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consulting  
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R01603

February 15, 2001  
MFG Project No. 030013 (2)

JUL 17 2001

Inspector Hernan Gomez  
City of Oakland Fire Services Agency  
1605 Martin Luther King Jr. Way  
Oakland, CA 94612

**Subject:** Phase II Investigation Report  
Avis Rent A Car System, Inc. Facility  
1 Neil Armstrong Way  
Oakland International Airport  
Oakland, California

Dear Inspector Gomez:

This letter report presents the methods and results of our Phase II investigation conducted at the Avis Rent A Car System, Inc. Facility (Avis), at 1 Neil Armstrong Way, at the Oakland International Airport, Oakland, California (the Site). The Site location is shown on Figure 1. The investigation was conducted by MFG, Inc. (MFG) on behalf of Avis in accordance with MFG's proposal dated August 31, 2000.

Avis has leased the Site property from the Port of Oakland since July 1970. In the early 1970s, Avis developed the property as a vehicle rental facility. We understand that Avis will be removing improvements, vacating the property, and returning it to the Port of Oakland in the near future. The Port of Oakland plans to realign the main access road for the airport across the Site. As part of the property transfer, a Phase I Environmental Site Assessment (ESA) of the Site was performed by MFG (report dated June 9, 2000). Several areas of potential environmental concern were identified in the ESA.

The primary objective of this Phase II investigation was to evaluate the potential effect to soil and groundwater from activities and use of existing facilities at the Site that were identified during the ESA.

## BACKGROUND

The Site occupies approximately 2.1 acres on the southeastern corner of Neil Armstrong Way and Airport Road in Oakland, California. The Site serves as a drop-off and pick-up center for Avis rental cars. According to the Phase I ESA report, the Site property was leased by Avis in July 1970, and has since been used as a car rental facility. Prior to this, the land was undeveloped. The Site currently consists of a 1-story office building, service garage and car wash, a separate fueling and rental car cleaning area, a storage shed, a temporary storage trailer, an office trailer, and a guard shack. Much of the property is an asphalt-paved parking area for rental vehicles.

In 1989 two 10,000-gallon gasoline underground storage tanks (USTs) were removed from the south-central portion of the Site. In 1989 one 10,000-gallon double-walled gasoline UST, and one 550-gallon waste oil UST and associated lines were installed at the Site (Figure 2). In May 1990 MFG



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installed three groundwater monitoring wells at the Site. Well MW-1 was located on the south side of the excavation of the former USTs. Wells MW-2 and MW-3 were located along the southwestern property boundary (Figure 2).

In 1990, MFG performed a soil gas investigation at 12 locations near MW-1. Seven soil gas samples were collected in the immediate vicinity of MW-1; other points were located outside the limits of the former tank excavation and along the western property boundary. Soil gas samples were analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Significant levels of TPH and BTEX were detected in one soil gas sample collected from near MW-1. Other soil gas samples contained very low concentrations of TPH and BTEX. MFG concluded that soil contamination was localized in the vicinity of MW-1.

Based on the soil gas results, approximately 50 cubic yards of soil were removed from an area located southeast of, and adjacent to, the former USTs. Excavation required the abandonment of MW-1, which was replaced by MW-1A. Groundwater samples collected in March 1991 from wells MW-2 and MW-3, and in April 1991 from MW-1A contained no detectable concentrations of TPH as gasoline (TPHg), BTEX, or polynuclear aromatic hydrocarbons (PNAs).

MFG continued to monitor groundwater at the Site on a quarterly basis from July 1991 to January 1994. In that period no detectable concentrations of TPHg, BTEX, or PNAs were detected in wells MW-2 and MW-3. In the final groundwater monitoring report, MFG indicated that the target gasoline constituents had not been detected in groundwater samples collected from MW-1A since February 1993. MFG recommended that the Site be certified for closure from the Alameda County Health Care Services Agency, Department of Environmental Health, Hazardous Materials Division (ACDEH). A Remedial Action Completion Certification was issued by ACDEH on August 18, 1994. The three monitoring wells were destroyed in accordance with existing regulations in May 1995.

During the period that MFG monitored groundwater at the Site, groundwater flow direction was generally to the east-southeast at a horizontal gradient of approximately 0.003.

## PURPOSE AND SCOPE OF WORK

The following areas of the Site were identified by MFG as areas of potential environmental concerns: a 12,000-gallon gasoline underground storage tank (UST) and associated vehicle fueling area; a 500-gallon waste oil UST; three underground hydraulic lifts; a 480-gallon aboveground storage tank (AST) for the storage of unused lubricating oil; areas of waste oil filter storage; and the vehicle fueling area.

This Phase II investigation focused on testing soil and groundwater beneath the site in the areas of potential concern identified.

The subsurface investigation consisted of advancing seven soil borings (B-1 through B-7). The borings were advanced as follows: B-1 - at an upgradient location; B-2 - near the waste oil UST; B-3 - adjacent to the underground hydraulic lifts in the service area; B-4 - near the lubricating oil AST; B-5 - at

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the fueling station; B-6 - near the 12,000-gallon gasoline UST; and B-7 - downgradient of the UST. Boring locations are shown on Figure 2.

The borings were advanced to between 12 and 13 feet below ground level (bgl), with the exception of B-4, which was advanced to eight feet bgl. The sampling plan included chemical analysis of one groundwater sample from each boring, and select soil samples if indications of contamination were observed during drilling. Samples were analyzed for: TPHg by EPA Method 8015; and BTEX, methyl tertiary-butyl ether (MTBE), and volatile organic compounds (VOCs) by EPA Method 8260. The groundwater sample from B-2, collected adjacent to the waste oil UST, was also analyzed for total oil and grease by EPA Method 1664A.

## FIELD METHODS

Underground Service Alert was notified more than 48-hours prior to drilling at the Site. A private utility locating service was contracted by MFG to clear proposed boring locations for on-site underground utilities. A site-specific health and safety plan (HASP) was prepared to govern the work being conducted. The necessary drilling permit was obtained from Alameda County Public Works Agency.

On October 11, 2000, subsequent to clearing the boring locations for utilities, seven borings were advanced by Precision Sampling, Inc., (Precision) of Martinez, California. The borings were advanced using a direct push rig with a 2-inch outer diameter (o.d.) macro-core casing. Soil cores were continuously collected in 4-foot intervals using 1.75-inch o.d. butyrate liners fitted within the casing. Soil samples were collected from each boring at five-foot intervals. The ends of each soil sample liner were covered with Teflon® sheets, capped with polyethylene lids, labeled and stored in an insulated, ice-cooled chest.

Headspace measurements of soil for organic vapors were measured in the field using a Thermo-Environmental Instruments Model 580B, portable photoionization detector (PID) as a health and safety screening tool, and to aid in the selection of soil samples to be analyzed. The PID was calibrated using 100 parts per million by volume (ppmv) isobutylene gas standard and the response factor of the PID was set such that the instrument would read in ppmv as isobutylene.

An MFG geologist was present at the Site to observe the drilling operations, log the borings, and assist in obtaining soil and groundwater samples. Soil borings were logged in the field for lithology, color and relative moisture content in accordance with the American Society of Testing and Materials (ASTM) Standard Practice D 2488-93: Standard Practice for Description and Identification of Soils (Visual-manual procedure). Boring logs are included as Attachment A.

The downhole drilling equipment was steam cleaned before reuse in another boring. Soil cuttings from the drilling operation were contained in appropriate containers, labeled and left on-site for later disposal pending analytical results. Wash water from the drilling operation was containerized, removed from the Site by Precision, and stored at their facility for later disposal in bulk quantity.

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One grab groundwater sample was collected from each boring. A ¾-inch diameter slotted PVC screen (temporary well) was installed in each boring, and water samples were obtained using a small diameter disposable bailer. Following collection of the grab groundwater samples in each well, the casing was removed and the boring was backfilled with a cement-bentonite slurry. Soil and groundwater sampling was performed using the MFG standard protocols for obtaining samples for chemical analysis. All samples were transported under chain-of-custody procedures to Curtis & Tompkins of Berkeley, California, an analytical laboratory certified by the California Department of Health Services. The analytical laboratory report and chain-of-custody are included as Attachment B.

## RESULTS AND DISCUSSION

Subsurface materials encountered during drilling consisted primarily of clay (Bay Mud), with one or multiple interbeds of fine sand ranging from six inches to six feet thick. Moist to wet soil was generally observed at approximately five feet bgl. Petroleum odors were detected during drilling in boring B-5.

Soil and groundwater samples were analyzed for TPHg by EPA Method 8015, and for BTEX, MTBE, and VOCs by EPA Method 8260. The groundwater sample collected from B-2, near the waste oil tank, was also analyzed for total oil and grease by EPA Method 1664A. Analytical results for soil and groundwater are presented in Tables 1 and 2, respectively. Concentrations of analytes detected in groundwater are shown on Figure 2.

For comparison purposes, Tables 1 and 2 include risk-based screening levels (RBSLs) for soil and groundwater per the San Francisco Bay Regional Water Quality Control Board's (RWQCB) technical document entitled *Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater* (Interim Final – August 2000).

Based on site characteristics, the analytical results are compared to RBSLs for commercial use presented in Table B of the RWQCB document. This table lists RBSLs for sites with surface soil less than or equal to three meters bgl, and for groundwater that is not a current or potential source of drinking water. This table is appropriate because the water table is shallower than three meters and groundwater beneath the Site has historically been saline or brackish. Three previously existing wells (MW-1, MW-2, and MW-3) were monitored by MFG from July 1991 to January 1994. Specific conductance (SP) values measured during quarterly sampling events have ranged up to 30,000 micromhos/cm, respectively. The SP values indicate that TDS concentrations exceed the criteria used to accept groundwater for drinking water purposes, as defined by the State Water Resources Control Board Resolution No. 88-63, (3,300 mg/L limit).

One soil sample collected from boring B-5 at a depth of 5.0 to 5.5 feet bgl was selected for chemical analysis based on petroleum odors encountered and elevated PID screening conducted during drilling. The soil sample contained low levels of VOCs, and 3.2 mg/kg TPHg. As shown on Table 1, the analytes detected were generally slightly above analytical laboratory detection limits, and none of the detected constituents were above available RBSLs.

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Groundwater samples were collected and analyzed from temporary wells B-1 through B-7. MTBE was detected in borings B-2, B-5, B-6, and B-7 at concentrations of 1.6, 410, 1,100, and 960 micrograms per liter ( $\mu\text{g/L}$ ), respectively (Table 2). Boring B-5 also contained 4.1  $\mu\text{g/L}$  naphthalene, 11  $\mu\text{g/L}$  1,2,4-TMB, 3.4  $\mu\text{g/L}$  1,3,5-TMB, 12  $\mu\text{g/L}$  m,p-xlenes, and 4.6  $\mu\text{g/L}$  o-xlenes.

Boring B-4 contained 10  $\mu\text{g/L}$  Freon 12, 25  $\mu\text{g/L}$  vinyl chloride 17  $\mu\text{g/L}$  trichlorofluoromethane (TCFM), 0.5  $\mu\text{g/L}$  benzene, 2  $\mu\text{g/L}$  toluene, 0.8  $\mu\text{g/L}$  naphthalene, 1.0  $\mu\text{g/L}$  chloroform, 1.3  $\mu\text{g/L}$  m,p-xlenes, and 4.6  $\mu\text{g/L}$  o-xlenes.

TPHg was detected in B-5 at a concentration of 220  $\mu\text{g/L}$ . No other groundwater samples contained TPHg above the analytical laboratory detection limit.

The groundwater sample from boring B-2, located adjacent to the waste oil UST, was also analyzed for total oil and grease, which was not detected above the analytical laboratory detection limit.

As shown on Table 2, none of the detected constituents were present at concentrations above their listed RBSLs.

## CONCLUSIONS AND RECOMMENDATIONS

Analytical results indicate that shallow soil beneath the Site does not appear to be significantly impacted by VOCs or TPHg. Based on petroleum odors noted during drilling in boring B-5, at 5.0 to 5.5 feet bgl, was submitted for laboratory analysis. At this location, the soil sample contained 3.2 mg/kg of TPHg. Indications of contamination were not observed during drilling of the remaining borings.

