



# HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

July 8, 1997

- SA & dispenser is inside building -
- check wiring log for S-1 if there was odor, etc.

Ms. Eva Chu  
 Alameda County Health Care Services Agency  
 Department of Environmental Health  
 1131 Harbor Bay Parkway  
 Alameda, California 94502-6577

Subject: Transmittal of Quarterly Groundwater Monitoring Report, Second Quarter 1997, Winner Ford, 1650 Park Street, Alameda, California.

Ms. Chu:

At the request of Ms. Michelle Nokes of Winner Ford, Horizon Environmental Inc. (Horizon) is transmitting to you this Quarterly Groundwater Monitoring Report, Second Quarter 1997 for the above-referenced site.

Please call us at 916-939-2170 should you have any questions regarding this site.

Sincerely,  
**Horizon Environmental Inc.**

Gary D. Barker  
 Senior Project Manager

enclosure: Quarterly Groundwater Monitoring Report, Second Quarter 1997

cc: Ms. Michelle Nokes, Winner Ford

*[Faint, illegible handwritten notes or stamps]*



# HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

July 8, 1997

Ms. Michelle Nokes, Vice President  
Winner Ford  
1650 Park Street  
Alameda, California 94501

Subject: **Quarterly Groundwater Monitoring Report**  
Second Quarter 1997  
Winner Ford  
1650 Park Street, Alameda, California

Ms. Nokes:

Horizon Environmental (Horizon) has prepared this Quarterly Groundwater Monitoring Report which presents the results of the second quarter 1997 groundwater monitoring for the above-referenced site (Figure 1). This report is intended to comply with the reporting requirements and guidelines set forth by the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA-DEH) and the California Regional Water Quality Control Board-San Francisco Bay Region (CRWQCB-SFBR).

## Site Description and Background

Winner Ford is an automobile dealership and showroom located on the southeast corner of the intersection of Park Street and Buena Vista Avenue in Alameda, California, as depicted on the Site Vicinity Map (Figure 1). The site is approximately 0.4 miles south of the Oakland Inner Harbor and approximately 1 mile north of San Leandro Bay, within a primarily commercial area of Alameda. Site facilities include a building with enclosed offices, an automobile showroom, and an automobile storage warehouse. The remaining portion of the property is used to store automobiles. The site is primarily asphalt-paved with some areas of concrete. A former gasoline underground storage tank (UST) was located beneath the sidewalk between the main building and Buena Vista Avenue, and a former waste-oil UST was located beneath the sidewalk between the main building and Park Street.

The locations of these facilities and other pertinent site features are shown on the Site Plan (Figure 2). The waste-oil UST had not been used since the commencement of Winner Ford's lease in 1986. The gasoline UST was last used by Winner Ford in 1993 and was precision-tested in January 1994, at which time it was certified "tight"

In August 1995, Blymyer Engineers, Inc. (Blymyer) was present on-site to observe the removal of the 500-gallon capacity, single-walled, steel, unleaded gasoline UST, and the 100-gallon capacity, single-walled, steel, waste-oil UST, and perform soil sampling related to removal of the USTs, gasoline dispenser, and associated product lines. Piping connecting a former sump drain to the waste-oil tank was removed during the waste-oil tank removal. The approximate locations of the former USTs are depicted on Figure 2

Blymyer reported (*Underground Storage Tank Closure* report, November 22, 1995) the soil type observed in both UST basins to be clayey sand. Blymyer also reported that initial groundwater was encountered in the gasoline-UST basin at a depth of approximately 9 feet below surface grade (bsg). The soil samples collected and analyzed from the gasoline UST, gasoline dispenser, and product line removal indicated that soil containing gasoline hydrocarbons at a concentration of 7100 parts per million (ppm) remained after excavation of the gasoline UST basin to a depth of approximately 8 feet below surface grade (bsg), and Total Petroleum Hydrocarbons as gasoline (TPHg) concentrations of 46,000 ppm remained beneath the dispenser island at a depth of approximately 3 inches bsg. The soil samples collected and analyzed from beneath the former waste-oil UST revealed that the soil containing Total Recoverable Petroleum Hydrocarbons (TRPH) at a concentration of 3100 ppm remained after the excavation of the waste-oil UST basin to a depth of approximately 6.5 feet bsg. No Total Petroleum Hydrocarbons as diesel (TPHd), volatile organic compounds (VOCs), or California Assessment Manual (CAM)-17 metals exceeding 10 times their respective STLC or TCLP values were detected above the laboratory detection limits in any of the soil samples analyzed. The semivolatile organic compounds (SVOCs) benzo (a) anthracene, chrysene, and pyrene, were detected in the soil sample collected at a depth of approximately 6.5 feet bsg from the waste-oil basin and contained reported concentrations of 330 parts per billion (ppb), 400 ppb, and 520 ppb, respectively. No other SVOCs were detected at the laboratory detection limits. The groundwater flow direction beneath the site was estimated to be northerly based on surficial topographic contours and concurring data obtained from ACHCSA-DEH for an adjacent site, Good Chevrolet, dated October 25, 1995.

