SITE INVESTIGATION REPORT

FOR

HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA

1/96

PREPARED FOR

CALTRANS DISTRICT 4
P.O. BOX 23660
OAKLAND, CALIFORNIA

PREPARED BY

GEOCON ENVIRONMENTAL CONSULTANTS
SACRAMENTO, CALIFORNIA

CALTRANS CONTRACT NO. 53W202
TASK ORDER NO. 04-5T9000-01

GEOCON PROJECT NO. S8100-06-34

JANUARY 1996

GEOCON
Environmental Consultants Inc.
GEOTECHNICAL ENGINEERING AND ENVIRONMENTAL SCIENCES

Project No. S8100-06-34
January 23, 1996

California Department of Transportation
P.O. Box 23660
Oakland, California 94623

Attention: Mr. Ronald Dong

Subject: HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
CONTRACT NO. 53W202
TASK ORDER NO. 04-5T9000-01
SITE INVESTIGATION REPORT

Dear Mr. Dong:

In accordance with Caltrans Contract No. 53W202 and Task Order No. 04-5T9000-01, Geocon Environmental Consultants has performed environmental engineering services at the subject site. This report summarizes the services performed including the drilling and sampling of soil borings, the installation of groundwater monitoring wells, and the collection and chemical analysis of soil and groundwater samples.

If you have any questions concerning the contents of this site investigation report, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON ENVIRONMENTAL CONSULTANTS

Richard H. Walls, PE
Task Order Manager

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Project Geologist

IPM/RHW:mc

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TABLE OF CONTENTS

SITE INVESTIGATION REPORT

Project No. S8100-06-34
January 23, 1996

1.0 INTRODUCTION

1.1 General Objectives

The objective of this Task Order was to provide information regarding the vertical and lateral extent of petroleum hydrocarbon soil and groundwater impacts in the vicinity of former gasoline and diesel underground storage tanks (USTs) at the project site. The site investigation work completed by Geocon was performed in general accordance with the Site Investigation Workplan dated September 7, 1995. The work requested by Caltrans consisted of the drilling and construction of five groundwater monitoring wells and the drilling of six soil borings to evaluate the current site conditions relative to potential soil and groundwater hydrocarbon impacts.

1.2 Project Location

The project site consists of the former Caltrans Hegenberger Maintenance Station. The site was utilized as a maintenance facility by Caltrans and the facility operated gasoline and diesel USTs for the refueling of maintenance vehicles. The USTs and the associate piping and pump island were removed from the site in September 1994. The site is currently inactive and is being utilized as a vehicle storage area by the adjacent General Motors Corporation Truck Center facility.

The project site is located east of Route 880 at 555 Hegenberger Road, Oakland, California. The approximate site location is depicted on the Vicinity Map, Figure 1. The site boundaries and current site improvements are shown on the Site Plan, Figure 2.

1.3 Previous Investigations

Between September 19, 1994 and September 22, 1994, four underground storage tanks (USTs) and the associated product piping and pump island were removed from the site under the supervision of GHH Engineering Incorporated (GHH). The USTs consisted of two 2,000-gallon diesel USTs and two 6,500-gallon gasoline USTs. At the direction of the Alameda County Environmental Health Department, GHH collected eight soil samples (TE1 through TE8) from the UST excavation and two soil samples (PI1 and PI2) beneath the pump island. Analytical results from the UST removal soil sampling are summarized on Table 1.

The excavation soil samples (TE1 through TE8) were collected at depths ranging from 2.4 to 5.5 meters (8 to 18 feet) below ground surface (bgs). Total petroleum hydrocarbon as gasoline (TPHg) concentrations ranged from below test method detection limits to 480 milligrams per kilogram (mg/kg), with the highest concentration detected in sample TE8 at a depth of 2.4 meters (8 feet) bgs. Total petroleum hydrocarbon as diesel (TPHd) was detected in samples TE1 and TE3 at concentrations of 27 mg/kg and 11 mg/kg, respectively. Samples TE1 through TE8 all contained oil and grease (O&G) with

concentrations ranging from 70 mg/kg to 1,900 mg/kg. The highest O&G concentration was detected in sample TE1 at a depth of 2.4 meters (8 feet) bgs.

The pump island soil samples (PI1 and PI2) were collected at a depth of 1.2 meters (4 feet) bgs. Sample PI1, contained TPHd and O&G at concentrations of 380 mg/kg and 2,200 mg/kg, respectively.

Approximately 214 cubic meters (280 cubic yards) of stockpiled soil was transported for disposal to the BFI Vasco Road Landfill, a Class III facility, in Livermore, California.

2.0 SCOPE OF SERVICES

Outlined below is a summary of the scope of services performed by Geocon under Task Order 04-5T9000-01.

- A pre-work site visit was conducted on July 5, 1995, with the Caltrans contract manager, Mr. Ron Dong. At the pre-work site visit, the work areas were inspected and the Site Visit Checklist and Completion Schedule were discussed and signed by the Geocon project manager and the Caltrans contract manager.

- Obtained a well permit (Permit No. 95458) dated July 26, 1995 from the Alameda County Flood Control and Water Conservation District. A copy of the well permit is attached in Appendix A.

- Prepared a Health and Safety Plan dated September 11, 1995, to provide guidelines on the use of personal protective equipment (PPE) and the health and safety procedures to be implemented during the field activities.

- Contacted the local public utilities via Underground Service Alert (Ticket No. 206779), to attempt to delineate subsurface public utilities and conduits in proximity to the boring/well locations.

- Retained a licensed drilling subcontractor, West Hazmat Drilling, to drill six soil borings (BH1 through BH6) to depths of 6.1 meters (20 feet) bgs utilizing a truck-mounted drill rig equipped with 203.2-millimeter (eight-inch) diameter hollow-stem augers.

- Retained a subcontractor, West Hazmat Drilling, to drill five soil borings to be completed as groundwater monitoring wells (MW1 through MW5). The monitoring wells were advanced to a maximum depth of approximately 6.1 meters (20 feet) bgs utilizing a truck-mounted drill rig equipped with 254-millimeter (10-inch) diameter hollow stem augers.

- Submitted a minimum of two soil samples per boring/well to Sparger Technology, Incorporated (Sparger) for testing of TPHg and TPHd following EPA Test Method 8015 Modified, benzene, toluene, ethylbenzene and total xylenes (BTEX) following EPA Test Method 8020, O&G following EPA Test Method 5520F, and organolead.

- Developed the wells using a surge block to densify the sand pack prior to placement of the bentonite seal. The groundwater monitoring wells were developed by using an electric pump to withdraw groundwater and remove sediment that may have infiltrated the wells during construction.

- Surveyed the top of casing elevations for the groundwater monitoring wells relative

to an arbitrary onsite datum.

- Measured the depths to groundwater and collected groundwater samples from groundwater monitoring wells MW-1 through MW-5.

- Submitted five groundwater samples to Sparger for chemical analyses of TPHg, TPHd, and TPH as motor oil (TPHmo) following EPA Test Method 8015 Modified, BTEX following EPA Test Method 8020, and O&G following EPA Test Method 5520F.

3.0 INVESTIGATIVE METHODS

3.1 Drilling and Soil Sample Collection

Six soil borings (BH1 through BH6) were advanced to depths of 6.1 meters (20 feet) bgs in an attempt to define the vertical and lateral extent of petroleum hydrocarbon impacts to soil surrounding the former UST excavation. Boring BH1 was located within the former UST excavation and boring BH6 was located within the former pump island to aid in determining the maximum petroleum hydrocarbon concentrations in soil beneath the former UST excavation and pump island, respectively.

Five additional borings were advanced to 6.1 meters (20 feet) bgs and completed as groundwater monitoring wells (MW1 through MW5). The groundwater monitoring wells were installed in order to evaluate the groundwater flow direction and gradient, to assess the groundwater quality, and to attempt to define the lateral limits of potential groundwater impacts in the vicinity of the former USTs. The locations of the soil borings, groundwater monitoring wells, and the UST removal soil samples are depicted on Figure 3, Soil Boring and Well Locations.

Soil samples were collected at approximate 1.5 meter (five foot) vertical intervals utilizing a 50.8-mm (two-inch) diameter split spoon sampler equipped with 152.4-mm-long by 50.8-mm (six-inch-long by two-inch) diameter stainless steel sample tubes to facilitate sample handling and storage. The borings were logged under the supervision of a California Certified Engineering Geologist utilizing the Unified Soil Classification System. The sample tubes were capped, labeled and chilled pending transport to an analytical laboratory. Soil samples were field screened with a photo-ionization detector (PID) to obtain a qualitative indication of the presence of volatile organic compounds within the sample matrix. The soil sample locations and PID readings are recorded on the attached boring/well logs presented in Appendix B. Drill cuttings generated from the drilling operations were stored onsite in DOT 17-H 55-gallon drums pending the receipt of analytical data and subsequent disposal following regulatory protocol.

Quality assurance/quality control procedures provided during the field exploration activities included cleansing/rinsing of the sampling equipment and steam cleaning the augers between borings. Cleansing/rinsing of the sampling equipment was performed prior to the collection of each soil sample by washing the equipment with a trisodium phosphate solution followed by subsequent tap water and deionized water rinses.

3.2 Monitoring Well Construction

MW-1 through MW-5 were installed to a depth of approximately 6.1 meters (20 feet) bgs. The monitoring wells were constructed using 101.6-mm (four-inch) diameter Schedule 40 polyvinyl chloride (PVC) casing. The lower portion of the well was constructed using 4.6 meters (15 feet) of 0.5-mm (0.020-inch) slotted screen PVC casing placed between the

approximate depths of 1.5 to 6.1 meters (5 to 20 feet) bgs.

A filter pack consisting of No. 3 Monterey sand was placed around the screen from the bottom of the boring to an elevation of 0.3 meters (one foot) above the screen zone. A 0.6 meter (two foot) thick seal consisting of hydrated bentonite chips was placed above the filter pack. A 304.8-mm (twelve-inch) diameter, traffic-rated security wellhead cover set in a concrete pad was used to complete construction. Well construction details are recorded on the boring/well logs presented in Appendix B.

3.3 Well Survey

The location for the nearest City of Oakland benchmark was obtained from the Department of Public Works (DPW). Benchmark 1661A was to be located west of the site in a Pacific Gas and Electric (PG&E) right-of-way along the I-880 onramp, however, this benchmark could not be located. Therefore, the top of casing elevations were surveyed by a Geocon Registered Engineer relative to an onsite datum point of 100 feet. The well casing relative elevations are included on Table 2.

3.4 Well Development and Groundwater Sampling

The monitoring wells were developed using a surge block to densify the sand pack prior to placement of the bentonite seal. Pumping to remove sediment and groundwater was accomplished using a 50.8-mm (two-inch) diameter Grundfos electric submersible pump. A depth to groundwater measurement was obtained from each monitoring well prior to well purging. Groundwater depth measurements were obtained using a battery operated water level meter with measurements obtained from the top of each well casing.

Prior to groundwater collection, three to five well volumes of groundwater were purged to allow fresh formation water to infiltrate the wells. MW-5 was purged dry and was determined to be a slow recharging well, therefore, only two well volumes were purged. During purging, the Ph, temperature, and electrical conductivity of the groundwater was measured and the purging was considered adequate when these parameters stabilized to within ten percent.

Groundwater samples were collected utilizing disposable polyethylene bailers. The samples were placed in laboratory provided volatile organics analysis (VOA) vials and one-liter amber bottles, labeled, chilled, and delivered to a California certified hazardous waste testing laboratory, following standard chain-of-custody procedures. Well development and purged groundwater was placed in DOT 17-H 55-gallon drums and stored onsite pending the receipt of analytical data and subsequent disposal following regulatory protocol.

3.5 Laboratory Analytical Methods

Soil samples were submitted for the analyses of TPHg and TPHd following EPA Test

Method 8015 modified, BTEX following EPA Test Method 8020, O&G following EPA Test Method 5520F, and organolead. Groundwater samples were tested for TPHg, TPHd, and TPHmo following EPA Test Method 8015 modified, BTEX following EPA Test Method 8020, and O&G following EPA Test Method 5520F.

4.0 INVESTIGATIVE RESULTS

4.1 Site Geology

Soils encountered during the drilling operations consisted of fill material overlying silty clay and clay alluvial deposits that extend to depths of approximately 3.7 meters (12 feet) bgs which overly stratigraphic units of silty sands, clayey sands, and clayey gravels to the maximum depth drilled of 6.1 meters (20 feet) bgs. Generalized east-west and north-south trending geological cross sections A-A' and B-B', respectively, are presented as Figure 4. Copies of boring logs and well completion diagrams are included in Appendix B.

4.2 Site Hydrogeology

The depths to groundwater measured within the investigation area on October 11, 1995 ranged from 1.96 to 2.01 meters (6.42 to 6.88 feet) bgs. The groundwater flow direction was towards the north with a gradient of 0.007. A site plan depicting groundwater elevation contours and the groundwater flow direction and gradient is presented as Figure 5.

4.3 Soil Analytical Results

TPHg was detected in soil sample MW5-5 at a depth of 1.8 meters (6 feet) bgs with a concentration of 1.6 mg/kg. TPHg was not detected in any of the other soil samples collected during the investigation. TPHd noted as "weathered diesel" was detected at 1.8 and 3.4 meters (6 and 11 feet) bgs in BH6 at concentrations of 24 mg/kg and 16 mg/kg, respectively. TPHd was not reported in the other soil borings or well locations, however, four soil samples were reported to contain petroleum hydrocarbons in the motor oil range with concentrations of 58 mg/kg (BH3-5), 41 mg/kg (MW2-5), 7.5 mg/kg (MW4-10), and 20 mg/kg (MW5-5). O&G was detected in borings BH3, BH4, BH6, MW2, MW4 and MW5 at concentrations ranging from 55 mg/kg (BH4 at 3.0 meters [10 feet] bgs) to 80 mg/kg (BH6 at 1.5 meters [5 feet] bgs).

