



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

August 1, 2001  
MFG Project No. 030062.2

AUG 04 2001

8/01

Mr. Barney Chan  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway  
Alameda, California 94502

**Subject: Quarterly Groundwater Monitoring Report, Second Quarter 2001  
Hertz Facility, 1 Airport Drive, Oakland, California  
StID # 2260**

Dear Mr. Chan:

Enclosed is one copy of the subject report prepared by MFG, Inc. MFG has been authorized to transmit this document to you on behalf of The Hertz Corporation.

Please contact either of the undersigned at (415) 495-7110 if you require further information.

Sincerely yours,

MFG, INC.

Jennifer Tancke  
Staff Geologist

Christopher B. White, C.HG.  
Project Hydrogeologist

Enclosure

cc: Roland Costanzo - The Hertz Corporation, with enclosure  
Dale Klettke - Port of Oakland, with enclosure

- o No historic analytical data
- o DK requests other waste oil parameters be tested, if not done
  - o TG ✓
  - o Metals ✓
  - o TPHg, d's BTEX, HVOCS, Semivocs ✓
- o Check MW-8 - which DK says can be located.

J:\030062\Task-02\2001Q2\2Q Report.doc



AUG 04 2001

**QUARTERLY GROUNDWATER  
MONITORING REPORT  
SECOND QUARTER 2001**

**HERTZ RENT A CAR FACILITY  
1 AIRPORT DRIVE  
OAKLAND, CALIFORNIA**

**AUGUST 1, 2001**

*Prepared For:*

**THE HERTZ CORPORATION**  
225 Brae Boulevard  
Park Ridge, New Jersey 07656

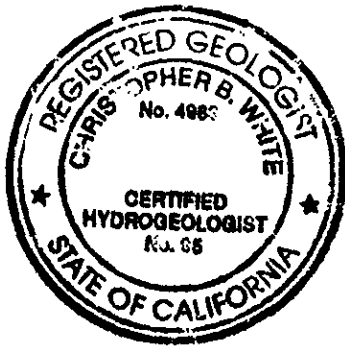
*Prepared By:*

**MFG, INC.**  
71 Stevenson Street, Suite 1450  
San Francisco, California 94105  
(415) 495-7110  
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MFG Project No. 030062.2

## PROFESSIONAL CERTIFICATION

This report has been prepared by MFG, Inc. under the professional supervision of Christopher B. White. The findings, recommendations, specifications and/or professional opinions presented in this report have been prepared in accordance with generally accepted professional hydrogeologic and environmental consulting practice, and within the scope of the project. There is no other warranty, either express or implied.



A handwritten signature in black ink, appearing to read "Christopher B. White".

Christopher B. White  
C.HG. No. HG 95  
Project Hydrogeologist  
MFG, INC.

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## 1.0 INTRODUCTION

This report summarizes the groundwater monitoring, utility trench investigation and Oxygen Release Compound (ORC) injection activities conducted by MFG, Inc. in April and May 2001 at The Hertz Corporation (Hertz) facility located at 1 Airport Drive in Oakland, California (hereinafter the "Site") (Figure 1). The Site includes the adjoining Port of Oakland parking lot to the south and southwest of the Hertz facility, where four monitoring wells are located. The layout of the Site and the location of groundwater monitoring wells are shown in Figure 2.

The groundwater monitoring and ORC injection at the Site was conducted in accordance with MFG's *Implementation of ORC Injection Work Plan*, dated September 20, 2000 (MFG, 2000a). Implementation of the proposed groundwater monitoring program was requested by the Alameda County Health Care Services Agency (ACHCSA) in the letter from Mr. Barney Chan to Hertz, dated December 5, 2000 (ACHCSA, 2000b). The utility trench investigation was conducted in accordance with MFG's *Work Plan for Investigation of Soil and Groundwater Within Utility Trench*, dated November 30, 2000 (MFG, 2000b). Investigation of the soil and groundwater quality within the utility trench backfill material was requested by the ACHCSA in the letter from Mr. Chan to Hertz, dated October 5, 2000 (ACHCSA, 2000a). The utility trench investigation was conducted to evaluate whether the trench backfill material is a preferential pathway for the migration of petroleum hydrocarbons.

The Quarterly Groundwater Monitoring Report is organized as follows: Section 2.0 describes the field methods and results of the groundwater sampling program. Section 3.0 presents an evaluation of the lateral hydraulic gradient in the shallow groundwater-bearing zone at the Site. The methods and results of the utility trench investigation are presented in Section 4.0. The injection of ORC is described in Section 5.0. The handling of investigation-derived waste is discussed in Section 6.0. References cited in this report are listed in Section 7.0.

## 2.0 GROUNDWATER SAMPLING AND CHEMICAL ANALYSIS

### 2.1 Field Methods

The methods used to measure groundwater levels from monitoring wells MW-1 through MW-7 and MW-9 and collect groundwater samples from monitoring wells MW-1, MW-4, MW-5 and MW-6 are described below.

#### 2.1.1 Water Level Measurement

Groundwater levels were measured in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7 and MW-9 on April 19, 2001, using an electronic water level indicator. These data are presented in Table 1.

#### 2.1.2 Groundwater Sampling

Groundwater samples were collected from monitoring wells MW-1, MW-4, MW-5 and MW-6 on April 19, 2001. Prior to sample collection, each well was purged using a clean disposable Teflon<sup>®</sup> bailer. Approximately 4.0, 2.0, 3.7 and 4.0 casing volumes (approximately 7.2, 1.2, 4.5 and 4.8 gallons) of groundwater were removed from monitoring wells MW-1, MW-4, MW-5 and MW-6, respectively, during the purging process. The temperature, pH and specific conductance of the water were monitored using a Myron L Ultrameter 6P water quality meter following field calibration. Monitoring wells MW-4 and MW-5 were purged dry and allowed to recover before sampling. The water levels in monitoring wells MW-4 and MW-5 both recovered to at least 90 percent of their original levels. The field measurements for wells MW-1 and MW-6 were relatively stable (within 10 percent for specific conductance, 0.05 pH units, and 1 degree Celsius) at the end of purging. The field-measured values of these parameters at the end of purging were as follows:

<u>Well</u>	<u>Temperature (°C)</u>	<u>pH</u>	<u>Specific Conductance (µmhos/cm at field temp)</u>
MW-1	17	7.9	1,300
MW-4	17	7.2	2,100
MW-5	18	8.2	350
MW-6	19	7.4	2,600

After purging, a groundwater sample was collected from near the top of the water column in each well. The groundwater samples were placed in six, laboratory supplied, 40-milliliter (mL) glass vials with hydrochloric acid for sample preservation and screw caps with Teflon<sup>®</sup>-lined septa; one laboratory supplied 1-liter plastic bottle; and one laboratory supplied, 500-mL amber bottle containing hydrochloric acid for sample preservation. After filling, the groundwater sample containers were placed in an ice-cooled, insulated chest for transport to the laboratory for analysis. A chain-of-custody record was completed for the samples and accompanied the samples until receipt by the laboratory. A copy of the chain-of-custody record is included in Appendix A.

Reusable sampling equipment used in purging and sampling the monitoring wells was washed in a laboratory-grade detergent (Liquinox<sup>®</sup>) and water solution and triple rinsed with distilled water prior to use in each well and at the completion of sampling. The water generated during purging and sampling of the monitoring wells was placed into a 55-gallon drum for temporarily storage at the Site (Section 6.0).

## 2.2 Analytical Methods and Results

The groundwater samples were submitted for chemical analysis to Southern Petroleum Laboratories of Houston, Texas, an analytical laboratory certified by the California Department of Health Services (DHS). The groundwater samples were analyzed for:

- Total purgeable petroleum hydrocarbons (TPPH) as gasoline (EPA Method 8015, extraction by EPA Method 5030);
- Benzene, toluene, ethylbenzene, total xylenes (BTEX) and fuel oxygenates (EPA Method 8260, extraction by EPA Method 5030);
- Nitrate (EPA Method 353.2);
- Sulfate (EPA Method 375.4); and
- Ferrous Iron (EPA Method 3500-FeD).

TPPH as gasoline and BTEX were not detected in the groundwater samples collected from wells MW-1, MW-5 and MW-6 at concentrations above the laboratory reporting limits. TPPH as gasoline, benzene, toluene, ethylbenzene and total xylenes were detected in the groundwater sample from monitoring well MW-4 at concentrations of 26.8, 4.0, 3.4, 1.1 and 1.4 milligrams per liter (mg/L), respectively. The groundwater samples collected from monitoring wells MW-4, MW-5 and MW-6



contained methyl tertiary butyl ether (MTBE) at concentrations of 0.51, 0.005 and 0.077 mg/L, respectively.

Sulfate was detected in the groundwater samples collected from monitoring wells MW-1, MW-4, MW-5 and MW-6 at concentrations of 58, 3.0, 15.8 and 132 mg/L, respectively. Nitrate was detected in the groundwater sample collected from monitoring well MW-1 at a concentration of 2.52 mg/L. Ferrous iron was detected in the samples collected from monitoring wells MW-4, MW-5 and MW-6 at concentrations of 3.9, 0.21 and 2.7 mg/L, respectively.

A summary of laboratory analytical results for the groundwater samples is shown in Table 2. Copies of the laboratory reports are included in Appendix A.

### 3.0 EVALUATION OF LATERAL HYDRAULIC GRADIENT

Groundwater levels were measured in monitoring wells MW-1 through MW-7 and MW-9 prior to groundwater sampling on April 19, 2001. Groundwater level elevations were calculated using the depth-to-water measurements and the measuring point elevations of the wells (Table 1). The water level elevations in the wells ranged from 2.28 to 5.26 feet NGVD.

The potentiometric surface of the shallow groundwater at the Site on April 19, 2001 is shown in Figure 3. The potentiometric surface contours illustrate that the lateral hydraulic gradient on that date was to the southwest with an approximate magnitude of 0.018 foot per foot.

## 4.0 UTILITY TRENCH INVESTIGATION

### 4.1 Field Methods

The methods used to collect soil and groundwater grab samples from the utility trench backfill are described below.

#### 4.1.1 Soil Sampling

On April 19, 2001, soil samples were collected from three of four borings within the backfill of the underground utility trench located south and southwest of the Hertz facility. The four utility trench boring locations are shown in Figure 4. Prior to beginning work, MFG notified Underground Service Alert and the Port of Oakland to establish the location of underground utilities. Upon completion of coring through the concrete or asphalt surface pavement at each sample location, the soil borings were advanced through the pavement baserock and trench backfill material using a 3-inch diameter stainless steel hand auger. Sand backfill material was encountered in borings T-1, T-2 and T-4. These borings were advanced to the top of the concrete that encased the electrical conduits at the bottom of the utility trench. The top of the concrete encasement was encountered in borings T-1, T-2 and T-4 at depths of approximately 3.5, 3.7 and 6.0 feet below ground level (bgl), respectively. Pea gravel was encountered beneath the pavement baserock in boring T-3. Because boring T-3 could not be effectively advanced through the pea gravel, this boring was terminated at a depth of 1.1 feet bgl and no samples were collected. Groundwater was encountered in borings T-1, T-2, and T-4. Groundwater was encountered in boring T-4 at a depth of approximately 4.1 feet bgl.

No odor or staining was noted during drilling or sample collection. Headspace measurements of excavated soil were made with a portable photoionization detector (PID). No positive detections were recorded. All drilling equipment was washed with a Liquinox<sup>®</sup> solution and rinsed twice with distilled water prior to the start of each borehole.

Samples of the trench backfill sand were collected from immediately above the concrete encasement in borings T-1 and T-2 at depths of approximately 3.5 and 3.7 feet bgl respectively, and from the vadose zone-groundwater interface in boring T-4 at a depth of approximately 4.1 feet bgl. Soil samples were collected in a stainless steel sleeve inside a steel barrel sampling device advanced with a slide hammer. Following sample collection, the ends of each stainless steel liner were covered with

Teflon® sheets, capped with polyethylene lids, and then sealed with duct tape. The samples were immediately placed in an ice-cooled, insulated chest for transport to the laboratory for analysis. A chain-of-custody record was completed for the samples and accompanied the samples until receipt by the laboratory. A copy of the chain-of-custody record is included in Appendix B.