On July 11, 1996, a Horizon geologist observed the drilling of two exploratory soil borings completed as monitoring wells MW-1 and MW-2 (Figure 2). Soil boring SB-1 was hand-augered to the soil-water interface at 7 feet bsg where a soil sample was collected from the auger (Table 2). Groundwater was encountered in the boring for MW-1 at 6.25 feet bsg. In the boring for MW-2, groundwater was encountered at 14.2 feet bsg. After the wells were developed, groundwater samples were collected on July 16 and July 29, 1996 (Table 1). Results of laboratory analyses of the groundwater samples revealed detectable levels of total petroleum hydrocarbons as gasoline (THPg), the volatile aromatics benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) in groundwater from well MW-1, and very low levels of benzene and xylenes in groundwater from well MW-2 (Horizon, *Monitoring Well Completion and Preliminary Subsurface Assessment Report at Winner Ford, 1650 Park Street, Alameda, California*, November 11, 1996).

## Current Groundwater Monitoring

On April 30, 1997, Horizon personnel were onsite to perform groundwater monitoring. Prior to sampling, monitoring wells MW-1 and MW-2 were measured for their respective total depths and depths-to-water. Utilizing an electronic interface probe, Horizon personnel intercepted the groundwater surface at an average depth of 6.75 feet below the well casing-tops (Table 1 & Attachment A). The water table had been encountered between 6.25 and 7 feet bsg during the monitoring well installations in July 1996.

After collecting groundwater samples following Horizon's Field Methods and Procedures (Attachment B) from MW-1 and MW-2, each container was properly labeled in the field, placed in an ice chest, and transported to Exelchem Environmental Labs in Roseville, California (Certificate No. 1760). Analyses conducted were for TPHg and BTEX by U. S. Environmental Protection Agency (EPA) Methods 8015/602, for MTBE by EPA Method 602 and 8260 (8260 on MW-1, only), and for Total Oil & Grease (TOG) by EPA Method 5520-B.

The analytical results are summarized in Table 1, which also includes the historical groundwater data since the July 1996 well installation. The laboratory analytical reports and the chain-of-custody (COC) are included as Attachment C.

The groundwater gradient could not be calculated as there are only two wells. ACHCSA-DEH had previously authorized the installation of two wells, indicating that neighboring wells could be used to evaluate groundwater flow. The adjacent Good Chevrolet site reported to ACHCSA-DEH a gradient direction of north-northwesterly on their Gradient Plan Map dated October 25, 1995 by GeoPlexus Inc.

## Summary

On April 29, 1997, monitoring wells MW-1 and MW-2 were sounded and sampled for the second quarter of 1997.

- **Water Levels:** The average depth to the water table was 6.75 feet bsg. This is approximately the same as when the wells were installed in July 1996.
- **TPHg:** The samples collected from MW-1 & MW-2 contained TPHg concentrations of 145 parts per billion (ppb) and <50 ppb, respectively. This quantification indicates decreased TPHg concentrations since July 1996.
- **BTEX:** Benzene: MW-1 and MW-2 contained benzene concentrations of 53.5 and 0.6 ppb, respectively. Toluene: MW-1 and MW-2 contained 6.1 and <0.5 ppb, respectively. Ethylbenzene: MW-1 and MW-2 contained 4.2 and <0.5 ppb, respectively. Xylenes: MW-1 and MW-2 contained 9.2 and 0.5 ppb, respectively. All BTEX concentrations

indicate a decrease in concentrations since July 1996. A Benzene Isoconcentration Map is included as Figure 3.

- **MTBE:** MW-1 contained 312 ppb by Method 602 and 260 ppb by Method 8260. MW-2 contained <5.0 ppb. This is a slight increase in MW-1 since July 1996.
- **TOG:** MW-2 continues to be below the laboratory detection level of 10 ppm.

The overall hydrocarbon impact to the groundwater has decreased since July 1996 when monitoring wells MW-1 and MW-2 were installed and initially sampled.

### **Report Distribution**

We recommend a copy of this report be forwarded to:

Ms. Eva Chu  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

Mr. Kevin Graves  
California Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Suite 500  
Oakland, California 94612

### **Limitations**

This report was prepared in accordance with the methods and procedures described in the attached field methods, and generally accepted standards for the practice of the environmental and geological sciences in California at the time of the investigation. The investigation was conducted solely for the purpose of evaluating environmental conditions of the soil and groundwater with respect to gasoline- and waste oil-related hydrocarbons at the site.

No soil engineering or geotechnical references are implied, nor should any be inferred. Evaluation of the geological conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the available data points. This report is the property of Horizon Environmental Inc and Winner Ford for their use and distribution.

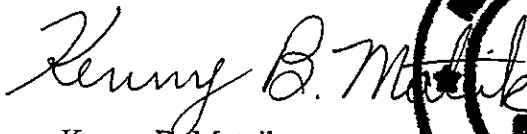
If you have any questions, please contact us at (916) 939-2170.

