FLUOR DANIEL GTI

April 12, 1996

Mr. G. Keith West
General Motors Corporation
Argonaut "A" - 1004H
485 W. Milwaukee Avenue
Detroit, Michigan 48202

MW Installation (MW1-8)

Subject: Report of Sampling and Analysis Activities of February 20 to March 1, 1996
for Work Plan Addendum #2
GMC TRUCK CENTER
8099 South Coliseum Way
Oakland, California

Dear Mr. West:

The following is a brief letter report presenting the findings of the field work conducted between February 20 and March 1, 1996 at the above referenced facility. The purpose of the work completed during this phase was to collect data to assist in determining the horizontal and vertical impact of fugitive hydrocarbons at the site. The scope of work was performed in accordance with the *Work Plan for Further Site Assessment, GMC Truck Center, 8099 Coliseum Way, Oakland, California* dated January 26, 1995 and the Work Plan Addendum 2 dated February 2, 1996.

The areas investigated under this phase of work included the areas around the underground storage tanks (USTs) formerly located on the south side of the main building, the oil/water separator located on the northeast side of the main building, and the area to the northwest of the main building. The field work included the advancement of eight borings, the collection of soil samples from those borings, the installation of eight 20-foot deep 4-inch diameter monitoring wells (MW-1 through MW-8), and the collection of eight groundwater samples from the new wells. The original Work Plan Addendum 2 called for the installation of ten monitoring wells with two of the wells placed on the CALTRANS Interstate 880 right of way to the southwest. Due to the length of time required to obtain site access from CALTRANS, these two wells were not installed. The locations of the wells are shown on the attached well location map. The well locations were selected in areas based upon previous assessment data.

6573-T Cochran Road / Cleveland, OH 44139 USA (216) 349-0004 FAX (216) 349-0894

Boring and Sampling Methods

Eight (8) borings were advanced using a truck mounted drill rig with a 10-inch diameter auger. Prior to boring each hole, all tools were steam cleaned to avoid cross contamination. The boring was supervised by a Groundwater Technology staff geologist who logged each boring in accordance with the Unified Soil Classification System.

Soil samples were collected with a continuous soil sampler. The samples were collected at depths of approximately 5-feet, 10-feet, 15-feet,a dn 20-feet below grade. Each soil sample was field screened for hydrocarbon vapors using a photoionization detector (PID). After field screening, select soil samples were immediately transferred to clean brass liners, sealed with aluminum foil, capped with plastic end caps, secured with tape, labeled, logged on the chain of custody form, and placed on ice in preparation of shipment to a GTEL Envorinmental Laboratories, Inc., a California certified laboratory for analysis.

After installation, the wells were purged, gauged and sampled. The groundwater samples were placed in new clean sample containers, labeled, logged on the chain of custody form, and placed on ice in preparation of shipment to GTEL Environmental Laboratories. Following the completion of the soil and groundwater sampling, the wells were surveyed.

Soil Sample Analysis

One soil sample from each boring and one groundwater sample from each well were submitted for laboratory analysis of TPH as gasoline according to EPA Method 5030/8015; BTEX according to EPA Method 8020; and hydrocarbon screening for compounds ranging from diesel fuel through motor oil using a gas chromatograph (GC) and a flame ionization detector (FID). The GC/FID method samples were prepared using EPA Method 3550 and were analyzed according to protocols commonly referred to as modified EPA Method 8015.

Soil Sample Results

The soil sample collected from near the north side of the property (boring MW-1 at a depth of 15 feet below grade) did not contain any constituents of concern. The soil samples from MW-2 (near the west property boundary) at a depth of 10 feet below grade, and MW-4 (near the east property boundary) at a depth of 10 feet below grade, only contained TPH as lube oil in concentrations of 22 and 1,100 milligram per kilogram (mg/Kg), respectively. All other constituents of concern were below the method detection limits in these samples.

The soil sample collected from near the oil/water separator (MW-3 at a depth of 10 feet below grade) contained benzene at a concentration of 310,000 micrograms per kilogram (ug/Kg), total xylenes at a concentration of 260,000 ug/Kg, TPH as gasoline at a concentration of 8,400 mg/Kg, TPH as mineral spirits at a concentration of 1,900 mg/Kg, and TPH as lube oil at a concentration of 1,300 mg/Kg.

The soil samples from near the former gasoline and diesel UST basins (MW-5 at a depth of 16 feet below grade and MW-6 at a depth of 15 feet below grade) contained TPH as gasoline at concentrations of 6.5 mg/Kg and .49 mg/Kg, respectively and 800 mg/Kg and 370 mg/Kg TPH as

lube oil, respectively. The soil sample from MW-5 contained total xylenes at a concentration of 5.5 micrograms per kiligram (ug/Kg). All other constituents of concern for these samples were below the method detection limits.

The soil samples from near the former waste oil UST (MW-7 at a depth of 10 feet below grade and MW-8 at a depth of 10 feet below grade) contained 1.4 ug/Kg and 2.2 ug/Kg benzene, respectively, 0.27 mg/Kg and 0.14 mg/Kg TPH as gasoline, respectively, and 460 mg/Kg and 2,200 mg/Kg TPH as lube oil, respectively.

Groundwater Sample Results

All of the groundwater samples contained TPH as lube oil ranging from 0.68 milligrams per liter (mg/L) in the sample from MW-3 (near the oil/water separator) to 11 mg/L in MW-6 (near the former gasoline and diesel USTs). The smaple from near the former waste oil UST (MW-8) also contained 4.6 micrograms per liter benzene and 0.16 ug/L TPH as gasoline. All other constituents of concern were less than the method reporting limits for BTEX, TPH as gasoline, and TPH as diesel.

Findings

Based on the results of the previous and current investigations, petroleum hydrocarbons are present in the soil predominantly in the area of the oil/water separator and the former USTs and in the groundwater near the former waste oil UST. The results also indicate that TPH as lube oil is present throughout the the groundwater at the site and in most of the soil under the site.

If you have any questions regarding the information contained in this report, please feel free to contact me at (913) 599-0262 or Ken Johnson at (510) 370-3990.

Sincerely,
Groundwater Technology, Inc.

