandy GRAVEL w/ 15% clay Angular, poor graded slight Hydrocarbon odor.		
SB-1		water	▽				
					Bo H		
			10'				Portland Cement
			15'				
			20'				
			25'				
			30'				
			35'				
			40'				

PIERS Environmental Services — Exploratory Boring Log

Project No. _____ Client: P. Elwood

Location: 5942 College Ave. Oakland

Drilling Method: 3" dia. Hand Auger. Permit: N/A

Boring # SB-2 Date 8-31-99

Logged By: BH

Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth USGS	Lithology Description Detail	H20	Well Const. Mark
				Conc. w/ 3/4" rock (drain)		Portland Cement
			CL	low Plast. CLAY, light brown, 30% silt med stiff		
			5'			
			CL	Same 40% silt.		
SB-2		water ▽	10'			
				Bottom		
			15'			
			20'			
			25'			
			30'			
			35'			
			40'			

*Note: Depths calculated From basement floor, approx. 3.5' below sidewalk elevation.

Environmental Restoration Services Exploratory Boring Log

Project No. _____ Client: P. Elwood Boring # ~~SB~~ 3 Date 8/31/99

Location: 5942 College Ave Oakland Logged By: BH

Drilling Method: 3" Hand Auger Permit: N/A Page 1 of 1

Sample No.	Blow Count	Sample Type	Location Depth USGS	Lithology Description	Well Const.
				Concrete / 3/4 drain Rock	Portland Cement
			CL	Low Plast. CLAY, 30-35% silt, light brown, med. stiff	
			5'		
			SM	Silty Sandy GRAVEL 15% clay, light greenish grey med. dense, mod. Hydro carbon odor.	
SB-3		water ▽	10'		
			15'		
			20'		
			25'		
			30'		
			35'		
			40'		

PIERS Environmental Services — Exploratory Boring Log

Project No _____ Client: P Elwood

Location: 5942 College Ave Oakland

Drilling Method: 3" dia Hand Auger Permit: N/A

Boring #SB-4 Date 8/1/99

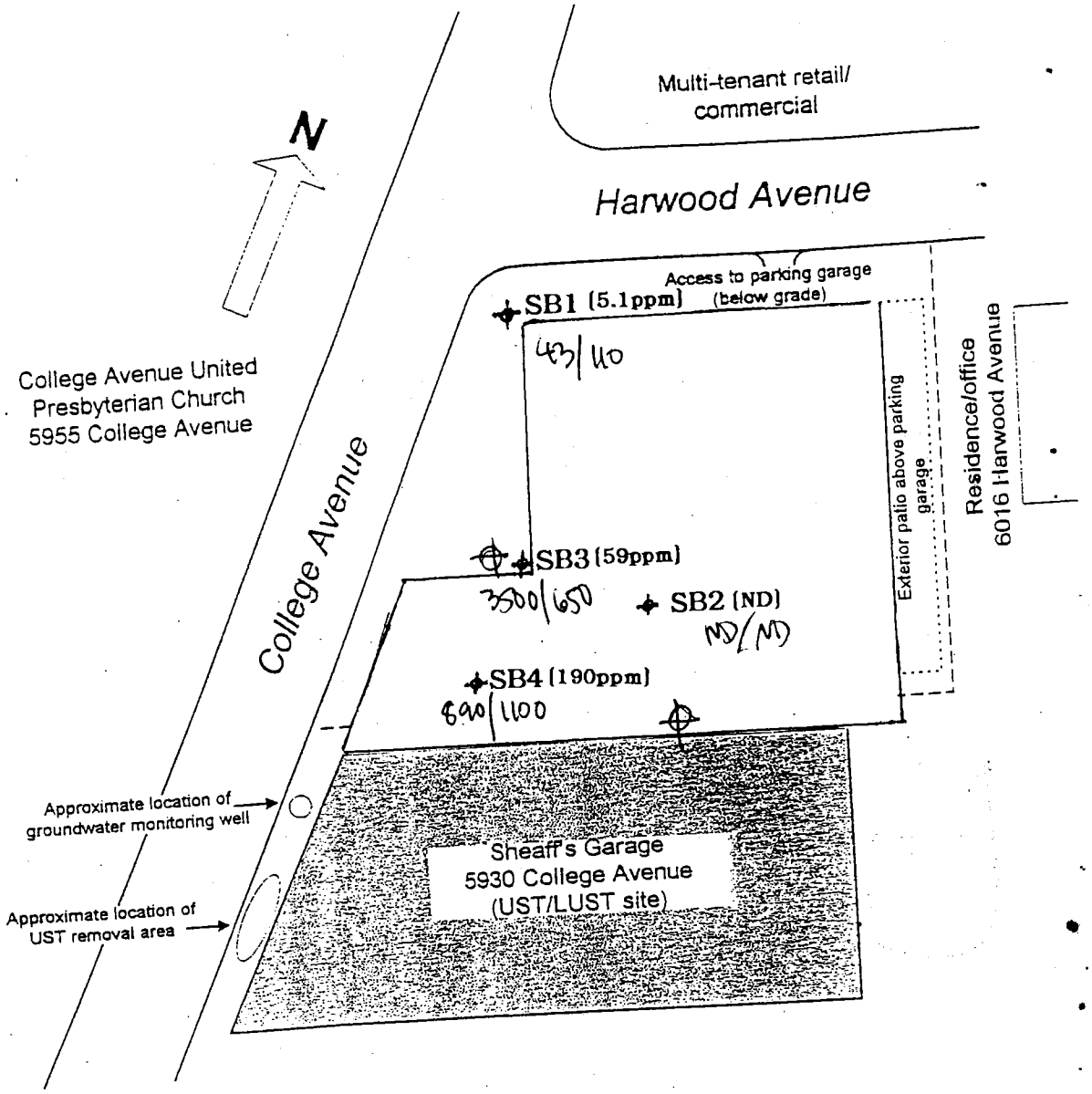
Logged By: BH

Page 1 of 1

Sample No	Blow Count	Sample Type	Location Depth	USGS	Lithology Description Detail	H20	Well Const Mark
					concrete/sand/gravel		
				CL	Low Plasticity CLAY, 30-35% silt, light brown, med stiff		
			5'				
SB-4		water ▽		GM	Silty GRAVEL, 70% silt w/ 20% clay Mod dense, wet strong Hydrocarbon odor		Portland Cement
			10'		Bott @ 19 feet		
			15'				
			20'				
			25'				
			30'				
			35'				
			40'				

Note: Depths calc from basement floor, approx 3 5 feet below sidewalk elevation

FIGURES



ppb benzene / MTBE in water sample

BORING LOCATION (TPH/g)

SITE PLAN

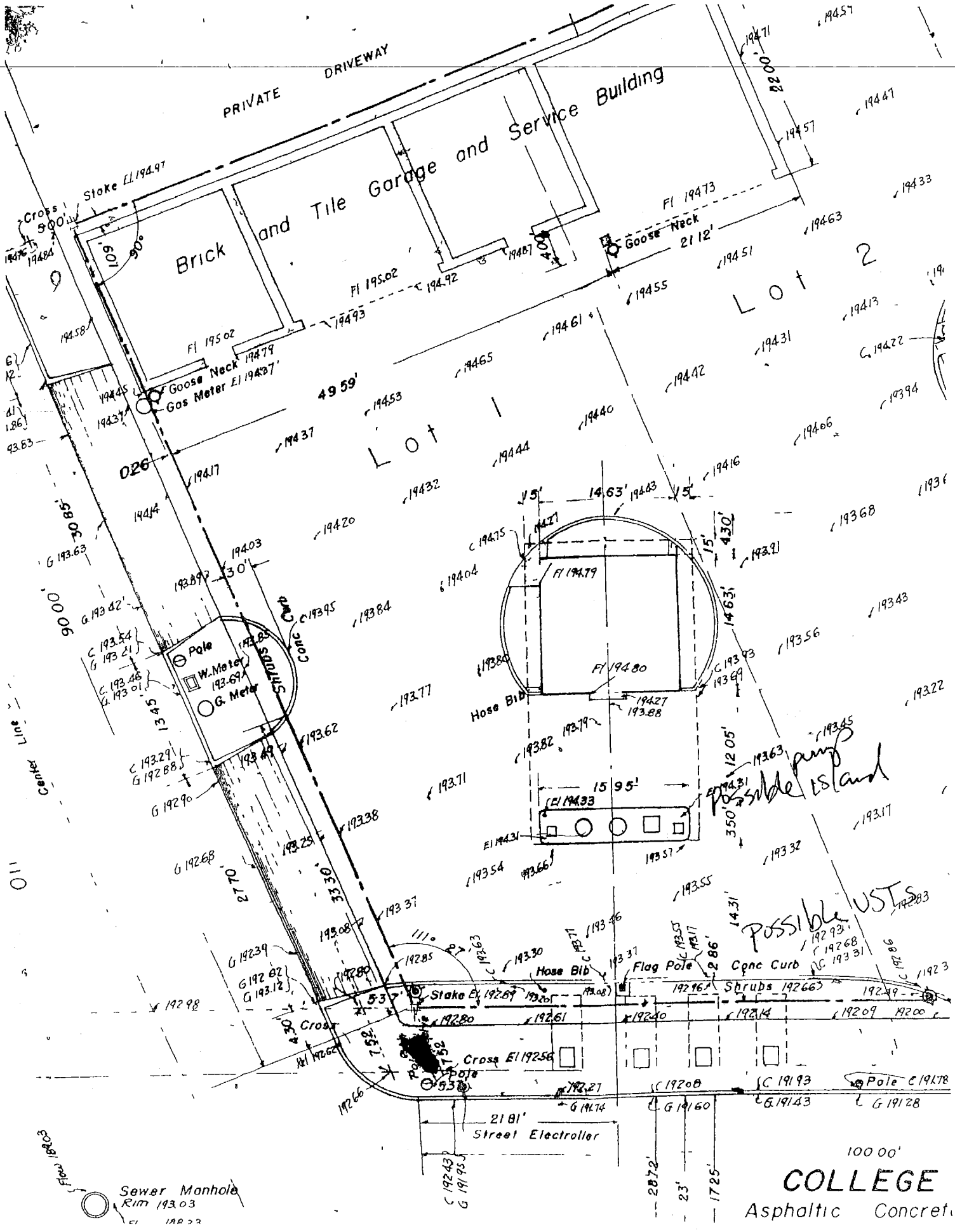
5940 COLLEGE AVE., OAKLAND, CA

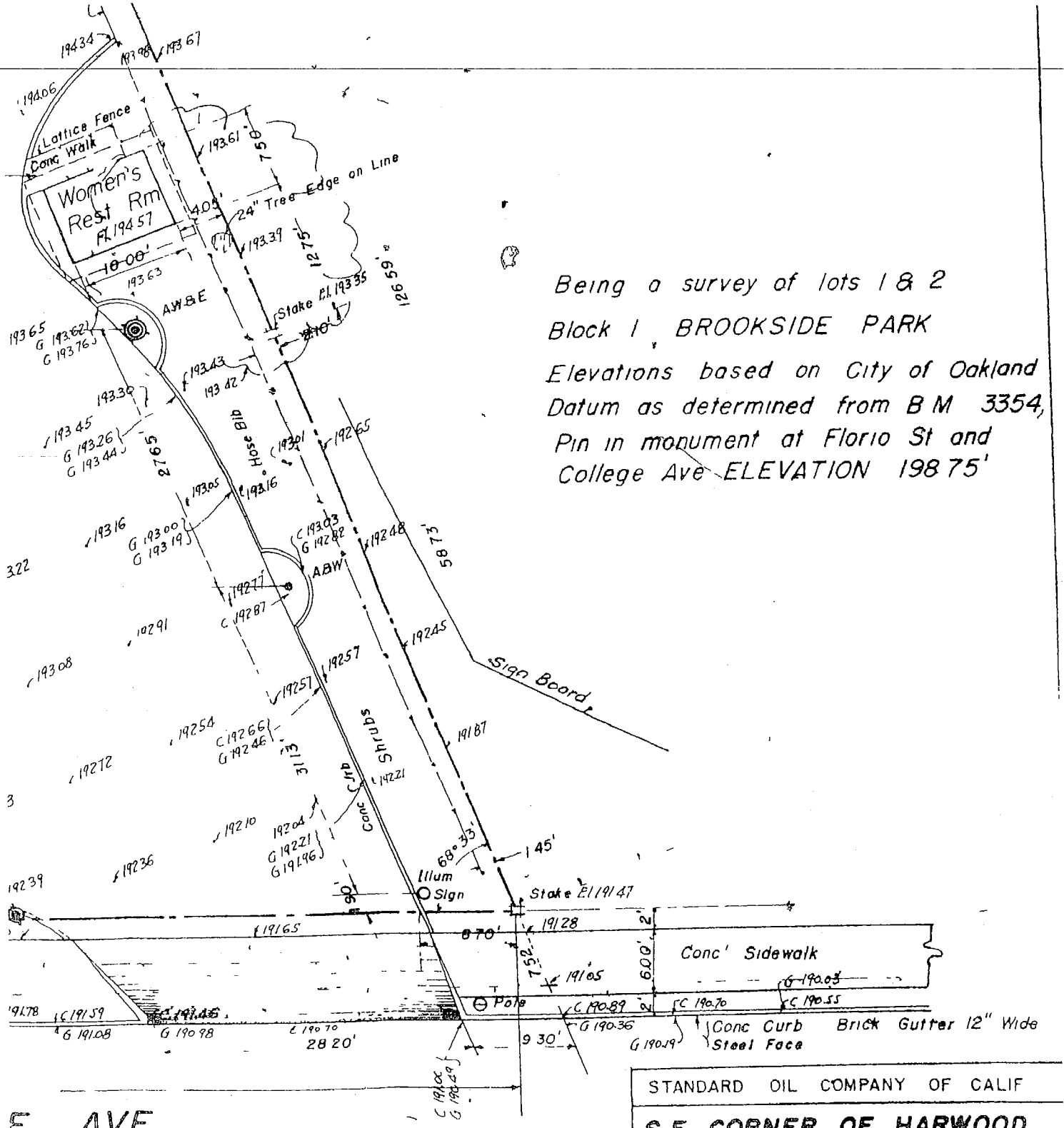
SCALE:	1"=40'	APPROVED BY:	DRAWN BY:
DATE:	9/13/99		REVISED

PIERS ENVIRONMENTAL SERVICES, INC.

1330 S. BASCOM AVENUE, SUITE F, SAN JOSE, CA 95128

FIGURE 2


PRIVATE DRIVEWAY
Brick and Tile Garage and Service Building
Lot 2
Lot 1
Goose Neck
Gas Meter El 194.37'
Stake El 194.97
Cross
Fl 195.02
Fl 194.73
Goose Neck
21.12'
49.59'
Pole
W. Meter
G. Meter
Shrubs
Conc Curb
Center Line
Hose Bib
Fl 194.79
Fl 194.80
14.63'
15.95'
El 194.33
possible pump island
possible USTs
Flag Pole
Conc Curb
Shrubs 192.66
Stake El 192.89
Cross El 192.56
Pole
21.81'
Street Electroller
Sewer Manhole
Rim 193.03
100.00'
COLLEGE
Asphaltic Concrete



Being a survey of lots 1 & 2
Block 1, BROOKSIDE PARK
Elevations based on City of Oakland
Datum as determined from B M 3354,
Pin in monument at Florio St and
College Ave ELEVATION 19875'

E AVE.
rete Pavement

Line of Street

All bl line 19065

STANDARD OIL COMPANY OF CALIF

S E CORNER OF HARWOOD AVE & COLLEGE AVENUE OAKLAND, CALIF

Scale 1' = 10' Date Sept 11, 1938

Survey No 4016

R E 4649

C C Young, Civil Engineer

September 23, 1999

Sent Via Fax #925-842-8370
with original by U. S. Mail

Ms. Bette Owen
Chevron Corporation
P. O. Box 6004
San Ramon, CA 94583-0904

Re: 5940-42 College Avenue, Oakland, CA

Dear Ms. Owen:

I am the managing owner of the above referenced Property. As we discussed on Tuesday, we are in escrow to sell the Property to Mr. Sheldon Gans (the "Buyer"). The Buyer engaged PIERS Environmental Services ("PIERS") to perform a Phase I investigation of the Property as part of their due diligence Property investigation. Bennett T. Halsted is the Project Manager for PIERS. During PIERS investigation it was determined that the Property was used as Standard Oil gas station at least during the period 1938-68. Water samples were taken and hazardous material found in ground water at the Property (see attached Report of Groundwater Investigation dated September 13, 1999 prepared by PIERS). Mr. Halstead will be sending you more complete information by separate cover.

We acquired the Property in approximately 1986. When we purchased the building it was a retail/office building in its current form. We are not aware of any toxic or hazardous material use at the building/Property during our ownership. We purchased the Property from a party that bought it from Dome Construction, who in approximately 1978 built the building which currently occupies the site. According to the Alameda County records, Dome Construction purchased the Property from Dryers Ice Cream. At the time they purchased the Property it was used as a parking lot. Dryers Ice Cream purchased the Property from what used to be Samuel Merritt Hospital who acquired it by bequeath.

Alameda County records reflect a lease (copy attached) for the Property dated February 13, 1953 to Standard Oil of California ("Standard Oil"). A search of the City of Oakland building department records reflect a site plan (copy attached) prepared by or on behalf of Standard Oil dated September 11, 1938. Standard Oil applied for a building permit (copy attached) to "*...replace 2 buildings with new Steel Bldg....*". On October 6 of some year during the 1930's (the date is difficult to read) a permit was issued (copy attached) to Standard Oil on August 29, 1968 to demolish a service station. Accordingly, from the documentation set forth it appears conclusive that Standard Oil is the responsible party for the hazardous material at our Property.

ELLWOOD COMMERCIAL REAL ESTATE
1345 GRAND AVENUE PIEDMONT, CALIFORNIA 94610
510-658-7918
510-658-7956 Fax

The Buyer wants some level of assurance that he will not be liable for any toxic cleanup. While he would likely be accommodating to any incidental involvement such as a monitoring well at the Property for some period of time, he wants assurance that: he will not be named as a responsible party for the hazardous material; will not incur any cost associated with investigation and/or mitigation of hazardous materials; and, that the use of the Property will not be impaired.

This sale of the Property to this Buyer is time sensitive since we are scheduled to close escrow on October 18, 1999. In fact, we have already extended the close of escrow several times in order to determine whether the Property was "contaminated" and who is the responsible party for the contamination. The Buyer is in a IRC 1031 tax deferred exchange and has identified this Property as his replacement property. The Buyer will suffer significant tax liability if they are not able to timely close this transaction to purchase the Property. Accordingly, we may also be substantially damaged since we have identified replacement property that we want to acquire that is reliant on this sale to this Buyer.

What we are looking for is Chevron/Standard Oil to accept "responsible party" status with the governing agencies and to provide us with indemnity against any cost or damage resulting from investigation and, if required, mitigation/remediation associated with the contamination at the Property. We are also requesting reimbursement by Chevron/Standard Oil of our costs necessary to investigate the history of the Property necessary to determine the existence of contamination and the responsible party.

We would appreciate a timely resolution of this issue with Eva Chu of the Alameda County Health Agency, Division of Environmental Protection, in order that we may timely close our transaction with this Buyer and acquire the property for which we have identified to purchase.

If you have any questions, please don't hesitate to call.

Sincerely,

Patrick Ellwood

cc: Ms. Eva Chu - Alameda County Health Agency (cover letter only)

Mr. Ben Halstead - PIERS Environmental Services, Inc. (cover letter only)

Mr. Bill Clark - Prudential Landmark Real Estate (cover letter only)

GETTLER-RYAN INC.

Facility Number 209339
General Corr ☐
Service Reqs./Proposals ☐
Permits/Bonds ☐
Drawings/Photos/Notes ☐
Spill & Leak Reports ☐
Legal/Easements/Lic. ☐
Reports ☒

TRANSMITTAL

TO: Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

DATE: February 22, 2001
PROJ #: 20-9339
SUBJECT: Well Installation Report
Former Chevron Service Station #20-9339
5940 College Avenue
Oakland, California

FROM:
Stephen J Carter
Senior Geologist
Gettler-Ryan Inc.
3140 Gold Camp Drive
Suite 170
Rancho Cordova, CA 95670

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	February 20, 2001	Well Installation Report

THESE ARE TRANSMITTED as checked below:

[ ] For review and comment [ ] Approved as submitted [ ] Resubmit _ copies for approval

[ ] As requested [ ] Approved as noted [ ] Submit _ copies for distribution

[ ] For approval [ ] Return for corrections [ ] Return _ corrected prints

[X] For Your Files

COMMENTS:

Enclosed is a copy of the referenced Report. If you have any questions, please call me at (916) 631-1314.

Cc: Eva Chu, Alameda County Environmental Health Services; Donald Sweet, Property owner; Jim Brownell, Delta Environmental Inc..

Delta Environmental Consultants, Inc.

3164 Gold Camp Drive
Suite 200
Rancho Cordova, California 95670-6021
916/638-2085
FAX: 916/638-8385

WELL INSTALLATION REPORT

at

Former Chevron Service Station #20-9339
5940 College Avenue
Oakland, California

GR Report No. 346521.02
Delta Project No. DG29/339

Prepared for:

Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
San Ramon, California 94583

Prepared by:

DELTA ENVIRONMENTAL CONSULTANTS INC.
Network Associate **GETTLER - RYAN INC.**
6747 Sierra Court, Suite J
Dublin, California 94568

Andrew Smith
Staff Geologist

Stephen J. Carter
Senior Geologist
R.G. 5577

February 20, 2001

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APPENDICES

WELL INSTALLATION REPORT

at

Former Chevron Service Station #20-9339
5940 College Avenue
Oakland, California

GR Report No. 346521.02
Delta Project No. DG29/339

INTRODUCTION

This report summarizes the results of a soil and groundwater investigation performed at former Chevron Station #20-9339, located at 5940 College Avenue in Oakland, California. The work was performed by Delta Environmental Consultants Inc. Network Associate Gettler-Ryan Inc. (GR) at the request of Chevron Products Company (Chevron) to evaluate if soil and groundwater downgradient of the subject site have been impacted by petroleum hydrocarbons. The scope of work included: obtaining the required monitoring well and encroachment permits; preparing a site safety plan; installing two monitoring wells; surveying the newly installed wells; developing and sampling the new wells; analyzing groundwater and selected soil samples; arranging for disposal of waste material; and preparing a report documenting the work. This work was proposed in GR Report No. 346521.01-1, *Work Plan For Well Installation,* dated March 1, 2000 and approved by the Alameda County Environmental Protection Division (ACEPD) in a letter dated March 6, 2000.

SITE DESCRIPTION

The subject site is located on the southeast corner of the intersection of College Avenue and Harwood Street in Oakland, California (Figure 1). Currently, the site is occupied by an office building where several businesses operate. Based on information supplied by Chevron, it appears a Chevron service station occupied the site from 1938 until 1968. Former site facilities consisted of four underground storage tanks (USTs), one dispenser island, an office building and a separate auto service building. Locations of pertinent site features are shown on Figure 2.

PREVIOUS ENVIRONMENTAL WORK

On August 3 and September 1, 1999, Piers Environmental Services (PES) advanced four soil borings (SB-1 through SB-4) in the vicinity of the suspected former UST pit. Groundwater was encountered at approximately 5 feet below ground Surface (bgs). The boring locations are shown on Figure 2. A grab groundwater sample was collected from each boring. Total Petroleum Hydrocarbons as gasoline, or TPHg (up to 190,00 parts per billion, or ppb) and benzene (up to 890 ppb) were detected in borings SB-1, SB-3 and SB-4. Methyl tertiary-butyl-ether, or MtBE (up to 650 ppb) was detected in SB-1 and SB-3 by EPA Method 8020. The sample from SB-4 was analyzed for fuel oxygenates (MtBE, tertiary-butyl alcohol, di-isopropyl ether, tertiary-amyl methyl ether and ethyl-tert-butyl ether) by EPA Method 8240. None of these compounds were detected. Petroleum hydrocarbons were not detected in boring SB-2.

FIELD ACTIVITIES

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A) and the Site Safety Plan dated December 5, 2000. Drilling permit #WOO-868 was obtained from the Alameda Public Works Agency and a Excavation Permit #X000214 was obtained for the City of Oakland. Underground Service Alert (USA) was notified prior to drilling at the site. Copies of the permits are included in Appendix B.

Well Installation

On December 6, 2000 a GR geologist observed Cascade Drilling Inc. (C57 #717510) installing two monitoring wells (MW-1 and MW-2) in the locations shown on Figure 2. A hand auger was used for the first five feet of each borehole in order to clear the locations of any underground utilities. A truck-mounted rig using 8-inch-diameter hollow stem augers advanced the boreholes to 21 feet bgs. A GR geologist prepared a log of each boring and screened soil samples in the field for the presence of volatile organic compounds. The screening data are presented on the boring logs (Appendix B).

The wells were constructed of 2-inch-diameter polyvinyl chloride (PVC) to a depth of 20 feet bgs. The bottom 15 feet of each well was screened with 0.02-inch machine-slotted casing. Lonestar #3 sand was placed in the annular space from the bottom of the boring to approximately 1 foot above the well screen. The wells were then sealed with hydrated bentonite followed by neat cement. Water resistant boxes installed in concrete were placed over the wells. Expandable well caps secured with locks were placed in the tops of the well casings. Well construction details are shown on the boring logs in Appendix B.

Drill cuttings were placed in 55-gallon drums and removed at the end of the day by Integrated Wastestream Management (IWM). Soil was transported to the Republic Landfill Services in Livermore California for disposal.

Well Monitoring, Development and Sampling

The wells were developed and sampled on January 3, 2001. Depth-to-water was measured and each well was checked for the presence of separate phase hydrocarbons (SPH). SPH were not found in the wells. Neither of the newly installed wells dewatered during development, and each well yielded a minimum of 10 casing volumes. Following development, groundwater samples were collected from each of the wells. Purge water generated during development and sampling procedures was transported by IWM to McKittrick for disposal. Well development procedures are included in Appendix A. Copies of the well development forms are included in Appendix C. Monitoring data are summarized in Table 2.

Wellhead Survey

Following installation of the wells, the elevations were surveyed by Virgil Chavez Land Surveying of Vallejo, CA (license #6323). Top of casing and vault box elevations were measured relative to Mean Sea Level (MSL), and the horizontal locations of the wells were measured. The surveyor's report is included in Appendix D. Well elevations are summarized in Table 2.

RESULTS OF THE SUBSURFACE INVESTIGATION

Soil encountered during this investigation consisted of clay and silty sand to approximately 15 to 19 feet bgs. This material contained brick fragments and appeared to be fill material. A silty sand stratum was encountered at the bottom of each boring. Groundwater was encountered at 10 feet bgs at MW-2, but at MW-1 groundwater was not encountered. Based on the groundwater monitoring data collected on January 3, 2001, the water table beneath the site is at approximately 12.5 feet bgs. Detailed descriptions of the soil encountered during drilling are presented on the boring logs in Appendix B.

CHEMICAL ANALYTICAL RESULTS

All samples were analyzed by Sequoia Analytical in Walnut Creek, California (ELAP #1271). Soil samples from the well borings were analyzed for TPHg, benzene, toluene, ethylbenzene and xylenes (BTEX) and MtBE by DHS LUFT. Stockpile samples were analyzed for TPHg, BTEX and total lead by EPA Method 6010. Groundwater samples were analyzed for TPHg, BTEX, MtBE and Ethanol, TBA, DIPE, ETBE, TAME and 1,2-DCA by EPA Method 8260. Copies of the laboratory analytical reports and chains-of-custody are included in Appendix E.

Soil Analytical Results

Petroleum Hydrocarbons were not detected in either of the soil samples collected from well borings MW-1. The sample from well boring MW-2 at 4.5 feet bgs did not contain detectable concentrations of TPHg, benzene or MtBE, but did contain toluene (0.0062 parts per million or ppm), ethylbenzene (0.0054 ppm), and xylenes (0.021 ppm). The disposal characterization samples from the drill cuttings contained TPHg, BTEX and lead. Concentrations where acceptable to the disposal facility. These data are summarized in Table 1.

Groundwater Analytical Results

Petroleum hydrocarbons were detected in both wells. The samples from well MW-1 contained 930 ppb of an unidentified hydrocarbon in the C6-C12 range, 2.9 ppb of benzene and 14 ppb of MtBE by EPA Method 8020. The laboratory did not confirm the presence of MtBE or any of the other fuel additives by EPA Method 8260. Well MW-2 contained 2,100 ppb of TPHg, 110 ppb of benzene and 83 ppb of MtBE by EPA Method 8020. MTBE was confirmed in well MW-2 by EPA Method 8260 at a concentration of 2.2 ppb, but none of the other fuel additive compounds were detected. These data are summarized in Tables 2 and 3.

Waste Disposal

Drill cuttings were removed from the site on December 6, 2000, by IWM. The drill cuttings were transported to the Republic landfill in Livermore California for disposal. Waste water generated during drilling and well development was transported by IWM to Mckittrick.

CONCLUSIONS

The purpose of this investigation was to evaluate if soil and groundwater downgradient of the subject site have been impacted by petroleum hydrocarbons. Hydrocarbon impact to soil in the vicinity of the well MW-2, adjacent to the western property boundary is negligible. Hydrocarbon impact was not identified across College Avenue in the vicinity of well MW-1. Additional assessment of soil conditions is not warranted.

Dissolved gasoline hydrocarbons were detected in both wells. A very low concentration of MtBE (2.2 ppb) was detected in well MW-2, adjacent to the former UST complex. This station closed in the late 1960s, prior to introduction of MtBE into gasoline in California. It is unlikely that the MtBE came from the former Chevron facility.

The dissolved hydrocarbon plume remains undefined. Additional monitoring and sampling is required to further assess both groundwater flow direction and plume configuration. GR recommends that the quarterly monitoring and sampling be implemented at this site, and that joint monitoring be implemented with the adjacent Sheaff's Garage. Groundwater samples from the Chevron wells should continue to be analyzed for TPHg, BTEX and MtBE (hits confirmed by EPA Method 8260). In addition, samples should also be analyzed for sulfate (SO4-), ferrous iron (Fe2+) alkalinity, dissolved oxygen (DO) and oxidation-reduction potential (ORP) to evaluate if natural biodegredation is occurring.

TABLES

Table 1. Soil Chemical Analytical Data –Former Chevron Service Station #20-9339, 5940 College Ave. Oakland CA

Sample ID	Depth (Feet)	Date (Sampled)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MtBE (ppm)	Total Lead (ppm)
Well Boring MW –1									
MW-1-4.5	4.5	12-06-00	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05	NA
MW-1-9.5	9.5	12-06-00	< 1.0	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05	NA
Well Boring MW-2									
MW-2-4.5	4.5	12-06-00	<1.0	< 0.0050	0.0062	0.0054	0.021	<0.050	NA
Drill Cuttings									
Comp-1-(A+B)	NA	12-06-00	72	< 0.25	< 0.25	0.31	0.77	NA	6.4
Comp-2-(A+B)	NA	12-06-00	9.1	0.0061	0.022	0.044	0.10	NA	5.0

EXPLANATION:
TPHg = Total Petroleum Hydrocarbons as Gas
MtBE = Methyl tert-Butyl Ether
BTEX = Benzene, toluene, ethylbenzene, xylenes
ppm = parts per million
NA = Not Analyzed

ANALYTICAL METHODS:
TPHg, BTEX MtBE by DHS LUFT
Total Lead = EPA Method 6010

ANALYTICAL LABORATORY:
Sequoia Analytical (ELAP #1271)

Table 2. Groundwater Chemical Analytical Data - Former Chevron Service Station #20-9339, 5940 College Ave. Oakland CA

Well ID	Date	Total Well Depth (ft.)	Well[1] Elev. (ft. MSL)	Depth to Water (ft.)	Floating Product (ft.)	Ground Water Elevation (ft. MSL)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)
MW-1	01/03/01	20.10	196.91	12.75	0.0	184.16	930[2]	2.9	6.9	2.7	7.6	14
MW-2	01/03/01	20.06	197.35	12.48	0.0	184.87	2100[3]	110	11	63	25	83
Trip Blank	01/03/01	NA	NA	NA	NA	NA	<50	<0.50	<0.50	<0.50	<0.50	<2.5

Explanation

TPHg = Total Petroleum Hydrocarbons as gasoline
MTBE = Methyl tertiary butyl ether
ppb = Parts per billion
NA = Not applicable
ft. = feet
ft. MSL = feet relative to Mean Sea Level.

Analytical Methods

TPHg , BTEX , MtBE by 8020

Analytical Laboratory

Sequoia Analytical (ELAP #1271)

[1] Well elevations reported as top of casing (TOC) surveyed by Virgil Chavez, Licensed California Land Surveyor No. 6323.

