

## DEPARTMENT OF TRANSPORTATION

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JUL 08 2002



July 10, 2002

20225

Mr. Barney Chan  
Alameda County Environmental Health Service  
Environmental Protection  
1131 Harbor Bay Pkwy; Suite 250  
Alameda, California 946502-6577

Subject: Limited Soil and Groundwater Investigation Report at  
555 Hegenberger Rd, Former Hegenberger Maintenance Station, Oakland, California

Dear Mr. Chan:

Please find the enclosed Limited Soil and Groundwater Investigation and 4<sup>th</sup> Quarter Semi-Annual Groundwater Monitoring and Sampling Report for the former Hegenberger Maintenance Station at 555 Hegenberger Road. This document summarizes the results found at the site from samples taken from the four monitoring wells and the three boreholes that were advanced.


CalTrans will continue monitoring groundwater at this site for the next year. Another round of Semi-Annual sampling is scheduled to proceed this month.

If you have any questions or require additional information, please contact me at (510) 286-5668 or Mr. Aaron Bennett of my staff at (510) 286-4934.

Sincerely,

Jafar Rudsari

RANDELL IWASAKI  
District Director

By:   
RAY BOYER  
District Branch Chief  
Office of Environmental Engineering

Attachment

cc: SFRWQCB, RBoyer, File

JUL 08 2002

LIMITED SOIL AND GROUNDWATER  
INVESTIGATION AND  
FOURTH QUARTER 2001  
SEMI-ANNUAL GROUNDWATER  
MONITORING AND SAMPLING REPORT

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FORMER HEGENBERGER  
MAINTENANCE STATION  
555 HEGENBERGER ROAD  
OAKLAND, CALIFORNIA



**GEOCON**

CONSULTANTS, INC

ENVIRONMENTAL  
GEOTECHNICAL  
MATERIALS

PREPARED FOR

CALIFORNIA DEPARTMENT OF TRANSPORTATION  
DISTRICT 4

OAKLAND, CALIFORNIA

TASK ORDER NO. 04-987901-VM

GEOCON PROJECT NO. E8100-06-13

JULY 2002

# GEOCON

CONSULTANTS, INC.

E N V I R O N M E N T A L ■ G E O T E C H N I C A L ■ M A T E R I A L S



Project No. E8100-06-13  
July 3, 2002

Mr. Aaron Bennett  
California Department of Transportation  
District 4  
111 Grand Avenue, 14<sup>th</sup> Floor  
Post Office Box 23660  
Oakland, California 94623-0660

Subject: LIMITED SOIL AND GROUNDWATER INVESTIGATION AND  
FOURTH QUARTER 2001 SEMI-ANNUAL  
GROUNDWATER MONITORING AND SAMPLING REPORT  
FORMER HEGENBERGER MAINTENANCE STATION  
555 HEGENBERGER ROAD  
OAKLAND, CALIFORNIA  
CONTRACT No. 43A0078  
TASK ORDER NO. 04-987901-VM

Dear Mr. Bennett:

In accordance with California Department of Transportation (Caltrans) Contract No. 43A0078 and Task Order No. 04-987901-VM, Geocon Consultants, Inc. has performed environmental engineering services at the project site. The project site consists of the former Hegenberger Maintenance Station at 555 Hegenberger Road in Oakland, California.

The accompanying report summarizes the services performed consisting of the collection of groundwater samples and laboratory analyses.

*The contents of this report reflect the views of Geocon Consultants, Inc., who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.*

If there are any questions concerning the contents of this report, or if Geocon may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC.

Matt Hanko  
Senior Project Scientist

Richard Day, CEG, CHG  
Regional Manager

MWH:RWD:lnr  
(3) Addressee

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# SITE INVESTIGATION REPORT

## 1.0 INTRODUCTION

This limited soil and grab-groundwater investigation and Fourth Quarter 2001 semi-annual groundwater monitoring and sampling report for the California Department of Transportation (Caltrans) former Hegenberger Maintenance Station was prepared under Caltrans Contract No. 43A0078 and Task Order (TO) No. 04-987901-VM.

### 1.1 Site Description

The subject site is located at 555 Hegenberger Road in Oakland, California. The site is owned by Caltrans and leased by Volvo General Motors. The site was formerly occupied by Caltrans as a maintenance station including an underground fueling system. The former maintenance station structures have been removed and Volvo General Motors uses the area to park vehicles. The approximate location of the site is depicted on the attached Vicinity Map presented as Figure 1. The approximate site boundaries and existing structures are depicted on the Site Plan presented as Figure 2.

### 1.2 Background

This section presents a summary of the project background information based on the background section of the subject TO.

In September 1994, four underground storage tanks (USTs) and the associated product piping and pump island were removed. The USTs consisted of two 2,000-gallon diesel and two 6,500-gallon gasoline tanks. During the tank removals, the UST areas were over excavated and the soil was disposed. Soil samples collected from the tank excavation exhibited concentrations of total petroleum hydrocarbons as gasoline (TPHg), as diesel (TPHd), and as oil and grease (TPHo&g), and benzene, toluene, ethylbenzene, and xylenes (BTEX).

To evaluate the potential impacts to groundwater and soil beneath the site, a soil and groundwater investigation was conducted by Geocon in September/October 1995. The investigation included the installation of five monitoring wells (MW1 through MW5). The investigation indicated that groundwater and soil beneath the site was impacted by petroleum hydrocarbons.

Based on the findings of the investigation, the Alameda County Department of Environmental Health Services (ACDEHS) requested quarterly groundwater monitoring. The five monitoring wells were monitored quarterly from October 1995 through November 1996 and again in February 1998.

Total Petroleum Hydrocarbons as motor oil (TPHmo) and TPHo&g were not detected in groundwater samples and analysis of these compounds was discontinued. TPHg, TPHd, BTEX and MTBE have historically been detected in groundwater. Since these constituents have not attenuated over time, the ACDEHS has requested semi-annual monitoring of groundwater beneath the site. The requested semi-annual monitoring began in March 2001 and laboratory analysis indicated that MTBE was no longer present in groundwater at the site. Subsequently ACDEHS stated that MTBE was no longer a contaminant of concern.

### 1.3 Purpose

Based on the results of the March 2001 semi-annual groundwater monitoring and groundwater analytical data, the ACDEHS has requested further site characterization to determine the extent of impacted groundwater. Additional soil and groundwater sampling and analysis is to be performed upgradient, downgradient and within the former underground storage tank pit.

The purpose of the scope of work outlined in the Task Order No. 04-987901-VM is to determine the extent of impacts to groundwater. In addition to the limited soil and groundwater investigation, semi-annual groundwater monitoring will also be performed as requested by ACDEHS.

## 2.0 SCOPE OF SERVICES

The following scope of services was performed as requested by Caltrans in TO No. 04-987901-VM.

### 2.1 Pre-Field Activities

- Prepared a *Health and Safety Plan* for the proposed field activities. The health and safety plan provided guidelines on the use of personal protective equipment and the health and safety procedures to be implemented during the proposed field activities.
- Attended a Task Order meeting on November 6, 2001 to outline proposed boring locations in white paint for utility clearance by Underground Service Alert (USA) members. Geocon provided 48-hour notification to USA prior to job mobilization and obtained an inquiry number. In addition, Geocon retained the services of a private utility locating contractor to determine the location of underground utilities in the vicinity of each boring location.
- Obtained a soil boring permit from Alameda County Public Works Agency for the advancement of the four soil borings.
- Retained the services of CRL laboratory, a California-certified hazardous materials testing laboratory, to perform laboratory analyses.

### 2.2 Field Activities

The field work was performed under the direct supervision of Geocon's project manager in two phases: 1) limited soil and groundwater investigation, and 2) semi-annual groundwater monitoring, sampling, and analysis.

A total of four soil borings (BH6 through BH9) were advanced at the site to a depth of approximately 3 meters (10 feet) below ground surface (bgs) using direct push drilling techniques. Soil and grab-groundwater samples were collected from each boring and submitted to the laboratory for analysis. A photoionization detector (PID) was used to screen for the presence of volatile organic compounds (VOCs) in soil samples collected from the borehole. The soil lithology in each boring was logged for content, color, texture, VOCs, and cultural items. The approximate boring locations are depicted on the attached Site Plan, Figure 2. The boring logs are included as Appendix A.

The soil samples were collected on a continuous basis from just below the paved surface to the termination of the borehole. One soil sample was retained from boreholes BH6 and BH9 for lab analysis. One grab groundwater sample was collected from each borehole for lab analysis.

The semi-annual winter 2001 groundwater sampling and monitoring event was also performed for wells MW-1 through MW-5.

### 3.0 INVESTIGATIVE METHODS

#### 3.1 Limited Soil and Groundwater Investigation

The soil samples were collected from 1.5 meters to 2.7 meters (5 to 9 feet) bgs utilizing a Geoprobe Macrocore sampler with acetate liners. A section of the soil-filled acetate liner retrieved from the designated sample interval was cut from the soil and groundwater interface. Each end of the cut section of the soil-filled liner was covered with Teflon tape and secured with a plastic end cap. The soil sample was labeled, logged on the chain-of-custody, and placed into a chilled cooler for transport to the laboratory.

Once the soil sample was collected, the borehole was advanced to approximately 3 meters (10 feet) bgs. A temporary well was constructed in each borehole by inserting a screened PVC casing into the borehole. A grab-groundwater sample was collected from each boring by lowering a stainless steel bailer into the temporary well screen and decanting the grab-groundwater sample into the appropriate laboratory supplied container.

Once the grab-groundwater sample was collected, the temporary casing was removed from the borehole and the borehole was backfilled to the specifications of the soil boring permit obtained from ACDEHS.

Sampling equipment was cleansed between sample locations by washing with a Liquinox solution followed by a double rinse with distilled water. The decontamination water and soil cuttings were collected in 208-liter (55-gallon) steel drums, labeled, and left on-site pending laboratory analysis prior to disposal.

The soil and grab-groundwater samples were chilled and transported to CRL laboratory, a California-certified environmental laboratory, utilizing standard chain-of-custody documentation.

#### 3.2 Groundwater Monitoring Well Sampling and Survey

At the time of groundwater sampling, groundwater was measured at depths ranging from 1.24 to 1.68 meters (4.08 to 5.53 feet) below the top of the well casings. Prior to sampling the wells, approximately three casing volumes of groundwater were purged from each well. The purging was accomplished utilizing a battery-operated submersible pump. The pump was cleansed prior to use by washing the pump with a Liquinox solution followed by two rinses with distilled water. During the well purging, groundwater temperature, pH, and conductivity were recorded following each casing volume on field data sheets included in Appendix C.



After purging the monitoring wells, groundwater samples were collected utilizing disposable polyethylene bailers. The groundwater samples were transferred to laboratory-provided containers, labeled, and placed in a cooler with ice and transported to CRL using chain-of-custody documentation. The purged groundwater generated during development and sampling was containerized in 208-liter (55-gallon) drums and stored on-site pending disposal.

All soil borings and groundwater monitoring wells were surveyed for the top of casing elevation. The surveyors report is included as Appendix D. In addition, a Global Positioning System unit was used to obtain latitude and longitude coordinates for each boring and groundwater monitoring well.

### **3.3 Laboratory Analyses**

As required by the subject TO, Geocon instructed the analytical laboratory to perform the following laboratory analyses under a standard turn-around-time:

- TPHd following EPA Test Method 8015;
- TPHg, BTEX, and MTBE following EPA Test Method 8015/8020; and
- VOCs following EPA Test Method 8260B.

Reproductions of the laboratory reports and chain of custody documentation are presented as Appendix B. The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with spike made at ten times the detection limit or at the analyte level.

Prior to submitting the soil samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness.

## 4.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

### 4.1 Site Hydrogeology

During the sampling activities, groundwater ranged in elevation from approximately 4.63 to 6.18 feet. Historical groundwater level measurements are presented in Table 1. Based on the depth to groundwater from the most recent sampling event, a predominant hydraulic gradient is not apparent at the site. The groundwater contours, as shown in Figure 3, indicate radial flow from the vicinity of MW1. It is likely that observed water levels are locally influenced by tidal variations in nearby San Leandro Bay. Due to the site proximity to San Leandro Bay, the assumed predominant gradient is to the northwest.

### 4.2 Analytical Results

#### **Soil Analytical Data**

A summary of the analytical laboratory results for soil samples is presented in Table 2. The results are discussed below:

- Diesel-range hydrocarbons were detected at concentrations ranging from 1.0 to 1.7 milligrams per liter (mg/l). The laboratory report indicated that the hydrocarbons did not match the diesel pattern and that quantitation was based on the diesel standard.
- Gasoline-range hydrocarbons, benzene, toluene, Ethylbenzene, xylenes, MTBE, and Other VOCs all had concentrations less than their respective laboratory reporting limits.

#### **Grab-Groundwater Analytical Data**

A summary of the laboratory analytical test results for the grab-groundwater samples are presented as Table 3. The results are presented below:

- Concentrations of gasoline-range hydrocarbons ranged from 0.060 mg/l (BH9) to 0.089 mg/l (BH8).
- Diesel-range hydrocarbons were detected at concentrations ranging from 0.098 mg/l (BH7) to 0.30 mg/l (BH9). The laboratory report indicated that the hydrocarbons did not match the diesel pattern and that quantitation was based on the diesel standard.
- Toluene was detected at concentrations ranging from less than the laboratory reporting limits to 0.74 micrograms per liter (ug/l) (BH8).
- Xylenes were detected at concentrations ranging from less than the laboratory reporting limit to 1.5 ug/l (BH8).
- Benzene, toluene, ethylbenzene, and MTBE were not detected at concentrations greater than respective laboratory reporting limits.

- 1,1,2-Trichloroethane, 1,1-Dichloroethane, and 1,1-Dichloroethene were detected in grab-groundwater samples collected from BH7 at concentrations of 10, 99, and 54 ug/l, respectively.

#### **Groundwater Monitoring Well Analytical Data**

A summary of current and historical analytical laboratory results for the groundwater monitoring wells is presented as Table 4. BTEX concentrations were derived by two EPA methods 8020 and 8260B. The BTEX data discussed is by the EPA method 8260B. The results are discussed below:

- Concentrations of TPHg ranged from 0.085 milligrams per liter (mg/l) (MW2) to 9.4 mg/l (MW3).
- TPHd was detected at concentrations ranging from 0.14 mg/l (MW2) to 1.7 mg/l (MW3). The laboratory report indicated that the hydrocarbons did not match the diesel pattern and that quantitation was based on the diesel standard.
- Benzene was detected at concentrations ranging from less than the laboratory reporting limits to 2,200 ug/l (MW3).
- Toluene was detected at concentrations ranging from less than laboratory reporting limits to 52 ug/l (MW3).
- Concentrations of ethylbenzene ranged from less than the laboratory reporting limit to 37 ug/l (MW3).
- Xylenes were detected at concentrations ranging from less than the laboratory reporting limit to 11ug/l (MW3).
- MTBE was detected at concentrations ranging from less than the laboratory reporting limit to 12ug/l (MW3).
- Other various VOCs were detected in groundwater samples collected from monitoring wells MW1, MW3, and MW5 as shown in Table 3.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Analytical laboratory data indicates that TPHg, TPHd, and BTEX impacts are present at the highest concentrations in monitoring well MW3. However, the majority of these compounds were detected in all monitoring wells and concentrations have not changed significantly since the last monitoring event in March 2001 (Table 2).