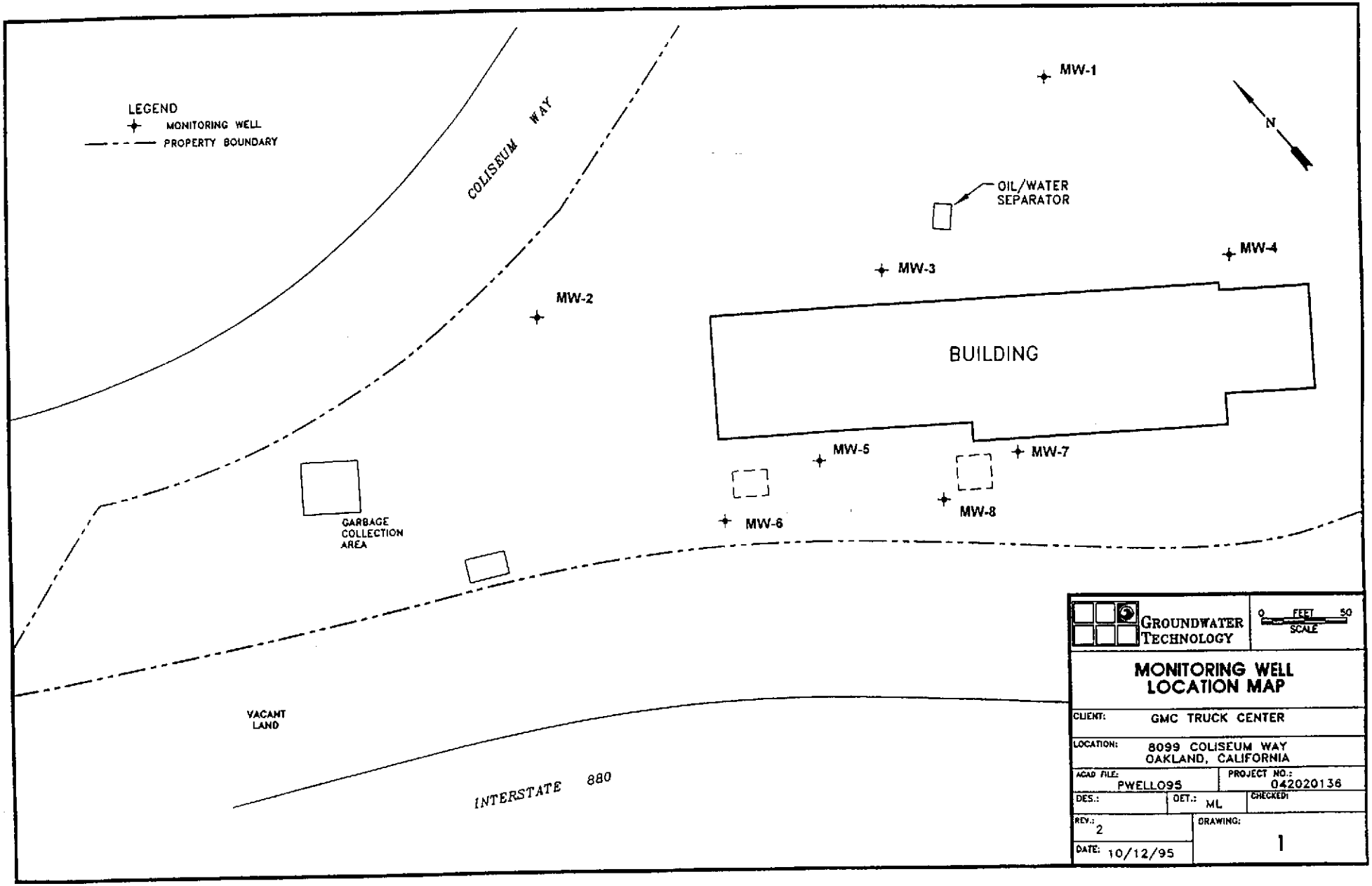
Michael R. Sieczkowski, CHMM
Project Manager

Kenneth P. Johnson, R.G.
Project Hydrogeologist

Attachments: Well Location Map
Table 1 Soil Analytical Results
Table 2 Groundwater Analytical Results
Laboratory Data
Cahin of Custody Forms

c: B. Ferguson
C. Covert

\487add2.rpt


LEGEND
MONITORING WELL
PROPERTY BOUNDARY
COLISEUM WAY
MW-1
N
OIL/WATER SEPARATOR
MW-4
MW-3
MW-2
BUILDING
MW-5
MW-7
MW-8
MW-6
GARBAGE COLLECTION AREA
VACANT LAND
INTERSTATE 880
GROUNDWATER TECHNOLOGY
0 FEET 50
SCALE
MONITORING WELL LOCATION MAP
CLIENT: GMC TRUCK CENTER
LOCATION: 8099 COLISEUM WAY OAKLAND, CALIFORNIA
ACAD FILE: PWELL095
PROJECT NO.: 042020136
DES.:
DET.: ML
CHECKED:
REV.: 2
DRAWING: 1
DATE: 10/12/95

GROUNDWATER TECHNOLOGY, INC.
GMC WHITE TRUCK CENTER

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
MARCH 1, 1996

SAMPLE LOCATION	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)	TPH Gasoline (ug/L)	TPH Diesel (mg/L)	TPH Lube Oil (mg/L)
MW-1	BDL	BDL	BDL	BDL	BDL	BDL	**0.86**
MW-2	BDL	BDL	BDL	BDL	BDL	BDL	**1.6**
MW-3	BDL	BDL	BDL	BDL	BDL	BDL	**0.68**
MW-4	BDL	BDL	BDL	BDL	BDL	BDL	**1.4**
MW-5	BDL	BDL	BDL	BDL	BDL	BDL	**8**
MW-6	BDL	BDL	BDL	BDL	BDL	BDL	**11**
MW-7	BDL	BDL	BDL	BDL	BDL	BDL	**2.9**
MW-8	**4.6**	BDL	BDL	BDL	**0.16**	BDL	**3.6**

GROUNDWATER TECHNOLOGY, INC.
GMC WHITE TRUCK CENTER

TABLE 1
SOIL ANALYTICAL RESULTS
MARCH 20-22, 1996

11-Apr

SAMPLE LOCATION	Sample Depth (feet)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl-benzene (ug/Kg)	Total Xylenes (ug/Kg)	TPH Gasoline (mg/Kg)	TPH Mineral Spirits (mg/Kg)	TPH Diesel (mg/Kg)	TPH Lube Oil (mg/Kg)
MW-1	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
MW-2	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**22**
MW-3	10	**310,000**	BDL	BDL	**260,000**	**8,400**	**1,900**	BDL	**1,300**
MW-4	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**1,100**
MW-5	16	BDL	BDL	BDL	**5.5**	**6.4**	BDL	BDL	**800**
MW-6	15	BDL	BDL	BDL	BDL	**0.49**	BDL	BDL	**370**
MW-7	10	**1.4**	BDL	BDL	BDL	**0.27**	BDL	BDL	**460**
MW-8	10	**2.2**	BDL	BDL	BDL	**0.14**	BDL	BDL	**2,200**