Sincerely,

**Horizon Environmental Inc.**



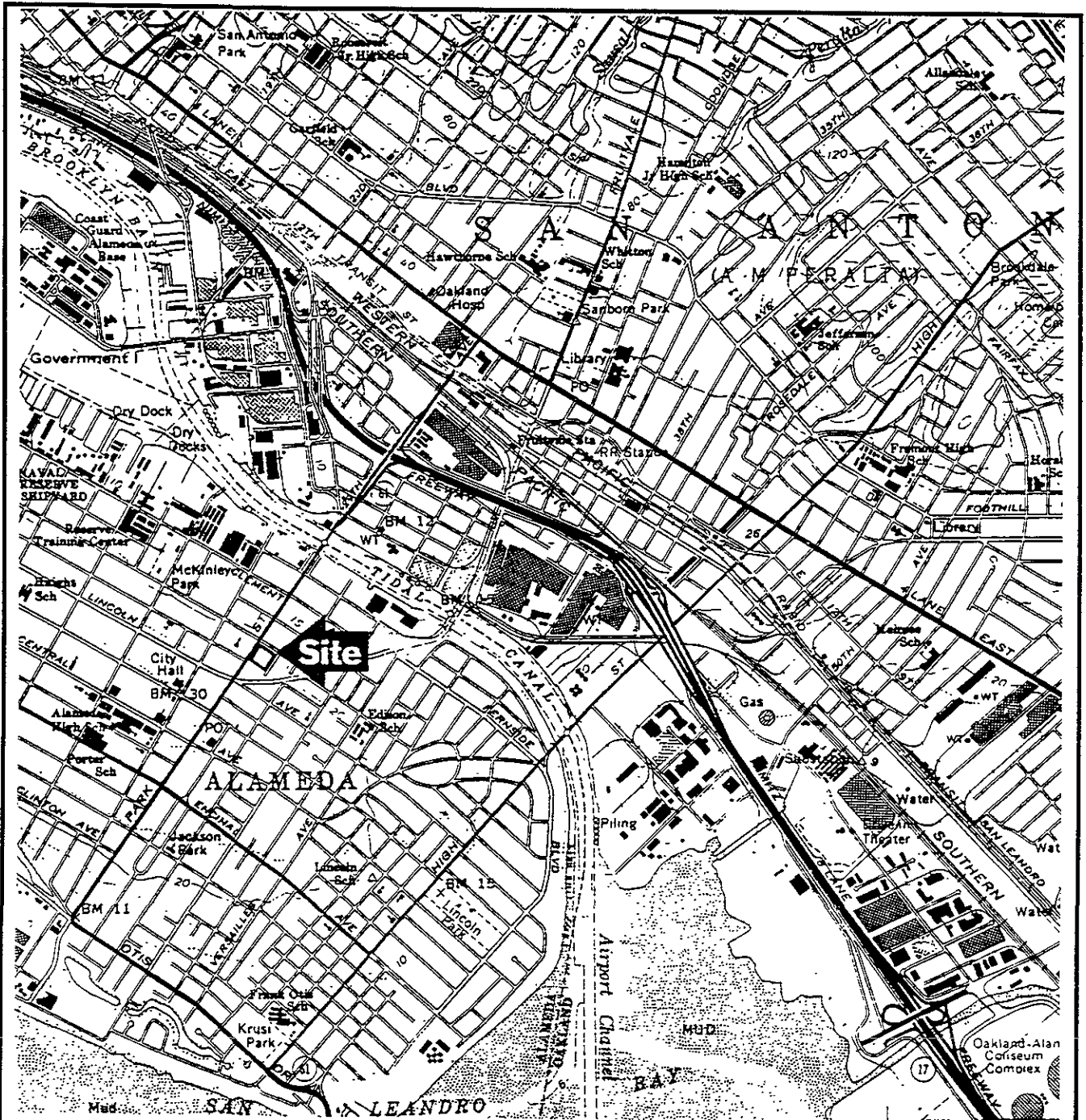
Gary D. Barker  
Senior Project Manager



Kenny B. Mateik  
Registered Geologist  
C.E.G. No. 1935



- Attachments:
- Figure 1 Site Vicinity Map
  - Figure 2 Site Plan Map
  - Figure 3 Site Map/ Benzene Isoconcentration Map
  
  - Table 1 Groundwater Data
  - Table 2 Historical Soil Analyses
  
  - Attachment A Horizon Field Data Sheets
  - Attachment B Horizon Field Methods and Procedures
  - Attachment C Laboratory Analytical Reports and Chain-of-Custody



QUADANGLE LOCATION

Source U.S.G.S 7-1/2 Minute Topographic Map  
 Oakland East, California  
 Photorevised 1980