#### 4.1.2 Groundwater Grab Sampling

After soil samples were collected from each boring location, the borehole was left open to check for the presence of a groundwater. Boreholes T-1, T-2 and T-3 remained dry during the course of the event and therefore no groundwater sample was collected. A two inch diameter temporary well was installed in borehole T-4 to facilitate the collection of a groundwater sample. Groundwater within the temporary well in borehole T-4 was purged and sampled with a one-inch diameter, disposable, PVC bailer. Prior to sampling, the temperature, pH and specific conductance of the water purged from boring T-4 was recorded at 21 degrees Celsius, 7.9 pH units and 2,200 micromhos per centimeter. The groundwater sample collected from the temporary well was placed into five 40-mL glass vials containing hydrochloric acid as a preservative. The vials were sealed with screw caps with Teflon®-lined septa. The sample vials were placed in an ice-cooled, insulated chest for transport to the laboratory for analysis. A chain-of-custody record was completed for the samples and accompanied the samples until receipt by the laboratory. A copy of the chain-of-custody record is included in Appendix B.

#### 4.2 Analytical Methods and Results

The soil samples from borings T-1, T-2 and T-4 and the groundwater grab sample from boring T-4 were submitted for chemical analysis to SPL. The following analyses were performed by SPL:

- TPPH as gasoline (EPA Method 8015, extraction by EPA Method 5030); and
- BTEX and fuel oxygenates (EPA Method 8260, extraction by EPA Method 5030).

A summary of laboratory analytical results for the utility trench soil and groundwater grab samples is shown in Table 3. Copies of the laboratory reports are included in Appendix B.

None of the analyzed compounds were detected in either the soil or groundwater grab samples.

### 4.3 Borehole Abandonment

Upon completion of sampling, each boring was backfilled to within approximately four to six inches from the ground surface with the original soil removed from the borehole. The backfilled borings were capped at the ground surface with concrete.

## 5.0 INJECTION OF OXYGEN RELEASE COMPOUND

On May 29 and 30, 2001, Oxygen Release Compound (ORC) was injected at 34 locations south of the Hertz facility and around the fuel island dispenser area. The ORC injection point locations are shown in Figure 5. The injection of the ORC was performed by Precision Drilling (Precision) of Richmond, California. At each ORC injection location, Precision advanced a 2-inch diameter steel rod with a disposable tip to a depth of 10 feet below ground level (bgl) using a direct-push sampling rig. Prior to injecting the ORC compound, the drive rod was retracted to a depth of 3 feet bgl at each location. ORC was mixed with water in a 55-gallon drum and injected into the borings using a high pressure grout pump. ~~Approximately 20 pounds of ORC were injected at each of the 24 locations south of the Hertz facility and approximately 94 pounds of ORC were injected into the 10 borings located around the fuel island dispenser area.~~

Upon completion of the ORC injection, each boring was filled with a grouting material consisting of Portland cement mixed with approximately five percent (by weight) bentonite powder. Each borehole was grouted from the top of the ORC to a depth of approximately four to six inches from the ground surface using a tremie tube. The remaining four to six inches was filled with concrete dyed black to match the surrounding asphalt.

## 6.0 INVESTIGATION-DERIVED WASTE

Monitoring well purge water and equipment decontamination water generated during the field activities were placed into 55-gallon drums labeled as non-hazardous waste. The drums will be temporarily stored at the Site pending disposal.

## 7.0 REFERENCES

Alemeda County Health Care Services Agency (ACHCSA), 2000a, *Letter to The Hertz Corporation – Subject: Work Plan for Hertz Facility, 1 Airport Dr., Oakland, CA 94621*: October 5.

Alemeda County Health Care Services Agency (ACHCSA), 2000b, *Letter to The Hertz Corporation – Subject: Subsurface Investigation for Hertz Facility, 1 Airport Dr., Oakland, CA 94621*: December 5.

MFG, Inc., 2000a, *Implementation of ORC Injection Work Plan, Hertz Facility, 1 Airport Drive, Oakland, California, StID # 2260*: September 20.

MFG, Inc., 2000b, *Work Plan for Investigation of Soil and Groundwater Within Utility Trench, Hertz Facility, 1 Airport Drive, Oakland, California [StID # 2260]*: November 30.

MFG, Inc., 2001, *Quarterly Groundwater Monitoring Report, First Quarter 2001, Hertz Rent A Car Facility, 1 Airport Drive, Oakland, California*: April 4.



**TABLES**

**FIGURES**

**APPENDIX A**

**Laboratory Reports and Chain-of-Custody Records for  
Groundwater Samples Submitted for Analysis**

**APPENDIX B**

**Laboratory Reports and Chain-of-Custody Records for  
Soil and Groundwater Grab Samples Submitted for Analysis**

**APPENDIX C**

**Alameda County Public Works Agency Permit for Soil Borings**

**TABLES**

**TABLE 1**

**WATER LEVEL DATA FOR GROUNDWATER MONITORING WELLS**

1 Airport Drive  
Oakland, California

WELL ID	MEASURING POINT ELEVATION (ft NGVD)	MEASUREMENT DATE	DEPTH TO WATER (ft BMP)	WATER LEVEL ELEVATION (ft NGVD)
MW-1	7.45	04-Jan-01	4.22	3.23
		19-Apr-01	3.52	3.93
MW-2	8.09	04-Jan-01	3.56	4.53
		19-Apr-01	2.83	5.26
MW-3	7.66	04-Jan-01	3.99	3.67
		19-Apr-01	3.13	4.53
MW-4	7.11	04-Jan-01	4.61	2.50
		19-Apr-01	4.00	3.11
MW-5	7.76	04-Jan-01	3.93	3.83
		19-Apr-01	3.28	4.48
MW-6	7.17	04-Jan-01	4.60	2.57
		19-Apr-01	3.69	3.48
MW-7	6.93	04-Jan-01	4.82	2.11
		19-Apr-01	3.76	3.17
MW-9	6.55	04-Jan-01	5.20	1.35
		19-Apr-01	4.27	2.28

Notes:

BMP Below Measuring Point. Measuring Point is at top of well casing.  
 NGVD National Geodetic Vertical Datum of 1929.

5/29 & 5/30/01

ORC Injectemis done.

TABLE 2

**CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FOR TPPH, BTEX, FUEL OXYGENATES AND NATURAL ATTENUATION PARAMETERS**

1 Airport Drive  
Oakland, California

WELL ID	SAMPLE ID	DATE SAMPLED	TPPH AS GASOLINE (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	TOTAL XYLENES (mg/L)	MTBE (mg/L)	TBA (mg/L)	Sulfate (mg/L)	Nitrate (mg/L as N)	Ferrous Iron (mg/L)
MW-1	MW-1	04-Jan-01	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.5	85.0	1.92	<0.1
		19-Apr-01	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.5	58.0	2.52	<0.1
MW-4	MW-4	04-Jan-01	6.9	1.3	0.18	0.79	0.56	0.20	<0.005	25.0	<0.1	2.2
		19-Apr-01	26	3.4	0.34	1.1	1.43	0.51	<0.5	3.0	<0.1	3.9
MW-5	MW-5	04-Jan-01	<0.05	<0.005	<0.005	<0.005	<0.005	0.010	<0.5	45.6	<0.1	2.0
		19-Apr-01	<0.05	<0.005	<0.005	<0.005	<0.005	0.005	<0.5	15.8	<0.1	0.21
MW-6	MW-6	04-Jan-01	<0.05	<0.005	<0.005	<0.005	<0.005	0.50	<0.5	165	<0.1	3.8
		19-Apr-01	<0.05	<0.005	<0.005	<0.005	<0.005	0.077	<0.5	132	<0.1	2.7

Notes:

- TPPH Total purgeable petroleum hydrocarbons. Analyzed using modified EPA Method 8015M and quantified against a gasoline standard.
- BTEX Benzene, toluene, ethylbenzene and total xylenes. Analyzed using EPA Method 8260B.
- MTBE Methyl tertiary butyl ether. Analyzed using EPA Method 8260B.
- TBA Tertiary butyl alcohol. Analyzed using EPA Method 8260B.
- Sulfate Analyzed using EPA Method 375.4.
- Nitrate Analyzed using EPA Method 353.2.
- Ferrous Iron Analyzed using EPA Method 3500-FeD.
- mg/L Milligrams per liter.
- <0.5 Not detected at or above the laboratory reporting limit indicated.



TABLE 3

CHEMICAL ANALYSES OF UTILITY TRENCH SOIL AND GROUNDWATER GRAB SAMPLES FOR  
TPPH, BTEX AND FUEL OXYGENATES

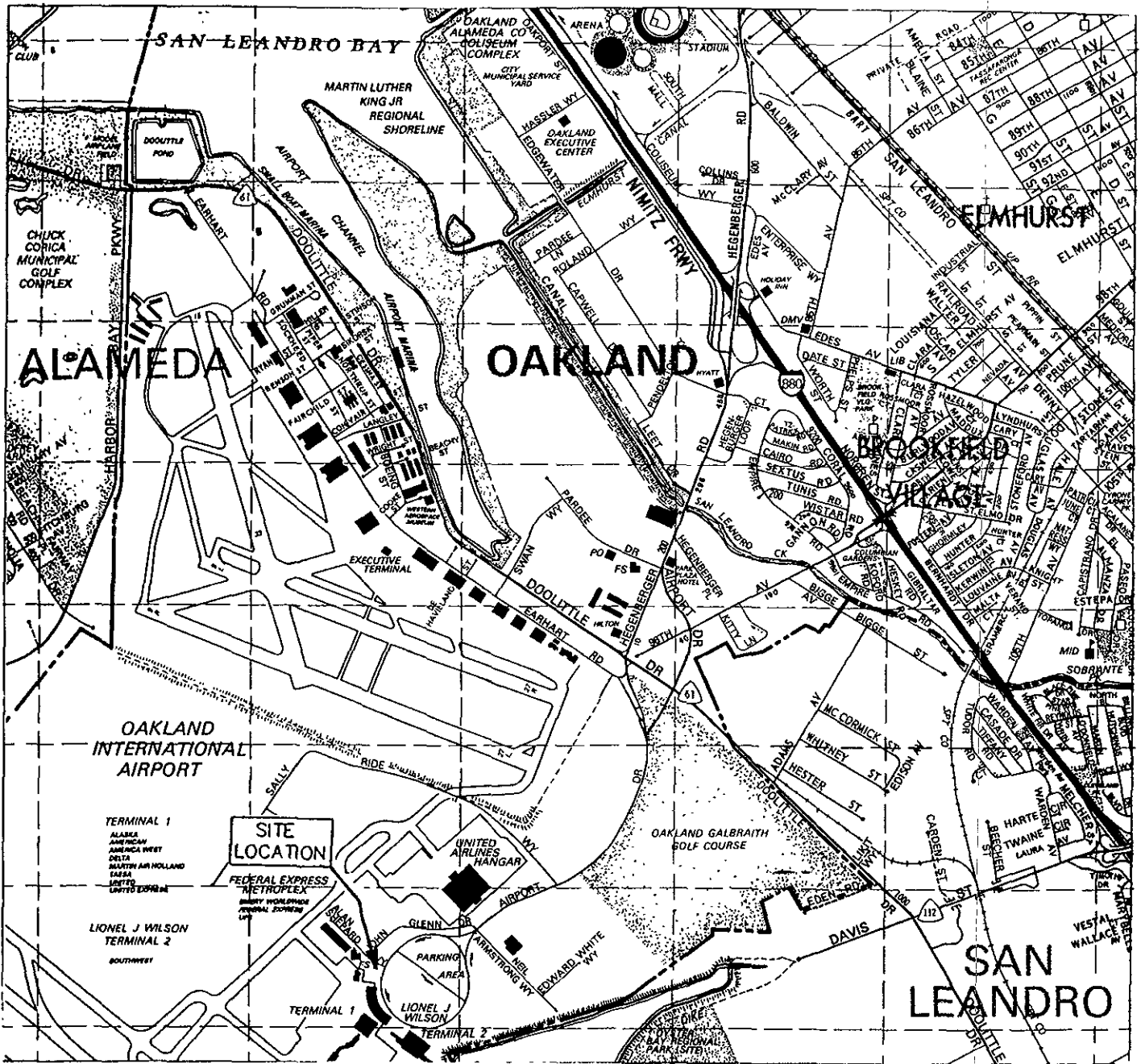
1 Airport Drive  
Oakland, California

SAMPLE ID	DATE SAMPLED	MATRIX (result units)	TPPH AS GASOLINE	BENZENE	TOLUENE	ETHYL-BENZENE	TOTAL XYLENES	MTBE	TAME	ETBE	DIPE	TBA
T-1	19-Apr-01	Soil (mg/kg)	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.500
T-2	19-Apr-01	Soil (mg/kg)	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.500
T-4	19-Apr-01	Soil (mg/kg)	<0.1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.500
T-4W	19-Apr-01	Water (mg/L)	<0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010	<0.010	<0.010	<0.500

Notes:

- TPPH Total purgeable petroleum hydrocarbons. Analyzed using modified EPA Method 8015M and quantified against a gasoline standard.
- BTEX Benzene, toluene, ethylbenzene and total xylenes. Analyzed using EPA Method 8260B.
- MTBE Methyl tertiary butyl ether. Analyzed using EPA Method 8260B.
- TAME Tertiary amyl methyl ether. Analyzed using EPA Method 8260B.
- ETBE Ethyl tertiary butyl ether. Analyzed using EPA Method 8260B.
- DIPE Diisopropyl ether. Analyzed using EPA Method 8260B.
- TBA Tertiary butyl alcohol. Analyzed using EPA Method 8260B.
- mg/kg Milligrams per kilogram.
- mg/L Milligrams per liter.
- <0.5 Not detected at or above the laboratory reporting limit indicated.