Soil analytical results for this investigation are summarized on Table I with TPHg, TPHd and O&G data depicted on Cross Sections A-A' and B-B' (Figure 4). Laboratory reports and chain-of-custody records are presented in Appendix C.

4.4 Groundwater Analytical Results

Groundwater samples were collected from the five new monitoring wells and were tested for TPHg, TPHd, TPHmo, BTEX, and O&G. Groundwater analytical data from this site investigation is summarized on Table II. Concentrations of petroleum hydrocarbons in groundwater are presented on Figure 6. Laboratory reports and chain-of-custody records are presented in Appendix D.

TPHd, TPHmo, and O&G were not detected above the test method detection limits in

groundwater during this investigation. TPHg, TPHd, TPHmo, and O&G were not detected above the test method detection limits in cross-gradient well MW-2.

TPHg and BTEX were detected in four monitoring wells (MW-1 and MW-3 through MW-5). TPHg concentrations ranged from 720 micrograms per liter (ug/L) in MW-1 to 1,300 ug/L in downgradient well MW-3. BTEX concentrations ranged from 1.0 ug/L to 660 ug/L benzene, below detection to 15 ug/L toluene, below detection to 4.7 ug/L ethylbenzene, and below detection to 6.1 ug/L total xylenes, respectively.

5.0 DATA EVALUATION AND DISCUSSION

The initial soil samples collected beneath the former USTs and pump island contained petroleum hydrocarbons as O&G with maximum concentrations of 1,900 mg/kg beneath the former USTs and 2,200 mg/kg beneath the former pump island. The maximum concentrations of TPHg and TPHd detected beneath the former USTs or pump island were 480 mg/kg and 380 mg/kg, respectively. The absence of detectable TPHg and TPHd in all borings excluding MW5 and BH6 indicates that gasoline and diesel fuel impacted soil is limited to the immediate vicinity of the former excavation (UST and pump island) sidewalls and/or bases.

Test results from EPA Test Method 5520F reported O&G at soil concentrations ranging from 65 to 80 mg/kg. A review of the laboratory reports for the EPA 8015 analyses for TPHd indicates that motor oil range hydrocarbons were quantified in only three soil samples at concentrations ranging from 7.5 to 41 mg/kg. The differences in the range of hydrocarbon concentrations reported via each of these test methods suggests that the majority of the hydrocarbons in soil reported as O&G may be naturally occurring organics associated with the clay based alluvium beneath the site. The similarities in the magnitude of the O&G concentrations reported in soil also support this observation. A plume of motor oil range petroleum hydrocarbons in soil would normally be represented by a much wider range of concentrations with the impacts increasing in magnitude at locations closer toward the known source location. These characteristics do not exist for the O&G concentrations reported.

TPHg and BTEX were detected in groundwater sampled from wells MW1 and MW3 through MW-5. The highest detectable TPHg was reported in well MW3 at a concentration of 1,300 ug/L. The highest detectable benzene was reported in well MW1 at a concentration of 660 ug/L; however the reported TPHg concentration reported for MW1 was 720 ug/L which appears anomalously low given the reported benzene value for MW1. TPHg and benzene in groundwater is not delineated in the north, west and south directions leading away from the former USTs.

TPHd and O&G were not reported in groundwater at detection limits of 50 ug/L and 5,000 ug/L, respectively. In addition, motor oil range hydrocarbons were not reported in the TPHd analyses, further supporting the observation that the majority of the O&G reported in soil may be naturally occurring organic matter.

* Then pass thru silica gel before analysis

6.0 CONCLUSIONS

Utilizing the data acquired during the site investigation, a summary of the soil and groundwater conditions beneath the site as of October 1995 is presented below:

- Soil samples collected from native soil at the perimeter of the UST excavation indicated that releases of petroleum hydrocarbons into the surrounding soils had occurred. The initial UST removal soil samples contained TPHg and O&G at maximum concentrations of 480 mg/kg and 1,900 mg/kg, respectively.

- Soil analytical data obtained from the 11 borings drilled indicate that a limited amount of soil in the immediate vicinities of the former USTs and pump island is impacted with gasoline and motor oil range hydrocarbons.

- Evaluation of the distribution of the reported O&G concentrations in soil combined with a comparison of the O&G and TPHd analytical data suggests that the reported O&G may be naturally occurring organic matter.

- Groundwater exits beneath the project boundaries at a depth of approximately 2.05 meters (6.75 feet) bgs with a general flow direction towards the north-northwest at a gradient of 0.007.

- Groundwater quality data indicates that dissolved TPHg and benzene exist beneath the site at maximum reported concentrations of 1,300 ug/L TPHg and 660 ug/L benzene, respectively.

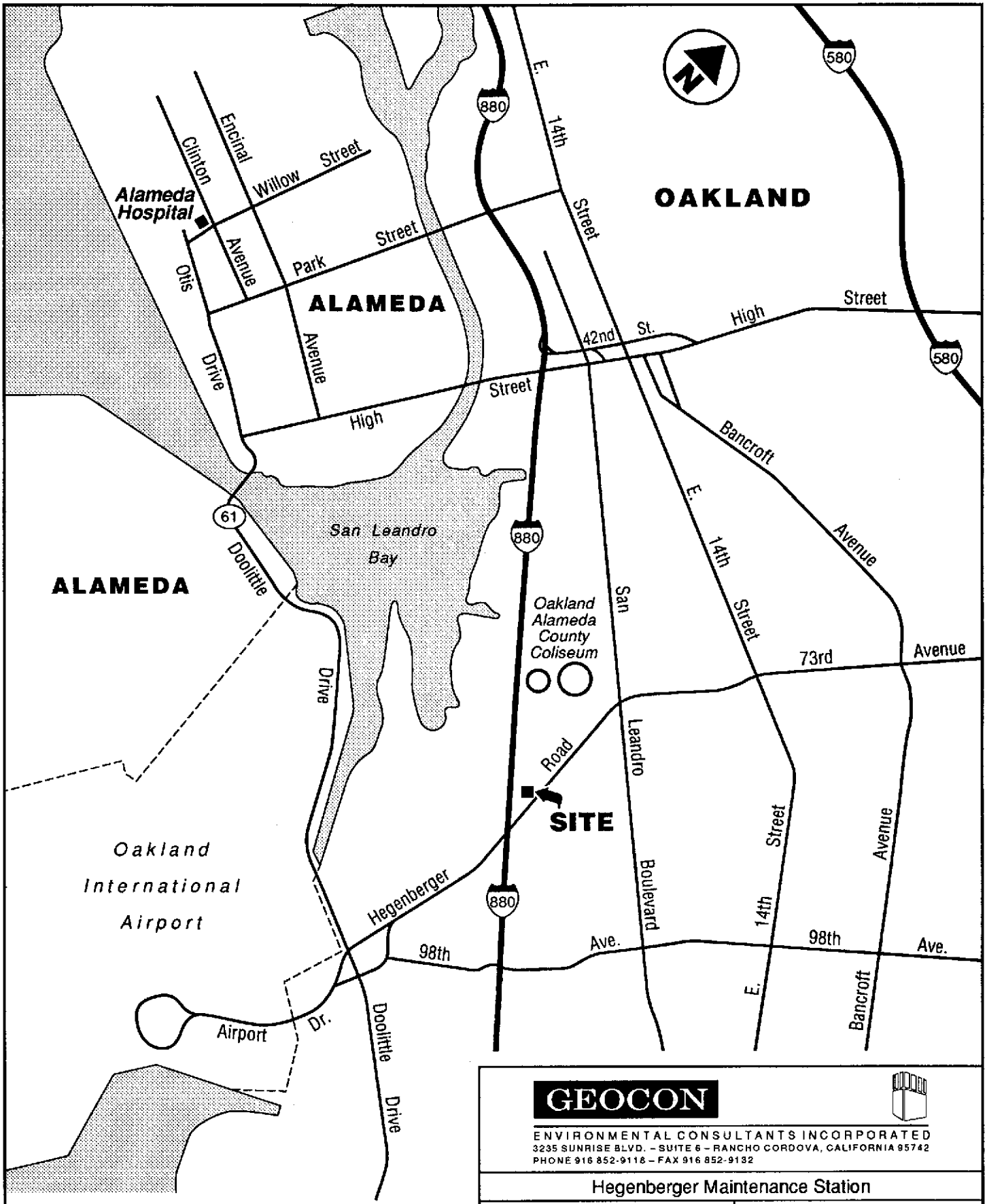
- Based on the absence of detectable TPHd and O&G in groundwater, it appears that the motor oil impacted soil that remains at the bases of the UST and pump island excavations have not affected groundwater quality beneath the site.

- The lateral limits of dissolved TPHg and benzene in groundwater have not been delineated in the north, west and south directions leading away from the former USTs.

- Additional investigation would be required to further delineate the lateral extent of TPHg and benzene impacted groundwater. The installation of four or five additional groundwater monitoring wells is recommended to attempt to establish the lateral extent of groundwater impacts.

7.0 RECOMMENDATIONS

Geocon recommends that additional site investigation be performed at the site to establish the lateral extent of TPHg and benzene impacts to groundwater. The installation of five additional groundwater monitoring wells is recommended to attempt to establish the lateral extent of hydrocarbon impacts to groundwater. It is also recommended that quarterly groundwater monitoring be performed to evaluate changes in the groundwater flow direction and changes in the distribution of dissolved TPHg in groundwater.



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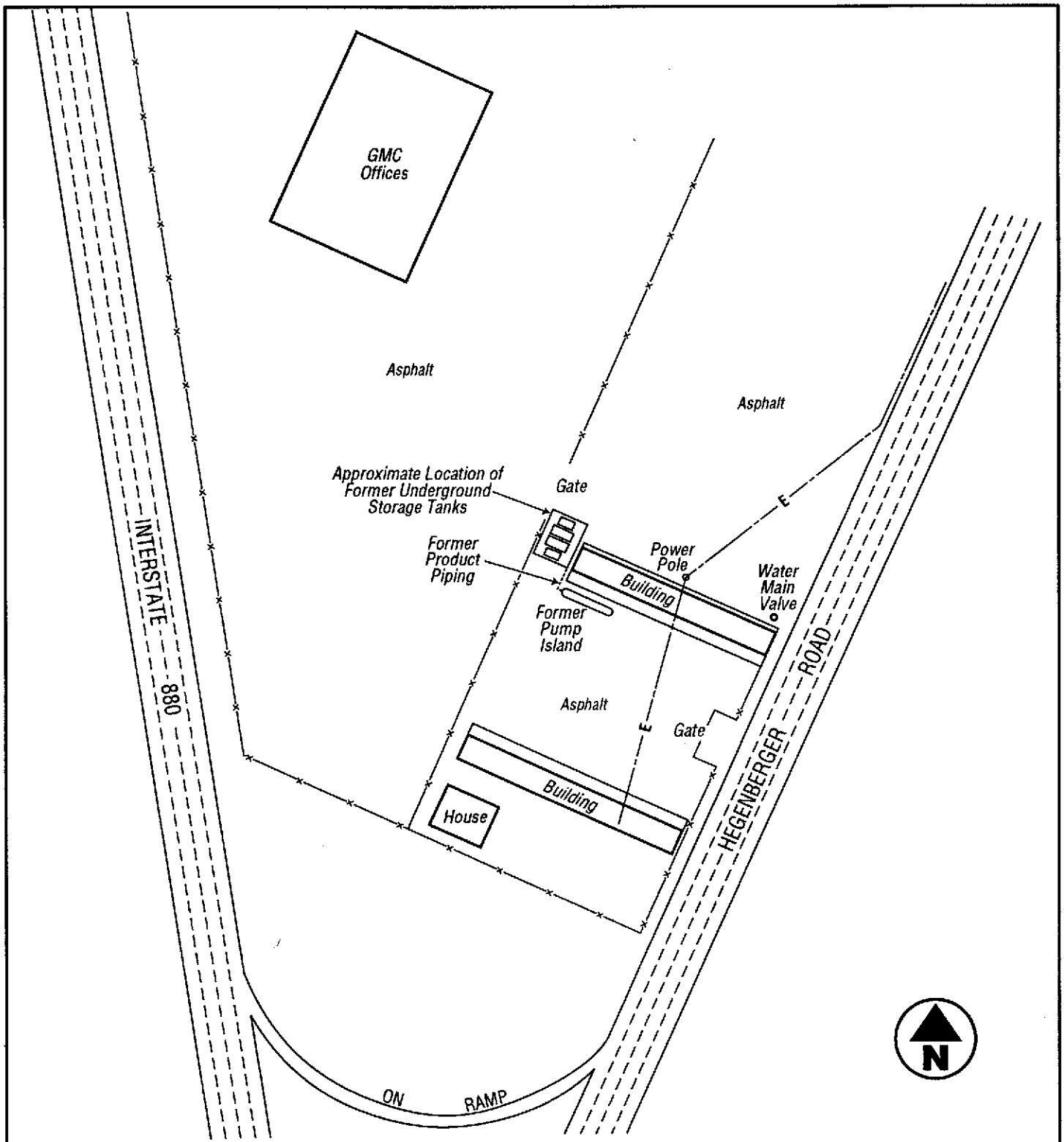
Hegenberger Maintenance Station