The highest constituent concentrations found in groundwater samples were of MTBE in temporary wells B-4, B-5, and B-6 at concentrations of 410, 1,100, and 960  $\mu\text{g/L}$ , respectively. Low levels of VOCs were detected in the samples from B-4 and B-5, and the sample from B-5 contained 220  $\mu\text{g/L}$  TPHg. The analytes detected in groundwater were below the RBSLs for those constituents.

Based on four years of groundwater monitoring at the Site, general groundwater quality is poor, as indicated by elevated specific conductance values. Near-surface soil consists primarily of fine-grained (clay, silt and sandy clay) deposits with intermittent sand lenses. Groundwater beneath the Site is, therefore, not considered a source of drinking water. Furthermore, RBSL's published by the RWQCB provide a conservative, risk-based comparison point helpful for assessing constituent detections.

The highest groundwater concentration of MTBE detected at the Site (1,100  $\mu\text{g/L}$ ) was encountered in the sample from boring B-6. No petroleum hydrocarbons or associated compounds were detected in this sample, nor in other samples hydraulically down-gradient of the UST. All detections of MTBE at the Site, even those adjacent to the existing UST, are below the RBSL value for MTBE (1,700  $\mu\text{g/L}$ ) recently released by the RWQCB to assess potential environmental and human health risks at low risk sites. The RBSL values presented by the RWQCB were developed using a broad conceptual model and conservative assumptions.

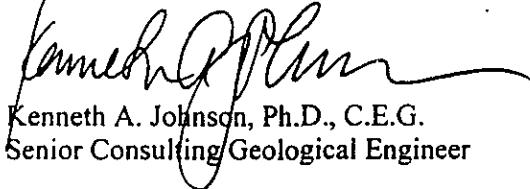
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Based on this information, groundwater concentrations are below applicable RBSLs for the Site; and therefore, the chemicals remaining in groundwater pose no significant risk to human health or the environment. Given that Avis will discontinue operations in the near future and decommission the Site, that the future use of the Site will become part of a new realignment of the Airport main road network, and that groundwater concentrations are below applicable RBSLs, no further work is needed.

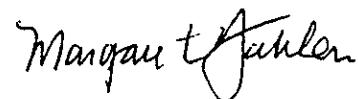
Please contact either of the undersigned if you have any questions or require further information.

Sincerely yours,

MFG, INC.



Kenneth A. Johnson, Ph.D., C.E.G.  
Senior Consulting Geological Engineer



Margaret Dahlen  
Project Geologist

- Attachments:
- Table 1 - Chemical Analytical Results of Soil Sample
  - Table 2 - Chemical Analytical Results of Groundwater Samples
  
  - Figure 1 - Site Location Map
  - Figure 2 - Site Plan with Sampling Locations and Detected VOCs and TPHg Concentrations in Groundwater
  
  - Attachment A - Boring Logs
  - Attachment B - Laboratory Report and Chain-of-Custody Record

cc: Rose Pelino, Avis Rent A Car System, Inc., with attachments  
Lorie Tallarico, Avis Rent A Car System, Inc., with attachments  
Chase Jinnalone, Avis Rent A Car System, Inc., with attachments  
Susan Hugo, ACHCSA, with attachments  
Michele Heffes, Port of Oakland, with attachments

**TABLE I**  
**CHEMICAL ANALYTICAL RESULTS OF SOIL SAMPLE**  
**Avis Rent A Car**  
**Oakland International Airport**  
**Oakland, California**

Boring ID	Sample Depth (feet bgl)	TPHg (mg/kg)	Acetone (mg/kg)	MTBE (mg/kg)	m,p-Xylenes (mg/kg)	Propylbenzene (mg/kg)	1,2,4-TMB (mg/kg)	sec-Butylbenzene (mg/kg)	n-Butylbenzene (mg/kg)	Naphthalene (mg/L)	OTHER VOCs
Reporting Limit:		0.92	0.020	0.0049	0.0049	0.0049	0.0049	0.0049	0.0049	0.0049	[0.0049 - 0.0020]
B-5	5.0 - 5.5	3.2 H Y	0.032	0.130	0.028J	0.0051	0.0069	0.0053	0.026	0.098	ND [0.5 - 10]
RBSLs for commercial use <sup>1</sup>			1.0	1.0	1.0	NA	NA	NA	NA	5	NA

**NOTES:**

H	Heavier hydrocarbons contributed to the quantitation.
Y	Sample exhibits fuel pattern which does not resemble standard.
J	Estimated value below the analytical laboratory reporting limit.
VOCs	Volatile organic compounds. Analyzed using EPA Method 8260B.
ft bgl	Feet below ground level.
mg/kg	Milligrams per kilogram
ND	Not detected at or above the laboratory method reporting limit shown at top of column.
[ ]	Indicates reporting limit if different than that listed at top of column.
NA	Not applicable
1	RWQCB Risk-Based Screening Levels per Table B, August, 2000.
MTBE	Methyl tertiary-butyl ether
TMB	Trimethylbenzene

**TABLE 2**  
**CHEMICAL ANALYTICAL RESULTS OF GROUNDWATER SAMPLES**  
Avis Rent A Car  
Oakland International Airport  
Oakland, California

Boring ID	TPHg ( $\mu\text{g/L}$ )	Freon 12 ( $\mu\text{g/L}$ )	Vinyl Chloride ( $\mu\text{g/L}$ )	TCFM (Freon 11) ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Naphthalene ( $\mu\text{g/L}$ )	Chloroform ( $\mu\text{g/L}$ )	1,2,4- TMB ( $\mu\text{g/L}$ )	1,3,5- TMB ( $\mu\text{g/L}$ )	m,p- Xylenes ( $\mu\text{g/L}$ )	o-Xylenes ( $\mu\text{g/L}$ )	OTHER VOCs
Reporting Limit:	50	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	[0.5 - 10]
B-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-2*	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-4	ND	10	25	17	ND	0.5	2	0.8	1.0	ND	ND	1.3	0.7	ND [0.5 - 10]
B-5	220	ND (3.3)	ND [1.7]	ND [1.7]	410 [1.7]	ND [1.7]	ND [1.7]	4.1 [1.7]	ND [1.7]	11 [1.7]	3.4 [1.7]	12 [1.7]	4.6 [1.7]	ND [1.7 - 33]
B-6	ND	ND (10)	ND [5.0]	ND [5.0]	1,100 [1.7]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0 - 100]
B-7	ND	ND (7.1)	ND [3.6]	ND [3.6]	960 [1.7]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6 - 71]
RBSLs	500	NA	4.9 (782)	150	1,800	46	130	24	28	50	NA	13	13	NA

**NOTES:**

\* = Oil and Grease not detected above analytical laboratory detection limit of 5.0 milligrams per liter

RBSLs = Risk-Based Screening Levels per Table B of RWQCB technical document, August, 2000

VOCs = Volatile Organic Compounds

TPHg = Total Petroleum Hydrocarbons as Gasoline

[ ] Indicates reporting limit if different than that listed at top of column

$\mu\text{g/L}$  = micrograms per liter

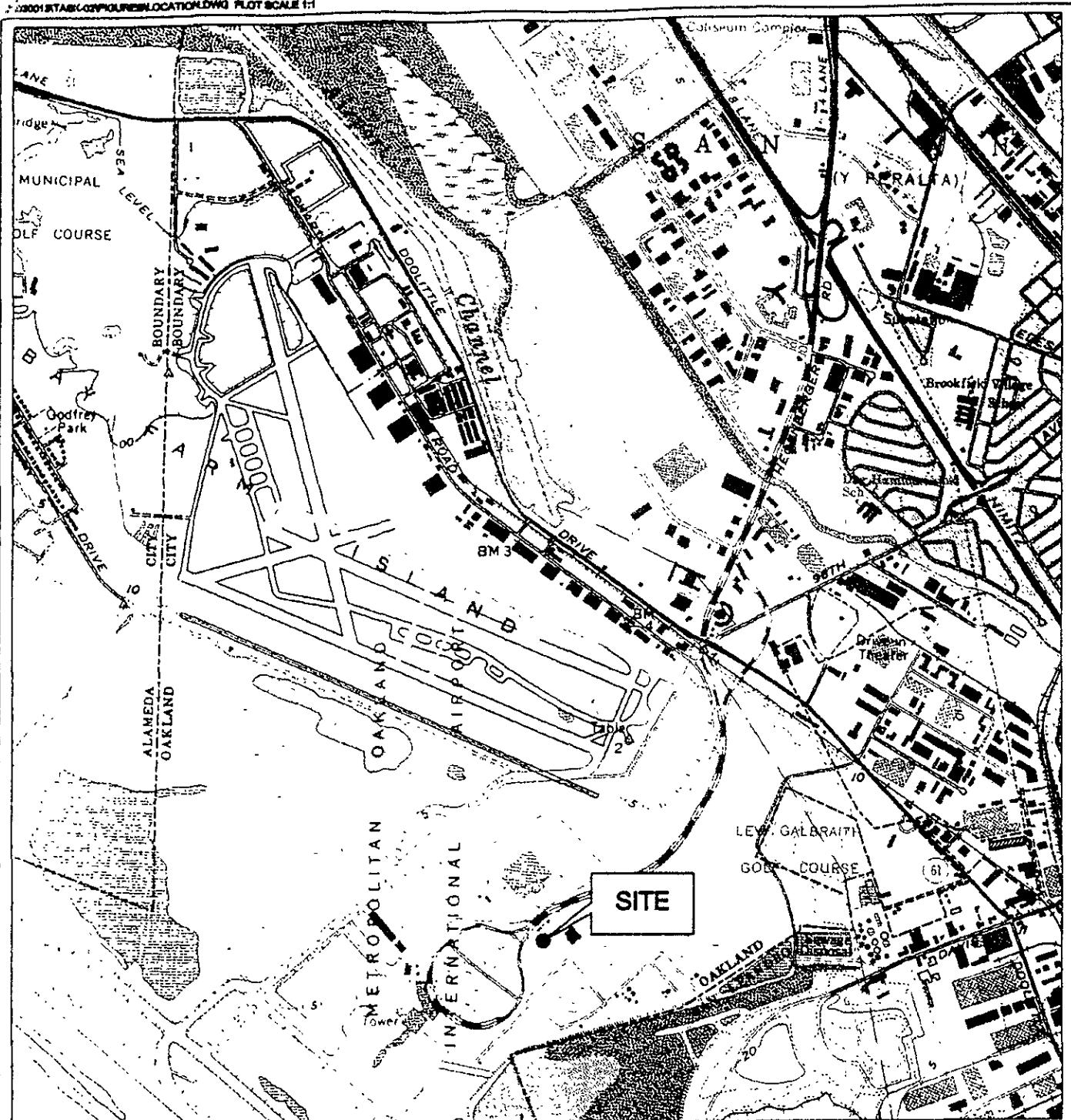
ND = Not detected above analytical laboratory reporting limit