[2] Chromatogram pattern indicates unidentified hydrocarbons C6-C12

[3] Chromatogram pattern indicates gasoline C6-C12

Table 3. Groundwater Monitoring Data and Chemical Analytical Data - Former Chevron Service Station #20-9339, 5940 College Ave. Oakland CA

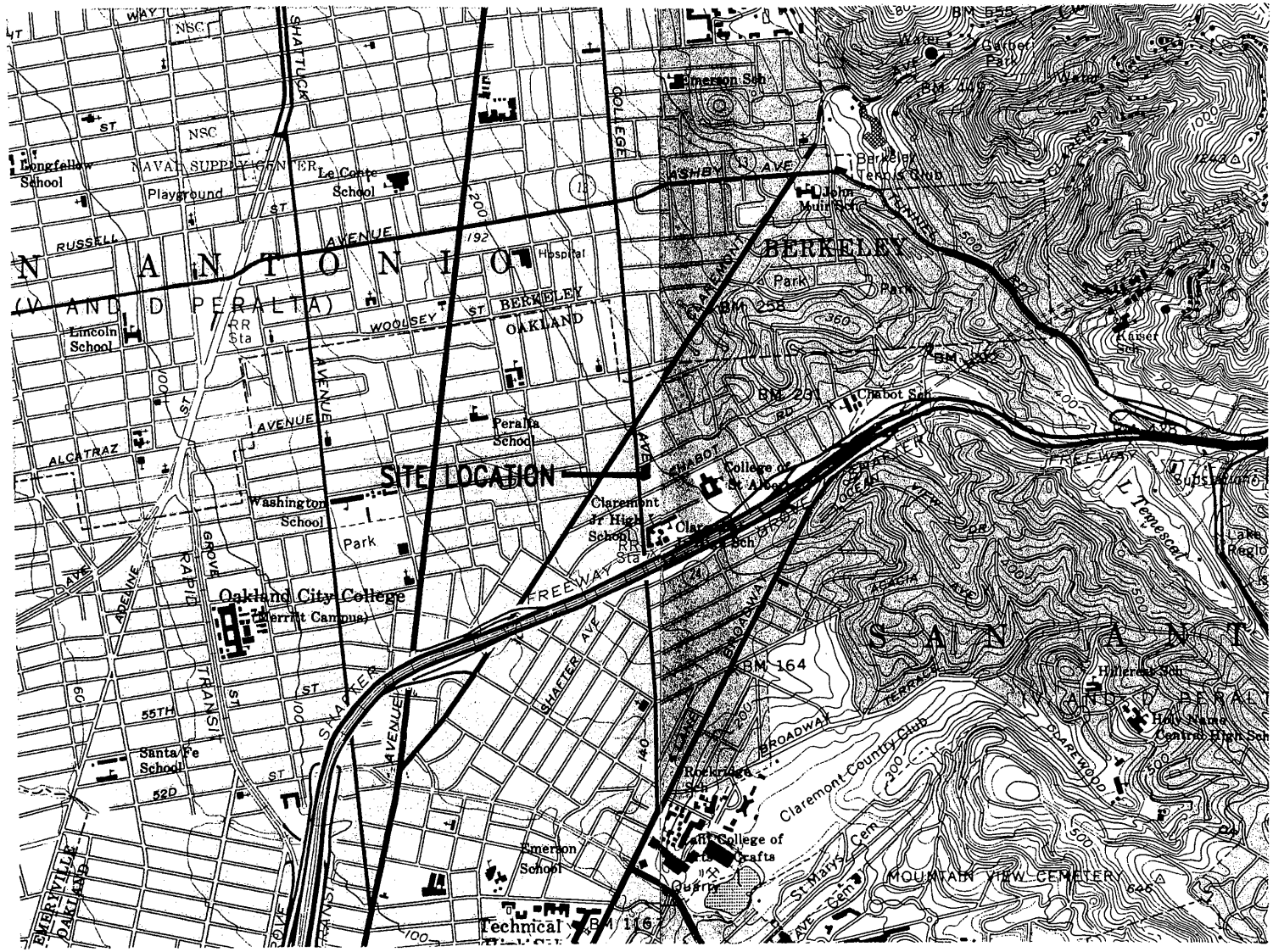
Sample No.	Sample Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2 DCA (ppb)
MW-1	01/03/01	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0
MW-2	01/03/01	<500	<50	2.2	<2.0	<2.0	<2.0	<2.0

Explanation
MTBE=Methyl tert-butlyl ether
TBA = Tert-butyl alchohol
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
TAME = Tert-amyl methyl ether
1,2-DCA = 1,2-Dichloroethane
ppb = Parts per billion

Analytical Methods
Fuel oxygenates by EPA Method 8260

Analytical Laboratory
Sequoia Analytical (ELAP #1271)

FIGURES



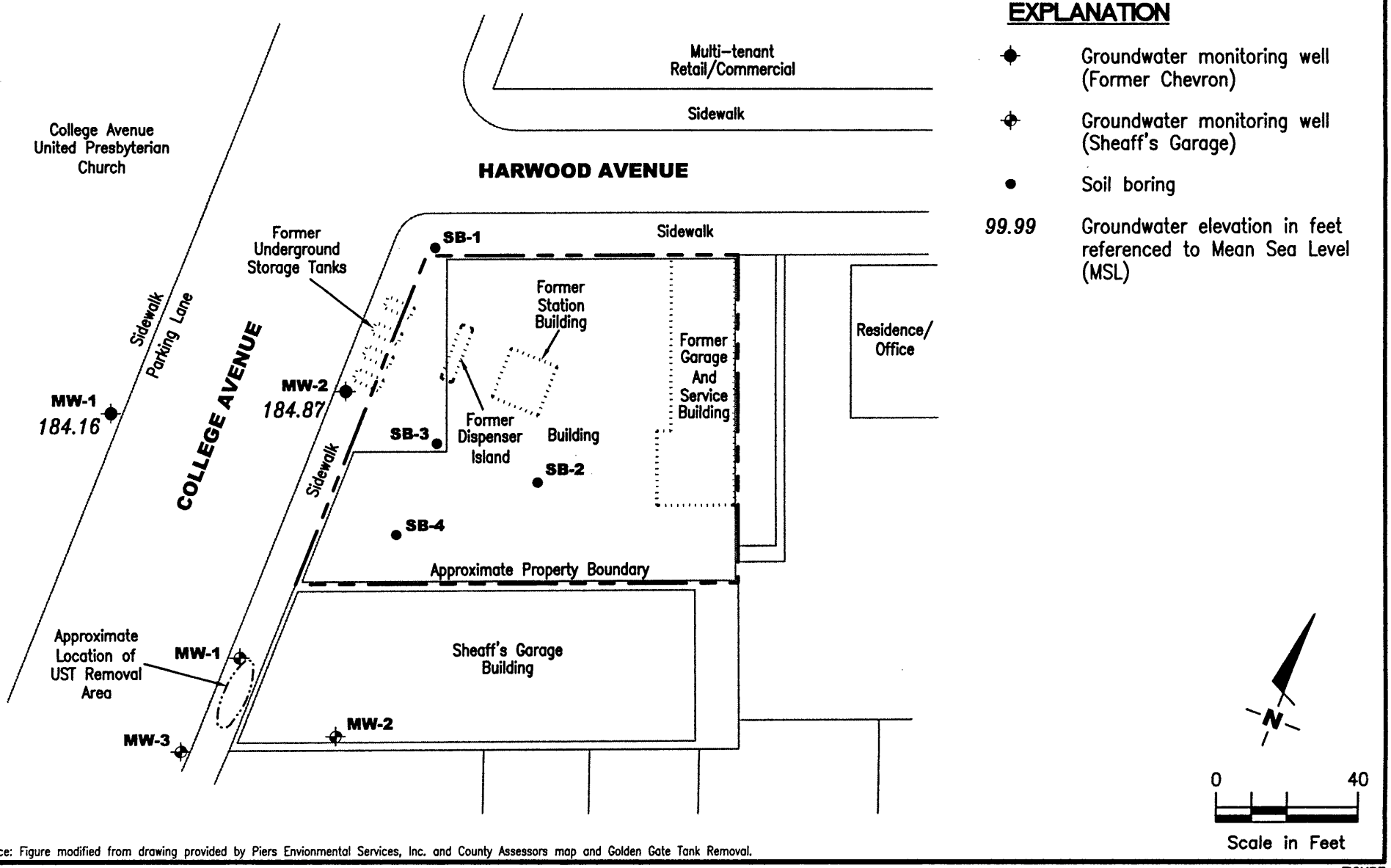
Base Map: USGS Topographic Map

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

VICINITY MAP
Former Chevron Service Station No. 3-0021
5940 College Avenue
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
346521.01		02/00	



Source: Figure modified from drawing provided by Piers Envionmental Services, Inc. and County Assessors map and Golden Gate Tank Removal.

GETTLER - RYAN INC.
6747 Sierra Ct., Suite J
Dublin, CA 94568 (925) 551-7555

GROUNDWATER ELEVATION MAP
Former Chevron Service Station No. 20-9339
5940 College Avenue
Oakland, California

FIGURE
2

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
346521		January 3, 2001	

FILE NAME: P:\ENVIRO\CHEVRON\20-9339\A01-20-9339.DWG | Layout Tab: GW Elev1

APPENDIX A

FIELD METHODS AND POCEDURES

GETTLER-RYAN INC.

FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Soil Samples

Soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the soil boring with a split-barrel sampling device fitted with 2-inch-diameter, clean brass tube or stainless steel liners. The sampling device is driven approximately 18 inches with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler each successive 6 inches is recorded on the boring log. The encountered soils are described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based in part on:

a. depth relative to underground storage tanks and existing ground surface
b. depth relative to known or suspected groundwater
c. depth relative to areas of known hydrocarbon impact at the site
d. presence or absence of contaminant migration pathways
e. presence or absence of discoloration or staining
f. presence or absence of obvious gasoline hydrocarbon odors
g. presence or absence of organic vapors detected by headspace analysis

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing some soil from one of the sample tubes not retained for chemical analysis and immediately covering the end of the tube with a plastic cap. The PID probe is inserted into the headspace inside the tube through a hole in the plastic cap. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Construction of Monitoring Wells

Monitoring wells are constructed in the exploratory soil borings with Schedule 40 polyvinyl chloride (PVC) casing. All joints are thread-joined; no glues, cements, or solvents are used in well construction. The screened interval is constructed of machine-slotted PVC well screen which generally extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular space adjacent to the entire screened interval. A bentonite transition seal is placed in the annular space above the sand, and the remaining annular space is sealed with neat cement or cement grout.

Wellheads are protected with water-resistant traffic-rated vault boxes placed flush with the ground surface. The top of the well casing is sealed with a locking waterproof cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

Measurement of Water Levels

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (MSL). Depth-to-groundwater in the well is measured from the top of the well casing with an electronic water-level indicator. Depth-to-groundwater is measured to the nearest 0.01-foot, and referenced to MSL.

Well Development and Sampling

The purpose of well development is to improve hydraulic communication between the well and the surrounding aquifer. Prior to development, each well is monitored for the presence of floating product and the depth-to-water is recorded. Wells are then developed by alternately surging the well with a vented surge block, then purging the well with a pump or bailer to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on and covered with plastic sheeting and samples are collected and analyzed for disposal classification on the basis of one composite sample per 100 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and them driving the stainless steel or brass sample tube into the stockpiled material with a hand, mallet, or drive sampler. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

APPENDIX B

MONITORING WELL PERMIT, BORING LOGS AND WELL COMPLETION REPORT

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510)782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 5940 College Ave
Oakland CA

CLIENT
Name Chevron Products Co.
Address PO Box 6004 Phone (925) 842-8898
City San Ramon CA Zip 94583

APPLICANT
Name Andrew Smith, Gettler Ryan Inc. Fax (925) 551-7888
Address 6747 Sierra Ct Phone (925) 551-7444 EXT 127
City Suite J Dublin CA Zip

TYPE OF PROJECT
✓ Well Construction 2 well Geotechnical Investigation
Cathodic Protection ☐ General ☐
Water Supply ☐ Contamination ☐
Monitoring ☐ Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
New Domestic ☐ Replacement Domestic ☐
Municipal ☐ Irrigation ☐
Industrial ☐ Other ______ ☐

DRILLING METHOD:
Mud Rotary ☐ Air Rotary ☐ Auger ✓
Cable ☐ Other ☐

DRILLER'S NAME Cascade Drilling

DRILLER'S LICENSE NO. C57 717510
exp. 1-31-02

WELL PROJECTS MW-1
Drill Hole Diameter 8" in. Maximum
Casing Diameter 2" in. Depth 20 ft.
Surface Seal Depth 5 ft. Owner's Well Number ______

GEOTECHNICAL PROJECTS
Number of Borings ______ Maximum
Hole Diameter ______ in. Depth ______ ft.

ESTIMATED STARTING DATE 12/6/00
ESTIMATED COMPLETION DATE 12/6/00

FOR OFFICE USE

PERMIT NUMBER W00-868
WELL NUMBER
APN

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A.) GENERAL
(1.) A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2.) Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Well Completion Report.
(3.) Permit is void if project not begun within 90 days of approval date

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC. Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. Send a map of work site. A separate permit is required for wells deeper than 45 feet.

(G.) SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

→ Surface Seal depth min. 3 ft. Talked to [illegible]
well cap shall be a locking type. 11/[illegible]

APPROVED [signature] DATE 11-28-00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 11/28/00

PLEASE PRINT NAME Andrew Smith Rev.5-13-00

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PERMIT NUMBER		SITE ADDRESS/LOCATION
X000 22 1 4		5940 COLLEGE AV
APPROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS		CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: 360021

2) **48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.**

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

v Barbara Gilmore — 11-01-00

Signature of Permittee ☐ Agent for ☒ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED?	HOLIDAY RESTRICTION? (NOV 1 - JAN 1)	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM)
1986	☐ YES ☒ NO	☒ YES ☐ NO	☒ YES ☐ NO
ISSUED BY		DATE ISSUED	
		11-01-00	

forms/ops/excavate.pg2 (04/98)

Lic # 220793

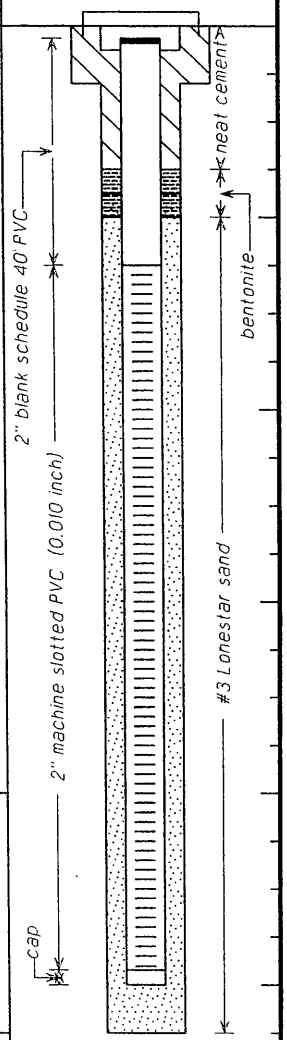
Gettler-Ryan, Inc.

Log of Boring MW-1

PROJECT: *Former Chevron Service Station No. 20-9339*	LOCATION: *5940 College Avenue, Oakland, California*
GR PROJECT NO. : *346521.02*	CASING ELEVATION: *196.51*
DATE STARTED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DATE FINISHED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *21 feet*
DRILLING COMPANY: *Cascade Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							Concrete.
						CL	CLAY (CL) - reddish brown (5YR 4/4), dry, very stiff; 85% clay, 10% silt, 5% angular fine gravel.
4	6.1	17	MW-1-4.5				At 5 feet color changes to very dark gray (7.5YR 3/1), becomes moist; 90% clay, 10% silt.
8	5.5	34	MW-1-9.5				At 10 feet becomes hard; includes some brick fragments.
12							
	10.6	32	MW-1-14.5				
16						SM	SILTY SAND (SM) - brown (10YR 5/3), moist, dense; 75% fine sand, 25% silt.
	24.0	>100	MW-1-19.5				At 20 feet color changes to light yellowish brown (10YR 6/4), becomes wet, very dense.
20							Bottom of boring at 21 feet bgs.
24							(* = converted to equivalent standard penetration blows/foot.)
28							

WELL DIAGRAM



JOB NUMBER: *346521.02*

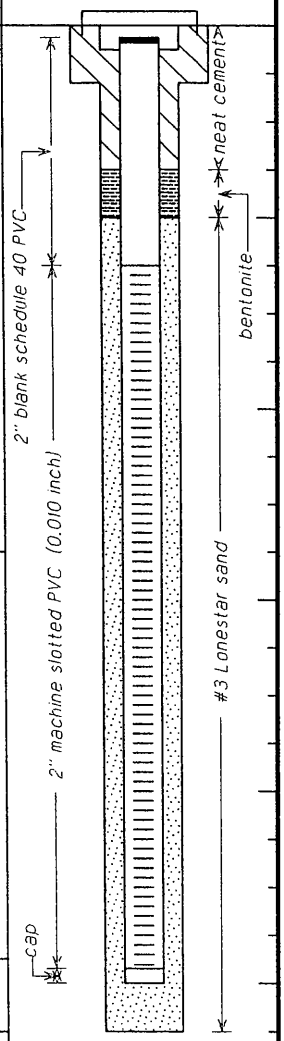
Gettler-Ryan, Inc.

Log of Boring MW-2

PROJECT: *Former Chevron Service Station No. 20-9339*	LOCATION: *5940 College Avenue, Oakland, California*
GR PROJECT NO. : *346521.02*	CASING ELEVATION: *197.35*
DATE STARTED: *12/06/00*	WL (ft. bgs): *10* DATE: *12/06/00* TIME: *14:25*
DATE FINISHED: *12/06/00*	WL (ft. bgs): DATE: TIME:
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *21 feet*
DRILLING COMPANY: *Cascade Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							Concrete.
						SM	SILTY SAND WITH GRAVEL (SM) – brown (7.5YR 4/3), dry, soft; 65% fine sand, 20% angular gravel, 15% silt.
4	1.4	42	MW-2-4.5				At 5 feet includes brick fragments.
8	3.6	37	MW-2-9.5				At 8 feet becomes wet, dense. ▽
						CL	CLAY (CL) – dark olive green (5Y 3/2), moist, hard; 90% clay, 10% silt.
12	4.2	42	MW-2-14.5				At 5 feet color changes to dark grayish brown (2.5Y 4/2).
16							
20	8.9	42	MW-2-19.5			SM	SILTY SAND (SM) – yellowish brown (10YR 5/6), moist, dense; 85% fine sand, 15% silt.
							Bottom of boring at 21 feet bgs.
24							(* = converted to equivalent standard penetration blows/foot.)
28							

WELL DIAGRAM



JOB NUMBER: *346521.02*

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

APPENDIX C

WELL DEVELOPMENT FORMS

GETTLER-RYAN INC.

DAILY SAMPLING REPORT

Site Location: Former CHEVRON #209339
5940 COLLEGE AVE.
OAKLAND, CA

Job # 346521.02

Date: 1/3/01

DESCRIPTION OF WORK PERFORMED:

Monitor	2
Purge	2
Sample	2
Develop	2

Total # of Wells @ site: 2

Water levels only:

Monitored/Sampled: 2/2

Bailed Product: Ø

CHECK LIST:

Transfer Purge Water To:

Drums on site:

Holding tank: ✓

Total Purge Water (gals): 25

Sampling Truck: MP4

Purge water trailer:

Traffic Control:

Arrow board/road signs/cones

PURGING EQUIPMENT:

Disposal bailer	
Teflon bailer	
3/8" stack pumps	✓
1" double diaphram	
Grundfo's	

SAMPLING EQUIPMENT:

Teflon bailer	
Disposable bailer	2
Grab sample	
Pressure bailer	

OTHER EQUIPMENT:

Gloves	4
Bailer cord	≈40'
Well plug size	" #

SPECIAL EQUIPMENT:

Turbidity Meter	
D O Meter	
Re-Dox Meter	
Alkalinity test	

COMMENTS: 2 NEW CHEVRON LOCKS INSTALLED.

Sampled by: HAIG KEVORK

Assistant: N/A

Time Billed: 3.75 Hrs

daily.frm

MONITORING WELL
OBSERVATION SUMMARY SHEET

CLIENT FACILITY #: FORMER CHEVRON #209339 G-R JOB #: 346521.02

LOCATION: 5940 COLLEGE AVE. DATE: 1/3/01

CITY: OAKLAND, CA TIME:

Well ID	Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments VOLUME PURGED
MW-1	20.10	12.75	∅	TOC	12 gal.
MW-2	20.06	12.48	∅	TOC	13

Comments:

Sampler: HAIG KEVORK Assistant: N/A

sumsheet11/98

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/ FOAMER
Facility CHEVRON #209339 Job#: 346521.02
Address: 5940 COLLEGE AVE. Date: 1/3/01
City: OAKLAND, CA Sampler: HAIG K.

Well ID MW-1 Well Condition: GOOD
Well Diameter 2 in. Hydrocarbon Thickness: Ø Ft. Amount Bailed (product/water): Ø (gal.)
Total Depth 20.10 ft.
Depth to Water 12.75 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

7.35 x VF 0.17 = 1.2 x ~~3~~ 10 (case volume) = Estimated Purge Volume: 12 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; Suction; Grundfos; Other:

Sampling Equipment: Disposable Bailer; Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 12:58 Weather Conditions: SUNNY
Sampling Time: 13:40 Water Color: CLEAR Odor:
Purging Flow Rate: ≈3/4 gpm. Sediment Description: SOME SILT
Did well de-water? NO If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:01	1.5	7.52	1369	70.6			
13:05	5	7.43	1328	70.2			
13:09	8	7.38	1275	69.5			
13:12	10	7.31	1263	69.3			
13:16	12	7.35	1281	68.8			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	5 VOA	YES	HCL	SEQUOIA	G/BTEX/MTBE 8020
					6OXYS / 1,2 DCA
					BY 8260

COMMENTS:

WELL MONITORING/DEVELOPMENT
FIELD DATA SHEET

Client/ FORMER
Facility CHEVRON #209339 Job#: 346521.02
Address: 5940 COLLEGE AVE. Date: 1/3/01
City: OAKLAND, CA Sampler: HAIG K.

Well ID MW-2 Well Condition: GOOD
Well Diameter 2 in. Hydrocarbon Thickness: Ø Ft. Amount Bailed (product/water): Ø (gal.)
Total Depth 20.06 ft.
Depth to Water 12.48 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

7.58 x VF 0.17 = 1.29 x 10 (case volume) = Estimated Purge Volume: 13 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other:

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other:

Starting Time: 13:56 Weather Conditions: SUNNY
Sampling Time: 14:30 Water Color: CLEAR Odor:
Purging Flow Rate: ≈3/4 gpm. Sediment Description: SOME SILT
Did well de-water? NO If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C (F)	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:58	1.5	7.38	1714	72.8			
14:04	5	7.29	1651	72.0			
14:08	8	7.27	1623	71.8			
14:11	10	7.26	1610	71.3			
14:15	13	7.23	1568	71.5			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	5 VOA's	YES	HCL	SEQUOIA	G/BTEX/MTBE 8020
					6 OXY's + 1,2DCA BY 8260

COMMENTS:

Fax copy of Lab Report and COC to Chevron ... Chain of Custody Record

Chevron Products Co.
P.O. BOX 6004
San Ramon, CA 94583
FAX (925)842-8370

Chevron Facility Number 209339 - OAKLAND, CA
Facility Address 5940 COLLEGE AVE.
Consultant Project Number 346521.02
Consultant Name GETTLER-RYAN INC.
Address 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568
Project Contact (Name) Barbara Siemenski
(Phone) 925-551-7555 (Fax Number) 925-551-7899

Chevron Contact (Name) MR. TOM BAUHS
(Phone) (925) 842-8898
Laboratory Name SEQUOIA
Laboratory Service Order
Laboratory Service Code
Samples Collected by (Name) HAIG KEVORK
Signature

State Method: ☒ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT IDAHO

Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time	BTEX/MTBE+TPH GAS (8020 + 8015)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oxygenates (8260) + 1,2-DCA, EDB	Purgeable Halocarbons (8010)	Purgeable Organics (8260)	Extractable Organics (8270)	Oil and Grease (5520)	Metals (CAM, Pb, Zn, Ni	BTEX (8020)	BTEX/MTBE/Naph. (8020)	TPH - HCID	TPH-D Extended						Remarks / Lab Sample No.
TB-LB	1	W	HCl	1/3/01	X																		
MW-1	5	W	HCl	1/3/01 13:40	X			X															
MW-2	5	W	HCl	1/3/01 14:30	X			X															

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N
	G-R INC.	1/3/01 18:2				
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Mike Gallin		Date/Time 1/3/01	Iced Y/N 1830

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

APPENDIX D

SURVEYOR'S REPORT

Virgil Chavez Land Surveying
312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

December 28, 2000
Project No. 1904-12

Andrew Smith
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568-2611

Subject: Monitoring Well Survey
Former Chevron Station No. 3-0021
5940 College Avenue
Oakland, CA

Dear Andrew:

This is to confirm that we have proceeded at your request to survey the new wells located at the above referenced location. The survey was completed on December 27, 2000. 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. The station and offset data are relative to the west face of building, beginning at the southwest building corner. Measurements taken at approximate north side of top of box and top of casings were marked at location of measurements. Benchmark Elev. = 179.075 feet, MSL.

Well No.	Rim Elevation	TOC Elevation	Station	Offset
MW - 1	197.43'	196.91'	0+26.47	-66.83 (LT)
MW - 2	197.58'	197.35'	0+56.75	-7.96 (LT)
SW Bldg. Cor.			0+00	0.00
Westerly Bldg. Face			---	0.00

Sincerely,

LICENSED LAND SURVEYOR
VIRGIL D. CHAVEZ
No. 6323
Exp. 12-31-02
STATE OF CALIFORNIA

Virgil D. Chavez, PLS 6323

APPENDIX E

CHEMICAL ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORMS

Sequoia
Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

15 December, 2000

Barbara Sieminski
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Chevron
Sequoia Report: W012202

Enclosed are the results of analyses for samples received by the laboratory on 07-Dec-00 17:18. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp 1(A)+(B)	W012202-01	Soil	06-Dec-00 15:10	07-Dec-00 17:18
Comp 2(A)+(B)	W012202-02	Soil	06-Dec-00 17:05	07-Dec-00 17:18

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Charlie Westwater, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
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FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp 1(A)+(B) (W012202-01) Soil	**Sampled: 06-Dec-00 15:10 Received: 07-Dec-00 17:18**								**P-04**
Purgeable Hydrocarbons	**72**	50	mg/kg	1000	0L11003	11-Dec-00	11-Dec-00	DHS LUFT	S-01
Benzene	ND	0.25	"	"	"	"	"	"	
Toluene	ND	0.25	"	"	"	"	"	"	
Ethylbenzene	**0.31**	0.25	"	"	"	"	"	"	
Xylenes (total)	**0.77**	0.25	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*%*	*40-140*		"	"	"	"	*S-01*
Comp 2(A)+(B) (W012202-02) Soil	**Sampled: 06-Dec-00 17:05 Received: 07-Dec-00 17:18**								**P-04**
Purgeable Hydrocarbons	**9.1**	1.0	mg/kg	20	0L11003	11-Dec-00	11-Dec-00	DHS LUFT	
Benzene	**0.0061**	0.0050	"	"	"	"	"	"	
Toluene	**0.022**	0.0050	"	"	"	"	"	"	
Ethylbenzene	**0.044**	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.10**	0.0050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*75.7 %*	*40-140*		"	"	"	"	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp 1(A)+(B) (W012202-01) Soil	**Sampled: 06-Dec-00 15:10**		**Received: 07-Dec-00 17:18**						
Lead	**6.4**	1.0	mg/kg	1	0L08022	08-Dec-00	11-Dec-00	EPA 6010A	
Comp 2(A)+(B) (W012202-02) Soil	**Sampled: 06-Dec-00 17:05**		**Received: 07-Dec-00 17:18**						
Lead	**5.0**	1.0	mg/kg	1	0L08022	08-Dec-00	11-Dec-00	EPA 6010A	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0L11003 - EPA 5030B [MeOH]										
Blank (0L11003-BLK1)				Prepared & Analyzed: 11-Dec-00						
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.660*		"	*0.600*		*110*	*40-140*			
LCS (0L11003-BS1)				Prepared & Analyzed: 11-Dec-00						
Benzene	0.626	0.0050	mg/kg	0.800		78.2	50-150			
Toluene	0.656	0.0050	"	0.800		82.0	50-150			
Ethylbenzene	0.738	0.0050	"	0.800		92.2	50-150			
Xylenes (total)	2.22	0.0050	"	2.40		92.5	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.656*		"	*0.600*		*109*	*40-140*			
Matrix Spike (0L11003-MS1)		**Source: W012121-01**		Prepared & Analyzed: 11-Dec-00						
Benzene	0.604	0.0050	mg/kg	0.800	ND	75.5	50-150			
Toluene	0.638	0.0050	"	0.800	ND	79.8	50-150			
Ethylbenzene	0.712	0.0050	"	0.800	ND	89.0	50-150			
Xylenes (total)	2.16	0.0050	"	2.40	ND	90.0	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.510*		"	*0.600*		*85.0*	*40-140*			
Matrix Spike Dup (0L11003-MSD1)		**Source: W012121-01**		Prepared & Analyzed: 11-Dec-00						
Benzene	0.592	0.0050	mg/kg	0.800	ND	74.0	50-150	2.01	20	
Toluene	0.634	0.0050	"	0.800	ND	79.2	50-150	0.629	20	
Ethylbenzene	0.716	0.0050	"	0.800	ND	89.5	50-150	0.560	20	
Xylenes (total)	2.17	0.0050	"	2.40	ND	90.4	50-150	0.462	20	
Surrogate: a,a,a-Trifluorotoluene	*0.492*		"	*0.600*		*82.0*	*40-140*			

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0L08022 - EPA 3050B										
Blank (0L08022-BLK1)				Prepared: 08-Dec-00 Analyzed: 11-Dec-00						
Lead	ND	1.0	mg/kg							
LCS (0L08022-BS1)				Prepared: 08-Dec-00 Analyzed: 11-Dec-00						
Lead	53.9	1.0	mg/kg	50.0		108	80-120			
LCS Dup (0L08022-BSD1)				Prepared: 08-Dec-00 Analyzed: 11-Dec-00						
Lead	54.2	1.0	mg/kg	50.0		108	80-120	0.555	20	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 30021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	15-Dec-00 07:30

Notes and Definitions

P-04	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Reco

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: #30021
Facility Address: 5940 College Ave Oakland
Consultant Project Number: 346521.02
Consultant Name: Getler Ryan Inc.
Address: 6747 Sierra Ct.
Project Contact (Name): Barbara Sieminski
(Phone) (925) 551-7444 ext 188 (Fax Number) (925) 551-7888

Chevron Contact (Name): Thomas Bachs
(Phone)
Laboratory Name: Sequoia
Laboratory Release Number:
Samples Collected by (Name): Andrew Smith
Collection Date: 12/6/00
Signature: Andrew Smith

Sample Number	Lab Sample Number	Number of Containers	Matrix (S = Soil, A = Air, W = Water, C = Charcoal)	Type (G = Grab, C = Composite, D = Discrete)	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Total Lead					Remarks
comp-1 (A) & (13)		2	S	C	1510			✓								✓					
comp-2 (A) & (13)		2	S	C	1705			✓								✓					

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Andrew Smith	GRI	12/7/00, 1000	Mark Collins	Sequoia	12/7/1530
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
24 Hrs.
(48 Hrs.)
5 Days
AS
As Contracted

COC-3.DWG/03 91/HCH

Sequoia
Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

27 December, 2000

Barbara Sieminski
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Chevron
Sequoia Report: W012203

Enclosed are the results of analyses for samples received by the laboratory on 07-Dec-00 17:18. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 3-0021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	27-Dec-00 08:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-4.5	W012203-01	Soil	06-Dec-00 16:20	07-Dec-00 17:18
MW-1-9.5	W012203-02	Soil	06-Dec-00 16:25	07-Dec-00 17:18
MW-2-4.5	W012203-03	Soil	06-Dec-00 14:20	07-Dec-00 17:18

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Charlie Westwater, Project Manager

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
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www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 3-0021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	27-Dec-00 08:01

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-4.5 (W012203-01) Soil Sampled: 06-Dec-00 16:20 Received: 07-Dec-00 17:18									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0L11003	11-Dec-00	15-Dec-00	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.7 %*		*40-140*	"	"	"	"	
MW-1-9.5 (W012203-02) Soil Sampled: 06-Dec-00 16:25 Received: 07-Dec-00 17:18									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0L11003	11-Dec-00	15-Dec-00	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*90.7 %*		*40-140*	"	"	"	"	
MW-2-4.5 (W012203-03) Soil Sampled: 06-Dec-00 14:20 Received: 07-Dec-00 17:18									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	0L11003	11-Dec-00	15-Dec-00	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	**0.0062**	0.0050	"	"	"	"	"	"	A-01
Ethylbenzene	**0.0054**	0.0050	"	"	"	"	"	"	A-01
Xylenes (total)	**0.021**	0.0050	"	"	"	"	"	"	A-01
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.0 %*		*40-140*	"	"	"	"	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 3-0021	**Reported:**
Dublin CA, 94568	Project Manager: Barbara Sieminski	27-Dec-00 08:01

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0L11003 - EPA 5030B [MeOH]										
Blank (0L11003-BLK1)				Prepared & Analyzed: 11-Dec-00						
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.660*		"	*0.600*		*110*	*40-140*			
LCS (0L11003-BS1)				Prepared & Analyzed: 11-Dec-00						
Benzene	0.626	0.0050	mg/kg	0.800		78.2	50-150			
Toluene	0.656	0.0050	"	0.800		82.0	50-150			
Ethylbenzene	0.738	0.0050	"	0.800		92.2	50-150			
Xylenes (total)	2.22	0.0050	"	2.40		92.5	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.656*		"	*0.600*		*109*	*40-140*			
Matrix Spike (0L11003-MS1)		**Source: W012121-01**		Prepared & Analyzed: 11-Dec-00						
Benzene	0.604	0.0050	mg/kg	0.800	ND	75.5	50-150			
Toluene	0.638	0.0050	"	0.800	ND	79.8	50-150			
Ethylbenzene	0.712	0.0050	"	0.800	ND	89.0	50-150			
Xylenes (total)	2.16	0.0050	"	2.40	ND	90.0	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.510*		"	*0.600*		*85.0*	*40-140*			
Matrix Spike Dup (0L11003-MSD1)		**Source: W012121-01**		Prepared & Analyzed: 11-Dec-00						
Benzene	0.592	0.0050	mg/kg	0.800	ND	74.0	50-150	2.01	20	
Toluene	0.634	0.0050	"	0.800	ND	79.2	50-150	0.629	20	
Ethylbenzene	0.716	0.0050	"	0.800	ND	89.5	50-150	0.560	20	
Xylenes (total)	2.17	0.0050	"	2.40	ND	90.4	50-150	0.462	20	
Surrogate: a,a,a-Trifluorotoluene	*0.492*		"	*0.600*		*82.0*	*40-140*			

Sequoia Analytical

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www.sequoialabs.com

Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Chevron Project Number: Chevron # 3-0021 Project Manager: Barbara Sieminski	**Reported:** 27-Dec-00 08:01

Notes and Definitions

A-01	Results as reported were not confirmed by an alternate column or method.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: #3 0021
Facility Address: 5940 College Ave oakland
Consultant Project Number: 346521.02
Consultant Name: Getler Ryan Inc.
Address: 6747 Sierra Ct.
Project Contact (Name): Barbara Sieminski
(Phone) (925) 551-7444 (Fax Number) (925) 551-7888 ext 188

Chevron Contact (Name): Thomas Rachs
(Phone):
Laboratory Name: Sequoia
Laboratory Release Number:
Samples Collected by (Name): Andrew Smith
Collection Date: 12/6/00
Signature: Andrew Smith

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MTBE, TBA DHS LUFT method					Remarks
MW-1-4.5		1	S	D	1620	none	Y	✓								✓					
MW-1-9.5		1	S	D	1625	none	Y	✓								✓					
MW-1-14.5	Hold	1	S	D	1630	none	Y														Hold
MW-1-19.5	Hold	1	S	D	1640	none	Y									✓					
MW-2-4.5		1	S	D	1420	none	Y	✓													
MW-2-9.5	Hold	1	S	D	1425	none	Y														do not test, Hold
MW-2-14.5	Hold	1	S	D	1430	none	Y														
MW-2-19.5	Hold	1	S	D	1436	none	Y														

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Andrew Smith	GRI	12/7/00 1000	Mark Valles	Sequoia	12/7/1530
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time

Turn Around Time (Circle Choice)
[redacted] AS
48 Hrs.
5 Days
10 Days TAT
As Contracted