555 Hegenberger Road
Oakland, California

VICINITY MAP

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 1



NOT TO SCALE

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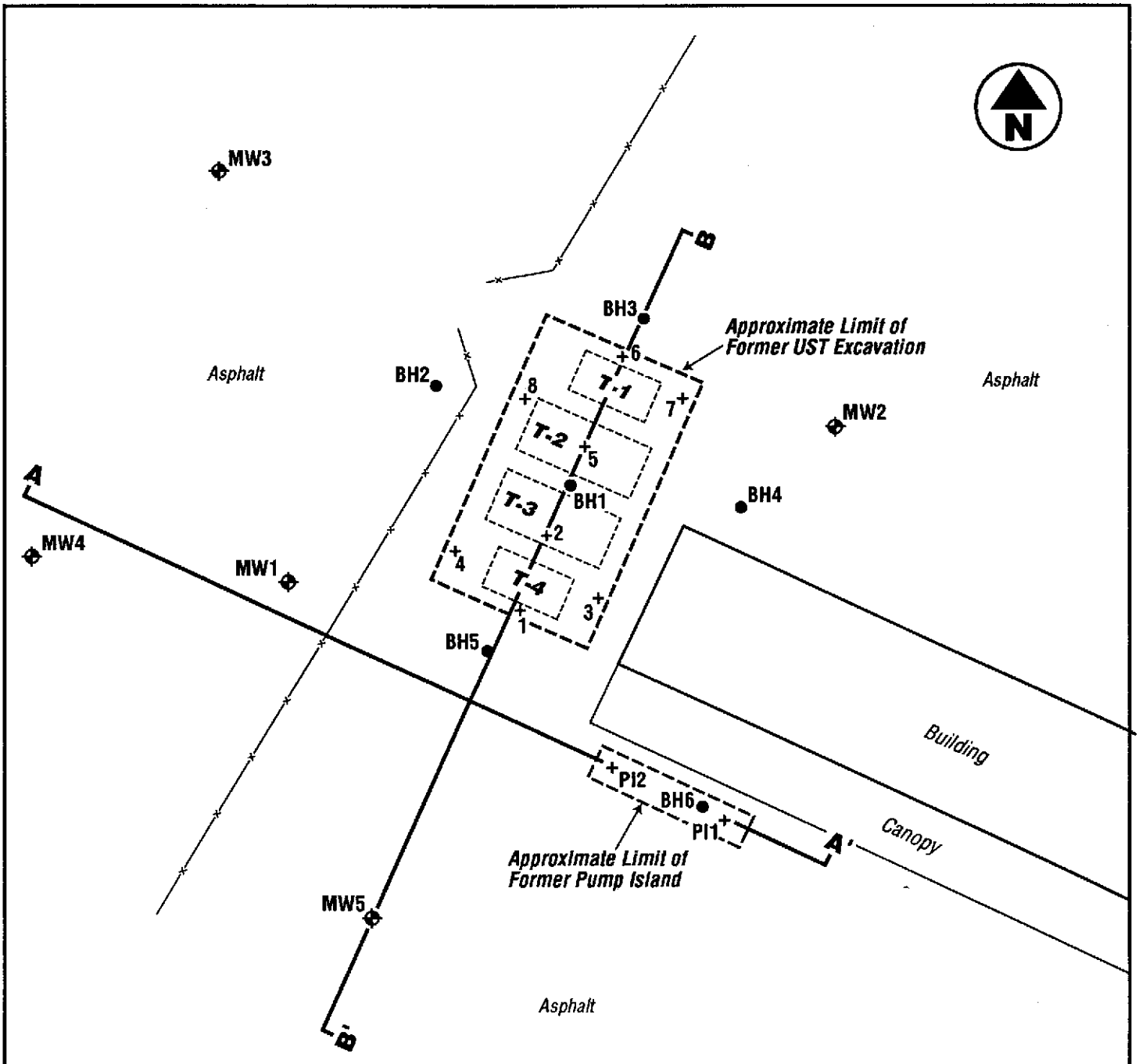
Hegenberger Maintenance Station		
555 Hegenberger Road Oakland, California	**SITE PLAN**	
GEOCON Proj. No. S8100-06-34		
Task Order No. 04-5T9000-01	January 1996	Figure 2



LEGEND:

0 20

Scale in Feet

Location of Former UST

1+ Approximate Location of UST & Product Line Removal Grab Soil Samples, GHH Engineering, Sept. 94

BH1 Location of Soil Boring, GEOCON, Sept. 95

MW1 Location of Groundwater Monitoring Well, GEOCON, Sept. 95

A A' Cross Section A - A'

B B' Cross Section B - B'

GEOCON

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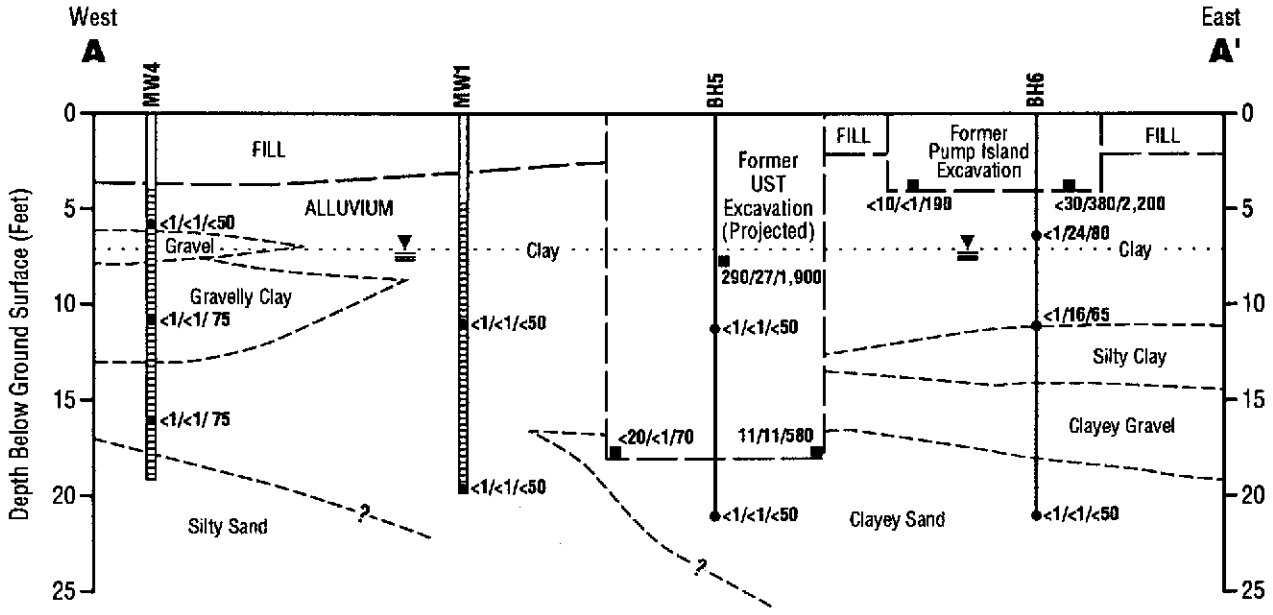
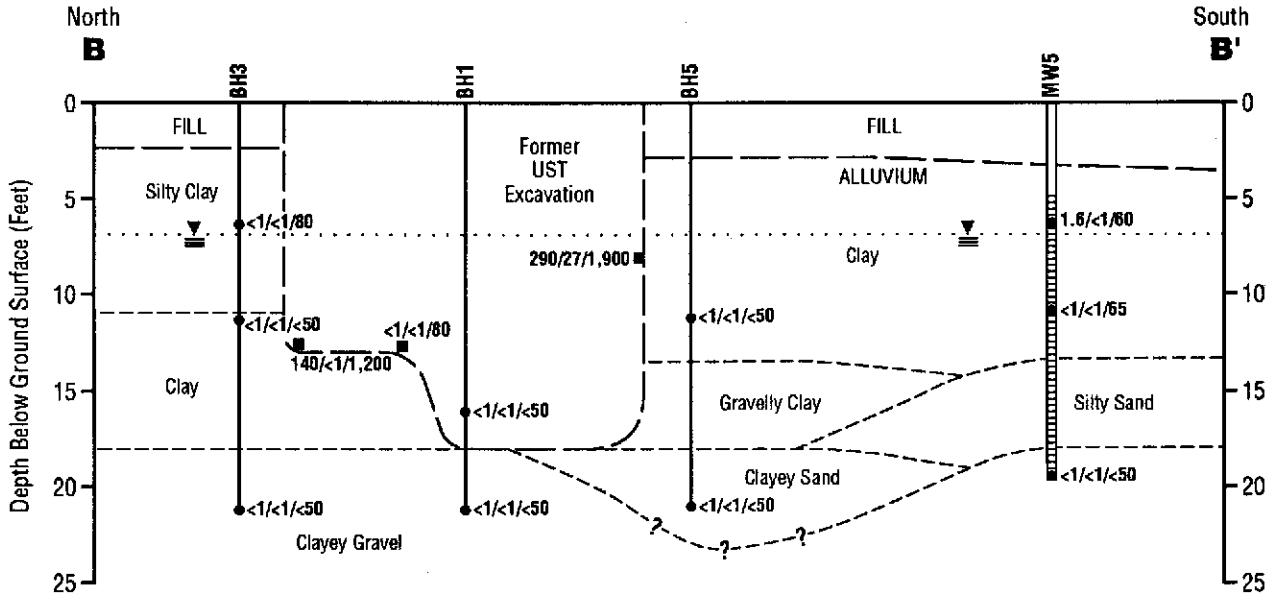
SOIL BORING AND WELL LOCATIONS

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 3





LEGEND:

BH3 — Boring Location

<1/<1/<50 — Concentration of TPHg/TPHd/O & G in Mg/Kg (ppm)

■ — Excavation Grab Soil Sample Location

Approximate Depth to Groundwater

Approximate Geologic Contact

Approximate Stratigraphic Contact

TPHg = Total Petroleum Hydrocarbons as Gasoline
TPHd = Total Petroleum Hydrocarbons as Diesel
O & G = Oil & Grease

Scale: 1" = 20' (Horizontal)
1" = 10' (Vertical)

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Hegenberger Maintenance Station

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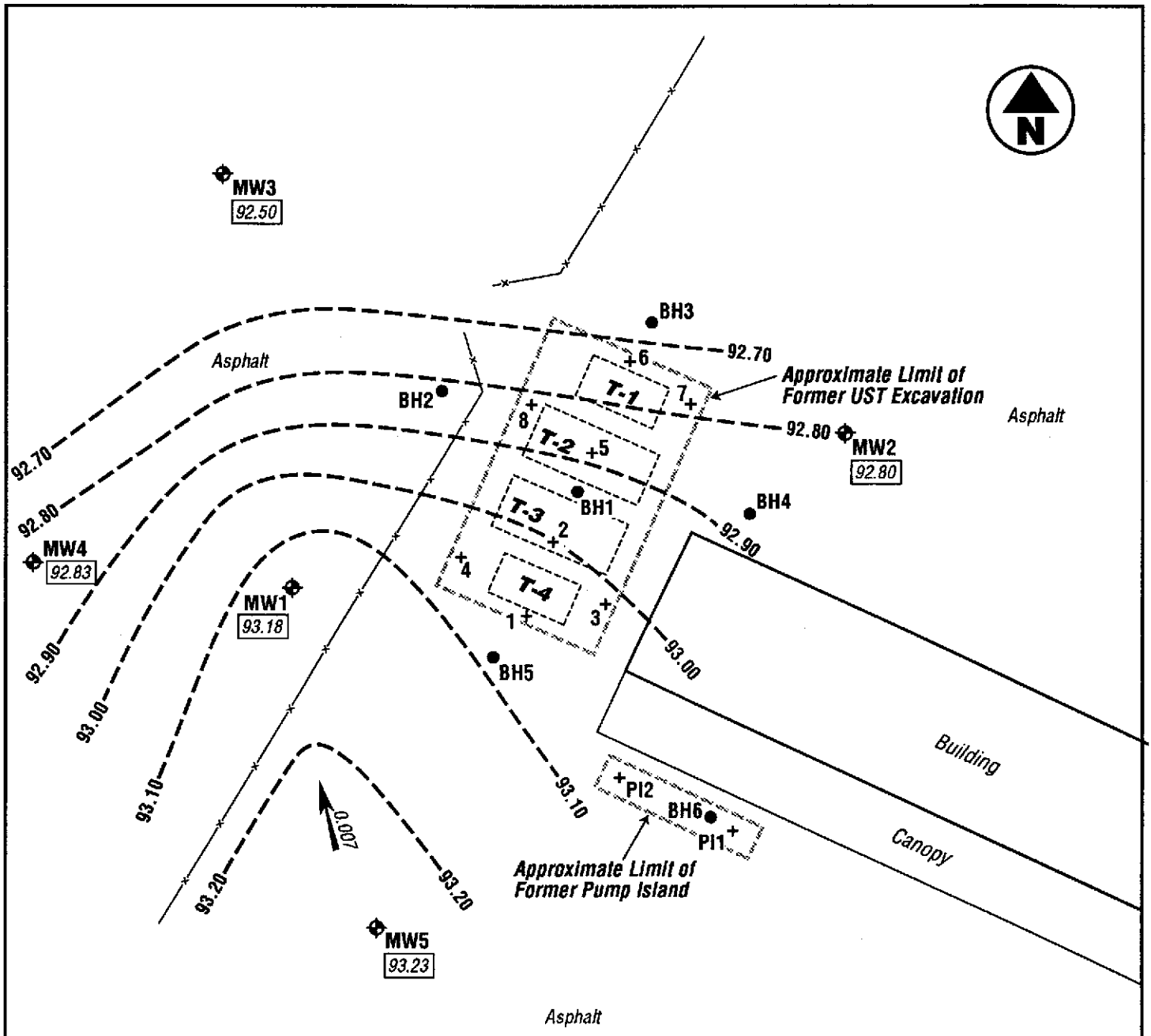
CROSS SECTIONS
A–A' / B–B'

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01

January 1996

Figure 4



LEGEND:

- Location of Former UST
- 1_+ Approximate Location of UST & Product Line Removal Grab Soil Samples, GHH Engineering, Sept. 94
- BH1 ● Location of Soil Boring, GEOCON, Sept. 95
- MW1 ◈ Location of Groundwater Monitoring Well, GEOCON, Sept. 95
- Groundwater Elevation Contour (Interval = 0.1 Ft.)
- 93.18 Relative Elevation of Groundwater Measured 10/11/95
- 0.007 Approximate Groundwater Gradient