NA = Not applicable

MTBE = Methyl tertiary-butyl ether

TCFM = Trichlorofluoromethane

TMB = Trimethylbenzene



SOURCE: USGS 7.5 MINUTE QUADRANGLE  
SAN LEANDRO, CALIFORNIA  
PHOTOREVISED 1980



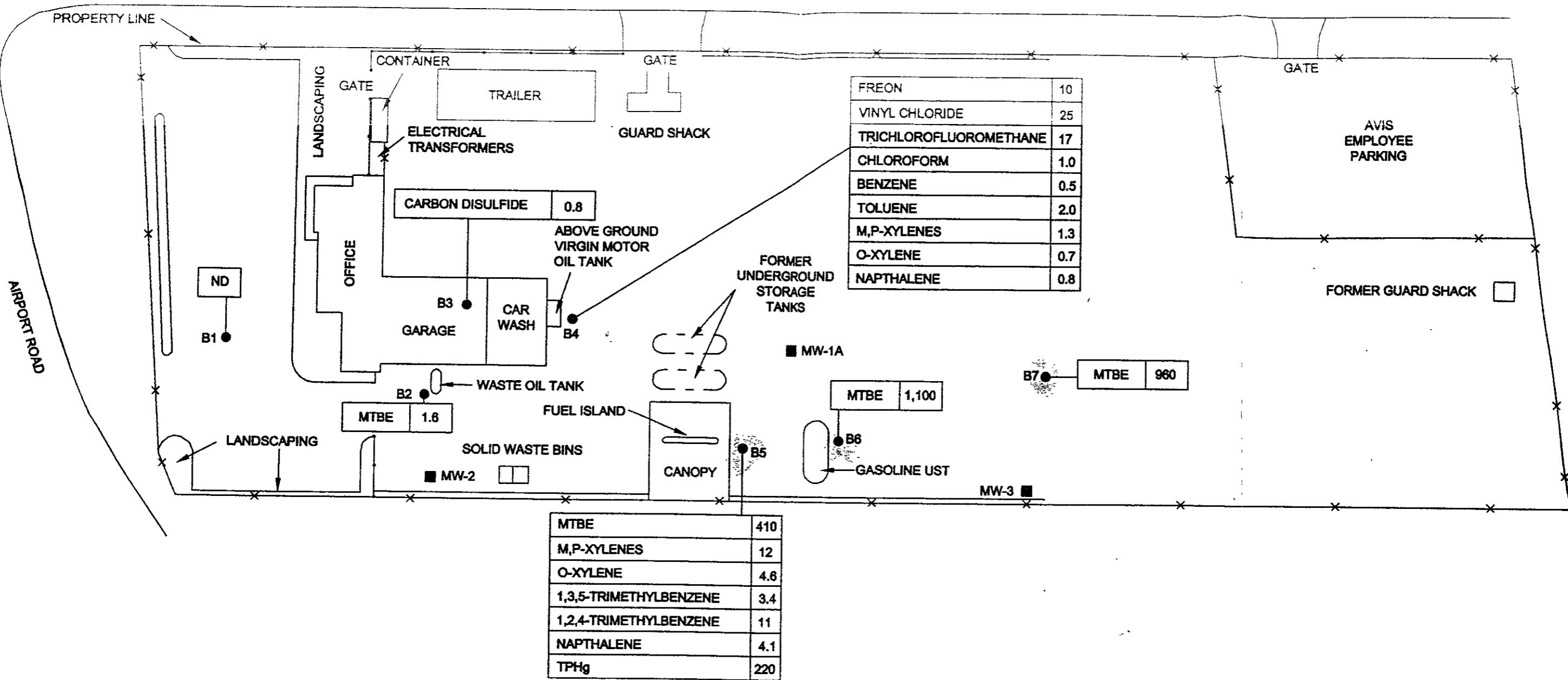
0 2,000 FEET

## SITE LOCATION MAP

**Avis Rent A Car System, Inc. Facility  
Oakland International Airport  
Oakland, California**

PROJECT NO. 030013	BY: N. JOHNSON	<b>FIGURE 1</b>
DATE: 11/20/00	CHECKED:	
<b>MFG, Inc.</b> consulting scientists and engineers		

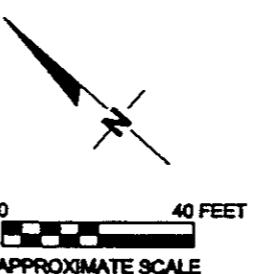
NEIL ARMSTRONG WAY



### EXPLANATION

- x— FENCE
- o— BLOCK WALL
- B-1 ● WELL LOCATIONS
- MW-2 ■ FORMER WELL LOCATIONS
- MTBE METHYL TERTIARY-BUTYL ETHER

NOTE: BASE MAP ADAPTED FROM A CONSTRUCTION DRAWING PROVIDED BY AVIS RENT A CAR SYSTEM, INC.



### SITE PLAN WITH SAMPLING LOCATIONS AND DETECTED VOC AND TPH<sub>g</sub> CONCENTRATIONS IN GROUNDWATER (ug/L)

Avis Rent A Car System, Inc. Facility  
Oakland International Airport  
Oakland, California

Project No. 030013	By: N. Johnson	Figure
Date: 11/9/00	Checked:	2

**MFG, Inc.**  
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**ATTACHMENT A**

**Boring Logs**



**MFG, Inc.**  
G consulting scientists and engineers

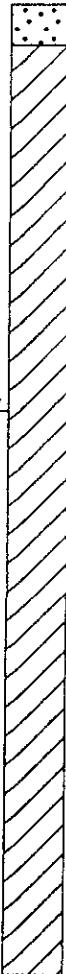
## LOG OF BORING B-1

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Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	ASPHALT.					
1	SANDY CLAY: strong bm (7.5YR 4/6); some F sand, moist.	CL	1	48	PID calibrated using 100 ppmv as isobutylene.	
2						
3	- drk yel bm (10YR 3/6) mottling.					
4	- gray (5Y 5/1) mottling, few crs gravel.					
5	SAND: olive grey (5YR 5/2); F sand, moist to wet.	SP	2	48	PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B1-4.5-5.0 (4.5 to 5.0 feet bgl). First observed saturated soil at 5.0 feet bgl	
6	- drk yel bm (10YR 4/4).					
7						
8						
9						
10						
11	CLAY: black (2.5Y 2.5/1); few silt, trace organic material, moist.	CL	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B1-10-10.5 (10 to 10.5 feet bgl).	
12	Bottom of boring completed at 12.0 feet bgl.					
13	NOTES:					
14	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.					
15	2. Collected grab groundwater sample B-1 on 11-Oct-00.					
16	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					



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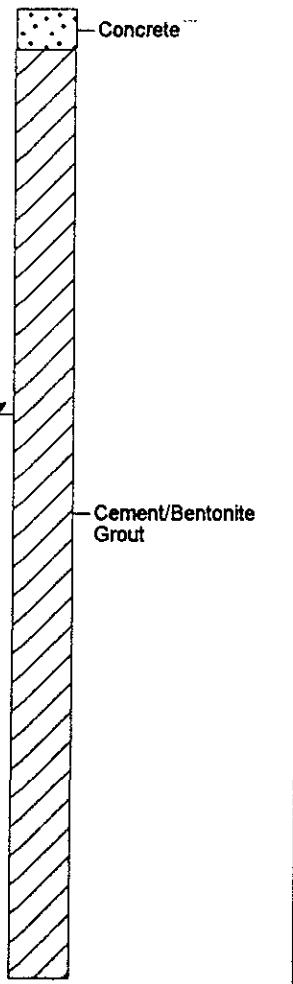
## LOG OF BORING B-2

(Page 1 of 1)

Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

MFG Project No. 030013

Drilling Agency : Precision Sampling      Ground Elevation : Unknown  
 Drilling Method : Direct-push (hydraulic hammer)      Logged By : Jennifer Tancke  
 Drill Bit Size : 2-inch O.D. Steel Casing      Reviewed By : Margaret Dahlen  
 Sampler Type : 2-inch O.D., 48-inch long Drive Sampler  
 Sampling Method : 1.75-inch O.D., Butylate Liners

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	Date Started: 11-Oct-00 Date Finished: 11-Oct-00
0	CONCRETE.					
1	SAND: drk grey (5YR 4/1); F to crs sand, some subangular to angular gravel, moist.	SP	1	48	PID calibrated using 100 ppmv as isobutylene.	
2	SILTY CLAY: red brn (5YR 4/4) with grey (5Y 5/1) mottling; some silt, little F sand, moist.					
5	- few med to crs gravel, moist to wet.	CL	2	48	PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B2-4.5-5.0 (4.5 to 5.0 feet bgl). First observed saturated soil at 5.0 feet bgl!	
8	SAND: v drk grey (2.5Y 3/1); F sand, moist.	SP	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B2-10-10.5 (10 to 10.5 feet bgl).	
11	CLAY: black (2.5Y 2.5/1); moist.	CL				
12	Bottom of boring completed at 12.0 feet bgl.					
13	NOTES:					
14	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl. 2. Collected grab groundwater sample B-2 on 11-Oct-00.					
15	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					
16						



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## LOG OF BORING B-3

(Page 1 of 1)

Avis Rent A Car 1 Neil Armstrong Way Oakland, California		Drilling Agency : Precision Sampling	Ground Elevation	: Unknown
		Drilling Method : Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
		Drill Bit Size : 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
		Sampler Type : 2-inch O.D., 48-inch long Drive Sampler		
MFG Project No. 030013		Sampling Method : 1.75-inch O.D., Butylate Liners		
Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)
				REMARKS
0	CONCRETE.			PID calibrated using 100 ppmv as isobutylene. Hand augered to 5 feet bgl.
1	SAND: drk grey (5YR 4/1); F to crs sand, some subangular to angular gravel, moist.	SP		
2				
3				
4				
5	SANDY CLAY: drk yel brn (10YR 3/4) with grey (5Y 5/1) mottling; some F to crs sand, little gravel, moist.	CL	1	PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B3-4.5-5.0 (4.5 to 5.0 feet bgl).
6				
7	- moist to wet.	CL	2	First observed saturated soil at 7.0 feet bgl!
8	SAND: drk olive brn (2.5Y 3/3); F sand, little organic material, moist	SP		
9				
10	CLAY: drk olive brn (2.5Y 3/3); moist.	CL	48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B3-10-10.5 (10 to 10.5 feet bgl).
11	SAND: drk olive grey (5Y 3/2); F sand, moist.	SP		
12				
13	Bottom of boring completed at 12.5 feet bgl.			
14	NOTES: 1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl. 2. Collected grab groundwater sample B-3 on 11-Oct-00. 3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.			
15				
16				



**MFG, Inc.**

consulting scientists and engineers

## LOG OF BORING B-4

(Page 1 of 1)

Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.	
1	SAND: drk yel brn (10YR 4/6); F to crs sand, few gravel, moist.	SP	1	48	First observed saturated soil at 2.0 feet bgl	 Concrete
2	CLAY: brn (10YR 4/3) with grey (5Y 5/1); mottling; some silt, little sand, moist to wet.				PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B4-4.5-5.0 (4.5 to 5.0 feet bgl).	 ▼ Cement/Bentonite Grout
3					First observed saturated soil at 2.0 feet bgl	
4						
5	- little med gravel.	CL	2	48		
6						
7						
8	Bottom of boring completed at 8.0 feet bgl.					
9	NOTES:					
10	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 8 feet bgl.					
11	2. Collected grab groundwater sample B-4 on 11-Oct-00.					
12	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					
13						
14						
15						
16						



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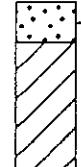
## LOG OF BORING B-5

(Page 1 of 1)

Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	CONCRETE.				PID calibrated using 100 ppmv as isobutylene.  Hand augered to 5 feet bgl. Petroleum odor.	
1	SAND CLAY: drk yel brn (10YR 4/6); some F sand, little med to crs sand, little F to med gravel, moist.					
2						
3						
4	- v drk grey brn (2.5Y 3/2).					
5		CL				
6	- drk yel brn (10YR 4/6); moist to wet.					
7						
8						
9	SAND: drk olive grey (5YR 3/2); F sand, moist.					
10		SP				
11	CLAY: drk olive grey (5Y 3/2); moist.					
12		CL				
13	Bottom of boring completed at 13.0 feet bgl.					

### NOTES:

1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 13 feet bgl.
2. Collected grab groundwater sample B-5 on 11-Oct-00.
3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.