COC-3.DWG/03 91/MCH

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W101077-01	Water	03-Jan-01 00:00	03-Jan-01 18:30
MW-1	W101077-02	Water	03-Jan-01 13:40	03-Jan-01 18:30
MW-2	W101077-03	Water	03-Jan-01 14:30	03-Jan-01 18:30

Charlie Westwater, Project Manager

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (W101077-02) Water Sampled: 03-Jan-01 13:40 Received: 03-Jan-01 18:30									
Ethanol	ND	500	ug/l	1	1A05009	05-Jan-01	08-Jan-01	EPA 8260B	
tert-Butyl alcohol	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*100 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*104 %*		*50-150*	"	"	"	"	
MW-2 (W101077-03) Water Sampled: 03-Jan-01 14:30 Received: 03-Jan-01 18:30									
Ethanol	ND	500	ug/l	1	1A05009	05-Jan-01	06-Jan-01	EPA 8260B	
tert-Butyl alcohol	ND	50	"	"	"	"	"	"	
Methyl tert-butyl ether	**2.2**	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98.0 %*		*50-150*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*100 %*		*50-150*	"	"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W101077-01) Water Sampled: 03-Jan-01 00:00 Received: 03-Jan-01 18:30									
Purgeable Hydrocarbons	ND	50	ug/l	1	1A12002	12-Jan-01	12-Jan-01	EPA 8015M/8020	
Benzene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*135 %*	*70-130*		"	"	"	"	
MW-1 (W101077-02) Water Sampled: 03-Jan-01 13:40 Received: 03-Jan-01 18:30									**P-03**
Purgeable Hydrocarbons	**930**	50	ug/l	1	1A12002	12-Jan-01	12-Jan-01	EPA 8015M/8020	
Benzene	**2.9**	0.50	"	"	"	"	"	"	
Toluene	**6.9**	0.50	"	"	"	"	"	"	
Ethylbenzene	**2.7**	0.50	"	"	"	"	"	"	
Xylenes (total)	**7.6**	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	**14**	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*78.0 %*	*70-130*		"	"	"	"	
MW-2 (W101077-03) Water Sampled: 03-Jan-01 14:30 Received: 03-Jan-01 18:30									**P-01**
Purgeable Hydrocarbons	**2100**	1000	ug/l	20	1A12002	12-Jan-01	12-Jan-01	EPA 8015M/8020	
Benzene	**110**	10	"	"	"	"	"	"	
Toluene	**11**	10	"	"	"	"	"	"	
Ethylbenzene	**63**	10	"	"	"	"	"	"	
Xylenes (total)	**25**	10	"	"	"	"	"	"	
Methyl tert-butyl ether	**83**	50	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*	*70-130*		"	"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A12002 - EPA 5030B [P/T]										
Blank (1A12002-BLK1)				Prepared & Analyzed: 12-Jan-01						
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*38.2*		"	*30.0*		*127*	*70-130*			
LCS (1A12002-BS1)				Prepared & Analyzed: 12-Jan-01						
Benzene	18.0	0.50	ug/l	20.0		90.0	70-130			
Toluene	18.1	0.50	"	20.0		90.5	70-130			
Ethylbenzene	18.0	0.50	"	20.0		90.0	70-130			
Xylenes (total)	53.6	0.50	"	60.0		89.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	*28.9*		"	*30.0*		*96.3*	*70-130*			
Matrix Spike (1A12002-MS1)		**Source: W101032-04**		Prepared & Analyzed: 12-Jan-01						
Benzene	17.4	0.50	ug/l	20.0	ND	87.0	70-130			
Toluene	17.8	0.50	"	20.0	ND	89.0	70-130			
Ethylbenzene	17.6	0.50	"	20.0	ND	88.0	70-130			
Xylenes (total)	52.7	0.50	"	60.0	ND	87.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*28.3*		"	*30.0*		*94.3*	*70-130*			
Matrix Spike Dup (1A12002-MSD1)		**Source: W101032-04**		Prepared & Analyzed: 12-Jan-01						
Benzene	19.4	0.50	ug/l	20.0	ND	97.0	70-130	10.9	20	
Toluene	19.6	0.50	"	20.0	ND	98.0	70-130	9.63	20	
Ethylbenzene	19.3	0.50	"	20.0	ND	96.5	70-130	9.21	20	
Xylenes (total)	56.7	0.50	"	60.0	ND	94.5	70-130	7.31	20	
Surrogate: a,a,a-Trifluorotoluene	*31.9*		"	*30.0*		*106*	*70-130*			

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A05009 - EPA 5030B [P/T]										
Blank (1A05009-BLK1)				Prepared & Analyzed: 05-Jan-01						
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
Surrogate: Dibromofluoromethane	*48.0*		"	*50.0*		*96.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*46.0*		"	*50.0*		*92.0*	*50-150*			
Blank (1A05009-BLK2)				Prepared & Analyzed: 08-Jan-01						
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	50	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
Surrogate: Dibromofluoromethane	*49.0*		"	*50.0*		*98.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*52.0*		"	*50.0*		*104*	*50-150*			
LCS (1A05009-BS1)				Prepared & Analyzed: 05-Jan-01						
Methyl tert-butyl ether	54.3	2.0	ug/l	50.0		109	70-130			
Surrogate: Dibromofluoromethane	*49.0*		"	*50.0*		*98.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*48.0*		"	*50.0*		*96.0*	*50-150*			

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A05009 - EPA 5030B [P/T]										
LCS (1A05009-BS2)				Prepared & Analyzed: 08-Jan-01						
Methyl tert-butyl ether	44.9	2.0	ug/l	50.0		89.8	70-130			
Surrogate: Dibromofluoromethane	*49.0*		"	*50.0*		*98.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*53.0*		"	*50.0*		*106*	*50-150*			
Matrix Spike (1A05009-MS1)		**Source: W101053-03**		Prepared & Analyzed: 05-Jan-01						
Methyl tert-butyl ether	51.9	2.0	ug/l	50.0	ND	104	60-150			
Surrogate: Dibromofluoromethane	*48.0*		"	*50.0*		*96.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*50.0*		"	*50.0*		*100*	*50-150*			
Matrix Spike Dup (1A05009-MSD1)		**Source: W101053-03**		Prepared & Analyzed: 05-Jan-01						
Methyl tert-butyl ether	51.1	2.0	ug/l	50.0	ND	102	60-150	1.55	25	
Surrogate: Dibromofluoromethane	*45.0*		"	*50.0*		*90.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*49.0*		"	*50.0*		*98.0*	*50-150*			

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 209339	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	26-Jan-01 12:18

Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

Chevron Products Co.
P.O. BOX 6004
San Ramon, CA 94583
FAX (925)842-8370

Chevron Facility Number: 209339 - OAKLAND, CA
Facility Address: 5940 COLLEGE AVE.
Consultant Project Number: 346521.02
Consultant Name: GETTLER-RYAN INC.
Address: 6747 SIERRA COURT, SUITE J, DUBLIN, CA 94568
Project Contact (Name): Barbara Siemenski
(Phone) 925-551-7555 (Fax Number) 925-551-7899

Chevron Contact (Name): MR. TOM BAUHS
(Phone) (925) 842-8898
Laboratory Name: SEQUOIA W101077
Laboratory Service Order:
Laboratory Service Code:
Samples Collected by (Name): HAIG KEVORK
Signature:

State Method: ☒ CA ☐ OR ☐ WA ☐ NW Series ☐ CO ☐ UT IDAHO

Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Sample Preservation	Date/Time	BTEX/MTBE+TPH GAS + 8015	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oxygenates (8260) + 1,2-DCA (GC)	Purgeable Halocarbons (8010)	Purgeable Organics (8260)	Extractable Organics (8270)	Oil and Grease (5520)	Metals (NCAP or AA) Cd,Cr,Pb,Zn,Ni	BTEX (8020)	BTEX/MTBE/Naph. (8020)	TPH - HCID	TPH-D Extended					Remarks / Lab Sample No.
TB-LB	1	W	HCL	1/3/01	X						01											
MW-1	5	W	HCL	1/3/01 13:40	X			X			02	A-E	E									
MW-2	5	W	HCL	1/3/01 14:30	X			X			03	↓										

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N
[signature]	G-R INC.	1/3/01 18:2				
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Iced Y/N
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	Iced Y/N

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

20-9339.

REPORT OF
ADDITIONAL SITE CHARACTERIZATION
&
GROUNDWATER MONITORING

5930 College Avenue, Oakland, California

ACHCSA Site # RO0000377

Prepared For:

Dr. Brian Sheaff

William G. Sheaff Trust
1945 Parkside Avenue
Concord, California 94519

Prepared By:

Golden Gate Tank Removal, Inc.

255 Shipley Street
San Francisco, California 94107

GGTR Project No. 7335
Date of Report: August 29, 2006

ADDITIONAL SITE CHARACTERIZATION & GROUNDWATER MONITORING

5930 College Avenue, Oakland, California

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ADDITIONAL SITE CHARACTERIZATION
and
GROUNDWATER MONITORING

5930 College Avenue, Oakland, California

INTRODUCTION

Golden Gate Tank Removal, Inc. (GGTR) is pleased to submit this report summarizing the activities, findings and conclusions of the additional soil and groundwater investigation performed at the site called "Sheaff's Garage" located at 5930 College Avenue in Oakland, California. This report also presents the results of the January 13, 2006, and April 14, 2006, groundwater monitoring and sampling at the site. The report was prepared in response to a September 8, 2003 directive letter issued by the Alameda County Health Care Services Agency (ACHCSA; Site #RO0000377) that requested additional characterization associated with the former underground gasoline and waste oil storage tank (UST) systems. Figure 1 is a *Site Location Map* showing the vicinity of the subject property. Figure 2 is a *Site Plan* showing the approximate location of the former USTs, historical soil borings, and existing groundwater monitoring field points MW-1, MW-2, MW-3 and piezometer PW-1. The attached Table 3 contains the historical fluid level monitoring data and laboratory analytical results for the monitoring field points. Appendix A contains photographs of the subject property and building showing the location of field points and former UST systems.

The investigation activities were conducted in general accordance with our Work Plan for Additional Site Characterization and its Addendum, dated December 29, 2003 and September 30, 2004, respectively, which were approved by the ACHCSA in letters dated June 3, 2004 and February 22, 2005. The general scope of work proposed in the work plan included drilling additional subsurface soil and Hydropunch borings to further assess the extent of both soil contamination in the vicinity of the former USTs – dispenser, and groundwater contamination at and in the vicinity of the site. The investigation activities were performed in general accordance with the State Water Resources Control Board's Leaking Underground Fuel Tank (LUFT) manual and the TRI-Regional Board Staff Recommendation for Preliminary Evaluation and Investigation of Underground Tank Sites.

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. have 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 most recent joint/biannual monitoring and sampling of GR-MW1 & GR-MW2 on April 14, 2006. Figure 2, *Site Plan*, shows the location of the Gettler-Ryan wells relative to the subject property.

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 about two miles east of Interstate 80 and the San Francisco Bay. The property (former Sheaff's Garage) is currently occupied by Stauder Automotive Service for the maintenance and repair of automobiles. No active fuel storage / distribution system exist onsite. The site is approximately 5,500 square feet in area with about 75% utilized by an industrial garage building and 25% used as an exterior concrete-paved storage yard. The elevation of the site is approximately 195 feet above Mean Sea Level (Figure 1). The property is relatively flat lying with the local topographic relief directed toward the west-southwest in the general direction of the San Francisco Bay as shown on Figure 1, Site Location Map.

Adjacent to the site on the south is a multi-story building at 5916-20 College Avenue. This building contains parking space and a retail store (T-Mobile) on the ground floor with multi-family apartments on upper floors. To the east of the site is a large older single-family residential neighborhood. The surface channel of Harwood Branch creek is located within this residential neighborhood about one block from the site. An Alameda County Flood Control District cutoff storm drain (90" diameter) associated with Harwood Branch is located within College Avenue adjacent to the site. The adjacent property to the north was formerly occupied by Chevron Service Station #209339 and is currently occupied by a restaurant (Barclays Restaurant & Pub) and office space (5940 College Avenue). This commercial development is approximately 3 feet below the grade of the subject property. A sump pump pit is located near the location of Gettler-Ryan well GR-MW1. As previously reported, the property located at the northeast corner of Chabot Road and College Avenue was occupied by a gasoline fuel distribution facility from approximately 1939 to 1965. Reportedly, a gasoline fueling facility also formerly existed at the northwest corner of Chabot Road and College Avenue. Historical research shows that the subject building has occupied the site since approximately 1952.

Geology & Shallow Soils

Geologic information for the site is provided in the "Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, 2000, by R.W. Graymer, U.S. Geological Survey Misc. Field Studies MF-2342. See Figure 3, *Geologic Map*, for a portion of this geologic map showing the site and immediate vicinity. According to this document, the site is located less than one mile west of the Hayward fault zone. The area of the site is on a broad sloping alluvial plain along the margin of San Francisco Bay. Franciscan Complex bedrock of ancient Cretaceous-Jurassic age (shown as ***KJfs, Kfgm, Kfn*** and ***KJfm*** on the map) is exposed less than one-half mile east of the site. The bedrock consists of mélange (sheared rock), sandstone, greenstone, Serpentenite, and quartz diorite. The depth of the Franciscan Complex bedrock below the site has not been evaluated. However, the map suggests that bedrock may be less than 100 feet deep in this area. The bedrock is not believed to contain significant groundwater resources.

The map indicates the site is located near the eastern margin of Holocene-age alluvial fan and fluvial deposits shown as ***Qhaf*** on the map. The alluvial fan deposits are described on the map as brown or tan, medium dense to dense, gravely sand or sandy gravel that generally grades upward to sandy or silty clay. Near the distal fan edges, the fluvial deposits are typically brown, never reddish, medium dense sand that fines upward to sandy or silty clay. Underlying the most recent alluvial fan and basin deposits are older materials called Pleistocene alluvial fan and fluvial deposits (shown as ***Qpaf*** on the map). The older Pleistocene alluvial fan deposits are described on the map as brown dense gravely and clayey sand or clayey gravel that fines upward to sandy clay. All Pleistocene alluvial fan deposits can be related to modern stream courses. They are distinguished from younger alluvial fans and fluvial deposits by higher topographic position, greater degree of dissection, and stronger soil profile development. They are less permeable than Holocene deposits. They are overlain by Holocene deposits on lower parts of the alluvial plain, and incised by channels that are partly filled with Holocene alluvium on higher parts of the alluvial plain.

Native subsurface soil encountered at the site consists of clayey silt, silty clay and fine-grained sand with lenses of coarser-grained sand with gravel. Soil in the direct vicinity of the former UST cavity, as described in B21 to B23, was moderate to dark yellowish brown intermixed lenses of silty clay and clayey silt with fine-to coarse-grained sand, to a total explored sample depth of 25 fbg. Boring B15 in the southeastern corner of the site encountered silty fine-grained sand to a depth of 10 feet. As described in the previously reported Particle Size Distribution and Moisture-Density-porosity Reports, soil in boring B8 at 17 fbg was described as a olive gray clay w/ sand containing 57.9 % silt, 27.3% clay & 14.8% sand with a porosity of 38.6%, moisture content of 22.8%, and density of 106 pounds per cubic foot (pcf). Soil in boring B9 at 7 fbg was described as a brown clayey sand w/ trace gravel containing 47.3% sand with trace gravel, 39.5% porosity, 19% moisture, and approximately 102 pcf density. The soil sample collected in B11 at the north side of site at 19 fbg was described as a brown clayey sand w/gravel containing 25.5% silt, 22.9% clay, and 34.8% sand with 43% porosity, 21.9% moisture content, and an approximate density of 97 pcf. These materials appear consistent with young Holocene-age alluvial fan-fluvial deposits as described on the geologic map.

Groundwater Setting & Conditions

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. The site is in the East Bay Plain Groundwater Basin according to the San Francisco Bay Basin Water Quality Control Plan prepared by the California Regional Water Quality Control Board – Region 2 (CRWQCB, 1995). Groundwater in this basin is designated beneficial for municipal and domestic water supply and industrial process, service water, and agricultural water supply. Although no domestic water supply wells are located in the site vicinity, the shallow groundwater beneath the site is considered a potential drinking water source by local regulatory agencies.

The nearest surface water body is Harwood Branch (aka Claremont Creek) that is the northernmost tributary of Temescal Creek / watershed. As shown on Figure 4, *Regional Map of Creeks and Conduits*, Harwood Branch flows via an intermittent underground culvert and an open surface channel in the vicinity of the site. Figure 5, *Local Map of Storm Conduits*, shows a detail map of the Harwood Branch drainage in the immediate vicinity of the site. As shown on these maps, flow from Harwood Branch is diverted into two conduits on both sides of the subject property. To the west along College Avenue, storm flow is directed within the Alameda County Flood Control District 90" RCP underground conduit. To the east of the site Harwood Branch flows within an open channel. To the south along Chabot Avenue, Harwood Branch flows within an underground box culvert. The two drainage systems apparently join at the intersection of College and Chabot Avenues. Flow lines in conduits at this intersection are listed on the map with elevations of about 180 feet.

Historical groundwater flow directions and gradients have shown high variability at the site with historic flow directions varying widely from eastward to westward. In general, the data suggests that groundwater flow direction varies from westerly towards the 90" conduit within College Avenue and south / easterly towards Harwood Branch. Groundwater elevations at the site also show large seasonal variations. In well MW-1, the depth to water has historically varied from 3.08 feet in wet weather conditions to 11.04 feet in dry weather conditions. Similarly, in well MW-2, the depth to water has varied from 3.61 feet to 13.85 feet and well MW-3 has varied from 3.41 feet to 10.02 feet below top of casing. The lowest groundwater elevations measured at the site are approximately 183-184 feet. The nearby drainage conduits appear to have flow lines below the elevation of the onsite groundwater table. We surmise that groundwater flow at the site is significantly influenced by the 90" RCP conduit / Harwood Branch drainage system as well as other subsurface utilities along College Avenue with inverts of 12 feet below grade (see Figure 6, *Subsurface Utility Map*).

CORRECTIVE ACTION BACKGROUND

Underground Tank Removal August to October 1996

Two underground storage tanks (UST) were located beneath the sidewalk at the southwest corner of the site. In August 1996, GGTR removed the two USTs from the site at the locations shown in Figure 2, Site Plan. 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 then capped both ends (the piping was subsequently removed). 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 1A. The tank

removal and over-excavation activities are documented in the GGTR *Tank Removal Report*, dated October 11, 1996.

Preliminary Investigation & Monitor Well Installation 1998-1999

As requested by the ACHCSA, between May 1998 and October 1999, GGTR performed a preliminary subsurface investigation at the subject property and subsequently installed three groundwater monitor wells MW-1, MW-2 and MW-3 in the vicinity of the former UST cavity. On May 6, 1998, Soil borings B1 through B3 were advanced immediately south, east, and west, respectively, of the former UST cavity at the approximate locations shown in Figure 2, Site Plan. The soil sample collected in B2 at approximately 9 fbg contained 2800 mg/kg TPH-G and 13 mg/kg benzene. All other soil boring sample concentrations were either insignificant or below the respective laboratory reporting limit. Grab groundwater samples collected in each borehole between 6.5 and 8.5 fbg, contained a maximum of 1,000,000 micrograms per liter (ug/l) TPH-G (B3), 30000 ug/l benzene (B2), and 18000 ug/l MTBE (B3). Additional details are presented in the GGTR June 17, 1998 Soil & Groundwater Investigation Report.

Based on review of the preliminary soil and grab groundwater sample results, the ACHCSA in their letter dated April 20, 1999, requested additional work to further assess the extent of contamination in soil and groundwater in the vicinity of the former USTs. In June/October 1999, GGTR advanced additional soil borings B4 to B6 at the site to approximately 20 fbg and converted each to respective 2-inch-diameter groundwater monitoring wells, MW-1 thru MW-3. Soil samples collected from each associated boring contained a maximum of 280 mg/kg TPH-G and 4 mg/kg benzene (B4 @ 9 fbg). Representative well samples collected in MW-1 in June and September 1998, contained a maximum of 290000 ug/l TPH-G, 28000 ug/l benzene, and 1900 ug/l MTBE. Samples collected in each well in October 1999, contained a maximum of 85000 ug/l TPH-G, 20000 ug/l benzene, and 1100 ug/l MTBE (MW-1). The locations of the soil borings/monitor wells are shown in Figure 2, Site Plan. Additional details are presented in the GGTR Soil & Groundwater Investigation Report dated October 22, 1999. The results of the laboratory analyses of soil and grab groundwater samples are summarized on the attached Tables 1 and 2.

Quarterly Groundwater Monitoring 2000 to 2002

The ACHCSA, in a letter dated November 4, 1999, requested that all onsite wells be sampled on a quarterly basis. Also, as requested by the ACHCSA (March 1, 2001 Directive Letter), 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. Thereafter, Gettler-Ryan conducted semi-annual monitoring and sampling only. The locations of the subject monitor wells and Gettler-Ryan's monitoring wells are shown on Figure 2, Site Plan. The attached Table 3 presents the historical monitor well fluid-level data and groundwater analytical results for samples collected in MW-1 thru MW-3. Additional details are presented in the associated GGTR Groundwater Monitoring Reports.

Additional Soil and Groundwater Investigation 2002

Based on review of analytical results of the GGTR April 2001 Groundwater Monitoring Report, the ACHCSA, in a letter dated July 9, 2001, requested a work plan to assess whether any additional contaminant sources potentially exist that may be contributing to the elevated hydrocarbon concentration in groundwater in the vicinity of MW-1. 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 UST product line excavation/removal and soil boring (B7-B11) activities. Boring locations are shown in Figure 2, Site Plan. Shallow soil samples collected beneath the product line at approximately 3.5 fbg, contained insignificant or non detectable concentrations of TPH-G, BTEX, and MTBE. Soil samples collected in B7 (former fuel dispenser location) and B8 & B9 (east parking lane of College Avenue) between 8 and 20 fbg also contained insignificant concentrations of TPH-G and BTEX. However, grab groundwater samples collected in B7 to B9 contained significant TPH-G, BTEX and MTBE. Soil and groundwater samples in B10 (Vicinity of former USTs, east parking lane of College Avenue) contained significant TPH-G, BTEX and MTBE. Soil collected in B11 at 8 and 13 fbg, located along the north property line, contained insignificant concentrations of TPH-G, BTEX, and MTBE. No groundwater was encountered in B11. Additional details of the additional site characterization are presented in the GGTR June 10, 2003 Report of Additional Soil and Groundwater Investigation. The results of the laboratory analyses of soil and grab groundwater samples are summarized on the attached Tables 1 and 2.

Continued Quarterly Groundwater Monitoring 2003 to Present

GGTR, in collaboration with Gettler-Ryan, Inc. jointly monitored and sampled associated site wells on a quarterly/semi-annual basis between October 2003 and January 2006. The attached Table 3 includes the historical monitor well fluid-level data and groundwater analytical results for samples collected in MW-1 to MW-3 for these events. Additional details are presented in the associated GGTR Groundwater Monitoring Reports.

Preferential Migration Pathway Survey

Subsurface Utility Corridor Survey

The ACHCSA in their September 8, 2003, letter requested a subsurface utility survey in the general vicinity of the site to evaluate whether any underground utility corridors may potentially act as preferential pathways for migration of dissolved-phase contaminant hydrocarbons. The results were presented in the GGTR's *Work Plan for Additional Site Characterization* dated December 29, 2003. The approximate locations of the pertinent subsurface site vicinity utilities are shown in Figure 6, *Subsurface Utility Map*. Associated cross sections C-C' & D-D' (locations referenced in Figure 6) showing the approximate locations and depths of the utilities and trenches within and in the direct vicinity of the known contaminant plume area were presented in Figures 4 and 5 of the December 29, 2003,

work plan, respectively. Cross Sections A-A' and B-B' were presented previously in the GGTR June 2003 Report of Additional Soil and Groundwater Investigation.

The survey indicates the following subsurface utility features exist along College Avenue, flowing southward and extending between and beyond Harwood and Chabot Avenues: 1) an 18-inch-diameter, utility storm water line with invert flow depth of approximately 12 fbg, located 12 to 14 feet west of the former UST cavity; 2) an 8 to 12 inch-diameter sanitary sewer line with invert flow depth of approximately 12 fbg located 15 feet west of the former UST cavity; 3) a 90-inch-diameter storm water line (Alameda County Flood Control) with invert depth of approximately 12 fbg located approximately 22 to 23 feet west of the former UST cavity, and 4) an 8-inch diameter sanitary sewer line with invert depth approximately 10 fbg and located approximately 38 to 40 feet west of the former UST cavity and MW-1. Based on the information provided by the subsurface utility corridor survey and on the historical fluctuation of the groundwater depth reported at the site (about 2.5 to 13.5 fbg), it appears that the sanitary, storm water, and water utilities located west of the subject property along College Avenue occur at the approximate lower vertical limit of the historical water table fluctuation and potentially act as a pathway for on- and/or off-site migration of groundwater and contaminant hydrocarbons.

Site Vicinity Receptor Well Survey

As part of the preferential migration pathway survey, the ACHCSA also requested that a site vicinity well survey be conducted within a 0.25-mile radius of the subject property. The purpose of the survey was to determine whether any domestic and/or irrigation water-producing wells and monitor wells exist within this area that may both potentially act as receptors for offsite migration of the hydrocarbon-affected groundwater and potentially act as conduits for continued vertical migration. On November 4, 2003, GGTR submitted a Well Completion Report Release Agreement to the Department of Water Resources (DWR), Central District for all domestic/irrigation and monitoring wells installed within a 0.25-mile radius of the subject property. On November 12, 2003, GGTR visited the DWR Central District office in Sacramento to access their database for the associated well search. Well Completion Reports were provided within a 2-mile radius of the subject property.

Only two irrigation wells and three monitoring wells were located as result of the search. The two irrigation wells exist at the Claremont Resort and Tennis Club located approximately 0.75 mile northeast of the subject property, at the intersection of Claremont and Ashby Avenues in Oakland, California. One of the three monitoring wells exists at the Chevron Service Station at 3048 Ashby Avenue (southwest corner of intersection of Ashby & Domingo Avenues), approximately 0.75 mile northeast of the site. It appears that three additional monitor wells currently exist on this property, although no well driller reports were provided. The two other monitor wells exist at the Arco Service Station at 6407 Telegraph Avenue, located approximately 0.5 mile west-northwest of the site, at the intersection of Alcatraz and Telegraph Avenues.

Based on results of the receptor well survey, no known active domestic and/or irrigation wells exist within the 0.25-mile survey radius of the subject property. Only two irrigation wells reportedly exist approximately 0.75 mile from the site and are located regionally up-gradient of the property. At least three groundwater monitoring wells, in addition to the site and adjacent property wells, exist within 0.75 mile of the subject property. The three above reported monitor wells are located regionally up- and lateral gradient of the site. Because of their distance and up-/lateral-gradient locations from the subject property impacted groundwater, the reported irrigation and monitor wells will not act as potential receptors or vertical conduits for continued contaminant migration.

ADDITIONAL SITE CHARACTERIZATION

Based on review of the GGTR June 2003 report, the ACHCSA, in their letter dated September 8, 2003 requested a work plan addressing additional source and site characterization of contaminants in soil and groundwater at the subject property. GGTR submitted their Work Plan for Additional Site Characterization on December 29, 2003, and its June 3, 2004 Addendum, which were conditionally approved by the ACHCSA in letters dated September 30, 2004 and February 22, 2005. Between April and July 2005, GGTR installed additional borings B12 to B24 to approximately 25 fbg and Hydropunch borings HB-1 to HB-6 to approximately 15 fbg, and converted HB-2 to piezometer well PW-1. The location of each additional boring is shown in Figure 2, Site Plan. The results of the laboratory analyses of soil and grab groundwater samples are summarized on the attached Tables 1 and 2.

The following is GGTR's general scope of work for additional investigation and site characterization activities performed at the subject property between April and July 2005.

- Obtain site Excavation Permit from City of Oakland Department of Public Works
- Obtain Drilling Permit from Alameda County Public Works Agency
- Conduct site mark-out and notify Underground Service Alert for utility clearance
- Conduct additional soil boring and sampling activities (B12 to B24)
- Hydropunch boring and sampling activities (HB-1 to HB-6)
- Piezometer PW-1 installation, development, sampling, and surveying
- Perform soil and grab groundwater sampling activities in each boring
- Backfill soil borings with neat Portland cement and surface concrete
- Submit all samples to State-licensed environmental laboratory for analysis
- Profile, transport, and dispose of all impacted solid/liquid waste
- GeoTracker AB2886 submittal
- Interpret all field and analytical data and prepare summary report

Soil and Hydropunch Boring & Sampling Activities

During April to June 2005, GGTR contracted Gregg Drilling (State Contractors C-57 License #485165) to perform the additional soil boring and sampling activities at the site. GGTR initially conducted a safety tailgate meeting with all pertinent site personnel to discuss all information provided in the project Health & Safety Plan. GGTR inspected the drilling equipment for cleanliness to avoid cross contamination between differing sites. Prior to drilling, GGTR directed Gregg to hand auger or probe the proposed boring locations up to approximately 4 fbg to clear for any unmarked utilities. Gregg drilled Soil Borings B12 to B24 and Hydropunch Borings HB-1 to HB-6 to depths of approximately 9.5-25 fbg using 2-inch diameter, percussion drill tubing (Direct Push Technology). Continuous soil samples were collected in all soil borings (and HB-2/PW-1) at 4-feet intervals, between 5 and 25 fbg, by hydraulically driving a 1- to 2-inch-diameter, butyrate plastic tube-lined, core sampler into relatively undisturbed soil.

At the bottom section of each sample interval, GGTR monitored and recorded the organic vapor concentrations of each soil sample using a Thermo® 580B Organic Vapor Analyzer and classified and logged all samples and hand auger soil cuttings using the Unified Soil Classification System and Munsell Rock Color Chart. Soil boring logs are presented in Appendix D. Immediately following sample collection, GGTR chose a representative portion of the sample tube (6-inch-length) from each sample interval, sealed the ends of each sample tube with Teflon® tape and plastic caps, appropriately labeled each tube and transferred the samples to a cooler chilled to approximately 4° Centigrade. The core sampler was washed between each sample interval using an Alconox® solution and double rinsed with clean, potable water. Equipment wash and rinse water was subsequently transferred to a 55-gallon D.O.T.-approved steel drum and temporarily stored onsite.

Grab Groundwater Sampling & Backfilling Activities

Following soil sampling activities in the majority of all borings, Gregg temporarily placed 0.75-inch-diameter, factory-sealed, screened piezometer casing to the approximate total depth of each borehole. GGTR monitored and recorded the depth to groundwater (DTW) in each borehole (relative to grade surface) using an electronic water level indicator. Groundwater was not observed in B13, B22, and HB-5, most likely due to the compacted borehole sidewalls and the relatively impermeable silty clay / clayey silt material observed in each boring.

Between April 14 and July 11, 2005, GGTR and Gregg collected grab groundwater samples using a clean, stainless steel, 0.5-inch-diameter bailer. GGTR carefully drained the groundwater sample from the bottom of the bailer directly into laboratory-cleaned, 40-milliliter volatile organic analysis (VOA) vials. A specialized drainage tip was used to prevent loss of any volatile constituents during sample transfer. GGTR sealed each sample container with a threaded cap and inverted the VOA vials to insure no headspaces or entrapped air bubbles were present. GGTR appropriately labeled each sample container and immediately placed the samples in a cooler chilled to approximately 4° Centigrade.

The down-hole monitoring equipment was washed between each boring location using an Alconox® solution and double rinsed with clean, potable water. Equipment wash and rinse water was subsequently transferred to a 55-gallon D.O.T.-approved steel drum. Following grab groundwater sampling GGTR removed the temporary well casing from the borings and backfilled each borehole with neat Portland cement and asphalt patch. GGTR then secured the well casing in selected borings at grade surface and placed a steel cover and hydrated bentonite paste above each borehole location to inhibit any potential surface water infiltration.

Piezometer PW-1: Installation, Development, Sampling and Surveying

Because of the high variability in onsite groundwater measurements, GGTR proposed converting exploratory soil boring HB-2 located in the rear concrete-paved courtyard to a groundwater piezometer. Following approval by the ACHCSA, GGTR and Gregg, on April 5, 2005, constructed a 2-inch diameter piezometer well (PW-1) using a limited access truck equipped with continuous flight, hollow stem augers. The location of HB-2/PW-1 is shown in Figure 2. Piezometer construction specifications are depicted in the associated Boring Log presented in Appendix D.

Approximately 72 hours following construction of PW-1, similar to a conventional monitor well, GGTR developed the piezometer well by surging the entire water column of the well with a 2-inch-diameter surge block and subsequently purging at least 10 well casing volumes from the well. GGTR transferred the well purge water to a 55-gallon drum. On April 14, July 26, and October 14, 2005, GGTR returned to the site and sampled PW-1, as part of the continued quarterly monitoring and sampling activities (MW-1 to MW-3) performed at the site.

On July 11, 2005, GGTR returned to the site and surveyed the wellhead elevation (TOC & grade) of PW-1 relative to the known TOC elevation of MW-1. The survey is informal (not conducted by at Licensed Land Surveyor) at this time.

Laboratory Analysis of Soil Samples

GGTR submitted soil samples collected during the additional soil boring activities under respective formal chain-of-custody command to the former North State Labs of South San Francisco, California and Entech Analytical Labs, Inc. of Santa Clara, California (Entech; CA ELAP 2346) for analyses.

- Total Petroleum Hydrocarbons (TPH) as Gasoline (TPH-G; EPA 8015M/8021B)
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX; EPA 8015M/8021B)
- Methyl Tertiary-Butyl Ether (MTBE; EPA 8015M/8021B)
- Ethylene Dibromide and Ethylene Dichloride (EDB & EDC; EPA 8260B)

Selected soil samples collected from B12 and B21-B23 (former UST source area) were additionally analyzed for:

- TPH as motor and hydraulic oil (EPA Method 8015M)
- Total Oil & Grease (TOG; Standard Method 5520 E&F)
- Cadmium, Chromium, Lead, Nickel, and Zinc (LUFT Metals; EPA 3000/7000)
- Fuel Oxygenates (EPA Method 8260)
- VOCs (EPA Method 8260)

The attached Table 1 (A-C) summarizes the historical laboratory results of soil boring samples collected during the additional soil boring activities. A copy of the respective laboratory analytical reports and chain of custody records as well as associated Quality Assurance and Quality Control (QA/QC) details is presented in Appendix C.

Laboratory Analysis of Groundwater Samples

All groundwater samples collected in the borings and piezometer well were analyzed for the following chemical constituents:

- TPH-G (SW8020F)
- BTEX (SW8020F)
- MTBE (SW8020F)
- Fuel Oxygenates (EPA Method 8260), including EDB & EDC

All grab groundwater samples collected from B12 and B21-B23 (former UST source area) were additionally analyzed for:

- TPH as motor and hydraulic oil (EPA Method 8015M)
- TOG; Standard Method 5520 E&F
- LUFT Metals; EPA 3000/7000
- VOCs (EPA Method 8260)

The attached Table 2 (A-C) summarizes the historical laboratory analytical results of the grab groundwater samples and fluid-level monitoring data measured during the additional soil and groundwater investigation activities. Analytical results of the groundwater samples collected in PW-1 during the April, July, and October 2005 quarterly monitoring events are presented in Table 3 (A&B). A copy of the respective laboratory analytical reports, QA/QC details, and chain of custody records is included in Appendix C.