0 20
Scale in Feet

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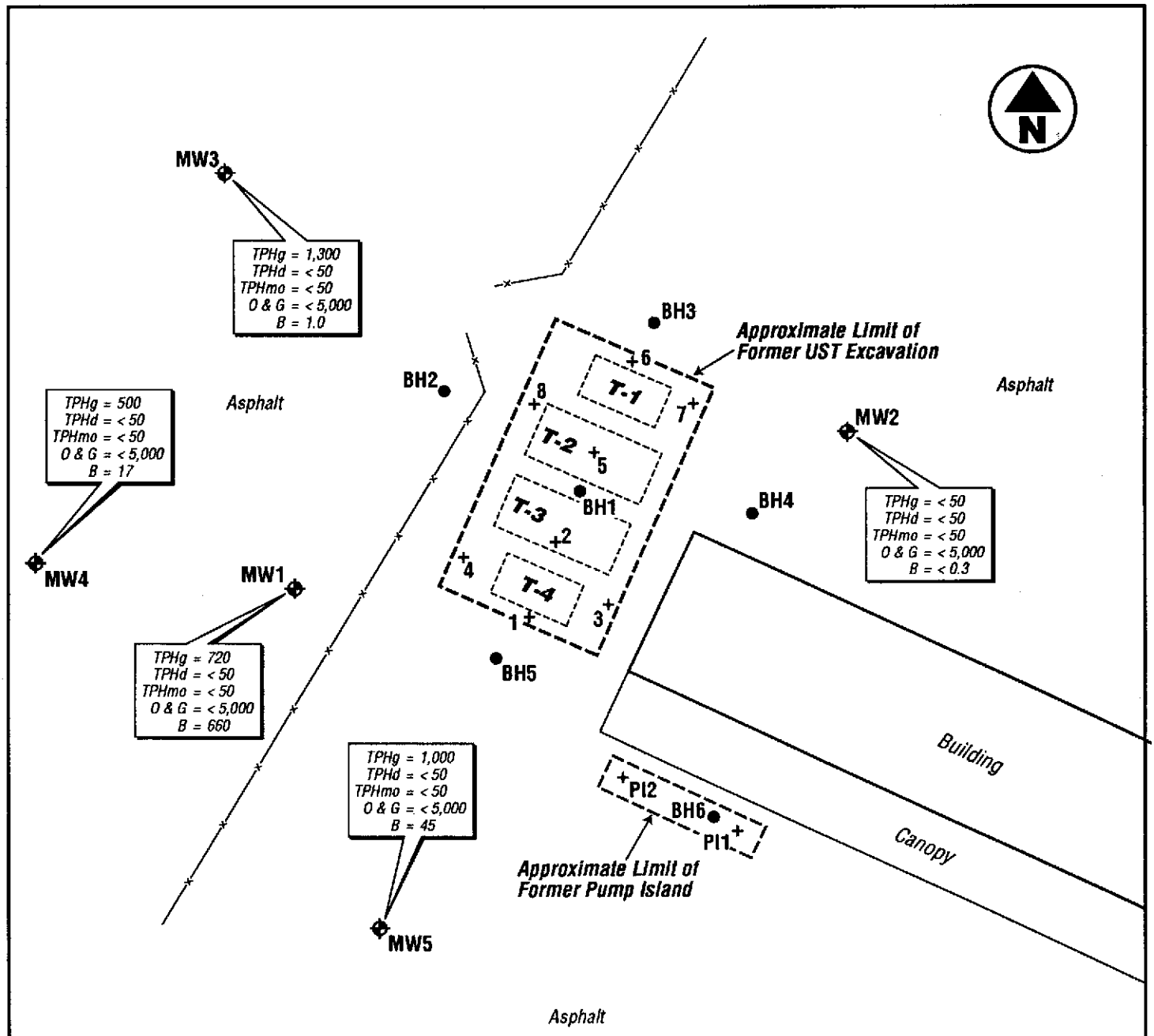
GROUNDWATER ELEVATION MAP – 10/11/95

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 5



LEGEND:

0 20

Scale in Feet

Location of Former UST

1+ Approximate Location of UST & Product Line Removal Grab Soil Samples, GHH Engineering, Sept. 94

BH1● Location of Soil Boring, GEOCON, Sept. 95

MW1⊕ Location of Groundwater Monitoring Well, GEOCON, Sept. 95

TPHg = Total Petroleum Hydrocarbons as Gasoline
TPHd = Total Petroleum Hydrocarbons as Diesel
TPHmo = Total Petroleum Hydrocarbons as Motor Oil
O & G = Oil & Grease
B = Benzene
All Concentrations in Micrograms Per Liter (ppb)

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PETROLEUM HYDROCARBONS IN GROUNDWATER- 10/11/95

GEOCON Proj. No. S8100-06-34

Task Order No. 04-5T9000-01 | January 1996 | Figure 6

Project No. S8100-06-34
January 23, 1996

TABLE I
SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-5T9000-01
PAGE 1 OF 2

SAMPLE ID	DATE	DEPTH (feet)	TPHg (mg/kg)	TPHd (mg/kg)	O&G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	LEAD (mg/kg)	ORGANIC LEAD (mg/kg)	COMMENTS
PI-1	09/22/94	4.0	<20	380	2,200	<0.10	<0.10	0.18	<0.10	13	---	PI
PI-2	09/22/94	4.0	<10	<1.0	190	0.076	<0.05	<0.05	<0.05	13	---	PI
TE-1	09/22/94	8.0	290	27	1,900	2.0	<0.5	0.74	1.2	18	---	UST/GHH
TE-2	09/22/94	18.0	<1.0	<1.0	200	<0.005	<0.005	<0.005	<0.005	12	---	UST/GHH
TE-3	09/22/94	18.0	11	11	580	0.03	0.014	0.020	0.022	8.8	---	UST/GHH
TE-4	09/22/94	18.0	<20	<1.0	70	<0.10	<0.10	<0.10	<0.10	7.6	---	UST/GHH
TE-5	09/22/94	13.0	<1.0	<1.0	80	<0.005	<0.005	<0.005	<0.005	9.5	---	UST/GHH
TE-6	09/22/94	13.0	140	<1.0	1,200	0.13	<0.10	0.51	0.30	11	---	UST/GHH
TE-7	09/22/94	8.0	400	<1.0	530	0.83	<0.50	0.62	1.2	14	---	UST/GHH
TE-8	09/22/94	8.0	480	<1.0	100	1.8	0.51	7.6	8.7	8.9	---	UST/GHH
BH1-15	09/26/95	16.0	<1.0	<1.0	<50	<0.005	<0.005	0.006	0.021	---	<5.0	GEOCON
BH1-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH2-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH2-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH3-5	09/26/95	6.0	<1.0	<1.0[a]	80	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
BH3-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH3-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH4-10	09/26/95	11.0	<1.0	<1.0	55	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH4-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH5-10	09/26/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH5-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH6-5	09/26/95	6.0	<1.0	24[b]	80	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
BH6-10	09/26/95	11.0	<1.0	16[b]	65	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
BH6-20	09/26/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW1-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW1-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW2-5	09/27/95	6.0	<1.0	<1.0[c]	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW2-20	09/27/95	21.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW3-8	09/27/95	7.5	<1.0	<1.0	<50	0.012	<0.005	<0.005	<0.005	---	---	GEOCON
MW3-10	09/27/95	11.0	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW3-20	09/27/95	21.0	<1.0	<1.0	<50	0.030	0.028	0.030	0.058	---	<5.0	GEOCON

Project No. S8100-06-34
January 23, 1996

TABLE I
SUMMARY OF SOIL ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-5T9000-01
PAGE 1 OF 2

SAMPLE ID	DATE	DEPTH (feet)	TPHg (mg/kg)	TPHd (mg/kg)	O&G (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	LEAD (mg/kg)	ORGANIC LEAD (mg/kg)	COMMENTS
MW4-5	09/27/95	5.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	---	GEOCON
MW4-10	09/27/95	11.0	<1.0	<1.0[d]	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW4-15	09/27/95	16.0	<1.0	<1.0	75	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW5-5	09/27/95	6.0	1.6	<1.0[e]	60	<0.005	0.020	0.028	0.088	---	---	GEOCON
MW5-10	09/27/95	11.0	<1.0	<1.0	65	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON
MW5-20	09/27/95	19.5	<1.0	<1.0	<50	<0.005	<0.005	<0.005	<0.005	---	<5.0	GEOCON

Notes: mg/kg = milligrams per kilogram
TPHg = total petroleum hydrocarbons as gasoline
TPHd = total petroleum hydrocarbons as diesel
O&G = oil and grease
BTEX = benzene, toluene, ethylbenzene and total xylenes
< = less than laboratory method detection limit
--- = not tested
PI = pump island sample
UST/GHH = UST excavation sample collected by GHH Engineering
[a] = total petroleum hydrocarbons as motor oil (TPHmo) detected at a concentration of 58 mg/kg
[b] = weathered TPHd
[c] = TPHmo detected at a concentration of 41 mg/kg
[d] = TPHmo detected at a concentration of 7.5 mg/kg
[e] = TPHmo detected at a concentration of 20 mg/kg

Project No. S8100-06-34
January 23, 1996

TABLE II
SUMMARY OF GROUNDWATER ELEVATION AND ANALYTICAL LABORATORY RESULTS
HEGENBERGER MAINTENANCE STATION
OAKLAND, CALIFORNIA
TASK ORDER NO. 04-5T9000-01
PAGE 1 OF 1

SAMPLE ID	DATE	TOC ELEVATION	GROUNDWATER DEPTH	GROUNDWATER ELEVATION	TPHg (ug/l)	TPHd (ug/l)	TPHmo (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	O&G (ug/l)
MW-1	10/11/95	99.73	6.55	93.18	720	<50	<50	660	13	4.7	2.8	<5,000
MW-2	10/11/95	99.68	6.88	92.80	<50	<50	<50	<0.3	<0.3	<0.3	<0.3	<5,000
MW-3	10/11/95	98.92	6.42	92.50	1,300[1]	<50	<50	1.0	<0.3	<0.3	<0.3	<5,000
MW-4	10/11/95	99.46	6.63	92.83	500	<50	<50	17	1.1	<0.3	0.48	<5,000
MW-5	10/11/95	99.91	6.68	93.23	1,000	<50	<50	45	15	1.9	6.1	<5,000

Notes: TOC = top of casing elevation referenced to arbitrary onsite datum
depths measured in feet
ug/l = micrograms per liter
TPHg = total petroleum hydrocarbon as gasoline
TPHd = total petroleum hydrocarbon as diesel
TPHmo = total petroleum hydrocarbon as motor oil
BTEX = benzene, toluene, ethylbenzene and total xylenes
O&G = oil and grease
[1] = laboratory report notation "weathered gas detected"

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
5997 PARKSIDE DRIVE • PLEASANTON, CALIFORNIA 94588-5127 • Phone (510) 484-2600 Fax (510) 462-3914

26 July 1995

Mr. Richard Walls
Geocon Environmental
3235 Sunrise Boulevard
Rancho Cordova, CA 95742

Dear Mr. Walls:

Enclosed is drilling permit 95458 for a monitoring well construction project at 555 Hegenberger Road in Oakland for Caltrans.

Please note that permit condition A-2 requires that a Well Construction Report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact Wyman Hong at extension 235 or me at extension 233.

Very truly yours,

Craig A. Mayfield

Craig A. Mayfield
Water Resources Engineer III

WH:ab
Enc.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

ATTN: Wyman Hon

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 555 Hagenberger Rd. Oakland CA

PERMIT NUMBER 95458
LOCATION NUMBER

CLIENT
Name Caltrans District 4
Address PO Box 23660 Voice Jon Dong 510-286-5631
City Oakland CA Zip 94623-0660

APPLICANT
Name Geocon Environmental
Richard Wells Fax 916 852 9132
Address 3235 Sunrise Blvd Voice 916 852-9118
City Rancho Cordova CA Zip 95742

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	✓
Monitoring	✓	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ✓ Hollow Stem
Cable ___ Other ___

DRILLER'S LICENSE NO. 552198

WELL PROJECTS

Drill Hole Diameter	10	in.	Maximum Depth	20	ft.
Casing Diameter	4	in.			
Surface Seal Depth	5	ft.	Number	5	

GEOTECHNICAL PROJECTS

Number of Borings	___		Maximum Depth	___	ft.
Hole Diameter	___	in.			