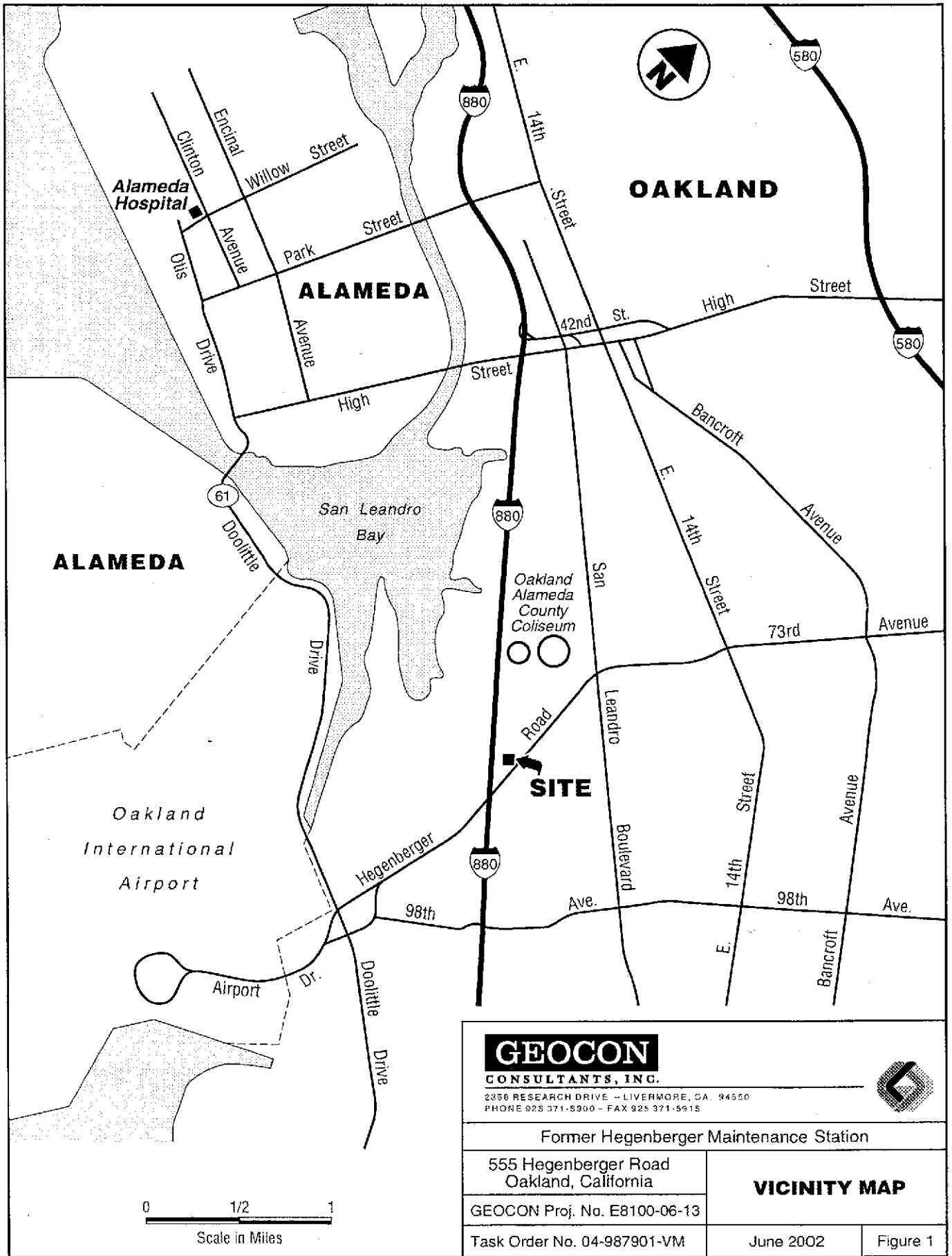
Analytical data from the grab groundwater sample taken from BH7 (located the southern property boundary) indicates an impact of 1,1,2-Trichloroethane (10 ug/l), 1,1-Dichloroethane (99 ug/l), and 1,1-Dichloroethene (54 ug/l). It is most likely that these chlorinated solvents (VOCs) are from an offsite source, as they have never been detected in the onsite wells. ✓  
do not agree

Based on the laboratory data, the extent of on-site impacts have been defined. At this time, Geocon recommends that groundwater monitoring and sampling continue semi-annually for TPHg, TPHd, and BTEX. ✓

## 6.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



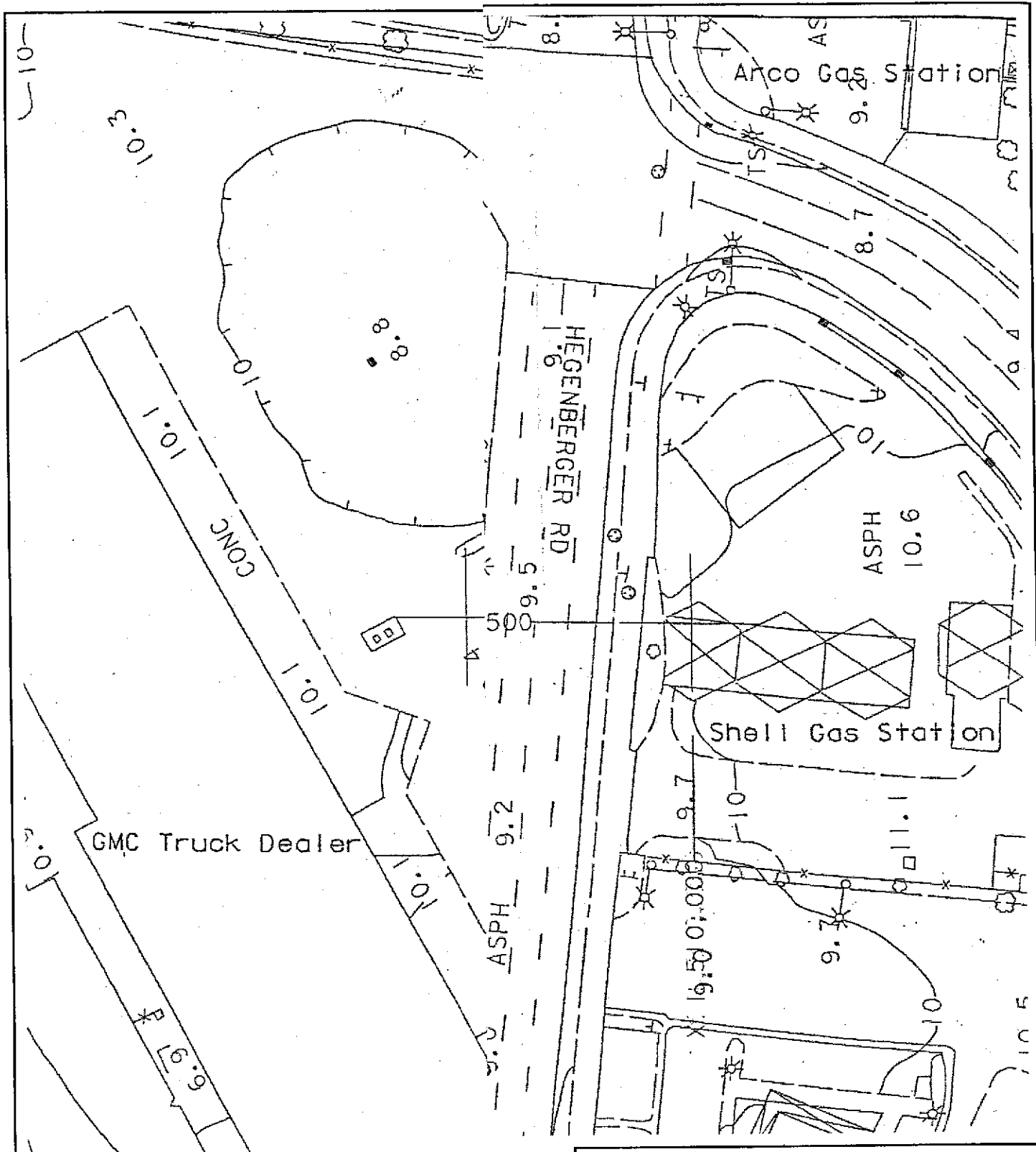
**GEOCON**  
CONSULTANTS, INC.

2356 RESEARCH DRIVE - LIVERMORE, CA. 94550  
PHONE 925 371-5900 - FAX 925 371-5915



Former Hegenberger Maintenance Station		
555 Hegenberger Road Oakland, California		<b>VICINITY MAP</b>
GEOCON Proj. No. E8100-06-13		
Task Order No. 04-987901-VM	June 2002	Figure 1

0 1/2 1  
Scale in Miles



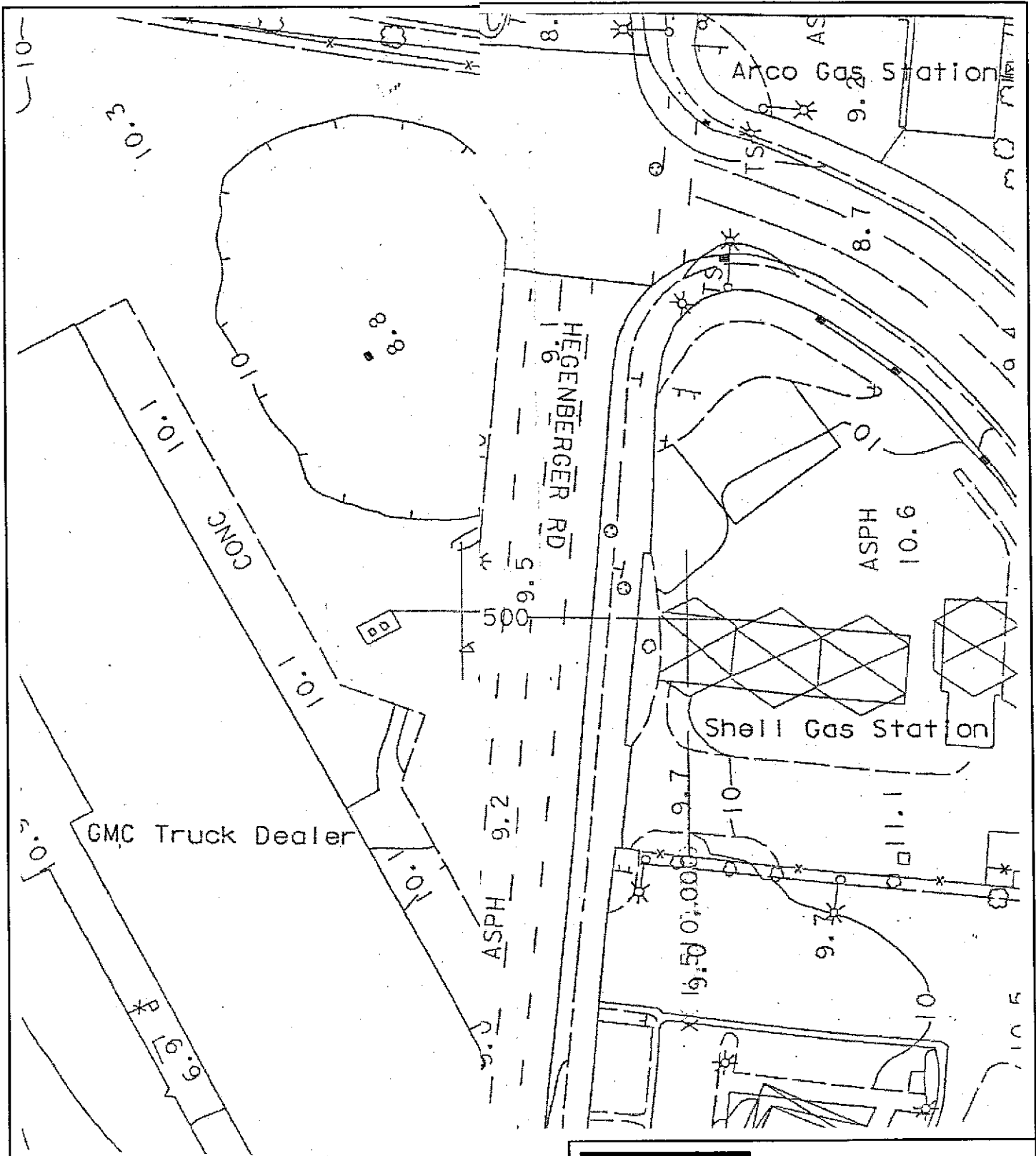
**LEGEND:**

- ⊕ Groundwater Monitoring Well Location
- Soil Boring Location



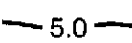


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Former Hegenberger Maintenance Station	
Oakland, California	<b>SITE PLAN</b>
GEOCON Proj. No. E8100-06-13	
Task Order No. 04-987901-VM	June 2002
	Figure 2



**LEGEND:**

-  Groundwater Monitoring Well Location
-  Soil Boring Location
- (6.18) Groundwater Elevation (feet, REF)
-  5.0 Groundwater Elevation Contour (feet, R1"=50'  
(feet, REF) Feet, with respect to an arbitrary datum reference



**GEOCON**

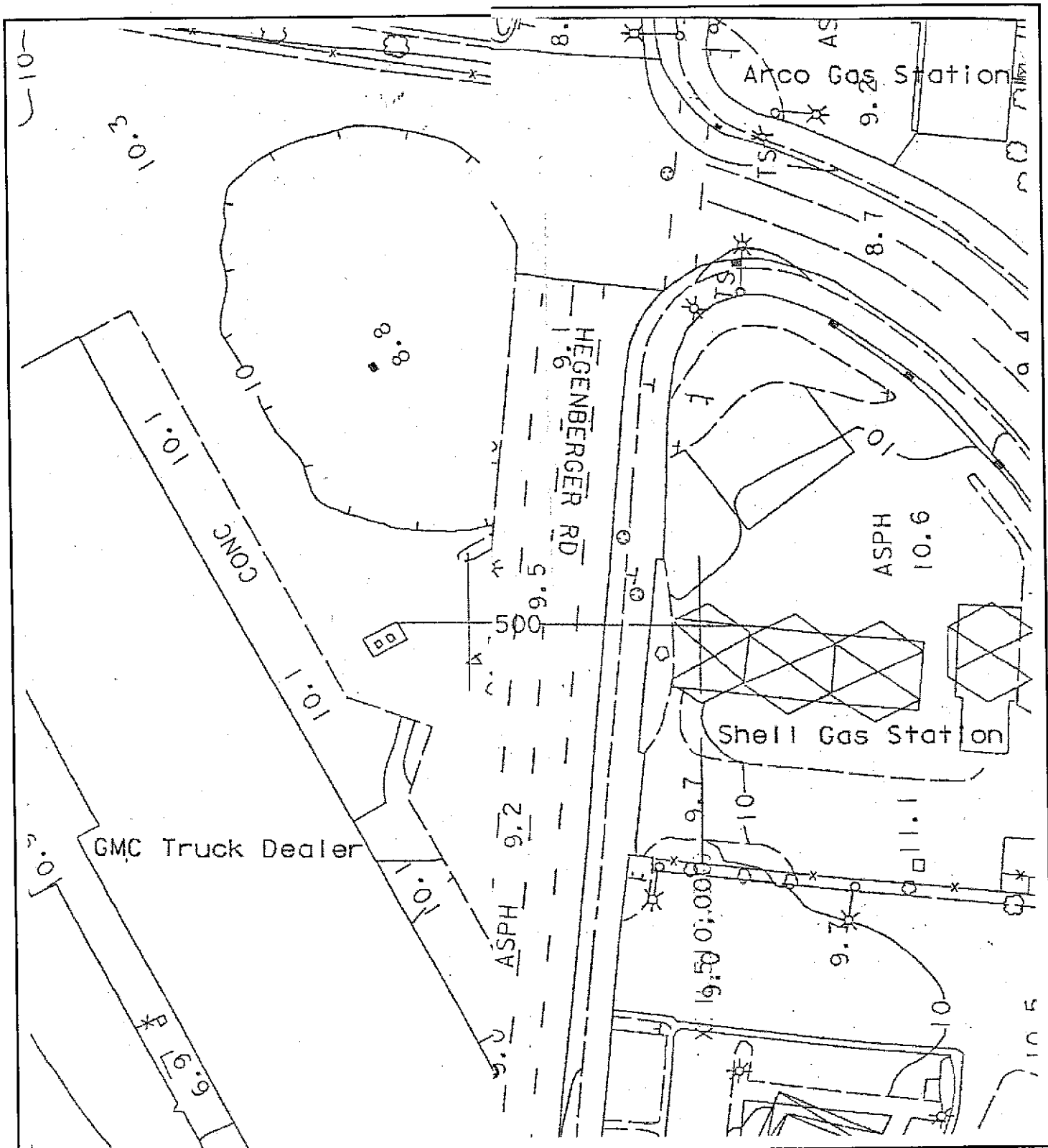
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Former Hegenberger Maintenance Station	
Oakland, California	<b>GROUNDWATER ELEVATION MAP (12/26/01)</b>
GEOCON Proj. No. EB100-06-13	
Task Order No. 04-987901-VM	June 2002
	Figure 3