QUARTERLY GROUNDWATER MONITORING – January/April 2006

The scope of the work for the First and Second Quarter 2006 groundwater monitoring and sampling includes the following:

- Monitoring, purging and sampling of three monitor wells (MW-1, MW-2 & MW-3) and one piezometer (PW-1)
- Groundwater sample laboratory analysis
- Waste management
- Data interpretation
- Electronic Data Upload to GeoTracker Database System (State Assembly Bill 2886)

Groundwater Sampling Field Procedures

GGTR continued quarterly groundwater monitoring and sampling activities at the subject property on January 13 and April 14, 2006, 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 each of the four monitoring field points, GGTR measured and recorded the depth to groundwater and presence of floating product using an oil/water interface meter. Fluid levels were measured to the nearest 0.01 foot. A copy of the associated Fluid-Level Monitoring Data Forms is presented in attachment B.

GGTR then purged approximately three (3) well casing volumes of groundwater from each field point using a direct current, centrifugal purge pump. GGTR simultaneously monitored and recorded the pH, temperature, specific conductivity of the purged water. The purge water was transferred directly to a 55-gallon, D.O.T.-approved steel drum. After recharge of approximately 80% of the groundwater column, GGTR collected a groundwater sample by lowering a disposable, bottom-fill, acrylic bailer to just below the air-water interface. GGTR initially checked for the presence of surface sheen and then carefully decanted each sample from the bailer into the appropriate laboratory sample containers. All volatile organic analysis (VOA) vials were inverted and checked to insure that no entrapped air was present. Well Purging/Sampling Data Sheets are included in Attachment B.

Results of Groundwater Sampling and Laboratory Analysis

The groundwater samples were then appropriately labeled and immediately stored in a cooler chilled to 4°centigrade. On January 16 and April 14, 2006, GGTR submitted the groundwater samples under formal chain of custody command to Entech for laboratory analysis of the following fuel constituents:

- TPH-G GC-MS Method
- Fuel Oxygenates, including EDB & EDC (EPA Method 8260)
- VOCs, including BTEX (EPA Method 8260)

Entech performed all volatile analyses within the maximum 14-day hold time for these analyses. Copies of the official Laboratory Certificates of Analysis and the associated Chain-of-Custody Forms are included in Appendix C. The results of the groundwater monitoring and laboratory analyses (performed to date) are summarized in Table 3 (A&B), attached to this report.

Elevated concentrations of TPH as Gasoline as high as 51,000 ug/l, benzene as high as 14,000 ug/l, and other significant concentrations of VOCs, which continue to exceed applicable groundwater ESLs, were measured in MW-1 through MW-3 during this event. Concentrations of TPH-G (450 ug/l) and benzene (10 ug/l) remain in Piezometer Well PW-1; however, have shown a general decreasing trend since the April 2005 sampling event. MTBE was detected in well MW-1 at an elevated concentration 270 ug/l. Slightly detectable concentrations of other gasoline-range VOCs (maximum concentrations of 170 ug/l n-propylbenzene and 2,400 ug/l 1,2,4-trimethylbenzene) were measured in MW-1 thru MW-3 at levels relatively similar to those measured during previous events (Table 3). A concentration of tetrachloroethene (PCE) was detected in PW-1 at 95 ug/l on January 13th and 68 ug/l on April 14, 2006.

Figure 9 - TPH-G, Benzene and MTBE in Groundwater; Figure 10 - TPH-G in 2005 Grab Water Samples; and Figure 11 - April 2006 TPH-G in Monitor Wells, illustrates the results of groundwater analytical results. Figure 12 - Chart of TPH Gasoline in Groundwater for monitor wells MW-1 thru MW-3 illustrates a significant decreasing trend in contamination concentrations at the site.

Results of Groundwater Measurements

The groundwater levels measured in each well during the monitoring event were used to calculate an approximate groundwater gradient and flow direction across the site. The groundwater gradient data calculated for the January 13 and April 14, 2006 monitoring events are shown on Figure 7, *Groundwater Flow Direction*. The table below presents the historical data on mean groundwater elevation, flow direction and gradient magnitude for the site since October 1999.

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
07/19/04	186.97	51° west of north	0.1 foot / 100 feet
10/22/04	186.49	82° west of north	2.9 foot / 100 feet
01/21/05	190.36	16° west of south	1.25 foot / 100 feet
04/14/05	190.01	13° east of south	1.10 foot / 100 feet
07/26/05	188.37	56° west of north	0.08 foot / 100 feet
10/14/05	186.38	27° west of north	0.2 foot / 100 feet
01/13/06	**191.50**	**33° west of south**	**1.6 foot / 100 feet**
04/14/06	**193.3**	**37° west of south**	**2.5 foot / 100 feet**

The groundwater elevations are referenced to mean sea level (MSL) as determined by the April 26, 2001, Virgil Chavez Land Surveying; Wellhead Elevation and Coordinate Survey. The benchmark for the survey was a City of Oakland benchmark being a cut square in the top of curb at the northeast corner of College Avenue and Miles Avenue (benchmark elevation is 179.075 feet MSL). The groundwater elevations prior to April 26, 2001 are referenced to an arbitrary site-specific datum point (MW-1) with an arbitrary elevation of 50 feet.

Groundwater elevation data since April 2005 has incorporated data from the new piezometer PW-1. Beginning with the January 13 and April 14, 2006, measurements, the groundwater gradient and flow direction was calculated using the U.S. Environmental Protection Agency (EPA) On-Line Tools for Site Assessment Calculation – Gradient and Direction from Four or More Points. Groundwater elevations from the four onsite monitoring field points were utilized to calculate an overall site gradient and flow direction (See Appendix D - Groundwater Gradient Calculation Sheets). Figure 8 presents a *Rose Diagram-Historical Hydraulic Gradients* showing the historical hydraulic gradients (magnitude and direction) to date across the site. The April 14, 2006, mean groundwater elevation is the highest elevation measured since 2001. The high groundwater elevation reflects the abundant rainfall experienced during April 2006. The January 13 and April 14, 2006, flow directions generally agree with flow directed towards College Avenue to the southwest (33-37° west of south).

GGTR also calculated a flow direction and gradient to the north of the site at the former Chevron service station case (5940 College Avenue) using Gettler-Ryan wells GR-MW1 and GR-MW2 and onsite well MW-1. At the former Chevron station, the April 14, 2006, gradient is steeper (0.04 ft/ft) and the flow direction is more westerly towards College Avenue at 129° west of south. The large difference in flow direction and gradient at the Gettler-Ryan site is due to the lower groundwater elevations measured in the Gettler-Ryan wells. Both well surveys were based on the same benchmark and performed by Virgil Chavez Land Surveying. A site inspection during August 2006 revealed a sump pump pit located in the sunken courtyard of the Barclays Restaurant & Pub facility (current tenants of 5940 College Avenue). The sunken courtyard is approximately 3 feet below sidewalk grade and the sump pump pit is estimated at 2-3 feet below the courtyard grade. As depth to groundwater during April 2006 was measured at about 2-3 feet below grade, it appears the sump pump may be

artificially influencing groundwater elevations in the vicinity of the Gettler-Ryan monitoring well GR-MW1 during the wet weather monitoring events. Similarly, a sump pump may also exist at the new commercial development on the west side of College Avenue in the vicinity of GR-MW1.

FINDINGS OF ADDITIONAL INVESTIGATION

- The site is located on an alluvial plain alongside the northern tributary of Temescal Creek called Harwood Branch creek. Holocene-age alluvial fan and fluvial deposits occur at the site consisting of a layered and laterally-discontinuous sequence of fine-grained clayey sand and silty clay-clay with lenses of sand and gravel. The young alluvial-fluvial soils are generally loose with high porosity. Harder Pleistocene-age alluvial fan and fluvial deposits may underlie the site and Franciscan Complex bedrock is believed to exist at a relatively shallow depth below the site (<100 feet).
- The site occurs within the floodplain of Harwood Branch creek less than 200 feet from the open stream channel to the east. Harwood Branch flows along Chabot Road to the south of the site in a large underground box culvert. A large 90" Alameda County Flood Control conduit connected to Harwood Branch at its eastern and western ends occurs adjacent to the site along College Avenue. Base groundwater elevation at the site is believed to be the approximate flow line of Harwood Branch and associated 90" storm drain. Harwood Branch flow line is estimated to be at an elevation of about 180 feet MSL near the intersection of College Ave. and Chabot Road. Groundwater is unconfined at the site and elevations vary from 183.43 to 194.9 feet MSL (an 11.47 foot difference) depending on seasonal rainfall.
- Groundwater flow direction has been highly variable at the site presumably related to the proximity of Harwood Branch and associated 90" storm drain. The January and April 2006 flow directions were to the southwest at South 33° West and South 37° West with a gradient of 0.016-0.025 ft/ft. These flow directions represent wet weather and high groundwater conditions. The southwesterly flow is towards the Alameda County Flood Control District 90" storm conduit in College Avenue. Soil boring HB-5 located across College Avenue from the site in the down-gradient direction contained silty-clay soils. Although temporary casing was installed in this boring to a depth of 15 feet and allowed to recharge for several weeks, no groundwater was observed in this boring.
- During April 2006 (a very wet month for rainfall) the highest groundwater elevations measured at the site were recorded with groundwater depths ranging from 3.61 to 2.27 feet below grade. The groundwater elevation fluctuates over a known interval of 11.47 feet at the site producing a pronounced smear zone of petroleum soil contamination within the groundwater interface. Entrapped petroleum contamination (TPH gasoline at 100-2800 mg/Kg) is located in the vicinity of the former USTs at depths of 9-17 feet below grade based on the laboratory analysis of soil samples. Sheen of petroleum product is commonly observed in purge water from monitor wells in the vicinity of the former UST locations.
- Based on elevated concentrations of TPH-G, BTEX, MTBE and Naphthalene measured in MW-1 thru MW-3 during the January and April 2006 monitoring events, groundwater

in the vicinity of former gasoline and waste oil USTs remains significantly impacted by gasoline-range hydrocarbons above applicable regulatory agency action levels. A trend analysis of historical TPH as gasoline concentrations in monitor well MW-1 indicates that overall total petroleum hydrocarbon concentrations are steadily decreasing reflecting the significant source removal actions undertaken at the site. The trend line suggests that overall TPH as gasoline concentrations have decreased almost one-half from about 150,000 ug/l in October 1999 to about 80,000 ug/l in April 2006. The groundwater plume is apparently captured by the utility corridor along College Avenue and/or sump pump at the adjacent building(s) and ultimately the storm drain system / Harwood Branch conduit.

- Slightly elevated concentrations of TPH-G and benzene, as well as the chlorinated VOC - tetrachloroethene (PCE) occur in the groundwater in the vicinity of piezometer PW-1. Five quarters of groundwater monitoring for PW-1 have revealed PCE concentrations ranging from 25 to 95 ug/l above the ESL screening level of 5 ug/l. Based on the southwesterly groundwater flow reported across the site during this event and the location of PW-1 situated general up-gradient of the former USTs, an additional offsite source may be contributing to the detectable hydrocarbons and PCE in PW-1. However, historical research indicates a residential neighborhood exists to the east of the site and no historical source of contamination is evident. No soil sampling for PCE has been performed in the subject courtyard where PW-1 is located. At this time, the source of PCE contamination in the groundwater of PW-1 is unknown and apparently unrelated to the former USTs.
- Concurrent groundwater monitoring of two Gettler-Ryan monitor wells (GR-MW1 & GR-MW2) is ongoing. These two monitor wells show lower groundwater elevations than onsite wells. A flow direction and gradient based on three points (GR-MW1, GR-MW2 and MW-1) shows a westerly flow (south 127 west) direction and steep groundwater gradient (0.04 ft/ft). During the April 2006 monitoring, well GR-MW2 revealed a TPH gasoline concentration of 180 ug/l and well GR-MW1 was non-detect for TPH as gasoline. Exploratory borings HB-3 and HB-4 located in the vicinity of wells GR-MW1 and GR-MW2 revealed high concentrations of TPH as gasoline in grab water samples of 13,000 and 14,000 ug/l.
- GGTR previously identified a utility corridor along the down-gradient margin of the site as a potential pathway for contaminant migration. The depth of utility lines within the corridor is reported at 12 fbg. The results of groundwater sampling / laboratory analysis of borings within College Avenue indicate that petroleum contaminated groundwater is present within the utility corridor along the northern margin of the site. Exploratory borings HB-3 and HB-4 located within the College Avenue corridor produced grab groundwater samples with significant TPH gasoline concentrations (13,000 & 14,000 ug/L). Apparently, the utility corridor along College Avenue is contaminated with TPH gasoline related to past activities at the former Chevron gasoline station and/or other historical gasoline stations in this area. The utility corridor contamination apparently commingles with the onsite TPH gasoline plume immediately west of the site.
- Based on the findings of the subsurface product pipeline removal / sampling activities and results of this investigation, shallow surface soil directly beneath the piping run, between the former UST cavity and associated fuel dispenser, has not been affected by

gasoline-range hydrocarbons. Three exploratory borings were drilled in the dispenser-piping run area during this investigation. Borings B20 and B24 encountered no significant TPH as gasoline contamination (<63 ppm). Boring B19 encountered soil contaminated with TPH as gasoline of 139 ppm at a depth of 15 feet below grade within the saturated zone. Low concentrations of gasoline hydrocarbons were discovered in soil beneath the former fuel dispenser in boring B7 to a depth of 16 fbg. Upon removal, the product piping to the dispenser was found in good condition and subsequently removed, and does not likely appear to be a potential or contributing source of the elevated gasoline hydrocarbons present in the groundwater at the site.

- Based on the laboratory analytical results of soil samples collected in the soil borings, it appears that only low level, gasoline-range hydrocarbons (i.e., TPH-G, benzene, and total xylenes), below respective Tier 1 RBSL, are present in the soil within the vadose-interface zone interval (less than 8.5 feet deep). No additional investigation or remedial action appears needed to address site soils less than 8 feet below grade. One soil sample (B21-8.5) analysis for total chromium was reported at a concentration of 74 ppm above the ESL of 58 ppm but within the range of Bay Area background chromium concentrations. However, a total of six soil samples have been analyzed at the site for total chromium with concentrations of 49, 34, 38, 74, 43 and 47 ppm. The mean total chromium concentration for these six samples is 47.5 ppm below the ESL of 58 ppm.
- Elevated concentrations of gasoline-range hydrocarbons were detected in the groundwater within the western half of the subject property and extending into the utility corridor beneath College Avenue. Significant concentrations of dissolved-phase TPH-G, benzene, toluene, ethylbenzene, total xylenes, and MTBE appear to extend laterally to the north and west (general down-gradient directions reported in the January and April 2006 measurements). Sheen of petroleum product is commonly observed on groundwater purge water from onsite wells accounting for the relatively high concentrations reported by laboratory analysis. Elevated levels of petroleum-related VOC such as Naphthalene in groundwater samples from exploratory borings and monitor wells are presumed to be associated with the TPH as gasoline contamination at the site. No significant free product phase is observed at the site. TPH as gasoline concentrations in groundwater to the south of the site is constrained by exploratory boring HB-6 with a grab water sample concentration of 45 ug/L.
- A shallow groundwater plume may extend beneath a portion of the adjacent building to the south of the site at 5916-5920 College Avenue. The results of grab groundwater sampling from borings B14 and HB-6 appear to constrain the plume to a small portion of the northwestern corner of the adjacent property. The adjacent building contains vehicle parking and a retail store (T-Mobile at 5916 College Ave.) on the ground floor. Residential apartments appear to be located on the second floor and above. It appears at this time that the potential for gasoline vapor intrusion, if any, impacting the residential living space in this building is low. The subject building overlies the gasoline plume along the western half of the building in the vicinity of the office and bathroom. The building contains an active vehicle repair facility in which petroleum vapors and exhaust is present as part of the work environment. The facility is reportedly well ventilated

during working hours. The potential for vapor intrusion, if any, to significantly impact workers in the vehicle repair shop appears to be low at this time.

RECOMMENDATIONS FOR FUTURE ACTION

Based upon the findings of additional investigation at the subject property, GGTR recommends the following additional actions:

- Groundwater monitoring and sampling of all site monitor wells / piezometer should be continued on a quarterly basis for the existing suite of laboratory analysis chemicals. The top-of-casing elevation for piezometer PW-1 should be professionally surveyed in relation to other site monitoring wells.
- Groundwater conditions have not been verified by an agency-approved groundwater monitoring well located to the south of the site along College Avenue. GGTR recommends the installation of an additional monitor well in the parking strip-sidewalk of College Avenue adjacent to the location of exploratory boring HB-6 and near the adjacent building at 5916-5920 College Avenue. The purpose of the well is to verify groundwater conditions in the down-gradient direction to the southwest of the site. The monitor well would also be used to estimate impact to groundwater beneath the adjacent building at 5916-5920 College Avenue.
- Five quarters of groundwater monitoring have revealed PCE contamination of groundwater at the location of piezometer PW-1. The PCE appears unrelated to the UST investigation at the site and may be related to an off-site source of PCE contamination. GGTR recommends two additional hand augur soil borings in the vicinity of the storm drain within the concrete-paved rear courtyard of the subject property. The purpose of the borings is to investigate for PCE contamination of shallow soils within the courtyard as a potential source of PCE contamination. The soil sample collected from the boring would be analyzed for total petroleum hydrocarbons as gasoline and VOCs.
- GGTR recommends submitting a work plan to implement installation of the additional monitor well and two soil borings at the site. The results would be used to complete a Site Conceptual Model to assess all potential exposure pathways that may exist at the site and determine the risk, if any, to human health and the environment. Following completion of the Site Conceptual Model and review by the ACHCSA, GGTR recommends the preparation of a Corrective Action Plan and Feasibility Study for soil/groundwater abatement, if required by the ACHCSA.

GEOTRACKER AB2886 ELECTRONIC SUBMITTAL

Following receipt of all analytical data submitted by NSL and Entech in electronic deliverable format (EDF), GGTR uploaded the data to the State Water Resources Control Board's GeoTracker Database System (State Assembly Bill 2886). GGTR uploaded the analytical data as well as the Fluid-Level Monitoring Data (GEO_WELL), GGTR also uploaded all boring/well construction logs (GEO_BORE), a current site plan (GEO_MAP), and a copy of this report (GEO_REPORT) in Portable Data Format (PDF) to the GeoTracker Database. The table presented below presents the confirmation numbers for the subject GeoTracker submittals. EDF reports for Laboratory Report Nos. 05-0498 & 05-0540 were not submitted by NSL, and thus not uploaded to the GeoTracker database.

Geotracker Upload Confirmation

Submittal Title	Confirmation Number	Description
EDF		
05-0642: Soil/GW Sample Analytical Data – B12 to B24	6308827102	Boring Soil/GW Sample Analytical Data
05-0761: GW Sample Analytical Data – B14,B15,B17,B20	9815843820	Boring GW Sample Analytical Data
44111: Soil Sample Analytical Data – B21 & B22	9902001202	Boring Soil Sample Analytical Data
44112: Soil/GW Analytical Data – B21 & B23	6761783540	Boring Soil/GW Sample Analytical Data
44322: GW Analytical Data – B23,HB-3,HB-4,HB-6	7190087258	Boring GW Sample Analytical Data
47376: Analytical Data MW1-PW1 (01/13/06) 47376	1106026649	1st Quarter 2006 GWM Analytical Data
48991: GW Well Analytical Data – MW-1 to MW-3, PW-1	7678564190	2nd Quarter 2006 GWM Analytical Data
GEO_WELL		
Fluid Level Monitoring Data; MW1-PW1, 01/13/06	3202392399	1st Quarter 2006 Well Fluid Level Data
Fluid Level Monitoring Data; MW-1 to MW-3, PW-1 (04/14/06)	6986280679	2nd Quarter 2006 Well Fluid Level Data
OTHER		
GEO_BORE	Multiple (See Attachments)	Boring Logs B12 through B24, HB-1 to HB-6
GEO_MAP	8517715275	Site Plan (August 2006)
GE0_REPORT	See GeoTracker	This Report

A copy of each associated GeoTracker AB2886 EDD Upload Confirmation Form is presented in Appendix E.

WASTE MANAGEMENT

Auger soil cuttings and excess sample soil not submitted for laboratory analysis generated during the installtion of PW-1 and other direct push soil borings were transferred to 55-gallon D.O.T.-approved steel drums and temporarily stored onsite in a secure area onsite. All drilling and sampling equipment wash and rinse water was contained in a separate drum, which remained onsite for future monitoring and/or investigation use. On August 8, 2005, GGTR transported the drummed soil cuttings (@ 1 ton) under Non-Hazardous Waste Manifest No. 74496 to Allied Waste's Class II Forward Landfill facility in Manteca, California. A copy of the solid waste manifest and associated weight ticket is included in Attachment E.

The well purge water and equipment wash and rinse water generated during the January 13, 2006 monitoring event (approximately 35 gallons), as well as that generated during the previous monitoring/investigation events (75 gallons), was transferred to 55-gallon steel drums and stored onsite in a secure area. On January 19, 2006, Clearwater Environmental Management, Inc. pumped approximately 110 gallons of liquid waste from the drums and transported the Non RCRA Hazardous Waste Liquid under Uniform Waste Manifest No. 24773452 to the Alviso Independent Oil Facility in Alviso, California.

The well purge water and equipment wash and rinse water generated during the April 14, 2006 monitoring events (@ 45 gallons) was also transferred to a 55-gallon D.O.T.-approved steel drum and temporarily stored onsite. On May 11, 2006, Clearwater Environmental Management, Inc. pumped approximately 45 gallons of liquid waste from the drums and transported the Non RCRA Hazardous Waste Liquid under Uniform Waste Manifest No. 24976417 to the Alviso Independent Oil facility. A copy of the liquid waste manifests is included in Attachment E.

LIMITATIONS

It should be understood that all environmental assessments are inherently limited in that conclusions are drawn and recommendations developed from information obtained from limited research and visual observations. Subsurface conditions change significantly with distance and time and therefore may differ from the conditions implied by subsurface investigation. It must be noted that no investigation can absolutely rule out the existence of any hazardous or petroleum substances at a given site. Existing hazardous materials and contaminants can escape detection using these methods. The work performed in conjunction with this assessment and the data developed are intended as a description of available information at the dates and location given. GGTR professional services have been performed, with findings obtained and recommendations prepared in accordance with customary principles and practices in the field of environmental science, at the time of the assessment. This warranty is in lieu of all other warranties either expressed or implied.

GGTR is not responsible for the accuracy of information reported by others or the independent conclusions, opinions or recommendations made by others based on the field exploration presented in this report. The findings contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions as they existed at the time of the investigation, and are subject to change. The scope of services conducted in execution of this phase of investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at the sole risk of said user. The figures, drawings and plates presented in this report are only for the purposes of environmental assessment and no other use is recommended. No other third party may rely on this report, figures or plates for any other purpose.

REPORT DISTRIBUTION

All reports that are prepared during the continuing work on this project will be submitted to:

Alameda County Health Care Services Agency
Environmental Health Services, Environmental Protection (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
Attention: Mr. Don Hwang — *(1 Electronic Copy via ACHCSA FTP)*
(1 Electronic Copy via GeoTracker)

William G Sheaff Trust
c/o Mr. Brian Sheaff
1945 Parkside Drive
Concord, California 94519 — *(1 Copy, Unbound)*

CERTIFICATION

This report has been prepared in accordance with generally accepted environmental practices exercised by professional geologists, scientists, and engineers. No warranty, either expressed or implied, is made as to the professional advice presented herein. The findings conclusions, and recommendations contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions as they existed at the time of the investigation, and are subject to change.

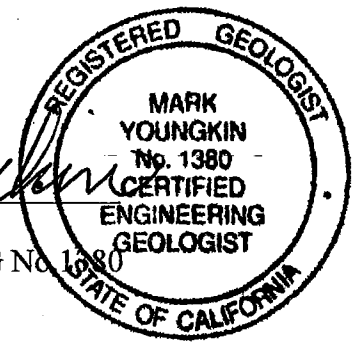
The conclusions presented in this report are professional opinions based solely upon visual observations of the subject property and vicinity, and interpretation of available information as described in this report. The scope of services conducted in execution of this investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at sole risk of said user.

Golden Gate Tank Removal, Inc.

Authored By:

Brent A. Wheeler
Project Engineer

Reviewed By:



Mark Youngkin
Registered Geologist, CEG No. 1380

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ACHCSA, January 3, 2002, Work Plan Approval Letter, 5930 College Avenue, Oakland, CA

Alameda County Health Care Services Agency, September 8, 2003, comment and directive letter

Alameda County Health Care Services Agency, June 3, 2004, comment and directive letter

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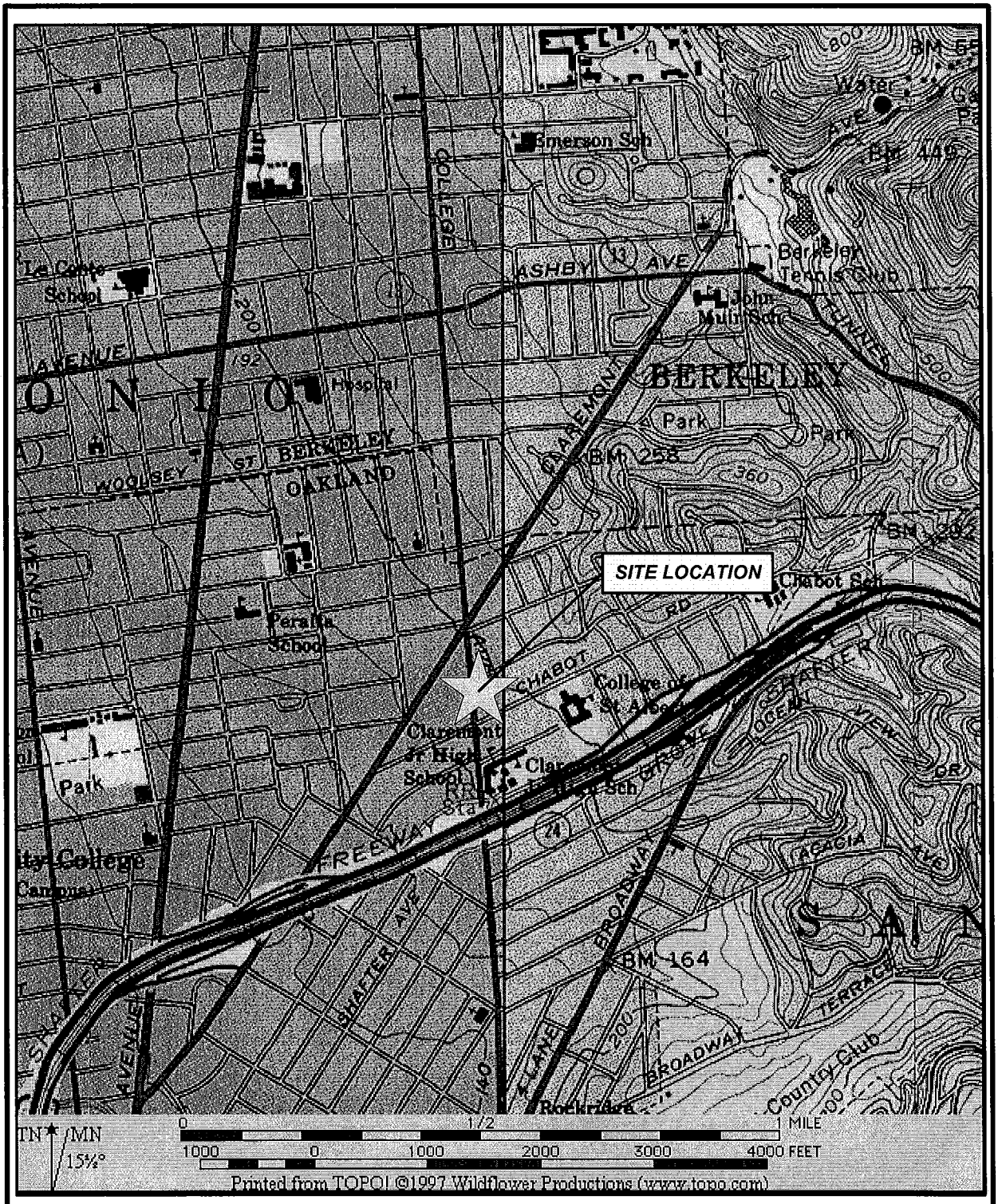
GGTR, December 19, 2001. Work Plan for Additional Soil and Groundwater Investigation, 5930 College Avenue, Oakland, California. GGTR Project No. 7335

GGTR, June 10, 2003, Report of Additional Soil and Groundwater Investigation, 5930 College Avenue, Oakland, California. GGTR Project No. 7335

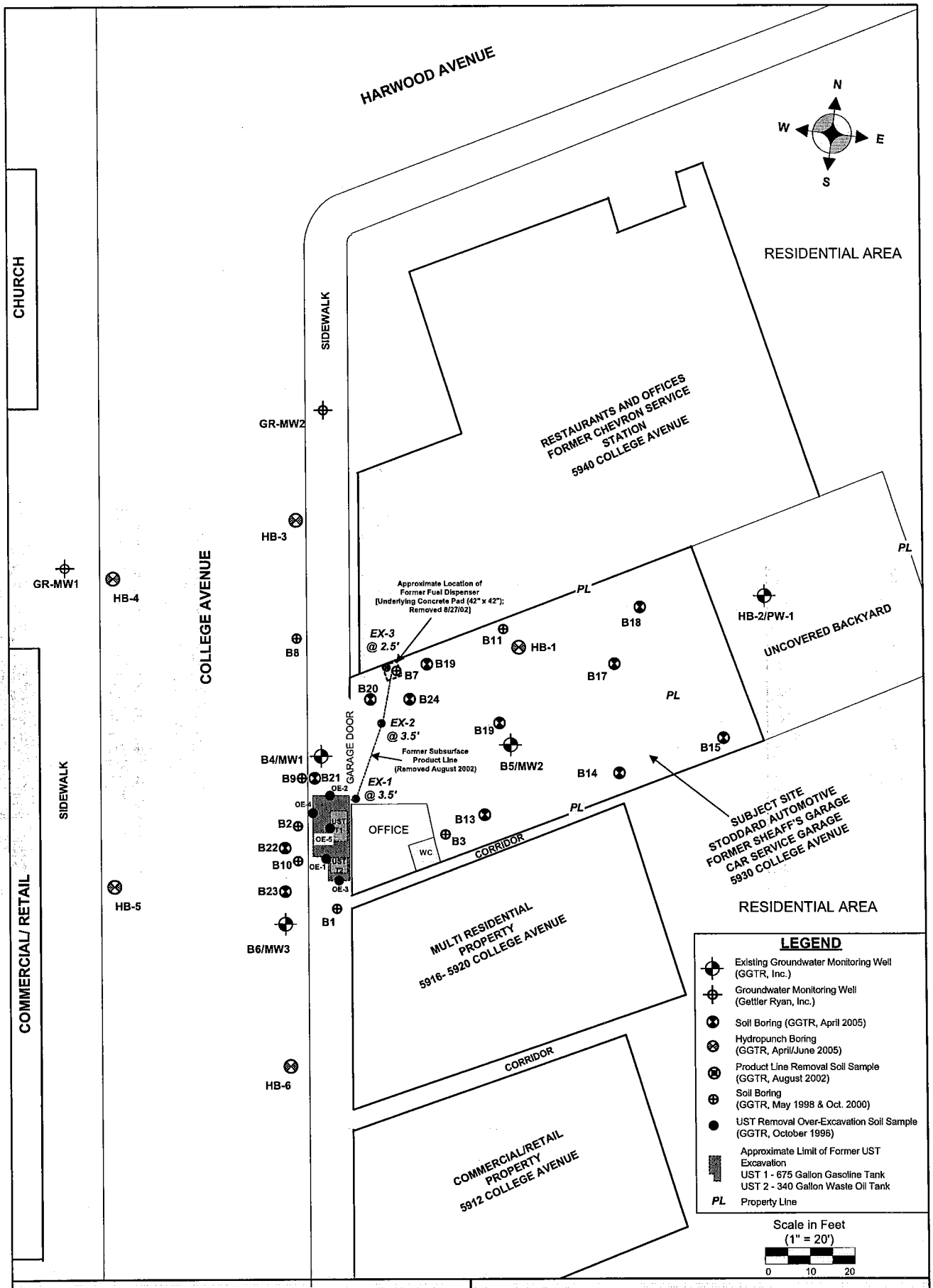
GGTR, December 29, 2003, Work Plan for Additional Site Characterization, 5930 College Avenue, Oakland, California. GGTR Project No. 7335

GGTR, September 20, 2004, Work Plan for Additional Site Characterization Addendum, 5930 College Avenue, Oakland, California. GGTR Project No. 7335

U.S. Geological Survey Misc. Field Studies MF-2342, 2000, Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, by R.W. Graymer



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*	*August 2006*	***Figure 1***