**FIGURES**



SOURCE: THE THOMAS GUIDE  
ALAMEDA/CONTRA COSTA COUNTIES  
1995 EDITION



0 2,200 FEET  
APPROXIMATE SCALE

**SITE LOCATION MAP**

**Hertz Service Center  
1 Airport Drive  
Oakland, California**

PROJECT NO. 030082

BY: N JOHNSON

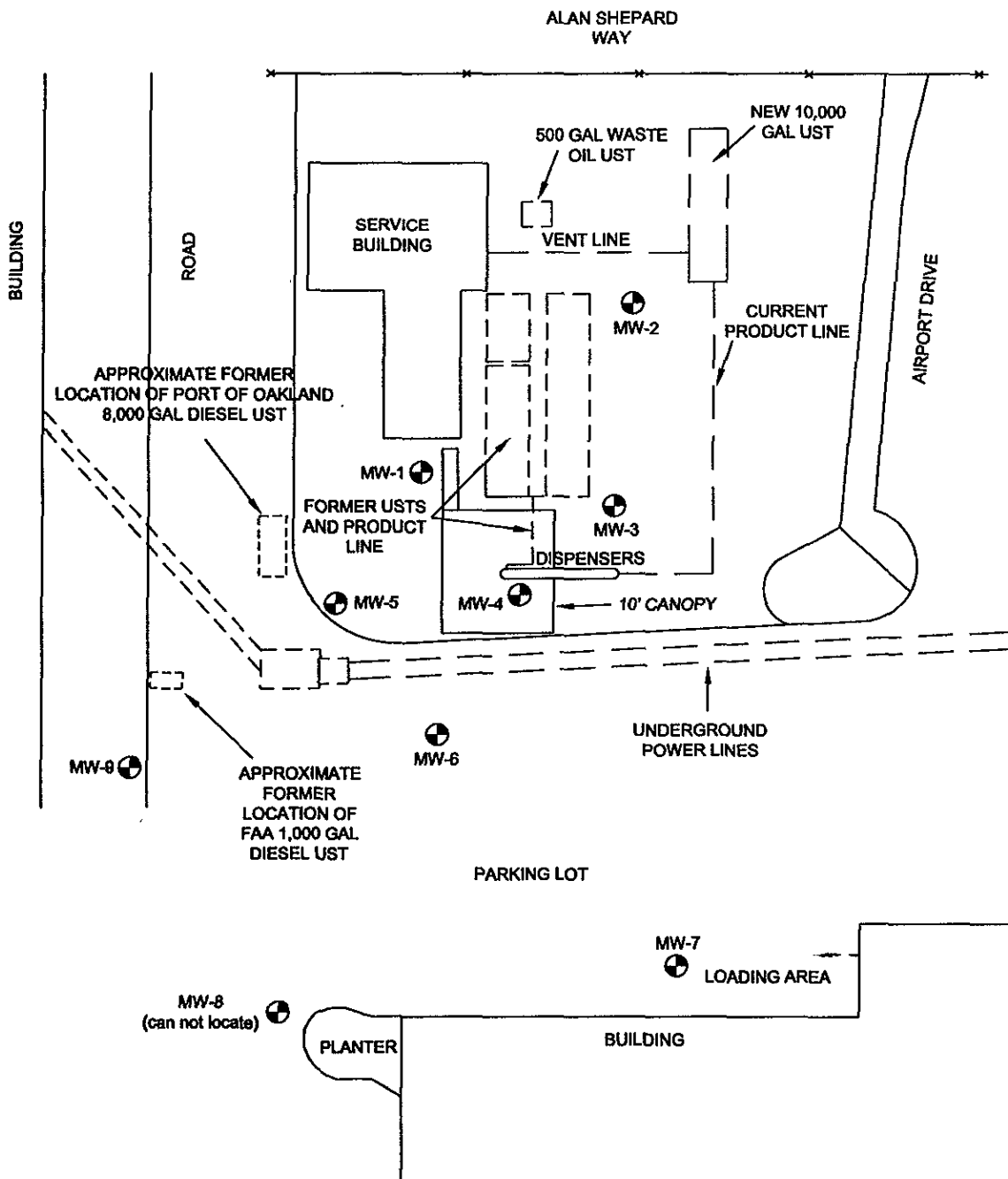
FIGURE

DATE: 3/21/01



CHECKED: *CJ*

1

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**EXPLANATION**

-  GROUNDWATER MONITORING WELL
-  FENCELINE



SITE PLAN BASED ON MAP BY ESE, INC.  
JANUARY 4, 1994

**SITE PLAN**

**Hertz Service Center  
1 Airport Drive  
Oakland, California**

PROJECT NO. 030062

BY: G. STEPPEN

FIGURE

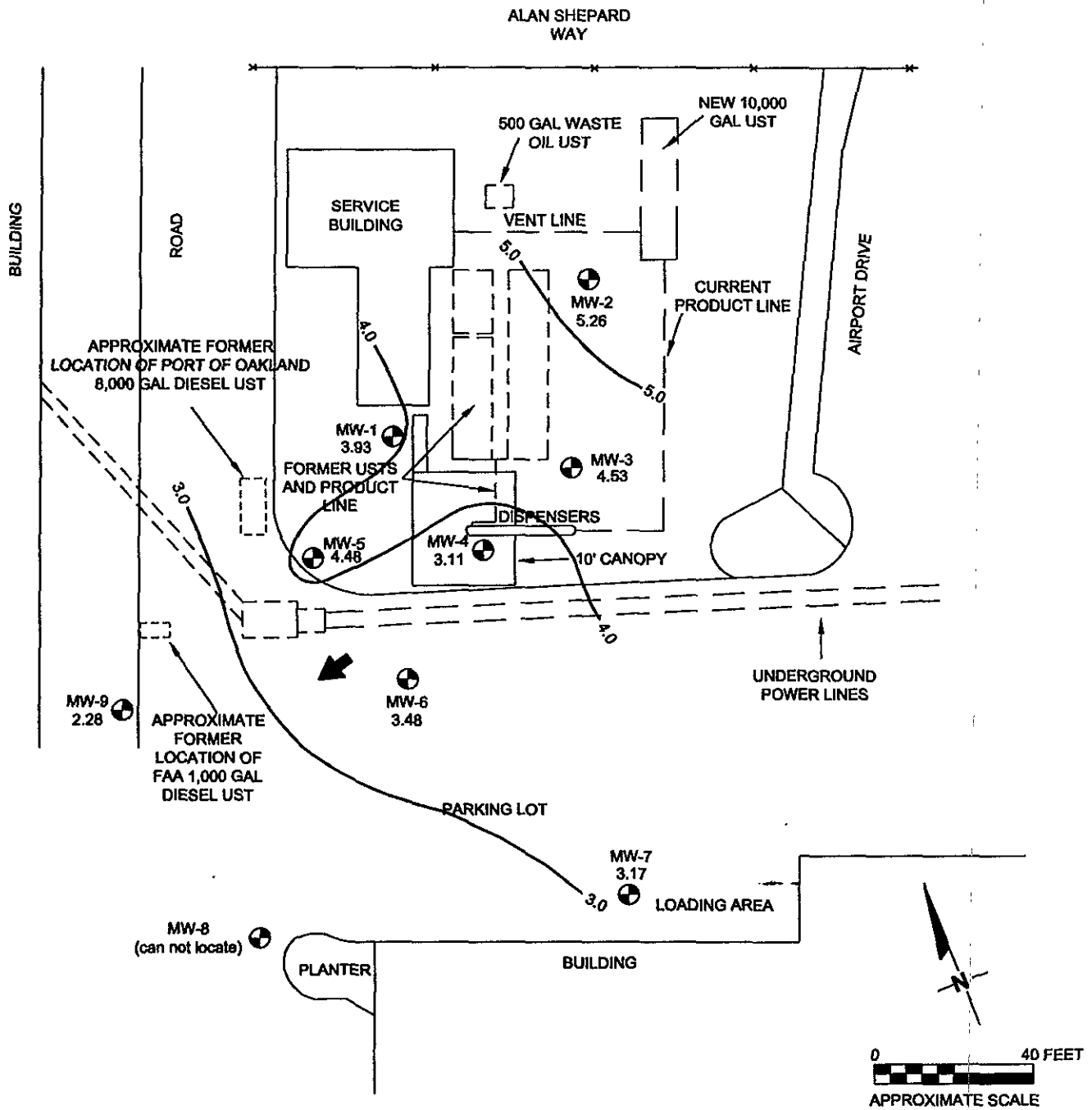
DATE: 07/27/01

CHECKED: *C&W*

2

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**EXPLANATION**

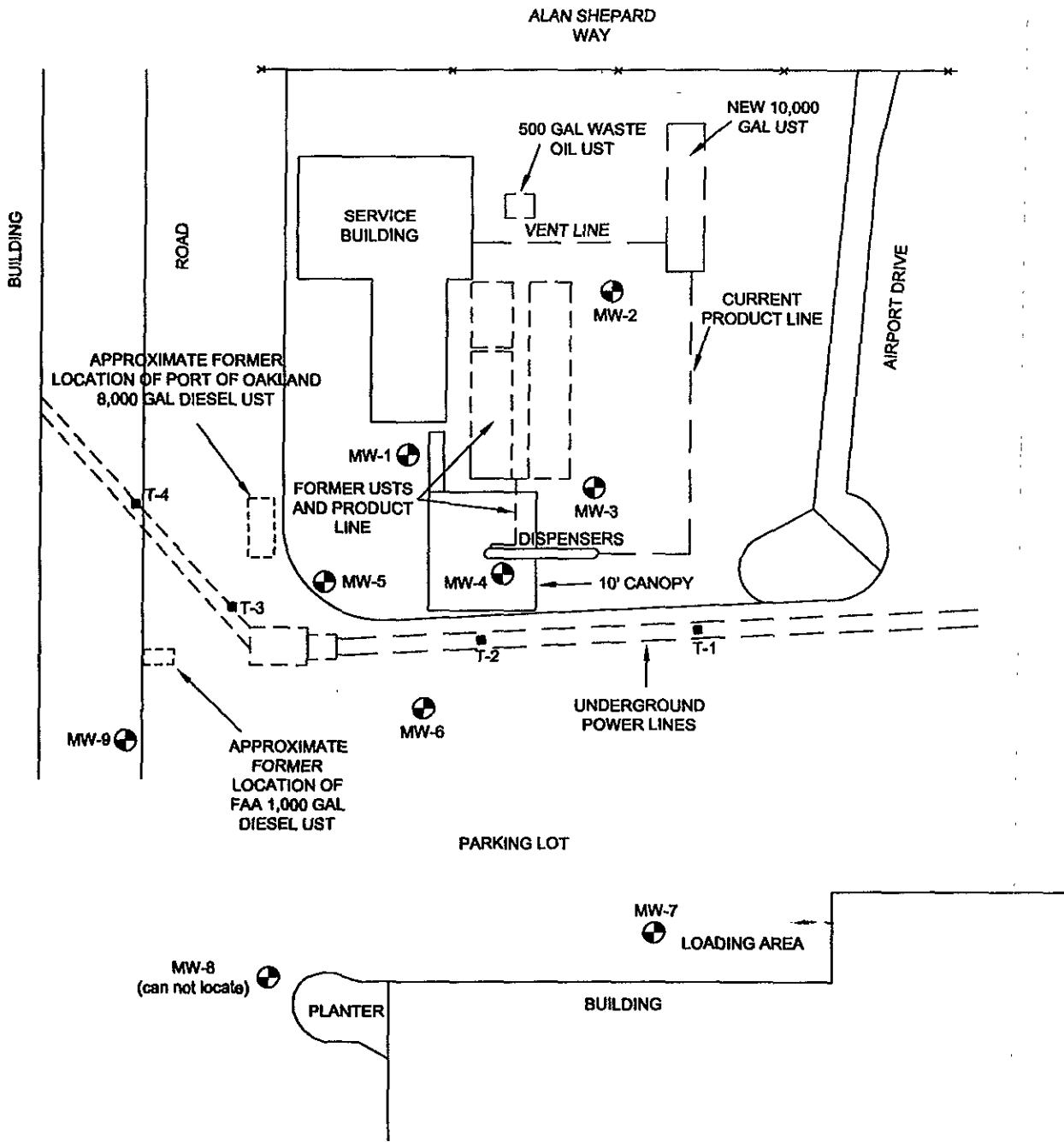
- LOCATION AND DESIGNATION OF MONITORING WELL WITH ELEVATION OF POTENTIOMETRIC SURFACE (FEET NGVD)
- APPROXIMATE LINE OF EQUAL ELEVATION OF POTENTIOMETRIC SURFACE (FEET NGVD). CONTOUR INTERVAL IS ONE FOOT.
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

**POTENTIOMETRIC SURFACE OF SHALLOW GROUNDWATER APRIL 19, 2001**




**Hertz Service Center  
1 Airport Drive  
Oakland, California**

PROJECT NO. 030062	BY: G. STEPPEN	FIGURE <b>3</b>
DATE: 07/27/01	CHECKED: <i>cgw</i>	

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**EXPLANATION**

-  GROUNDWATER MONITORING WELL
-  FENCELINE
-  UTILITY TRENCH BORING LOCATION



APPROXIMATE SCALE

SITE PLAN BASED ON MAP BY ESE, INC.  
JANUARY 4, 1994

**UTILITY TRENCH BORING LOCATIONS**

Hertz Service Center  
1 Airport Drive  
Oakland, California

Project No. 030062

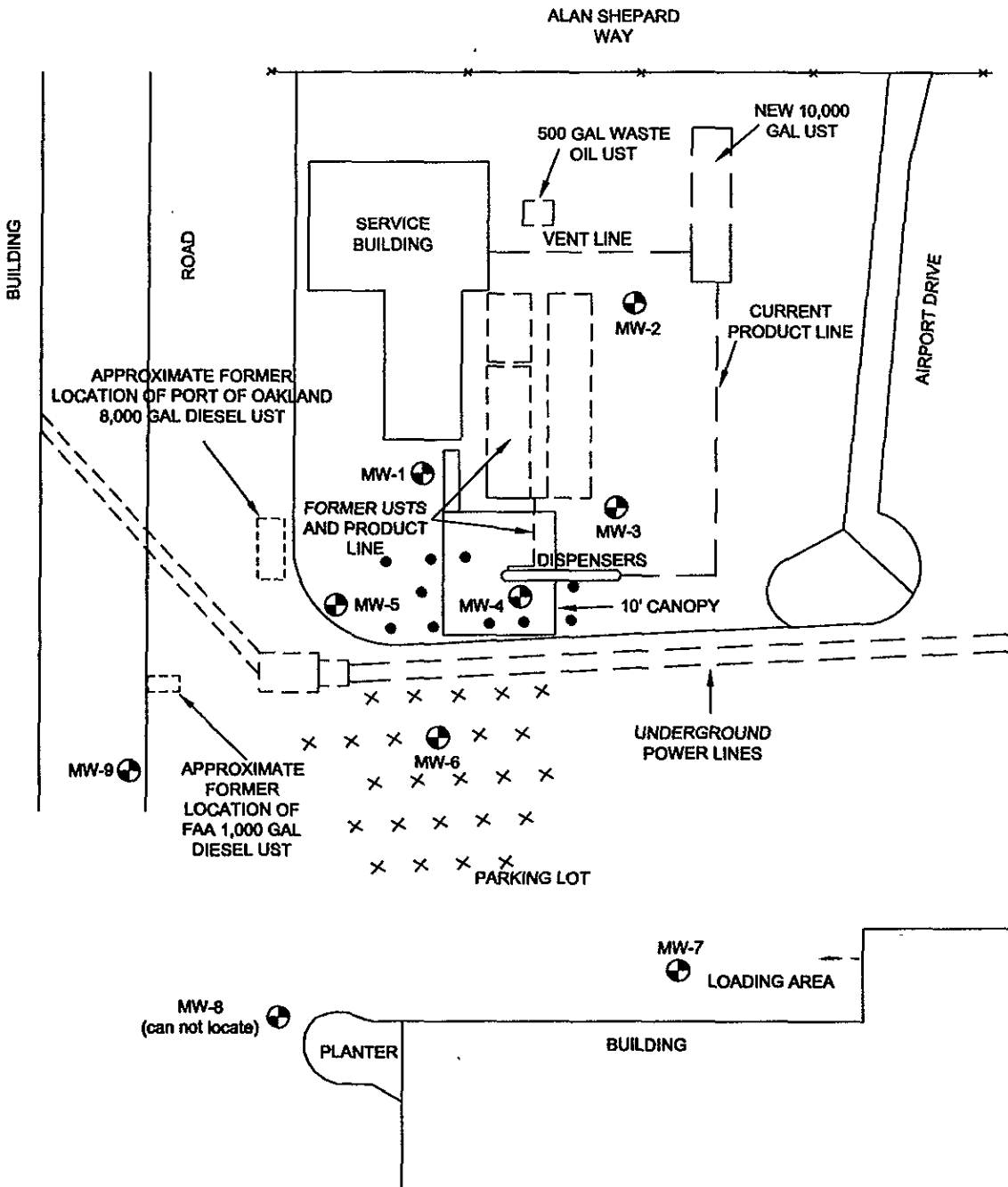
By: G. STEPPEN

**Figure  
4**

Date: 07/27/01

Checked: *ca*

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**EXPLANATION**

- ⊕ GROUNDWATER MONITORING WELL
- x- FENCELINE
- INJECTION WITH APPROXIMATELY 94 POUNDS OF ORC *hole*
- x INJECTION WITH APPROXIMATELY 20 POUNDS OF ORC *hole*



**ORC INJECTION POINTS**

Hertz Service Center  
1 Airport Drive  
Oakland, California

Project No. 030062	By: G. STEPPEN
Date: 07/27/01	Checked: <i>cbw</i>

**Figure 5**

SITE PLAN BASED ON MAP BY ESE, INC.  
JANUARY 4, 1994

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**APPENDIX A**

**Laboratory Reports and Chain-of-Custody Records for  
Groundwater Samples Submitted for Analysis**





HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

McCulley, Frick & Gilman, Inc.

Certificate of Analysis Number:

01040624

<u>Report To:</u> McCulley, Frick & Gilman, Inc. Chris White 71 Stevenson Street, Suite 1450  San Francisco CA 94105- ph: (415) 495-7110      fax: (415) 495-7107	<u>Project Name:</u> Hertz-Oakland, 030062(2) <u>Site:</u> Oakland, CA <u>Site Address:</u>  <u>PO Number:</u> <u>State:</u> California <u>State Cert. No.:</u> 1903 <u>Date Reported:</u> 5/1/01
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This Report Contains A Total Of 18 Pages

Excluding This Page

And

Chain Of Custody

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Date



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Case Narrative for:  
**McCulley, Frick & Gilman, Inc.**

Certificate of Analysis Number:  
01040624