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

March 13, 1996

Mike Sieczkowski
Groundwater Technology, Inc.
15010 West 106th Street
Lenexa, KS 66215

RE: GTEL Client ID: 040020487
Login Number: W6030037
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Dear Mike Sieczkowski:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 03/02/96 under Chain-of-Custody Number(s) 40352.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 040020487
Login Number: W6030037
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W6030037-01	W6030037-02	W6030037-03	W6030037-04
Client ID	MW1	MW2	MW3	MW4
Date Sampled	03/01/96	03/01/96	03/01/96	03/01/96
Date Analyzed	03/07/96	03/07/96	03/07/96	03/07/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
TPH as Gas	100	ug/L	< 100	< 100	< 100	< 100

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 040020487
Login Number: W6030037
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Method: EPA 8020
Matrix: Aqueous

GTEL Sample Number	W6030037-05	W6030037-06	W6030037-07	W6030037-08
Client ID	MW5	MW6	MW7	MW8
Date Sampled	03/01/96	03/01/96	03/01/96	03/01/96
Date Analyzed	03/07/96	03/07/96	03/07/96	03/07/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	< 0.5	< 0.5	4.6
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
TPH as Gas	100	ug/L	< 100	< 100	< 100	160

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846, Third Edition including Update 1.

Project ID (Number): 040020487
Project ID (Name): GMC/8089
8099 S. Coliseum Way
Oakland, CA
Work Order Number: W6-03-0037
Date Reported: 03-13-96

ANALYTICAL RESULTS

Hydrocarbon Screen in Water
GC/FID[a]

GTEL Sample Number		01	02	03[d]	04
Client Identification		MW-1	MW-2	MW-3	MW-4
Date Sampled		03-01-96	03-01-96	03-01-96	03-01-96
Date Extracted		03-06-96	03-06-96	03-06-96	03-06-96
Date Analyzed		03-09-96	03-09-96	03-09-96	03-09-96
Analyte	Reporting Limit ug/L	Concentration, ug/L			
TPH as Diesel Fuel	50	<100	<400[c]	<100	<100
TPH as Lubricating Oil[b]	200	**860**	**1600**	**680**	**1400**
Dilution Multiplier		1	1	1	1

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction per EPA 3510.This method is equivalent to the California LUFT manual DHS method for diesel fuel.

b Lubricating oil can not be qualitatively identified by type of oil because of chromatogrpahic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of lubricating oil, an infrared method is recommended.

c The reporting limit was elevated due to the presence of other petroleum hydrocarbons.

d Material lighter than diesel fuel is present in the sample.

Project ID (Number): 040020487
Project ID (Name): GMC/8089
8099 S. Coliseum Way
Oakland, CA
Work Order Number: W6-03-0037
Date Reported: 03-13-96

ANALYTICAL RESULTS

Hydrocarbon Screen in Water
GC/FID[a]

GTEL Sample Number		05	06	07	08
Client Identification		MW-5	MW-6	MW-7	MW-8
Date Sampled		03-01-96	03-01-96	03-01-96	03-01-96
Date Extracted		03-06-96	03-06-96	03-06-96	03-06-96
Date Analyzed		03-09-96	03-09-96	03-09-96	03-09-96
Analyte	Reporting Limit ug/L	Concentration, ug/L			
TPH as Diesel Fuel	50	<2500[c]	<3500[c]	<800[c]	<850[c]
TPH as Lubricating Oil[b]	200	**8000**	**11000**	**2900**	**3600**
Dilution Multiplier		1	1	1	1

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction per EPA 3510.This method is equivalent to the California LUFT manual DHS method for diesel fuel.

b Lubricating oil can not be qualitatively identified by type of oil because of chromatogrpahic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of lubricating oil, an infrared method is recommended.

c The reporting limit was elevated due to the presence of other petroleum hydrocarbons.

d Material lighter than diesel fuel is present in the sample.

GTEL ENVIRONMENTAL LABORATORIES, INC

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

40352

Company Name: GROUNDWATER TECHNOLOGY
Phone #: (510) 350-2770
FAX #: (510) 370-3991
Company Address: 757 ARNOLD DR. SUITE D MARTINEZ CA
Site Location: 8099 COLISEUM WAY OAKLAND
Project Manager: BOB FEIR
Client Project ID: (#) 040020487 2040 (NAME) GMC/OAKLAND
Sampler Name (Print): HECTOR MERINO

I attest that the proper field sampling procedures were used during the collection of these samples.

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☒ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	OTHER: HYDROCARBON SCREEN (GASOLINE RANGE)	OTHER: OIL
MW-1	1	3	X						X			X			3/1	12:30		X																		X	
MW-2	2	3	X						X			X				12:40		X																		X	
MW-3	3	3	X						X			X				12:50		X																		X	
MW-4	4	3	X						X			X				13:00		X																		X	
MW-5	5	3	X						X			X				13:10		X																		X	
MW-6	6	3	X						X			X				13:20		X																		X	
MW-7	7	3	X						X			X				13:30		X																		X	
MW-8	8	3	X						X			X				13:40		X																		X	

TAT
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

Special Handling
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

QA/QC Level
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS

REMARKS:

SPECIAL REPORTING REQUIREMENTS

FAX ☐

Lab Use Only Lot #: 1°C
Storage Location
Work Order #: Seals Intact

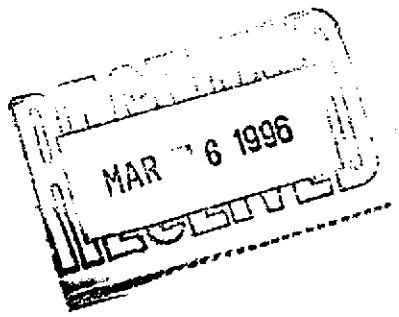
CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	3/1/96	13:30	Received by:
Relinquished by:	3/1/96	16:30	Received by:
Relinquished by:	3/2/96	9:00	Received by Laboratory:

Waybill # 3026517430

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)



March 1, 1996

Mike Sieczkowski
Groundwater Technology, Inc.
15010 West 106th Street
Lenexa, KS 66215

RE: GTEL Client ID: 040020487
Login Number: W6020444
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Dear Mike Sieczkowski:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 02/23/96 under Chain-of-Custody Number(s) 36511.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

GTEL is certified by the Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 040020487
Login Number: W6020444
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Method: EPA 8020
Matrix: Low Soil

GTEL Sample Number	W6020444-01	W6020444-02	W6020444-03	W6020444-04
Client ID	MW-7(10')	MW-8(10')	MW-6(15')	MW-5(16')
Date Sampled	02/20/96	02/20/96	02/21/96	02/21/96
Date Analyzed	02/27/96	02/27/96	02/27/96	02/28/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	1.0	ug/kg	1.4	2.2	< 1.0	< 1.0
Toluene	2.0	ug/kg	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	2.0	ug/kg	< 2.0	< 2.0	< 2.0	< 2.0
Xylenes (total)	4.0	ug/kg	< 4.0	< 4.0	< 4.0	5.5
TPH as Gasoline	100	ug/kg	270	140	490	6400
Percent Solids	--	%	90.8	88.6	79.0	76.1

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including Update 1.