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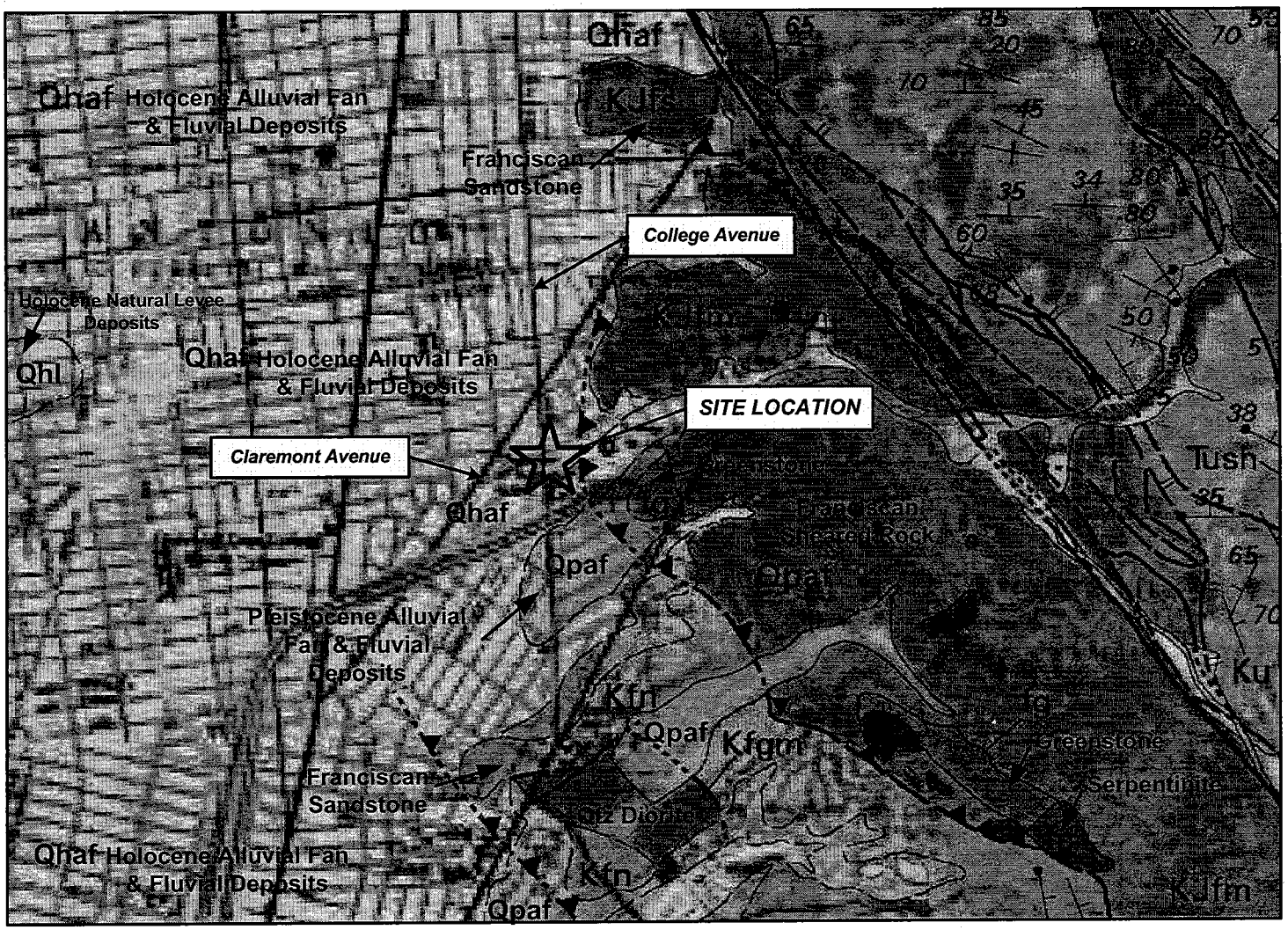
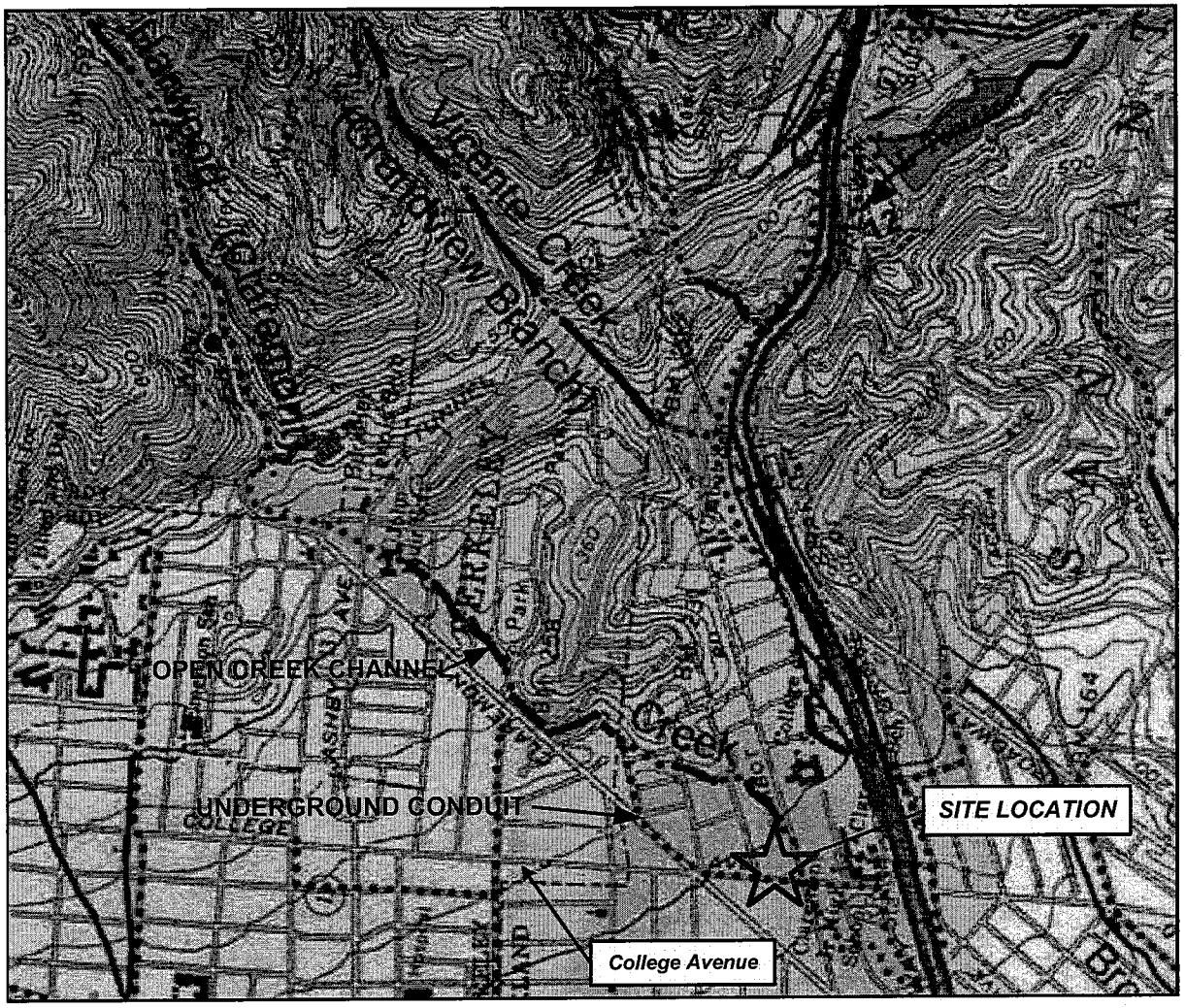
SITE PLAN
Sheaff's Service Garage
5930 College Avenue
Oakland, California

GGTR Project No. 7335	05/30/06	Figure By: SM (05/06)	**Figure 2**



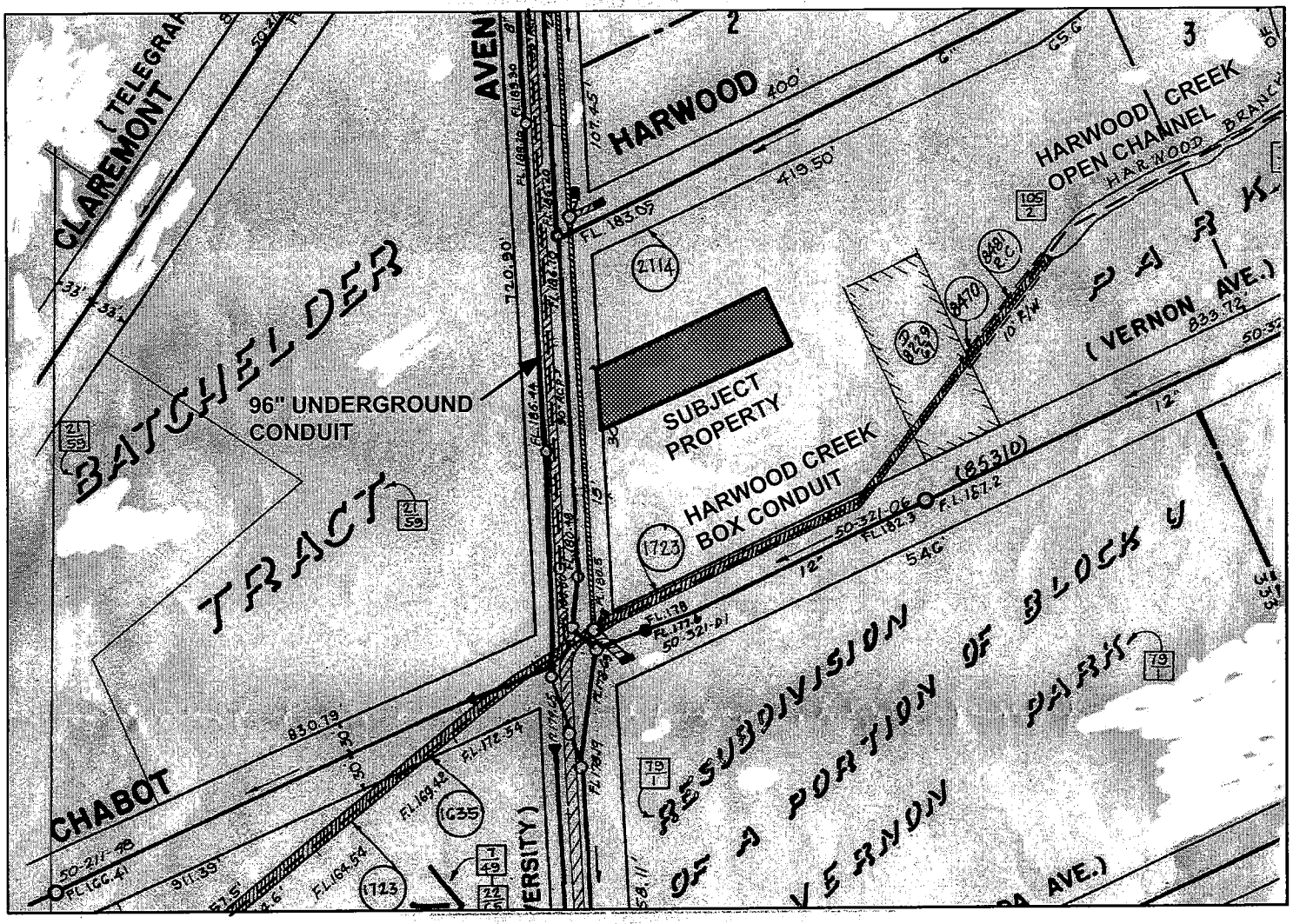
A portion of Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California, 2000, by R.W. Graymer, U.S. Geological Survey Misc. Field Studies MF-2342; North to top; See report text for explanation of geologic units shown on map; Scale about 3 inches per mile.

GOLDEN GATE TANK REMOVAL, INC. 255 Shipley Street, San Francisco, CA 94107 Ph (415) 512-1555 Fx (415) 512-0964	**GEOLOGIC MAP** Sheaff's Garage 5930 College Avenue, Oakland, California
GGTR Project No. 7335 | *Fn: 7335_Figure 3_ Geologic Map_ASC_Aug 06.vsd*	*Drawn By: my/7-30-06* | ***Figure 3***



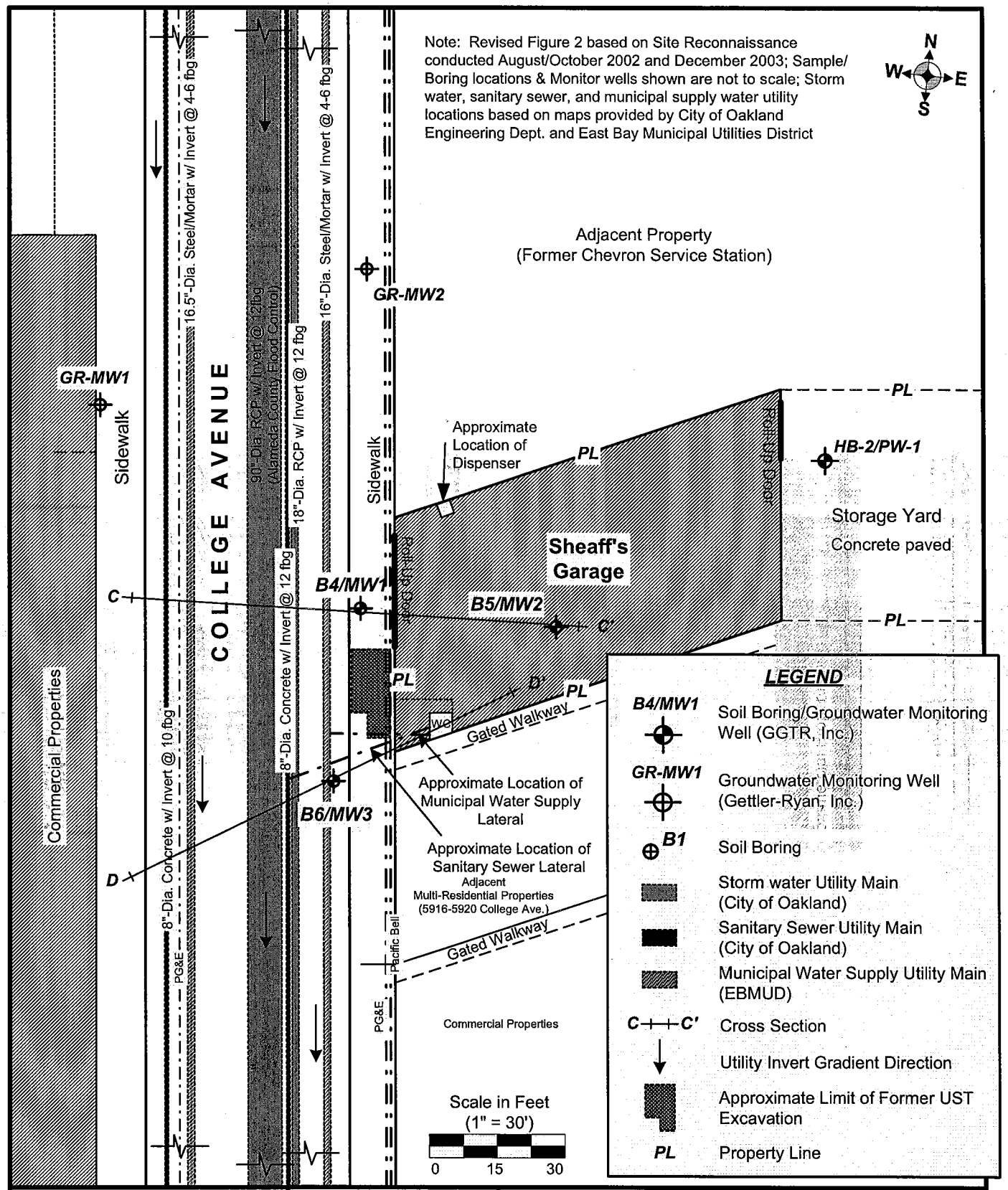
Portion of Guide to San Francisco Bay Area Creeks, Creek and Watershed Map of Oakland and Berkeley, rev. 2000, Janet M. Sowers, The Oakland Museum of California; North to left of map; Scale about 3 inches per mile.

GOLDEN GATE TANK REMOVAL, INC. 255 Shipley Street, San Francisco, CA 94107 Ph (415) 512-1555 Fx (415) 512-0964	**REGIONAL MAP OF CREEKS & CONDUITS** Sheaff's Garage 5930 College Avenue, Oakland, California
GGTR Project No. 7335 | *Fn: 7335_Fig 5_ Creek Map_ASC_July 06.vsd*	*Drawn By: my/7-30-06* | ***Figure 4***



Portion of Alameda County plat maps showing location of subject property in relation to Harwood Branch and associated Harwood Creek storm conduits located both west and east of the site; North to top; Scale about 1" = 100 feet.

GOLDEN GATE TANK REMOVAL, INC. 255 Shipley Street, San Francisco, CA 94107 Ph (415) 512-1555 Fx (415) 512-0964	**LOCAL MAP OF STORM CONDUITS** Sheaff's Garage 5930 College Avenue, Oakland, California
GGTR Project No. 7335	*Fn: 7335_Fig 5_ Creek Map_ASC_July 06.vsd*
Drawn By: my/7-30-06	***Figure 5***



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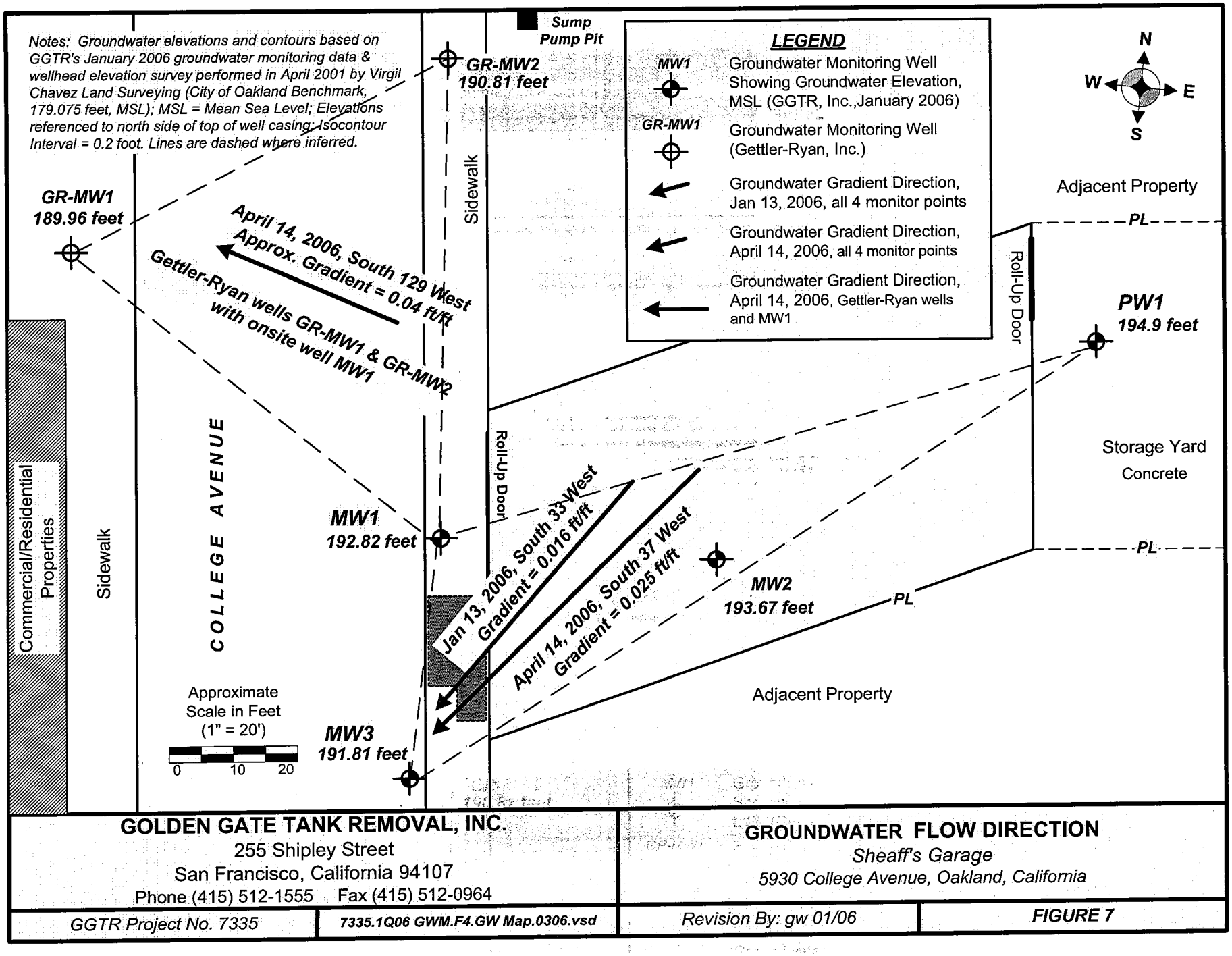
SUBSURFACE UTILITY MAP
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	Fn: 7335.sc.wp.F3	Figure By: baw/12.03	**Figure 6**



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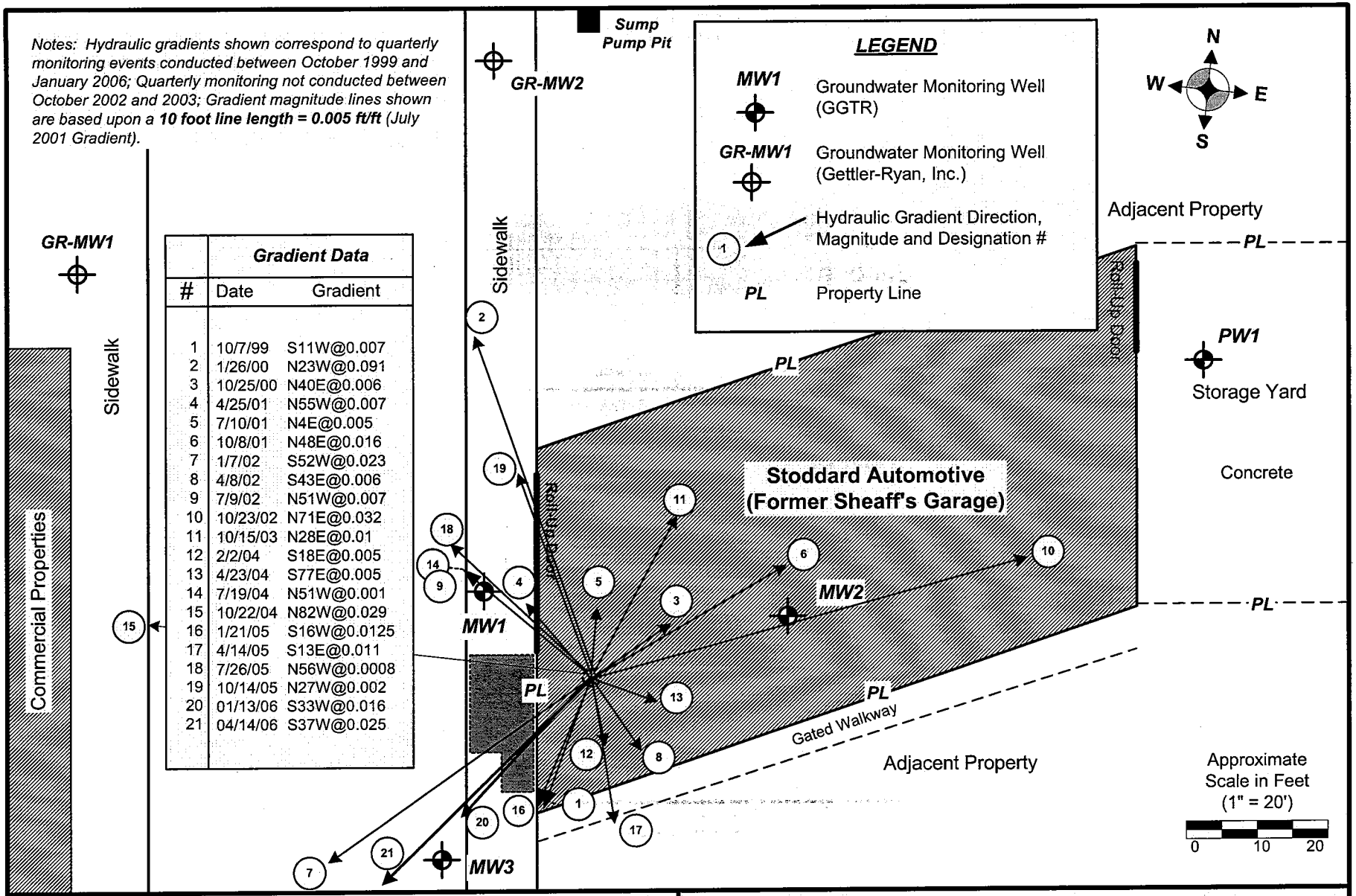
Phone (415) 512-1555 Fax (415) 512-0964

GROUNDWATER FLOW DIRECTION
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	***7335.1Q06 GWM.F4.GW Map.0306.vsd***	*Revision By: gw 01/06*	***FIGURE 7***



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255 Shipley Street
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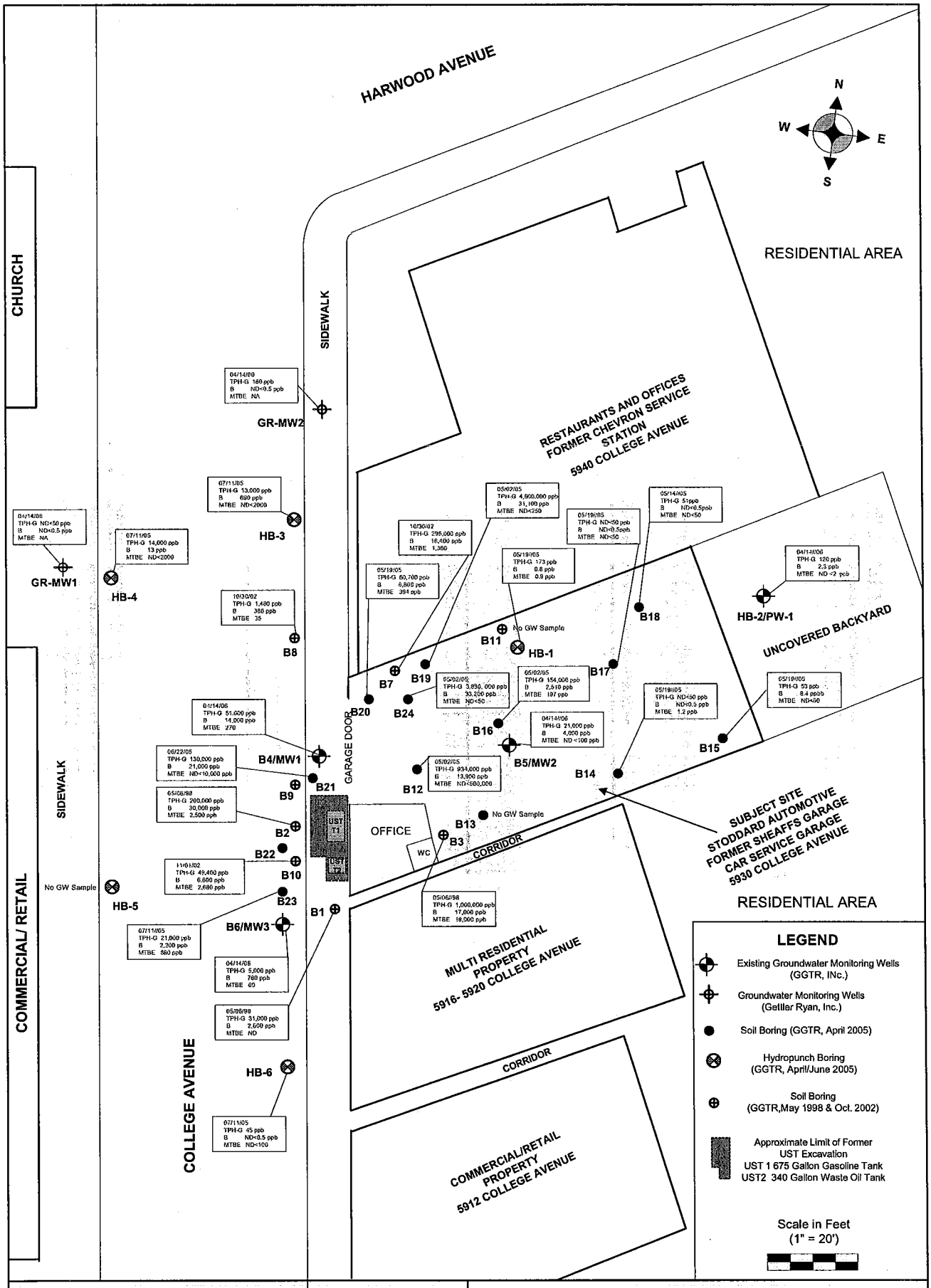
Phone (415) 512-1555 Fax (415) 512-0964

ROSE DIAGRAM: HISTORICAL HYDRAULIC GRADIENT
Sheaff's Garage
5930 College Avenue, Oakland, California

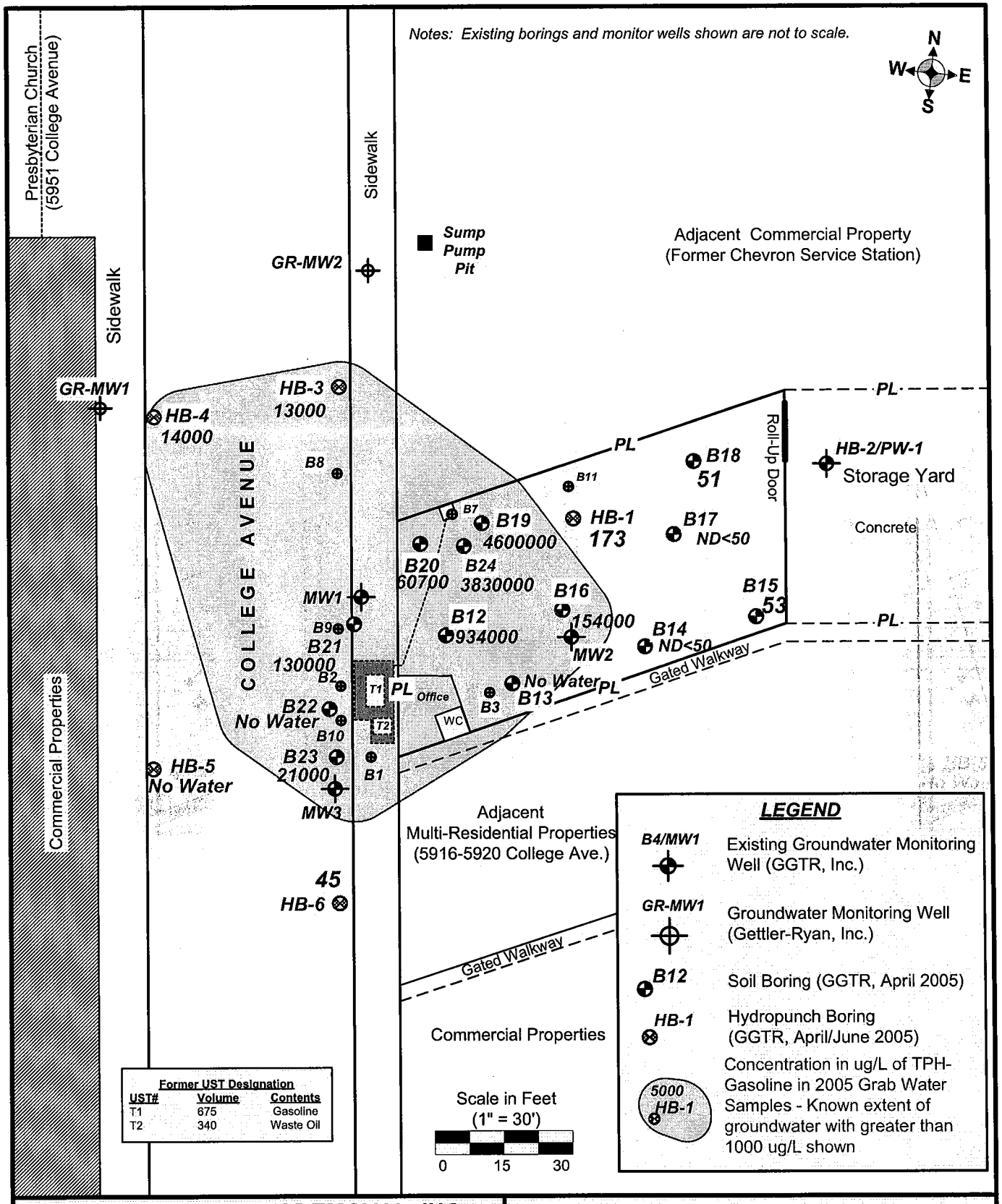
GGTR Project No. 7335	*Fn: 7335.GWM.F5.Rose Diagram*	*Revision By:gw/01/06*	***FIGURE 8***



GOLDEN GATE TANK REMOVAL, INC.
255 Shipley Street, San Francisco, CA 94107
Ph (415) 512-1555 Fx (415) 512-0964

TPH-G, Benzene,and MTBE in Groundwater
Sheaff's Service Garage
5930 College Avenue
Oakland, California

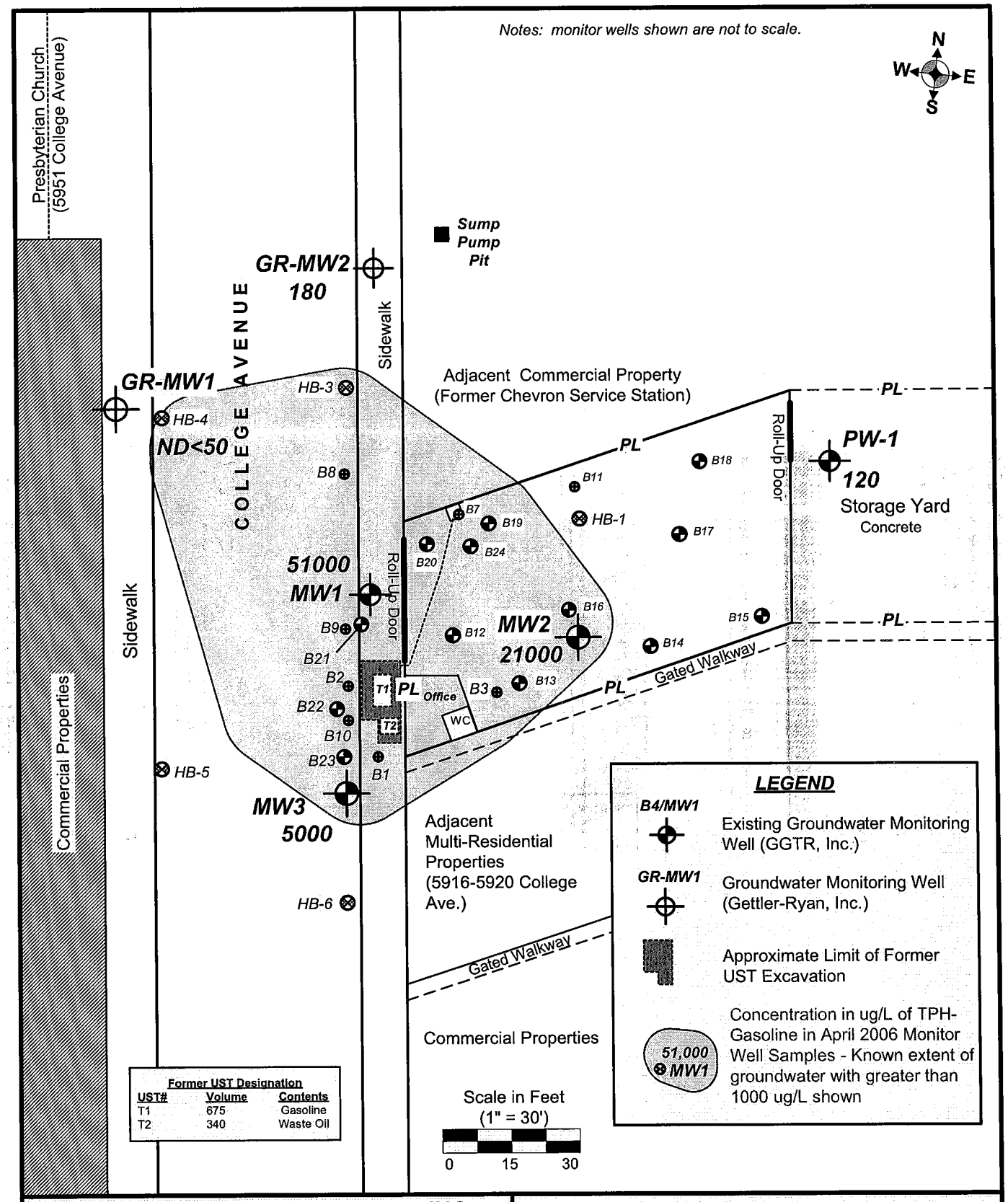
GGTR Project No. 7335	05/30/06	Figure By: SM (05/06)	**Figure 9**