<p><b>Report To:</b></p> <p>McCulley, Frick &amp; Gilman, Inc.          Chris White          71 Stevenson Street, Suite 1450</p> <p>San Francisco          CA          94105-          ph: (415) 495-7110      fax: (415) 495-7107</p>	<p><b>Project Name:</b> Hertz-Oakland, 030062(2)</p> <p><b>Site:</b> Oakland, CA</p> <p><b>Site Address:</b></p> <p><b>PO Number:</b></p> <p><b>State:</b> California</p> <p><b>State Cert. No.:</b> 1903</p> <p><b>Date Reported:</b> 5/1/01</p>
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Your samples for Ferrous Iron were received just outside of the method required hold time. SPL continued with requested analysis. Jennifer Tande was notified, via voicemail on April 20, 2001. Per your request, via voicemail, on April 23, 2001, SPL reported the Ferrous Iron analytical results.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

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*Sonia West*  
 Sonia West  
 Senior Project Manager

Date



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 (713) 660-0901

McCulley, Frick & Gilman, Inc.

Certificate of Analysis Number:

**01040624**

**Report To:** McCulley, Frick & Gilman, Inc.  
 Chris White  
 71 Stevenson Street, Suite 1450

San Francisco  
 CA

94105-

ph: (415) 495-7110 fax: (415) 495-7107

**Fax To:**

McCulley, Frick & Gilman, Inc.  
 Chris White fax : (415) 495-7107

**Project Name:** Hertz-Oakland, 030062(2)

**Site:** Oakland, CA

**Site Address:**

**PO Number:**

**State:** California

**State Cert. No.:** 1903

**Date Reported:** 5/1/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
Trip Blank 4/16/01	01040624-01	Water	4/19/01	4/20/01 2:30:00 PM	41785	<input type="checkbox"/>
MW-1	01040624-02	Water	4/19/01 10:42:00 AM	4/20/01 2:30:00 PM	41785	<input type="checkbox"/>
MW-5	01040624-03	Water	4/19/01 11:50:00 AM	4/20/01 2:30:00 PM	41785	<input type="checkbox"/>
MW-4	01040624-04	Water	4/19/01 12:20:00 PM	4/20/01 2:30:00 PM	41784	<input type="checkbox"/>
MW-6	01040624-05	Water	4/19/01 2:10:00 PM	4/20/01 2:30:00 PM	41784	<input type="checkbox"/>

*Sonia West*  
 Sonia West  
 Senior Project Manager

5/1/01

Date

Joel Grice  
 Laboratory Director

Ted Yen  
 Quality Assurance Officer

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Client Sample ID Trip Blank 4/16/01

Collected: 4/19/01

SPL Sample ID: 01040624-01

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	ND	5	1		04/23/01 19:11	LT	648477
Diisopropyl ether	ND	10	1		04/23/01 19:11	LT	648477
Ethylbenzene	ND	5	1		04/23/01 19:11	LT	648477
Methyl tert-butyl ether	ND	5	1		04/23/01 19:11	LT	648477
t-Butyl alcohol	ND	500	1		04/23/01 19:11	LT	648477
tert-Amyl methyl ether	ND	10	1		04/23/01 19:11	LT	648477
tert-Butyl ethyl ether	ND	10	1		04/23/01 19:11	LT	648477
Toluene	ND	5	1		04/23/01 19:11	LT	648477
Xylenes, Total	ND	5	1		04/23/01 19:11	LT	648477
Surr: 1,2-Dichloroethane-d4	100	% 62-119	1		04/23/01 19:11	LT	648477
Surr: 4-Bromofluorobenzene	100	% 78-123	1		04/23/01 19:11	LT	648477
Surr: Toluene-d8	110	% 74-122	1		04/23/01 19:11	LT	648477

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Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte detected in the associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



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Client Sample ID MW-1 Collected: 4/19/01 10:42:00 SPL Sample ID: 01040624-02