ESTIMATED STARTING DATE 7/31/95
ESTIMATED COMPLETION DATE 8/2/95

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

APPLICANT'S SIGNATURE Richard Wells Date 7/12/95

PERMIT CONDITIONS
Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 26 Jul 95
Wyman Hong

91992

PROJECT NO. S8100-06-34

BORING/WELL NO. BH 1

DATE DRILLED 9/26/96 WATER LEVEL (ATD) 17.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				3" ASPHALT		
				Sandy Gravel base material		
				FILL		
2				Stiff, moist, yellow-brown, Gravelly CLAY (CL)		
3						
4						
5						
6						
7						
8						
9						
10		BH1-10 1140		-No sample		-
11						
12						
13				-Becomes gray, strong odor		
14						
15	30	BH1-15 1145		Stiff, very moist, gray, Silty CLAY, trace gravel (CL)		2
16						
17						
18				Dense, wet, brown, fine grained, rounded, poorly graded GRAVEL (GP)		
19				**ALLUVIUM**		
20	75	BH1-20 1155		Very dense, wet, brown, Clayey, fine to coarse GRAVEL (fine to coarse gravel with clay matrix) (GC)		<1
21						
22				BORING TERMINATED AT 21.5 FEET		
23						
24						

Figure A-1, log of Boring BH 1

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. BH 2

DATE DRILLED 9/26/95 WATER LEVEL (ATD) 8.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1			3" ASPHALT		
			Sandy GRAVEL base material		
2			**ALLUVIUM**		
3			Stiff, moist, black, clay, medium to high plasticity (CL)		
4			Oil staining - strong odor		
5	95	BH2-5 1515			1252
6					
7			Very dense, wet, black, Clayey, fine to coarse GRAVEL (GC)		
8			▼ Strong odor		
9					
10	29	BH2-10 1520			88
11			Stiff, wet, dark brown to black, CLAY, medium to high plasticity (CL)		
12					
13					
14					
15	34	BH2-15 1525	Medium dense, wet, olive-brown, Clayey, fine grained SAND (SC)		19.5
16			Very weak odor		
17					
18					
19			Medium dense, saturated, olive brown, Silty SAND, trace gravel (SM)		
20	27	BH2-20 1530			1.0
21					
22			BORING TERMINATED AT 21.5 FEET		
23					
24					

Figure A-2, log of Boring BH 2

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. BH 3

DATE DRILLED 9/26/95 WATER LEVEL (ATD) 9.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	FID HEADSPACE (PPM)
1				3" ASPHALT		
				Sandy GRAVEL base material		
				ALLUVIUM		
2				Stiff, moist, black, Silty CLAY, strong odor, trace gravel (CL)		
3				Oil staining - Strong odor		
4						
5	16	BH3-5 1335				400
6						
7						
8				-Higher gravel content (10-20%)		
9				-Becomes wet		
10	22	BH3-10 1340				74
11						
12				Stiff, wet, gray to olive brown, mottled, CLAY, moderate odor (CL)		
13						
14						
15	17	BH3-15 1345				26
16				-Very weak odor		
17						
18						
19				Loose, saturated, brown, Clayey, fine to coarse GRAVEL (gravel with clay matrix) (GC)		
20	8	BH3-20 1350				8
21						
22				BORING TERMINATED AT 21.5 FEET		
23						
24						

Figure A-3, log of Boring BH 3

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. BH 4

DATE DRILLED 9/26/95 WATER LEVEL (ATD) 10.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				3" ASPHALT		
2				FILL Coarse angular GRAVEL, with sand matrix (GP)		
3						
4				ALLUVIUM Stiff, moist, black, CLAY, trace silt, trace gravel, medium to high plasticity (CL) Strong odor		
5	8	BH4-5 1420				22
6						
7						
8						
9						
10	22	BH4-10 1425		▼ -Becomes wet -Weak odor		1.0
11						
12						
13				Dense, wet, yellow-brown, Clayey, fine to coarse GRAVEL (fine to coarse gravel with clay matrix) (GC)		
14						
15	43	BH4-15 1430				<1
16						
17						
18				Very dense, saturated, brown, poorly graded, fine to coarse GRAVEL, trace silt, clay (GP) (>50% fine gravel)		
19						
20	63	BH4-20 1435				<1
21						
22				BORING TERMINATED AT 21.5 FEET		
23						
24						

Figure A-4, log of Boring BH 4

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. BH 5

DATE DRILLED 9/26/95 WATER LEVEL (ATD) 18.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLKS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				3" ASPHALT		
				Sandy GRAVEL base material		
2				**ALLUVIUM** Stiff, moist, black, CLAY, trace gravel, strong odor (CL)		
5	24	BH5-5 1045		-Becomes black and gray, mottled -Higher gravel content (10%)		513
9				Stiff, very moist, gray, CLAY, moderate odor (CL)		
10	21	BH5-10 1050				22
14				Stiff, very moist, yellow-brown, fine to coarse Gravelly CLAY (CL)		
15	55	BH5-15 1058				2.5
18				Dense, wet, yellow-brown, Clayey, fine to coarse SAND (>50% fine sand) trace gravel (SC)		
20	49	BH5-20 1105				<1
22				BORING TERMINATED AT 21.5 FEET		

Figure A-5, log of Boring BH 5

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. BH 6

DATE DRILLED 9/26/95 WATER LEVEL (ATD) 8.0'

EQUIPMENT MOBILE B-57 HSA DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				3" ASPHALT		
				Sandy GRAVEL base material		
2				FILL SOIL Stiff, moist, black, gravelly CLAY, medium high plasticity, strong odor (CL)		
3						
4						
5	11	BH6-5 0938		ALLUVIUM Stiff, moist, black, CLAY, medium high plasticity (CL) -Oil staining, strong odor		6
6						
7						
8				-Becomes wet		
9						
10	31	BH6-10 0945				4
11				Stiff, saturated, gray, Silty CLAY, trace gravel, strong odor (CL)		
12						
13						
14						
15	60	BH6-15 1000		Stiff, saturated, dark yellow-brown, Clayey, fine to coarse GRAVEL (gravel with clay matrix) weak odor (GC)		<1
16						
17						
18				Very dense, saturated, brown, Clayey, fine to coarse SAND, trace gravel (fine to coarse SAND with clay matrix) (SC)		
19						
20	65	BH6-20 1005				<1
21						
22				BORING TERMINATED AT 21.5 FEET		
23						
24						

Figure A-6, log of Boring BH 6

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL:
DIAMETER & TYPE OF CASING:	WELL SEAL & INTERVAL:
CASING INTERVAL:	WELL SEAL QUANTITY:
WELL SCREEN:	ANNULUS SEAL/INTERVAL: Cement Bent. 0-21.5 ft.
SCREEN INTERVAL:	ADDITIVES:
WELL COVER:	WELL DEPTH:
FILTERPACK/INTERVAL:	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. MW 1

DATE DRILLED 9/27/95 WATER LEVEL (ATD) 13.0'

EQUIPMENT MOBILE B-57 DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	SOIL DESCRIPTION	PID HEADSPACE (PPM)
1			3" ASPHALT	
2			FILL SOIL Sandy GRAVEL base material	
3			Medium dense, moist, brown, Clayey, fine to coarse GRAVEL (GC)	
4			ALLUVIUM Stiff, moist, black, CLAY, 10% gravel, medium plasticity, oil staining, strong odor (CL)	
5	40	MW1-5 1015		1356
6				
7				
8				
9				
10	13	MW1-10 1025		22
11			-Becomes very moist, rootlets, very weak odor	
12				
13			▼	
14			Stiff, wet, olive brown, brown mottled CLAY, medium to high plasticity, trace weathered gravel clasts (CL)	
15	18	MW1-15 1035		<1
16				
17				
18				
19	21			<1
20		MW1-20 1050		
21			BORING TERMINATED AT 20 FEET	
22				
23				
24				

Figure A-7, log of Boring MW 1

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL: 8 - 100lb Bags
DIAMETER & TYPE OF CASING: 4" Dia. PVC	WELL SEAL & INTERVAL: Bentonite Chips 2-4.0 ft.
CASING INTERVAL: 0 - 4.5 ft.	WELL SEAL QUANTITY: 1.0 - 50lb Bag
WELL SCREEN: 0.02"	ANNULUS SEAL/INTERVAL: Cement Bent. 0-2.0 ft.
SCREEN INTERVAL: 4.5 to 19.5 ft.	ADDITIVES: None
WELL COVER: 12" Traffic Rated Cover	WELL DEPTH: 19.5 ft.
FILTERPACK/INTERVAL: #3 Sand 4.0 to 19.5 ft.	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. MW 2

DATE DRILLED 9/27/95 WATER LEVEL (ATD) 13.6'

EQUIPMENT MOBILE B-57 DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLKS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				3" ASPHALT		
				Sandy GRAVEL base material		
2				ALLUVIUM		
3				Stiff, moist, black, CLAY, trace of fine to coarse GRAVEL, strong odor (CL)		
4						
5	13	MW2-5 1600				8
6						
7						
8				-Becomes dark gray		
9						
10	15	MW2-10 1605				-
11				-No recovery		
12						
13						
14				Dense, wet, olive brown and orange brown, Silty SAND, very weak odor (SM)		
15	35	MW2-15 1615				1
16						
17						
18				Dense, saturated, brown, medium coarse SAND trace silt (SP)		
19	32	MW2-20 1625				<1
20						
				BORING TERMINATED AT 20 FEET		
21						
22						
23						
24						

Figure A-8, log of Boring MW 2

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL: 6.5 - 100lb Bags
DIAMETER & TYPE OF CASING: 4" Dia. PVC	WELL SEAL & INTERVAL: Bentonite Chips 2-4.0 ft.
CASING INTERVAL: 0 - 5.0 ft.	WELL SEAL QUANTITY: 1.0 - 50lb Bag
WELL SCREEN: 0.02"	ANNULUS SEAL/INTERVAL: Cement Bent. 0-2.0 ft.
SCREEN INTERVAL: 5 to 20 ft.	ADDITIVES: None
WELL COVER: 12" Traffic Rated Cover	WELL DEPTH: 20 ft.
FILTERPACK/INTERVAL: #3 Sand 4.0 to 20 ft.	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. MW 3

DATE DRILLED 9/27/95 WATER LEVEL (ATD) 13.0'

EQUIPMENT MOBILE B-57 DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	SOIL DESCRIPTION	PID HEADSPACE (PPM)
1			3" ASPHALT	
			Sandy GRAVEL base material	
2			**ALLUVIUM** Stiff, moist, black CLAY, medium plasticity, moderate odor (CL)	
3				
4				
5	40	MW3-5 1400		
6			-No recovery	
7		MW3-8 1406	-Trace fine to coarse gravel	6
8				
9				
10	16	MW3-10 1414		5.5
11			-Weak odor	
12				
13			▼	
14			Medium dense, wet, light olive brown, Silty SAND (SM)	
15	12	MW3-15 1425		<1
16				
17				
18			Medium dense, saturated, gray, fine grained SAND, trace silt (SP)	
19				
20	18	MW3-20 1430		<1
21				
22			BORING TERMINATED 21.5 FEET	
23				
24				

WELL CONSTRUCTION

Figure A-9, log of Boring MW 3

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL: 7 - 100lb Bags
DIAMETER & TYPE OF CASING: 4" Dia. PVC	WELL SEAL & INTERVAL: Bentonite Chips 2-4.0 ft.
CASING INTERVAL: 0 - 4.5 ft.	WELL SEAL QUANTITY: 1.0 - 50lb Bag
WELL SCREEN: 0.02"	ANNULUS SEAL/INTERVAL: Cement Bent. 0-2.0 ft.
SCREEN INTERVAL: 4.5 to 19.5 ft.	ADDITIVES: None
WELL COVER: 12" Traffic Rated Cover	WELL DEPTH: 19.5 ft.
FILTERPACK/INTERVAL: #3 Sand 4.0 to 19.5 ft.	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. MW 4

DATE DRILLED 9/27/95 WATER LEVEL (ATD) 13.0'

EQUIPMENT MOBILE B-57 DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	SOIL DESCRIPTION	PID HEADSPACE (PPM)
1-5	50/6"	MW4-5 0805	3" ASPHALT **FILL SOIL** Medium dense, moist, brown, Clayey, fine to coarse subangular gravel **ALLUVIUM** Stiff, very moist, orange-brown and gray, mottled CLAY, medium-high plasticity (CL)	<1
6-8			Dense, wet, gray-black, Clayey, fine to coarse GRAVEL, strong odor (gravel with clay matrix) (GC)	
9-12	23	MW4-10 0816	Stiff, wet, black, gravelly CLAY, strong odor (CL)	26
13-17	25	MW4-15 0824	Stiff, wet dark olive-brown CLAY, medium to high plasticity, trace of gravel, pinhole structures, very weak odor (CL)	<1
18-21	14	MW4-20 0832	Medium dense, saturated, brown, Silty SAND, trace clay (SM) -Very poor recovery (slough)	-
22-24			BORING TERMINATED AT 21.5 FEET	

WELL CONSTRUCTION

Figure A-10, log of Boring MW 4

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL: 7 - 100lb Bags
DIAMETER & TYPE OF CASING: 4" Dia. PVC	WELL SEAL & INTERVAL: Bentonite Chips 2-3.5 ft.
CASING INTERVAL: 0 - 4.0 ft.	WELL SEAL QUANTITY: 1.0 - 50lb Bag
WELL SCREEN: 0.02"	ANNULUS SEAL/INTERVAL: Cement Bent. 0-2.0 ft.
SCREEN INTERVAL: 4.0 to 19.0 ft.	ADDITIVES: None
WELL COVER: 12" Traffic Rated Cover	WELL DEPTH: 19.0 ft.
FILTERPACK/INTERVAL: #3 Sand 3.5 to 19.0 ft.	ENGINEER/GEOLOGIST: IAN MOORHEAD

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. S8100-06-34

BORING/WELL NO. MW 5

DATE DRILLED 9/27/95 WATER LEVEL (ATD) 18.0'

EQUIPMENT MOBILE B-57 DRILLER HAZMAT

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	PID HEADSPACE (PPM)
1				2" ASPHALT		
2				FILL Sandy GRAVEL base material		
3				Stiff, moist, black, fine to coarse gravelly CLAY, strong odor (CL)		
4				ALLUVIUM Stiff, moist, black, CLAY, medium high plasticity, trace gravel, strong odor (CL)		
5	12	MW5-5 0915				-
6						
7						
8						
9						
10	12	MW5-10 0918		-Becomes olive-brown, higher gravel content (10%) very weak odor		<1
11						
12						
13						
14				Medium dense, very moist, olive brown and yellow brown, Silty SAND (SM)		
15	27	MW5-15 0925				<1
16						
17						
18						
19	27	MW5-20 0933		Medium dense, wet, brown, Clayey, Sandy GRAVEL (Sandy gravel with clay matrix) (GC)		
20						<1
21				BORING TERMINATED AT 20 FEET		
22						
23						
24						

Figure A-11, log of Boring MW 5

HBGR

CASING ELEVATION:	QUANTITY OF FILTER MATERIAL: 6-3/4 - 100lb Bags
DIAMETER & TYPE OF CASING: 4" Dia. PVC	WELL SEAL & INTERVAL: Bentonite Chips 2-4.0 ft.
CASING INTERVAL: 0 - 5.0 ft.	WELL SEAL QUANTITY: 1.0 - 50lb Bag
WELL SCREEN: 0.02"	ANNULUS SEAL/INTERVAL: Cement Bent. 0-2.0 ft.
SCREEN INTERVAL: 5.0 to 20.0 ft.	ADDITIVES: None
WELL COVER: 12" Traffic Rated Cover	WELL DEPTH: 20.0 ft.
FILTERPACK/INTERVAL: #3 Sand 4.0 to 20.0 ft.	ENGINEER/GEOLOGIST: IAN MOORHEAD

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.