**LEGEND:**

-  Groundwater Monitoring Well Location
-  Soil Boring Location
- B Benzene (by EPA Method 8260B) (ug/L)
- TPHg Total Petroleum Hydrocarbons as Gasol
- MTBE Methyl Tertiary-Butyl Ether (ug/L)



**GEOCON**

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Former Hegenberger Maintenance Station

Oakland,  
California

**PETROLEUM  
HYDROCARBON  
CONCENTRATIONS IN  
GROUNDWATER (12/26/01)**

GEOCON Proj. No. E8100-06-13

Task Order No. 04-987901-VM

June 2002

Figure 4

**TABLE 1**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS**  
**FORMER HEGENBERGER MAINTENANCE STATION**  
**OAKLAND, CALIFORNIA**

Well	Date	TOC Elevation (Feet, REF)	Depth to Water (Feet, BTOC)	Water Elevation (Feet, REF)
MW1	10/11/1995	99.73	6.55	93.18
	1/17/1996	99.73	5.64	94.09
	4/16/1996	99.73	5.46	94.27
	8/26/1996	99.73	5.91	93.82
	11/14/1996	99.73	6.16	93.57
	2/18/1998	99.73	3.82	95.91
	3/30/2001	99.73	6.19	93.54
	12/26/2001	10.26*	4.08	6.18
MW2	10/11/1995	99.68	6.88	92.8
	1/17/1996	99.68	5.32	94.36
	4/16/1996	99.68	5.81	93.87
	8/26/1996	99.68	5.98	93.7
	11/14/1996	99.68	6.72	92.96
	2/18/1998	99.68	5.01	94.67
	3/30/2001	99.68	6.54	93.14
	12/26/2001	10.22*	5.53	4.69
MW3	10/11/1995	98.92	6.42	92.5
	1/17/1996	98.92	5.82	93.1
	4/16/1996	98.92	5.85	93.07
	8/26/1996	98.92	5.72	93.2
	11/14/1996	98.92	6.28	92.64
	2/18/1998	98.92	4.65	94.27
	3/30/2001	98.92	5.62	93.30
	12/26/2001	9.46*	4.66	4.80
MW4	10/11/1995	99.46	6.63	92.83
	1/17/1996	99.46	5.77	93.69
	4/16/1996	99.46	5.89	93.57
	8/26/1996	99.46	6.14	93.32
	11/14/1996	99.46	6.72	92.74
	2/18/1998	99.46	5.02	94.44
	3/30/2001	99.46	6.21	93.25
	12/26/2001	10.00*	5.37	4.63

**TABLE 1**  
**SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS**  
**FORMER HEGENBERGER MAINTENANCE STATION**  
**OAKLAND, CALIFORNIA**

Well	Date	TOC Elevation (Feet, REF)	Depth to Water (Feet, BTOC)	Water Elevation (Feet, REF)
MW5	10/11/1995	99.91	6.68	93.23
	1/17/1996	99.91	5.74	94.17
	4/16/1996	99.91	5.85	94.06
	8/26/1996	99.91	5.99	93.92
	11/14/1996	99.91	6.70	93.21
	11/14/1996	99.91	6.70	93.21
	2/18/1998	99.91	5.74	94.17
	3/30/2001	99.91	6.73	93.18
	12/26/2001	10.34*	5.23	5.11

Notes:

Feet, BTOC = Feet below top of well casing

TOC = Top of well casing

Feet, REF = Feet, with respect to an arbitrary datum reference

\* = elevation data in feet above mean sea level and based on the California State Coordinate System, Zone III (NAD83), (NGVD29)

**TABLE 2**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
**FORMER HEGENBERGER MAINTENANCE STATION**

Boring ID	Date	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	MTBE (ug/kg)	Other VOCs (ug/kg)
BH6-11	12/26/01	<1.0	1.0*	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0	<5.0
BH9-6.5	12/26/01	<1.0	1.7*	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0 (<5.0)	<5.0	<5.0

*Only other soil data.*

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B

TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B

BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)

MTBE = methyl tertiary butylether following EPA Test Method 8020

mg/kg = milligrams per kilogram

ug/kg = micrograms per kilogram

(xxx) = BTEX result by EPA Test Method 8260B

ND = Not detected at a concentration greater than the laboratory reporting limit.

< = less than indicated reporting limit

\* = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

**TABLE 3**  
**SUMMARY OF GRAB GROUNDWATER ANALYTICAL RESULTS**  
**FORMER HEGENBERGER MAINTENANCE STATION**

Boring ID	Date	TPHg (mg/l)	TPHd (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Other VOCs (ug/l)
BH6	12/26/01	0.065	0.17*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50	<5.0
BH7	12/26/01	0.078	0.098*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	<0.50	1,1,2-Trichloroethane = 10 1,1-Dichloroethane = 99 1,1-Dichloroethene = 54
BH8	12/26/01	0.089	---	<0.50 (<5.0)	0.74 (<5.0)	<0.50 (<5.0)	1.5 (<5.0)	<0.50	<5.0
BH9	12/26/01	0.060	0.3*	<0.50 (<5.0)	<0.50 (<5.0)	<0.50 (<5.0)	0.76 (<5.0)	<0.50	<5.0

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B

TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B

BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)

MTBE = methyl tertiary butylether following EPA Test Method 8020/8260B

mg/l = milligrams per liter

ug/l = micrograms per liter

--- = Analysis not performed

(xxx) = BTEX result by EPA Test Method 8260B

ND = Not detected at a concentration greater than the laboratory reporting limit.

< = less than indicated reporting limit

\* = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

TABLE 4  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
FORMER HEGENBERGER MAINTENANCE STATION

Well	Date	TPHg (mg/l)	TPHd (mg/l)	TPHmo (mg/l)	Oil & Grease (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Other VOCs (ug/l)
MW1	10/11/95	0.720	< 0.050	< 0.050	< 5	660	13	4.7	2.8	---	---
	1/17/96	4.40	< 0.050	< 0.050	---	1,000	30	21	17	---	---
	4/16/96	6.05	7.45	---	---	914	34.7	34.4	15.8	---	---
	8/26/96	3.8	0.430	---	---	780	23	21	20	---	---
	11/14/96	2.6	0.270	---	---	500	18	14	8.9	---	---
	2/18/98	3.1	0.900	---	---	240	18	7.8	11	20	---
	3/30/01	3.6	0.48*	---	---	150	13	0.69	10.8	ND	< 5.0
	12/26/01	3.0	1.1*	---	---	86 (120)	11 (14)	3.4 (<5.0)	10.5 (11)	5.0	Isopropylbenzene = 7.9 n-butylbenzene = 5.1 n-propylbenzene = 5.3
MW2	10/11/95	< 0.050	< 0.050	< 0.050	< 5	< 0.3	< 0.3	< 0.3	< 0.5	---	---
	1/17/96	4.90	< 0.050	< 0.050	---	2,100	< 15	< 15	< 15	---	---
	4/16/96	< 0.050	< 0.050	---	---	1.02	< 0.5	< 0.5	< 0.5	---	---
	8/26/96	< 0.050	< 0.050	---	---	< 0.5	< 0.5	< 0.5	< 0.5	---	---
	11/14/96	< 0.050	0.056	---	---	< 0.5	< 0.5	< 0.5	< 0.5	---	---
	2/18/98	< 0.050	0.260	---	---	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	---
	3/30/01	< 0.20	0.37*	---	---	2.7	0.82	< 0.50	0.84	ND	< 5.0
	12/26/01	0.085	0.14	---	---	< 0.50 (< 5.0)	< 0.50 (< 5.0)	< 0.50 (< 5.0)	< 0.50 (< 5.0)	< 0.50	< 5.0
MW3	10/11/95	1.30	< 0.050	< 0.050	< 5	1.0	< 0.3	< 0.3	< 0.3	---	---
	1/17/96	0.171	< 0.050	< 0.050	---	64	< 0.3	1.0	< 0.3	---	---
	4/16/96	6.74	0.565	---	---	2,770	31	13.9	21.9	---	---
	8/26/96	0.700	0.700	---	---	180	4.2	1.0	4.6	---	---
	11/14/96	0.300	0.120	---	---	6.2	1.2	0.7	1.4	---	---
	2/18/98	11.0	2.50	---	---	3,070	50	54	19	25	---
	3/30/01	9.9	0.49*	---	---	2000 (2,800)	48 (71)	39 (52)	39 (49)	ND	Isopropylbenzene = 92 n-Butylbenzene = 36 n-Propylbenzene = 280 sec-Butylbenzene = 13
	12/26/01	9.4	1.7	---	---	1,500(2,200)	46 (52)	33 (37)	28 (<25)	12	Isopropylbenzene = 85 n-Butylbenzene = 39 n-Propylbenzene = 250

TABLE 4  
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS  
FORMER HEGENBERGER MAINTENANCE STATION

Well	Date	TPHg (mg/l)	TPHd (mg/l)	TPHmo (mg/l)	Oil &						Other VOCs (ug/l)
					Grease (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	
MW4	10/11/95	0.500	<0.050	<0.050	< 5	17	1.1	<0.3	0.48	---	---
	1/17/96	0.459	<0.050	<0.050	---	72	4.1	<0.3	1.7	---	---
	4/16/96	2.20	<0.050	---	---	851	7.67	1.41	5.72	---	---
	8/26/96	0.300	0.110	---	---	55	4.9	1.2	<0.5	---	---
	11/14/96	0.200	0.200	---	---	3.4	<0.5	<0.5	<0.5	---	---
	2/18/98	1.60	0.280	---	---	320	9.1	1.0	0.59	1.7	---
	3/30/01	2.7	0.35*	---	---	320 (430)	16 (22)	5.3	13.6 (13)	ND	Isopropylbenzene = 6.4
	12/26/01	0.55	0.20	---	---	33 (36)	3.0 (<5.0)	<0.50(<5.0)	1.7 (<5.0)	0.76	<5.0
MW5	10/11/95	1.00	<0.050	<0.050	< 5	45	15	1.9	6.1	---	---
	1/17/96	<0.050	<0.050	<0.050	---	2	<0.3	<0.3	<0.3	---	---
	4/16/96	1.74	0.855	---	---	157	20.1	3.92	22.4	---	---
	8/26/96	0.900	0.270	---	---	55	6.4	0.9	3.7	---	---
	11/14/96	0.700	0.320	---	---	31	5.7	0.7	3.6	---	---
	2/18/98	1.20	0.580	---	---	14	5.2	0.76	5.5	9.5	---
	3/30/01	1.5	0.48*	---	---	7.2 (9.5)	6.5 (9.6)	<0.50	10.7 (11)	ND	n-Propylbenzene = 5.1
	12/26/01	1.4	0.76*	---	---	5.0 (5.1)	7.2 (8.1)	0.84 (<5.0)	10.5 (9.8)	3.6	isopropylbenzene = 6.0

Notes:

- TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B
- TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B
- TPHmo = Total Petroleum Hydrocarbons as motor oil following EPA Test Method 8015B
- BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020 (8260)
- FOCs = Fuel Oxygenate Compounds (tert-butanol, methyl tertiary butylether [MTBE], di-isopropyl ether, ethyl tertiary butylether [ETBE], and tertiary amyl methylether[TAME]) following EPA Test Method 8020/8260B
- mg/l = milligrams per liter
- ug/l = micrograms per liter
- = Analysis not performed
- (xxx) = BTEX result by EPA Test Method 8260B
- ND = Not detected at a concentration greater than the laboratory reporting limit.
- < = less than indicated reporting limit
- \* = The sample contains hydrocarbons that fall within the diesel range but do not match the diesel pattern. Quantitation is based on the diesel standard.

PROJECT NO. E8100-06-13

*w/i backfill*

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING NO. BH6		SOIL (USCS)	HEADSPACE (PPM)
				DATE DRILLED	WATER LEVEL (ATD)		
				DATE DRILLED	12/26/01	WATER LEVEL (ATD)	4.75'
				EQUIPMENT	GEOPROBE	DRILLER	VIRONEX
SOIL DESCRIPTION							
1			3 INCHES ASPHALT Gravel backfill			GP	
2							
3							
4			Soft, wet, brown (10YR 4/3) Silty SAND with gravel			SM	0
5			Saturated gravel backfill			GP	
6							
7							
8							
9							0
10			Saturated, crushed asphalt				
BORING TERMINATED AT 10 FEET							
BORING LOCATED IN FORMER UST PIT COLLECTED GRAB GROUNDWATER SAMPLE							

Figure A1, Log of Boring BH6, page 1 of 1

ENV\_NO\_WELL HEGEN.GPJ 01/07/02

BORING ELEVATION: <b>NA</b>	ENGINEER/GEOLOGIST: <b>MATT HANKO</b>
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NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.



DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	<b>BORING NO. BH7</b>		SOIL (USCS)	HEADSPACE (PPM)
				DATE DRILLED 12/26/01	WATER LEVEL (ATD) 12'		
				EQUIPMENT	GEOPROBE	DRILLER	VIRONEX
SOIL DESCRIPTION							
1			1 FOOT ASPHALT/BASE				
2			Very soft, slightly moist, dark brown (10YR 3/2), Sandy SILT			ML	
3							
4							
5							
6							0
7			Firm, moist, black (10YR 2/1) Clayey SILT, highly organic			OH	
8							
9							
10							
11		BH7-11					
12			Soft, moist, dark yellowish brown (10YR 4/6), Sandy SILT			ML	
13			Loose, saturated, dark yellowish brown (10YR 4/6), coarse Silty SAND			SM	
14							
15							
16			Interlayers of saturated coarse SAND with gravel and stiff Silty CLAY			SP/CL	0
17							
18							
19							
20							
BORING TERMINATED AT 20 FEET							
COLLECTED GRAB GROUNDWATER SAMPLE							

Figure A2, Log of Boring BH7, page 1 of 1

ENV\_NO\_WELL HEGEN.GPJ 01/07/02

BORING ELEVATION:	NA	ENGINEER/GEOLOGIST:	MATT HANKO
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NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. E8100-06-13

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	<b>BORING NO. BH8</b>		SOIL (USCS)	HEADSPACE (PPM)
				DATE DRILLED <u>12/26/01</u>	WATER LEVEL (ATD) <u>11.5'</u>		
				EQUIPMENT <u>GEOPROBE</u>	DRILLER <u>VIRONEX</u>		
SOIL DESCRIPTION							
1			1 FOOT ASPHALT/BASE				
2			Very stiff, slightly moist, brown (10YR 4/3), Sandy CLAY with coarse sand			CL	
3			Firm slightly moist, gray (10YR 4/1), Sandy SILT			ML	
4							
5		NO REC	NO REC				
6							
7			Loose, wet, dark gray (10YR 4/1), Silty SAND			SM	0
8			Firm, moist, black (10YR 2/1), Silty CLAY			CL	
9							
10							
11							
12			Very firm, slightly moist, light olive brown (2.5Y 5/4), Silty CLAY			CL	
13							
14							
15							
BORING TERMINATED AT 15 FEET COLLECTED GRAB GROUNDWATER SAMPLE							

Figure A3, Log of Boring BH8, page 1 of 1

ENV\_NO\_WELL HEGEN.GPJ 01/07/02

BORING ELEVATION: <b>NA</b>	ENGINEER/GEOLOGIST: <b>MATT HANKO</b>
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NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	PENETRAT. RESIST. BLOWS/FT.	SAMPLE NO.	LITHOLOGY	BORING NO. BH9		SOIL (USCS)	HEADSPACE (PPM)
				DATE DRILLED 12/26/01	WATER LEVEL (ATD) 7.5'		
				EQUIPMENT			
				GEOPROBE		DRILLER VIRONEX	
SOIL DESCRIPTION							
1			1 FOOT ASPHALT/BASE				
2			Firm, slightly moist, dark brown (10YR 3/3), Silty CLAY			CL	
3							
4			Soft, moist, gray (10YR 5/1), Clayey SILT			ML	
5							
6							
7		BH9-6.5	▽ Loose, saturated, dark gray (10YR 4/1), fine Silty SAND			SM	
8			Firm, moist, very dark brown (10YR 2/2), Silty CLAY			CL	
9							
10			Loose, saturated, dark gray (10YR 4/1), coarse SAND			SP	
11			Firm, moist, dark gray (10YR 4/1), Silty CLAY			CL	
12							
13							
14							
15				BORING TERMINATED AT 15 FEET COLLECTED GRAB GROUNDWATER SAMPLE			

Figure A4, Log of Boring BH9, page 1 of 1

ENV\_NO\_WELL HEGEN.GPJ 01/07/02

BORING ELEVATION: NA

ENGINEER/GEOLOGIST: MATT HANKO

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

January 09, 2002

RECEIVED  
JAN 15 2002

Matt Hanko  
Geocon Consultants, Inc  
2356 Research Drive  
Livermore, CA 94550

TEL: 925-371-5900

FAX 925-371-5915

RE: Hegenberger Maintenance/E8100-06-13

ELAP No.: 2384

Dear Matt Hanko:

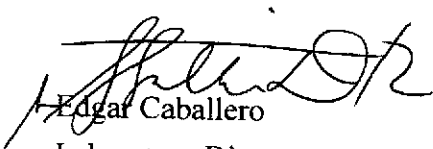
Order No.: S10390

Enclosed are the results for sample(s) received on December 28, 2001 by CRL Environmental Laboratories and tested for the parameter indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (916)925-1225 if I can be of further assistance to your company.