W6020444-01:

Hydrocarbons in the gasoline range do not match the gasoline standard pattern.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 040020487
Login Number: W6020444
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Method: EPA 8020
Matrix: Low Soil

	GTEL Sample Number	W6020444-05	W6020444-07	W6020444-08	--
	Client ID	MW-2(10')	MW-1(15')	MW-4(10')	--
	Date Sampled	02/21/96	02/22/96	02/22/96	--
	Date Analyzed	02/28/96	02/28/96	02/28/96	--
	Dilution Factor	1.00	1.00	1.00	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	1.0	ug/kg	< 1.0	< 1.0	< 1.0	--
Toluene	2.0	ug/kg	< 2.0	< 2.0	< 2.0	--
Ethylbenzene	2.0	ug/kg	< 2.0	< 2.0	< 2.0	--
Xylenes (total)	4.0	ug/kg	< 4.0	< 4.0	< 4.0	--
TPH as Gasoline	100	ug/kg	< 100	< 100	< 100	--
Percent Solids	--	%	83.9	79.9	79.9	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 040020487
Login Number: W6020444
Project ID (number): 040020487
Project ID (name): GMC/8099 COLISEUM WAY/OAKLAND/CA

Method: EPA 8020
Matrix: Solids

GTEL Sample Number	W6020444-06	--	--	--
Client ID	MW-3(10')	--	--	--
Date Sampled	02/22/96	--	--	--
Date Analyzed	02/29/96	--	--	--
Dilution Factor	5.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	0.05	mg/kg	310	--	--	--
Toluene	0.10	mg/kg	< 0.50	--	--	--
Ethylbenzene	0.10	mg/kg	< 0.50	--	--	--
Xylenes (total)	0.20	mg/kg	260	--	--	--
TPH as Gasoline	10.	mg/kg	8400	--	--	--
Percent Solids	--	%	81.9	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including Update 1.

W6020444-06:

Methanol extraction necessary due to high levels of target or non-target analytes.

Project Number: 040020487
GMC
8099 Coliseum Way
Oakland, CA
Work Order Number: W6-02-0444
Date Reported: 03-01-96

ANALYTICAL RESULTS

Hydrocarbon Screen in Soil
GC/FID[a]

GTEL Sample Number		01	02	03	04
Client Identification		MW-7 (10')	MW-8 (10')	MW-6 (15')	MW-5 (16')
Date Sampled		02-20-96	02-20-96	02-21-96	02-21-96
Date Extracted		02-27-96	02-27-96	02-27-96	02-27-96
Date Analyzed		03-01-96	03-01-96	03-01-96	03-01-96
Analyte	Reporting Limit mg/Kg	Concentration, mg/Kg			
TPH as Mineral Spirits	10	<50	<100	<50	<100
TPH as Diesel Fuel	10	<50	<100	<50	<100
TPH as Lubricating Oil[b]	10	**460**	**2200**	**370**	**800**
Dilution Multiplier		5	10	5	10
Percent Solids, %		90.8	88.6	79.0	76.1

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by sonication per modified EPA 3550. Results are calculated on a wet weight basis. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

b Lubricating oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of lubricating oil, an infrared method is recommended.

Project Number: 040020487
GMC
8099 Coliseum Way
Oakland, CA
Work Order Number: W6-02-0444
Date Reported: 03-01-96

ANALYTICAL RESULTS

Hydrocarbon Screen in Soil
GC/FID[a]

GTEL Sample Number		05	06	07	08
Client Identification		MW-2 (10')	MW-3 (10')	MW-1 (15')	MW-4 (10')
Date Sampled		02-21-96	02-22-96	02-22-96	02-22-96
Date Extracted		02-27-96	02-27-96	02-27-96	02-27-96
Date Analyzed		03-01-96	03-01-96	03-01-96	03-01-96
Analyte	Reporting Limit mg/Kg	Concentration, mg/Kg			
TPH as Mineral Spirits	10	<10	**1900**	<10	<100
TPH as Diesel Fuel	10	<10	<300	<10	<100
TPH as Lubricating Oil[b]	10	**22**	**1300**	<10	**1100**
Dilution Multiplier		1	30	1	10
Percent Solids, %		83.9	81.9	79.9	79.9

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by sonication per modified EPA 3550. Results are calculated on a wet weight basis. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

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GTEL ENVIRONMENTAL LABORATORIES, INC

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

36511

Company Name: CTI

Phone #: (913)599-0262

FAX #:

Company Address: 757 Arnold Dr., Suite D Martinez CA

Site Location: 8099 Coliseum Way Oakland CA

Project Manager: Mike Sieczkowski

Client Project ID: (#) 6400204871

(NAME) CMC - Oakland

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Bob Kehr

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	TPH/Gas 5030/8020/8015			
MW-7(10')		1		X								X			2/21/96	1500	X	X																	X				
MW-8(10')		1		X								X			2/21/96	1120	X	X																	X				
MW-6(15')		1		X								X			2/21/96	0855	X	X																	X				
MW-5 (16)		1		X								X			2/21/96	1200	X	X																	X				
MW-2(10)		1		X								X			2/21/96	1425	X	X																	X				
MW-3(10)		1		X								X			2/22/96	0735	X	X																	X				
MW-1(15')		1		X								X			2/22/96	1115	X	X																	X				
MW-4 (10')		1		X								X			2/22/96	1415	X	X																	X				

OTHER: TPH/Gas 5030/8020/8015

TAT
Priority (24 hr) ☐
Expedited (48 hr) ☐
7 Business Days ☐
Other _____
Business Days ☐

Special Handling
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
P.O. # _____

QA/QC Level
Blue ☐ CLP ☐ Other ☐ _____

SPECIAL DETECTION LIMITS:

SPECIAL REPORTING REQUIREMENTS
Report to B. Kehr (Martinez)
FAX ☐

REMARKS: Invoice to Mr. Sieczkowski - (510) 638-8400
Lab Reports to Bob Kehr - Martinez
Hydrocarbon Screen (Diesel thru Motor oil)