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## LOG OF BORING B-6

(Page 1 of 1)

Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlén
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.	
1	SAND: yel brn (10YR 5/6); F to crs sand, little F to med gravel, moist.	SP	1	48		Concrete
2	SANDY CLAY: yel brn (10YR 5/6); some F sand, little med to crs sand, moist		2	48		
3						
4	- red brn (5YR 4/3) mottling, some med to crs sand and gravel.				PID = 0.00 ppmv (5.0 to 5.5 feet bgl). Collected soil sample B6-4.5-5.0 (4.5 to 5.0 feet bgl).	
5						
6						
7	- moist to wet.				First observed saturated soil at 7.0 feet bgl	Cement/Bentonite Grout
8						
9						
10						
11	- drk olive grey (5YR 3/2)				PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B6-10-10.5 (10 to 10.5 feet bgl).	
12	SAND: drk olive grey (5YR 3/2); F sand, moist. CLAY: drk olive grey (5Y 3/2); moist.	SP CL	3	48		
13	Bottom of boring completed at 12.2 feet bgl.					
14	NOTES:					
15	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.					
16	2. Collected grab groundwater sample B-6 on 11-Oct-00.					
	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					



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## LOG OF BORING B-7

(Page 1 of 1)

Avis Rent A Car  
1 Neil Armstrong Way  
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	Date Started: 11-Oct-00 Date Finished: 11-Oct-00
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.	Concrete
1	SANDY CLAY: yel brn (10YR 5/6); some F to crs sand, few F to crs gravel, moist.		1	48		
2						
3						
4						
5					PID = 0.00ppmv (5.0 to 5.5 feet bgl). Collected soil sample B7-4.5-5.0 (4.5 to 5.0 feet bgl).	
6	- grey (5Y 5/1) mottling.	CL	2	48		
7						
8						
9						
10	- drk olive grey (5YR 3/2), moist to wet.		3	48	First observed saturated soil at 10.0 feet bgl. PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B7-10-10.5 (10 to 10.5 feet bgl).	Cement/Bentonite Grout
11	SAND: drk olive grey (5YR 3/2); F sand, moist	SP				
12	CLAY: drk olive grey (5Y 3/2); moist.	CL				
13	Bottom of boring completed at 12.0 feet bgl.					
14	NOTES:	<ol style="list-style-type: none"> <li>1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.</li> <li>2. Collected grab groundwater sample B-7 on 11-Oct-00.</li> <li>3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.</li> </ol>				
15						
16						

**ATTACHMENT B**

**Laboratory Report and  
Chain-of-Custody Record**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L   R E P O R T

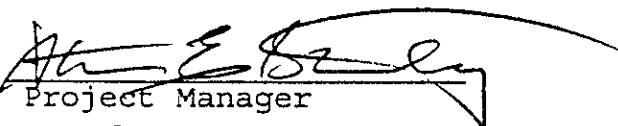
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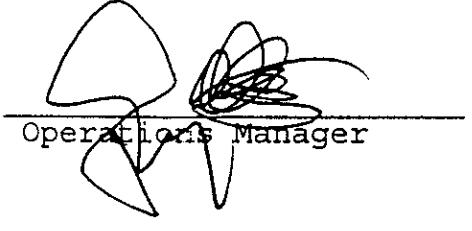
McCulley, Frick & Gilman, Inc.  
71 Stevenson St.  
Suite 1450  
San Francisco, CA 94105-2938

Date: 27-OCT-00  
Lab Job Number: 148065  
Project ID: 030013.2  
Location: Avis-Oakland

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

RECEIVED  
OCT 31 2000  
MFG, Inc.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

This package may be reproduced only in its entirety.

148065

## Preservation Correct?

□ Yes □ No Yes

Received  On ice

Cold    Ambient

~~-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS~~  
McCULLEY, FRICK & GILMAN, INC.

COC No. 41669

J Boulder Office      J Missoula Office  
4500 Pearl E Circle      215 S 3<sup>rd</sup> St West  
Suite #300W      Missoula MT 59801  
Boulder CO 80301      TEL (406) 728 4600  
TEL (303) 447 1823      FAX (406) 728 4696  
FAX (303) 447 1836

□ Osburn Office  
809 E Main Avenue  
Osburn ID 83849  
TEL (208) 556-6811  
FAX (208) 556 7271

 San Francisco Office  
71 Stevenson St. #1450  
San Francisco CA 94105  
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Santa Ana, CA 92705  
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FAX (714) 973-3097

Seattle Office  
19203 36<sup>th</sup> Avenue W  
Suite #101  
Lynnwood WA 98036  
TEL (425) 778-8252  
FAX (425) 771-8842

11

PROJECT NO. 030013.2

PROJECT NAME: Aris - Oakland

PAGE / OF 2

SAMPLER (Signature)

PROJECT MANAGER: Margaret Dahlman

DATE: 10/10/10

**METHOD OF SHIPMENT**

CARRIER WAYBILL NO.

DESTINATION: Curtis & Tompkins

## SAMPLES

ANALYSIS REQUEST

RECEIVE DATE OCT 31 2000 MEG, Inc.	Sample		Preservation		FILTRATION*	Containers	Constituents/Method		Handling	Remarks						
	DATE	TIME	Matrix*	HCl			HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	COLD	TYPED	VOLUME (ml/oz)	TPHgas	BTEX, VOCs	RUSH	STANDARD	
-1 B1-4.5-5.0	0930	101100	50	/	X	T	-					X				8.8°C, C
-2 B1-10-10.5	0935		/	/		T	-									
-3 B2-4.5-5.0	1015					T	-									
-4 B2-10-10.5	1025					T	-									
-5 B4-4.5-5.0	1050					T	-									
-6 B5-5.0-5.5	1215					T	-			X	X				X	
-7 B5-10-10.5	1225					T	-									
-8 B6-4.5-5.0	1330					T	-									
-9 B6-10-10.5	1340					T	-									
-10 B7-4.5-5.0	1410	↓	↓		↓	T	-							✓		
				TOTAL NUMBER OF CONTAINERS			LABORATORY COMMENTS/CONDITION OF SAMPLES						Cooler Temp			
EMP. RECEIVED BY: [REDACTED]													RECEIVED BY: [REDACTED]			

**RELINQUISHED BY:**

RECEIVED BY:

					RECEIVED BY:		
SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	SIGNATURE	PRINTED NAME	COMPANY
J. J. Dach	Jennifer Tanche	MFG	10/12/00	1125	Tony Rojas	Tony Rojas	C&T
					LABORATORY		

\*KEY Matrix AQ aqueous NA nonaqueous SO son SL slurry P petroleum A air OT other Containers P plastic G glass T teflon B brass OT filter Filtration F filtered U unfiltered

DISTRIBUTION PINK Fresh Cow's YELLOW Lactobacillus Cow's WHITE Butter & Cream

# CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

**MFG, Inc.**

<input type="checkbox"/> Arcata Office 1165 G Street, Suite E Arcata CA 95521-5817 Tel (707) 826-8430 Fax (707) 826-8437	<input type="checkbox"/> Boulder Office 4900 Pearl East Circle Suite 300W Boulder, CO 80301-6118 Tel (303) 447-1823 Fax (303) 447-1836	<input type="checkbox"/> Missoula Office P.O. Box 7158 Missoula MT 59807-7158 Tel (406) 728-4600 Fax (406) 728-4698	<input type="checkbox"/> Noburn Office P.O. Box 30 Wallace, ID 83873-0030 Tel (208) 556-6811 Fax (208) 556-7271	<input checked="" type="checkbox"/> San Francisco Office 71 Stevenson Street Suite 1450 San Francisco CA 94105-2941 Tel (415) 495-7110 Fax (415) 495-7107	<input type="checkbox"/> Santa Ana Office 640 North Tustin Avenue Suite 101 Santa Ana CA 92705-3731 Tel (714) 973-3090 Fax (714) 973-3097	<input type="checkbox"/> Seattle Office 19203 36th Avenue Suite 101 Lynnwood WA 98036-5707 Tel (425) 921-4000 Fax (425) 921-4040	<input type="checkbox"/>
--------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------

COC No. **42222**

PROJECT NO: 030013-2

PROJECT NAME: Avis - Oakland

PAGE: 2 OF: 2

SAMPLER (Signature): J. F. Turch

PROJECT MANAGER: Margaret Dahlen

DATE: 10/11/00

METHOD OF SHIPMENT:

CARRIER/WAYBILL NO:

DESTINATION: Curtis & Tompkins

Field Sample Identification	SAMPLES							ANALYSIS REQUEST									
	Sample			Preservation				FILTRATION*	Containers			Constituents/Method		Handling		Remarks	
	DATE	TIME	Matrix*	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	COLD		TYPE*	NO.	VOLUME (ml/oz)	TPE	WDCS, ETEX, MTE	HOLD	RUSH		STANDARD
-11 B7-10-10.5	1420	10/11/00	SD			X	T	1					X				
-12 B3-4.5-5.0	1510	↓	↓			↓	T	1					↓				
-13 B3-10-10.5	1520	↓	↓			↓	T	1									
TOTAL NUMBER OF CONTAINERS <u>3</u>															LABORATORY COMMENTS/CONDITION OF SAMPLES		
															Cooler Temp:		

**RECEIVE**

OCT 13 2000

MFG Inc

RELINQUISHED BY:			DATE	TIME	RECEIVED BY:		
SIGNATURE	PRINTED NAME	COMPANY			SIGNATURE	PRINTED NAME	COMPANY
<u>J. F. Turch</u>	<u>Lenni R. Turch</u>	<u>MFG</u>	<u>10/12/00</u>	<u>1125</u>	<u>Tony Rojas</u>	<u>Tony Rojas</u>	<u>C&amp;T</u>
						LABORATORY	

\*KEY Matrix AQ - aqueous NA - nonaqueous SO - soil SL - sludge P - petroleum A - air OT - other Containers P - plastic G - glass T - teflon B - brass OT - other Filtration F - filtered U - unfiltered

DISTRIBUTION: PINK Field Copy YELLOW Laboratory Copy WHITE Return to Originator

**Gasoline by GC/FID CA LUFT**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Field ID:	B5-5.0-5.5	Batch#:	58964
Matrix:	Soil	Sampled:	10/11/00
Units:	mg/Kg	Received:	10/12/00
Basis:	wet	Analyzed:	10/17/00
Diln Fac:	1.000		

Type: SAMPLE Lab ID: 148065-006

Analyte	Result	RL
Gasoline C7-C12	3.2 H Y	0.92

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	62-138
Bromofluorobenzene (FID)	99	46-150

Type: BLANK Lab ID: QC127772

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Trifluorotoluene (FID)	96	62-138
Bromofluorobenzene (FID)	100	46-150

H = Heavier hydrocarbons contributed to the quantitation  
 Y = Sample exhibits fuel pattern which does not resemble standard  
 ND = Not Detected  
 RL = Reporting Limit  
 Page 1 of 1

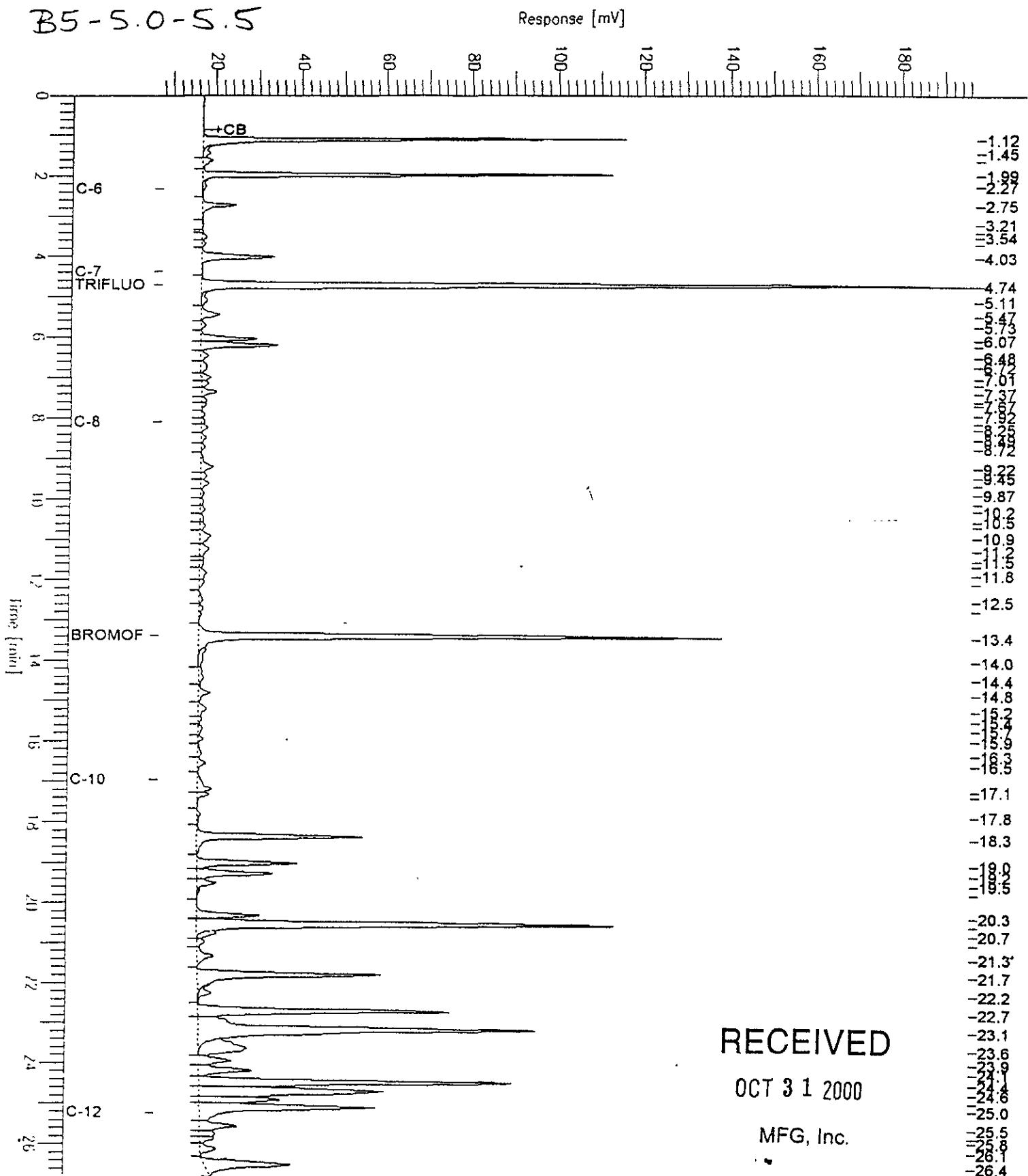
RECEIVED  
 OCT 31 2000  
 MFG, Inc.