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/L</b>		
Gasoline Range Organics	ND	0.05	1		04/25/01 2:36	DL	650046
Surr: 1,4-Difluorobenzene	106	% 62-144	1		04/25/01 2:36	DL	650046
Surr: 4-Bromofluorobenzene	99.7	% 44-153	1		04/25/01 2:36	DL	650046
<b>IRON, FERROUS</b>			<b>MCL</b>	<b>M3500-FE D</b>	<b>Units: mg/L</b>		
Iron, Ferrous	ND	0.10	1		04/20/01 16:00	SN	648026
<b>NITRATE NITROGEN (AS N), TOTAL</b>			<b>MCL</b>	<b>E353.2</b>	<b>Units: mg/L</b>		
Nitrogen,Nitrate (As N)	2.52	0.100	1		04/20/01 16:01	CV	650608
<b>SULFATE, TOTAL</b>			<b>MCL</b>	<b>E375.4</b>	<b>Units: mg/L</b>		
Sulfate	58	5.00	5		04/23/01 13:00	SN	649479
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	ND	5	1		04/23/01 19:39	LT	648478
Diisopropyl ether	ND	10	1		04/23/01 19:39	LT	648478
Ethylbenzene	ND	5	1		04/23/01 19:39	LT	648478
Methyl tert-butyl ether	ND	5	1		04/23/01 19:39	LT	648478
t-Butyl alcohol	ND	500	1		04/23/01 19:39	LT	648478
tert-Amyl methyl ether	ND	10	1		04/23/01 19:39	LT	648478
tert-Butyl ethyl ether	ND	10	1		04/23/01 19:39	LT	648478
Toluene	ND	5	1		04/23/01 19:39	LT	648478
Xylenes,Total	ND	5	1		04/23/01 19:39	LT	648478
Surr: 1,2-Dichloroethane-d4	104	% 62-119	1		04/23/01 19:39	LT	648478
Surr: 4-Bromofluorobenzene	96.0	% 78-123	1		04/23/01 19:39	LT	648478
Surr: Toluene-d8	108	% 74-122	1		04/23/01 19:39	LT	648478

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B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
\* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
J - Estimated Value between MDL and PQL



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Client Sample ID MW-5 Collected: 4/19/01 11:50:00 SPL Sample ID: 01040624-03

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/L</b>		
Gasoline Range Organics	ND	0.05	1		04/25/01 3:00	DL	650047
Surr: 1,4-Difluorobenzene	105	% 62-144	1		04/25/01 3:00	DL	650047
Surr: 4-Bromofluorobenzene	99.0	% 44-153	1		04/25/01 3:00	DL	650047
<b>IRON, FERROUS</b>			<b>MCL</b>	<b>M3500-FE D</b>	<b>Units: mg/L</b>		
Iron, Ferrous	0.21	0.10	1		04/20/01 16:00	SN	648029
<b>NITRATE NITROGEN (AS N), TOTAL</b>			<b>MCL</b>	<b>E353.2</b>	<b>Units: mg/L</b>		
Nitrogen,Nitrate (As N)	ND	0.100	1		04/20/01 16:01	CV	650611
<b>SULFATE, TOTAL</b>			<b>MCL</b>	<b>E375.4</b>	<b>Units: mg/L</b>		
Sulfate	15.8	2.50	2.5		04/23/01 13:00	SN	649480
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	ND	5	1		04/23/01 20:06	LT	648479
Diisopropyl ether	ND	10	1		04/23/01 20:06	LT	648479
Ethylbenzene	ND	5	1		04/23/01 20:06	LT	648479
Methyl tert-butyl ether	5	5	1		04/23/01 20:06	LT	648479
t-Butyl alcohol	ND	500	1		04/23/01 20:06	LT	648479
tert-Amyl methyl ether	ND	10	1		04/23/01 20:06	LT	648479
tert-Butyl ethyl ether	ND	10	1		04/23/01 20:06	LT	648479
Toluene	ND	5	1		04/23/01 20:06	LT	648479
Xylenes, Total	ND	5	1		04/23/01 20:06	LT	648479
Surr: 1,2-Dichloroethane-d4	100	% 62-119	1		04/23/01 20:06	LT	648479
Surr: 4-Bromofluorobenzene	98.0	% 78-123	1		04/23/01 20:06	LT	648479
Surr: Toluene-d8	108	% 74-122	1		04/23/01 20:06	LT	648479

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 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL



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Client Sample ID MW-4

Collected: 4/19/01 12:20:00 SPL Sample ID: 01040624-04

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/L</b>		
Gasoline Range Organics	26	0.5	10		04/25/01 3:24	DL	650048
Surr: 1,4-Difluorobenzene	125	% 62-144	10		04/25/01 3:24	DL	650048
Surr: 4-Bromofluorobenzene	108	% 44-153	10		04/25/01 3:24	DL	650048
<b>IRON, FERROUS</b>			<b>MCL</b>	<b>M3500-FE D</b>	<b>Units: mg/L</b>		
Iron, Ferrous	3.9	0.20	2		04/20/01 16:00	SN	648030
<b>NITRATE NITROGEN (AS N), TOTAL</b>			<b>MCL</b>	<b>E353.2</b>	<b>Units: mg/L</b>		
Nitrogen,Nitrate (As N)	ND	0.100	1		04/20/01 16:01	CV	650612
<b>SULFATE, TOTAL</b>			<b>MCL</b>	<b>E375.4</b>	<b>Units: mg/L</b>		
Sulfate	3	1.00	1		04/23/01 13:00	SN	649481
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	3400	120	25		04/24/01 16:14	LT	651301
Diisopropyl ether	ND	10	1		04/23/01 20:33	LT	648480
Ethylbenzene	1100	120	25		04/24/01 16:14	LT	651301
Methyl tert-butyl ether	510	120	25		04/24/01 16:14	LT	651301
t-Butyl alcohol	ND	500	1		04/23/01 20:33	LT	648480
tert-Amyl methyl ether	ND	10	1		04/23/01 20:33	LT	648480
tert-Butyl ethyl ether	ND	10	1		04/23/01 20:33	LT	648480
Toluene	340	120	25		04/24/01 16:14	LT	651301
Xylenes,Total	1430	120	25		04/24/01 16:14	LT	651301
Surr: 1,2-Dichloroethane-d4	98.0	% 62-119	1		04/23/01 20:33	LT	648480
Surr: 1,2-Dichloroethane-d4	104	% 62-119	25		04/24/01 16:14	LT	651301
Surr: 4-Bromofluorobenzene	96.0	% 78-123	25		04/24/01 16:14	LT	651301
Surr: 4-Bromofluorobenzene	108	% 78-123	1		04/23/01 20:33	LT	648480
Surr: Toluene-d8	112	% 74-122	25		04/24/01 16:14	LT	651301
Surr: Toluene-d8	112	% 74-122	1		04/23/01 20:33	LT	648480

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 J - Estimated Value between MDL and PQL



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Client Sample ID MW-6 Collected: 4/19/01 2:10:00 SPL Sample ID: 01040624-05

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/L</b>		
Gasoline Range Organics	ND	0.05	1		04/25/01 3:48	DL	650049
Surr: 1,4-Difluorobenzene	105 %	62-144	1		04/25/01 3:48	DL	650049
Surr: 4-Bromofluorobenzene	99.7 %	44-153	1		04/25/01 3:48	DL	650049
<b>IRON, FERROUS</b>			<b>MCL</b>	<b>M3500-FE D</b>	<b>Units: mg/L</b>		
Iron, Ferrous	2.7	0.20	2		04/20/01 16:00	SN	648031
<b>NITRATE NITROGEN (AS N), TOTAL</b>			<b>MCL</b>	<b>E353.2</b>	<b>Units: mg/L</b>		
Nitrogen,Nitrate (As N)	ND	0.100	1		04/20/01 16:01	CV	650613
<b>SULFATE, TOTAL</b>			<b>MCL</b>	<b>E375.4</b>	<b>Units: mg/L</b>		
Sulfate	132	10.0	10		04/23/01 13:00	SN	649483
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	ND	5	1		04/24/01 16:41	LT	651303
Diisopropyl ether	ND	10	1		04/24/01 16:41	LT	651303
Ethylbenzene	ND	5	1		04/24/01 16:41	LT	651303
Methyl tert-butyl ether	77	5	1		04/24/01 16:41	LT	651303
t-Butyl alcohol	ND	500	1		04/24/01 16:41	LT	651303
tert-Amyl methyl ether	ND	10	1		04/24/01 16:41	LT	651303
tert-Butyl ethyl ether	ND	10	1		04/24/01 16:41	LT	651303
Toluene	ND	5	1		04/24/01 16:41	LT	651303
Xylenes, Total	ND	5	1		04/24/01 16:41	LT	651303
Surr: 1,2-Dichloroethane-d4	100 %	62-119	1		04/24/01 16:41	LT	651303
Surr: 4-Bromofluorobenzene	98.0 %	78-123	1		04/24/01 16:41	LT	651303
Surr: Toluene-d8	108 %	74-122	1		04/24/01 16:41	LT	651303

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 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL



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Quality Control Report  
McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(2)

Analysis: Gasoline Range Organics  
Method: CA\_GRO

WorkOrder: 01040624  
Lab Batch ID: R34033

Method Blank

Samples in Analytical Batch:

RunID: VARE\_010424B-650028 Units: mg/L  
Analysis Date: 04/24/2001 10:42 Analyst: DL

Lab Sample ID	Client Sample ID
01040624-02B	MW-1
01040624-03B	MW-5
01040624-04B	MW-4
01040624-05B	MW-6

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr: 1,4-Difluorobenzene	104.7	62-144
Surr: 4-Bromofluorobenzene	104.3	44-153

Laboratory Control Sample (LCS)

RunID: VARE\_010424B-650027 Units: mg/L  
Analysis Date: 04/24/2001 10:18 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.91	91	70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040506-06  
RunID: VARE\_010424B-650034 Units: mg/L  
Analysis Date: 04/24/2001 16:29 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.78	86.2	0.9	0.77	86.0	0.245	36	36	160

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B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



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Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(2)

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01040624  
Lab Batch ID: R33937

Method Blank

Samples in Analytical Batch:

RunID: L\_010423A-648464 Units: ug/L  
Analysis Date: 04/23/2001 12:38 Analyst: LT

Lab Sample ID	Client Sample ID
01040624-01A	Trip Blank 4/16/01
01040624-02A	MW-1
01040624-03A	MW-5
01040624-04A	MW-4

Analyte	Result	Rep Limit
Benzene	ND	5.0
Diisopropyl ether	ND	10
Ethylbenzene	ND	5.0
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Toluene	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	100.0	62-119
Surr: 4-Bromofluorobenzene	100.0	78-123
Surr: Toluene-d8	112.0	74-122

Laboratory Control Sample (LCS)

RunID: L\_010423A-648463 Units: ug/L  
Analysis Date: 04/23/2001 10:50 Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	47	94	61	145
Benzene	50	52	104	76	127
Chlorobenzene	50	49	98	75	130
Toluene	50	52	104	76	125
Trichloroethene	50	48	96	71	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040403-09  
RunID: L\_010423A-648466 Units: ug/L  
Analysis Date: 04/23/2001 14:00 Analyst: LT

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Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	250	220	88	250	230	92	4	14	38	172
Benzene	460	250	690	92	250	680	88	4	11	66	134
Chlorobenzene	ND	250	230	92	250	230	92	0	13	67	115

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Quality Control Report

McCulley, Frick & Gilman, Inc.  
 Hertz-Oakland, 030062(2)

Analysis: Volatile Organics by Method 8260B  
 Method: SW8260B

WorkOrder: 01040624  
 Lab Batch ID: R33937

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040403-09  
 RunID: L\_010423A-648466 Units: ug/L  
 Analysis Date: 04/23/2001 14:00 Analyst: LT

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Toluene	ND	250	230	92	250	230	92	0	13	59	125
Trichloroethene	ND	250	220	88	250	220	88	0	14	61	134

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
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Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(2)

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01040624  
Lab Batch ID: R34101

Method Blank

Samples in Analytical Batch:

RunID: L\_010424A-651291 Units: ug/L  
Analysis Date: 04/24/2001 13:02 Analyst: LT