GOLDEN GATE TANK REMOVAL, INC.
255 Shipley Street
San Francisco, CA 94107
Ph (415) 512-1555 Fx (415) 512-1555

TPH-G IN 2005 GRAB WATER SAMPLES
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	Fn: 7335.1Q06GWM.F2	Revision By: baw/05.06	**Figure 10**



GOLDEN GATE TANK REMOVAL, INC.
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Ph (415) 512-1555 Fx (415) 512-1555

APRIL 2006 TPH-G IN MONITOR WELLS
Sheaff's Garage
5930 College Avenue, Oakland, California

GGTR Project No. 7335	Fn: 7335.1Q06GWM.F2	Revision By: baw/05.06	**Figure 11**

TPH Gasoline in Groundwater

Historical Groundwater Monitoring of Wells MW1-MW3

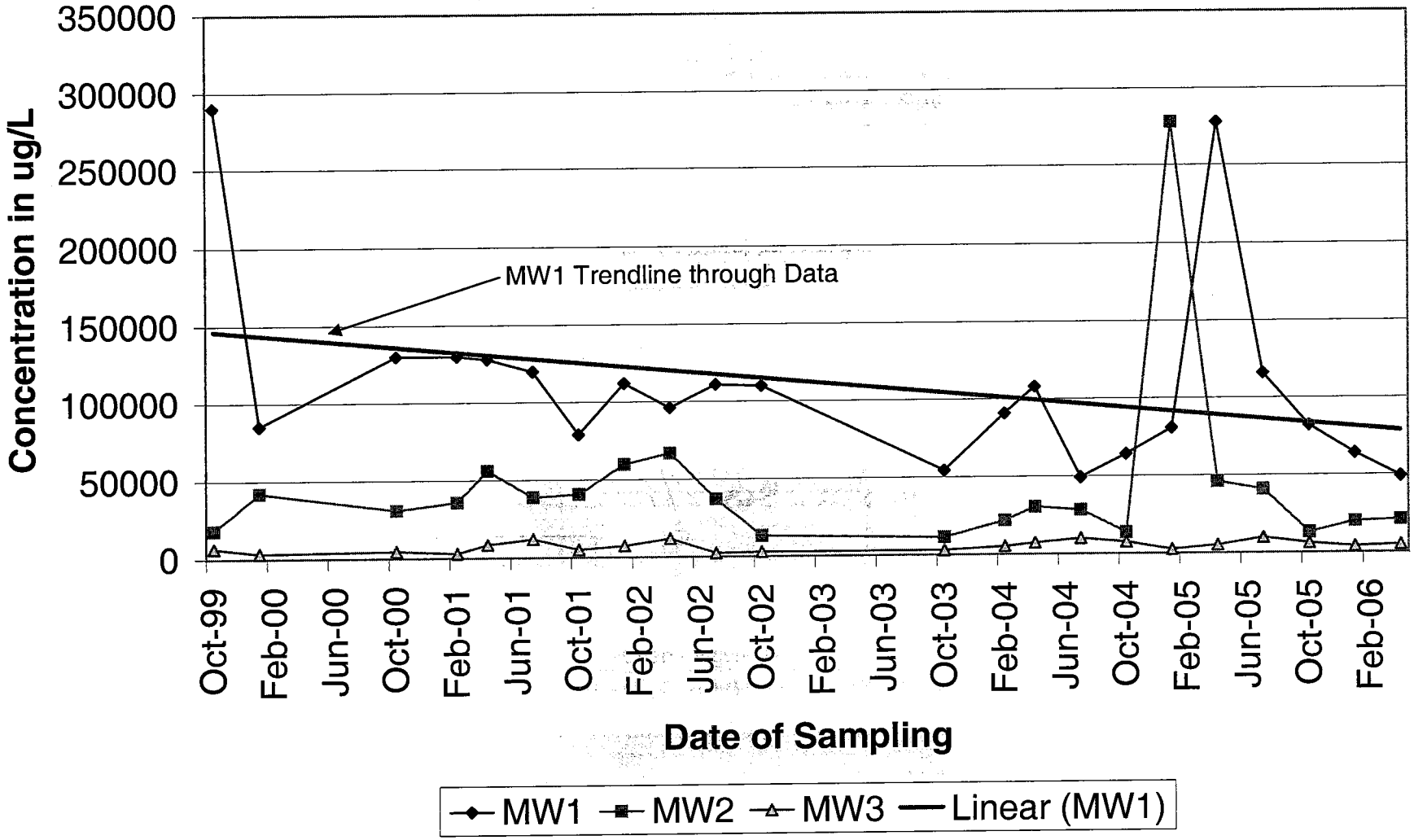


TABLE 1A

Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents

5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (ft)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/kg)	MTBE (mg/Kg)	Oxygenates (mg/Kg)	B/T/E/X (mg/Kg)
north end of T1 excavation	7189-T1-N	8	8/6/1996	6000.00	--	--	--	--	--	19/240/76/470
south end of T2 excavation	7189-T1-S	8		8100.00	--	--	--	--	--	16/240/72/530
center of T1 excavation	7189-T1-C-10	10		1200.00	--	--	--	--	--	9.1/68/10/79
center of T2 excavation	7189-T2-C	8		560.00	16000.00	ND	--	--	--	2.7/16/3.3/33
T1 Soil Stockpile	7189-SP1	--		ND	--	ND	--	--	--	ND/ND/ND/ND
T2 Soil Stockpile	7189-SP2	--		1.30	14000.00	ND	--	--	--	ND/ND/ND/0.020
over-excavated pit of T1 & T2	7189-OE-1	10.5	10/2/1996	14001.00	1700.00	ND	--	--	--	9.8/81/14/110[1]
over-excavated pit of T1 & T2	7189-OE-2	10.5		8401.00	320.00	ND	--	--	--	3.3/51/12/91[1]
over-excavated pit of T1 & T2	7189-OE-3	10.5		ND	21.00	ND	--	--	--	ND/0.01/ND/0.027
over-excavated pit of T1 & T2	7189-OE-4	10.5		4301.00	240.00	ND	--	--	--	0.93/18/4.6/41[1]
over-excavated pit of T1 & T2	7189-OE-5	10.5		14001.00	1100.00	ND	--	--	--	2.2/40/14/120[1]
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00[2]	100.00	0.02	NC	0.04/2.9/3.3/2.3

Table Notes Following

TABLE 1A (Cont'd)
Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (feet)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)	Oxygenates (mg/Kg)	B/T/E/X (mg/Kg)
B1	7335-B1-5	5	5/6/1998	ND	--	--	ND	ND<0.005	--	ND/ND/ND/ND
	7335-B1-9	9		75.00	--	--	53.00	0.06	--	0.07/0.04/0.53/1
B2	7335-B2-5	5		0.60	--	--	60.00	0.03	--	ND/ND/ND/ND
	7335-B2-9	9		**2800.00**	--	--	ND	ND<0.005	--	13/78/38/160
B3	7335-B3-6	6		ND	--	--	ND	ND<0.005	--	ND/ND/ND/ND
	7335-B3-10	10		48.00	--	--	ND	ND<0.005	--	0.5/0.6/0.5/2
B4 (MW1)	7335-B4-5	5		ND	--	--	ND	ND<0.005	--	ND/ND/ND/0.02
	7335-B4-9	9		**280.00**	--	--	ND	1.00	--	4/8/6/27
B5 (MW2)	7335-B5-3.0	3	Oct-99	ND	--	--	ND	ND<0.005	--	ND/ND/ND/ND
	7335-B5-5.0	5		ND	--	--	ND	ND<0.005	--	ND/ND/ND/ND
	7335-B5-9.0	9		ND	--	--	ND	ND<0.005	--	ND/ND/ND/ND
	7335-B5-15.5	15.5		2.80	--	--	ND	ND<0.005	--	0.69/0.092/0.066/0.22
	7335-B5-20.0	20		ND	--	--	ND	ND<0.005	--	0.028/0.021/0.007/0.029
B6 (MW3)	7335-B6-5.0	5		ND	--	--	200.00	ND<0.005	--	ND/ND/ND/ND
	7335-B6-10.0	10		1.50	--	--	ND	ND<0.005	--	ND/ND/0.005/0.013
	7335-B6-15.0	15		ND	--	--	ND	0.03	--	ND/ND/ND/ND
	7335-B6-19.0	19		ND	--	--	ND	0.04	--	ND/ND/ND/ND
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00	100.00	0.02	NC	0.04/2.9/3.3/2.3

Table Notes Following

TABLE 1A (Cont'd)
Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (bgs)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)	Oxygenates (mg/Kg)	B/T/E/X (mg/Kg)
B7	7335-B7-8	8	10/30/2002	1.71	--	--	--	ND<0.005	--	0.005/ND<0.005/ND<0.005/ND<0.01
	7335-B7-13	13		20.10	--	--	--	ND<0.005	--	0.720/0.162/0.803/2.5
	7335-B7-16	16		61.80	--	--	--	ND<0.02	--	0.762/2.37/1.4/6.34
	7335-B7-20	20		1.97	--	--	--	ND<0.005	--	0.020/0.034/0.032/0.140
B8	7335-B8-12	12		0.61	--	--	--	ND<0.005	--	ND<0.005/ND<0.005/ND<0.005/ND<0.005
	7335-B8-16	16		14.00	--	--	--	ND<0.005	--	0.184/0.019/0.495/0.628
	7335-B8-20	20		5.66	--	--	--	ND<0.005	--	0.037/0.136/0.105/0.461
B9	7335-B9-12	12		27.40	--	--	--	ND<0.005	--	0.097/0.027/0.171/0.161
	7335-B9-15	15		47.50	--	--	--	ND<0.005	--	1.12/1.96/2.09/9.46
	7335-B9-20	20		0.86	--	--	--	ND<0.005	--	ND<0.005/0.007/0.010/0.049
B10	7335-B10-11	11		81.80	--	--	ND	0.18	--	0.444/2.26/1.65/8.84
	7335-B10-15	15		**479.00**	--	--	ND	ND<0.250	--	4.16/15.9/9.21
	7335-B10-17	17		7.44	--	--	ND	ND<0.005	--	0.036/0.075/0.079/0.442
B11	7335-B11-8	8		ND	--	--	--	ND<0.005	--	ND<0.005/ND<0.005/ND<0.005/0.014
	7335-B11-13	13		ND	--	--	--	ND<0.005	--	ND<0.005/ND<0.005/ND<0.005/ND<0.01
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00	100.00	0.02	NC	0.04/2.9/3.3/2.3

Table Notes Following

TABLE 1A (Cont'd)
Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (bg)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	TPH-D (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)	Oxygenates (mg/Kg)	B/T/E/X (mg/Kg)
B12	B12-7	7	4/30/2005	ND<0.5	--	--	--	ND<0.005	--	<0.005/0.006/<0.005/0.021
	B12-10	10		0.62	ND<10	--	ND<50	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/0.011
	B12-15	15		79.50	ND<10	--	ND<50	0.03	ND≤0.5	0.537/0.394/0.826/2.740
	B12-20	20		2.73	--	--	--	0.12	--	0.016/0.035/0.045/0.208
B16	B16-7.5	7.5		1.90	--	--	--	ND<0.005	--	<0.005/0.013/0.027/0.113
	B16-9.5	9.5		ND<0.5	--	--	--	ND<0.005	--	<0.005/<0.005/0.009/0.037
	B16-15	15		5.27	--	--	--	ND<0.005	ND≤0.5	0.061/0.014/0.061/0.190
	B16-25	25		ND<0.5	--	--	--	0.06	ND≤0.5	<0.005/0.007/0.010/0.042
B19	B19-7	7		ND<0.5	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.01
	B19-10	10		0.99	--	--	--	0.02	ND≤0.5	<0.005/<0.005/<0.005/<0.01 0
	B19-15	15		**139.00**	--	--	--	ND<0.020	ND≤2.0	0.841/0.995/4.290/12.00
	B19-20	20		10.00	--	--	--	ND<0.005	ND≤0.5	0.039/0.033/0.052/0.182
	B19-24	24		8.15	--	--	--	ND<0.005	ND≤0.5	0.094/0.163/0.091/0.341
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00	100.00	0.02	NC	0.04/2.9/3.3/2.3

Table Notes Following

TABLE 1A (Cont'd)

Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents

5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (bgs)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	O&G (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)	Oxygenates (mg/Kg)	B/T/E/X (mg/Kg)
B20	B20-7	7		0.52	--	--	--	ND<0.005	ND≤0.5	0.022/<0.005/0.014/0.023
	B20-15	15		63.60	--	--	--	ND<0.020	ND≤0.5	0.395/0.491/0.961/2.750
	B20-20	20		3.97	--	--	--	0.09	ND≤0.5	0.013/0.019/0.069/0.271
B21	B21-6.5	6.5	6/22/2005	ND<0.05	--	--	--	ND<0.005	ND<0.005 (EDB,EDC)	<0.005/<0.005/<0.005/<0.010
	B21-8.5	8.5		14.00	--	ND<25	--	ND<0.250	--	<0.250/<0.250/<0.250/<0.500
	B21-11.5	11.5		**170.00**	--	--	--	ND<5	ND<5 (EDB,EDC)	<5/<5/<5/13
	B21-14.5	14.5		**970.00**	--	--	--	ND<25	ND<25 (EDB,EDC)	<25/28/<25/100
	B21-19.5	19.5		6.90	--	--	--	ND<0.250	ND<0.25 (EDB,EDC)	<0.250/<0.250/<0.250/1.2
	B21-24.5	24.5		73.00	--	--	--	ND<0.250	ND<0.25 (EDB,EDC)	0.280/1.30/1.30/7.0
B22	B22-6.5	6.5		0.10	--	--	--	ND<0.005		<0.005/0.0052/<0.005/0.011
	B22-10	10		**100.00**	--	ND<25	--	ND<0.50	ND<25 (EDB,EDC)	<0.5/<0.680/<0.5/3.0
	B22-14.5	14.5		0.25	--	--	--	ND<0.005	ND<0.005 (EDB,EDC)	<0.005/<0.005/<0.005/<0.010
	B22-19.5	19.5		0.06	--	--	--	0.07	ND<0.005 (EDB,EDC)	<0.005/<0.005/<0.005/<0.010
	B22-24.5	24.5		0.07	--	--	--	0.09	ND<0.005 (EDB,EDC)	<0.005/<0.005/<0.005/<0.010
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00	100.00	0.02		0.04/2.9/3.3/2.3

Table Notes Following

TABLE 1A (Cont'd)
Results of Soil Sample Analysis for Petroleum Hydrocarbon Constituents
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (mg/Kg)	TRPH (mg/Kg)	O&G (mg/Kg)	TEPH (mg/Kg)	MTBE (mg/Kg)		B/T/E/X (mg/Kg)
B23	B23-6	6	6/22/2005	ND<0.05	--	--	--	ND<0.005		<0.005/<0.005/<0.005/<0.010
	B23-10	10		**300.00**	--	**230.00**	--	ND<2.50		<2.5/<2.5/5.1/29
	B23-11.5	11.5		**420.00**	--	--	--	ND<5		<5.0/16.0/9.2/53
	B23-15	15		**870.00**	--	--	--	ND<2.50		<2.5/<2.5/19/76
	B23-17	17		**910.00**	--	--	--	ND<5		<5.0/28/20/110
	B23-19.5	19.5		0.06	--	--	--	ND<0.005		<0.005/<0.005/<0.005/<0.010
	B23-24.5	24.5		0.06	--	--	--	0.05		<0.005/<0.005/<0.005/<0.010
B24	B24-7	7	4/30/2005	3.75	--	--	--	ND<0.005	ND≤0.5	0.006/0.009/0.048/0.203
	B24-10	10		1.29	--	--	--	0.07	ND≤0.5	0.006/<0.005/0.015/0.066
	B24-15	15		31.10	--	--	--	ND<0.020	ND≤0.5	0.341/0.112/0.490/0.789
	B24-22	22		27.30	--	--	--	0.08	ND≤0.5	0.260/0.272/0.747/2.140
PW-1	PW1-4.5	4.5	4/5/2005	ND<0.5	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.010
	PW1-6	6		ND<0.5	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.010
	PW1-9	9		ND<0.5	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.010
	PW1-11.5	11.5		ND<0.5	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.010
	PW1-20	20		0.80	--	--	--	ND<0.005	ND≤0.5	<0.005/<0.005/<0.005/<0.010
CRWQCB February 2005 ESL - Residential/Commercial				100.00	100.00	100.00	100.00	0.02		0.044/2.9/3.3/2.3

TABLE 1A NOTES:

TPH-G = total petroleum hydrocarbons (TPH) as gasoline (EPA Method 8015M)

TRPH, TEPH = total recoverable, extractable petroleum hydrocarbons [SM 5520 E&F + EPA 1664 (Silica Gel Treated Hexane; B10 only)]

O&G = Oil & Grease (SM 5520 C)

B/T/E/X = benzene, toluene, ethylbenzene, total xylenes (EPA Method 8020)

MTBE = methyl tertiary-butyl ether (EPA Method 8020 or EPA Method 8260)

Fuel Oxygenates by EPA Method 8260B

fbg = feet below grade

mg/kg = milligrams per kilogram (parts per million)

– = not analyzed for this constituent; ND = concentration below associated laboratory reporting limit

1 = confirmed by EPA Method 8260

Soil samples not collected in B13-B15, B17, & B18

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for soil at a residential/commercial land use permitted site with groundwater that is a potential source of drinking water

TABLE 1B
Results of Soil Sample Analysis for Volatile Organic Compounds
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	IPB (ppb)	n-PB (ppb)	1,3,5-TMB (ppb)	1,2,4-TMB (ppb)	Sec-BB (ppb)	n-BB (ppb)	Naphthalene (ppb)	MIBK (ppb)	TCE (ppb)	MC (ppb)	cis-1,2-DCE (ppb)	TrI-CFM (ppb)	PCE (ppb)
north end of T1 excavation	7189-T1-N	8	8/6/1996	--	--	--	--	--	--	--	--	--	--	--	--	--
south end of T2 excavation	7189-T1-S	8		--	--	--	--	--	--	--	--	--	--	--	--	--
center of T1 excavation	7189-T1-C-10	10		--	--	--	--	--	--	--	--	--	--	--	--	--
center of T2 excavation	7189-T2-C	8		140	1100	2800	7500	200	--	ND<5	360	ND<5	ND<5	ND<5	ND<5	24
T1 Soil Stockpile	7189-SP1	NA		--	--	--	--	--	--	--	--	--	--	--	--	--
T2 Soil Stockpile	7189-SP2	NA		ND<5	17	920	37	ND<5	--	ND<5	42	ND<5	ND<5	ND<5	ND<5	31
over-excavated pit of T1 & T2	7189-OE-1	10.5	10/2/1996	--	--	--	--	--	--	--	--	--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-2	10.5		--	--	--	--	--	--	--	--	--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-3	10.5		--	--	--	--	--	--	--	--	--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-4	10.5		--	--	--	--	--	--	--	--	--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-5	10.5		--	--	--	--	--	--	--	--	--	--	--	--	--
CRWQCB February 2005 ESL - Residential				NC	NC	NC	NC	NC	NC	460	2800	260	77	190	NC	87
CRWQCB February 2005 ESL - Commercial				NC	NC	NC	NC	NC	NC	1500	2800	460	77	190	NC	240

Table Notes Following

TABLE 1B (Cont.)
Results of Soil Sample Analysis for Volatile Organic Compounds
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	IPB (ppb)	n-PB (ppb)	1,3,5-TMB (ppb)	1,2,4-TMB (ppb)	Sec-BB (ppb)	n-BB (ppb)	Naphthalene (ppb)	MIBK (ppb)	TCE (ppb)	MC (ppb)	cis-1,2-DCE (ppb)	Tri-CFM (ppb)	PCE (ppb)
B10	7335-B10-11	11	10/30/2002	100	453	2630	832	ND<20	313	715	ND<200	ND<20	ND<1000	ND<20	ND<100	ND<20
B12	B12-10	10	4/30/2005	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	ND<10	ND<50	ND<5	ND<50	ND<5	ND<25	ND<5
B12	B12-15	15	4/30/2005	134	416	788	617	78	331	819	ND<50	ND<5	ND<50	ND<5	ND<25	ND<5
B21	B21-8.5	9.5	6/22/2005	ND<250	ND<250	1100	870	ND<250	ND<250	ND<250	ND<2000	ND<250	ND<1200	ND<250	ND<250	ND<250
B22	B22-10	10	6/22/2005	ND<500	830	5100	4000	ND<500	720	640	ND<4000	ND<500	ND<4000	ND<500	ND<500	ND<500
B23	B23-10	10	6/22/2005	ND<2500	4400	4800	26000	ND<2500	3100	5000	ND<20000	ND<2500	ND<12000	ND<2500	ND<2500	ND<2500
CRWQCB February 2005 ESL - Residential				NC	NC	NC	NC	NC	NC	460	2300	260	77	190	NC	867
CRWQCB February 2005 ESL - Commercial				NC	NC	NC	NC	NC	NC	1500	2300	460	77	190	NC	2400

TABLE NOTES:

ppb - parts per billion
NC - no criteria established for this chemical constituent
-- - not analyzed for this constituent
fbg - feet below grade surface
IPB- Isopropylbenzene
n-PB - n-Propylbenzene
1,3,5-TMB - 135 Trimethylbenzene
1,2,4-TMB - 1,2,4- Trimethylbenzene
Sec-BB - Sec-Butylbenzene
n-BB - n-Butylbenzene
MIBK - Methyl Isobutal Ketone
TCE - Trichloroethene
MC - Methylene Chloride
cis-1,2-DCE - cis-1,2-Dichloroethene
Tri-CFM - Trichlorofluoromethane
PCE - Tetrachloroethene
All other soil boring samples not analyzed for VOCs

TABLE 1C
Results of Soil Sample Analysis for LUFT-5 Metals
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
north end of T1 excavation	7189-T1-N	8	8/6/1996	--	--	--	--	--
south end of T2 excavation	7189-T1-S	8		--	--	--	--	--
center of T1 excavation	7189-T1-C-10	10		--	--	--	--	--
center of T2 excavation	7189-T2-C	8		ND<2.0	49	48	68	210
T1 Soil Stockpile	7189-SP1	NA		--	--	--	--	--
T2 Soil Stockpile	7189-SP2	NA		ND<2.0	34	79	32	130
over-excavated pit of T1 & T2	7189-OE-1	10.5		--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-2	10.5		--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-3	10.5		--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-4	10.5		--	--	--	--	--
over-excavated pit of T1 & T2	7189-OE-5	10.5		--	--	--	--	--
CRWQCB February 2005 ESL - Shallow Soil				1.7	58	150	150	600
CRWQCB February 2005 ESL - Deep Soil				7.4	58	750	1000	2500

Table Notes Following

TABLE 1C (Cont.)
Results of Soil Sample Analysis for LUFT-5 Metals
5930 College Avenue, Oakland, CA

Sample Location	Sample Depth (fbg)	Sample Depth	Sample Date	Cd (mg/kg)	Cr (mg/kg)	Pb (mg/kg)	Ni (mg/kg)	Zn (mg/kg)
B10	7335-B10-15	15	10/30/2002	ND<2.0	38.2	19.6	51.5	47.7
B21	B21-8.5	8.5	6/22/2005	ND<1.0	74	4.6	78	36
B22	B22-10	10	6/22/2005	ND<1.0	43	5.3	53	41
B23	B23-10	10	6/22/2005	ND<1.0	47	7.2	63	50
CRWQCB February 2005 ESL - Residential				1.7	58	150	150	600
CRWQCB February 2005 ESL - Commercial				7.4	58	750	150	600

TABLE 1C NOTES:

Cd - Cadmium

Cr - Chromium

Pb - Lead

Ni - Nickel

Zn - Zinc

mg/kg - milligrams per kilogram; parts per million (ppm)

fbg - feet below grade

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for soil at a residential/commercial land use permitted site with groundwater that is a potential source of drinking water

TABLE 2A

Historical Results of Grab Groundwater Hydrocarbon Sample Analysis

5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (ug/L)	TEPH (ug/L)	TPH-D (ug/L)	O&G (ug/L)	Oxygenates (ug/L)	MTBE (ug/L)	B/T/E/X (ug/L)
B1	B1-GW	8.5	5/6/1998	31000	6000	--	--	ND<5	ND<5	2600 / 390 / 1600 / 4200
B2	B2-GW	6.5		200000	ND<5000	--	--	2500	2500	30000 / 49000 / 45000 / 21000
B3	B3-GW	6.5		$1x10^6$	7000	--	--	18000	18000	17000 / 24000 / 20000 / 80000
B7	B7-W	16.4	10/30/2002	296000	--	--	--	--	1360	18400 / 21900 / 8310 / 33800
B8	B8-W	11.5		1480	--	--	--	--	35	386 / 9 / 74 / 81
B9	B9-W	16.95	11/1/2002	16100	--	--	--	--	879	1250 / 1380 / 820 / 3480
B10	B10-W	13.85		49400	--	--	ND<5000	--	2680	6600 / 9940 / 1610 / 7600
B12	**B12-W**	--	5/2/2005	934000	--	--	92000*	ND≤500,000	ND<5000	64200 / 450000 / 550000 / 2697000
B14	**B14-W**	--	5/19/2005	ND<50	--	--	--	ND≤50	2.2	ND<0.5 / 1.2 / 0.6 / 3.5
B15	**B15-W**	--		53	--	--	--	ND≤50	ND<0.5	8.4 / ND<0.5 / ND<0.5 / ND<1.0
B16	**B16-W**	--	5/2/2005	154000	--	--	--	ND≤5000	**197**	2510 / 3020 / 4300 / 20400
B17	**B17-W**	--	5/19/2005	ND<50	--	--	--	ND≤50	ND<0.5	ND<0.5 / ND<0.5 / ND<0.5 / ND<1.0
CRWQCB February 2005 ESL				100	100	100	100	NC	5	1.0 / 40 / 30 / 20

Table Notes Following

TABLE 2A (Cont.)

Historical Results of Grab Groundwater Hydrocarbon Sample Analysis

5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	TPH-G (ug/L)	TPH-D (ug/L)	TEPH (ug/L)	O&G (ug/L)	Oxygenates (ug/L)	MTBE (ug/L)	B/T/E/X (ug/L)
B18	**B18-W**	6.4	4/14/2005	51	--	--	--	ND≤50	ND<0.5	ND<0.5 / ND<0.5 / ND<0.5 / 1.8
B19	**B19-W**	--	5/2/2005	4600000	--	--	--	ND≤5000	**146**	31100 / 70500 / 75600 / 228000
B20	**B20-W**	--	5/19/2005	60700	--	--	--	ND≤1000	**394**	6800 / 2600 / 1550 / 6520
B21	**B21-W**	15	6/22/2005	130000	--	--	5800000	ND≤1000 (EDB,EDC)	--	21000 / 24000 / 4500 / 23000
B23	**B23-W**	6.9	7/11/2005	21000	1800	--	9200	ND	**880**	2200 / 2600 / 450 / 3000
B24	**B24-W**	--	5/2/2005	3830000	--	--	--	--	ND<50	33200 / 46300 / 65500 / 175000
HB-1	**HB-1-W**	7.52	4/14/2005	173	--	--	--	ND≤50	0.9	0.8 / ND<0.5 / 0.9 / 3.9
HB-3	**HB-3-W**	8.05	7/11/2005	13000	--	--	--	ND≤2000	ND<20	690 / 21 / 1200 / 190
HB-4	**HB-4-W**	8.43		14000	--	--	--	ND≤2000	ND<20	13 / ND<10 / 10 / ND<10
HB-6	**HB-6-W**	6.45		45	--	--	--	ND≤100	ND<1	ND<0.5
CRWQCB February 2005 ESL				100	100	100	100	--	5	1.0 / 40 / 30 / 20

Table Notes Following

TABLE 2B

Historical Results of Grab Groundwater Volatile Organic Compound Analysis

5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Tri-CFM (ug/L)	PCE (ug/L)
B10	B10-W	13.85	11/1/2002	74	230	1610	441	ND<50	ND<50	765	ND<500	ND<100	ND<5000	ND<50	ND<250	ND<50
B12	**B12-W**	--	5/2/2005	61200	236000	430000	1270000	28600	ND<10000	305000	ND<10000	ND<5000	ND<250000	ND<10000	ND<10000	ND<5000
B21	**B21-W**	15	6/22/2005	ND<1000	ND<5000	ND<5000	ND<5000	ND<5000	ND<5000	ND<5000	ND<20000	ND<500	ND<5000	ND<500	ND<500	ND<500
B23	**B23-W**	6.9	7/11/2005	ND<50	ND<250	ND<250	320	ND<250	ND<250	ND<250	ND<1000	ND<25	ND<250	ND<25	ND<25	ND<25
CRWQCB February 2005 ESL				NC	NC	NC	NC	NC	NC	17	120	5	5	6	NC	5

TABLE NOTES:

ppb - parts per billion

NC - no criteria established for this chemical constituent

-- not analyzed for this constituent; parameter not measured

fbg - feet below grade surface

IPB- Isopropylbenzene

n-PB - n-Propylbenzene

1,3,5-TMB - 135 Trimethylbenzene

1,2,4-TMB - 1,2,4- Trimethylbenzene

Sec-BB - Sec-Butylbenzene

n-BB - n-Butylbenzene

MIBK - Methyl Isobutal Ketone

TCE - Trichloroethene

MC - Methylene Chloride

cis-1,2-DCE - cis-1,2-Dichloroethene

Tri-CFM - Trichlorofluoromethane

PCE - Tetrachloroethene

All other soil boring grab GW samples not analyzed for VOCs

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for groundwater that is a potential source of drinking water

TABLE 2C
Results of Grab Groundwater Sample Analysis for LUFT-5 Metals
5930 College Avenue, Oakland, CA

Sample Location	Sample ID	Sample Depth (fbg)	Sample Date	Cd (ug/L)	Cr (ug/L)	Pb (ug/L)	Ni (ug/L)	Zn (ug/L)
B10	B10-W	13.85	11/1/2002	ND<0.5	0.28	0.26	0.33	0.41
B12	**B12-W**		5/2/2005	17.4	9.51	106	30.7	100
B21	**B21-W**	15	6/22/2005	38	1400	75	1500	1900
B23	**B23-W**	6.9	7/11/2005	ND<2	ND<5	10	13	32
B23**	**B23-W**	6.9	7/11/2005	ND<2	ND<5	ND<5	11	30
CRWQCB February 2005 ESL				1.1	50	2.5	8.2	81

TABLE 2C NOTES:

Cd - Cadmium
Cr - Chromium
Pb - Lead
Ni - Nickel
Zn - Zinc
mg/Kg - milligrams per Kilogram; parts per million (ppm)
fbg - feet below grade
** Results of dissolved sample (pre-filtered in field)
All other soil boring grab GW samples not analyzed for LUFT 5 Metals
CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for groundwater that **is** a potential source of drinking water

TABLE 3A

Historical Results of Groundwater Sample Analysis & Fluid-Level Data

5930 College Avenue, Oakland, CA

MW-1

Well ID	Sample Date	Casing Elevation (MSL)	DTW (TOC)	Water Elevation (MSL)	Product Odor/ Sheen	TPH-G (ug/L)	TEPH (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-1	6/1/1998	50.00 *	4.81	45.19	slight sheen	160000	ND	1900	28000 / 21000 / 3800 / 21000
	9/10/1998	50.00 *	7.5	42.5	odor	290000	ND	440	<50 / 25000 / 7100 / 32000
	10/7/1999	50.00 *	10.04	39.96	odor	85000	ND	1100	20000 / 13000 / 3800 / 17000
	1/26/2000	50.00 *	8.26	41.74	slight sheen	130000	--	470	25000 / 18000 / 4500 / 22000
	10/25/2000	50.00 *	10.1	39.9	odor	130000	--	1300	23000 / 12000 / 3900 / 18000
	2/2/2001	50.00 *	9.61	40.39	odor	128000	--	780	19000 / 11000 / 3800 / 18000
	4/25/2001	195.9	7.39	188.51	odor	120000	--	900	21000 / 13000 / 390 / 18000
	7/10/2001	195.9	9.72	186.18	odor	79000	--	660	15000 / 7800 / 3000 / 15000
	10/8/2001	195.9	10.88	185.02	sheen/ odor	112000	--	374	25300 / 11800 / 4280 / 20600
	1/7/2002	195.9	4.34	191.56	odor	96100	--	596	21100 / 13500 / 4160 / 21900
	4/8/2002	195.9	6.84	189.06	slight odor	111000	--	679	21200 / 13400 / 4230 / 21000
	7/9/2002	195.9	9.4	186.5	slight odor	110000	--	570	20300 / 13300 / 4060 / 19800
	10/23/2002	195.9	11.04	184.86	none	54100	--	1010 (1080)**	10800 / 3870 / 2320 / 9440
	10/15/2003	195.9	10.8	185.1	none	90700	--	724	17800 / 4740 / 3150 / 13900
	2/2/2004	195.9	7.35	188.55	none	108000	--	194	14200 / 7420 / 3450 / 19800
	4/23/2004	195.9	6.83	189.07	slight odor	49200	--	114	7910 / 1480 / 1810 / 10100
	7/19/2004	195.9	8.95	186.95	odor	63900	--	303	7260 /2270 / 2510 / 10100
	10/22/2004	195.9	10.15	185.75	None	80700	--	493 (296)**	13900 / 1670 / 3550 / 15200
	1/21/2005	195.9	5.45	190.45	odor	278000	--	271 (174)**	14700 / 25300 / 10800 / 73500
	4/14/2005	195.9	5.3	190.6	Odor /sheen	116000	--	366 (410)**	15100 / 7080 / 4220 / 20700
	7/26/2005	195.9	7.6	188.3	Odor	82000	--	ND<250	12000/4500/3300/14000
	10/14/2005	195.9	9.58	186.32	Odor/sheen	64000	--	ND<250	13000/5700/3400/16000
	1/13/2006	**195.9**	**4.6**	**191.3**	**Odor/ sheen**	**49000**	**--**	**ND<250**	**12000/5300/3500/17000**
	4/14/2006	**195.9**	**3.08**	**192.82**	**Odor**	**51000**	**--**	**270**	**14000/5300/3500/17000**
CRWQCB February 2005 ESL						100	100	5	1.0 / 40 / 30 / 20

Table Notes Following

TABLE 3A (Cont.)