# GC19 TVH 'X' Data File (FID)

Sample Name : 148065-006,58964, tvh only  
 FileName : G:\GC19\DATA\291X011.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min End Time : 26.80 min  
 Scale Factor: 1.0 Plot Offset: 8 mV

Sample #: a Page 1 of 1  
 Date : 10/17/00 10:41 PM  
 Time of Injection: 10/17/00 10:14 PM  
 Low Point : 7.73 mV High Point : 197.35 mV  
 Plot Scale: 189.6 mV

B5 - 5.0 - 5.5



RECEIVED

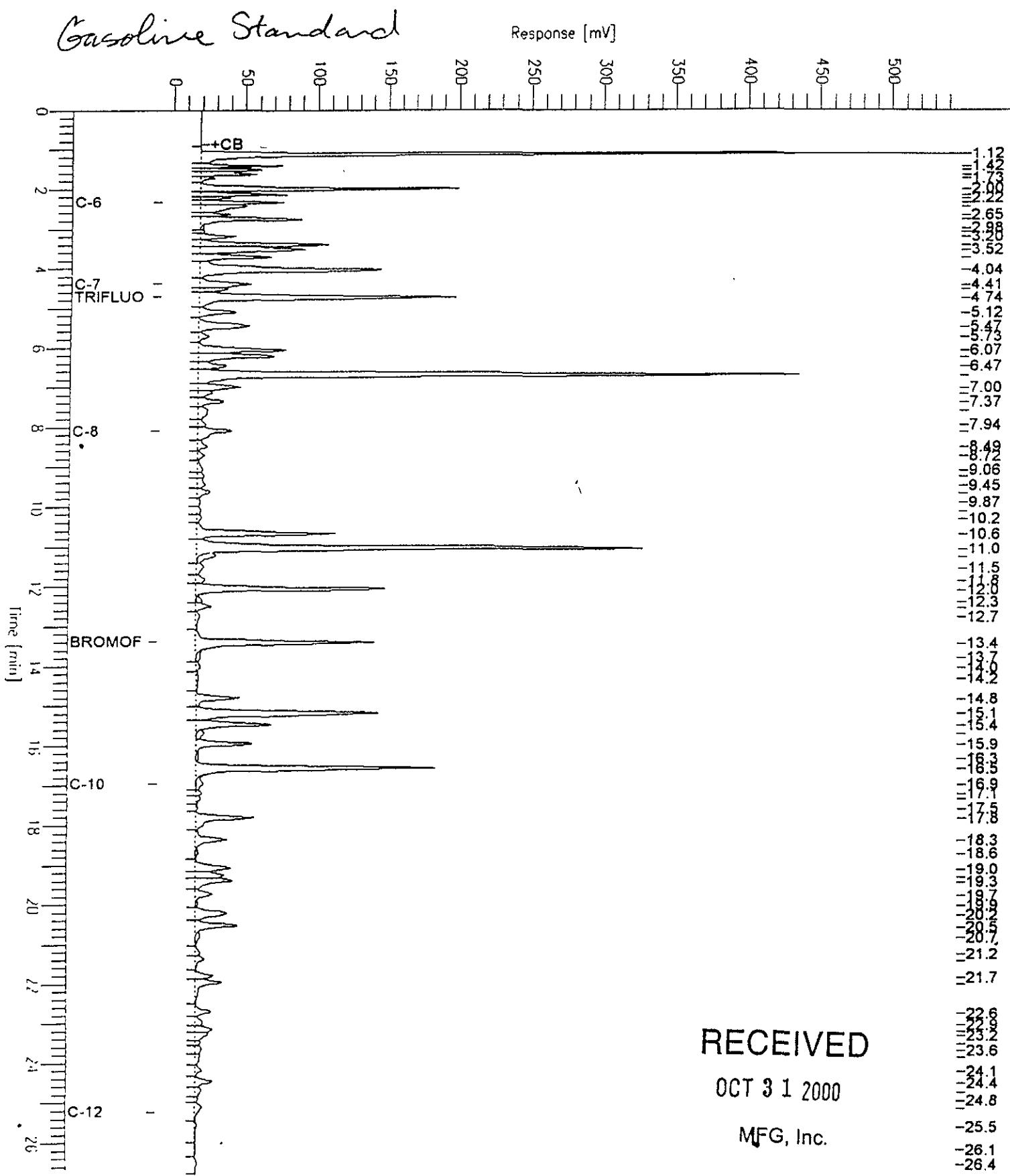
OCT 31 2000

MFG, Inc.

# GC19 TVH 'X' Data File (FID)

Sample Name : ccv,gas,58964,00ws9736,5/5000  
 FileName : G:\GC19\DATA\291X018.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min End Time : 26.80 min  
 Scale Factor: 1.0 Plot Offset: -8 mV

Circle #: Page 1 of 1  
 Date 10/18/00 02:56 AM  
 Time of Injection: 10/18/00 02:29 AM  
 Low Point : -8.16 mV High Point : 548.35 mV  
 Plot Scale: 556.5 mV



**Gasoline by GC/FID CA LUFT**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Type:	LCS	Basis:	wet
Lab ID:	QC127773	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58964
Units:	mg/Kg	Analyzed:	10/17/00

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.377	94	75-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	108	62-138
Bromofluorobenzene (FID)	107	46-150

RECEIVED  
OCT 31 2000

**Gasoline by GC/FID, CA LUFT**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	148046-001	Batch#:	58964
Matrix:	Soil	Sampled:	10/07/00
Units:	mg/Kg	Received:	10/12/00
Basis:	wet	Analyzed:	10/17/00

Type: MS Lab ID: QC127775

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<0.09524	9.524	6.951	73	41-132

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	62-138
Bromofluorobenzene (FID)	106	46-150

Type: MSD Lab ID: QC127776

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.524	6.726	71	41-132	3	25

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	62-138
Bromofluorobenzene (FID)	107	46-150

**RECEIVED**

OCT 31 2000

 RPD= Relative Percent Difference  
 Page 1 of 1

MFG, Inc.



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B5-5.0-5.5	Basis:	wet
Lab ID:	148065-006	Sampled:	10/11/00
Matrix:	Soil	Received:	10/12/00
Units:	ug/Kg		

Analyte	Result	RL	Diln	Fac	Batch#	Analyzed
Freon 12	ND	9.8	0.9804	58922	10/16/00	
Chloromethane	ND	9.8	0.9804	58922	10/16/00	
Vinyl Chloride	ND	9.8	0.9804	58922	10/16/00	
Bromomethane	ND	9.8	0.9804	58922	10/16/00	
Chloroethane	ND	9.8	0.9804	58922	10/16/00	
Trichlorofluoromethane	ND	4.9	0.9804	58922	10/16/00	
Acetone	32	20	0.9804	58922	10/16/00	
Freon 113	ND	4.9	0.9804	58922	10/16/00	
1,1-Dichloroethene	ND	4.9	0.9804	58922	10/16/00	
Methylene Chloride	ND	20	0.9804	58922	10/16/00	
Carbon Disulfide	ND	4.9	0.9804	58922	10/16/00	
MTBE	130	4.9	0.9804	58922	10/16/00	
trans-1,2-Dichloroethene	ND	4.9	0.9804	58922	10/16/00	
Vinyl Acetate	ND	49	0.9804	58922	10/16/00	
1,1-Dichloroethane	ND	4.9	0.9804	58922	10/16/00	
2-Butanone	ND	9.8	0.9804	58922	10/16/00	
cis-1,2-Dichloroethene	ND	4.9	0.9804	58922	10/16/00	
2,2-Dichloropropane	ND	4.9	0.9804	58922	10/16/00	
Chloroform	ND	4.9	0.9804	58922	10/16/00	
Bromochloromethane	ND	4.9	0.9804	58922	10/16/00	
1,1,1-Trichloroethane	ND	4.9	0.9804	58922	10/16/00	
1,1-Dichloropropene	ND	4.9	0.9804	58922	10/16/00	
Carbon Tetrachloride	ND	4.9	0.9804	58922	10/16/00	
1,2-Dichloroethane	ND	4.9	0.9804	58922	10/16/00	
Benzene	ND	4.9	0.9804	58922	10/16/00	
Trichloroethene	ND	4.9	0.9804	58922	10/16/00	
1,2-Dichloropropane	ND	4.9	0.9804	58922	10/16/00	
Bromodichloromethane	ND	4.9	0.9804	58922	10/16/00	
Dibromomethane	ND	4.9	0.9804	58922	10/16/00	
4-Methyl-2-Pentanone	ND	9.8	0.9804	58922	10/16/00	
cis-1,3-Dichloropropene	ND	4.9	0.9804	58922	10/16/00	
Toluene	ND	4.9	0.9804	58922	10/16/00	
trans-1,3-Dichloropropene	ND	4.9	0.9804	58922	10/16/00	
1,1,2-Trichloroethane	ND	4.9	0.9804	58922	10/16/00	
2-Hexanone	ND	9.8	0.9804	58922	10/16/00	
1,3-Dichloropropane	ND	4.9	0.9804	58922	10/16/00	
Tetrachloroethene	ND	4.9	0.9804	58922	10/16/00	

J = Estimated value

ND = Not Detected

RL = Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B5-5.0-5.5	Basis:	wet
Lab ID:	148065-006	Sampled:	10/11/00
Matrix:	Soil	Received:	10/12/00
Units:	ug/Kg		

Analyte	Result	RL	Diln Factor	Batch#	Analyzed
Dibromochloromethane	ND	4.9	0.9804	58922	10/16/00
1,2-Dibromoethane	ND	4.9	0.9804	58922	10/16/00
Chlorobenzene	ND	4.9	0.9804	58922	10/16/00
1,1,1,2-Tetrachloroethane	ND	4.9	0.9804	58922	10/16/00
Ethylbenzene	ND	4.9	0.9804	58922	10/16/00
m,p-Xylenes	2.8 J	4.9	0.9804	58922	10/16/00
o-Xylene	ND	4.9	0.9804	58922	10/16/00
Styrene	ND	4.9	0.9804	58922	10/16/00
Bromoform	ND	4.9	0.9804	58922	10/16/00
Isopropylbenzene	ND	4.9	0.9804	58922	10/16/00
1,1,2,2-Tetrachloroethane	ND	4.9	0.9804	58922	10/16/00
1,2,3-Trichloropropane	ND	4.9	0.9804	58922	10/16/00
Propylbenzene	5.1	4.9	0.9804	58922	10/16/00
Bromobenzene	ND	4.9	0.9804	58922	10/16/00
1,3,5-Trimethylbenzene	ND	4.9	0.9804	58922	10/16/00
2-Chlorotoluene	ND	4.9	0.9804	58922	10/16/00
4-Chlorotoluene	ND	4.9	0.9804	58922	10/16/00
tert-Butylbenzene	ND	4.9	0.9804	58922	10/16/00
1,2,4-Trimethylbenzene	6.9	4.9	0.9804	58922	10/16/00
sec-Butylbenzene	5.3	4.9	0.9804	58922	10/16/00
para-Isopropyl Toluene	ND	4.9	0.9804	58922	10/16/00
1,3-Dichlorobenzene	ND	4.9	0.9804	58922	10/16/00
1,4-Dichlorobenzene	ND	4.9	0.9804	58922	10/16/00
n-Butylbenzene	26	4.9	0.9804	58922	10/16/00
1,2-Dichlorobenzene	ND	4.9	0.9804	58922	10/16/00
1,2-Dibromo-3-Chloropropane	ND	4.9	0.9804	58922	10/16/00
1,2,4-Trichlorobenzene	ND	4.9	0.9804	58922	10/16/00
Hexachlorobutadiene	ND	4.9	0.9804	58922	10/16/00
Naphthalene	98	10	2.000	58949	10/17/00
1,2,3-Trichlorobenzene	ND	4.9	0.9804	58922	10/16/00