0 2,000 4,000



Approximate Scale In Feet



**HORIZON ENVIRONMENTAL INC.**

Project Number 3002 11  
 Prepared By G Barker  
 Reviewed By

Drawn By D Aston  
 Date 2/96  
 Revised Date

**SITE VICINITY MAP**

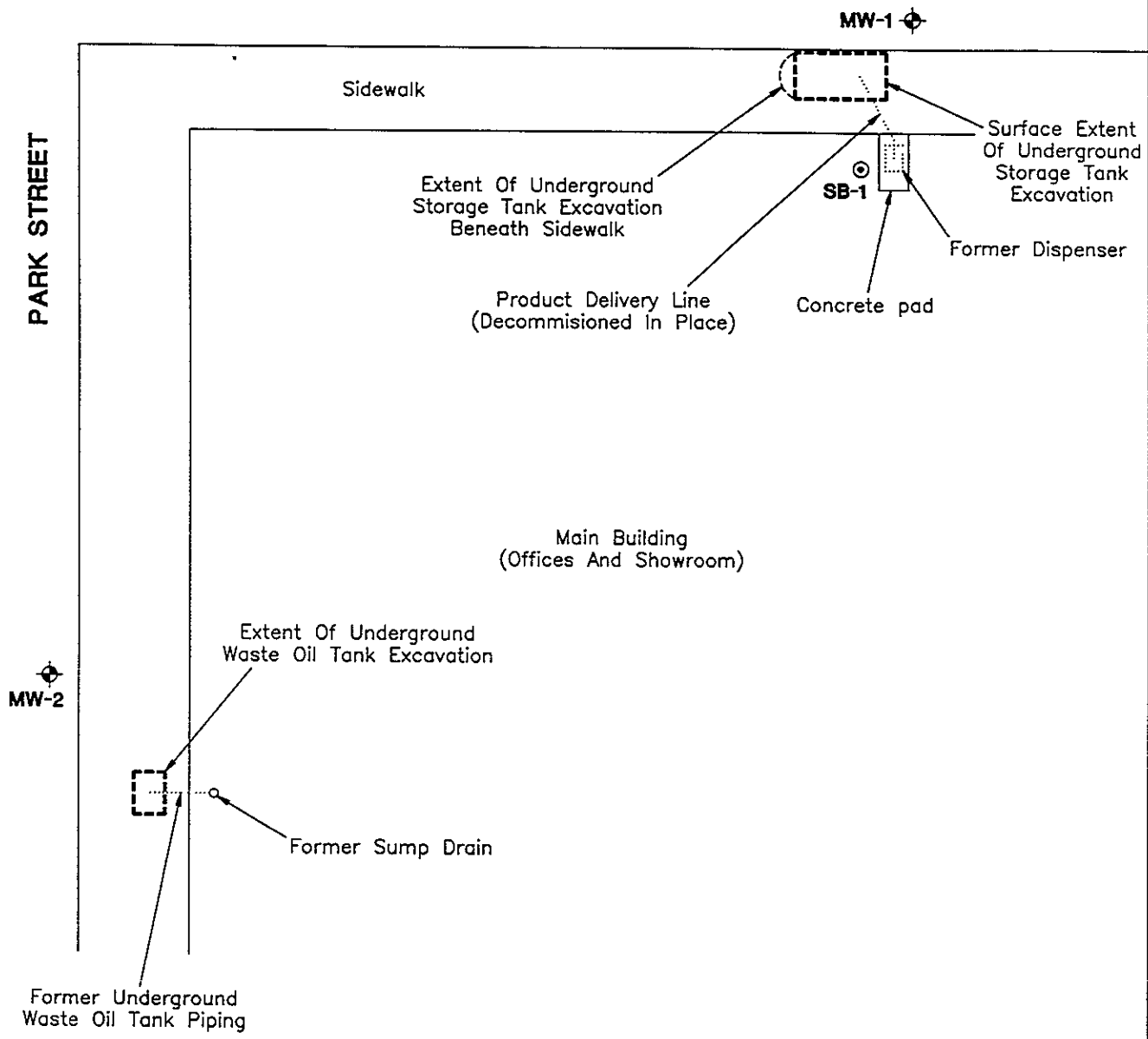
WINNER FORD  
 1650 PARK STREET  
 ALAMEDA, CALIFORNIA

FIGURE



1

**BUENA VISTA AVENUE**

**PARK STREET**




EXPLANATION:

- MW-2  Groundwater Monitoring Well
- SB-1  Hand-Augered Soil Boring



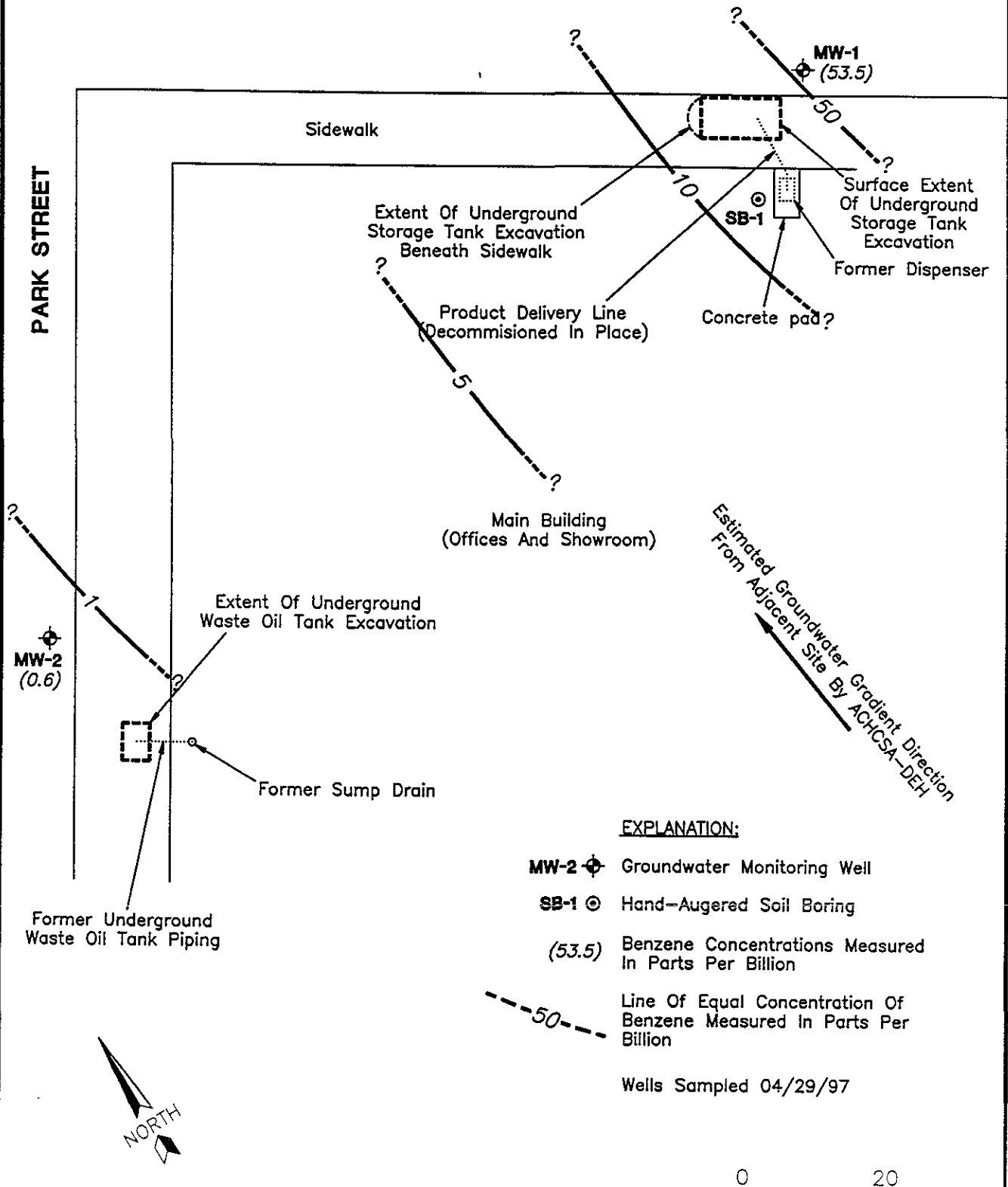
Approximate Scale In Feet

Source: Figure Modified From Drawing Provided By Blymer Engineers, Inc.

 <b>HORIZON ENVIRONMENTAL INC.</b>		<p align="center"><b>SITE PLAN</b></p> <p align="center">WINNER FORD 1650 PARK STREET ALAMEDA, CALIFORNIA</p>	<p align="center">FIGURE</p> <p align="center"><b>2</b></p>
Project Number: 3002 11 Prepared By G Barker Reviewed By	Drawn By D Alston Date 8/96 Revised Date.		



**BUENA VISTA AVENUE**



**EXPLANATION:**

- MW-2** ⊕ Groundwater Monitoring Well
  - SB-1** ⊙ Hand-Augered Soil Boring
  - (53.5)** Benzene Concentrations Measured In Parts Per Billion
  - 50-** Line Of Equal Concentration Of Benzene Measured In Parts Per Billion
- Wells Sampled 04/29/97



Approximate Scale In Feet

Source: Figure Modified From Drawing Provided By Blymer Engineers, Inc.



**HORIZON ENVIRONMENTAL INC.**

**BENZENE ISOCONCENTRATION MAP**

FIGURE

WINNER FORD  
1650 PARK STREET  
ALAMEDA, CALIFORNIA

**3**

Project Number: 3002.41  
Prepared By: G. Barker  
Reviewed By:

Drawn By: D. Alston  
Date: 06/97  
Revised Date:

**TABLE 1**  
**GROUNDWATER DATA**  
**Winner Ford**  
**1650 Park Street, Alameda, California**

Well No.	Date Sampled	Total Depth (ft.)	Depth to Water (ft.)	TPHg (ppb)	MTBE† (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-Benzene (ppb)	Xylenes (ppb)	TOG (ppm)
MW-1	07/16/96	---	---	222	267	62.8	34.3	5.75	32.1	NA
	04/29/97	22.75	5.89	145	312/260*	53.5	6.1	4.2	9.2	NA
MW-2	07/16/96	---	---	< 50	NA	1.1	<0.5	<0.5	1.05	NA
	07/29/96	---	---	NA	NA	NA	NA	NA	NA	<10
	04/29/97	24.77	7.62	< 50	< 5.0	0.6	<0.5	<0.5	<0.5	<10

TPHg = Total Petroleum Hydrocarbons as gasoline  
ppb = parts per billion  
ppm = parts per million

MTBE† = Methyl Tertiary-Butyl Ether, \* (by 602/by 8260)  
NA = Not Analyzed

**TABLE 2 (HISTORICAL DATA)  
ANALYTICAL RESULTS OF SOIL SAMPLES**

**Winner Ford  
1650 Park Street  
Alameda, California**

Sample Number & Depth	Date	Total Oil & Grease mg/Kg	TPHg mg/Kg	Benzene mg/Kg	Toluene mg/Kg	Ethyl-benzene mg/Kg	Total Xylenes mg/Kg	MTBE mg/Kg
S-MW1-5	07/11/96	NA	22.2	0.05	0.217	0.152	0.903	0.64
S-MW2-5	07/11/96	114	ND	ND	ND	ND	ND	NA
S-MW2-10	07/11/96	92	ND	ND	ND	ND	ND	NA
S-B1-5	07/11/96	NA	ND	ND	ND	ND	ND	ND
S-B1-7	07/11/96	NA	ND	ND	ND	ND	ND	ND
Composite Sample S-SP-A, B, C, D	07/11/96	790	ND	ND	ND	ND	ND	ND

Notes      TPHg = Total Petroleum Hydrocarbons as gasoline  
                   MTBE = methyl tertiary butyl ether  
                   mg/Kg = milligrams per kilogram or parts per million  
                   NA = not analyzed for  
                   ND = not detected at or greater than the indicated laboratory reporting limit

Table from Horizon report *Monitoring Well Completion and Preliminary Subsurface Assessment Report at Winner Ford, 1650 Park Street, Alameda, CA*, dated November 11, 1996.