Sparger Technology, Inc.
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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

October 25, 1995

Mr. Rick Walls
Geocon Environmental
3235 Sunrise Blvd., Suite 6
Rancho Cordova, CA 95742

Dear Mr. Walls:

Enclosed is the report for the twenty seven (27) soil samples. The samples were received at Sparger Technology Analytical Lab on September 28, 1995.

The samples were received in twenty seven (27) brass tubes. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

I. Sample Description
II. Analysis Request
III. Quality Control Report
IV. Analysis Results

No problems were encountered with the analysis of your samples.

If you have questions, please feel free to call.

Sincerely,

R. L. James
Principal Chemist

3050 Fite Circle, Suite 112 • Sacramento, California 95827 • (916) 362-8947 • FAX (916) 362-0947

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Scientific Division

I Sample Description

See attached Samples Description Information.

The samples were received under chain-of-custody.

II Analysis Request

The following analytical tests were requested:

Lab ID	Your ID	Analysis Description
ST95-09-1767A	BH6-5	TPHgas & BTEX
ST95-09-1768A	BH6-5	TPHdiesel
ST95-09-1769A	BH6-5	Total Oil & Grease
ST95-09-1770A	BH6-10	TPHgas & BTEX
ST95-09-1771A	BH6-10	TPHdiesel
ST95-09-1772A	BH6-10	Total Oil & Grease
ST95-09-1773A	BH6-10	Organic Lead
ST95-09-1775A	BH6-20	TPHgas & BTEX
ST95-09-1776A	BH6-20	TPHdiesel
ST95-09-1777A	BH6-20	Total Oil & Grease
ST95-09-1778A	BH6-20	Organic Lead
ST95-09-1780A	BH5-10	TPHgas & BTEX
ST95-09-1781A	BH5-10	TPHdiesel
ST95-09-1782A	BH5-10	Total Oil & Grease
ST95-09-1783A	BH5-10	Organic Lead
ST95-09-1785A	BH5-20	TPHgas & BTEX
ST95-09-1786A	BH5-20	TPHdiesel
ST95-09-1787A	BH5-20	Total Oil & Grease
ST95-09-1788A	BH5-20	Organic Lead
ST95-09-1789A	BH1-15	TPHgas & BTEX
ST95-09-1790A	BH1-15	TPHdiesel
ST95-09-1791A	BH1-15	Total Oil & Grease
ST95-09-1792A	BH1-15	Organic Lead
ST95-09-1793A	BH1-20	TPHgas & BTEX
ST95-09-1794A	BH1-20	TPHdiesel
ST95-09-1795A	BH1-20	Total Oil & Grease
ST95-09-1796A	BH1-20	Organic Lead

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Lab ID	Your ID	Analysis Description
ST95-09-1797A	BH3-5	TPHgas & BTEX
ST95-09-1798A	BH3-5	TPHdiesel
ST95-09-1799A	BH3-5	Total Oil & Grease
ST95-09-1800A	BH3-10	TPHgas & BTEX
ST95-09-1801A	BH3-10	TPHdiesel
ST95-09-1802A	BH3-10	Total Oil & Grease
ST95-09-1803A	BH3-10	Organic Lead
ST95-09-1805A	BH3-20	TPHgas & BTEX
ST95-09-1806A	BH3-20	TPHdiesel
ST95-09-1807A	BH3-20	Total Oil & Grease
ST95-09-1808A	BH3-20	Organic Lead
ST95-09-1810A	BH4-10	TPHgas & BTEX
ST95-09-1811A	BH4-10	TPHdiesel
ST95-09-1812A	BH4-10	Total Oil & Grease
ST95-09-1813A	BH4-10	Organic Lead
ST95-09-1815A	BH4-20	TPHgas & BTEX
ST95-09-1816A	BH4-20	TPHdiesel
ST95-09-1817A	BH4-20	Total Oil & Grease
ST95-09-1818A	BH4-20	Organic Lead
ST95-09-1820A	BH2-10	TPHgas & BTEX
ST95-09-1821A	BH2-10	TPHdiesel
ST95-09-1822A	BH2-10	Total Oil & Grease
ST95-09-1823A	BH2-10	Organic Lead
ST95-09-1825A	BH2-20	TPHgas & BTEX
ST95-09-1826A	BH2-20	TPHdiesel
ST95-09-1827A	BH2-20	Total Oil & Grease
ST95-09-1828A	BH2-20	Organic Lead
ST95-09-1829A	MW4-5	TPHgas & BTEX
ST95-09-1830A	MW4-5	TPHdiesel
ST95-09-1831A	MW4-5	Total Oil & Grease
ST95-09-1832A	MW4-10	TPHgas & BTEX
ST95-09-1833A	MW4-10	TPHdiesel
ST95-09-1834A	MW4-10	Total Oil & Grease
ST95-09-1835A	MW4-10	Organic Lead
ST95-09-1836A	MW4-15	TPHgas & BTEX
ST95-09-1837A	MW4-15	TPHdiesel
ST95-09-1838A	MW4-15	Total Oil & Grease
ST95-09-1839A	MW4-15	Organic Lead

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Lab ID	Your ID	Analysis Description
ST95-09-1842A	MW1-10	TPHgas & BTEX
ST95-09-1843A	MW1-10	TPHdiesel
ST95-09-1844A	MW1-10	Total Oil & Grease
ST95-09-1845A	MW1-10	Organic Lead
ST95-09-1847A	MW1-20	TPHgas & BTEX
ST95-09-1848A	MW1-20	TPHdiesel
ST95-09-1849A	MW1-20	Total Oil & Grease
ST95-09-1850A	MW1-20	Organic Lead
ST95-09-1851A	MW3-8	TPHgas & BTEX
ST95-09-1852A	MW3-8	TPHdiesel
ST95-09-1853A	MW3-8	Total Oil & Grease
ST95-09-1854A	MW3-10	TPHgas & BTEX
ST95-09-1855A	MW3-10	TPHdiesel
ST95-09-1856A	MW3-10	Total Oil & Grease
ST95-09-1857A	MW3-10	Organic Lead
ST95-09-1859A	MW3-20	TPHgas & BTEX
ST95-09-1860A	MW3-20	TPHdiesel
ST95-09-1861A	MW3-20	Total Oil & Grease
ST95-09-1862A	MW3-20	Organic Lead
ST95-09-1863A	MW2-5	TPHgas & BTEX
ST95-09-1864A	MW2-5	TPHdiesel
ST95-09-1865A	MW2-5	Total Oil & Grease
ST95-09-1866A	MW2-5	Organic Lead
ST95-09-1868A	MW2-20	TPHgas & BTEX
ST95-09-1869A	MW2-20	TPHdiesel
ST95-09-1870A	MW2-20	Total Oil & Grease
ST95-09-1871A	MW2-20	Organic Lead
ST95-09-1872A	MW5-5	TPHgas & BTEX
ST95-09-1873A	MW5-5	TPHdiesel
ST95-09-1874A	MW5-5	Total Oil & Grease
ST95-09-1875A	MW5-10	TPHgas & BTEX
ST95-09-1876A	MW5-10	TPHdiesel
ST95-09-1877A	MW5-10	Total Oil & Grease
ST95-09-1878A	MW5-10	Organic Lead
ST95-09-1880A	MW5-20	TPHgas & BTEX
ST95-09-1881A	MW5-20	TPHdiesel
ST95-09-1882A	MW5-20	Total Oil & Grease
ST95-09-1883A	MW5-20	Organic Lead

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III Quality Control

A. **Project Specific QC.** No project specific QC (i.e., spikes and/or duplicates) was requested.

B. **Method Blank Results.** A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

C. **Laboratory Control Spike.** A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.

D. **Matrix Spike Results.** A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{(\text{measured concentration}) \times 100}{(\text{actual concentration})}$$

IV Analysis Results

Results are on the attached data sheets.

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 4, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 3, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH6-5	LAB ID:	ST95-09-1767A	TPHgas & BTEX
			ST95-09-1768A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	24 *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	99%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Weathered TPHdiesel.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Sep 29, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 3, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH6-10	LAB ID:	ST95-09-1770A	TPHgas & BTEX
			ST95-09-1771A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	16 *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	73%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Weathered TPHdiesel.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Sep 29, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH6-20	LAB ID:	ST95-09-1775A	TPHgas & BTEX
			ST95-09-1776A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	76%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No 1614)

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Sep 29, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH5-10	LAB ID:	ST95-09-1780A	TPHgas & BTEX
			ST95-09-1781A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	73%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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Sparger Technology, Inc.
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Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Sep 29, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH5-20	LAB ID:	ST95-09-1785A	TPHgas & BTEX
			ST95-09-1786A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	86%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 2, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH1-15	LAB ID:	ST95-09-1789A	TPHgas & BTEX
			ST95-09-1790A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	0.006	0.005	mg/kg
Xylenes	0.021	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	77%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

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Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 2, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH1-20	LAB ID:	ST95-09-1793A	TPHgas & BTEX
			ST95-09-1794A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	59% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 4, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH3-5	LAB ID:	ST95-09-1797A	TPHgas & BTEX
			ST95-09-1798A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	59% **		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** TPHmotor oil was found to be present at 58 ppm.**

**** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 2, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH3-10	LAB ID:	ST95-09-1800A	TPHgas & BTEX
			ST95-09-1801A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	57% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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Sparger Technology, Inc.
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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 2, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH3-20	LAB ID:	ST95-09-1805A	TPHgas & BTEX
			ST95-09-1806A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	67% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 2, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH4-10	LAB ID:	ST95-09-1810A	TPHgas & BTEX
			ST95-09-1811A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	65% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm = parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 4, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH4-20	LAB ID:	ST95-09-1815A	TPHgas & BTEX
			ST95-09-1816A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	95%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH2-10	LAB ID:	ST95-09-1820A	TPHgas & BTEX
			ST95-09-1821A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	40% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 26, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	BH2-20	LAB ID:	ST95-09-1825A	TPHgas & BTEX
			ST95-09-1826A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	96%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW4-5	LAB ID:	ST95-09-1829A	TPHgas & BTEX
			ST95-09-1830A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	89%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

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Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW4-10	LAB ID:	ST95-09-1832A	TPHgas & BTEX
			ST95-09-1833A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	60% **		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** TPHmotor oil was found to be present at 7.5 ppm.**

**** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW4-15	LAB ID:	ST95-09-1836A	TPHgas & BTEX
			ST95-09-1837A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	79%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 11, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1814)

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW1-10	LAB ID:	ST95-09-1842A	TPHgas & BTEX
			ST95-09-1843A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	54% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW1-20	LAB ID:	ST95-09-1847A	TPHgas & BTEX
			ST95-09-1848A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	67% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW3-8	LAB ID:	ST95-09-1851A	TPHgas & BTEX
			ST95-09-1852A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	0.012	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	48% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW3-10	LAB ID:	ST95-09-1854A	TPHgas & BTEX
			ST95-09-1855A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	46% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW3-20	LAB ID:	ST95-09-1859A	TPHgas & BTEX
			ST95-09-1860A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	0.030	0.005	mg/kg
Toluene	0.028	0.005	mg/kg
Ethylbenzene	0.030	0.005	mg/kg
Xylenes	0.058	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	79%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 4, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW2-5	LAB ID:	ST95-09-1863A	TPHgas & BTEX
			ST95-09-1864A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	59% **		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** TPHmotor oil was found to be present at 41 ppm.**

**** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 27, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 4, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 6, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW2-20	LAB ID:	ST95-09-1868A	TPHgas & BTEX
			ST95-09-1869A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	88%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 28, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 4, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 6, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW5-5	LAB ID:	ST95-09-1872A	TPHgas & BTEX
			ST95-09-1873A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	0.020	0.005	mg/kg
Ethylbenzene	0.028	0.005	mg/kg
Xylenes	0.088	0.005	mg/kg
TPHgas	1.6	1.0	mg/kg
TPHdiesel	ND *	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	58% **		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** TPHmotor oil was found to be present at 20 ppm.**

**** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 28, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 5, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 6, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW5-10	LAB ID:	ST95-09-1875A	TPHgas & BTEX
			ST95-09-1876A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	91%		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020/8015 Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Sep 28, 1995	
	Geocon Environmental	Date Received:	Sep 28, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 3, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 6, 1995	TPHdiesel
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger	
Client ID:	MW5-20	LAB ID:	ST95-09-1880A	TPHgas & BTEX
			ST95-09-1881A	TPHdiesel
Matrix:	Soil	Dilution: 1:	1	

Name	Amount	Detection Limit	Units
Benzene	ND	0.005	mg/kg
Toluene	ND	0.005	mg/kg
Ethylbenzene	ND	0.005	mg/kg
Xylenes	ND	0.005	mg/kg
TPHgas	ND	1.0	mg/kg
TPHdiesel	ND	1.0	mg/kg
Surrogate % Recovery of Trifluorotoluene =	62% *		

ppb = parts per billion = ug/kg = micrograms per kilogram

ppm= parts per million = mg/kg = milligrams per kilogram

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

*** Low surrogate recovery due to matrix effect.**

R. L. James, Principal Chemist

Oct 10, 1995
Date

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8020 Modified Matrix Spike (MS) & Matrix Spike Duplicate (MSD) BTEX Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 3, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MS/MSD	LAB ID:	ST95-09-1875A MS ST95-09-1875A MSD
Matrix:	Soil	Dilution:	