Surrogate	REC	Limits	Diln Factor	Batch#	Analyzed
Dibromofluoromethane	107	63-133	0.9804	58922	10/16/00
1,2-Dichloroethane-d4	104	76-127	0.9804	58922	10/16/00
Toluene-d8	104	80-111	0.9804	58922	10/16/00
Bromoform	93	77-126	0.9804	58922	10/16/00

J = Estimated value

ND = Not Detected

RL = Reporting Limit

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## Purgeable Organics by GC/MS

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC127622	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58922
Units:	ug/Kg	Analyzed:	10/16/00

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

ND = Not Detected

RL = Reporting Limit

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## Purgeable Organics by GC/MS

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep.:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC127622	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58922
Units:	ug/Kg	Analyzed:	10/16/00

Analyte	Result	RI
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	limits
Dibromofluoromethane	104	63-133
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	106	77-126

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ND = Not Detected

RL = Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC127713	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58949
Units:	ug/Kg	Analyzed:	10/17/00

Analyte	Result	RT
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromoform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

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ND = Not Detected

RL = Reporting Limit

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## Purgeable Organics by GC/MS

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Basis:	wet
Lab ID:	QC127713	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58949
Units:	ug/Kg	Analyzed:	10/17/00

Analyte	Result	RL
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
c-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	Limit
Dibromofluoromethane	106	63-133
1,2-Dichloroethane-d4	104	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	113	77-126

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ND = Not Detected

RL = Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	LCS	Basis:	wet
Lab ID:	QC127621	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58922
Units:	ug/Kg	Analyzed:	10/16/00

Analyte	Spiked	Result	REC	Limits
1,1-Dichloroethene	50.00	51.62	103	66-138
Benzene	50.00	48.86	98	76-121
Trichloroethene	50.00	48.74	97	75-124
Toluene	50.00	49.22	98	75-124
Chlorobenzene	50.00	46.85	94	78-115

Surrogate	REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	92	77-126

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	LCS	Basis:	wet
Lab ID:	QC127712	Diln Fac:	1.000
Matrix:	Soil	Batch#:	58949
Units:	ug/Kg	Analyzed:	10/17/00

Analyte	Spiked	Result	TREC	Limits
1,1-Dichloroethene	50.00	49.56	99	66-138
Benzene	50.00	46.88	94	76-121
Trichloroethene	50.00	46.95	94	75-124
Toluene	50.00	48.17	96	75-124
Chlorobenzene	50.00	45.52	91	78-115

Surrogate	TREC	Limits
Dibromofluoromethane	107	63-133
1,2-Dichloroethane-d4	104	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	95	77-126

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep.:	EPA 5030
Project#:	Q30013.2	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZ	Diln Fac.:	1.000
MSS Lab ID:	148057-008	Batch#:	58922
Matrix:	Soil	Sampled:	10/13/00
Units:	ug/Kg	Received:	10/13/00
Basis:	wet	Analyzed:	10/16/00

Type: MS Lab ID: QC127623

Analyte	MSS Result	Spiked	Result	REC	Limits
1,1-Dichloroethene	<5.000	50.00	47.72	95	42-145
Benzene	<5.000	50.00	40.07	80	50-133
Trichloroethene	<5.000	50.00	38.89	78	33-133
Toluene	<5.000	50.00	38.78	78	45-134
Chlorobenzene	<5.000	50.00	32.73	65	38-137

Surrogate	REC	Limits
Dibromofluoromethane	107	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	100	77-126

Type: MSD Lab ID: QC127624

Analyte	Spiked	Result	REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	43.12	86	42-145	10	31
Benzene	50.00	38.37	77	50-133	4	29
Trichloroethene	50.00	36.21	72	33-133	7	30
Toluene	50.00	36.79	74	45-134	5	29
Chlorobenzene	50.00	31.17	62	38-137	5	31

Surrogate	REC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	103	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	98	77-126

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**Purgeable Organics by GC/MS**

Lab #:	148065	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B5-5.0-5.5	Diln Fac:	2.381
MSS Lab ID:	148065-006	Batch#:	58949
Matrix:	Soil	Sampled:	10/11/00
Units:	ug/Kg	Received:	10/12/00
Basis:	wet	Analyzed:	10/17/00

Type: MS Lab ID: QC127749

Analyte	MSS Result	Spiked	Result	RREC	Limits
1,1-Dichloroethene	<4.902	119.0	121.0	102	42-145
Benzene	<4.902	119.0	111.8	94	50-133
Trichloroethene	<4.902	119.0	111.5	94	33-133
Toluene	<4.902	119.0	114.0	96	45-134
Chlorobenzene	<4.902	119.0	106.5	89	38-137

Surrogate	RREC	Limits
Dibromofluoromethane	108	63-133
1,2-Dichloroethane-d4	104	76-127
Toluene-d8	102	80-111
Bromofluorobenzene	96	77-126

Type: MSD Lab ID: QC127750

Analyte	Spiked	Result	RREC	Limits	RPD	Lim
1,1-Dichloroethene	119.0	122.5	103	42-145	1	31
Benzene	119.0	114.8	96	50-133	3	29
Trichloroethene	119.0	114.3	96	33-133	2	30
Toluene	119.0	115.3	97	45-134	1	29
Chlorobenzene	119.0	105.7	89	38-137	1	31

Surrogate	RREC	Limits
Dibromofluoromethane	109	63-133
1,2-Dichloroethane-d4	104	76-127
Toluene-d8	101	80-111
Bromofluorobenzene	96	77-126

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RPD= Relative Percent Difference  
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A N A L Y T I C A L   R E P O R T

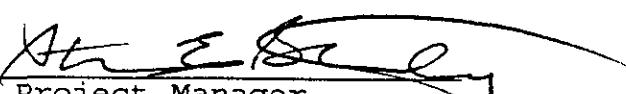
Prepared for:

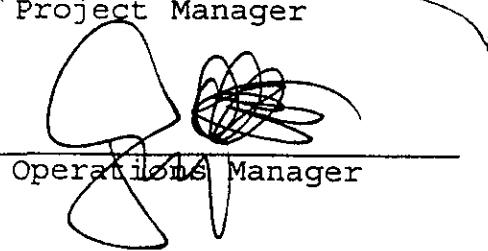
McCulley, Frick & Gilman, Inc.  
71 Stevenson St.  
Suite 1450  
San Francisco, CA 94105-2938

Date: 27-OCT-00  
Lab Job Number: 148063  
Project ID: 030013.2  
Location: Avis-Oakland

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

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OCT 31 2000  
MFG, Inc.

Reviewed by:   
Project Manager

Reviewed by:   
Operations Manager

This package may be reproduced only in its entirety.



Laboratory Number: **148063**  
Client: **MFG, Inc.**  
Project Name: **Avis-Oakland**

Receipt Date: **10/12/00**

### **CASE NARRATIVE**

This hardcopy data package contains sample results and batch QC results for eight water samples received from the above referenced project. The samples were received cool and intact.

**Total Volatile Hydrocarbons:** No analytical problems were encountered.

**Volatile Organic Compounds:** No analytical problems were encountered.

**General Chemistry:** The total oil and grease was analyzed by EPA Method 1664. No target analyte was detected in the sample. TRPH (1664) was therefore not required. No analytical problems were encountered.

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MFG, Inc.

148063

Received  On Ice  
 Cold  Ambient  Intact

Preservation Correct?

Yes  No  N/A

# CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

McCULLEY, FRICK & GILMAN, INC.

COC No. 41728

J Boulder Office  
 4501 Pearl E Circle  
 Suite #300W  
 Boulder CO 80301  
 TEL (303) 447-1823  
 FAX (303) 447-1836

Missoula Office  
 215 S 3rd St West  
 Missoula MT 59801  
 TEL (406) 728 4600  
 FAX (406) 728-4698

Osburn Office  
 809 E Mullan Avenue  
 Osburn ID 83849  
 TEL (208) 556 6811  
 FAX (208) 556 7271

X San Francisco Office  
 71 Stevenson St #1450  
 San Francisco, CA 94105  
 TEL (415) 495 7110  
 FAX (415) 495-7107

Santa Ana Office  
 640 North Rustin Ave  
 Suite 101  
 Santa Ana, CA 92705  
 TEL (714) 973-3090  
 FAX (714) 973-3097

Seattle Office  
 19203 36th Avenue W  
 Suite #101  
 Lynnwood WA 98036  
 TEL (425) 778-8252  
 FAX (425) 771-8842

PROJECT NO.: 030013

PROJECT NAME: Avis - Oakland

PAGE: 1 OF 1

SAMPLER (Signature): Jennifer Tanck

PROJECT MANAGER: Margaret Dahmen

DATE: 10/11/00

METHOD OF SHIPMENT: Courier

CARRIER/WAYBILL NO.:

DESTINATION: Curtis &amp; Tampkins

TEMP. RECEIVED: RECEIVED BY: Field Sample Identification	SAMPLES							ANALYSIS REQUEST							
	Sample			Preservation				FILTRATION*	CONTAINERS	Constituents/Method			Handling	Remarks	
	DATE	TIME	Matrix*	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	COLD			VOLUME (ML/NOZ)	TYPE*	NO.			
-1 Trip Blank	10/11/00		AQ X		X			U	40 G	2	X			X	Triph - both vols
-2 B-5		1345						U	40 G	6	X	X			B-5 have bubbles
-3 B-1		1540						U	40 G	6	X	X			
-4 B-2	OCT 03	1550						U	40/1000 G	8	X	X X X			B-5 1 vol has bubble
-5 B-3	MFG. 10/1	1605						U	40 G	6	X	X			
-6 B-4	10/1	1620						U	40 G	6	X	X			
-7 B-6	10/1	1630						U	40 G	6	X	X			B-7 2 vol have bubble
-8 B-7	10/1	1640	↓				↓	U	40 G	6	X	X		↓	
<i>Temp Blank</i>				No				TOTAL NUMBER OF CONTAINERS				LABORATORY COMMENTS/CONDITION OF SAMPLES			Cooler Temp:

## RELINQUISHED BY:

SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	RECEIVED BY:		
Jennifer Tanck	Jennifer Tanck	MFG	10/12/00	1125	TONY RYAN	TONY ROJAS	C&T
							LABORATORY

\*KEY: AQ-aqueous NA-nonaqueous SO-solid SL-sludge P-petroleum A-air OT-other Containers P plastic G-glass T-teflon B-brass OT other Filtration F filtered U unfiltered

DISTRIBUTION: PINK Field Copy YELLOW Laboratory Copy WHITE Return to Originator

**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	10/11/00
Units:	ug/L	Received:	10/12/00
Diln Fac:	1.000		

Field ID: B-5                          Batch#: 58958  
 Type: SAMPLE                          Analyzed: 10/17/00  
 Lab ID: 148063-002

Analyte	Result	RL
Gasoline C7-C12	220	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	59-135
Bromofluorobenzene (FID)	101	60-140

Field ID: B-1                          Batch#: 58975  
 Type: SAMPLE                          Analyzed: 10/19/00  
 Lab ID: 148063-003

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	101	59-135
Bromofluorobenzene (FID)	103	60-140

Field ID: B-2                          Batch#: 58958  
 Type: SAMPLE                          Analyzed: 10/18/00  
 Lab ID: 148063-004

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	59-135
Bromofluorobenzene (FID)	99	60-140