Sincerely,

  
Edgar Caballero  
Laboratory Director



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
Project: Hegenberger Maintenance/E8100-06-13  
Lab Order: S10390

**CASE NARRATIVE**

Analytical Comments for METHOD 8015\_S\_DSL LL, SAMPLE S10390-005A/006A: Samples contain hydrocarbons that do not match the diesel pattern. However, quantitation is based on a diesel standard.

Analytical Comments for METHOD 8015\_W\_DSL LL, SAMPLE S10390-001B/002B, 004B, 007B/011B: Samples contain hydrocarbons that do not match the diesel pattern. However, quantitation is based on a diesel standard.



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-001A

Client Sample ID: BH6  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	0.065	0.050		mg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	ND	0.50		µg/L	1	12/28/2001
Ethylbenzene	ND	0.50		µg/L	1	12/28/2001
m,p-Xylene	ND	0.50		µg/L	1	12/28/2001
MTBE	ND	0.50		µg/L	1	12/28/2001
o-Xylene	ND	0.50		µg/L	1	12/28/2001
Toluene	ND	0.50		µg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	ND	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-001A

**Client Sample ID:** BH6  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
----------	--------	-------	------	-------	----	---------------

VOLATILE ORGANIC COMPOUNDS BY GC/MS						Analyst: YP
EPA 8260B						
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc

Client Sample ID: BH6

Lab Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

Collection Date: 12/26/2001

Lab ID: S10390-001B

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID		EPA 8015B(M)				Analyst: AG
Diesel	0.17	0.050		mg/L	1	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

Page 3 of 26





# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-002A

**Client Sample ID:** BH7  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	0.078	0.050		mg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	ND	0.50		µg/L	1	12/28/2001
Ethylbenzene	ND	0.50		µg/L	1	12/28/2001
m,p-Xylene	ND	0.50		µg/L	1	12/28/2001
MTBE	ND	0.50		µg/L	1	12/28/2001
o-Xylene	ND	0.50		µg/L	1	12/28/2001
Toluene	ND	0.50		µg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	10	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	99	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	54	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	ND	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-002A

**Client Sample ID:** BH7  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
<b>EPA 8260B</b>						
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants. Inc

Client Sample ID: BH7

Lab Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

Collection Date: 12/26/2001

Lab ID: S10390-002B

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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<b>DIESEL RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: AG
Diesel	0.098	0.053		mg/L	1	1/2/2002

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-003A

**Client Sample ID:** BH8  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>						Analyst: VM
GRO	0.089	0.050		mg/L	1	12/28/2001
<b>EPA 8015B(M)</b>						
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>						Analyst: VM
Benzene	ND	0.50		µg/L	1	12/28/2001
Ethylbenzene	ND	0.50		µg/L	1	12/28/2001
m,p-Xylene	0.90	0.50		µg/L	1	12/28/2001
MTBE	ND	0.50		µg/L	1	12/28/2001
o-Xylene	0.60	0.50		µg/L	1	12/28/2001
Toluene	0.74	0.50		µg/L	1	12/28/2001
<b>EPA 8020A</b>						
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	ND	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-003A

Client Sample ID: BH8  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses Result Limit Qual Units DF Date Analyzed

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
<b>EPA 8260B</b>						
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-004A

Client Sample ID: BH9  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	0.060	0.050		mg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	ND	0.50		µg/L	1	12/28/2001
Ethylbenzene	ND	0.50		µg/L	1	12/28/2001
m,p-Xylene	0.76	0.50		µg/L	1	12/28/2001
MTBE	ND	0.50		µg/L	1	12/28/2001
o-Xylene	ND	0.50		µg/L	1	12/28/2001
Toluene	ND	0.50		µg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	ND	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-004A

**Client Sample ID:** BH9  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

**Analyses**                      **Result**            **Limit** **Qual** **Units**            **DF**            **Date Analyzed**

VOLATILE ORGANIC COMPOUNDS BY GC/MS		EPA 8260B		Analyst: YP		
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc

Client Sample ID: BH9

Lab Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

Collection Date: 12/26/2001

Lab ID: S10390-004B

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID		EPA 8015B(M)				Analyst: AG
Diesel	0.30	0.083		mg/L	1	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-007A

Client Sample ID: MW-1  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	3.0	0.10		mg/L	2	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	86	1.0		µg/L	2	12/28/2001
Ethylbenzene	3.4	1.0		µg/L	2	12/28/2001
m,p-Xylene	7.7	1.0		µg/L	2	12/28/2001
MTBE	5.0	1.0		µg/L	2	12/28/2001
o-Xylene	2.8	1.0		µg/L	2	12/28/2001
Toluene	11	1.0		µg/L	2	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	120	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-007A

Client Sample ID: MW-1  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
<b>EPA 8260B</b>						
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	7.9	5.0		µg/L	1	12/29/2001
m,p-Xylene	11	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	5.1	5.0		µg/L	1	12/29/2001
n-Propylbenzene	5.3	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	14	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-007B

Client Sample ID: MW-1  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: AG
Diesel	1.1	0.050		mg/L	1	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-008A

**Client Sample ID:** MW-2  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	0.085	0.050		mg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	ND	0.50		µg/L	1	12/28/2001
Ethylbenzene	ND	0.50		µg/L	1	12/28/2001
m,p-Xylene	ND	0.50		µg/L	1	12/28/2001
MTBE	ND	0.50		µg/L	1	12/28/2001
o-Xylene	ND	0.50		µg/L	1	12/28/2001
Toluene	ND	0.50		µg/L	1	12/28/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	ND	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-008A

Client Sample ID: MW-2  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
		<b>EPA 8260B</b>				
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

*B*



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc

Client Sample ID: MW-2

Lab Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

Collection Date: 12/26/2001

Lab ID: S10390-008B

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID		EPA 8015B(M)				Analyst: AG
Diesel	0.14	0.050		mg/L	1	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits  
 B - Analyte detected in the associated Method Blank      E - Value above quantitation range  
 \* - Value exceeds Maximum Contaminant Level



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-009A

**Client Sample ID:** MW-3  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>						
		<b>EPA 8015B(M)</b>		<b>Analyst: VM</b>		
GRO	9.4	0.10		mg/L	2	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>						
		<b>EPA 8020A</b>		<b>Analyst: VM</b>		
Benzene	1500	1.0		µg/L	2	12/29/2001
Ethylbenzene	33	1.0		µg/L	2	12/29/2001
m,p-Xylene	18	1.0		µg/L	2	12/29/2001
MTBE	12	1.0		µg/L	2	12/29/2001
o-Xylene	10	1.0		µg/L	2	12/29/2001
Toluene	46	1.0		µg/L	2	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						
		<b>EPA 8260B</b>		<b>Analyst: YP</b>		
1,1,1,2-Tetrachloroethane	ND	25		µg/L	5	12/29/2001
1,1,1-Trichloroethane	ND	25		µg/L	5	12/29/2001
1,1,1,2,2-Tetrachloroethane	ND	25		µg/L	5	12/29/2001
1,1,2-Trichloroethane	ND	25		µg/L	5	12/29/2001
1,1-Dichloroethane	ND	25		µg/L	5	12/29/2001
1,1-Dichloroethene	ND	25		µg/L	5	12/29/2001
1,1-Dichloropropene	ND	25		µg/L	5	12/29/2001
1,2,3-Trichlorobenzene	ND	25		µg/L	5	12/29/2001
1,2,3-Trichloropropane	ND	25		µg/L	5	12/29/2001
1,2,4-Trichlorobenzene	ND	25		µg/L	5	12/29/2001
1,2,4-Trimethylbenzene	ND	25		µg/L	5	12/29/2001
1,2-Dibromo-3-chloropropane	ND	25		µg/L	5	12/29/2001
1,2-Dibromoethane	ND	25		µg/L	5	12/29/2001
1,2-Dichlorobenzene	ND	25		µg/L	5	12/29/2001
1,2-Dichloroethane	ND	25		µg/L	5	12/29/2001
1,2-Dichloropropane	ND	25		µg/L	5	12/29/2001
1,3,5-Trimethylbenzene	ND	25		µg/L	5	12/29/2001
1,3-Dichlorobenzene	ND	25		µg/L	5	12/29/2001
1,3-Dichloropropane	ND	25		µg/L	5	12/29/2001
1,4-Dichlorobenzene	ND	25		µg/L	5	12/29/2001
2,2-Dichloropropane	ND	25		µg/L	5	12/29/2001
2-Chlorotoluene	ND	25		µg/L	5	12/29/2001
4-Chlorotoluene	ND	25		µg/L	5	12/29/2001
4-Isopropyltoluene	ND	25		µg/L	5	12/29/2001
Benzene	2200	100		µg/L	20	12/31/2001
Bromobenzene	ND	25		µg/L	5	12/29/2001
Bromodichloromethane	ND	25		µg/L	5	12/29/2001
Bromoform	ND	25		µg/L	5	12/29/2001
Bromomethane	ND	25		µg/L	5	12/29/2001
Carbon tetrachloride	ND	25		µg/L	5	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-009A

Client Sample ID: MW-3  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
<b>EPA 8260B</b>						
Chlorobenzene	ND	25		µg/L	5	12/29/2001
Chloroethane	ND	25		µg/L	5	12/29/2001
Chloroform	ND	25		µg/L	5	12/29/2001
Chloromethane	ND	25		µg/L	5	12/29/2001
cis-1,2-Dichloroethene	ND	25		µg/L	5	12/29/2001
Dibromochloromethane	ND	25		µg/L	5	12/29/2001
Dibromomethane	ND	25		µg/L	5	12/29/2001
Dichlorodifluoromethane	ND	25		µg/L	5	12/29/2001
Ethylbenzene	37	25		µg/L	5	12/29/2001
Hexachlorobutadiene	ND	25		µg/L	5	12/29/2001
Isopropylbenzene	85	25		µg/L	5	12/29/2001
m,p-Xylene	ND	25		µg/L	5	12/29/2001
Methylene chloride	ND	100		µg/L	5	12/29/2001
Naphthalene	ND	25		µg/L	5	12/29/2001
n-Butylbenzene	39	25		µg/L	5	12/29/2001
n-Propylbenzene	250	25		µg/L	5	12/29/2001
o-Xylene	ND	25		µg/L	5	12/29/2001
sec-Butylbenzene	ND	25		µg/L	5	12/29/2001
Styrene	ND	25		µg/L	5	12/29/2001
tert-Butylbenzene	ND	25		µg/L	5	12/29/2001
Tetrachloroethene	ND	25		µg/L	5	12/29/2001
Toluene	52	25		µg/L	5	12/29/2001
trans-1,2-Dichloroethene	ND	25		µg/L	5	12/29/2001
Trichloroethene	ND	25		µg/L	5	12/29/2001
Trichlorofluoromethane	ND	25		µg/L	5	12/29/2001
Vinyl chloride	ND	25		µg/L	5	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range





**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-009B

Client Sample ID: MW-3  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: AG
Diesel	1.7	0.10		mg/L	2	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range

*fr*



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-010A

**Client Sample ID:** MW-4  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	0.55	0.050		mg/L	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	33	0.50		µg/L	1	12/29/2001
Ethylbenzene	ND	0.50		µg/L	1	12/29/2001
m,p-Xylene	1.7	0.50		µg/L	1	12/29/2001
MTBE	0.76	0.50		µg/L	1	12/29/2001
o-Xylene	ND	0.50		µg/L	1	12/29/2001
Toluene	3.0	0.50		µg/L	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	36	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-010A

**Client Sample ID:** MW-4  
**Collection Date:** 12/26/2001  
**Matrix:** WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS EPA 8260B</b>						Analyst: YP
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	ND	5.0		µg/L	1	12/29/2001
m,p-Xylene	ND	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	ND	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



*R*

**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc

Client Sample ID: MW-4

Lab Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

Collection Date: 12/26/2001

Lab ID: S10390-010B

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS BY GC/FID		EPA 8015B(M)				Analyst: AG
Diesel	0.20	0.050		mg/L	1	12/31/2001

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

\* - Value exceeds Maximum Contaminant Level



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-011A

Client Sample ID: MW-5  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	1.4	0.050		mg/L	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	5.0	0.50		µg/L	1	12/29/2001
Ethylbenzene	0.84	0.50		µg/L	1	12/29/2001
m,p-Xylene	8.3	0.50		µg/L	1	12/29/2001
MTBE	3.6	0.50		µg/L	1	12/29/2001
o-Xylene	2.2	0.50		µg/L	1	12/29/2001
Toluene	7.2	0.50		µg/L	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: YP
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,1-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	12/29/2001
1,1,2-Trichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
1,1-Dichloropropene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,3-Trichloropropane	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	12/29/2001
1,2-Dibromoethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloroethane	ND	5.0		µg/L	1	12/29/2001
1,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
1,3-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
1,4-Dichlorobenzene	ND	5.0		µg/L	1	12/29/2001
2,2-Dichloropropane	ND	5.0		µg/L	1	12/29/2001
2-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Chlorotoluene	ND	5.0		µg/L	1	12/29/2001
4-Isopropyltoluene	ND	5.0		µg/L	1	12/29/2001
Benzene	5.1	5.0		µg/L	1	12/29/2001
Bromobenzene	ND	5.0		µg/L	1	12/29/2001
Bromodichloromethane	ND	5.0		µg/L	1	12/29/2001
Bromoform	ND	5.0		µg/L	1	12/29/2001
Bromomethane	ND	5.0		µg/L	1	12/29/2001
Carbon tetrachloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-011A