Lab Use Only Lot #: QW-94-0155
Storage Location: Cool & Intact
Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler: Bob Kehr	2.22.96	1603	Received by: Dan Weber
Relinquished by: Dan Weber	2-22-96	16.50	Received by:
Relinquished by:	2-23-96	0930	Received by Laboratory: Waybill #

Drilling Log

GROUNDWATER TECHNOLOGY

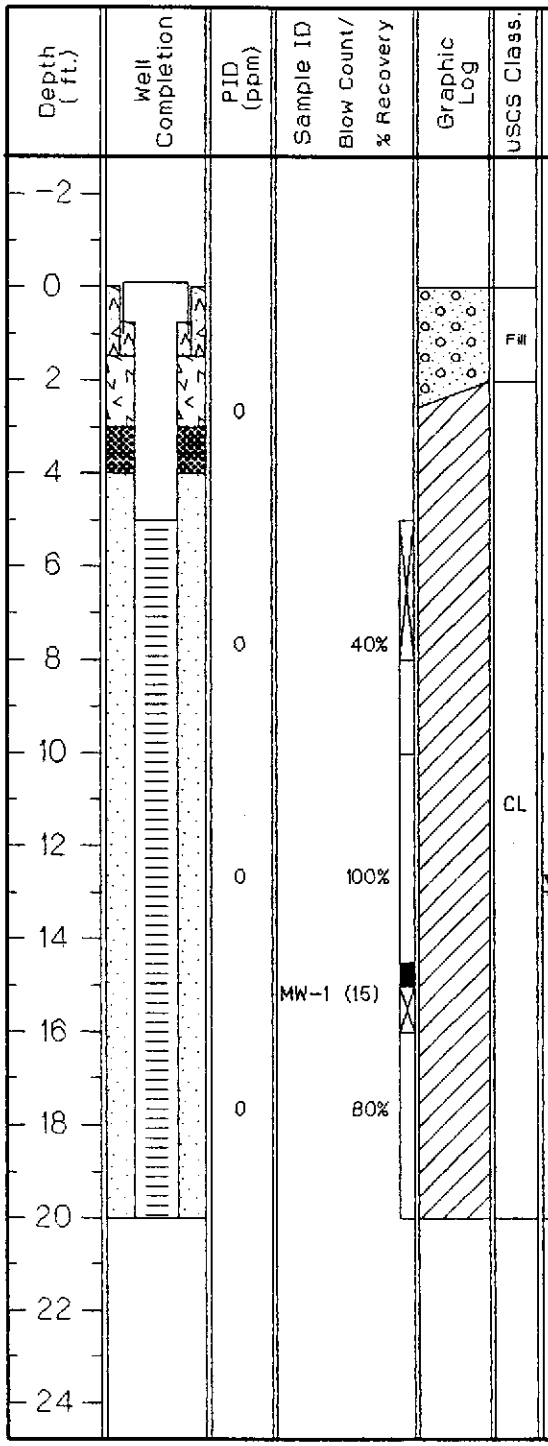
Monitoring Well **MW-1**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *10.15 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *9.79 ft.* Water Level Initial _____ Static *12.98 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *5 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5' continous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric Christain* Log By *Bob Fehr* Date *02/22/96* Permit # _____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-1 (15') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

FILL, Gravel

CLAY with some silt, grayish brown, meidum stiff, moist

Grades to Gravelly CLAY, medium to large clasts, greenish gray, medium stiff, moist, odor

Grades to no gravel, trace medium sand, some silt, dark gray, plastic

Grades to stiff

Grades to increasing grain size (up to fine gravel), wet

End of boring at 1125. Installed monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

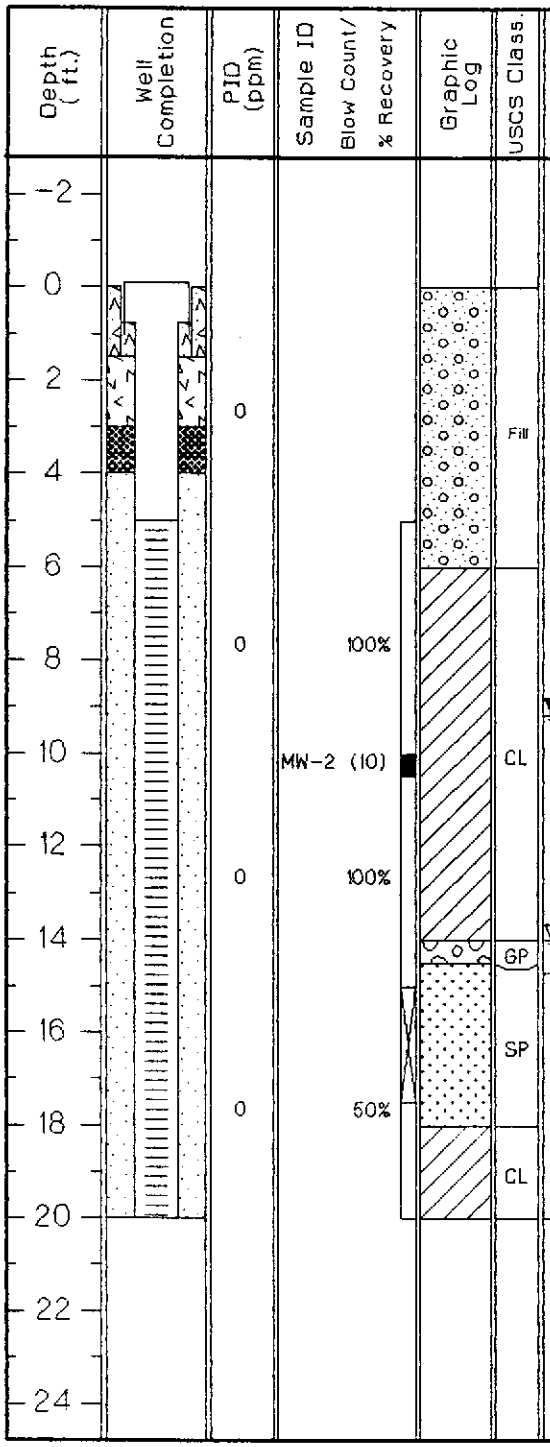
Monitoring Well **MW-2**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *10.10 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *9.72 ft.* Water Level Initial *14 ft.* Static *9.18 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *5 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5" continuous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric* Log By *Bob Fehr* Date *02/21/96* Permit # _____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-2 (10') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

FILL, Clay with some gravel and sand

CLAY with sand and gravel and some organic matter, blue green, medium stiff, plastic, moist to wet

Grades to increasing organic content, some interbedded peat

GRAVEL, fine grained, well sorted, saturated

SAND, medium grain, well sorted, saturated

Grades to a poorly sorted coarse sand to fine/medium gravel, green gray, saturated