Name	Conc. Spike Added	Sample Result	MS Result	MSD Result	Units	MS % Recovery	MSD % Recovery	% RPD Recovery
Benzene	30 ppb	ND	22	26	ug/kg	73%	87%	17%
Toluene	30 ppb	ND	20	25	ug/kg	67%	83%	22%
Ethylbenzene	30 ppb	ND	22	26	ug/kg	73%	87%	17%
Xylenes	30 ppb	ND	22	25	ug/kg	73%	83%	13%

Surrogate % Recovery of Trifluorotoluene = 62% MS 73% MSD

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g = micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 10, 1995
DATE

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8020 Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) BTEX Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 3, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	LCS/LCSD	LAB ID:	ST95-10-003 LCS ST95-10-003 LCSD
Matrix:	Soil	Dilution:	

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
Benzene	30 ppb	ND	33	28	ug/kg	110%	93%	16%
Toluene	30 ppb	ND	32	28	ug/kg	107%	93%	13%
Ethylbenzene	30 ppb	ND	33	26	ug/kg	110%	87%	24%
Xylenes	30 ppb	ND	33	28	ug/kg	110%	93%	16%

Surrogate % Recovery of Trifluorotoluene = 88% LCS 100% LCSD

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g = micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 10, 1995
Date Reported

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8015 Modified Matrix Spike (MS) & Matrix Spike Duplicate (MSD) TPHdiesel Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 3, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MS/MSD	LAB ID:	ST95-09-1794A MS ST95-09-1794A MSD
Matrix:	Soil	Dilution:	

Name	Conc. Spike Added	Sample Result	MS Result	MSD Result	Units	MS % Recovery	MSD % Recovery	% RPD Recovery
TPHdiesel	15 ppm	ND	14	14	mg/kg	93%	93%	0%

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = mg/kg = milligrams per kilogram
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct. 10, 1995
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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH6-5	LAB ID:	ST95-09-1769A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	80	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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

R. L. James, Principal Chemist

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH6-10	LAB ID:	ST95-09-1772A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	65	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	**Date Sampled:** **Date Received:** **Date Analyzed:**	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	**Project Name:**	Hegenberger
Client ID:	BH6-20	**LAB ID:**	ST95-09-1777A
Matrix:	Soil	**Dilution: 1:**	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH5-10	LAB ID:	ST95-09-1782A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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

R. L. James, Principal Chemist

Oct. 10, 1995
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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH5-20	LAB ID:	ST95-09-1787A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

R. L. James, Principal Chemist

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH1-15	LAB ID:	ST95-09-1791A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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

R. L. James, Principal Chemist

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH1-20	LAB ID:	ST95-09-1795A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

ND = Not Detected Compound(s) may be present at concentrations below the detection limit

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH3-5	LAB ID:	ST95-09-1799A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	80	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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

R. L. James, Principal Chemist

Oct. 10, 1995
Date Reported

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Mobile Laboratory Division
Scientific Division

5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH3-10	LAB ID:	ST95-09-1802A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH3-20	LAB ID:	ST95-09-1807A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH4-10	LAB ID:	ST95-09-1812A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	55	50	mg/kg

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ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH4-20	LAB ID:	ST95-09-1817A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH2-10	LAB ID:	ST95-09-1822A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH2-20	LAB ID:	ST95-09-1827A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW4-5	LAB ID:	ST95-09-1831A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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R. L. James, Principal Chemist

Oct. 10, 1995
Date Reported

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW4-10	LAB ID:	ST95-09-1834A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	75	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW4-15	LAB ID:	ST95-09-1838A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	75	50	mg/kg

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Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW1-10	LAB ID:	ST95-09-1844A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW1-20	LAB ID:	ST95-09-1849A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW3-8	LAB ID:	ST95-09-1853A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW3-10	LAB ID:	ST95-09-1856A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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R. L. James, Principal Chemist

Oct. 10, 1995
Date Reported

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW3-20	LAB ID:	ST95-09-1861A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW2-5	LAB ID:	ST95-09-1865A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	75	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW2-50	LAB ID:	ST95-09-1870A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW5-5	LAB ID:	ST95-09-1874A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	60	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW5-10	LAB ID:	ST95-09-1877A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	65	50	mg/kg

ppb = parts per billion = ug/kg = microgram per kilogram

ppm= parts per million = ug/g = microgram per gram

ppm= parts per million = mg/kg = milligram per kilogram

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5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 5, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW5-20	LAB ID:	ST95-09-1882A
Matrix:	Soil	Dilution: 1:	1

Name	Amount	Reporting Limit	Units
Oil & Grease	ND	50	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH6-10	LAB ID:	ST95-09-1773A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g= micrograms per gram
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R. L. James, Principal Chemist

Oct 4, 1995
Date Reported

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH6-20	LAB ID:	ST95-09-1778A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g= micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

R. L. James, Principal Chemist

Oct 4, 1995
Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
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Sparger Technology, Inc.
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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH5-10	LAB ID:	ST95-09-1783A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g= micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH5-20	LAB ID:	ST95-09-1788A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH1-15	LAB ID:	ST95-09-1792A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH1-20	LAB ID:	ST95-09-1796A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

ppb = parts per billion = ug/kg = micrograms per kilogram
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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH3-10	LAB ID:	ST95-09-1803A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Scientific Division

Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH3-20	LAB ID:	ST95-09-1808A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

R. L. James, Principal Chemist

Oct 4, 1995
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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH4-10	LAB ID:	ST95-09-1813A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH4-20	LAB ID:	ST95-09-1818A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH2-10	LAB ID:	ST95-09-1823A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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ppm= parts per million = ug/g= micrograms per gram
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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	BH2-20	LAB ID:	ST95-09-1828A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW4-10	LAB ID:	ST95-09-1835A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW4-15	LAB ID:	ST95-09-1839A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW1-10	LAB ID:	ST95-09-1845A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

R. L. James, Principal Chemist

Oct 4, 1995
Date Reported

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW1-20	LAB ID:	ST95-09-1850A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW3-10	LAB ID:	ST95-09-1857A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Scientific Division

Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW3-20	LAB ID:	ST95-09-1862A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g= micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

R. L. James, Principal Chemist

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW2-5	LAB ID:	ST95-09-1866A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 27, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW2-20	LAB ID:	ST95-09-1871A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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ppm= parts per million = ug/g= micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the reporting limit.

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW5-10	LAB ID:	ST95-09-1878A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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Organic Lead DOHS LUFT Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 4, 1995
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MW5-20	LAB ID:	ST95-09-1883A
Matrix:	Soil	Dilution:	

Name	Amount	Reporting Limit	Units
Organic Lead	ND	5.0	mg/kg

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

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Organic Lead LUFT Method
Matrix Spike (MS) and
Matrix Spike Duplicate (MSD)

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 26, 1995 Sep 28, 1995 Oct 4, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	MS/MSD	LAB ID:	ST95-09-1773A MS ST95-09-1773A MSD
Matrix:	Soil	Dilution:	

Name	Conc. Spike Added	Sample Result	MS	MSD	Units	MS % Recovery	MSD % Recovery	% RPD Recovery
Organic Lead	25 ppm	ND	26	26	mg/kg	104%	104%	0%

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

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Organic Lead LUFT Method
Laboratory Control Spike (LCS) and
Laboratory Control Spike Duplicate (LCSD)

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Sep 28, 1995 Sep 28, 1995 Oct 4, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hegenberger
Client ID:	LCS/LCSD	LAB ID:	ST95-10-004 LCS ST95-10-004 LCSD
Matrix:	Soil	Dilution:	

Name	Conc. Spike Added	LCS	LCSD	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
Organic Lead	25 ppm	26	26	mg/kg	104%	104%	0%

ppb = parts per billion = ug/kg = micrograms per kilogram
ppm= parts per million = ug/g = micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 4, 1995
Date Reported

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DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1614)

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SPARGE TECHNOLOGY, INC.
Analytical Laboratory
3050 Fite Circle, #112 Sacramento, CA 95827
Phone: (916) 362-8947
FAX: (916) 362-0947

CHAIN OF CUSTODY RECORD

C.O.C. No. 11154 (5578)
Page 1 of 5
STAL Invoice Number:

Company: GEOCON Phone: 852-9118
Project Manager: Rick Walls FAX: 852-9132
Report Address: 3235 sunrise Blvd. #6, Rancho Cordova, CA 95742
Billing Name & Address: Contact Rick Walls OR Ian Moorhead with any Questions

Project Name: Hegenberger
Project/Job#: S8100-06-34
Project Location: Oakland, CA
P.O.#: 53W202 - Caltrans

ANALYSIS REQUEST

REMARKS: CALTRANS - 53W202
1. TPHg - BTEX (90.95)
2. TPH Diesel (#90)
3. EPA 5520 (O+G) (#89)
4. Organic Lead (#92)

Sampler's Name: IAN MOORHEAD

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Sampling Date	Sampling Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other: Chill	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other: Depth	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015) (90/95)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015) (90)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520) (#89)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead (#92)	TCLP: RCI	TCLP: HOLD	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	BH6-5	9/26	0938		X			X			X		X		6	X	X								X								X		
2	BH6-10		0945												11	X	X								X		X								
3	BH6-15		1000												16														X						
4	BH6-20		1005												21	X	X								X		X								
5	BH5-5		1045												6														X						
6	BH5-10		1050												11	X	X								X		X								
7	BH5-15		1058												16														X						
8	BH5-20		1105												21	X	X								X		X								
9	BH1-15	9/26	1145												16	X	X								X		X								
10	BH1-20		1155												21	X	X								X		X								

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CHAIN OF CUSTODY RECORD

C.O.C. No. 11156 (5578)
Page 2 of 5
STAL Invoice Number:

Company: Geocon
Phone: 852-9118
Project Manager: Rick Walls
FAX: 852-9132
Report Address: 3235 Sunrise Blvd. #6, Rancho Cordova, CA ~~754~~ 95742
Billing Name & Address:

Project Name: Hegenberger
Project/Job#: S8100-06-34
Project Location: Oakland, CA
P.O.#: 53W202 - Caltrans

ANALYSIS REQUEST

REMARKS: See pg 1

Sampler's Name: IAN MOORHEAD

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Date	Time	Sampling	Container: 40 mL VOA	Brass Sleeve	1 L amber bottle	250 mL Plastic	Other:	Preservative Used: HCl/HNO3/ICE	None	Other: Cool	Matrix: Water	Soil	Air	Other: Dupl	TCLP: BTEX (602/8020)503.1	BTEX/TPHgas 602/8020/8015 (8015)	TPHdiesel/TPHmotor oil/kerosene(8015) (8015)	EPA 601/8010/502.2/504	EPA 602/8020	EPA 608/8080 (Pesticides)/505/508	EPA 608/8080 (PCB'S)	EPA 624/8240/524.2	EPA 625/8270/525	Total Oil & Grease (5520) #pg	Non-Polar O & G/TRPH (418.1)	Organic Lead #92	RCI	HOLD	Total: CAM-17 Metals	CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Lead	TAT: Standard	Rush Services (72hr / 48hr / 24hr / 12hr)	Holiday/Weekend Rush
1	BH3-5	9/26	1335			X						X		X		6	X	X							X								X		
2	BH3-10		1340													11	X	X							X		X								
3	BH3-15		1345													16													⊗						
4	BH3-20		1350													21	X	X							X		X								
5	BH4-5		1420													5													⊗						
6	BH4-10		1425													11	X	X							X		X								
7	BH4-15		1430													16													⊗						
8	BH4-20		1435													21	X	X							X		X								
9	BH2-5		1515													5													⊗						
10	BH2-10		1520														X	X							X		X								

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CHAIN OF CUSTODY RECORD

C.O.C. No. 11157 (5578)
Page 3 of 5
STAL Invoice Number:

Company: GEOCON
Phone: 852-9118
Project Manager: Rick Walls
FAX: 852-9132

Report Address:
3235 Sunrise Blvd. #6
Rancho Cordova, CA 95742

Billing Name & Address:

Project Name: Hegenberger
Project/Job#: S8100-06-34
Project Location: Oakland, CA
P.O.#: Caltrans - 53W202

ANALYSIS REQUEST

REMARKS: See Pg 1

Sampler's Name: IAN MOORHEAD

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Sampling Date	Sampling Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other: Aqua	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015) (90/95)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015) (90)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520) (91)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead (92)	TCLP: RCI	TCLP: HOLD	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	BH2-15	9/26	1525		X						X		X		16														X				X	
2	BH2-20	9/26	1530		X						X		X		21		X	X							X		X						X	
3	———	———	———		———				———		———		———				———	———							———		———						X	
4	MW4-5	9/27	0805		X						X		X		5.5		X	X							X				X		9/28/95			
5	MW4-10	↓	0816		↓						↓		↓		11		X	X							X		X							
6	MW4-15		0824												16		X	X							X		X							
7	MW4-20		0832												21		X	X	IN	9-28-95									X					
8	MW1-5		1015												6		———								———		———			X				
9	MW1-10		1025												11		X	X							X		X							
10	MW1-15	↓	1035		↓						↓		↓		16		———								———		———			X			↓	

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CHAIN OF CUSTODY RECORD

C.O.C. No. 11158 (5578)
Page 4 of 5
STAL Invoice Number:

Company: GEOcon Phone: 852-9118
Project Manager: Rick Wells FAX: 852-9132
Report Address: 3235 Sunrise Blvd. #6, Rancho Grolove, CA 95742
Billing Name & Address:
Project Name: Hegenberger Project/Job#: 58100-06-34
Project Location: Oak Land, CA P.O.#: Cortrans 93W202

ANALYSIS REQUEST

REMARKS: See Pg 1
Sampler's Name: IAN MOORHEAD

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)
TCLP

NO.	SAMPLE ID	Sampling Date	Sampling Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other: CHILL	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other: Depth	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015) (9/27)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015) (9/27)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520) (9/27)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead (9/27)	TCLP: RCI	TCLP: Hold	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	MW1-20	9/27	1050		X						X		X		19.5		X	X							X		X						X		
2	MW3-8		1406												7.5		X	X							X		X								
3	MW3-10		1414												11		X	X							X		X								
4	MW3-15		1425												16													X							
5	MW3-20		1430												21		X	X							X		X								
6	MW2-5		1600												6		X	X							X		X	X		Im 9/28/95					
7	~~MW2-10~~	~~9/27~~	~~1605~~																																
8	MW2-15	9/27	1615		X						X		X		16		~~X~~	~~X~~	Im 9-28-95						~~X~~		~~X~~	X					X		
9	MW2-20	9/27	1625		X						X		X		21		X	X							X		X						X		
10																																			

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CHAIN OF CUSTODY RECORD

C.O.C. No. 11161 (5578)
Page 5 of 5
STAL Invoice Number:

Company: GEOCON Phone: 852-9118
Project Manager: RICK WALLS FAX: 852-9132
Report Address: 3235 SUNRISE Blvd #6, Rancho Cordova, CA 95742
Billing Name & Address:

Project Name: Hegenberger Project/Job#: 58100-06-34
Project Location: Oakland, CA P.O.#: Coltrens 53W202

ANALYSIS REQUEST

REMARKS: See pg 1.