Client Sample ID: MW-5  
 Collection Date: 12/26/2001  
 Matrix: WATER

Analyses Result Limit Qual Units DF Date Analyzed

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: YP
<b>EPA 8260B</b>						
Chlorobenzene	ND	5.0		µg/L	1	12/29/2001
Chloroethane	ND	5.0		µg/L	1	12/29/2001
Chloroform	ND	5.0		µg/L	1	12/29/2001
Chloromethane	ND	5.0		µg/L	1	12/29/2001
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Dibromochloromethane	ND	5.0		µg/L	1	12/29/2001
Dibromomethane	ND	5.0		µg/L	1	12/29/2001
Dichlorodifluoromethane	ND	5.0		µg/L	1	12/29/2001
Ethylbenzene	ND	5.0		µg/L	1	12/29/2001
Hexachlorobutadiene	ND	5.0		µg/L	1	12/29/2001
Isopropylbenzene	6.0	5.0		µg/L	1	12/29/2001
m,p-Xylene	9.8	5.0		µg/L	1	12/29/2001
Methylene chloride	ND	20		µg/L	1	12/29/2001
Naphthalene	ND	5.0		µg/L	1	12/29/2001
n-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
n-Propylbenzene	ND	5.0		µg/L	1	12/29/2001
o-Xylene	ND	5.0		µg/L	1	12/29/2001
sec-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Styrene	ND	5.0		µg/L	1	12/29/2001
tert-Butylbenzene	ND	5.0		µg/L	1	12/29/2001
Tetrachloroethene	ND	5.0		µg/L	1	12/29/2001
Toluene	8.1	5.0		µg/L	1	12/29/2001
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichloroethene	ND	5.0		µg/L	1	12/29/2001
Trichlorofluoromethane	ND	5.0		µg/L	1	12/29/2001
Vinyl chloride	ND	5.0		µg/L	1	12/29/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
Lab Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13  
Lab ID: S10390-011B

Client Sample ID: MW-5  
Collection Date: 12/26/2001  
Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC/FID</b>			<b>EPA 8015B(M)</b>			Analyst: AG
Diesel	0.76	0.050		mg/L	1	12/31/2001

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
B - Analyte detected in the associated Method Blank  
\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
E - Value above quantitation range

*R*



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-006A

**Client Sample ID:** BH 6 @ 11

**Collection Date:** 12/26/2001  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC/FID</b>						
Diesel	1	1.0		mg/Kg	1	12/31/2001
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>						
GRO	ND	1.0		mg/Kg	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>						
Benzene	ND	5.0		µg/Kg	1	12/29/2001
Ethylbenzene	ND	5.0		µg/Kg	1	12/29/2001
m,p-Xylene	ND	5.0		µg/Kg	1	12/29/2001
MTBE	ND	5.0		µg/Kg	1	12/29/2001
o-Xylene	ND	5.0		µg/Kg	1	12/29/2001
Toluene	ND	5.0		µg/Kg	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloropropene	ND	5.0		µg/Kg	1	1/8/2002
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	1/8/2002
1,2-Dibromoethane	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,3-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
2,2-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
2-Chlorotoluene	ND	5.0		µg/Kg	1	1/8/2002
4-Chlorotoluene	ND	5.0		µg/Kg	1	1/8/2002
4-Isopropyltoluene	ND	5.0		µg/Kg	1	1/8/2002
Benzene	ND	5.0		µg/Kg	1	1/8/2002
Bromobenzene	ND	5.0		µg/Kg	1	1/8/2002
Bromodichloromethane	ND	5.0		µg/Kg	1	1/8/2002
Bromoform	ND	5.0		µg/Kg	1	1/8/2002

**Qualifiers:** ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

\* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range





# CRL Environmental Laboratories

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-006A

Client Sample ID: BH 6 @ 11  
 Collection Date: 12/26/2001  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: BR
<b>EPA 8260B</b>						
Bromomethane	ND	5.0		µg/Kg	1	1/8/2002
Carbon tetrachloride	ND	5.0		µg/Kg	1	1/8/2002
Chlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
Chloroethane	ND	5.0		µg/Kg	1	1/8/2002
Chloroform	ND	5.0		µg/Kg	1	1/8/2002
Chloromethane	ND	5.0		µg/Kg	1	1/8/2002
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	1/8/2002
Dibromochloromethane	ND	5.0		µg/Kg	1	1/8/2002
Dibromomethane	ND	5.0		µg/Kg	1	1/8/2002
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	1/8/2002
Ethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Hexachlorobutadiene	ND	5.0		µg/Kg	1	1/8/2002
Isopropylbenzene	ND	5.0		µg/Kg	1	1/8/2002
m,p-Xylene	ND	5.0		µg/Kg	1	1/8/2002
Methylene chloride	ND	5.0		µg/Kg	1	1/8/2002
Naphthalene	ND	5.0		µg/Kg	1	1/8/2002
n-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
n-Propylbenzene	ND	5.0		µg/Kg	1	1/8/2002
o-Xylene	ND	5.0		µg/Kg	1	1/8/2002
sec-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Styrene	ND	5.0		µg/Kg	1	1/8/2002
tert-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Tetrachloroethene	ND	5.0		µg/Kg	1	1/8/2002
Toluene	ND	5.0		µg/Kg	1	1/8/2002
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
Trichloroethene	ND	5.0		µg/Kg	1	1/8/2002
Trichlorofluoromethane	ND	5.0		µg/Kg	1	1/8/2002
Vinyl chloride	ND	5.0		µg/Kg	1	1/8/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



# CRL Environmental Laboratories

Date: 14-Jan-02

**CLIENT:** Geocon Consultants, Inc  
**Lab Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13  
**Lab ID:** S10390-005A

**Client Sample ID:** BH 9 @ 6.5  
**Collection Date:** 12/26/2001  
**Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: AG
Diesel	1.7	1.0		mg/Kg	1	12/28/2001
<b>GASOLINE RANGE ORGANICS BY GC/FID</b>		<b>EPA 8015B(M)</b>				Analyst: VM
GRO	ND	1.0		mg/Kg	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/PID</b>		<b>EPA 8020A</b>				Analyst: VM
Benzene	ND	5.0		µg/Kg	1	12/29/2001
Ethylbenzene	ND	5.0		µg/Kg	1	12/29/2001
m,p-Xylene	ND	5.0		µg/Kg	1	12/29/2001
MTBE	ND	5.0		µg/Kg	1	12/29/2001
o-Xylene	ND	5.0		µg/Kg	1	12/29/2001
Toluene	ND	5.0		µg/Kg	1	12/29/2001
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>		<b>EPA 8260B</b>				Analyst: BR
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
1,1-Dichloropropene	ND	5.0		µg/Kg	1	1/8/2002
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2,4-Trimethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	1/8/2002
1,2-Dibromoethane	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichloroethane	ND	5.0		µg/Kg	1	1/8/2002
1,2-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,3,5-Trimethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
1,3-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
2,2-Dichloropropane	ND	5.0		µg/Kg	1	1/8/2002
2-Chlorotoluene	ND	5.0		µg/Kg	1	1/8/2002
4-Chlorotoluene	ND	5.0		µg/Kg	1	1/8/2002
4-Isopropyltoluene	ND	5.0		µg/Kg	1	1/8/2002
Benzene	ND	5.0		µg/Kg	1	1/8/2002
Bromobenzene	ND	5.0		µg/Kg	1	1/8/2002
Bromodichloromethane	ND	5.0		µg/Kg	1	1/8/2002
Bromoform	ND	5.0		µg/Kg	1	1/8/2002

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range



**CRL Environmental Laboratories**

Date: 14-Jan-02

CLIENT: Geocon Consultants, Inc  
 Lab Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13  
 Lab ID: S10390-005A

Client Sample ID: BH 9 @ 6.5  
 Collection Date: 12/26/2001  
 Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>						Analyst: BR
<b>EPA 8260B</b>						
Bromomethane	ND	5.0		µg/Kg	1	1/8/2002
Carbon tetrachloride	ND	5.0		µg/Kg	1	1/8/2002
Chlorobenzene	ND	5.0		µg/Kg	1	1/8/2002
Chloroethane	ND	5.0		µg/Kg	1	1/8/2002
Chloroform	ND	5.0		µg/Kg	1	1/8/2002
Chloromethane	ND	5.0		µg/Kg	1	1/8/2002
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	1/8/2002
Dibromochloromethane	ND	5.0		µg/Kg	1	1/8/2002
Dibromomethane	ND	5.0		µg/Kg	1	1/8/2002
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	1/8/2002
Ethylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Hexachlorobutadiene	ND	5.0		µg/Kg	1	1/8/2002
Isopropylbenzene	ND	5.0		µg/Kg	1	1/8/2002
m,p-Xylene	ND	5.0		µg/Kg	1	1/8/2002
Methylene chloride	ND	5.0		µg/Kg	1	1/8/2002
Naphthalene	ND	5.0		µg/Kg	1	1/8/2002
n-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
n-Propylbenzene	ND	5.0		µg/Kg	1	1/8/2002
o-Xylene	ND	5.0		µg/Kg	1	1/8/2002
sec-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Styrene	ND	5.0		µg/Kg	1	1/8/2002
tert-Butylbenzene	ND	5.0		µg/Kg	1	1/8/2002
Tetrachloroethene	ND	5.0		µg/Kg	1	1/8/2002
Toluene	ND	5.0		µg/Kg	1	1/8/2002
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	1/8/2002
Trichloroethene	ND	5.0		µg/Kg	1	1/8/2002
Trichlorofluoromethane	ND	5.0		µg/Kg	1	1/8/2002
Vinyl chloride	ND	5.0		µg/Kg	1	1/8/2002

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits  
 B - Analyte detected in the associated Method Blank  
 \* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 E - Value above quantitation range





CRL Environmental Corporation

4630 Northgate Blvd., Suite 100 • Sacramento, CA 95834 Tel: 916-925-1225 Fax: 916-925-1215

CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

### ANALYTICAL QC SUMMARY REPORT

BatchID: 104

Sample ID	SampType	TestCode	Units	Prep Date	Run ID						
MB-104	MBLK	8015_S_DSL	mg/Kg	12/28/2001	S_GC2_011228B						
Client ID: ZZZZ	Batch ID: 104	TestNo: EPA 8015B(M)		Analysis Date: 12/28/2001	SeqNo: 3076						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9195	1.0									
LCS-104	LCS	8015_S_DSL	mg/Kg	12/28/2001	S_GC2_011228B						
Client ID: ZZZZ	Batch ID: 104	TestNo: EPA 8015B(M)		Analysis Date: 12/28/2001	SeqNo: 3077						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	20.86	1.0	33	0.9195	60.4	52	85	0	0		
S10390-005AMS	MS	8015_S_DSL	mg/Kg	12/28/2001	S_GC2_011228B						
Client ID: BH 9 @ 6.5	Batch ID: 104	TestNo: EPA 8015B(M)		Analysis Date: 12/28/2001	SeqNo: 3078						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	18.74	1.0	33	1.656	51.8	35	88	0	0		
S10390-005ADUP	DUP	8015_S_DSL	mg/Kg	12/28/2001	S_GC2_011228B						
Client ID: BH 9 @ 6.5	Batch ID: 104	TestNo: EPA 8015B(M)		Analysis Date: 12/28/2001	SeqNo: 3081						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1.858	1.0	0	0	0	0	0	1.656	11.5	30	

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



ECL Environmental Corporation

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CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

### ANALYTICAL QC SUMMARY REPORT

BatchID: 105

Sample ID	MB-105	SampType:	MBLK	TestCode:	8015_W_DSL	Units:	mg/L	Prep Date:	12/31/2001	Run ID:	S_GC2_011231A		
Client ID:	ZZZZZ	Batch ID:	105	TestNo:	EPA 8015B(M)			Analysis Date:	12/31/2001	SeqNo:	3083		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel		0		0.050									
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Sample ID	LCS-105	SampType:	LCS	TestCode:	8015_W_DSL	Units:	mg/L	Prep Date:	12/31/2001	Run ID:	S_GC2_011231A		
Client ID:	ZZZZZ	Batch ID:	105	TestNo:	EPA 8015B(M)			Analysis Date:	12/31/2001	SeqNo:	3084		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel		1.018		0.050	1	0	102	60	140	0	0		
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Sample ID	MB-105MS	SampType:	MS	TestCode:	8015_W_DSL	Units:	mg/L	Prep Date:	12/31/2001	Run ID:	S_GC2_011231A		
Client ID:	ZZZZZ	Batch ID:	105	TestNo:	EPA 8015B(M)			Analysis Date:	12/31/2001	SeqNo:	3085		
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel		1.007		0.050	1	0	101	50	150	0	0		
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Qualifiers: ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

2



EKL Environmental Corporation

CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

### ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS049

Sample ID: 011231BLKW1	SampType: MBLK	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A
Client ID: ZZZZZ	Batch ID: A01VOCS049	TestNo: EPA 8260B		Analysis Date: 12/31/2001	SeqNo: 3120

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0	5.0									
1,1,1-Trichloroethane	0	5.0									
1,1,2,2-Tetrachloroethane	0	5.0									
1,1,2-Trichloroethane	0	5.0									
1,1-Dichloroethane	0	5.0									
1,1-Dichloroethene	0	5.0									
1,1-Dichloropropene	0	5.0									
1,2,3-Trichlorobenzene	0	5.0									
1,2,3-Trichloropropane	0	5.0									
1,2,4-Trichlorobenzene	0	5.0									
1,2,4-Trimethylbenzene	0	5.0									
1,2-Dibromo-3-chloropropane	0	5.0									
1,2-Dibromoethane	0	5.0									
1,2-Dichlorobenzene	0	5.0									
1,2-Dichloroethane	0	5.0									
1,2-Dichloropropane	0	5.0									
1,3,5-Trimethylbenzene	0	5.0									
1,3-Dichlorobenzene	0	5.0									
1,3-Dichloropropane	0	5.0									
1,4-Dichlorobenzene	0	5.0									
2,2-Dichloropropane	0	5.0									
2-Chlorotoluene	0	5.0									
4-Chlorotoluene	0	5.0									
4-Isopropyltoluene	0	5.0									
Benzene	0	5.0									
Bromobenzene	0	5.0									
Bromodichloromethane	0	5.0									
Bromoform	0	5.0									
Bromomethane	0	5.0									
Carbon tetrachloride	0	5.0									

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Qualifiers: NID - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits



CLIENT: Geocon Consultants, Inc  
 Work Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS049

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Sample ID: 011231BLKW1	SampType: MBLK	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A
Client ID: ZZZZ	Batch ID: A01VOCS049	TestNo: EPA 8260B		Analysis Date: 12/31/2001	SeqNo: 3120

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	0	5.0									
Chloroethane	0	5.0									
Chloroform	0	5.0									
Chloromethane	0	5.0									
cis-1,2-Dichloroethene	0	5.0									
Dibromochloromethane	0	5.0									
Dibromomethane	0	5.0									
Dichlorodifluoromethane	0	5.0									
Ethylbenzene	0	5.0									
Hexachlorobutadiene	0	5.0									
Isopropylbenzene	0	5.0									
m,p-Xylene	0	5.0									
Methylene chloride	16.23	20									J
Naphthalene	0	5.0									
n-Butylbenzene	0	5.0									
n-Propylbenzene	0	5.0									
o-Xylene	0	5.0									
sec-Butylbenzene	0	5.0									
Styrene	0	5.0									
tert-Butylbenzene	0	5.0									
Tetrachloroethene	0	5.0									
Toluene	0	5.0									
trans-1,2-Dichloroethene	0	5.0									
Trichloroethene	0	5.0									
Trichlorofluoromethane	0	5.0									
Vinyl chloride	0	5.0									

Sample ID: 011231LCSW1	SampType: LCS	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A
Client ID: ZZZZ	Batch ID: A01VOCS049	TestNo: EPA 8260B		Analysis Date: 12/31/2001	SeqNo: 3121

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Qualifiers: NI - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits



**CLIENT:** Geocon Consultants, Inc  
**Work Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

**BatchID:** A01VOCS049

CRL Environmental Corporation

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Sample ID	011231LCSW1	SampType:	LCS	TestCode:	8260_W_UN	Units:	µg/L	Prep Date:		Run ID:	S_GCMS1_011231A
Client ID:	ZZZZZ	Batch ID:	A01VOCS049	TestNo:	EPA 8260B	Analysis Date:	12/31/2001	SeqNo:	3121		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	45.01	5.0	50	0	90	30	150	0	0		
1,1,2,2-Tetrachloroethane	45	5.0	50	0	90	30	150	0	0		
1,1,2-Trichloroethane	48.06	5.0	50	0	96.1	30	150	0	0		
1,1-Dichloroethane	45.73	5.0	50	0	91.5	30	150	0	0		
1,1-Dichloroethene	44.71	5.0	50	0	89.4	30	150	0	0		
1,2-Dichlorobenzene	46	5.0	50	0	92	30	150	0	0		
1,2-Dichloroethane	46.59	5.0	50	0	93.2	30	150	0	0		
1,2-Dichloropropane	46.32	5.0	50	0	92.6	30	150	0	0		
1,3-Dichlorobenzene	45	5.0	50	0	90	30	150	0	0		
1,3-Dichloropropane	46.96	5.0	50	0	93.9	30	150	0	0		
1,4-Dichlorobenzene	47.66	5.0	50	0	95.3	30	150	0	0		
2-Chlorotoluene	45.92	5.0	50	0	91.8	30	150	0	0		
Benzene	46.25	5.0	50	0	92.5	30	150	0	0		
Bromodichloromethane	47.01	5.0	50	0	94	30	150	0	0		
Bromoform	48.16	5.0	50	0	96.3	30	150	0	0		
Bromomethane	51.24	5.0	50	0	102	30	150	0	0		
Carbon tetrachloride	45.32	5.0	50	0	90.6	30	150	0	0		
Chlorobenzene	47.34	5.0	50	0	94.7	30	150	0	0		
Chloroethane	44.75	5.0	50	0	89.5	30	150	0	0		
Chloroform	45.21	5.0	50	0	90.4	30	150	0	0		
Chloromethane	40.9	5.0	50	0	81.8	30	150	0	0		
Dibromomethane	56.61	5.0	50	0	113	30	150	0	0		
Dichlorodifluoromethane	42.86	5.0	50	0	85.7	30	150	0	0		
Ethylbenzene	47.66	5.0	50	0	95.3	30	150	0	0		
m,p-Xylene	97.48	5.0	100	0	97.5	30	150	0	0		
Methylene chloride	37.25	20	50	16.23	42	30	150	0	0		
o-Xylene	47.36	5.0	50	0	94.7	30	150	0	0		
Tetrachloroethene	47.3	5.0	50	0	94.6	30	150	0	0		
Toluene	46.57	5.0	50	0	93.1	30	150	0	0		
trans-1,2-Dichloroethene	44.91	5.0	50	0	89.8	30	150	0	0		
Trichloroethene	46.95	5.0	50	0	93.9	30	150	0	0		

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

2





CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

Batch ID: A01VOCS049

Project: Hegenberger Maintenance/E8100-06-13

CRL Environmental Corporation

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Sample ID	011231LCSW1	SampType: LCS	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A					
Client ID:	ZZZZZ	Batch ID: A01VOCS049	TestNo: EPA 8260B	Analysis Date: 12/31/2001	SeqNo: 3121						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Trichlorofluoromethane	42.28	5.0	50	0	84.6	30	150	0	0		
Vinyl chloride	42.06	5.0	50	0	84.1	30	150	0	0		

Sample ID	011231BLKW1MS	SampType: MS	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A					
Client ID:	ZZZZZ	Batch ID: A01VOCS049	TestNo: EPA 8260B	Analysis Date: 12/31/2001	SeqNo: 3122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	47.38	5.0	50	0	94.8	71	120	0	0		
Benzene	50.26	5.0	50	0	101	82	122	0	0		
Chlorobenzene	50.82	5.0	50	0	102	81	121	0	0		
Toluene	50.29	5.0	50	0	101	81	125	0	0		
Trichloroethene	50.86	5.0	50	0	102	80	123	0	0		

Sample ID	S10390-009ADUP	SampType: DUP	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011231A					
Client ID:	MW-3	Batch ID: A01VOCS049	TestNo: EPA 8260B	Analysis Date: 12/31/2001	SeqNo: 3127						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	2310	100	0	0	0	0	0	0	2193	5.20	30
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**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

2



CRL Environmental Corporation

CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS053

Sample ID 020108BLKW1 SampType: MBLK TestCode: 8260\_S\_FUL Units: µg/Kg Prep Date: Run ID: S\_GCMS1\_020106A  
Client ID: ZZZZZ Batch ID: A01VOCS053 TestNo: EPA 8260B Analysis Date: 1/8/2002 SeqNo: 3316

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

H - Analyte detected in the associated Method Blank

2

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CLIENT: Geocon Consultants, Inc  
 Work Order: S10390  
 Project: Hegenberger Maintenance/E:8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOC053

CRL Environmental Corporation

4630 Northgate Blvd., Suite 100 • Sacramento, CA 95834 Tel: 916-925-1225 Fax: 916-925-1215

Sample ID: 020108BLKW1	SampType: MBLK	TestCode: 8260_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GCMS1_020106A
Client ID: ZZZZZ	Batch ID: A01VOC053	TestNo: EPA 8260B		Analysis Date: 1/8/2002	SeqNo: 3316

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methylene chloride	ND	5.0									
Naphthalene	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethane	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

*B*



CRL Environmental Corporation

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CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS053

Sample ID: 020108LCSW1	SampType: LCS	TestCode: 8260_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GCMS1_020106A
Client ID: ZZZZZ	Batch ID: A01VOCS053	TestNo: EPA 8260B		Analysis Date: 1/8/2002	SeqNo: 3317

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	46.7	5.0	50	0	93.4	30	150	0	0		
1,1,2,2-Tetrachloroethane	50.98	5.0	50	0	102	30	150	0	0		
1,1,2-Trichloroethane	54.65	5.0	50	0	109	30	150	0	0		
1,1-Dichloroethane	49.84	5.0	50	0	99.7	30	150	0	0		
1,1-Dichloroethene	46.13	5.0	50	0	92.3	30	150	0	0		
1,2-Dichlorobenzene	50.69	5.0	50	0	101	30	150	0	0		
1,2-Dichloroethane	54.48	5.0	50	0	109	30	150	0	0		
1,2-Dichloropropane	50.68	5.0	50	0	101	30	150	0	0		
1,3-Dichlorobenzene	47.5	5.0	50	0	95	30	150	0	0		
1,4-Dichlorobenzene	45.9	5.0	50	0	91.8	30	150	0	0		
Benzene	48.05	5.0	50	0	96.1	30	150	0	0		
Bromodichloromethane	50.89	5.0	50	0	102	30	150	0	0		
Bromoform	42.78	5.0	50	0	85.6	30	150	0	0		
Bromomethane	36.93	5.0	50	0	73.9	30	150	0	0		
Carbon tetrachloride	39.42	5.0	50	0	78.8	30	150	0	0		
Chlorobenzene	46.68	5.0	50	0	93.4	30	150	0	0		
Chloroethane	43.33	5.0	50	0	86.7	30	150	0	0		
Chloroform	54.88	5.0	50	0	110	30	150	0	0		
Chloromethane	41.26	5.0	50	0	82.5	30	150	0	0		
cis-1,3-Dichloropropene	51.46	5.0	50	0	103	30	150	0	0		
Ethylbenzene	46.02	5.0	50	0	92	30	150	0	0		
m,p-Xylene	87.83	5.0	100	0	87.8	30	150	0	0		
Methylene chloride	31.17	5.0	50	0	62.3	30	150	0	0		
o-Xylene	45.68	5.0	50	0	91.4	30	150	0	0		
Tetrachloroethene	42.03	5.0	50	0	84.1	30	150	0	0		
Toluene	46.8	5.0	50	0	93.6	30	150	0	0		
trans-1,2-Dichloroethene	46.66	5.0	50	0	93.3	30	150	0	0		
Trichloroethene	46.72	5.0	50	0	93.4	30	150	0	0		
Trichlorofluoromethane	41.9	5.0	50	0	83.8	30	150	0	0		
Vinyl chloride	44.46	5.0	50	0	88.9	30	150	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

BatchID: A01VOCS053

Project: Hegenberger Maintenance/E8100-06-13

CRL Environmental Corporation

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Sample ID	S10390-006AMS	SampType:	MS	TestCode:	8260_S_FUL	Units:	µg/Kg	Prep Date:		Run ID:	S_GCMS1_020106A
Client ID:	BH 6 @ 11	Batch ID:	A01VOCS053	TestNo:	EPA 8260B			Analysis Date:	1/8/2002	SeqNo:	3321

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	31.98	5.0	50	0	64	71	140	0	0		S
Benzene	30.99	5.0	50	0	62	74	129	0	0		S
Chlorobenzene	30.68	5.0	50	0	61.4	44	136	0	0		
Toluene	30.98	5.0	50	0	62	59	142	0	0		
Trichloroethene	32.4	5.0	50	0	64.8	70	135	0	0		S

Sample ID	S10390-006ADUP	SampType:	DUP	TestCode:	8260_S_FUL	Units:	µg/Kg	Prep Date:		Run ID:	S_GCMS1_020106A
Client ID:	BH 6 @ 11	Batch ID:	A01VOCS053	TestNo:	EPA 8260B			Analysis Date:	1/8/2002	SeqNo:	3320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,1-Trichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,2,2-Tetrachloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,2-Trichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethene	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloropropene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichloropropane	ND	5.0	0	0	0	0	0	0	0	30	
1,2,4-Trichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,4-Trimethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dibromo-3-chloropropane	ND	10	0	0	0	0	0	0	0	30	
1,2-Dibromoethane	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloropropane	ND	5.0	0	0	0	0	0	0	0	30	
1,3,5-Trimethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,3-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,3-Dichloropropane	ND	5.0	0	0	0	0	0	0	0	30	
1,4-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
2,2-Dichloropropane	ND	5.0	0	0	0	0	0	0	0	30	

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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CLIENT: Geocon Consultants, Inc

Work Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS053

CRL Environmental Corporation

Sample ID: S10390-006ADUP	SampType: DUP	TestCode: 8260_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GCMS1_020106A
Client ID: BH 6 @ 11	Batch ID: A01VOCS053	TestNo: EPA 8260B		Analysis Date: 1/8/2002	SeqNo: 3320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorotoluene	ND	5.0	0	0	0	0	0	0	0	30	
4-Chlorotoluene	ND	5.0	0	0	0	0	0	0	0	30	
4-Isopropyltoluene	ND	5.0	0	0	0	0	0	0	0	30	
Benzene	ND	5.0	0	0	0	0	0	0	0	30	
Bromobenzene	ND	5.0	0	0	0	0	0	0	0	30	
Bromodichloromethane	ND	5.0	0	0	0	0	0	0	0	30	
Bromoform	ND	5.0	0	0	0	0	0	0	0	30	
Bromomethane	ND	5.0	0	0	0	0	0	0	0	30	
Carbon tetrachloride	ND	5.0	0	0	0	0	0	0	0	30	
Chlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
Chloroethane	ND	5.0	0	0	0	0	0	0	0	30	
Chloroform	ND	5.0	0	0	0	0	0	0	0	30	
Chloromethane	ND	5.0	0	0	0	0	0	0	0	30	
cis-1,2-Dichloroethene	ND	5.0	0	0	0	0	0	0	0	30	
cis-1,3-Dichloropropene	ND	5.0	0	0	0	0	0	0	0	30	
Dibromochloromethane	ND	5.0	0	0	0	0	0	0	0	30	
Dibromomethane	ND	5.0	0	0	0	0	0	0	0	30	
Dichlorodifluoromethane	ND	5.0	0	0	0	0	0	0	0	30	
Ethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
Hexachlorobutadiene	ND	5.0	0	0	0	0	0	0	0	30	
Isopropylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
m,p-Xylene	ND	5.0	0	0	0	0	0	0	0	30	
Naphthalene	ND	5.0	0	0	0	0	0	0	0	30	
n-Butylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
n-Propylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
o-Xylene	ND	5.0	0	0	0	0	0	0	0	30	
sec-Butylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
Styrene	ND	5.0	0	0	0	0	0	0	0	30	
tert-Butylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
Tetrachloroethene	ND	5.0	0	0	0	0	0	0	0	30	
Toluene	ND	5.0	0	0	0	0	0	0	0	30	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E:8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCS053

Sample ID	S10390-006ADUP	SampType:	DUP	TestCode:	8260_S_FUL	Units:	µg/Kg	Prep Date:		Run ID:	S_GCMS1_020106A
Client ID:	BH 6 @ 11	Batch ID:	A01VOCS053	TestNo:	EPA 8260B			Analysis Date:	1/8/2002	SeqNo:	3320

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	ND	5.0	0	0	0	0	0	0	0	30	
Trichloroethene	ND	5.0	0	0	0	0	0	0	0	30	
Trichlorofluoromethane	ND	5.0	0	0	0	0	0	0	0	30	
Vinyl chloride	ND	5.0	0	0	0	0	0	0	0	30	

**Qualifiers:**

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CRL Environmental Corporation

CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCW047

Sample ID 011229BLKW1 SampType: MBLK TestCode: 8260\_W\_UN Units: µg/L Prep Date: Run ID: S\_GCMS1\_011229A  
Client ID: ZZZZZ Batch ID: A01VOCW04 TestNo: EPA 8260B Analysis Date: 12/29/2001 SeqNo: 3107

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0	5.0									
1,1,1-Trichloroethane	0	5.0									
1,1,2,2-Tetrachloroethane	0	5.0									
1,1,2-Trichloroethane	0	5.0									
1,1-Dichloroethane	0	5.0									
1,1-Dichloroethene	0	5.0									
1,1-Dichloropropene	0	5.0									
1,2,3-Trichlorobenzene	0	5.0									
1,2,3-Trichloropropane	0	5.0									
1,2,4-Trichlorobenzene	0	5.0									
1,2,4-Trimethylbenzene	0	5.0									
1,2-Dibromo-3-chloropropane	0	5.0									
1,2-Dibromoethane	0	5.0									
1,2-Dichlorobenzene	0	5.0									
1,2-Dichloroethane	0	5.0									
1,2-Dichloropropane	0	5.0									
1,3,5-Trimethylbenzene	0	5.0									
1,3-Dichlorobenzene	0	5.0									
1,3-Dichloropropane	0	5.0									
1,4-Dichlorobenzene	0	5.0									
2,2-Dichloropropane	0	5.0									
2-Chlorotoluene	0	5.0									
4-Chlorotoluene	0	5.0									
4-Isopropyltoluene	0	5.0									
Benzene	0	5.0									
Bromobenzene	0	5.0									
Bromodichloromethane	0	5.0									
Bromoform	0	5.0									
Bromomethane	0	5.0									
Carbon tetrachloride	0	5.0									

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

BatchID: A01VOCW047

Project: Hegenberger Maintenance/E8100-06-13

CRL Environmental Corporation

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Sample ID: 011229BLKW1	SampType: MBLK	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011229A
Client ID: ZZZZZ	Batch ID: A01VOCW04	TestNo: EPA 8260B		Analysis Date: 12/29/2001	SeqNo: 3107

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	0	5.0									
Chloroethane	0	5.0									
Chloroform	0	5.0									
Chloromethane	0	5.0									
cis-1,2-Dichloroethene	0	5.0									
Dibromochloromethane	0	5.0									
Dibromomethane	0	5.0									
Dichlorodifluoromethane	0	5.0									
Ethylbenzene	0	5.0									
Hexachlorobutadiene	0	5.0									
Isopropylbenzene	0	5.0									
m,p-Xylene	0	5.0									
Methylene chloride	11.19	20									J
Naphthalene	0	5.0									
n-Butylbenzene	0	5.0									
n-Propylbenzene	0	5.0									
o-Xylene	0	5.0									
sec-Butylbenzene	0	5.0									
Styrene	0	5.0									
tert-Butylbenzene	0	5.0									
Tetrachloroethene	0	5.0									
Toluene	0	5.0									
trans-1,2-Dichloroethene	0	5.0									
Trichloroethene	0	5.0									
Trichlorofluoromethane	0	5.0									
Vinyl chloride	0	5.0									

Sample ID: 011229LCSW1	SampType: LCS	TestCode: 8260_W_UN	Units: µg/L	Prep Date:	Run ID: S_GCMS1_011229A
Client ID: ZZZZZ	Batch ID: A01VOCW04	TestNo: EPA 8260B		Analysis Date: 12/29/2001	SeqNo: 3108

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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Qualifiers: ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits



CLIENT: Geocon Consultants, Inc

Work Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCW047

CRL Environmental Corporation

Sample ID: 011229LCSW1    SampType: LCS    TestCode: 8260\_W\_UN    Units: µg/L    Prep Date:    Run ID: S\_GCMS1\_011229A  
 Client ID: ZZZZZ    Batch ID: A01VOCW04    TestNo: EPA 8260B    Analysis Date: 12/29/2001    SeqNo: 3108

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	53.59	5.0	50	0	107	30	150	0	0		
1,1,2,2-Tetrachloroethane	53.45	5.0	50	0	107	30	150	0	0		
1,1,2-Trichloroethane	52.39	5.0	50	0	105	30	150	0	0		
1,1-Dichloroethane	51.72	5.0	50	0	103	30	150	0	0		
1,1-Dichloroethene	50.43	5.0	50	0	101	30	150	0	0		
1,2-Dichlorobenzene	51.94	5.0	50	0	104	30	150	0	0		
1,2-Dichloroethane	51.35	5.0	50	0	103	30	150	0	0		
1,2-Dichloropropane	52.07	5.0	50	0	104	30	150	0	0		
1,3-Dichlorobenzene	51.67	5.0	50	0	103	30	150	0	0		
1,3-Dichloropropane	51.11	5.0	50	0	102	30	150	0	0		
1,4-Dichlorobenzene	52.57	5.0	50	0	105	30	150	0	0		
2-Chlorotoluene	51.19	5.0	50	0	102	30	150	0	0		
Benzene	50.62	5.0	50	0	101	30	150	0	0		
Bromobenzene	50.57	5.0	50	0	101	30	150	0	0		
Bromodichloromethane	55.01	5.0	50	0	110	30	150	0	0		
Bromoform	61.36	5.0	50	0	123	30	150	0	0		
Bromomethane	79.68	5.0	50	0	159	30	150	0	0		S
Carbon tetrachloride	53.11	5.0	50	0	106	30	150	0	0		
Chlorobenzene	51.61	5.0	50	0	103	30	150	0	0		
Chloroethane	50.33	5.0	50	0	101	30	150	0	0		
Chloroform	50.56	5.0	50	0	101	30	150	0	0		
Chloromethane	48.52	5.0	50	0	97	30	150	0	0		
Dibromomethane	61.45	5.0	50	0	123	30	150	0	0		
Dichlorodifluoromethane	50.43	5.0	50	0	101	30	150	0	0		
Ethylbenzene	51.85	5.0	100	0	51.8	30	150	0	0		
Hexachlorobutadiene	50.28	5.0	50	0	101	30	150	0	0		
m,p-Xylene	105.1	5.0	100	0	105	30	150	0	0		
Methylene chloride	33.45	20	50	11.19	44.5	30	150	0	0		
Naphthalene	68.15	5.0	50	0	136	30	150	0	0		
n-Butylbenzene	57.48	5.0	50	0	115	30	150	0	0		
n-Propylbenzene	52.51	5.0	50	0	105	30	150	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

BatchID: A01VOCW047

Project: Hegenberger Maintenance/E8100-06-13

CRL Environmental Corporation

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Sample ID	SampType	TestCode	Units	Prep Date	Run ID						
011229LCSW1	LCS	8260_W_UN	µg/L		S_GCMS1_011229A						
Client ID: ZZZZZ	Batch ID: A01VOCW04	TestNo: EPA 8260B		Analysis Date: 12/29/2001	SeqNo: 3108						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	51.63	5.0	50	0	103	30	150	0	0	0	
sec-Butylbenzene	55.24	5.0	50	0	110	30	150	0	0	0	
Styrene	55.31	5.0	50	0	111	30	150	0	0	0	
tert-Butylbenzene	55.38	5.0	50	0	111	30	150	0	0	0	
Tetrachloroethene	51.71	5.0	50	0	103	30	150	0	0	0	
Toluene	51.16	5.0	50	0	102	30	150	0	0	0	
trans-1,2-Dichloroethene	50.85	5.0	50	0	102	30	150	0	0	0	
Trichloroethene	51.79	5.0	50	0	104	30	150	0	0	0	
Trichlorofluoromethane	47.76	5.0	50	0	95.5	30	150	0	0	0	
Vinyl chloride	47.89	5.0	50	0	95.8	30	150	0	0	0	

Sample ID	SampType	TestCode	Units	Prep Date	Run ID						
011229BLKW1MS	MS	8260_W_UN	µg/L		S_GCMS1_011229A						
Client ID: ZZZZZ	Batch ID: A01VOCW04	TestNo: EPA 8260B		Analysis Date: 12/29/2001	SeqNo: 3109						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	50.86	5.0	50	0	102	71	120	0	0	0	
Benzene	50.68	5.0	50	0	101	82	122	0	0	0	
Chlorobenzene	51.46	5.0	50	0	103	81	121	0	0	0	
Toluene	50.88	5.0	50	0	102	81	125	0	0	0	
Trichloroethene	51.48	5.0	50	0	103	80	123	0	0	0	

Sample ID	SampType	TestCode	Units	Prep Date	Run ID						
S10390-011ADUP	DUP	8260_W_UN	µg/L		S_GCMS1_011229A						
Client ID: MW-5	Batch ID: A01VOCW04	TestNo: EPA 8260B		Analysis Date: 12/29/2001	SeqNo: 3113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,1,1-Trichloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,1,2,2-Tetrachloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,1,2-Trichloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethene	0	5.0	0	0	0	0	0	0	0	30	

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



CLIENT: Geocon Consultants, Inc  
 Work Order: S10390  
 Project: Hegenberger Maintenance/E8100-06-13

# ANALYTICAL QC SUMMARY REPORT

BatchID: A01VOCW047

Sample ID: S10390-011ADUP    SampType: DUP    TestCode: 8260\_W\_UN    Units: µg/L    Prep Date:    Run ID: S\_GCMS1\_011229A  
 Client ID: MW-5    Batch ID: A01VOCW04    TestNo: EPA 8260B    Analysis Date: 12/29/2001    SeqNo: 3113

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	0	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichloropropane	0	5.0	0	0	0	0	0	0	0	30	
1,2,4-Trichlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
1,2,4-Trimethylbenzene	0	5.0	0	0	0	0	0	0	0	30	
1,2-Dibromo-3-chloropropane	1.52	5.0	0	0	0	0	0	0	0	30	J
1,2-Dibromoethane	0	5.0	0	0	0	0	0	0	0	30	
1,2-Dichlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloroethane	0	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloropropane	0	5.0	0	0	0	0	0	0	0	30	
1,3,5-Trimethylbenzene	0	5.0	0	0	0	0	0	1.01	0	30	
1,3-Dichlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
1,3-Dichloropropane	0	5.0	0	0	0	0	0	0	0	30	
1,4-Dichlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
2,2-Dichloropropane	0	5.0	0	0	0	0	0	0	0	30	
2-Chlorotoluene	0	5.0	0	0	0	0	0	0	0	30	
4-Chlorotoluene	0	5.0	0	0	0	0	0	0	0	30	
4-Isopropyltoluene	0	5.0	0	0	0	0	0	0	0	30	
Benzene	4.82	5.0	0	0	0	0	0	5.13	0	30	J
Bromobenzene	0	5.0	0	0	0	0	0	0	0	30	
Bromodichloromethane	0	5.0	0	0	0	0	0	0	0	30	
Bromoform	0	5.0	0	0	0	0	0	0	0	30	
Bromomethane	0	5.0	0	0	0	0	0	0	0	30	
Carbon tetrachloride	0	5.0	0	0	0	0	0	0	0	30	
Chlorobenzene	0	5.0	0	0	0	0	0	0	0	30	
Chloroethane	0	5.0	0	0	0	0	0	0	0	30	
Chloroform	5.5	5.0	0	0	0	0	0	4.87	12.2	30	
Chloromethane	0	5.0	0	0	0	0	0	0	0	30	
cis-1,2-Dichloroethene	0	5.0	0	0	0	0	0	0	0	30	
Dibromochloromethane	0	5.0	0	0	0	0	0	0	0	30	
Dibromomethane	0	5.0	0	0	0	0	0	0	0	30	

Qualifiers: NID - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

2

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CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

BatchID: A01VOCW047

Project: Hegenberger Maintenance/E8100-06-13

CRL Environmental Corporation

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Sample ID	SampType	TestCode	Units	Prep Date	Run ID						
S10390-011ADUP	DUP	8280_W_UN	µg/L		S_GCMS1_011229A						
Client ID	Batch ID	TestNo		Analysis Date	SeqNo						
MW-5	A01VOCW04	EPA 8280B		12/29/2001	3113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	0	5.0	0	0	0	0	0	0	0	30	
Ethylbenzene	0	5.0	0	0	0	0	0	0	0	30	
Hexachlorobutadiene	0	5.0	0	0	0	0	0	0	0	30	
Isopropylbenzene	9.97	5.0	0	0	0	0	0	5.97	50.2	30	R
m,p-Xylene	9.98	5.0	0	0	0	0	0	9.77	2.13	30	
Methylene chloride	0	20	0	0	0	0	0	0	0	30	
Naphthalene	0	5.0	0	0	0	0	0	0	0	30	
n-Butylbenzene	2.91	5.0	0	0	0	0	0	1.64	0	30	J
n-Propylbenzene	9.52	5.0	0	0	0	0	0	4.14	78.8	30	R
o-Xylene	2.3	5.0	0	0	0	0	0	2.42	0	30	J
sec-Butylbenzene	1.42	5.0	0	0	0	0	0	0	0	30	J
Styrene	0	5.0	0	0	0	0	0	0	0	30	
tert-Butylbenzene	0	5.0	0	0	0	0	0	0	0	30	
Tetrachloroethene	0	5.0	0	0	0	0	0	0	0	30	
Toluene	7.95	5.0	0	0	0	0	0	8.14	2.36	30	
trans-1,2-Dichloroethene	0	5.0	0	0	0	0	0	0	0	30	
Trichloroethene	0	5.0	0	0	0	0	0	0	0	30	
Trichlorofluoromethane	0	5.0	0	0	0	0	0	0	0	30	
Vinyl chloride	0	5.0	0	0	0	0	0	0	0	30	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**CLIENT:** Geocon Consultants, Inc  
**Work Order:** S10390  
**Project:** Hegenberger Maintenance/E8100-06-13

**ANALYTICAL QC SUMMARY REPORT**
**BatchID: H018G20040**

Sample ID	011228BLKW1	SampType:	MBLK	TestCode:	8015_W_G U	Units:	mg/L	Prep Date:		Run ID:	S_GC1_011228A			
Client ID:	ZZZZZ	Batch ID:	H018G20040	TestNo:	EPA 8015B(M)			Analysis Date:	12/28/2001	SeqNo:	3034			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	0.048	0.050												J
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Sample ID	011228LCSW1	SampType:	LCS	TestCode:	8015_W_G U	Units:	mg/L	Prep Date:		Run ID:	S_GC1_011228A			
Client ID:	ZZZZZ	Batch ID:	H018G20040	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3047			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	0.896	0.050	1	0.048	84.8	64	107	0	0					
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Sample ID	S10390-011AMS	SampType:	MS	TestCode:	8015_W_G U	Units:	mg/L	Prep Date:		Run ID:	S_GC1_011228A			
Client ID:	MW-5	Batch ID:	H018G20040	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3045			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	2.163	0.050	1	1.41	75.3	50	119	0	0					
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Sample ID	S10390-011ADUP	SampType:	DUP	TestCode:	8015_W_G U	Units:	mg/L	Prep Date:		Run ID:	S_GC1_011228A			
Client ID:	MW-5	Batch ID:	H018G20040	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3044			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	1.486	0.050	0	0	0	0	0	1.41	5.25	30				
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Sample ID	011228BLKW1	SampType:	MBLK	TestCode:	8020_W_UN	Units:	µg/L	Prep Date:		Run ID:	S_GC1_011228A			
Client ID:	ZZZZZ	Batch ID:	H018G20040	TestNo:	EPA 8020A			Analysis Date:	12/28/2001	SeqNo:	3048			
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	0	0.50												
Ethylbenzene	0	0.50												
m,p-Xylene	0.487	0.50												J
o-Xylene	0.26	0.50												J
Toluene	0	0.50												

**Qualifiers:** ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits





CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

BatchID: H018G20040

Project: Hegenberger Maintenance/E8100-06-13

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Sample ID	011228LCSW1	SampType:	LCS	TestCode:	8020_W_UN	Units:	µg/L	Prep Date:		Run ID:	S_GC1_011228A
Client ID:	ZZZZZ	Batch ID:	H018G20040	TestNo:	EPA 8020A			Analysis Date:	12/29/2001	SeqNo:	3061

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5.497	0.50	5.5	0	99.9	58	131	0	0		
Ethylbenzene	9.268	0.50	8.6	0	108	58	131	0	0		
m,p-Xylene	34.38	0.50	35	0.487	96.8	58	131	0	0		
o-Xylene	12.89	0.50	12	0.26	105	58	131	0	0		
Toluene	29.22	0.50	30	0	97.4	58	131	0	0		

Sample ID	S10390-011AMS	SampType:	MS	TestCode:	8020_W_UN	Units:	µg/L	Prep Date:		Run ID:	S_GC1_011228A
Client ID:	MW-5	Batch ID:	H018G20040	TestNo:	EPA 8020A			Analysis Date:	12/29/2001	SeqNo:	3059

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	9.549	0.50	5.5	4.958	83.5	60	136	0	0		
Toluene	34.23	0.50	30	7.188	90.1	61	128	0	0		

Sample ID	S10390-011ADUP	SampType:	DUP	TestCode:	8020_W_UN	Units:	µg/L	Prep Date:		Run ID:	S_GC1_011228A
Client ID:	MW-5	Batch ID:	H018G20040	TestNo:	EPA 8020A			Analysis Date:	12/29/2001	SeqNo:	3058

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5.155	0.50	0	0	0	0	0	4.958	3.90	30	
Ethylbenzene	0.882	0.50	0	0	0	0	0	0.838	5.12	30	
m,p-Xylene	8.694	0.50	0	0	0	0	0	8.262	5.10	30	
o-Xylene	2.295	0.50	0	0	0	0	0	2.219	3.37	30	
Toluene	7.535	0.50	0	0	0	0	0	7.188	4.71	30	

**Qualifiers:**

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits



CLIENT: Geocon Consultants, Inc  
Work Order: S10390  
Project: Hegenberger Maintenance/E8100-06-13

ANALYTICAL QC SUMMARY REPORT

BatchID: H018G20041

Sample ID	011228BLKS1	SampType:	MBLK	TestCode:	8015_S_GAS	Units:	mg/Kg	Prep Date:		Run ID:	S_GC1_011228B												
Client ID:	ZZZZZ	Batch ID:	H018G20041	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3062												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	

GRO		0.116		1.0																		J
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Sample ID	011228LCSS1	SampType:	LCS	TestCode:	8015_S_GAS	Units:	mg/Kg	Prep Date:		Run ID:	S_GC1_011228B												
Client ID:	ZZZZZ	Batch ID:	H018G20041	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3068												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	

GRO		3.916		1.0		5	0.116			76		72		93		0				0		
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Sample ID	S10390-006AMS	SampType:	MS	TestCode:	8015_S_GAS	Units:	mg/Kg	Prep Date:		Run ID:	S_GC1_011228B												
Client ID:	BH 6 @ 11	Batch ID:	H018G20041	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3066												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	

GRO		3.371		1.0		5	0	0		67.4		49		97		0				0		
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Sample ID	S10390-006ADUP	SampType:	DUP	TestCode:	8015_S_GAS	Units:	mg/Kg	Prep Date:		Run ID:	S_GC1_011228B												
Client ID:	BH 6 @ 11	Batch ID:	H018G20041	TestNo:	EPA 8015B(M)			Analysis Date:	12/29/2001	SeqNo:	3065												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	

GRO		ND		1.0		0	0	0		0		0		0		0				0		30
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Sample ID	011228BLKS1	SampType:	MBLK	TestCode:	8020_S_FUL	Units:	µg/Kg	Prep Date:		Run ID:	S_GC1_011228B												
Client ID:	ZZZZZ	Batch ID:	H018G20041	TestNo:	EPA 8020A			Analysis Date:	12/29/2001	SeqNo:	3069												
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	