**ATTACHMENT A**

# HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

## MONITORING WELL DATA

Station No. <u>002</u>	Location <u>ALAMEDA, CA.</u>
Address <u>1650 PARK ST.</u>	Job No. <u>3002.41</u>
Well No. <u>MW-1</u>	Date <u>4-29-97</u>

T.D. - D.T.W. x *VF = Casing Volume			
22.75	- 5.89	x .17	= 2.86 x 4 = 11.46

*VF= gal./ft.	2" x 0.17 3" x 0.38	4" x 0.66 8" x 1.50
------------------	------------------------	------------------------

Gals. Purged	3	6	9	12			
Conduct.	3.56	3.20	2.82	2.85			
P/H	8.00	7.92	7.84	7.71			
Temp (°F)	61.1	61.6	61.5	61.5			
Turbid	slight	slight	very	very			
Product/Sheen	NONE	NONE	NONE	NONE			
Time	<del>7:30</del>	7:35	7:37	7:40			
Odor	slight	YES	slight	slight			

Total Volume Purged:

4

Purging Equipment:

2 STAGE PUMP

Total Gallons Purged:

12

Sampling Equipment:

DISPOSABLE BALSZ

Sample Containers:

3

D.T.W. after purging:


10.20

H<sub>2</sub>O Stored?

12 gallons

Comments:

Water became more turbid as purging progressed.  
Odor seemed to FLUCTUATE. There was NO SHEEN  
BUT there WAS AN odor

  
 Technician

# HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

## MONITORING WELL DATA

Station No. <u>002</u>	Location <u>ALAMEDA, CA.</u>
Address <u>1650 PARK ST.</u>	Job No. <u>3002.41</u>
Well No. <u>MW-2</u>	Date <u>4-29-97</u>

T.D. - D.T.W. x *VF = Casing Volume			
24.77	- 7.62	x .17	= 291 x 4 = 11.66

*VF= gal./ft.	2" x 0.17 3" x 0.38	4" x 0.66 8" x 1.50
------------------	------------------------	------------------------

Gals. Purged	3	6	9	12			
Conduct.	6.68	6.82	6.96	7.15			
P/H	7.43	7.32	7.31	7.29			
Temp (°F)	62.5	63.1	63.8	63.8			
Turbid	slight	slight	NO	NO			
Product/Sheen	NONE	NONE	NONE	NONE			
Time	8:27	8:30	8:32	8:35			
Odor	NONE	NONE	NONE	NONE			

Total Volume Purged:  
4

Purging Equipment:  
2 STAGE PUMP

Total Gallons Purged:  
12


Sampling Equipment:  
DISPOSABLE BAIER

Sample Containers:  
5

D.T.W. after purging:  
17.80

H<sub>2</sub>O Stored? 12 gallons

Comments:  
Water cleaned up as purging progressed.  
There was no sheen and no odor.

  
Technician

**ATTACHMENT B**

## **HORIZON ENVIRONMENTAL INC.**

### **FIELD METHODS AND PROCEDURES**

The following section describes field procedures utilized by Horizon Environmental Inc. (Horizon) personnel in performance of the tasks involved with this project.

#### **1.0 HEALTH AND SAFETY PLAN**

Field work performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

#### **2.0 GROUNDWATER DEPTH EVALUATION**

Each monitoring well is opened and allowed to equilibrate to atmospheric pressure prior to measuring depth to groundwater. Depth to groundwater will be measured to the nearest 0.01 foot using an electronic, hand-held, water-level indicator. Depth to groundwater will be measured from the surveyed point on the top of the well casing. The tip of the probe will be examined to assist in the evaluation of the possible presence of a product sheen.

#### **3.0 MONITORING WELL PURGING AND SAMPLING**

Prior to purging, a clean, transparent bailer is lowered into the well and a sample of groundwater is hoisted to the surface. The contents are inspected for the presence of product floating on the surface of the sample. Groundwater sampling events conducted subsequent to the initial well development and sampling event will be preceded by purging three to four well-volumes by hand-bailing or use of an electrical purge pump. Purge water will be monitored for the parameters of temperature, pH, and electrical conductivity until stabilized. A well is allowed to recharge to at least 80% of its prepurge volume prior to sampling. If a well dewatered, it will be allowed to recharge for a minimum of one to two hours prior to sampling. After the water level within the well has stabilized, a sample is collected within a dedicated, clean, disposable, plastic bailer lowered into the well and hoisted when filled.