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ND = Not Detected  
 RL = Reporting Limit  
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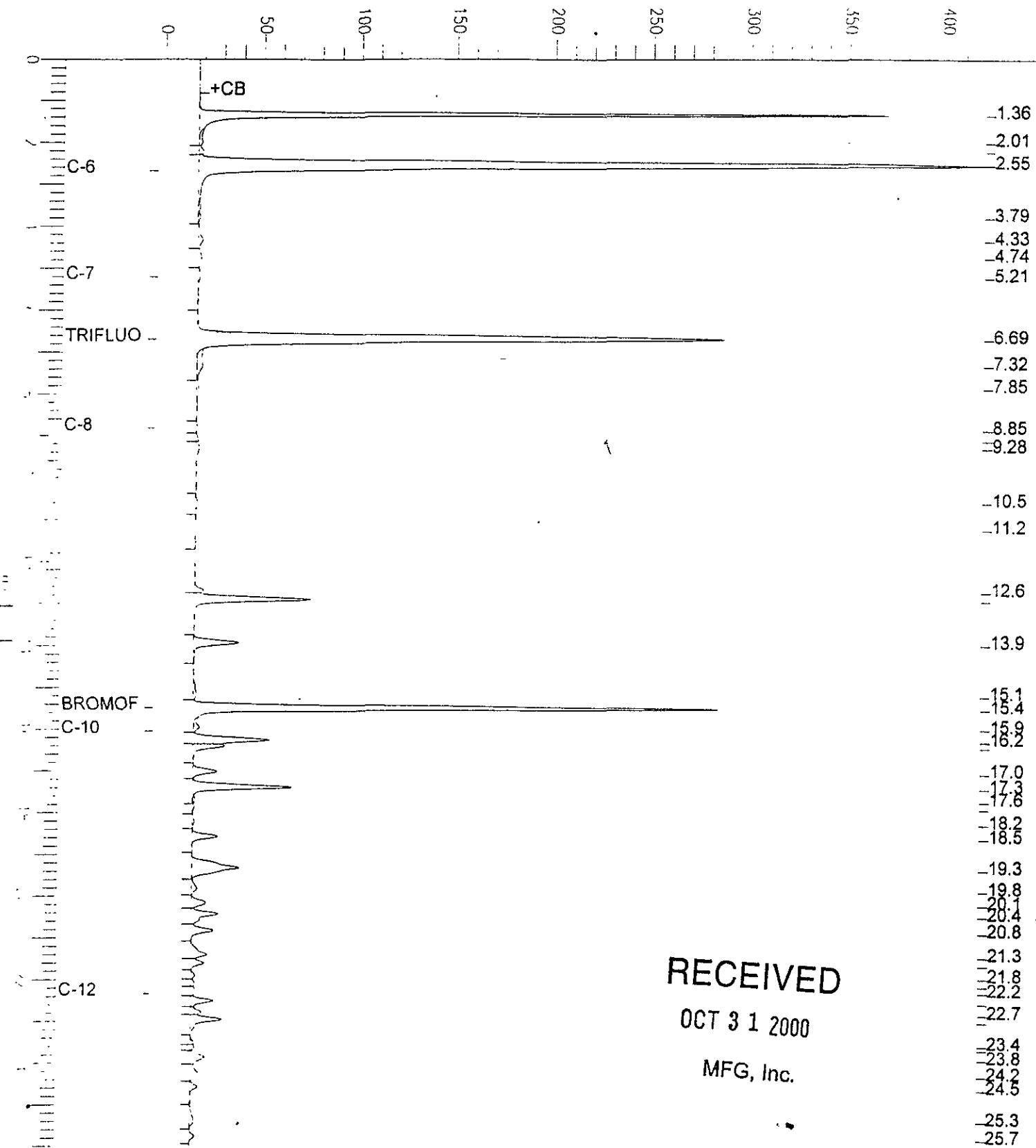
# GC07 TVH 'A' Data File RTX 502

Sample Name : MSS\_148063-002,58958,TVH ONLY  
 FileName : G:\GC07\DATA\291A011.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min End Time : 26.00 min  
 Scale Factor: 1.0 Plot Offset: -3 mV

Sample #: Page 1 of 1  
 Date : 10/17/00 08:16 PM  
 Time of Injection: 10/17/00 07:50 PM  
 Low Point : -3.24 mV High Point : 419.96 mV  
 Plot Scale: 423.2 mV

B-5

Response [mV]



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**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	10/11/00
Units:	ug/L	Received:	10/12/00
Diln Fac:	1.000		

Field ID: B-3 Batch#: 58958  
Type: SAMPLE Analyzed: 10/18/00  
Lab ID: 148063-005

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	59-135
Bromofluorobenzene (FID)	102	60-140

Field ID: B-4 Batch#: 58958  
Type: SAMPLE Analyzed: 10/18/00  
Lab ID: 148063-006

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	59-135
Bromofluorobenzene (FID)	99	60-140

Field ID: B-6 Batch#: 58958  
Type: SAMPLE Analyzed: 10/18/00  
Lab ID: 148063-007

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	59-135
Bromofluorobenzene (FID)	103	60-140

ND = Not Detected  
RL = Reporting Limit  
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**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Matrix:	Water	Sampled:	10/11/00
Units:	ug/L	Received:	10/12/00
Diln Fac:	1.000		

Field ID: B-7                          Batch#: 58958  
Type: SAMPLE                          Analyzed: 10/18/00  
Lab ID: 148063-008

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	100	59-135
Bromofluorobenzene (FID)	103	60-140

Type: BLANK                          Batch#: 58958  
Lab ID: QC127753                          Analyzed: 10/17/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	99	59-135
Bromofluorobenzene (FID)	97	60-140

Type: BLANK                          Batch#: 58975  
Lab ID: QC127824                          Analyzed: 10/18/00

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	59-135
Bromofluorobenzene (FID)	97	60-140

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ND = Not Detected

RL = Reporting Limit

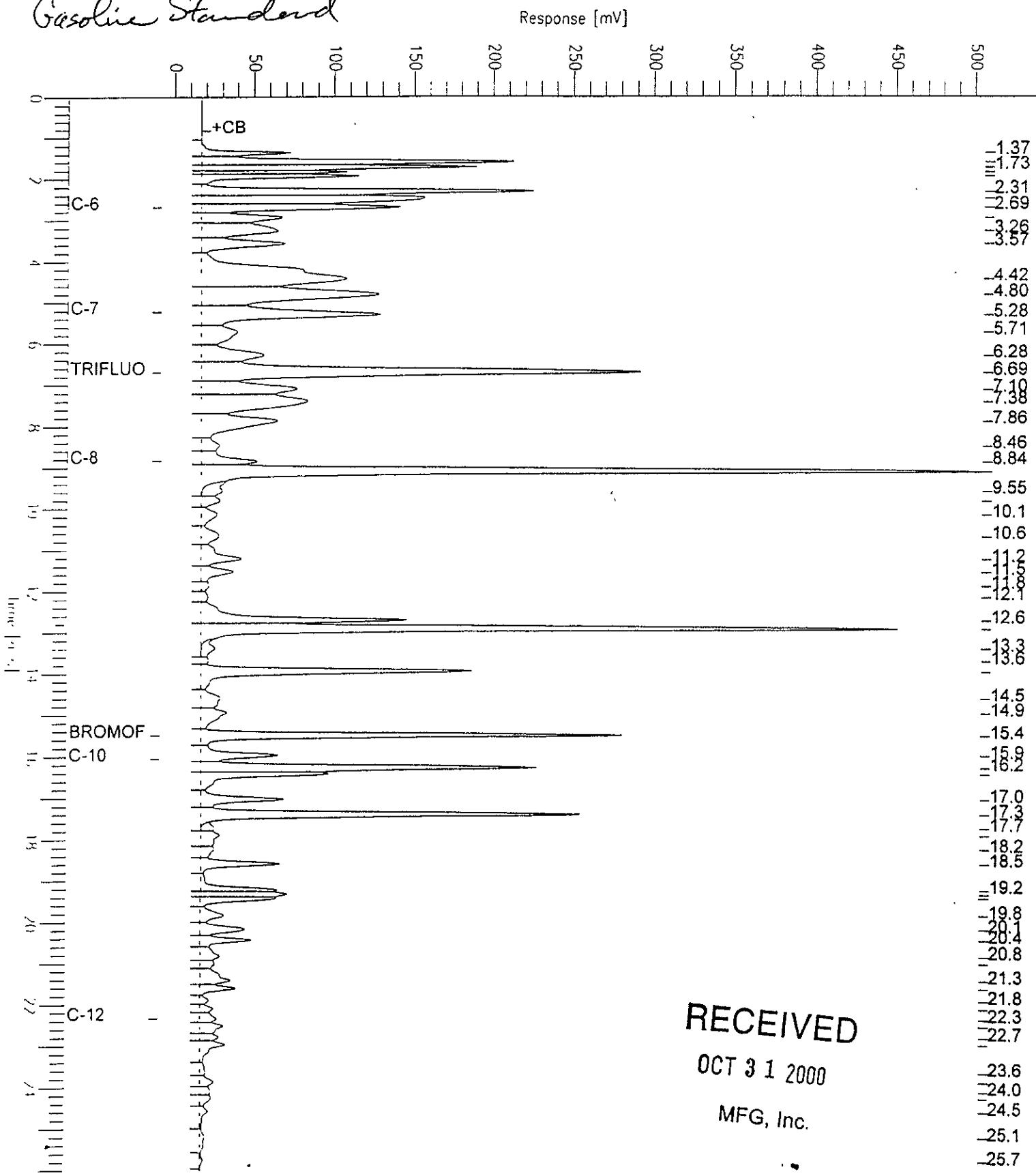
Page 3 of 3

## GC07 TVH 'A' Data File RTX 502

Sample Name : CCV/LCS,QC127751,S8958,00WS9736,5/5000  
 FileName : G:\GC07\DATA\291A004.raw  
 Method : TVHBTXE  
 Start Time : 0.00 min End Time : 26.00 min  
 Scale Factor: 1.0 Plot Offset: -8 mV

Sample #: Page 1 of 1  
 Date : 10/17/00 04:00 PM  
 Time of Injection: 10/17/00 03:34 PM  
 Low Point : -7.92 mV High Point : 506.00 mV  
 Plot Scale: 513.9 mV

*Gasoline Standard*



**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127751	Batch#:	58958
Matrix:	Water	Analyzed:	10/17/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,106	105	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	59-135
Bromofluorobenzene (FID)	100	60-140

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**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127822	Batch#:	58975
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,093	105	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	59-135
Bromofluorobenzene (FID)	99	60-140

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**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Field ID:	B-5	Batch#:	58958
MSS Lab ID:	148063-002	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Type: MS Lab ID: QC127754

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	215.5	2,000	2,252	102	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	104	60-140

Type: MSD Lab ID: QC127755

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,278	103	65-131	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	59-135
Bromofluorobenzene (FID)	103	60-140

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**Gasoline by GC/FID CA LUFT**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8015M
Field ID:	ZZZZZZZZZZ	Batch#:	58975
MSS Lab ID:	148078-003	Sampled:	10/10/00
Matrix:	Water	Received:	10/13/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Type: MS Lab ID: QC127825

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<26.74	2,000	2,095	105	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	103	60-140

Type: MSD Lab ID: QC127826

Analyte	Spiked	Result	%REC	Limits	RPD	Lim.
Gasoline C7-C12	2,000	2,091	105	65-131	0	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	115	59-135
Bromofluorobenzene (FID)	102	60-140

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RPD= Relative Percent Difference  
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## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	58946
Lab ID:	148063-001	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

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ND = Not Detected

RL = Reporting Limit

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Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	TRIP BLANK	Batch#:	58946
Lab ID:	148063-001	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	98	78-123
Toluene-d8	105	80-110
Bromoformbenzene	105	80-115

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ND = Not Detected

RL = Reporting Limit

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OCT 31 2000

MFG, Inc.