Benzene		ND		5.0																		
Ethylbenzene		ND		5.0																		
m,p-Xylene		ND		5.0																		
o-Xylene		0.884		5.0																		J
Toluene		ND		5.0																		

Qualifiers: ND - Not Detected at the Reporting Limit      S - Spike Recovery outside accepted recovery limits      B - Analyte detected in the associated Method Blank  
 J - Analyte detected below quantitation limits      R - RPD outside accepted recovery limits

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CLIENT: Geocon Consultants, Inc

# ANALYTICAL QC SUMMARY REPORT

Work Order: S10390

Project: Hegenberger Maintenance/E8100-06-13

BatchID: H018G20041

CRL Environmental Corporation

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Sample ID: 011228LCSS1	SampType: LCS	TestCode: 8020_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GC1_011228B
Client ID: ZZZZZ	Batch ID: H018G20041	TestNo: EPA 8020A		Analysis Date: 12/29/2001	SeqNo: 3075

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	26.42	5.0	27	0	97.8	69	112	0	0		
Ethylbenzene	44.19	5.0	42	0	105	69	112	0	0		
m,p-Xylene	155.9	5.0	193	0	80.8	69	112	0	0		
o-Xylene	61.16	5.0	65	0.884	92.7	69	112	0	0		
Toluene	135.8	5.0	134	0	101	69	112	0	0		

Sample ID: S10390-006AMS	SampType: MS	TestCode: 8020_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GC1_011228B
Client ID: BH 6 @ 11	Batch ID: H018G20041	TestNo: EPA 8020A		Analysis Date: 12/29/2001	SeqNo: 3073

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	23.33	5.0	27	0	86.4	39	115	0	0		
Toluene	121.6	5.0	134	0	90.7	38	124	0	0		

Sample ID: S10390-006ADUP	SampType: DUP	TestCode: 8020_S_FUL	Units: µg/Kg	Prep Date:	Run ID: S_GC1_011228B
Client ID: BH 6 @ 11	Batch ID: H018G20041	TestNo: EPA 8020A		Analysis Date: 12/29/2001	SeqNo: 3072

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0	0	0	0	0	0	0	0	30	
Ethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
m,p-Xylene	ND	5.0	0	0	0	0	0	0	0	30	
o-Xylene	ND	5.0	0	0	0	0	0	0	0	30	
Toluene	ND	5.0	0	0	0	0	0	0	0	30	

**Qualifiers:**

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

# CHAIN OF CUSTODY RECORD



**Advanced Technology  
Laboratories**

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Signal Hill, CA 90807  
(562) 989-4045 • FAX (562) 989-4040

## FOR LABORATORY USE ONLY:

P.O.#: _____	Method of Transport Walk-in <input type="checkbox"/> Courier <input type="checkbox"/> UPS <input type="checkbox"/> FED. EXP. <input type="checkbox"/> ATL <input type="checkbox"/>	Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>
Logged By: _____ Date: _____ Time: _____		

Client: <u>Geocom</u>	Address: <u>2356 Research Dr.</u>	TEL: <u>(925) 371-5900</u>
Attn: <u>Matt Hunko</u>	City: <u>Livermore</u> State: <u>CA</u> Zip Code: _____	FAX: <u>(925) 371-5915</u>
Project Name: <u>Hegenberger Maintenance</u> Project #: <u>E8100-06-13</u> Sampler: <u>Matt Hunko</u> (Signature) <u>[Signature]</u>		
Relinquished by: (Signature and Printed Name) <u>[Signature]</u> Date: <u>12-27-01</u> Time: <u>5:00pm</u>	Received by: (Signature and Printed Name) <u>B. ROURA</u> Date: <u>12-27-01</u> Time: <u>5:00pm</u>	
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____	Received by: (Signature and Printed Name) _____ Date: <u>12/28/01</u> Time: <u>10:32 AM</u>	

I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: <u>Matt Hunko</u> <u>12-26-01</u> <u>[Signature]</u> <u>[Signature]</u> Print Name Date Signature	Send Report To: Attn: <u>Matt Hunko</u> Co: <u>Geocom</u> Address: <u>Livermore</u> City: _____ State: _____ Zip: _____	Bill To: Attn: <u>[Signature]</u> Co: <u>[Signature]</u> Address: _____ City: _____ State: _____ Zip: _____	Special Instructions/Comments:
---	---	---	--------------------------------

ITEM	LAB USE ONLY:		Sample Description		CIRCLE APPROPRIATE MATRIX										PRESERVATION	REMARKS							
	Batch #:	Lab No.	Sample I.D.	Date Time	8091 / 8082 (Pesticides PCB-CC)	8200 (Volatile Organics)	821 / 8270 (BNA-SC/MS)	Metals: Total (CAC-SC/MS)	8018/4 (PH/GB TEX (COMBINATION))	8015M (PH/NO (Pestic-CC))	SOLID (SOIL) SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER			AIR	WIPE • FILTER	OTHER	TAT	#	Type	
	S10390-001A		BH6	12/26 AM	X	X					X							E	4	V	G	C	
	↓ 001B		BH7						X										1	J	G	C	
	S10390-002A		BH7		X	X													4	V	G	C	
	↓ 002B		BH7						X										1	J	G	C	
	S10390-003A		BH8		X	X													4	V	G	C	
	↓ 003B		BH8																				
	S10390-004A		BH9		X	X													4	V	G	C	
	↓ 004B		BH9						X										1	J	G	C	
	S10390-005		BH9 @ 6.5		X	X	X				X								1	T	P	C	
	↓ 006		BH6 @ 11		X	X	X				X								1	T	P	C	

• TAT starts 8 a.m. following day if samples received after 5 p.m.	TAT: A= Overnight ≤ 24 hr	B= Emergency Next workday	C= Critical 2 Workdays	D= Urgent 3 Workdays	E= Routine 7 Workdays	Preservatives: H=HCl N=HNO <sub>3</sub> S=H <sub>2</sub> SO <sub>4</sub> C=4°C Z=Zn(Ac) <sub>2</sub> O=NaOH T=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Teclar G=Glass P=Plastic M=Metal						

# CHAIN OF CUSTODY RECORD

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Signal Hill, CA 90807  
(562) 989-4045 • FAX (562) 989-4040

P.O.#: _____	Method of Transport: Walk-in <input type="checkbox"/> Courier <input type="checkbox"/> UPS <input type="checkbox"/> FED. EXP. <input type="checkbox"/> ATL <input type="checkbox"/>	Sample Condition Upon Receipt: 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>
Logged By: _____ Date: _____ Time: _____	TEL: ( ) _____ FAX: ( ) _____	

Client: <u>Geocon</u> Attn: <u>Matt Hunko</u>	Address: _____ City: _____ State: _____ Zip Code: _____	TEL: ( ) _____ FAX: ( ) _____
Project Name: <u>Hegenberger Maint.</u> Project #: <u>E8100-06-13</u> Sampler: <u>Matt Hunko</u> (Printed Name) _____ (Signature) <u>Matt Hunko</u>	Date: <u>12-27-01</u> Time: <u>5:00pm</u> Received by: <u>GSA</u> (Signature) _____ Date: <u>12/28/01</u> Time: <u>10:30am</u>	
Relinquished by: <u>Matt Hunko</u> (Signature and Printed Name) Date: _____ Time: _____	Received by: <u>B. ROVIRA</u> (Signature and Printed Name) Date: _____ Time: _____	

I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: _____ Print Name _____ Date _____ Signature _____	Send Report To: Attn: _____ Co: _____ Address _____ City _____ State _____ Zip _____	Bill To: Attn: _____ Co: _____ Address _____ City _____ State _____ Zip _____	Special Instructions/Comments: _____
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ITEM	LAB USE ONLY:		Sample Description				Circle or Add Analysis(es) Requested	CIRCLE APPROPRIATE MATRIX								PRESERVATION	QA/QC					
	Batch #:	Lab No.	Sample I.D.	Date	Time	8091 / 8092 (Pesticides/PCB-GC)		8280 (Volatiles-GCMS)	825 / 8270 (BNA-GCMS)	Metals: Total (CAC-8010 / 7000)	8015M TPH/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER			DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT
		S10390-007A	MW-1	12/27/01	PM	X	X				X								E	4	VGC	
		↓ 007B	MW-1						X											1	JGC	
		S10390-008A	MW-2			X	X													4	VGC	
		↓ 008B	MW-2						X											1	JGC	
		S10390-009A	MW-3			X	X													4	VGC	
		↓ 009B	MW-3						X											1	JGC	
		S10390-010A	MW-4			X	X													4	VGC	
		↓ 010B	MW-4						X											1	JGC	
		S10390-011A	MW-5			X	X													4	VGC	
		↓ 011B	MW-5						X											1	JGC	

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr    B= Emergency Next workday    C= Critical 2 Workdays    D= Urgent 3 Workdays    E= Routine 7 Workdays

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C    Zn(Ac)    NaOH    Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>

Container Labels: T=Top V=Vial L=Label P=Pack J=Jar B=Beaker G=Glass C=Cap M=Metal

DISTRIBUTION: White with receipt. Yellow to folder. Pink to submitter.

## MONITORING WELL SAMPLING DATA

Project Name: Hegenberger Maintenance	Project Number: E8100-06-13
Well No.: MW-1	Date: 12/26/01
Well Diameter: 4 in.	Field Personnel: Hanko
Casing Length: 18.8 feet	Screened Casing Length:
Well Elevation:                      feet MSL measured from	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 4.08 ft.	2 in. = .1632 Gal/ft.    4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 9.61 Gal.	Volumes Purged: 2.7
Start Purging Time: 13:56	End Purging Time: 14:09
Total Time: 13 min.	Flow Gauge: to
Total Volume Purged: 26 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS				
Purging Method: Submersible Pump		Sampling Method: Disposable Bailer		
Laboratory Analysis:				
TIME	TEMPERATURE (°C)	CONDUCTIVITY (umhos/cm)	pH	Gallons Purged
	17.7	527	6.6	10
	18.8	281	6.4	20
comments: Purge dry.				

## MONITORING WELL SAMPLING DATA

Project Name: Hegenberger Maintenance	Project Number: E8100-06-13
Well No.: MW-2	Date: 12/26/01
Well Diameter: 4 in.	Field Personnel: Hanko
Casing Length: 19 feet	Screened Casing Length:
Well Elevation:                      feet MSL measured from	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 5.53 ft.	2 in. = .1632 Gal/ft. 4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 8.8 Gal.	Volumes Purged: 3.1
Start Purging Time: 12:30	End Purging Time: 12:55
Total Time: 25 min.	Flow Gauge: to
Total Volume Purged: 27 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS				
Purging Method: Submersible Pump			Sampling Method: Disposable Bailer	
Laboratory Analysis:				
TIME	TEMPERATURE (°C)	CONDUCTIVITY (umhos/cm)	pH	Gallons Purged
	20.3	740	7.0	9
	20.7	470	6.9	8
	21.3	1,178	7.1	27
comments: 2 gpm Purged dry.				

## MONITORING WELL SAMPLING DATA

Project Name: Hegenberger Maintenance	Project Number: E8100-06-13
Well No.: MW-3	Date: 12/26/01
Well Diameter: 4 in.	Field Personnel: Hanko
Casing Length: 19.1 feet	Screened Casing Length:
Well Elevation:                      feet MSL measured from	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 4.66 ft.	2 in. = .1632 Gal/ft. 4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 9.4 Gal.	Volumes Purged: 2.9
Start Purging Time: 15:32	End Purging Time: 15:47
Total Time: 15 min.	Flow Gauge: to
Total Volume Purged: 27 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS				
Purging Method: Submersible Pump		Sampling Method: Disposable Bailer		
Laboratory Analysis:				
TIME	TEMPERATURE (°C)	CONDUCTIVITY (umhos/cm)	pH	Gallons Purged
	18.7	951	6.9	10
	18.9	936	7.0	20
	18.5	757	7.0	27
comments: 2 gpm Purged dry.				

## MONITORING WELL SAMPLING DATA

Project Name: Hegenberger Maintenance	Project Number: E8100-06-13
Well No.: MW-4	Date: 12/26/01
Well Diameter: 4 in.	Field Personnel: Hanko
Casing Length: 15.5 feet	Screened Casing Length:
Well Elevation:                      feet MSL measured from	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 5.37 ft.	2 in. = .1632 Gal/ft.    4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 6.6 Gal.	Volumes Purged: 2.7
Start Purging Time: 14:54, 15:14	End Purging Time: 15:09, 16:31
Total Time: 92 min.	Flow Gauge: to
Total Volume Purged: 18 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS				
Purging Method: Submersible Pump		Sampling Method: Disposable Bailer		
Laboratory Analysis:				
TIME	TEMPERATURE (°C)	CONDUCTIVITY (umhos/cm)	pH	Gallons Purged
15:54	19.1	863	6.9	7
15:14	18.7	1,149	7.2	14
comments: Purged dry.				

## MONITORING WELL SAMPLING DATA

<b>Project Name:</b> Hegenberger Maintenance	<b>Project Number:</b> E8100-06-13
Well No.: MW-5	Date: 12/26/01
Well Diameter: 4 in.	Field Personnel: Hanko
Casing Length: 19 feet	Screened Casing Length:
Well Elevation:                      feet MSL measured from	

PURGE CHARACTERISTICS	
Water Depth Before Purging: 5.23 ft.	2 in. = .1632 Gal/ft.    4 in. = .6528 Gal/ft.
Calculated Water Column Volume: 9.0 Gal.	Volumes Purged: 2.5
Start Purging Time: 13:08	End Purging Time: 13:22
Total Time: 14 min.	Flow Gauge: to
Total Volume Purged: 22 Gal.	Avg. Flow Rate: gpm
Water Depth After Purging: feet	Time:
Dissolved Oxygen: mg/l	Free Product: (Y/N); Thickness: inches

SAMPLING CHARACTERISTICS				
Purging Method: Submersible Pump		Sampling Method: Disposable Bailer		
Laboratory Analysis:				
TIME	TEMPERATURE (°C)	CONDUCTIVITY (umhos/cm)	pH	Gallons Purged
	18.4	594	7.0	9
	19.0	261	6.9	18
comments: 2 gpm				



**Virgil Chavez Land Surveying**

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

March 5, 2002  
Project No.: 1865-03A

Matt Hanko  
Geocon Consultants, Inc.  
2356 Research Drive  
Livermore, CA 94550

Subject: Monitoring Well Survey  
555 Hegenberger Road  
Oakland, CA

Dear Matt:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on January 24, 2002. The benchmark for this survey was a PK nail & shiner in the median island on Hegenberger opposite the site. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83).

Benchmark Elevation = 10.76 feet (NGVD 29).

<u>Latitude</u>	<u>Longitude</u>	<u>Northing</u>	<u>Easting</u>	<u>Elev.</u>	<u>Desc.</u>
37.7438848	122.1967221	2097774.45	6071099.12	10.26	TOC MW-1
				10.65	RIM MW-1
37.7440167	122.1965064	2097821.33	6071162.32	10.22	TOC MW-2
				11.13	RIM MW-2
37.7440204	122.1968079	2097824.26	6071075.20	9.46	TOC MW-3
				9.66	RIM MW-3
37.7438655	122.1968329	2097768.00	6071066.93	10.00	TOC MW-4
				10.31	RIM MW-4
37.7437800	122.1966202	2097735.74	6071127.88	10.34	TOC MW-5
				10.74	RIM MW-5
37.7439436	122.1966177	2097795.29	6071129.66	10.80	BH-6
37.7438589	122.1963943	2097763.31	6071193.69	10.76	BH-7
37.7439406	122.1969799	2097796.12	6071024.95	9.51	BH-8
37.7441661	122.1970499	2097878.56	6071006.21	9.46	BH-9

Sincerely,



*Virgil D. Chavez*  
 \_\_\_\_\_  
 Virgil D. Chavez, PLS 6323