Silty CLAY with trace fine sand, medium brown, medium stiff, plastic, moist

End of boring at 1450. Installed monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-3

Project Oakland Truck Center Owner General Motors Corporation
Location 8099 S. Coliseum Way, Oakland, CA Proj. No. 040020487
Surface Elev. 10.89 ft. Total Hole Depth 25 ft. Diameter 10.5 in.
Top of Casing 10.41 ft. Water Level Initial ____ Static 7.59 ft.
Screen: Dia 4 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 4 in. Length 5 ft. Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61/5' continuous
Drill Co. Gregg Drilling Method Hollow Stem Auger
Driller Eric Christain Log By Bob Fehr Date 02/22/96 Permit # ____
Checked By Ken Johnson License No. RG #6254

See Site Map For Boring Location

COMMENTS:

Submitted MW-3 (10') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							
2		127				Fill	FILL, Sandy Clay, medium and coarse sand, medium brown, plastic, moist
4							
6							CLAY with some fine sand, greenish gray, stiff, plastic, moist
8		2,000		100%			
10			MW-3 (10)				Grades to Gravelly CLAY with sand, organic material, and wood, greenish black, stiff, moist, strong odor
12		236		40%			Grades to trace sand and gravel, increasing organic matter, soft, plastic
14							
16						CL	
18				5%			
20							Grades to CLAY, black, becomes medium stiff, very plastic, greenish gray, and wet at 24 feet
22		0		50%			
24							
26							End of boring at 0815. Installed monitoring well.
28							
30							

Drilling Log

GROUNDWATER TECHNOLOGY

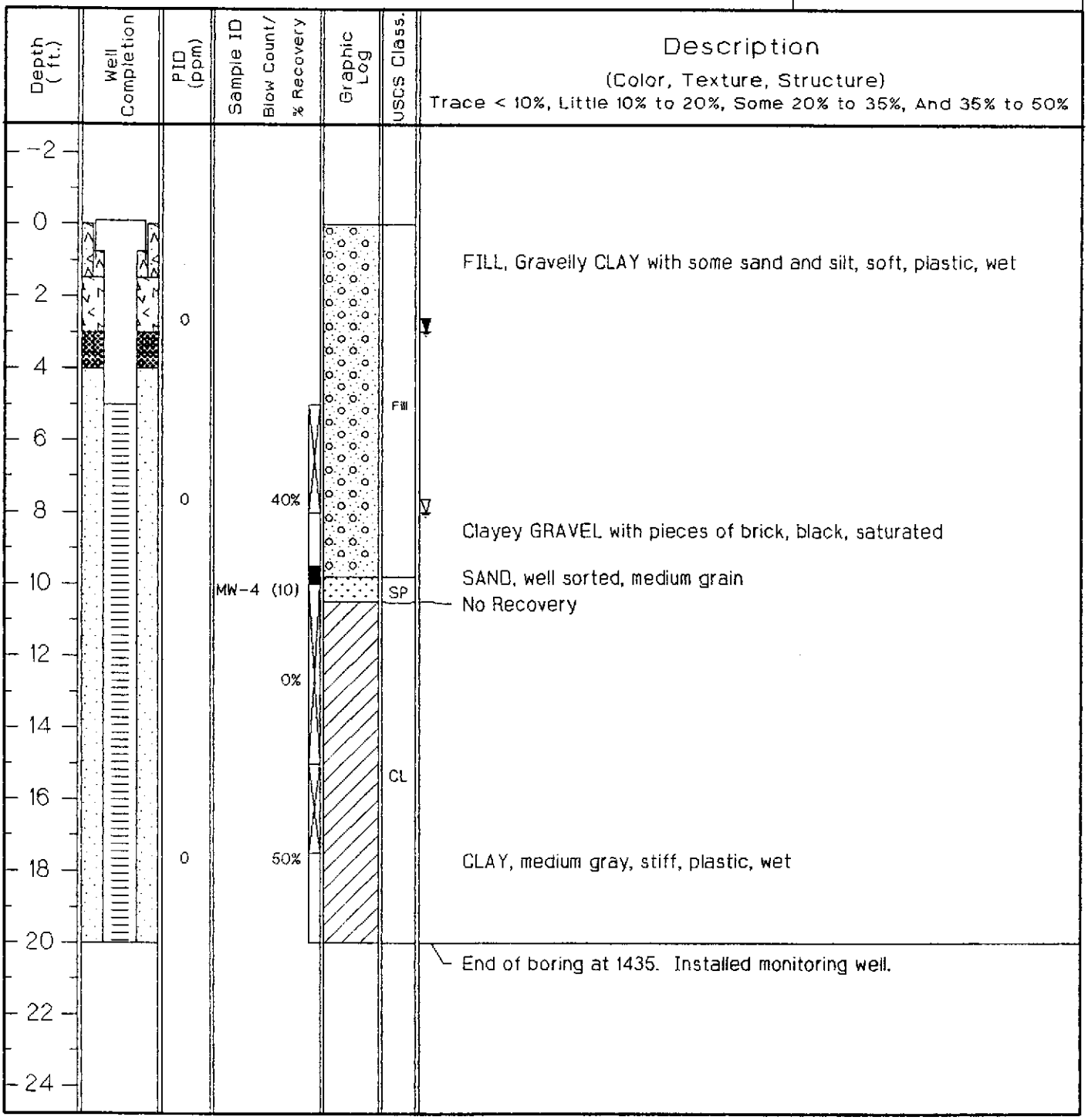
Monitoring Well **MW-4**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *10.07 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *9.82 ft.* Water Level Initial *8.0 ft.* Static *2.96 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *5 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5" continuous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric Christain* Log By *Bob Fehr* Date *02/22/96* Permit # _____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-4 (10') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Drilling Log