#### **4.0 SAMPLE PREPARATION FOR LABORATORY ANALYSIS**

The sample fluid is transferred from the bailer to one or more airtight vials and chilled on ice for transport to a state-certified analytical laboratory. Groundwater samples are analyzed within the EPA-specified holding time for requested analyses.

Each sample container submitted for analysis is appropriately labeled to identify the job number, sample date, time of sample collection, and an individual number unique to that sample.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at a California DoHS-certified laboratory. When the sample is shipped, the responsible technician or geologist relinquishes it by signing the chain-of-custody form, also listing the date and time.

The sample control officer at the laboratory:

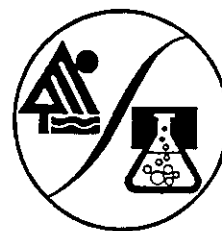
- verifies sample integrity;
- confirms use of the proper holding container;
- recognizes that an adequate volume of fluid has been collected for the required analysis;
- identifies the method of preservation; and
- accepts custody for the laboratory when these conditions have been satisfied.

**ATTACHMENT C**

# EXCELCHEM ENVIRONMENTAL LABS

500 Giuseppe Court, Suite 9  
Roseville, CA 95678

Phone#: (916) 773-3664 Fax#: (916) 773-4784



## ANALYSIS REPORT

Attention:	Mr. Gary Barker Horizon Environmental 5011 Golden Foothill Pkwy, Ste 7 El Dorado Hills, CA 95762	Date Sampled :	04-29-97
		Date Received:	05-01-97
		MTBE Analyzed:	05-07-97
		BTEX Analyzed:	05-06-97
		TPHg Analyzed:	05-06-97
Project:	3002.41/Winner Ford	Matrix:	Water

	MTBE <u>PPB</u>	Benzene <u>PPB</u>	Toluene <u>PPB</u>	Ethyl- benzene <u>PPB</u>	Total Xylenes <u>PPB</u>	TPHg <u>PPB</u>
Reporting Limit:	5.0	0.5	0.5	0.5	0.5	50
<b>SAMPLE</b>						
Laboratory Identification:						
W-0429-MW-1 W0597010	312	53.5	6.1	4.2	9.2	145

PPB= Parts per billion = ug/L = micrograms per liter

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

### ANALYTICAL PROCEDURES

**MTBE (Methyl Tert-Butyl Ether)**--MTBE is analyzed by EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

**BTEX**-- Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).

**TPHg**--Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015. which utilizes a GC equipped with an FID.

  
Laboratory Representative

05-13-97  
Date Reported

**EXCELCHEM  
ENVIRONMENTAL LABS**

500 Giuseppe Court, Suite 9  
Roseville, CA 95678  
Phone#: (916) 773-3664 Fax#: (916) 773-4784



**ANALYSIS REPORT**

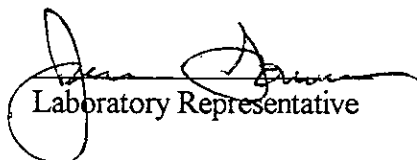
Attention:	Mr. Gary Barker Horizon Environmental 5011 Golden Foothill Pkwy, Ste 7 El Dorado Hills, CA 95762	Date Sampled :	04-29-97
		Date Received:	05-01-97
		MTBE Analyzed:	05-07-97
		BTEX Analyzed:	05-07-97
		TPHg Analyzed:	05-07-97
Project:	3002.41/Winner Ford	Matrix:	Water

	MTBE <u>PPB</u>	Benzene <u>PPB</u>	Toluene <u>PPB</u>	Ethyl- benzene <u>PPB</u>	Total Xylenes <u>PPB</u>	TPHg <u>PPB</u>
Reporting Limit:	5.0	0.5	0.5	0.5	0.5	50
<b>SAMPLE</b>						
Laboratory Identification:						
W-0429-MW-2 W0597011	ND	0.6	ND	ND	0.5	ND

PPB= Parts per billion = ug/L = micrograms per liter  
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

**ANALYTICAL PROCEDURES**

**MTBE (Methyl Tert-Butyl Ether)**—MTBE is analyzed by EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).  
**BTEX**— Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are analyzed by using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID).  
**TPHg**—Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are analyzed by using modified EPA Method 8015, which utilizes a GC equipped with an FID.

  
Laboratory Representative

05-13-97  
Date Reported

**EXCELICHEM  
ENVIRONMENTAL LABS**

500 Giuseppe Court, Suite 9  
Roseville, CA 95678  
Phone#: (916) 773-3664 Fax#: (916) 773-4784



**ANALYSIS REPORT**

Attention: Mr. Gary Barker  
Horizon Environmental  
5011 Golden Foothill Pkwy, Ste 7  
El Dorado Hills, CA 95762

Date Sampled : 04-29-97  
Date Received: 05-01-97  
TOG Analyzed: 05-08-97

Project: 3002.41/Winner Ford Matrix: Water

Reporting Limit: TOG  
PPM  
10

SAMPLE

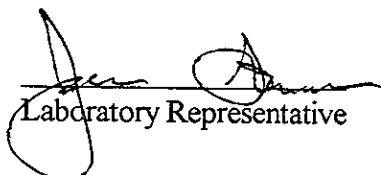
Laboratory Identification:

W-0429-MW-2 ND  
W0597011

ppm = parts per million = mg/L = milligrams per Liter.  
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

**ANALYTICAL PROCEDURES**

TOG-- Total oil and grease is measured by Standard Method 5520B, 18th Edition.