Lab Sample ID Client Sample ID  
01040624-04A MW-4  
01040624-05A MW-6

Analyte	Result	Rep Limit
Benzene	ND	2.0
Diisopropyl ether	ND	10
Ethylbenzene	ND	2.0
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Toluene	ND	5.0
Xylenes, Total	ND	5.0
Sum: 1,2-Dichloroethane-d4	100.0	62-119
Sum: 4-Bromofluorobenzene	98.0	78-123
Sum: Toluene-d8	108.0	74-122

Laboratory Control Sample (LCS)

RunID: L\_010424A-651289 Units: ug/L  
Analysis Date: 04/24/2001 11:40 Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	50	100	61	145
Benzene	50	55	110	76	127
Chlorobenzene	50	49	98	75	130
Toluene	50	50	100	76	125
Trichloroethene	50	51	102	71	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040488-07  
RunID: L\_010424A-651296 Units: ug/L  
Analysis Date: 04/24/2001 14:51 Analyst: LT

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Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	1250	1200	96	1250	1200	96	0	14	38	172
Benzene	4500	1250	6000	120	1250	5800	104	14 *	11	66	134
Chlorobenzene	ND	1250	1200	96	1250	1100	88	9	13	67	115

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

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Quality Control Report

McCulley, Frick & Gilman, Inc.  
 Hertz-Oakland, 030062(2)

Analysis: Volatile Organics by Method 8260B  
 Method: SW8260B

WorkOrder: 01040624  
 Lab Batch ID: R34101

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040488-07  
 RunID: L\_010424A-651296 Units: ug/L  
 Analysis Date: 04/24/2001 14:51 Analyst: LT

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Toluene	ND	1250	1200	96	1250	1100	88	9	13	59	125
Trichloroethene	ND	1250	1100	88	1250	1100	88	0	14	61	134

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



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Quality Control Report  
McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(2)

Analysis: Iron, Ferrous  
Method: M3500-Fe D

WorkOrder: 01040624  
Lab Batch ID: R33917

Method Blank

Samples in Analytical Batch:

RunID: WET\_010420W-648024 Units: mg/L  
Analysis Date: 04/20/2001 16:00 Analyst: SN

Lab Sample ID	Client Sample ID
01040624-02D	MW-1
01040624-03D	MW-5
01040624-04D	MW-4
01040624-05D	MW-6

Analyte	Result	Rep Limit
Iron, Ferrous	ND	0.10

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040624-02  
RunID: WET\_010420W-648027 Units: mg/L  
Analysis Date: 04/20/2001 16:00 Analyst: SN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Iron, Ferrous	ND	1	0.98	98.2	1	1	102	3.37	20	80	120

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**Qualifiers:** ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



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Quality Control Report  
McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(2)

Analysis: Sulfate, Total  
Method: E375.4

WorkOrder: 01040624  
Lab Batch ID: R34008

Method Blank

Samples in Analytical Batch:

RunID: WET\_010423R-649470 Units: mg/L  
Analysis Date: 04/23/2001 13:00 Analyst: SN

Lab Sample ID	Client Sample ID
01040624-02C	MW-1
01040624-03C	MW-5
01040624-04C	MW-4
01040624-05C	MW-6

Analyte	Result	Rep Limit
Sulfate	ND	1.0

Laboratory Control Sample (LCS)

RunID: WET\_010423R-649472 Units: mg/L  
Analysis Date: 04/23/2001 13:00 Analyst: SN

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	50	55.5	111	85	115

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040652-01  
RunID: WET\_010423R-649474 Units: mg/L  
Analysis Date: 04/23/2001 13:00 Analyst: SN

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	ND	5	4.43	88.6	5	4.31	86.2	2.75	20	80	119

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.





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Quality Control Report

McCulley, Frick & Gilman, Inc.  
 Hertz-Oakland, 030062(2)

Analysis: Nitrate Nitrogen (as N), Total  
 Method: E353.2

WorkOrder: 01040624  
 Lab Batch ID: R34068

Method Blank

Samples in Analytical Batch:

RunID: WET\_010420ZB-650605 Units: mg/L  
 Analysis Date: 04/20/2001 16:01 Analyst: CV

Lab Sample ID	Client Sample ID
01040624-02C	MW-1
01040624-03C	MW-5
01040624-04C	MW-4
01040624-05C	MW-6

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	0.10

Laboratory Control Sample (LCS)

RunID: WET\_010420ZB-650607 Units: mg/L  
 Analysis Date: 04/20/2001 16:01 Analyst: CV

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	5	4.94	99	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040624-02  
 RunID: WET\_010420ZB-650609 Units: mg/L  
 Analysis Date: 04/20/2001 16:01 Analyst: CV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrate (As N)	2.5	5	7.51	99.6	5	7.44	98.2	1.40	20	80	120

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist  
And  
Chain of Custody*

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MFG, Inc.

5/1/01 9:22:30 AM



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
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Sample Receipt Checklist

Workorder: 01040624  
 Date and Time Received: 4/20/01 2:30:00 PM  
 Temperature: 4

Received By: DS  
 Carrier name: FedEx  
 Chilled by: Water Ice

- |   |   |  |   |
|---|---|--|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact on shipping container/cooler?   | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 5. Chain of custody signed when relinquished and received?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 6. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 7. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 8. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 9. Sufficient sample volume for indicated test?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 10. All samples received within holding time?<br>1. Ferrous Irons were received out of holding time | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |   |
| 11. Container/Temp Blank temperature in compliance?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |   |
| 12. Water - VOA vials have zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Applicable <input type="checkbox"/>         |
| 13. Water - pH acceptable upon receipt?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            | Not Applicable <input type="checkbox"/>         |

SPL Representative: Wyatt, Neandra

Contact Date & Time: 4/20/01 2:30:00 PM

Client Name Contacted: Jennifer Tande

Non Conformance Issues: 1. Left message

Client Instructions: Per Jennifer Tande, via voicemail, on April 23, 2001, continue with analysis of ferrous iron.

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MFG, Inc.

# CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

MFG, Inc.

COC No. **41785**

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

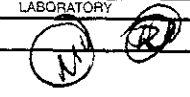
PROJECT NO: 030062(2) PROJECT NAME: Hertz - Oakland PAGE: 1 OF: 2  
 SAMPLER (Signature): [Signature] PROJECT MANAGER: GW DATE: 4/19/01  
 METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: 826403433921 DESTINATION: SPL-Houston

MFG, Inc.	RECEIVED	MAY - 7 2001	SAMPLES										ANALYSIS REQUEST						
			Sample			Preservation				Containers			Constituents/Method			Handling		Remarks	
			DATE	TIME	Matrix*	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	COLD	FILTRATION*	VOLUME (mL/oz)	TYPE*	NO.	8360 (ATLX Only)	TPHg - 80ISM	10: Traget Sulfate	Ferrrous Iron		HOLD
	Temp Blank	4/19/01					X		U	40	G	1						X	
	Temp Blank				X					40	G	2	X						
	mw-1		1042		X					40	G	3	X						
					X					40	G	3		X					
										1000	P	1		X					
					X					500	G	1			X				
	mw-5		1150		X					40	G	3	X						
					X					40	G	3		X					
										1000	P	1		X					
					X					500	G	1			X				
TOTAL NUMBER OF CONTAINERS										19			LABORATORY COMMENTS/CONDITION OF SAMPLES					Cooler Temp:	

RUSH

RELINQUISHED BY:					RECEIVED BY:		
SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	SIGNATURE	PRINTED NAME	COMPANY
<u>[Signature]</u>	Jennifer Tancke	MFG	4/19/01	-	-	-	Fed Ex
	<u>[Signature]</u>		4/20/01	1430			

\*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



01040027

# CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

MFG, Inc.

COC No. 41784

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

PROJECT NO: 030062(2) PROJECT NAME: Hertz - Oakland PAGE: 2 OF: 2  
 SAMPLER (Signature): [Signature] PROJECT MANAGER: \_\_\_\_\_ DATE: 4/19/01  
 METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: 82640343392 DESTINATION: SPL - Houston

SAMPLES										ANALYSIS REQUEST								
Field Sample Identification	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)	TYPE*	NO.	3600 (ATEX & Day)	TPHg - 8050	Nitrate - Sulfate	Ferrous Ion	HOLD		RUSH
mw-4	4/19/01	1220	PX	X			X	U	40	G	6	X	X				X	
↓		↓		X				500	G	1			X					
mw-6		1410		X				40	G	6	X	X						
↓		↓		X				1000	P	1			X					
↓		↓						500	G	1				X				↓

TOTAL NUMBER OF CONTAINERS: 16 LABORATORY COMMENTS/CONDITION OF SAMPLES: \_\_\_\_\_ Cooler Temp: 4

RELINQUISHED BY:					RECEIVED BY:		
SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	SIGNATURE	PRINTED NAME	COMPANY
<u>[Signature]</u>	<u>Jennifer Tancke</u>	<u>MFG</u>	<u>4/19/01</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>Fed Ex</u>
<u>[Signature]</u>		<u>SPL</u>	<u>4/20/01</u>	<u>7430</u>			

\*KEY Matrix: AQ - aqueous NA - noneaqueous 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  
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[Signature]

**APPENDIX B**

**Laboratory Reports and Chain-of-Custody Records for  
Soil and Groundwater Grab Samples Submitted for Analysis**



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

McCulley, Frick & Gilman, Inc.

Certificate of Analysis Number:

**01040642**

<b>Report To:</b>  McCulley, Frick & Gilman, Inc. Chris White 71 Stevenson Street, Suite 1450  San Francisco CA 94105- ph: (415) 495-7110      fax: (415) 495-7107	<b>Project Name:</b> Hertz-Oakland, 030062(4) <b>Site:</b> Oakland, CA <b>Site Address:</b>  <b>PO Number:</b> <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 4/27/01
---	---

This Report Contains A Total Of 11 Pages

Excluding This Page

And

Chain Of Custody

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4/27/01

Date



HOUSTON LABORATORY  
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 (713) 660-0901

Case Narrative for:  
**McCulley, Frick & Gilman, Inc.**

Certificate of Analysis Number:  
**01040642**

<p><b>Report To:</b></p> <p>McCulley, Frick &amp; Gilman, Inc.          Chris White          71 Stevenson Street, Suite 1450</p> <p>San Francisco          CA          94105-          ph: (415) 495-7110      fax: (415) 495-7107</p>	<p><b>Project Name:</b> Hertz-Oakland, 030062(4)</p> <p><b>Site:</b> Oakland, CA</p> <p><b>Site Address:</b></p> <p><b>PO Number:</b></p> <p><b>State:</b> California</p> <p><b>State Cert. No.:</b> 1903</p> <p><b>Date Reported:</b> 4/27/01</p>
--	--

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

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 MFG, Inc.