GROUNDWATER TECHNOLOGY

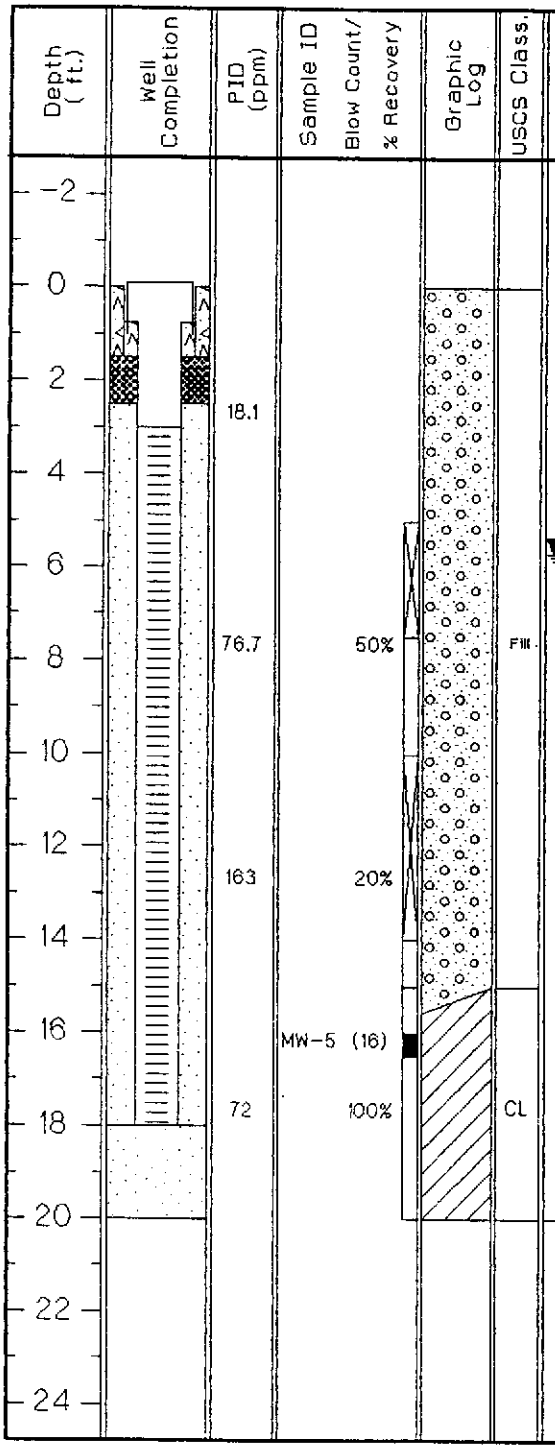
Monitoring Well **MW-5**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *10.94 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *10.74 ft.* Water Level Initial ____ Static *5.71 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *3 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5" continuous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric Christain* Log By *Bob Fehr* Date *02/21/96* Permit # ____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-5 (16') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

FILL, CLAY with some sand and trace gravel, greenish brown, moist

Grades to increasing gravel, greenish black

FILL (clasts over 3-inches), black ooze, odor

CLAY, greenish gray, medium stiff, plastic, moist

Sandy CLAY with trace well sorted fine sand, green/gray, stiff, moist

End of boring at 1200. Installed monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

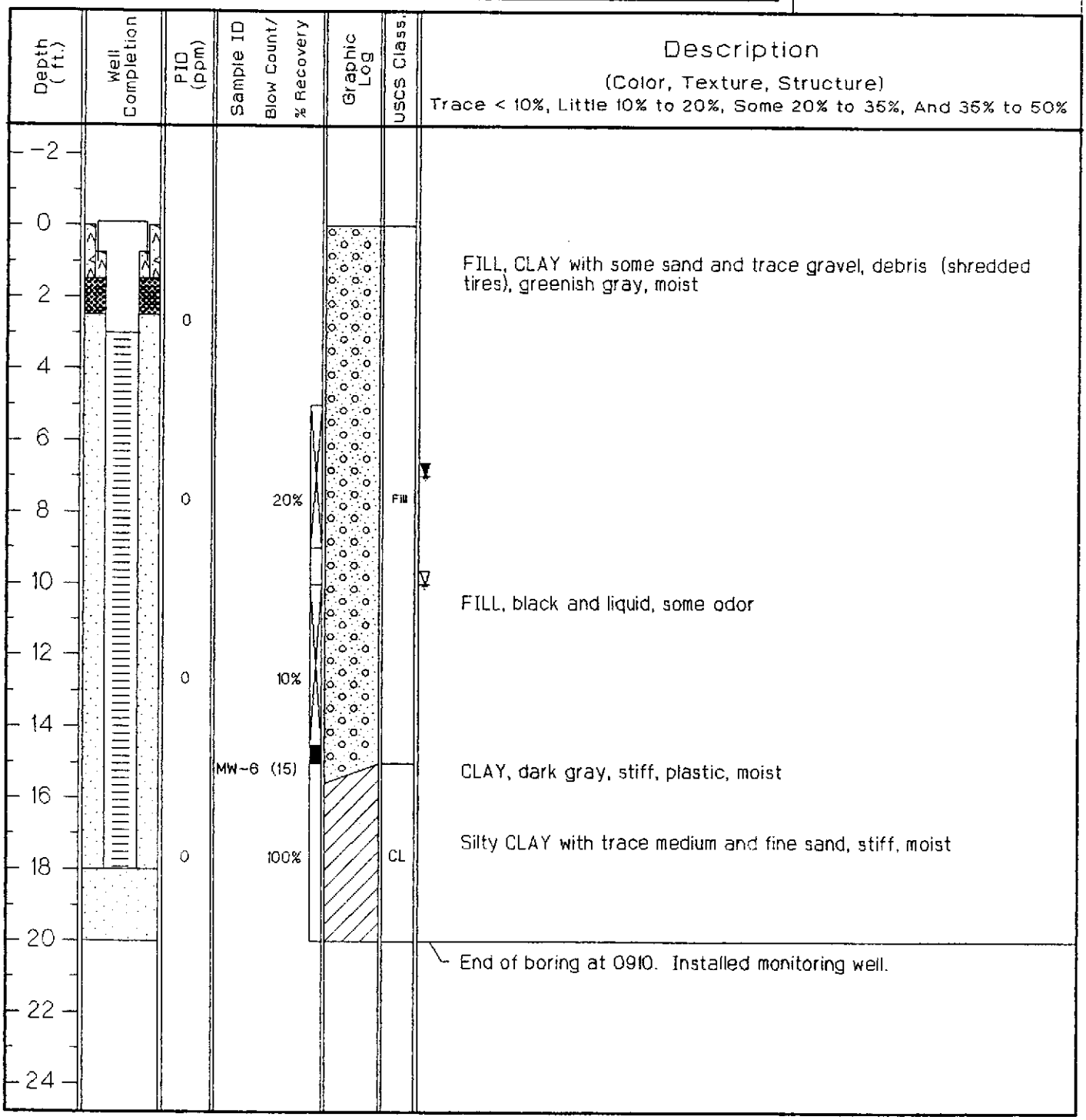
Monitoring Well **MW-6**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *9.98 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *9.67 ft.* Water Level Initial *10.0 ft.* Static *6.96 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *3 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5' continuous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric Christain* Log By *Bob Fehr* Date *02/21/96* Permit # _____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-6 (15') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Drilling Log