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep.:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-5	Batch#:	58976
Lab ID:	148063-002	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	3.333		

Analyte	Result	RL
Freon 12	ND	3.3
Chloromethane	ND	3.3
Vinyl Chloride	ND	1.7
Bromomethane	ND	3.3
Chloroethane	ND	3.3
Trichlorofluoromethane	ND	1.7
Acetone	ND	33
Freon 113	ND	17
1,1-Dichloroethene	ND	1.7
Methylene Chloride	ND	33
Carbon Disulfide	ND	1.7
MTBE	410	1.7
trans-1,2-Dichloroethene	ND	1.7
Vinyl Acetate	ND	33
1,1-Dichloroethane	ND	1.7
2-Butanone	ND	33
cis-1,2-Dichloroethene	ND	1.7
2,2-Dichloropropane	ND	1.7
Chloroform	ND	1.7
Bromochloromethane	ND	1.7
1,1,1-Trichloroethane	ND	1.7
1,1-Dichloropropene	ND	1.7
Carbon Tetrachloride	ND	1.7
1,2-Dichloroethane	ND	1.7
Benzene	ND	1.7
Trichloroethene	ND	1.7
1,2-Dichloropropane	ND	1.7
Bromodichloromethane	ND	1.7
Dibromomethane	ND	1.7
4-Methyl-2-Pentanone	ND	33
cis-1,3-Dichloropropene	ND	1.7
Toluene	ND	1.7
trans-1,3-Dichloropropene	ND	1.7
1,1,2-Trichloroethane	ND	1.7
2-Hexanone	ND	33
1,3-Dichloropropane	ND	1.7
Tetrachloroethene	ND	1.7

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ND = Not Detected

RL = Reporting Limit

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OCT 31 2000

MFG, Inc.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-5	Batch#:	58976
Lab ID:	148063-002	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	3.333		

Analyte	Result	RL
Dibromochloromethane	ND	1.7
1,2-Dibromoethane	ND	1.7
Chlorobenzene	ND	1.7
1,1,1,2-Tetrachloroethane	ND	1.7
Ethylbenzene	ND	1.7
m,p-Xylenes	12	1.7
c-Xylene	4.6	1.7
Styrene	ND	1.7
Bromoform	ND	3.3
Isopropylbenzene	ND	1.7
1,1,2,2-Tetrachloroethane	ND	1.7
1,2,3-Trichloropropane	ND	1.7
Propylbenzene	ND	1.7
Bromobenzene	ND	1.7
1,3,5-Trimethylbenzene	3.4	1.7
2-Chlorotoluene	ND	1.7
4-Chlorotoluene	ND	1.7
tert-Butylbenzene	ND	1.7
1,2,4-Trimethylbenzene	11	1.7
sec-Butylbenzene	ND	1.7
para-Isopropyl Toluene	ND	1.7
1,3-Dichlorobenzene	ND	1.7
1,4-Dichlorobenzene	ND	1.7
n-Butylbenzene	ND	1.7
1,2-Dichlorobenzene	ND	1.7
1,2-Dibromo-3-Chloropropane	ND	1.7
1,2,4-Trichlorobenzene	ND	1.7
Hexachlorobutadiene	ND	1.7
Naphthalene	4.1	1.7
1,2,3-Trichlorobenzene	ND	1.7

Surrogate	REC	limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	103	80-115

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 ND = Not Detected  
 RL = Reporting Limit  
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## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-1	Batch#:	58976
Lab ID:	148063-003	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

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ND = Not Detected

RL = Reporting Limit

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**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-1	Batch#:	58976
Lab ID:	148063-003	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	103	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	105	80-115

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Curtis &amp; Tompkins, Ltd

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-2	Batch#:	58976
Lab ID:	148063-004	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	1.6	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

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ND = Not Detected  
RL = Reporting Limit  
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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep.:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-2	Batch#:	58976
Lab ID:	148063-004	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limits
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	103	80-115

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ND = Not Detected

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MFG, Inc.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-3	Batch#:	58976
Lab ID:	148063-005	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	0.8	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

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Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-3	Batch#:	58976
Lab ID:	148063-005	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	102	80-115

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MFG, Inc.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-4	Batch#:	58946
Lab ID:	148063-006	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	10	1.0
Chloromethane	ND	1.0
Vinyl Chloride	25	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	17	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	1.0	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.5	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	2.0	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-4	Batch#:	58946
Lab ID:	148063-006	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Analyte	Result	RI
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	1.3	0.5
o-Xylene	0.7	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	0.8	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	TREC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	97	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	104	80-115

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Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-6	Batch#:	58976
Lab ID:	148063-007	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	10.00		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	5.0
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	100
Freon 113	ND	50
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	100
Carbon Disulfide	ND	5.0
MTBE	1,100	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	100
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	100
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	100
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	100
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-6	Batch#:	58976
Lab ID:	148063-007	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	10.00		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	10
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	100	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	104	80-115

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MFG, Inc.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-7	Batch#:	58976
Lab ID:	148063-008	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	7.143		

Analyte	Result	RL
Freon 12	ND	7.1
Chloromethane	ND	7.1
Vinyl Chloride	ND	3.6
Bromomethane	ND	7.1
Chloroethane	ND	7.1
Trichlorofluoromethane	ND	3.6
Acetone	ND	71
Freon 113	ND	36
1,1-Dichloroethene	ND	3.6
Methylene Chloride	ND	71
Carbon Disulfide	ND	3.6
MTBE	960	3.6
trans-1,2-Dichloroethene	ND	3.6
Vinyl Acetate	ND	71
1,1-Dichloroethane	ND	3.6
2-Butanone	ND	71
cis-1,2-Dichloroethene	ND	3.6
2,2-Dichloropropane	ND	3.6
Chloroform	ND	3.6
Bromoform	ND	3.6
1,1,1-Trichloroethane	ND	3.6
1,1-Dichloropropene	ND	3.6
Carbon Tetrachloride	ND	3.6
1,2-Dichloroethane	ND	3.6
Benzene	ND	3.6
Trichloroethene	ND	3.6
1,2-Dichloropropane	ND	3.6
Bromodichloromethane	ND	3.6
Dibromomethane	ND	3.6
4-Methyl-2-Pentanone	ND	71
cis-1,3-Dichloropropene	ND	3.6
Toluene	ND	3.6
trans-1,3-Dichloropropene	ND	3.6
1,1,2-Trichloroethane	ND	3.6
2-Hexanone	ND	71
1,3-Dichloropropane	ND	3.6
Tetrachloroethene	ND	3.6

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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	B-7	Batch#:	58976
Lab ID:	148063-008	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	7.143		

Analyte	Result	RL
Dibromochloromethane	ND	3.6
1,2-Dibromoethane	ND	3.6
Chlorobenzene	ND	3.6
1,1,1,2-Tetrachloroethane	ND	3.6
Ethylbenzene	ND	3.6
m,p-Xylenes	ND	3.6
o-Xylene	ND	3.6
Styrene	ND	3.6
Bromoform	ND	7.1
Isopropylbenzene	ND	3.6
1,1,2,2-Tetrachloroethane	ND	3.6
1,2,3-Trichloropropane	ND	3.6
Propylbenzene	ND	3.6
Bromobenzene	ND	3.6
1,3,5-Trimethylbenzene	ND	3.6
2-Chlorotoluene	ND	3.6
4-Chlorotoluene	ND	3.6
tert-Butylbenzene	ND	3.6
1,2,4-Trimethylbenzene	ND	3.6
sec-Butylbenzene	ND	3.6
para-Isopropyl Toluene	ND	3.6
1,3-Dichlorobenzene	ND	3.6
1,4-Dichlorobenzene	ND	3.6
n-Butylbenzene	ND	3.6
1,2-Dichlorobenzene	ND	3.6
1,2-Dibromo-3-Chloropropane	ND	3.6
1,2,4-Trichlorobenzene	ND	3.6
Hexachlorobutadiene	ND	3.6
Naphthalene	ND	3.6
1,2,3-Trichlorobenzene	ND	3.6

Surrogate	REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	115	80-115

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## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127702	Batch#:	58946
Matrix:	Water	Analyzed:	10/17/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

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Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127702	Batch#:	58946
Matrix:	Water	Analyzed:	10/17/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limit
Dibromofluoromethane	95	80-122
1,2-Dichloroethane-d4	99	78-123
Toluene-d8	107	80-110
Bromofluorobenzene	105	80-115

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ND = Not Detected  
RL = Reporting Limit  
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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127828	Batch#:	58976
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

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ND = Not Detected

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**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127828	Batch#:	58976
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
c-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limit
Dibromofluoromethane	109	80-122
1,2-Dichloroethane-d4	107	78-123
Toluene-d8	101	80-110
Bromofluorobenzene	104	80-115

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ND = Not Detected  
 RL = Reporting Limit  
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MFG, Inc.



Curtis &amp; Tompkins, Ltd.

## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127829	Batch#:	58976
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	0.5
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

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ND = Not Detected

RL = Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC127829	Batch#:	58976
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	0.5
Naphthalene	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	REC	Limit
Dibromofluoromethane	104	80-122
1,2-Dichloroethane-d4	100	78-123
Toluene-d8	99	80-110
Bromofluorobenzene	104	80-115

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ND = Not Detected  
RL = Reporting Limit  
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MFG, Inc.

**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep.:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	58946
Units:	ug/L	Analyzed:	10/17/00
Diln Fac:	1.000		

Type: BS Lab ID: QC127699

Analyte	Spiked	Result	RREC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	48.66	97	74-132		
Benzene	50.00	49.19	98	80-116		
Trichloroethene	50.00	49.53	99	80-119		
Toluene	50.00	54.51	109	80-120		
Chlorobenzene	50.00	50.94	102	80-117		

Surrogate	RREC	Limits	RPD	Lim
Dibromofluoromethane	96	80-122		
1,2-Dichloroethane-d4	98	78-123		
Toluene-d8	106	80-110		
Bromofluorobenzene	98	80-115		

Type: BSD Lab ID: QC127700

Analyte	Spiked	Result	RREC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	44.06	88	74-132	10	20
Benzene	50.00	48.52	97	80-116	1	20
Trichloroethene	50.00	48.30	97	80-119	3	20
Toluene	50.00	53.98	108	80-120	1	20
Chlorobenzene	50.00	50.29	101	80-117	1	20

Surrogate	RREC	Limits	RPD	Lim
Dibromofluoromethane	94	80-122		
1,2-Dichloroethane-d4	94	78-123		
Toluene-d8	106	80-110		
Bromofluorobenzene	97	80-115		

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**Purgeable Organics by GC/MS**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC127827	Batch#:	58976
Matrix:	Water	Analyzed:	10/18/00
Units:	ug/L		

Analyte	Spiked	Result	RREC	Limits
1,1-Dichloroethene	50.00	44.20	88	74-132
Benzene	50.00	48.35	97	80-116
Trichloroethene	50.00	47.21	94	80-119
Toluene	50.00	48.16	96	80-120
Chlorobenzene	50.00	47.39	95	80-117

Surrogate	RREC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	106	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	96	80-115

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## Purgeable Organics by GC/MS

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Prep:	EPA 5030
Project#:	030013.2	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	58976
MSS Lab ID:	148076-001	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	ug/L	Analyzed:	10/18/00
Diln Fac:	1.000		

Type: MS Lab ID: QC127830

Analyte	MSS Result	Spiked	Result	RREC	Limits
1,1-Dichloroethene	<0.5000	50.00	48.08	96	70-132
Benzene	<0.5000	50.00	47.12	94	80-114
Trichloroethene	<0.5000	50.00	45.69	91	62-137
Toluene	<0.5000	50.00	48.83	98	79-121
Chlorobenzene	<0.5000	50.00	47.21	94	80-117

Surrogate	RREC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	102	80-110
Bromofluorobenzene	98	80-115

Type: MSD Lab ID: QC127831

Analyte	Spiked	Result	RREC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	50.20	100	70-132	4	20
Benzene	50.00	47.89	96	80-114	2	20
Trichloroethene	50.00	47.94	96	62-137	5	20
Toluene	50.00	49.10	98	79-121	1	20
Chlorobenzene	50.00	48.78	98	80-117	3	20

Surrogate	RREC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	100	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	98	80-115

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**Total Oil & Grease (HEM)**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Analysis:	EPA 1664A
Project#:	030013.2		
Analyte:	Oil & Grease (HEM)	Batch#:	59117
Field ID:	B-2	Sampled:	10/11/00
Matrix:	Water	Received:	10/12/00
Units:	mg/L	Analyzed:	10/24/00
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	148063-004	ND	5.0
BLANK	QC128379	ND	5.0

ND = Not Detected  
RL = Reporting Limit  
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**Total Oil & Grease (HEM)**

Lab #:	148063	Location:	Avis-Oakland
Client:	McCulley, Frick & Gilman, Inc.	Analysis:	EPA 1664A
Project#:	030013.2		
Analyte:	Oil & Grease (HEM)	Diln Fac:	1.000
Matrix:	Water	Batch#:	59117
Units:	mg/L	Analyzed:	10/24/00

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC128380	40.00	36.00	91	78-114		
BSD	QC128381	40.00	37.00	92	78-114	2	20

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RPD= Relative Percent Difference

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