*Sonia West*  
 Sonia West  
 Senior Project Manager

4/27/01  
 Date





HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

**McCulley, Frick & Gilman, Inc.**

Certificate of Analysis Number:

**01040642**

**Report To:** McCulley, Frick & Gilman, Inc.  
 Chris White  
 71 Stevenson Street, Suite 1450

San Francisco  
 CA  
 94105-

ph: (415) 495-7110 fax: (415) 495-7107

**Fax To:**

McCulley, Frick & Gilman, Inc.  
 Chris White fax: (415) 495-7107

**Project Name:** Hertz-Oakland, 030062(4)

**Site:** Oakland, CA

**Site Address:**

**PO Number:**

**State:** California

**State Cert. No.:** 1903

**Date Reported:** 4/27/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
T-1	01040642-01	Soil	4/19/01 10:00:00 AM	4/20/01 2:30:00 PM	42799	<input type="checkbox"/>
T-2	01040642-02	Soil	4/19/01 10:50:00 AM	4/20/01 2:30:00 PM	42799	<input type="checkbox"/>
T-4	01040642-03	Soil	4/19/01 1:00:00 PM	4/20/01 2:30:00 PM	42799	<input type="checkbox"/>

*Sonia West*  
 Sonia West  
 Senior Project Manager

4/27/01

Date

Joel Grice  
 Laboratory Director  
 Ted Yen  
 Quality Assurance Officer

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4/27/01 4 14 41 PM

4/27/01 05:14 30 PM



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID T-2 Collected: 4/19/01 10:50:00 SPL Sample ID: 01040642-02

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/Kg</b>		
Gasoline Range Organics	ND	0.1	1		04/23/01 15:04	FB	648115
Surr: 1,4-Difluorobenzene	93.7	% 72-153	1		04/23/01 15:04	FB	648115
Surr: 4-Bromofluorobenzene	109	% 51-149	1		04/23/01 15:04	FB	648115
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/Kg</b>		
Benzene	ND	5	1		04/23/01 13:28	NL	648309
Diisopropyl ether	ND	10	1		04/23/01 13:28	NL	648309
Ethylbenzene	ND	5	1		04/23/01 13:28	NL	648309
Methyl tert-butyl ether	ND	5	1		04/23/01 13:28	NL	648309
t-Butyl alcohol	ND	500	1		04/23/01 13:28	NL	648309
tert-Amyl methyl ether	ND	5	1		04/23/01 13:28	NL	648309
tert-Butyl ethyl ether	ND	5	1		04/23/01 13:28	NL	648309
Toluene	ND	5	1		04/23/01 13:28	NL	648309
Xylenes, Total	ND	5	1		04/23/01 13:28	NL	648309
Surr: Toluene-d8	100	% 80-140	1		04/23/01 13:28	NL	648309
Surr: 1,2-Dichloroethane-d4	92.0	% 70-120	1		04/23/01 13:28	NL	648309
Surr: 4-Bromofluorobenzene	98.0	% 74-130	1		04/23/01 13:28	NL	648309

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Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID T-4 Collected: 4/19/01 01:00:00 SPL Sample ID: 01040642-03

Site: Oakland, CA

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/Kg</b>		
Gasoline Range Organics	ND	0.1	1		04/23/01 15:32	FB	648116
Surr: 1,4-Difluorobenzene	94.3	% 72-153	1		04/23/01 15:32	FB	648116
Surr: 4-Bromofluorobenzene	110	% 51-149	1		04/23/01 15:32	FB	648116
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/Kg</b>		
Benzene	ND	5	1		04/23/01 13:54	NL	648310
Diisopropyl ether	ND	10	1		04/23/01 13:54	NL	648310
Ethylbenzene	ND	5	1		04/23/01 13:54	NL	648310
Methyl tert-butyl ether	ND	5	1		04/23/01 13:54	NL	648310
t-Butyl alcohol	ND	500	1		04/23/01 13:54	NL	648310
tert-Amyl methyl ether	ND	5	1		04/23/01 13:54	NL	648310
tert-Butyl ethyl ether	ND	5	1		04/23/01 13:54	NL	648310
Toluene	ND	5	1		04/23/01 13:54	NL	648310
Xylenes, Total	ND	5	1		04/23/01 13:54	NL	648310
Surr: Toluene-d8	100	% 80-140	1		04/23/01 13:54	NL	648310
Surr: 1,2-Dichloroethane-d4	92.0	% 70-120	1		04/23/01 13:54	NL	648310
Surr: 4-Bromofluorobenzene	100	% 74-130	1		04/23/01 13:54	NL	648310

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Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL

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Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(4)

Analysis: Gasoline Range Organics  
Method: CA\_GRO

WorkOrder: 01040642  
Lab Batch ID: R33923

Method Blank

Samples in Analytical Batch:

RunID: HP\_J\_010423B-648113 Units: mg/Kg  
Analysis Date: 04/23/2001 14:07 Analyst: FB

Lab Sample ID	Client Sample ID
01040642-01A	T-1
01040642-02A	T-2
01040642-03A	T-4

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.10
Surr: 1,4-Difluorobenzene	90.7	72-153
Surr: 4-Bromofluorobenzene	103.3	51-149

Laboratory Control Sample (LCS)

RunID: HP\_J\_010423B-648110 Units: mg/Kg  
Analysis Date: 04/23/2001 10:21 Analyst: FB

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.62	62	53	137

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040642-01  
RunID: HP\_J\_010423B-648111 Units: mg/Kg  
Analysis Date: 04/23/2001 13:09 Analyst: FB

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.7	78.3	0.9	0.69	76.6	2.25	50	36	163

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland, 030062(4)

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01040642  
Lab Batch ID: R33929

Method Blank

Samples in Analytical Batch:

RunID: M\_010423A-648304 Units: ug/Kg  
Analysis Date: 04/23/2001 11:19 Analyst: NL

Lab Sample ID	Client Sample ID
01040642-01A	T-1
01040642-02A	T-2
01040642-03A	T-4

Analyte	Result	Rep Limit
Benzene	ND	5.0
Cyclohexanone	ND	500
Diisopropyl ether	ND	10
Ethylbenzene	ND	5.0
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	5.0
tert-Butyl ethyl ether	ND	5.0
Toluene	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	86.0	70-120
Surr: 4-Bromofluorobenzene	96.0	74-130
Surr: Toluene-d8	98.0	80-140

Laboratory Control Sample (LCS)

RunID: M\_010423A-648303 Units: ug/Kg  
Analysis Date: 04/23/2001 10:53 Analyst: NL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	44	88	59	172
Benzene	50	48	96	66	142
Chlorobenzene	50	50	100	60	133
Toluene	50	47	94	59	139
Trichloroethene	50	49	98	62	137

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Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040557-23  
RunID: M\_010423A-648306 Units: ug/Kg  
Analysis Date: 04/23/2001 12:10 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	50	42	84	50	42	84	0	22	59	172
Benzene	ND	50	45	90	50	44	88	2	21	66	142

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.



HOUSTON LABORATORY  
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Quality Control Report

McCulley, Frick & Gilman, Inc.  
 Hertz-Oakland, 030062(4)

Analysis: Volatile Organics by Method 8260B  
 Method: SW8260B

WorkOrder: 01040642  
 Lab Batch ID: R33929

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040557-23  
 RunID: M\_010423A-648306 Units: ug/Kg  
 Analysis Date: 04/23/2001 12:10 Analyst: NL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chlorobenzene	ND	50	48	96	50	48	96	0	21	60	133
Toluene	ND	50	45	90	50	45	90	0	21	59	139
Trichloroethene	ND	50	46	92	50	46	92	0	24	62	137

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist  
And  
Chain of Custody*

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HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Sample Receipt Checklist

Workorder: 01040642  
Date and Time Received: 4/20/01 2:30.00 PM  
Temperature: 4

Received By: DS  
Carrier name: FedEx  
Chilled by: Water Ice

- |  |   |                             |  |
|--|---|-----------------------------|--|
| 1. Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>               |
| 2. Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| 3. Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>    |
| 4. Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 5. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 6. Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 7. Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 8. Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 9. Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 10. All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 11. Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |  |
| 12. Water - VOA vials have zero headspace?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |
| 13. Water - pH acceptable upon receipt?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/> |

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance  
Issues:

Client Instructions:

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4/27/01 4 14 58 PM

01040642

## MFG, INC.

### CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 42799

- |   |   |   |  |   |  |
|---|---|---|--|---|--|
| <input type="checkbox"/> Arcata Office<br>1165 G Street, Suite E<br>Arcata, CA 95521-5817<br>Tel: (707) 826-8430<br>Fax: (707) 826-8437 | <input type="checkbox"/> Boulder Office<br>4900 Pearl East Circle<br>Suite 300W<br>Boulder, CO 80301-6118<br>Tel: (303) 447-1823<br>Fax: (303) 447-1836 | <input type="checkbox"/> Irvine Office<br>17770 Cartwright Road<br>Suite 500<br>Irvine, CA 92614-5850<br>Tel: (949) 253-2951<br>Fax: (949) 253-2954 | <input type="checkbox"/> Osburn Office<br>P.O. Box 30<br>Wallace, ID<br>83873-0030<br>Tel: (208) 556-6811<br>Fax: (208) 556-7271 | <input checked="" type="checkbox"/> San Francisco Office<br>71 Stevenson Street<br>Suite 1450<br>San Francisco, CA 94105-2941<br>Tel: (415) 495-7110<br>Fax: (415) 495-7107 | <input type="checkbox"/> Seattle Office<br>19203 38th Avenue W<br>Suite 101<br>Lynnwood, WA 98036-5707<br>Tel: (425) 921-4000<br>Fax: (425) 921-4040 |
|---|---|---|--|---|--|

PROJECT NO: 030062(4) PROJECT NAME: Hertz/Oakland PAGE: 1 OF: 1  
 SAMPLER (Signature): [Signature] PROJECT MANAGER: CBW DATE: 4/19/01  
 METHOD OF SHIPMENT: FedEx CARRIER/WAYBILL NO: 826403433921 DESTINATION: SPL-Houston

SAMPLES										ANALYSIS REQUEST								
Field Sample Identification	Sample		Matrix*	Preservation				FILTRATION*	Containers			Constituents/Method			Handling			Remarks
	DATE	TIME		HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	COLD		VOLUME (ml/oz)	TYPE*	NO.	TPH-G	BTEX	MTBE, PPE, TAME, DPE, TBA	HOLD	RUSH	STANDARD	
T-1	4/19/01	1000	S <sub>6</sub>				X	C	-	SS	1	X	X	X			X	Fuel Oxygenator by 8460
T-2	↓	1050	↓				X	↓	-	↓	1	X	X	X			X	
T-4	↓	1300	↓				X	↓	-	↓	1	X	X	X			X	

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TOTAL NUMBER OF CONTAINERS: 3 LABORATORY COMMENTS/CONDITION OF SAMPLES: Cooler Temp: 4

RELINQUISHED BY:				RECEIVED BY:			
SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	SIGNATURE	PRINTED NAME	COMPANY
<u>[Signature]</u>	Steve Smith	MFG	4/19/01				
<u>[Signature]</u>			4/20/01	1730			

\*KEY Matrix AG-aqueous NA-nonaqueous SO-soil SL-sludge P-petroleum A-air OT-other Containers P-plastic G-glass T-teslon B-brass OT-other Filtration F-filtered U-unfiltered  
 DISTRIBUTION: PINK Field Copy YELLOW Laboratory Copy WHITE Return to Original

826403433921 SO 641b  
101

N/A



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

McCulley, Frick & Gilman, Inc.

Certificate of Analysis Number:

**01040643**

<b>Report To:</b>  McCulley, Frick & Gilman, Inc. Chris White 71 Stevenson Street, Suite 1450  San Francisco CA 94105- ph: (415) 495-7110      fax: (415) 495-7107	<b>Project Name:</b> Hertz-Oakland 030062(4) <b>Site:</b> Oakland <b>Site Address:</b>  <b>PO Number:</b> <b>State:</b> California <b>State Cert. No.:</b> 1903 <b>Date Reported:</b> 4/27/01
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This Report Contains A Total Of 9 Pages

Excluding This Page

And

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4/27/01

Date



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 (713) 660-0901

Case Narrative for:  
**McCulley, Frick & Gilman, Inc.**

Certificate of Analysis Number:  
**01040643**

<p><b>Report To:</b></p> <p>McCulley, Frick &amp; Gilman, Inc.          Chris White          71 Stevenson Street, Suite 1450</p> <p>San Francisco          CA          94105-          ph: (415) 495-7110      fax: (415) 495-7107</p>	<p><b>Project Name:</b> Hertz-Oakland 030062(4)</p> <p><b>Site:</b> Oakland</p> <p><b>Site Address:</b></p> <p><b>PO Number:</b></p> <p><b>State:</b> California</p> <p><b>State Cert. No.:</b> 1903</p> <p><b>Date Reported:</b> 4/27/01</p>
--	---

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

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MFG, Inc.

*Sonia West*  
 Sonia West

Senior Project Manager

4/27/01

Date



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 8980 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

McCulley, Frick & Gilman, Inc.