GROUNDWATER TECHNOLOGY

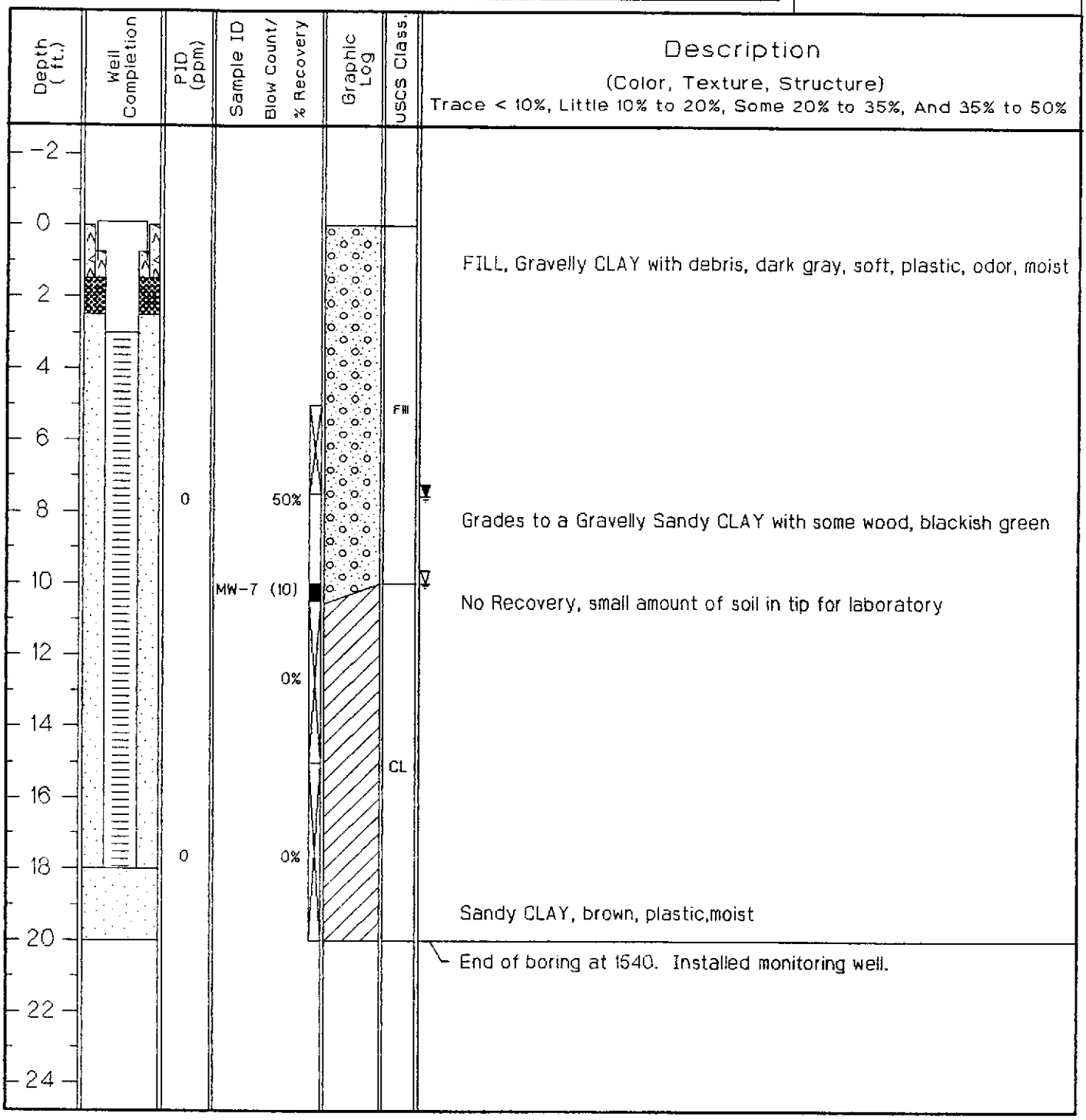
Monitoring Well **MW-7**

Project *Oakland Truck Center* Owner *General Motors Corporation*
Location *8099 S. Coliseum Way, Oakland, CA* Proj. No. *040020487*
Surface Elev. *10.91 ft.* Total Hole Depth *20 ft.* Diameter *10.5 in.*
Top of Casing *10.55 ft.* Water Level Initial *10.0 ft.* Static *7.58 ft.*
Screen: Dia *4 in.* Length *15 ft.* Type/Size *0.020 in.*
Casing: Dia *4 in.* Length *3 ft.* Type *PVC Riser*
Fill Material *Lonestar 2/12* Rig/Core *Mobile B-61/5' continuous*
Drill Co. *Gregg Drilling* Method *Hollow Stem Auger*
Driller *Eric Christain* Log By *Bob Fehr* Date *02/20/96* Permit # _____
Checked By *Ken Johnson* License No. *RG #6254*

See Site Map For Boring Location

COMMENTS:

Submitted MW-7 (10') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.



Description

(Color, Texture, Structure)
Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%

FILL, Gravelly CLAY with debris, dark gray, soft, plastic, odor, moist

Grades to a Gravelly Sandy CLAY with some wood, blackish green

No Recovery, small amount of soil in tip for laboratory

Sandy CLAY, brown, plastic,moist

End of boring at 1540. Installed monitoring well.

Drilling Log

GROUNDWATER TECHNOLOGY

Monitoring Well MW-8

Project Oakland Truck Center Owner General Motors Corporation
Location 8099 S. Coliseum Way, Oakland, CA Proj. No. 040020487
Surface Elev. 10.49 ft. Total Hole Depth 20 ft. Diameter 10.5 in.
Top of Casing 10.03 ft. Water Level Initial 8.5 ft. Static 3.92 ft.
Screen: Dia 4 in. Length 15 ft. Type/Size 0.020 in.
Casing: Dia 4 in. Length 5 ft. Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61/5' continuous
Drill Co. Gregg Drilling Method Hollow Stem Auger
Driller Eric Christain Log By Bob Fehr Date 02/20/96 Permit #
Checked By Ken Johnson License No. RG #6254

See Site Map For Boring Location

COMMENTS:

Submitted MW-8 (10') sample to laboratory for analysis. Soil cuttings stored on-site in a 55-gallon steel drum pending proper disposal.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0							FILL, Gravelly CLAY, dark gray, soft, plastic, odor, moist
2							
4							
6						Fill	
8		272		40%			Grades to a Gravelly SAND, some debris, strong odor, medium stiff, plastic, moist to wet
10			MW-8 (10)				Grades to CLAY, soft, plastic
12		54		100%			CLAY with trace sand, dark gray, stiff, moist
14						CL	
16							CLAY with trace medium to coarse grain sand, stiff, plastic, moist
18		36		100%			
20							End of boring at 1150. Installed monitoring well.
22							
24							