  
Laboratory Representative

05-13-97  
Date Reported

**EXCELICHEM  
ENVIRONMENTAL LABS**

500 Giuseppe Court, Suite 9  
Roseville, CA 95678  
Phone#: (916) 773-3664 Fax#: (916) 773-4784



**ANALYSIS REPORT**

Attention: Mr. Gary Barker  
Horizon Environmental  
5011 Golden Foothill Pkwy, Ste 7  
El Dorado Hills, CA 95762

Date Sampled : 04-29-97  
Date Received: 05-01-97  
MTBE Analyzed: 05-06-97

Project: 3002.41/Winner Ford Matrix: Water

Sample ID: W-0429-MW-1  
Lab ID: W0597010

Compound	Reporting Limit(ppb)	Measured Value(ppb)
Methyl tert-Butyl Ether (MTBE)	5	260

ppb= Parts per billion = ug/L = micrograms per liter

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Surrogate Recovery -

1,2-Dichloroethane d-4	= 122%
Dibromofluoromethane	= 95%
Toluene d-8	= 98%
4-Bromofluorobenzene	= 103%

**ANALYTICAL PROCEDURES**

MTBE-- Methyl tert-Butyl Ether is measured using EPA Method 8260 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

  
Laboratory Representative

05-13-97  
Date Reported

**EXCELCHEM  
ENVIRONMENTAL LABS**



500 Giuseppe Court, Suite 9  
Roseville, CA 95678  
Phone#: (916) 773-3664 Fax#: (916) 773-4784

**QA/QC REPORT**

Attention: Mr. Gary Barker  
Horizon Environmental  
5011 Golden Foothill Pkwy, Ste 7  
El Dorado Hills, CA 95762

Date Analyzed: 05-06-97  
Matrix: Water

Project : 3002.41/Winner Ford

	Benzene <u>PPB</u>	Toluene <u>PPB</u>	Ethyl- benzene <u>PPB</u>	Total Xylenes <u>PPB</u>
Reporting Limit:	0.5	0.5	0.5	0.5

**QA/QC PARAMETER**

Matrix Blank	ND	ND	ND	ND
--------------	----	----	----	----

**PERCENT RECOVERIES**

Laboratory Control Spike	96%	97%	98%	99%
Laboratory Control Spike Duplicate	98%	100%	101%	102%

ppb = parts per billion = ug/L = microgram per liter

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

All surrogate recoveries were within 30% of target values.

Spikes & Spike Duplicates were each spiked with 250 ng BTEX standard.

**ANALYTICAL PROCEDURES**

BTEX— Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 602 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID)

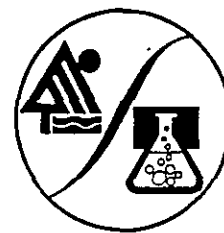
  
Laboratory Representative

05-13-97  
Date Reported

**EXCEL CHEM  
ENVIRONMENTAL LABS**

500 Giuseppe Court, Suite 9  
Roseville, CA 95678

Phone#: (916) 773-3664 Fax#: (916) 773-4784



**QA/QC REPORT**

Attention: Mr. Gary Barker  
Horizon Environmental  
5011 Golden Foothill Pkwy, Ste 7  
El Dorado Hills, CA 95762

Date Analyzed: 05-07-97  
Matrix: Water

Project : 3002.41/Winner Ford

Compound	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery
MTBE	110	114

ppb= Parts per billion = ug/L = micrograms per liter

ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

**ANALYTICAL PROCEDURES**

**Organic Volatiles** are measured using EPA Method 8260 which utilizes a purge and trap interfaced to a gas chromatograph (GC) equipped with a mass spectrometer.

  
Laboratory Representative

05-13-97  
Date Reported



**EXCELCHEM  
ENVIRONMENTAL LABS**

500 Giuseppe Court, Suite 9  
Roseville, CA 95678  
Phone#: (916) 773-3664 Fax#: (916) 773-4784



**QA/QC REPORT**

Attention: Mr. Gary Barker  
Horizon Environmental  
5011 Golden Foothill Pkwy, Ste 7  
El Dorado Hills, CA 95762

Date Analyzed: 05-08-97  
Matrix: Water

Project : 3002.41/Winner Ford

	TOG
	<u>PPM</u>
Reporting Limit:	10

---

QA/QC PARAMETER

Matrix Blank	ND
--------------	----

---

PERCENT RECOVERIES

Laboratory Control Spike	105%
Laboratory Control Spike Duplicate	89%

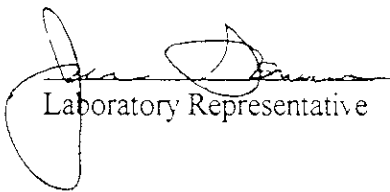
---

ppm = parts per million = mg/Kg = milligram per kilogram  
ND = Not detected. Compound(s) may be present at concentrations below the reporting limit.

Spikes & Spike Duplicates were each spiked with 50mg of motor oil.

**ANALYTICAL PROCEDURES**

TOG-- Total oil and grease is measured gravimetrically by Standard Method 5520B, 18th Edition.

  
Laboratory Representative

05-13-97  
Date Reported