Certificate of Analysis Number:

**01040643**

**Report To:** McCulley, Frick & Gilman, Inc.  
 Chris White  
 71 Stevenson Street, Suite 1450

**Project Name:** Hertz-Oakland 030062(4)

**Site:** Oakland

**Site Address:**

San Francisco  
 CA

**PO Number:**

94105-

**State:** California

ph: (415) 495-7110 fax: (415) 495-7107

**State Cert. No.:** 1903

**Fax To:**

McCulley, Frick & Gilman, Inc.  
 Chris White fax : (415) 495-7107

**Date Reported:** 4/27/01

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
T-4W	01040643-01	Water	4/19/01 2:00:00 PM	4/20/01 10:00:00 AM	42800	<input type="checkbox"/>

*Sonia West*  
 Sonia West  
 Senior Project Manager

4/27/01

Date

Joel Grice  
 Laboratory Director  
 Ted Yen  
 Quality Assurance Officer

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4/27/01 4 15:18 PM



HOUSTON LABORATORY  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Client Sample ID T-4W Collected: 4/19/01 02:00:00 SPL Sample ID: 01040643-01

Site: Oakland

Analyses/Method	Result	Rep.Limit	Dil. Factor	QUAL	Date Analyzed	Analyst	Seq. #
<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>CA GRO</b>	<b>Units: mg/L</b>		
Gasoline Range Organics	ND	0.05	1		04/25/01 02:12	DL	650045
Surr: 1,4-Difluorobenzene	105 %	62-144	1		04/25/01 02:12	DL	650045
Surr: 4-Bromofluorobenzene	97.3 %	44-153	1		04/25/01 02:12	DL	650045
<b>VOLATILE ORGANICS BY METHOD 8260B</b>			<b>MCL</b>	<b>SW8260B</b>	<b>Units: ug/L</b>		
Benzene	ND	5	1		04/23/01 21:27	LT	648481
Diisopropyl ether	ND	10	1		04/23/01 21:27	LT	648481
Ethylbenzene	ND	5	1		04/23/01 21:27	LT	648481
Methyl tert-butyl ether	ND	5	1		04/23/01 21:27	LT	648481
t-Butyl alcohol	ND	500	1		04/23/01 21:27	LT	648481
tert-Amyl methyl ether	ND	10	1		04/23/01 21:27	LT	648481
tert-Butyl ethyl ether	ND	10	1		04/23/01 21:27	LT	648481
Toluene	ND	5	1		04/23/01 21:27	LT	648481
Xylenes, Total	ND	5	1		04/23/01 21:27	LT	648481
Surr: 1,2-Dichloroethane-d4	104 %	62-119	1		04/23/01 21:27	LT	648481
Surr: 4-Bromofluorobenzene	98.0 %	78-123	1		04/23/01 21:27	LT	648481
Surr: Toluene-d8	108 %	74-122	1		04/23/01 21:27	LT	648481

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Qualifiers: ND/U - Not Detected at the Reporting Limit >MCL - Result Over Maximum Contamination Limit(MCL)  
 B - Analyte detected in the associated Method Blank D - Surrogate Recovery Unreportable due to Dilution  
 \* - Surrogate Recovery Outside Advisable QC Limits MI - Matrix Interference  
 J - Estimated Value between MDL and PQL

4/27/01 05:13:14 PM

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4/27/01 4 15.24 PM



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8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland 030062(4)

Analysis: Gasoline Range Organics  
Method: CA\_GRO

WorkOrder: 01040643  
Lab Batch ID: R34033

Method Blank

Samples in Analytical Batch:

RunID: VARE\_010424B-650028 Units: mg/L  
Analysis Date: 04/24/2001 10:42 Analyst: DL

Lab Sample ID      Client Sample ID  
01040643-01A      T-4W

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.050
Surr. 1,4-Difluorobenzene	104.7	62-144
Surr. 4-Bromofluorobenzene	104.3	44-153

Laboratory Control Sample (LCS)

RunID: VARE\_010424B-650027 Units: mg/L  
Analysis Date: 04/24/2001 10.18 Analyst: DL

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1	0.91	91	70	130

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040506-06  
RunID: VARE\_010424B-650034 Units: mg/L  
Analysis Date: 04/24/2001 16:29 Analyst: DL

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.9	0.78	86.2	0.9	0.77	86.0	0.245	36	36	160

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Qualifiers: ND/U - Not Detected at the Reporting Limit      MI - Matrix Interference  
B - Analyte detected in the associated Method Blank      D - Recovery Unreportable due to Dilution  
J - Estimated value between MDL and PQL      \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.





HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Quality Control Report

McCulley, Frick & Gilman, Inc.  
Hertz-Oakland 030062(4)

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 01040643  
Lab Batch ID: R33937

Method Blank

Samples in Analytical Batch:

RunID: L\_010423A-648464 Units: ug/L  
Analysis Date: 04/23/2001 12:38 Analyst: LT

Lab Sample ID: 01040643-01B  
Client Sample ID: T-4W

Analyte	Result	Rep Limit
Benzene	ND	5.0
Cyclohexanone	ND	500
Diisopropyl ether	ND	10
Ethylbenzene	ND	5.0
Methyl tert-butyl ether	ND	5.0
t-Butyl alcohol	ND	500
tert-Amyl methyl ether	ND	10
tert-Butyl ethyl ether	ND	10
Toluene	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	100.0	62-119
Surr: 4-Bromofluorobenzene	100.0	78-123
Surr: Toluene-d8	112.0	74-122

Laboratory Control Sample (LCS)

RunID: L\_010423A-648463 Units: ug/L  
Analysis Date: 04/23/2001 10:50 Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	50	47	94	61	145
Benzene	50	52	104	76	127
Chlorobenzene	50	49	98	76	130
Toluene	50	52	104	76	125
Trichloroethene	50	48	96	71	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040403-09  
RunID: L\_010423A-648466 Units: ug/L  
Analysis Date: 04/23/2001 14:00 Analyst: LT

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Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1-Dichloroethene	ND	250	220	88	250	230	92	4	14	38	172
Benzene	460	250	690	92	250	680	88	4	11	66	134

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
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 8880 INTERCHANGE DRIVE  
 HOUSTON, TEXAS 77054  
 (713) 660-0901

Quality Control Report

McCulley, Frick & Gilman, Inc.  
 Hertz-Oakland 030062(4)

Analysis: Volatile Organics by Method 8260B  
 Method: SW8260B

WorkOrder: 01040643  
 Lab Batch ID: R33937

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 01040403-09  
 RunID: L\_010423A-648466 Units: ug/L  
 Analysis Date: 04/23/2001 14:00 Analyst: LT

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chlorobenzene	ND	250	230	92	250	230	92	0	13	67	115
Toluene	ND	250	230	92	250	230	92	0	13	59	125
Trichloroethene	ND	250	220	88	250	220	88	0	14	61	134

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Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
 B - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution  
 J - Estimated value between MDL and PQL \* - Recovery Outside Advisable QC Limits

The percent recoveries for QC samples are correct as reported. Due to significant figures and rounding, the reported RPD may differ from the displayed RPD values but is correct as reported.

*Sample Receipt Checklist*  
*And*  
*Chain of Custody*

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4/27/01 4 15:32 PM



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
(713) 660-0901

Sample Receipt Checklist

Workorder: 01040643  
Date and Time Received: 4/20/01 10:00:00 AM  
Temperature: 4

Received By: DS  
Carrier name: FedEx  
Chilled by: Water Ice

- |  |   |                             |   |
|--|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact on shipping container/cooler?      | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. All samples received within holding time?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. Container/Temp Blank temperature in compliance?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Water - VOA vials have zero headspace?                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |
| 13. Water - pH acceptable upon receipt?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance  
Issues:

Client Instructions:

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MFG, Inc.

4/27/01 4:15 34 PM

01040643

### MFG, Inc.

## CHAIN-OF-CUSTODY RECORD AND REQUEST FOR ANALYSIS

COC No. 42800

Arcata Office  
1165 G Street, Suite E  
Arcata, CA 95521-5817  
Tel: (707) 826-8430  
Fax: (707) 826-8437

Boulder Office  
4900 Pearl East Circle  
Suite 300W  
Boulder, CO 80301-6118  
Tel: (303) 447-1823  
Fax: (303) 447-1836

Irvine Office  
17770 Cartwright Road  
Suite 500  
Irvine, CA 92614-5850  
Tel: (949) 253-2951  
Fax: (949) 253-2954

Osburn Office  
P.O. Box 30  
Wallace, ID  
83873-0030  
Tel: (208) 556-6811  
Fax: (208) 556-7271

San Francisco Office  
71 Stevenson Street  
Suite 1450  
San Francisco, CA 94105-2941  
Tel: (415) 495-7110  
Fax: (415) 495-7107

Seattle Office  
19203 36th Avenue W.  
Suite 101  
Lynnwood, WA 98036-5707  
Tel: (425) 921-4000  
Fax: (425) 921-4040

PROJECT NO: 030062(4) PROJECT NAME: Hertz/Oakland PAGE: 1 OF: 1  
 SAMPLER (Signature): [Signature] PROJECT MANAGER: CBW DATE: 4/19/01  
 METHOD OF SHIPMENT: Fed Ex CARRIER/WAYBILL NO: 826403433921 DESTINATION: SPR-Houston

SAMPLES											ANALYSIS REQUEST										
Field Sample Identification	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/oz)	TYPE*	NO.	TPH-G	BTEX	MTBE, DIPE	TAME, ETBE	TBA	HOLD	RUSH	STANDARD		
T-4W	4/19/01	1400	AQ	X			X	U	40	G	5	X	X	X	X	X				Please run by 8015/8260	
											TOTAL NUMBER OF CONTAINERS				LABORATORY COMMENTS/CONDITION OF SAMPLES				Cooler Temp: <u>4</u>		

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 MFG, Inc.

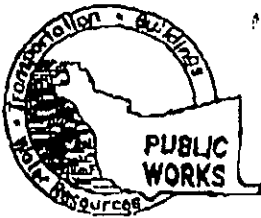
RELINQUISHED BY:					RECEIVED BY:				
SIGNATURE	PRINTED NAME	COMPANY	DATE	TIME	SIGNATURE	PRINTED NAME	COMPANY		
[Signature]	Steve Smith	MFG	4/19/01						
			4/20/01	1430					
								LABORATORY	

\*KEY Matrix AQ aqueous NA non-aqueous SO soil SL sludge P-petroleum A-air OT-other Containers P-plastic G-glass T-terlon B-brass OT-other Filtration F filtered U-unfiltered  
 DISTRIBUTION: PINK Field Copy YELLOW Laboratory Copy WHITE Return to Originator

826403433921 SO 6416 noc

**APPENDIX C**

***Alameda County Public Works Agency Permit for Soil Borings***



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

**WATER RESOURCES SECTION**  
399 ELMHURST ST. HAYWARD CA. 94544-1396  
PHONE (510) 670-5554  
FAX (510) 782-1939

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1 Airport Drive  
Oakland CA  
(Hertz Service Center)

FOR OFFICE USE

PERMIT NUMBER W00-623  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

CLIENT Name The Hertz Corporation  
Address 725 Arco Boulevard Phone 973-465-6942  
City Park Ridge NJ Zip 07656

### PERMIT CONDITIONS

Circled Permit Requirements Apply

APPLICANT Name MFG, INC.  
Address 71 STEVENSON #1450 Fax 415-495-7107  
City SAN FRANCISCO Phone 415-495-7110  
Zip 94105

#### A. GENERAL

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

#### TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	Contamination	<input checked="" type="checkbox"/>
Water Supply	<input type="checkbox"/>	Well Destruction	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>		

#### B. WATER SUPPLY WELLS

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

#### PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

#### C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

#### DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	Direct Push	

#### D. GEOTECHNICAL

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

DRILLER'S NAME PRECISION SAMPLING, INC.

#### E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

DRILLER'S LICENSE NO. 636387

#### F. WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

#### WELL PROJECTS

Drill Hole Diameter _____ in.	Maximum
Casing Diameter _____ in.	Depth _____ ft.
Surface Seal Depth _____ ft.	Owner's Well Number _____

#### G. SPECIAL CONDITIONS

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

#### GEOTECHNICAL PROJECTS

Number of Borings 40 Maximum Depth 10 ft.  
Hole Diameter 3 in.

MAP ATTACHED

ESTIMATED STARTING DATE 5-29-01

ESTIMATED COMPLETION DATE 5-30-01

APPROVED

DATE 9-27-00

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

APPLICANT'S SIGNATURE Ross Steenson DATE 9-27-00

APPLICANT'S PRINT NAME ROSS STEENSON Rev. 6-5-00

**FAKED**  
9-28-00