Historical Results of Groundwater Sample Analysis & Fluid-Level Data

5930 College Avenue, Oakland, CA

MW-2

Well ID	Sample Date	Casing Elevation (MSL)	DTW (TOC)	Water Elevation (MSL)	Product Odor/ Sheen	TPH-G (ug/L)	TEPH (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-2	10/7/1999	51.42*	11.49	39.93	slight odor	18000	ND	490	3000 / 1700 / 1000 / 3900
	1/26/2000	51.42*	7.85	43.57	none	42000	--	560	9300 / 2200 / 2300 / 7700
	10/25/2000	51.42*	11.57	39.85	slight odor	31000	--	500	5500 / 370 / 1700 / 2600
	2/2/2001	51.42*	10.77	40.65	odor	36000	--	400	4300 / 530 / 1800 / 4500
	4/25/2001	197.28	8.52	188.76	odor	56000	--	460	6700 / 1700 / 2600 / 8200
	7/10/2001	197.28	11.05	186.23	odor	39000	--	180	6200 / 730 / 2300 / 6100
	10/8/2001	197.28	12.79	184.49	sheen odor	40700	--	6460	6310 / 399 / 2100 / 5320
	1/7/2002	197.28	4.92	192.36	odor	59600	--	366**	10300 / 3250 / 4180 / 14400
	4/8/2002	197.28	8.4	188.88	slight odor	66700	--	583**	10200 / 2670 / 3840 / 13200
	7/9/2002	197.28	10.55	186.73	slight odor	37100	--	303 (298)**	5340 / 890 / 2110 / 6920
	10/23/2002	197.28	13.85	183.43	none	13300	--	322 (360)**	2420 / 216 / 922 / 1470
	10/15/2003	197.28	12.38	184.9	none	11300	--	264 (322)**	2660 / 51 / 1180 / 1220
	2/2/2004	197.28	8.8	188.48	none	21700	--	168 (200)**	2130 / 51 / 1030 / 2060
	4/23/2004	197.28	8.4	188.88	Slight odor	30400	--	112 (203)**	3570 / 322 / 1620 / 4140
	7/19/2004	197.28	10.3	186.98	odor	28300	--	283 (373)**	2540 / 239 /1320 / 2300
	10/22/2004	197.28	10.25	187.03	Mod odor	13500	--	273 (229)**	1790 / 54 / 892 / 915
	1/21/2005	197.28	6.65	190.63	Mod odor	278000	--	161 (163)**	5980 / 1030 / 2890 / 9070
	4/14/2005	197.28	8.7	188.58	None	46100	--	155 (150)**	5170 / 787 / 2530 / 6010
	7/26/2005	197.28	8.95	188.33	Mod odor	41000	--	ND (ND)**	5600/550/2600/4600
	10/14/2005	197.28	10.92	186.36	Odor/ sheen	13000	--	130	2900/100/1300/1200
	1/13/2006	**197.28**	**5.48**	**191.8**	**Odor**	**20000**	**--**	**ND<100**	**4900/490/2400/4200**
	4/14/2006	**197.28**	**3.61**	**193.67**	**Odor**	**21000**	**--**	**ND<100**	**4000/740/2300/5100**
CRWQCB February 2005 ESL						100	100	5	1.0 / 40 / 30 / 20

Table Notes Following

TABLE 3A (Cont.)

Historical Results of Groundwater Sample Analysis & Fluid-Level Data

5930 College Avenue, Oakland, CA

MW-3

Well ID	Sample Date	Casing Elevation (MSL)	DTW (TOC)	Water Elevation (MSL)	Product Odor/ Sheen	TPH-G (ug/L)	TEPH (ug/L)	MTBE (ug/L)	BTEX (ug/L)
MW-3	10/7/1999	49.39*	9.67	39.72	none	6600	ND	390	310 / 110 / 430 / 1000
	1/26/2000	49.39*	5.4	43.99	none	3300	--	40	110 / 8 / 100 / 32
	10/25/2000	49.39*	9.24	40.15	slight odor	4500	--	ND	100 / 2 / 120 / 130
	2/2/2001	49.39*	8.73	40.66	slight odor	2900	--	35	35 / 3 / 160 / 298
	4/25/2001	195.22	6.61	188.61	slight odor	8400	--	56	260 / 33 / 290 / 510
	7/10/2001	195.22	8.85	186.37	slight odor	12000	--	35	39 / 10 / 690 / 1600
	10/8/2001	195.22	9.75	185.47	sheen/ odor	4913	--	52	108 / 4 / 99 / 133
	1/7/2002	195.22	4.25	190.97	sheen/ odor	7260	--	81.7**	723 / 138 / 492 / 887
	4/8/2002	195.22	6.33	188.89	odor	11700	--	ND**	540 / 108 / 706 / 1710
	7/9/2002	195.22	8.56	186.66	odor	2320	--	28.3 (20)**	37.1 / 4.7 / 98.5 / 187
	10/23/2002	195.22	10.02	185.2	sheen/ odor	2830	--	ND (ND)**	46.8 / 4.7 / 43.6 / 65.5
	10/15/2003	195.22	9.8	185.42	sheen/ odor	3040	--	ND (ND)**	91.3 / 8.4 / 69.9 / 148
	2/2/2004	195.22	6.85	188.37	Sheen/ odor	5140	--	ND (ND)**	126 / 8.7 / 134 / 238
	4/23/2004	195.22	6.17	189.05	none	7210	--	ND (ND)**	227 / 39.5 / 448 / 879
	7/19/2004	195.22	8.25	186.97	Slight odor	9860	--	ND (ND)**	20.4 / 3.2 / 30.6 / 117
	10/22/2004	195.22	9.25	185.97	None	7420	--	96 (21)**	152 / 12.8 / 267 / 480
	1/21/2005	195.22	5.22	190	Slight odor	2420	--	ND (ND)**	111 / 11.4 / 139 / 265
	4/14/2005	195.22	6.64	188.58	Odor / sheen	5130	--	54 (41.4)**	357 / 19.4 / 287 / 510
	7/26/2005	195.22	6.9	188.32	none	9800	--	ND (21)**	200/23/220/360
	10/14/2005	195.22	8.83	186.39	Odor/ sheen	6100	--	ND	76/19/170/350
	1/13/2006	**195.22**	**4.61**	**190.61**	**Odor**	**3900**	**--**	**24**	**380/17/230/300**
	4/14/2006	**195.22**	**3.41**	**191.81**	**Odor**	**5000**	**--**	**69**	**760/44/230/190**
CRWQCB February 2005 ESL						100	100	5	1.0 / 40 / 30 / 20

Table Notes Following

TABLE 3A (Cont.)

Historical Results of Groundwater Sample Analysis & Fluid-Level Data

5930 College Avenue, Oakland, CA

PW-1

Well ID	Sample Date	Casing Elevation (MSL)	DTW (TOC)	Water Elevation (MSL)	Product Odor/ Sheen	TPH-G (ug/L)	TEPH (ug/L)	MTBE (ug/L)	BTEX (ug/L)
PW-1	4/14/2005	197.17	6.4	190.77	none	3360	--	ND (ND**)	62.8 / 6.7 / 79.5/ 317
	7/26/2005	197.17	8.63	188.54	none	1300	--	ND (ND**)	22/ND/48/110
	10/14/2005	197.17	10.71	186.46	none	4300	--	ND	93/1.2/100/140
	1/13/2006	**197.17**	**4.87**	**192.3**	**none**	**450**	**--**	**ND>2.0**	**10/ND/37/72**
	4/14/2006	**197.17**	**2.27**	**194.9**	**Odor**	**120**	**--**	**ND>2.0**	**2.3/ND<1.0/3.5/9.3**
CRWQCB February 2005 ESL						100	100	5	1.0 / 40 / 30 / 20

TABLE 3A 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]

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

* - Arbitrary datum point with assumed elevation of 50 feet used prior to MSL survey on April 26, 2001

** - Concentration confirmed by EPA Method 8260

CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for groundwater that is a potential source of drinking water

TABLE 3B

2004 -2006 Groundwater Sampling Results for VOCs

Sheaff's Garage, 5930 College Avenue, Oakland, CA

MW-1

Well ID	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Acetone (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Tri-CFM (ug/L)	PCE (ug/L)
MW-1	2/2/2004	116	342	701	2690	ND<10	66	ND<100	992	47	ND<5	ND<50	ND<10	ND<10	ND<5
	4/23/2004	ND<100	180	417	1560	ND<100	ND<100	ND<100	559	ND<100	ND<10	1210	ND<100	ND<100	ND<50
	7/19/2004	89	239	507	1890	ND<20	ND<20	ND<200	801	ND<20	ND<10	ND<100	ND<20	ND<20	ND<10
	10/22/2004	ND<100	264	520	1990	ND<100	ND<100	ND<1000	700	ND<100	ND<50	ND<500	ND<100	ND<100	ND<50
	1/21/2005	ND<200	271	525	2080	ND<200	ND<200	ND<200	662	ND<200	ND<100	ND<5000	ND<200	ND<200	ND<100
	4/14/2005	141	437	882	3450	ND	ND	ND	1220	ND<100	ND<50	ND<2500	ND<100	ND<100	ND<50
	7/26/2005	ND<500	ND<2500	ND<2500	ND<2500	ND<2500	ND<2500	ND<10000	ND<2500	ND<10000	ND<250	ND<2500	ND<250	ND<250	ND<250
	10/14//05	ND<250	ND<1200	ND<1200	2700	ND<1200	ND<1200	ND<5000	ND<1200	ND<5000	ND<120	ND<5000	ND<120	ND<120	ND<120
	1/13/2006	**ND<250**	**ND<1200**	**ND<1200**	**2100**	**ND<1200**	**ND<1200**	**ND<5000**	**ND<1200**	**ND<5000**	**ND<120**	**ND<5000**	**ND<120**	**ND<120**	**ND<120**
	4/14/2006	**ND<250**	**ND<1200**	**ND<1200**	**2400**	**ND<1200**	**ND<1200**	**ND<5000**	**ND<1200**	**ND<5000**	**ND<120**	**ND<5000**	**ND<120**	**ND<120**	**ND<120**
CRWQCB ESL		NC	NC	NC	NC	NC	NC	1500	17	120	5	5	6	NC	5

MW-2

Well ID	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Acetone (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Tri-CFM (ug/L)	PCE (ug/L)
MW-2	2/2/2004	73	186	306	1090	ND<10	66	ND<100	413	ND<10	ND<5	ND<50	ND<10	ND<10	ND<5
	4/23/2004	ND<100	215	469	1570	ND<100	ND<100	ND<100	568	ND<100	ND<5	ND<50	ND<100	ND<100	ND<50
	7/19/2004	73	173	316	1070	ND<10	74	ND<100	475	ND<10	ND<5	ND<50	ND<10	ND<10	ND<5
	10/22/2004	49	132	80	257	ND<10	44	ND<10	227	ND<10	ND<50	ND<50	ND<10	ND<10	ND<5
	1/21/2005	ND<100	239	371	1500	ND<100	ND<100	ND<1000	697	ND<100	ND<50	ND<2500	ND<100	ND<100	ND<50
	4/14/2005	139	293	445	2390	ND	71	ND	1490	ND<10	ND<5	ND<250	ND<10	ND<10	ND<5
	7/26/2005	ND<500	ND<2500	ND<2500	ND<2500	ND<2500	ND<2500	ND<10000	ND<2500	ND<10000	ND<250	ND<2500	ND<250	ND<250	ND<250
	10/14//05	ND<100	ND<500	ND<500	770	ND<500	ND<500	ND<2000	ND<500	ND<2000	ND<50	ND<2000	ND<50	ND<50	ND<50
	1/13/2006	**ND<100**	**ND<500**	**ND<500**	**1200**	**ND<500**	**ND<500**	**ND<2000**	**ND<500**	**ND<2000**	**ND<50**	**ND<2000**	**ND<50**	**ND<50**	**ND<50**
	4/14/2006	**ND<100**	**ND<500**	**ND<500**	**1200**	**ND<500**	**ND<500**	**ND<2000**	**680**	**ND<2000**	**ND<50**	**ND<2000**	**ND<50**	**ND<50**	**ND<50**
CRWQCB ESL		NC	NC	NC	NC	NC	NC	1500	17	120	5	5	6	NC	5

Table & Notes Following

TABLE 3B (Cont.)

2004 -2006 Groundwater Sampling Results for VOCs

Sheaff's Garage, 5930 College Avenue, Oakland, CA

MW-3

Well ID	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Acetone (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Tri-CFM (ug/L)	PCE (ug/L)
MW-3	2/2/2004	23	83	22	68	ND<1	38	ND<10	33	ND<1	ND<0.5	ND<5	ND<1	ND<1	ND<0.5
	4/23/2004	29	82	60	337	ND<1	24	ND<1000	160	ND<1	ND<0.5	ND<5	ND<1	ND<1	ND<0.5
	7/19/2004	27	105	48	204	ND<1	34	ND<10	16	ND<1	ND<0.5	ND<5	ND<1	ND<1	ND<0.5
	10/22/2004	55	182	192	574	ND<10	42	ND<10	76	ND<10	ND<5	ND<50	ND<10	ND<10	ND<5
	1/21/2005	25	88	23	96	ND<1	15	ND<10	43	ND<1	ND<0.5	ND<25	ND<1	ND<1	ND<0.5
	4/14/2005	45	28	85	302	ND<10	28	ND<10	121	ND<1	ND<0.5	ND25	ND<1	ND<1	ND<0.5
	7/26/2005	ND<10	ND<50	120	250	ND<50	ND<50	ND<200	60	ND<200	ND<5	ND<50	ND<5	ND<5	ND<5
	10/14//05	ND<20	ND<100	ND<100	210	ND<100	ND<100	ND<400	ND<100	ND<400	ND<10	ND<400	ND<10	ND<10	ND<10
	1/13/2006	**ND<10**	**120**	**ND<50**	**120**	**ND<50**	**ND<50**	**ND<200**	**ND<50**	**ND<200**	**ND<5**	**ND<200**	**ND<5**	**ND<5**	**ND<5**
	4/14/2006	**ND<20**	**170**	**ND<100**	**120**	**ND<100**	**ND<100**	**ND<400**	**100**	**ND<400**	**ND<10**	**ND<400**	**ND<10**	**ND<10**	**ND<10**
CRWQCB ESL		NC	NC	NC	NC	NC	NC	1500	17	120	5	5	6	NC	5

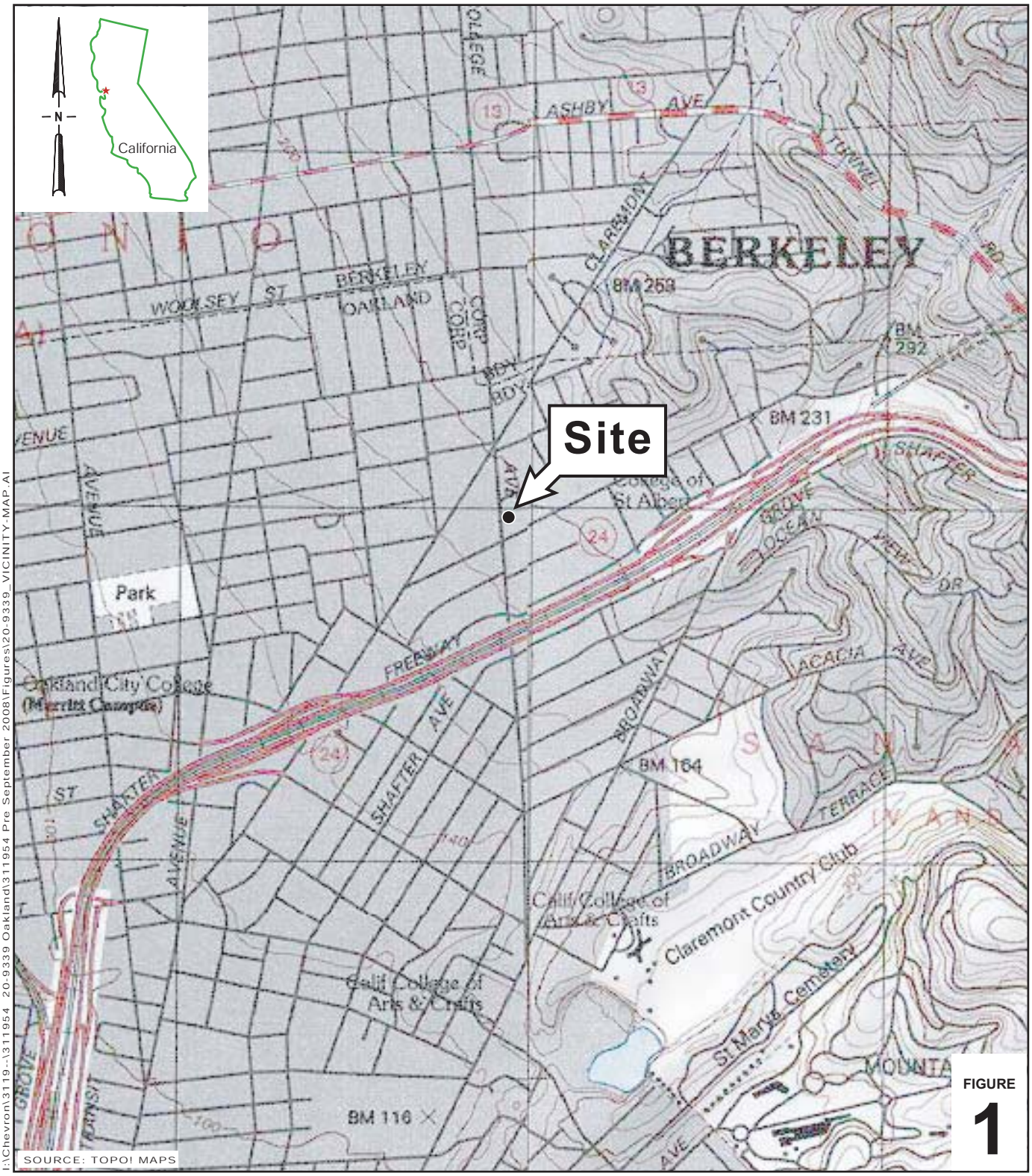
PW-1

Well ID	Sample Date	IPB (ug/L)	n-PB (ug/L)	1,3,5-TMB (ug/L)	1,2,4-TMB (ug/L)	Sec-BB (ug/L)	n-BB (ug/L)	Acetone (ug/L)	Napthalene (ug/L)	MIBK (ug/L)	TCE (ug/L)	MC (ug/L)	cis-1,2-DCE (ug/L)	Tri-CFM (ug/L)	PCE (ug/L)
PW-1	4/14/2005	11	22	110	100	ND,10	ND<10	ND<40	43	ND<1	3.3	ND<25	12	ND<1	84.9
	7/26/2005	7.3	17	37	100	ND<10	ND<10	ND<40	43	ND<40	ND<1	ND<10	7	1.5	48
	10/14//05	28	72	67	120	12	17	ND<40	43	ND<40	4.1	ND<40	29	ND<1	25
	1/13/2006	**ND<20**	**ND<10**	**ND<10**	**37**	**ND<10**	**ND<10**	**ND<40**	**ND<10**	**ND<40**	**1.4**	**ND<40**	**5**	**ND<1**	**95**
	4/14/2006	**ND<2**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<10**	**ND<40**	**ND<10**	**ND<40**	**1.1**	**ND<40**	**2.8**	**ND<1**	**68**
CRWQCB ESL		NC	NC	NC	NC	NC	NC	1500	17	120	5	5	6	NC	5

TABLE 3B NOTES:

IPB = Isopropylbenzene
n-PB = n-Propylbenzene
1,3,5-TMB = 1,3,5-Trimethylbenzene
1,2,4-TMB = 1,2,4-Trimethylbenzene
sec-BB = sec-Butylbenzene
n-BB = n-Butylbenzene
MIBK = 4-Methyl-2-Pentanone
TCE = Trichloroethene
MC = Methylene Chloride
cis-1,2-DCE = cis-1,2-Dichloroethene
Tri-CFM = Trichloroflouromethane
PCE = Tetrachloroethene
ug/l = micrograms per liter
ND = Not detected above laboratory reporting limit
NC = No Criteria Listed
CRWQCB/ESL = California Regional Water Quality Control Board's Interim Final - February 2005, Tier 1 Environmental Screening Level for groundwater that is a potential source of drinking water

10/01/08



I:\Chevron\3119-\311954 20-9339 Oakland\311954 Pre September 2008\Figures\20-9339_VICINITY-MAP.AI

FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Chevron Service Station 20-9339

5940 College Avenue

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

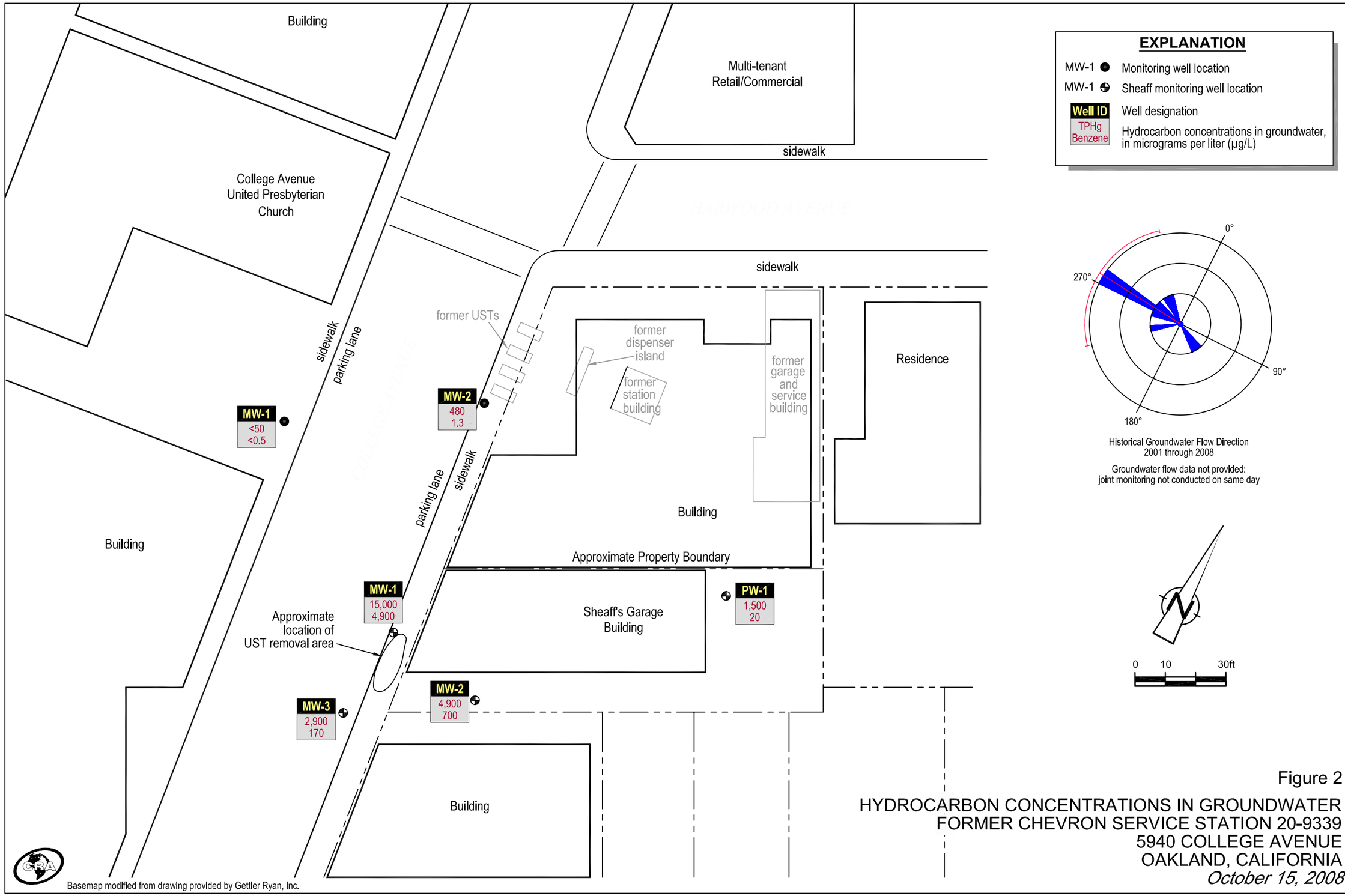


Figure 2

HYDROCARBON CONCENTRATIONS IN GROUNDWATER
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA
October 15, 2008

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM003.DWG

GETTLER-RYAN INC.

TRANSMITTAL

November 14, 2008
G-R #386521

TO: Ms. Charlotte Evans
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608

CC: Mr. Ian Robb
Chevron Environmental
Management Company
6111 Bollinger Canyon Road,
Room 36121
San Ramon, California 94583
(VIA PDF)

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Former Chevron Service Station
#209339
5940 College Avenue
Oakland, California
RO 0000466

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	November 14, 2008	Groundwater Monitoring and Sampling Report **Second Semi-Annual Event of October 15, 2008**

COMMENTS:

Pursuant to your request, we are providing you with a copy of the above referenced report for **your use and distribution to the following (via PDF):**

Mr. Steven Plunkett, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577 **(Distributed by CRA via PDF)**

Please provide any comments/changes and propose any groundwater monitoring modifications for the next event prior to ***November 28, 2008,*** at which time this final report will be distributed to the following:

cc: Mr. Donald Sweet, San Francisco Property Management Co., 155 Jefferson Street, #4, San Francisco, CA 94133-1224

Enclosures

Ian Robb
Project Manager
Marketing Business Unit

Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 842-9496
Fax (925) 842-8370
ianrobb@chevron.com

November 14, 2008

Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Chevron Service Station # 209339

Address 5940 College Ave., Oakland, California

I have reviewed the attached routine groundwater monitoring report dated November 14, 2008.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Gettler-Ryan Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code section 13267(b) (1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

Ian Robb

Attachment: Report

WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #209339**
Site Address: **5940 College Avenue**
City: **Oakland, CA**

Job # **386521**
Event Date: 10-15-08
Sampler: Joe

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	O.K	O.K	O.K	O.K	O.K	O.K	O.K	N	N	8" Boart-Longy.	No
MW-2	O.K	O.K	O.K	O.K	O.K	O.K	O.K	N	N	8" Boart-Longy.	NO

Comments

GETTLER-RYAN INC.

November 14, 2008
G-R Job #386521

Mr. Ian Robb
Chevron Environmental Management Company
6111 Bollinger Canyon Road, Room 3612
San Ramon, CA 94583

RE: Second Semi Annual Event of October 15, 2008
Groundwater Monitoring & Sampling Report
Former Chevron Service Station #209339
5940 College Avenue
Oakland, California

Dear Mr. Robb:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached). A joint monitoring event was scheduled with Sheaff's Garage located at 5930 College Avenue, Oakland, California, however joint monitoring was not conducted on the same date.

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations, and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. A Groundwater Elevation Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

Please call if you have any questions or comments regarding this report. Thank you.

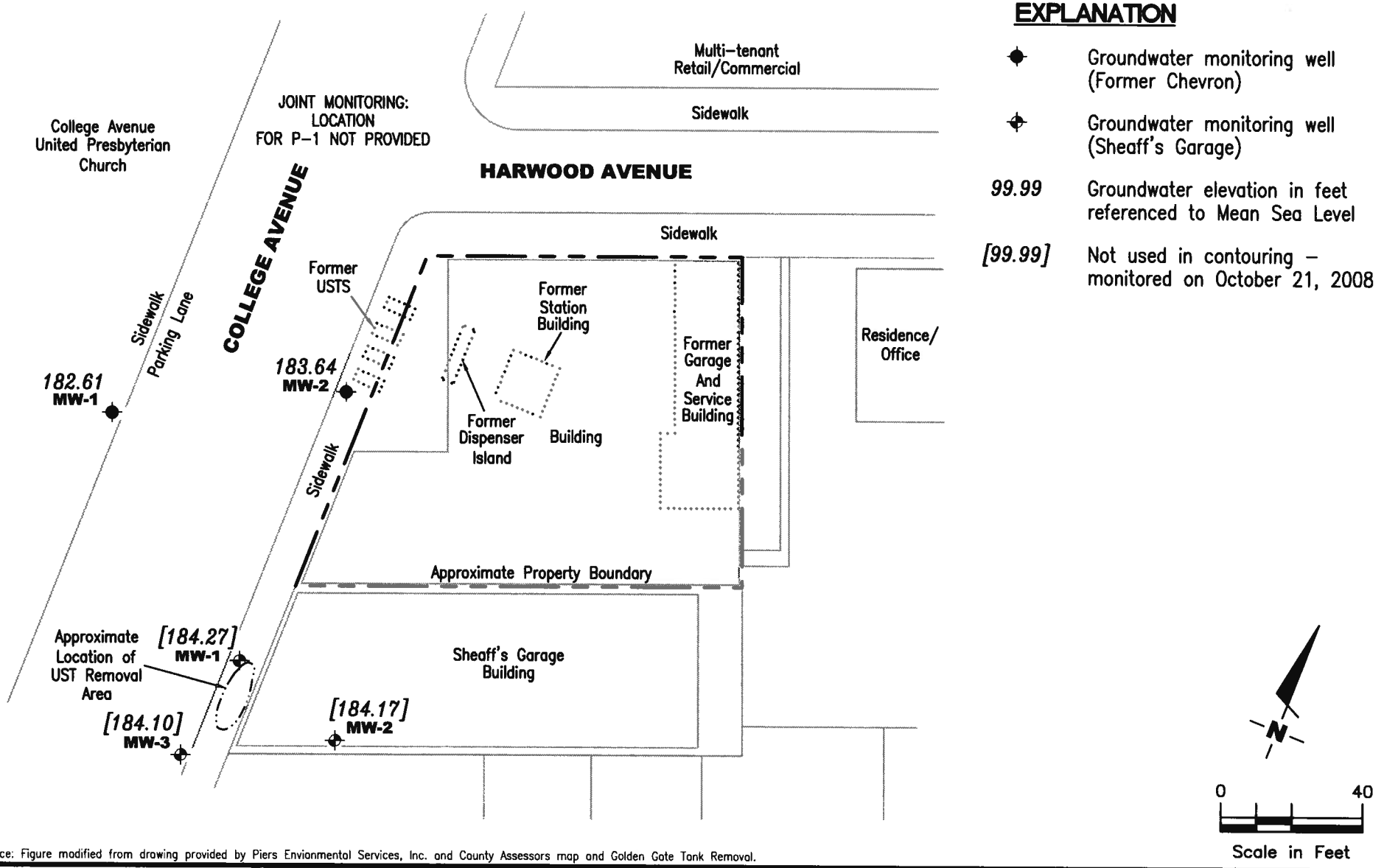
Sincerely,

Deanna L. Harding
Project Coordinator

PROFESSIONAL GEOLOGIST
DOUGLAS J. LEE
No. 6882
STATE OF CALIFORNIA

Douglas J. Lee
Senior Geologist, P.G. No. 6882

Figure 1: Groundwater Elevation Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Table 3: Groundwater Analytical Results
Table 4: Field Measurements
Table 5: Joint Groundwater Monitoring Data and Analytical Results - Sheaff's Garage
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Source: Figure modified from drawing provided by Piers Environmental Services, Inc. and County Assessors map and Golden Gate Tank Removal.

GETTLER - RYAN INC.
6747 Sierra Court, Suite J
Dublin, CA 94568 (925) 551-7555

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

FIGURE
1

PROJECT NUMBER	REVIEWED BY	DATE	REVISED DATE
386521		October 15, 2008	

FILE NAME: P:\Enviro\Chevron\209339\Q08-209339.DWG | Layout Tab: Pat4

Table 1

Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-1									
01/03/01	196.91	12.75	184.16	930[1]	2.9	6.9	2.7	7.6	14/<2.0[3]
04/25/01	196.91	9.23	187.68	210[4]	2.0	1.5	2.0	3.3	5.3/<2.0[3]
07/09/01	196.91	11.86	185.05	290[5]	1.8	2.0	2.5	0.96	<2.5
06/08/00	196.91	13.49	183.42	200	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	196.91	7.33	189.58	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	196.91	7.45	189.46	670	<0.50	<2.0	<1.0	5.6	<2.5
10/15/02	196.91	13.68	183.23	260	0.62	0.82	<0.50	<1.5	--
04/15/03	196.91	6.82	190.09	1,700	1.3	<5.0	<2.0	<5.0	--
10/31/03	196.91	13.72	183.19	150	<2.0	0.7	<2.0	<5.0	--
04/23/04	196.91	9.02	187.89	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	196.91	11.50	185.41	63	<0.5	<0.5	<0.5	<1.5	--
04/14/05	196.91	7.11	189.80	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	196.91	11.90	185.01	160	<0.5	<0.5	0.6	<5.0	--
04/14/06	196.91	6.95	189.96	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	196.91	11.68	185.23	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07[6]	196.91	10.71	186.20	1,200	3.4	<5.0	2.1	<20	--
10/22/07	196.91	13.75	183.16	<50	<0.5	<0.5	<0.5	<1.5	--
04/21/08	196.91	9.95	186.96	120	<0.5	<0.5	<0.5	<1.5	--
10/15/08	**196.91**	**14.30**	**182.61**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**--**
MW-2									
01/03/01	197.35	12.48	184.87	2,100[2]	110	11	63	25	83/2.2[3]
04/25/01	197.35	8.90	188.45	1,700[4]	150	12	30	15	150/<2.0[3]
07/09/01	197.35	11.44	185.91	2,500[5]	200	21	55	26	<50
04/08/02	197.35	13.37	183.98	4,200	87	2.8	29	9.8	<2.5
01/13/02	197.35	6.55	190.80	410	20	2.9	<2.5	4.4	27/<2.0[3]
04/08/02	197.35	8.37	188.98	4,000	70	1.7	17	17	<2.5
10/15/02	197.35	13.00	184.35	3,100	41	2.2	16	<6.0	--
04/15/03	197.35	7.58	189.77	2,400	37	<2.5	12	<7.5	--
10/31/03	197.35	13.02	184.33	2,300	12	3.4	4.8	<7.5	--
04/23/04	197.35	8.38	188.97	960	8.9	1.0	2.4	<1.5	--
10/22/04	197.35	11.41	185.94	2,200	24	<2.5	4.1	<10	--
04/14/05	197.35	6.69	190.66	640	2.1	<2.0	<2.0	7.5	--

Table 1

Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-2 (cont)									
10/14/05	197.35	11.14	186.21	1,200	6.9	<2.5	<2.5	<7.5	--
04/14/06	197.35	6.54	190.81	180	<0.5	<0.5	<0.5	<5.0	--
10/26/06	197.35	11.02	186.33	550	<2.0	0.5	<2.0	<10	--
04/13/07[6]	197.35	9.95	187.40	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	197.35	12.63	184.72	3,200	12	<5.0	4.7	<20	--
04/21/08	197.35	9.31	188.04	860	1.0	<2.0[7]	<2.0[7]	<10[7]	--
10/15/08	**197.35**	**13.71**	**183.64**	**480**	**1.3**	**0.8**	**1.1**	**<5.0[8]**	**--**
TRIP BLANK									
TB-LB									
01/03/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/25/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/09/01	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA									
10/08/01	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
01/13/02	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
04/08/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
10/15/02	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	--
04/15/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/31/03	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/23/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/04	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/14/05	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/14/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/26/06	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/13/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/07	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
04/21/08	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/15/08	--	--	--	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	--

Table 1

Groundwater Monitoring Data and Analytical Results

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

EXPLANATIONS:

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

(µg/L) = Micrograms per liters

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

* 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).

1 Laboratory report indicates unidentified hydrocarbons C6-C12.

2 Laboratory report indicates gasoline C6-C12.

3 MTBE by EPA Method 8260.

4 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.

5 Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons C6-C12.

6 Current laboratory analytical results do not coincide with historical data, although the laboratory results were confirmed.

7 Laboratory report indicates that due to the presence of interferent near their retention time, normal reporting limits were not attained for toluene, ethylbenzene, and total xylenes. The presence or concentration of these compounds cannot be determined below the reporting limits due to the presence of these interferents.

8 Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

WELL ID	DATE	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)
MW-1	01/03/01	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0
	04/25/01	--	<20	<2.0	<2.0	<2.0	<2.0	--
MW-2	01/03/01	<500	<50	2.2	<2.0	<2.0	<2.0	<2.0
	04/25/01	--	<20	<2.0	<2.0	<2.0	<2.0	--
	01/13/02	--	<20	<2.0	<2.0	<2.0	<2.0	--

EXPLANATIONS:

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

(µg/L) = Micrograms per liters

-- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3

Groundwater Analytical Results

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

WELL ID	DATE	FERROUS IRON (mg/L)	TOTAL ALKALINITY (mg/L)	SULFATE AS SO_4 (mg/L)
MW-1	04/25/01	0.15	380	11
	07/09/01	<0.050	410	6.8
	10/08/01	--[1]	414	5.4
	01/13/02	<0.10[2]	390	10
MW-2	04/25/01	0.093	680	21
	07/09/01	0.44	600	9.3
	10/08/01	--[1]	683	3.8
	01/13/02	<0.10[2]	630	7.0

EXPLANATIONS:

(mg/L) = milligrams per liter

-- = Not Analyzed

[1] Analysis was not performed by the Laboratory as requested on the Chain of Custody.

[2] Due to sample transfer by the lab from laboratory to another, the sample was received beyond the EPA recommended holding time.

ANALYTICAL METHODS:

EPA Method SM 3500 Fe for Ferrous Iron

EPA Method 310.1 for Total Alkalinity

EPA Method 300.0 for Sulfate as SO_4

Table 4

Field Measurements

Former Chevron Service Station #209339

5940 College Avenue

Oakland, California

WELL ID	DATE	D.O. Before Purging (mg/L)	ORP Before Purging (mV)
MW-1	07/09/01	1.25	111
	10/08/01	1.20	64
	01/13/02[1]	--	--
MW-2	07/09/01	1.89	16
	10/08/01	1.04	58
	01/13/02[1]	--	--

EXPLANATIONS:

D.O. = Dissolved Oxygen Concentration

(mg/L) = Milligrams per liter

ORP = Oxygen Reduction Potential

(mV) = Millivolt

-- = Not Measured

[1] D.O. and ORP meter erratic; measurements not taken.

Table 5

Joint Groundwater Monitoring Data and Analytical Results

Sheaff's Garage
5930 College Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-1									
04/25/01[1]	195.90	7.39	188.51	--	--	--	--	--	--
07/09/01	195.90	9.72	186.18	79,000	15,000	7,800	3,000	15,000	660
10/08/01	195.90	10.88	185.02	112,000	25,300	11,800	4,280	20,600	374
01/07/02[3]	195.90	4.34	191.56	96,100	21,100	13,500	4,160	21,900	596/330[2]
04/08/02	195.90	6.84	189.06	111,000	21,200	13,400	4,230	21,000	814
10/23/02[3,4]	195.90	--	--	--	--	--	--	--	--
04/15/03[5]	195.90	--	--	--	--	--	--	--	--
10/31/03[5]	195.90	--	--	--	--	--	--	--	--
04/23/04[4]	195.90	--	--	--	--	--	--	--	--
10/22/04	195.90	10.15	185.75	80,700	13,900	1,670	3,550	15,200	493
04/14/05[1]	195.90	5.30	190.60	--	--	--	--	--	--
10/14/05[6]	195.90	9.58	186.32	64,000	13,000	5,700	3,400	16,000	<250
04/14/06[6]	195.90	3.08	192.82	--	14,000	5,300	3,500	17,000	270
10/26/06[6]	195.90	9.22	186.68	34,000	12,000	1,600	3,100	8,600	<250
04/13/07	195.90	9.24	186.66	52,000	9,100	2,600	3,100	11,000	150
10/22/07[5]	195.90	--	--	--	--	--	--	--	--
04/21/08[4]	195.90	--	--	--	--	--	--	--	--
10/21/08[3]	**195.90**	**11.63**	**184.27**	**15,000**	**4,900**	**430**	**1,900**	**2,260**	**110**
MW-2									
04/25/01[1]	197.28	8.52	188.76	--	--	--	--	--	--
07/09/01	197.28	11.05	186.23	39,000	6,200	730	2,300	6,100	180
10/08/01	197.28	12.79	184.49	40,700	6,310	399	2,100	5,320	6,460
01/07/02[3]	197.28	4.92	192.36	59,600	10,300	3,250	4,180	14,400	366/170[2]
04/08/02	197.28	8.40	188.88	66,700	10,200	2,670	3,840	13,200	583
10/23/02[3,4]	197.28	--	--	--	--	--	--	--	--
04/15/03[5]	197.28	--	--	--	--	--	--	--	--
10/31/03[5]	197.28	--	--	--	--	--	--	--	--
04/23/04[4]	197.28	--	--	--	--	--	--	--	--
10/22/04	197.28	10.25	187.03	13,500	1,790	54	892	915	273
04/14/05[1]	197.28	8.70	188.58	--	--	--	--	--	--
10/14/05[6]	197.28	10.92	186.36	13,000	2,900	100	1,300	1,200	130
04/14/06[6]	197.28	3.61	193.67	--	4,000	740	2,300	5,100	<100

Table 5

Joint Groundwater Monitoring Data and Analytical Results

Sheaff's Garage
5930 College Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
MW-2 (cont)									
10/26/06[6]	197.28	10.58	186.70	8,200	1,400	51	840	500	68
04/13/07	197.28	10.54	186.74	19,000	2,000	85	1,300	1,100	57
10/22/07[5]	197.28	--	--	--	--	--	--	--	--
04/21/08[4]	197.28	--	--	--	--	--	--	--	--
10/21/08[3]	**197.28**	**13.11**	**184.17**	**4,900**	**700**	**20**	**370**	**52**	**65**
MW-3									
04/25/01[1]	195.22	6.61	188.61	--	--	--	--	--	--
07/09/01	195.22	8.85	186.37	12,000	39	10	690	1,600	35
10/08/01	195.22	9.75	185.47	4,912.5	107.7	3.9	99.0	132.5	52.2
01/07/02[3]	195.22	4.25	190.97	7,260	723	138	492	887	81.7/16.7[2]
04/08/02	195.22	6.33	188.89	11,700	540	108	706	1,710	<0.5
10/23/02[3,4]	195.22	--	--	--	--	--	--	--	--
04/15/03[5]	195.22	--	--	--	--	--	--	--	--
10/31/03[5]	195.22	--	--	--	--	--	--	--	--
04/23/04[4]	195.22	--	--	--	--	--	--	--	--
10/22/04	195.22	9.25	185.97	7,420	152	12.8	267	480	96
04/14/05[1]	195.22	5.10	190.12	--	--	--	--	--	--
10/14/05[6]	195.22	8.83	186.39	6,100	76	19	170	350	<20
04/14/06[6]	195.22	3.41	191.81	--	760	44	230	190	69
10/26/06[6]	195.22	8.57	186.65	3,100	120	9.8	55	54	17
04/13/07	195.22	8.57	186.65	2,800	55	4.9	19	6.1	<5
10/22/07[5]	195.22	--	--	--	--	--	--	--	--
04/21/08[4]	195.22	--	--	--	--	--	--	--	--
10/21/08[3]	**195.22**	**11.12**	**184.10**	**2,900**	**170**	**9.2**	**99**	**25.8**	**2.2**
PW-1									
04/14/05[1]	--	6.40	--	--	--	--	--	--	--
10/14/05[6]	--	10.71	--	4,300	93	1.2	100	140	<2.0
04/14/06[6]	--	2.27	--	--	2.3	<1.0	3.5	9.3	<2.0
10/26/06[6]	--	10.30	--	2,800	61	<10	130	34	<10

Table 5

Joint Groundwater Monitoring Data and Analytical Results

Sheaff's Garage
5930 College Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TPH-G (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)
PW-1 (cont)									
04/13/07	197.17	10.31	186.86	510	6	<0.5	30	56	<1
10/22/07[5]	197.17	--	--	--	--	--	--	--	--
04/21/08[4]	197.17	--	--	--	--	--	--	--	--
10/21/08[3]	**197.17**	**12.90**	**184.27**	**1,500**	**20**	**<0.5**	**57**	**20**	**1**

Table 5

Joint Groundwater Monitoring Data and Analytical Results

Sheaff's Garage

5930 College Avenue

Oakland, California

EXPLANATIONS:

Joint groundwater monitoring data and laboratory analytical results were provided by Golden Gate Tank Removal, Inc.

TOC = Top of Casing

(ft.) = Feet

DTW = Depth to Water

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl tertiary butyl ether

(µg/L) = Micrograms per liters

-- = Not Measured/Not Analyzed

* TOC elevations were surveyed on April 26, 2001, by Virgil Chavez Land Surveying. The benchmark 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 Elevation = 179.075 feet, msl).

1 Joint monitoring laboratory analytical results were not provided.

2 MTBE by EPA Method 8260

3 Joint monitoring was conducted on different day than Chevron.

4 Joint monitoring data was not provided.

5 Joint monitoring and sampling was scheduled but not conducted.

6 BTEX and MTBE by EPA Method 8260.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #209339** Job Number: **386521**

Site Address: **5940 College Avenue** Event Date: 10-15-08 (inclusive)

City: **Oakland, CA** Sampler: Joe

Well ID **MW-1** Date Monitored: 10-15-08

Well Diameter **2** in.

Total Depth 20.15 ft.

Depth to Water 14.30 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

5.85 xVF 0.17 = 0.99 x3 case volume = Estimated Purge Volume: 3 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.47

Purge Equipment:		Sampling Equipment:	
Disposable Bailer	✓	Disposable Bailer	✓
Stainless Steel Bailer		Pressure Bailer	
Stack Pump		Discrete Bailer	
Suction Pump		Peristaltic Pump	
Grundfos		QED Bladder Pump	
Peristaltic Pump		Other:	
QED Bladder Pump			
Other:			

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0645 Weather Conditions: clear

Sample Time/Date: 0730 / 10-15-08 Water Color: clear Odor: Y / (N)

Approx. Flow Rate: ~ gpm. Sediment Description:

Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 14.63

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - mS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
0650	1	6.72	1014	18.2		
0654	2	6.65	1986	18.7		
0659	3	6.67	981	18.1		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX(8021)

COMMENTS: Very slow recovery.

Add/Replaced Lock: ✓ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: **Chevron #209339** Job Number: **386521**
Site Address: **5940 College Avenue** Event Date: 10-15-08 (inclusive)
City: **Oakland, CA** Sampler: Joe

Well ID **MW-2**
Well Diameter **2** in.
Total Depth 20.09 ft.
Depth to Water 13.71 ft.
Date Monitored: 10-15-08

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

6.38 xVF 0.17 = 1.08 x3 case volume = Estimated Purge Volume: 3.5 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.98

Purge Equipment:

Disposable Bailer	✓
Stainless Steel Bailer	
Stack Pump	
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	✓
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: 0 ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): 0745 Weather Conditions: clear
Sample Time/Date: 0835 / 10-15-08 Water Color: clear Odor: Y / (N)
Approx. Flow Rate: ~ gpm. Sediment Description:
Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: 14.16

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (µS))	Temperature ((C) / F)	D.O. (mg/L)	ORP (mV)
0752	1	6.52	781	18.9		
0757	2	6.56	784	18.4		
0803	3.5	6.57	783	18.6		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-2	3 x voa vial	YES	HCL	LANCASTER	TPH-G(8015)/BTEX(8021)

COMMENTS: very slow recovery today

Add/Replaced Lock: _____ Add/Replaced Plug: _____ Add/Replaced Bolt: _____

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories 161798-06

For Lancaster Laboratories use only

Acct. #: 10904 Sample #: 5502301-03 Group #: 004308

C#1115756

Facility #: SS#209339-OML G-R#386521 Global ID#T06019752694

Site Address: 5940 COLLEGE AVENUE, OAKLAND, CA

Chevron PM: IR Lead Consultant: CRACE

Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568

Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com)

Consultant Phone #: 925-551-7555 Fax #: 925-551-7899

Sampler: JOE AJEMIAN

Analyses Requested / Preservation Codes: H H

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil ☐ Air	Total Number of Containers	BTEX ☒ 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method
QA	—	—	✓			✓		2	✓	✓					
mw-1	10-15-08	0730	"			"		3	✓	✓					
mw-2	"	0835	"			"		3	✓	✓					

Matrix: ☐ Potable ☐ NPDES

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Turnaround Time Requested (TAT) (please circle)
STD. TAT (circled) 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I - Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed EDF/EDD
WIP (RWQCB)
Disk

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10-16-08	0700	[signature]	10-17-08	1130
[signature] 10-17-08		1130	A. Salazar	17OCT08	1400
A. Salazar	17OCT08	1630	DHL		
Relinquished by Commercial Carrier: UPS FedEx Other DHL			[signature]	[illegible]	[illegible]

Temperature Upon Receipt 0.8-3.3 C°

Custody Seals Intact? Yes No

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 1115756. Samples arrived at the laboratory on Saturday, October 18, 2008. The PO# for this group is 0015024486 and the release number is ROBB.

Client Description	Lancaster Labs Number
QA-T-081015 NA Water	5502301
MW-1-W-081015 Grab Water	5502302
MW-2-W-081015 Grab Water	5502303

ELECTRONIC COPY TO CRA c/o Gettler-Ryan Attn: Cheryl Hansen

Questions? Contact your Client Services Representative
Jill M Parker at (717) 656-2300

Respectfully Submitted,

Barbara F. Reedy
Senior Specialist

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Lancaster Laboratories Sample No. WW5502301 **Group No. 1115756**

QA-T-081015 NA Water
Facility# 209339 Job# 386521 GRD
5940 College Ave-Oakland T06019752694 QA
Collected:10/15/2008

Account Number: 10904

Submitted: 10/18/2008 09:40
Reported: 10/24/2008 at 14:50
Discard: 11/24/2008

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 20:29	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 20:29	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 20:29	Martha L Seidel	1

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW5502302 **Group No. 1115756**

MW-1-W-081015 Grab Water
Facility# 209339 Job# 386521 GRD
5940 College Ave-Oakland T06019752694 MW-1
Collected:10/15/2008 07:30 by JA

Account Number: 10904

Submitted: 10/18/2008 09:40
Reported: 10/24/2008 at 14:50
Discard: 11/24/2008

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	N.D.	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	N.D.	0.5	ug/l	1
02164	Toluene	108-88-3	N.D.	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	N.D.	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	1.5	ug/l	1

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 21:40	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 21:40	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 21:40	Martha L Seidel	1

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. WW5502303 **Group No. 1115756**

MW-2-W-081015 Grab Water
Facility# 209339 Job# 386521 GRD
5940 College Ave-Oakland T06019752694 MW-2
Collected:10/15/2008 08:35 by JA

Account Number: 10904

Submitted: 10/18/2008 09:40
Reported: 10/24/2008 at 14:50
Discard: 11/24/2008

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01729	TPH-GRO - Waters					
01730	TPH-GRO - Waters	n.a.	480	50	ug/l	1
05879	BTEX					
02161	Benzene	71-43-2	1.3	0.5	ug/l	1
02164	Toluene	108-88-3	0.8	0.5	ug/l	1
02166	Ethylbenzene	100-41-4	1.1	0.5	ug/l	1
02171	Total Xylenes	1330-20-7	N.D.	5.0	ug/l	1

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for the compound listed below. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
total xylenes

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
01729	TPH-GRO - Waters	TPH GRO SW-846 8015B mod	1	10/23/2008 22:03	Martha L Seidel	1
05879	BTEX	SW-846 8021B	1	10/23/2008 22:03	Martha L Seidel	1
01146	GC VOA Water Prep	SW-846 5030B	1	10/23/2008 22:03	Martha L Seidel	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: Chevron
Group Number: 1115756
Reported: 10/24/08 at 02:50 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 08297A53A	Sample number(s): 5502301-5502303							
TPH-GRO - Waters	N.D.	50.	ug/l	106	110	75-135	4	30
Benzene	N.D.	0.5	ug/l	111	114	86-119	2	30
Toluene	N.D.	0.5	ug/l	111	113	82-119	2	30
Ethylbenzene	N.D.	0.5	ug/l	106	110	81-119	3	30
Total Xylenes	N.D.	1.5	ug/l	109	113	82-120	3	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 08297A53A	Sample number(s): 5502301-5502303 UNSPK: 5502302, 5502303								
TPH-GRO - Waters	112		63-154						
Benzene	119		78-131						
Toluene	119		78-129						
Ethylbenzene	116		75-133						
Total Xylenes	119		84-131						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-GRO - Waters
Batch number: 08297A53A

	Trifluorotoluene-F	Trifluorotoluene-P
5502301	82	85
5502302	79	87
5502303	91	78
Blank	85	88
LCS	102	88
LCSD	94	88
MS	109	89
Limits:	63-135	69-129

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron
Group Number: 1115756
Reported: 10/24/08 at 02:50 PM

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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CUMULATIVE SOIL ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION
5940 COLLEGE AVENUE., OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*	*Total Lead*
			Reported in milligrams per kilogram (mg/kg)						
2000 Well Installation									
MW-1-4.5	12/6/2000	4.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--
MW-1-9.5	12/6/2000	9.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--
MW-2-4.5	12/6/2000	4.5	<1.0	<0.005	**0.0062**	**0.0054**	**0.021**	<0.05	--

Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M
Benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8260B
<x = Not detected above method detection limit x
fbg = Feet below grade
N/A = Not Applicable
-- = Not analyzed

CUMULATIVE GRAB-GROUNDWATER ANALYTICAL DATA
FORMER CHEVRON SERVICE STATION
5940 COLLEGE AVENUE, OAKLAND, CALIFORNIA

Sample ID	*Date*	*Depth (fbg)*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*Total Xylenes*	*MTBE*
			Reported in micrograms per liter (µg/L)					
SB-1	8/31/1999	7.0	**5,100**	**43**	**34**	**40**	<5	**110**
SB-2	8/31/1999	9.5	<50	<0.5	<0.5	<0.5	<0.5	<5
SB-3	8/31/1999	9.0	**59,000**	**3,500**	**310**	**2,000**	**1,900**	**650**
SB-4	9/1/1999	7.0	**190,000**	**890**	**110**	**4,000**	**7,500**	**1,100**

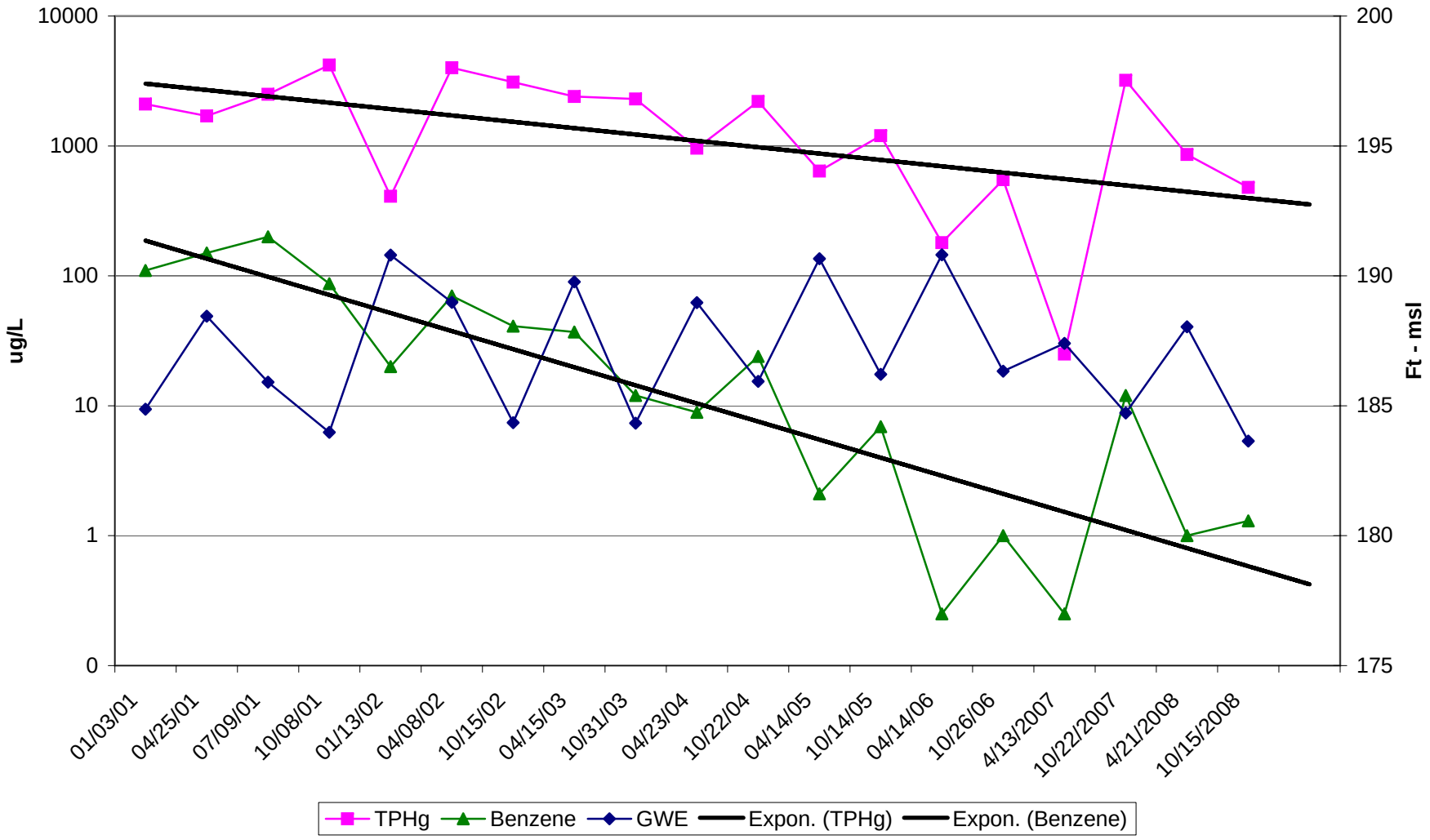
Notes:

Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M
Benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8260B
<x = Not detected above method detection limit x
fbg = Feet below grade

TPHg and Benzene vs Time MW-2

Former Chevron Service Station #20-9339

5490 College Avenue, Oakland, CA



MONITORING WELL CONSTRUCTION DETAIL TABLE
FORMER CHEVRON SERVICE STATION
5940 COLLEGE AVENUE, OAKLAND, CALIFORNIA

Well ID	*Well Casing Diameter (inches)*	*Depth (fbg)*	*Screen Interval (fbg)*	*Slot Size (inches)*	*Filter Pack Type*
MW-1	2	21	5-20	0.010	#3 Lonestar
MW-2	2	21	5-20	0.010	#3 Lonestar

Notes:

fbg = Feet below grade

WELL SURVEY DATA
FROM THE DEPARTMENT OF WATER RESOURCES
CHEVRON STATION 9-3600
2200 TELEGRAPH AVE., OAKLAND, CALIFORNIA
(2,000 FOOT RADIUS)

WELL ADDRESS	*WELL ID*	*DISTANCE FROM SITE (FEET)*	*WELL TYPE/USE*	*DWR FILE NAME*	*DESTROYED*
6039 College Ave., Oakland	MW-1	180	Monitoring	51313023	NO RECORD
6039 College Ave., Oakland	MW-2	180	Monitoring	51313024	NO RECORD
6039 College Ave., Oakland	MW-3	180	Monitoring	51313025	NO RECORD
6039 College Ave., Oakland	MW-4	180	Monitoring	51313026	NO RECORD
6039 College Ave., Oakland	B-5	180	Boring	51313031	NO RECORD
6039 College Ave., Oakland	B-6	180	Boring	51313032	NO RECORD
6066 Claremont Ave., Oakland	MW-5	270	Monitoring	51313033	NO RECORD
5929 College Ave, Oakland	MW1	75	Monitoring	51313034	NO RECORD
5929 College Ave, Oakland	MW2	75	Monitoring	51313036	NO RECORD
5929 College Ave, Oakland	MW3	75	Monitoring	51313037	NO RECORD
62nd and Hillegass, Oakland	Undefined	800	Cathodic	51313038	YES
Unknown	MW-4	NC	Monitoring	51313042	NO RECORD
Unknown	MW-5	NC	Monitoring	51313043	NO RECORD
Unknown	MW-6	NC	Monitoring	51313044	NO RECORD
Fire Station 19, Oakland	Test 1	1,000	Test Boring	51313060	NO RECORD
Fire Station 19, Oakland	Test 2	1,000	Test Boring	51313061	NO RECORD
Fire Station 19, Oakland	Test 3	1,000	Test Boring	51313062	NO RECORD
Foot of Oak Grove Avenue, Oakland	1S/4W-13F	1,700	Undefined	51313072	NO RECORD
Foot of Oak Grove Avenue, Oakland	01-717	1,700	Undefined	51313073	NO RECORD
Foot of Oak Grove Avenue, Oakland	01-718	1,700	Undefined	51313074	NO RECORD

Notes:
Compiled from data provided by California Department of Water Resources
Department of Water Resources data is confidential
NC = Not calculated

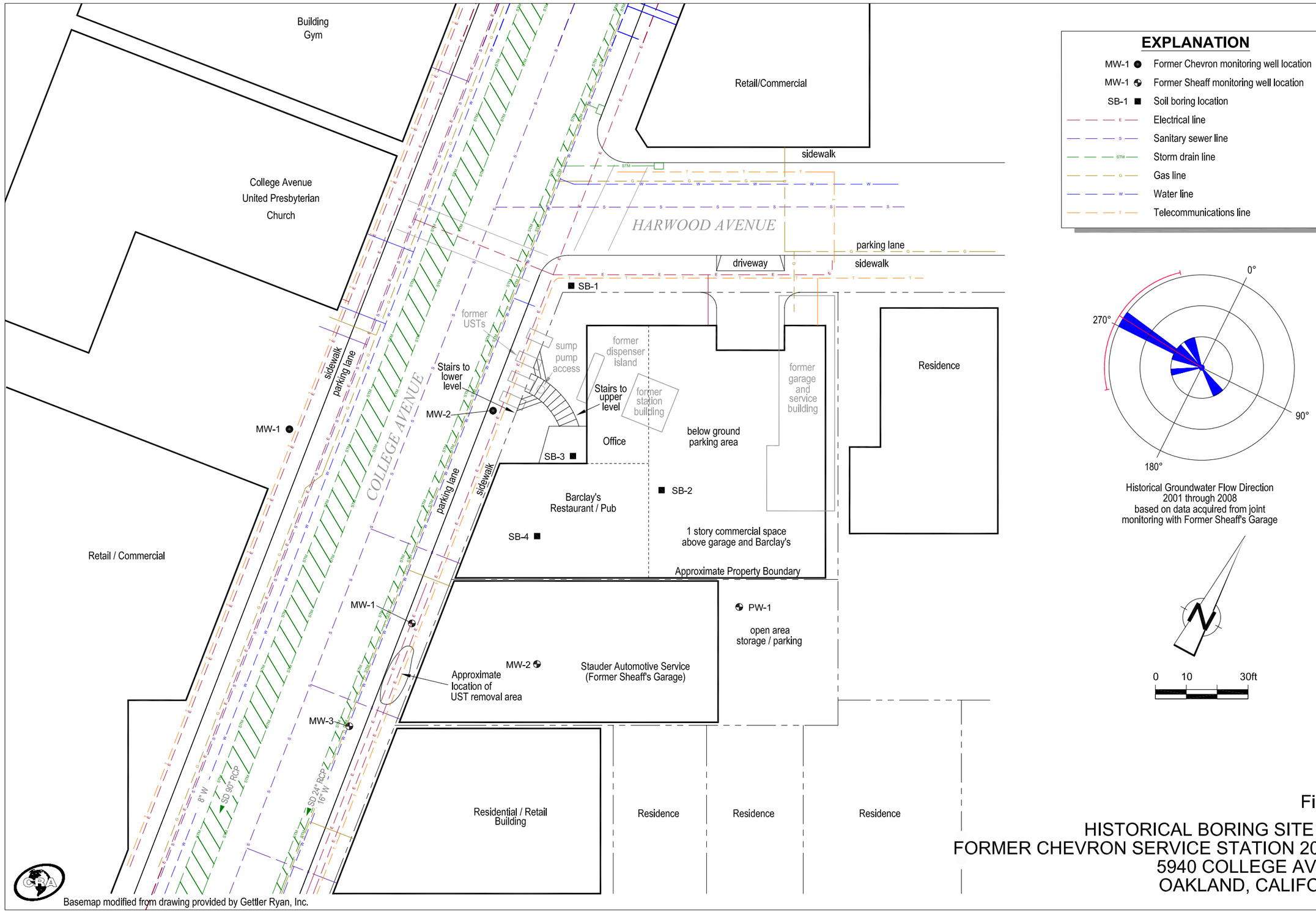
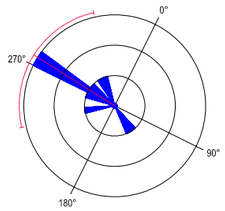


Figure 2

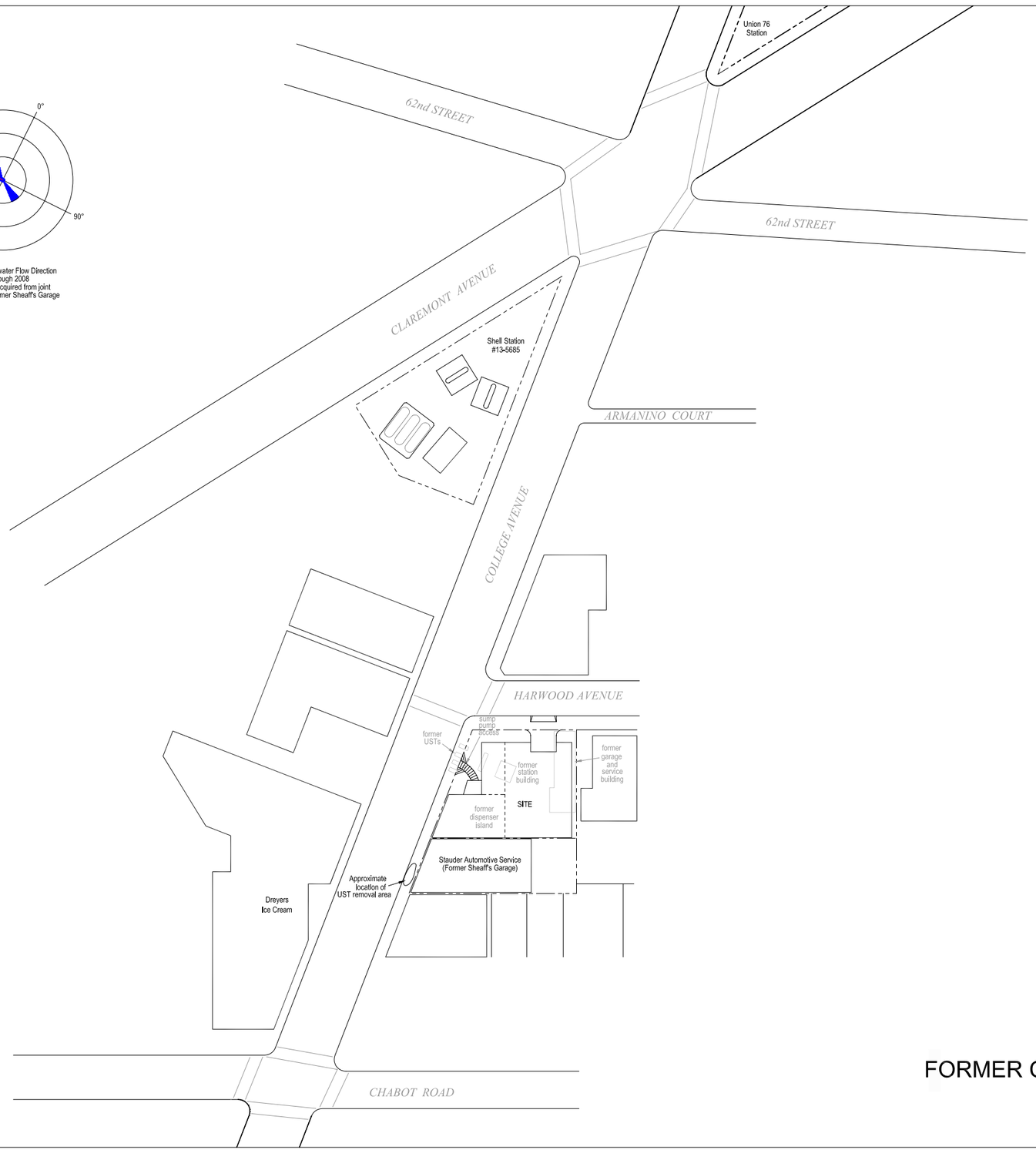
HISTORICAL BORING SITE PLAN
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA

Basemap modified from drawing provided by Gettler Ryan, Inc.

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM002.DWG



Historical Groundwater Flow Direction
2001 through 2008
based on data acquired from joint
monitoring with Former Sheaff's Garage



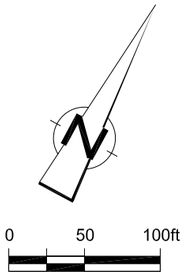


Figure 6

NEARBY RELEASE SITE PLAN
FORMER CHEVRON SERVICE STATION 20-9339
5940 COLLEGE AVENUE
OAKLAND, CALIFORNIA

I:\CHEVRON\3119--\311954 20-9339 OAKLAND\311954-FIGURES\311954-EM004-Area.DWG