Sampler's Name: Don MOORHEAD

		All OK	None OK	Some OK	WET(STLC)
Cooler Temp.	°C				
Sample Condition					TCLP
pH					

NO.	SAMPLE ID	Sampling: Date	Sampling: Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other:	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015) (90/91)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015) (90)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520) (89)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead (92)	TCLP: RCI	TCLP: HoCr.	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	MW5-5	9/28	0915		X						X		X		6		X	X							X		X						X		
2	MW5-10	↓	0918		↓						↓		↓		11		X	X							X		X						X		
3	MW5-15		0925												16														X				X		
4	MW5-20	↓	0933		↓						↓		↓		17.5		X	X							X		X						X		
5																																			
6																																			
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Date: 9/28/95 Time: 1410	Date: 9/28/95 Time: 14:10	Date: Time:	Date: Time:

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

November 2, 1995

Mr. Rick Walls
Geocon Environmental
3235 Sunrise Blvd., Suite 6
Rancho Cordova, CA 95742

Dear Mr. Walls:

Enclosed is the report for the five (5) water samples. The samples were received at Sparger Technology Analytical Lab on October 12, 1995.

The samples were received in fifteen (15) 40 mL VOA vials and fifteen (15) 1 L amber bottles. The samples were transported and received under documented chain of custody and stored at four (4) degrees C until analysis was performed.

The report consists of the following sections:

I. Sample Description
II. Analysis Request
III. Quality Control Report
IV. Analysis Results

No problems were encountered with the analysis of your samples.

If you have questions, please feel free to call.

Sincerely,

R. L. James
Principal Chemist

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Sparger Technology, Inc.
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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

I Sample Description

See attached Samples Description Information.

The samples were received under chain-of-custody.

II Analysis Request

The following analytical tests were requested:

Lab ID	Your ID	Analysis Description
ST95-10-758A	MW-5	TPHgas & BTEX
ST95-10-759A	MW-5	TPHdiesel/motor oil
ST95-10-760A	MW-5	Total Oil & Grease
ST95-10-761A	MW-3	TPHgas & BTEX
ST95-10-762A	MW-3	TPHdiesel/motor oil
ST95-10-763A	MW-3	Total Oil & Grease
ST95-10-764A	MW-2	TPHgas & BTEX
ST95-10-765A	MW-2	TPHdiesel/motor oil
ST95-10-766A	MW-2	Total Oil & Grease
ST95-10-767A	MW-4	TPHgas & BTEX
ST95-10-768A	MW-4	TPHdiesel/motor oil
ST95-10-769A	MW-4	Total Oil & Grease
ST95-10-770A	MW-1	TPHgas & BTEX
ST95-10-771A	MW-1	TPHdiesel/motor oil
ST95-10-772A	MW-1	Total Oil & Grease

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Sparger Technology, Inc.
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Analytical Laboratory Division
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III Quality Control

A. Project Specific QC. No project specific QC (i.e., spikes and/or duplicates) was requested.

B. Method Blank Results. A method blank is a laboratory-generated sample which assesses the degree to which laboratory operations and procedures cause false-positive analytical results for your sample.

No target parameters were detected in the method blank associated with your sample at the reporting limit levels noted on the data sheets in the Analytical Results section.

C. Laboratory Control Spike. A Laboratory Control Spike (LCS) is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The LCS results associated with your samples are on the attached Laboratory Control Spike and Laboratory Control Spike Duplicate Analysis Report.

D. Matrix Spike Results. A Matrix Spike is a sample which is spiked with known analyte concentrations, and analyzed at approximately 10% of the sample load in order to establish method-specific control limits. The Matrix Spike results associated with your samples are on the attached Matrix Spike and Matrix Spike Duplicate Analysis Report.

Accuracy is measured by Percent Recovery as in:

$$\% \text{ recovery} = \frac{(\text{measured concentration}) \times 100}{(\text{actual concentration})}$$

IV Analysis Results

Results are on the attached data sheets.

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015/5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Oct 11, 1995	
	Geocon Environmental	Date Received:	Oct 12, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 17, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 17, 1995	TPHdiesel/motor oil
		Date Analyzed:	Oct 16, 1995	Oil & Grease
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger	
Client ID:	MW-5	LAB ID:	ST95-10-758A	TPHgas & BTEX
		LAB ID:	ST95-10-759A	TPHdiesel/motor oil
		LAB ID:	ST95-10-760A	Oil & Grease
Matrix:	Water	Dilution:		

Name	Amount	Detection Limit	Units
Benzene	45	0.3	ug/L
Toluene	15	0.3	ug/L
Ethylbenzene	1.9	0.3	ug/L
Xylenes	6.1	0.3	ug/L
TPHgas	1000	50	ug/L
TPHdiesel	ND	50	ug/L
TPHmotor oil	ND	50	ug/L
Oil & Grease	ND	5000	ug/L

Surrogate % Recovery of Trifluorotoluene = 125%

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 23, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1614)

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015/5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed: Date Analyzed: Date Analyzed:	Oct 11, 1995 Oct 12, 1995 Oct 17, 1995 Oct 17, 1995 Oct 16, 1995	 TPHgas & BTEX TPHdiesel/motor oil Oil & Grease
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger	
Client ID:	MW-3	LAB ID: LAB ID: LAB ID:	ST95-10-761A ST95-10-762A ST95-10-763A	TPHgas & BTEX TPHdiesel/motor oil Oil & Grease
Matrix:	Water	Dilution:		

Name	Amount	Detection Limit	Units
Benzene	1.0	0.3	ug/L
Toluene	ND	0.3	ug/L
Ethylbenzene	ND	0.3	ug/L
Xylenes	ND	0.3	ug/L
TPHgas	1300 *	50	ug/L
TPHdiesel	ND	50	ug/L
TPHmotor oil	ND	50	ug/L
Oil & Grease	ND	5000	ug/L

Surrogate % Recovery of Trifluorotoluene = 107%

ppb = parts per billion = ug/L = micrograms per Liter
ppm = parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.
*** Weathered gas detected.**

R. L. James, Principal Chemist

Oct 23, 1995
Date

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(Certification No. 1614)

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Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015/5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Oct 11, 1995	
	Geocon Environmental	Date Received:	Oct 12, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 18, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 17, 1995	TPHdiesel/motor oil
		Date Analyzed:	Oct 16, 1995	Oil & Grease
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger	
Client ID:	MW-2	LAB ID:	ST95-10-764A	TPHgas & BTEX
		LAB ID:	ST95-10-765A	TPHdiesel/motor oil
		LAB ID:	ST95-10-766A	Oil & Grease
Matrix:	Water	Dilution:		

Name	Amount	Detection Limit	Units
Benzene	ND	0.3	ug/L
Toluene	ND	0.3	ug/L
Ethylbenzene	ND	0.3	ug/L
Xylenes	ND	0.3	ug/L
TPHgas	ND	50	ug/L
TPHdiesel	ND	50	ug/L
TPHmotor oil	ND	50	ug/L
Oil & Grease	ND	5000	ug/L

Surrogate % Recovery of Trifluorotoluene = 112%

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 23, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA
DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
(Certification No. 1814)

3050 Fite Circle, Suite 112 • Sacramento, California 95827 • (916) 362-8947 • FAX (916) 362-0947

Sparger Technology, Inc.
With Automation in Mind

Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015/5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed: Date Analyzed: Date Analyzed:	Oct 11, 1995 Oct 12, 1995 Oct 18, 1995 Oct 17, 1995 Oct 16, 1995	 TPHgas & BTEX TPHdiesel/motor oil Oil & Grease
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger	
Client ID:	MW-4	LAB ID: LAB ID: LAB ID:	ST95-10-767A ST95-10-768A ST95-10-769A	TPHgas & BTEX TPHdiesel/motor oil Oil & Grease
Matrix:	Water	Dilution:		

Name	Amount	Detection Limit	Units
Benzene	17	0.3	ug/L
Toluene	1.1	0.3	ug/L
Ethylbenzene	ND	0.3	ug/L
Xylenes	0.48	0.3	ug/L
TPHgas	500	50	ug/L
TPHdiesel	ND	50	ug/L
TPHmotor oil	ND	50	ug/L
Oil & Grease	ND	5000	ug/L

Surrogate % Recovery of Trifluorotoluene = 97%

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

R. L. James, Principal Chemist

Oct 23, 1995
Date

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Analytical Laboratory Division
Mobile Laboratory Division
Scientific Division

8020/8015/5520 F. Modified Analysis Report

Attention:	Mr. Rick Walls	Date Sampled:	Oct 11, 1995	
	Geocon Environmental	Date Received:	Oct 12, 1995	
	3235 Sunrise Blvd., Suite 6	Date Analyzed:	Oct 18, 1995	TPHgas & BTEX
	Rancho Cordova, CA 95742	Date Analyzed:	Oct 17, 1995	TPHdiesel/motor oil
		Date Analyzed:	Oct 16, 1995	Oil & Grease
Project #:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger	
Client ID:	MW-1	LAB ID:	ST95-10-770A	TPHgas & BTEX
		LAB ID:	ST95-10-771A	TPHdiesel/motor oil
		LAB ID:	ST95-10-772A	Oil & Grease
Matrix:	Water	Dilution:	1:10	TPHgas & BT

Name	Amount	Detection Limit	Units
Benzene	660	3.0	ug/L
Toluene	13	3.0	ug/L
Ethylbenzene	4.7	0.3	ug/L
Xylenes	2.8	0.3	ug/L
TPHgas	720	500	ug/L
TPHdiesel	ND	50	ug/L
TPHmotor oil	ND	50	ug/L
Oil & Grease	ND	5000	ug/L

Surrogate % Recovery of Trifluorotoluene = 115%

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 23, 1995
Date

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8020 Modified Matrix Spike (MS) & Matrix Spike Duplicate (MSD)
BTEX Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Oct 11, 1995 Oct 12, 1995 Oct 18, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger
Client ID:	MS/MSD (Batch)	LAB ID:	ST95-10-795A MS ST95-10-795A MSD
Matrix:	Water	Dilution:	

Name	Conc. Spike Added	Sample Result	MS Result	MSD Result	Units	MS % Recovery	MSD % Recovery	% RPD Recovery
Benzene	30 ppb	ND	29	35	ug/L	97%	117%	19%
Toluene	30 ppb	ND	27	32	ug/L	90%	107%	17%
Ethylbenzene	30 ppb	ND	31	34	ug/L	103%	113%	9%
Xylenes	30 ppb	ND	31	34	ug/L	103%	113%	9%

Surrogate % Recovery of Trifluorotoluene = 95% MS 107% MSD

ppb = parts per billion = ug/L = micrograms per liter
ppm= parts per million = ug/ml = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit

R. L. James, Principal Chemist

Oct 23, 1995
Date

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
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Scientific Division

8020 Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) BTEX Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Oct 11, 1995 Oct 12, 1995 Oct 18, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger
Client ID:	LCS/LCSD	LAB ID:	ST95-10-018 LCS ST95-10-018 LCSD
Matrix:	Water	Dilution:	

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
Benzene	30 ppb	ND	34	33	ug/L	113%	110%	3%
Toluene	30 ppb	ND	29	28	ug/L	97%	93%	4%
Ethylbenzene	30 ppb	ND	34	34	ug/L	113%	113%	0%
Xylenes	30 ppb	ND	34	33	ug/L	113%	110%	3%

Surrogate % Recovery of Trifluorotoluene = 91% LCS 89% LCSD

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/mL = micrograms per milliliter
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 23, 1995
Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY (Certification No. 1614)

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Mobile Laboratory Division
Scientific Division

8015 Modified Laboratory Control Spike (LCS) & Laboratory Control Spike Duplicate (LCSD) TPHdiesel Analysis Report

Attention:	Mr. Rick Walls Geocon Environmental 3235 Sunrise Blvd., Suite 6 Rancho Cordova, CA 95742	Date Sampled: Date Received: Date Analyzed:	Oct 11, 1995 Oct 12, 1995 Oct 16, 1995
Project ID:	S8100-06-34 (CT53W202)	Project Name:	Hagenberger
Client ID:	LCS/LCSD	LAB ID:	ST95-10-016 LCS ST95-10-016 LCSD
Matrix:	Water	Dilution:	

Name	Conc. Spike Added	Sample Result	LCS Result	LCSD Result	Units	LCS % Recovery	LCSD % Recovery	% RPD Recovery
TPHdiesel	600 ppb	ND	563	590	ug/L	94%	98%	5%

ppb = parts per billion = ug/L = micrograms per Liter
ppm= parts per million = ug/g = micrograms per gram
ND = Not Detected. Compound(s) may be present at concentrations below the detection limit.

R. L. James, Principal Chemist

Oct 23, 1995
Date Reported

SPARGER TECHNOLOGY ANALYTICAL LABORATORY, INC. IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES AS A HAZARDOUS WASTE TESTING LABORATORY
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SPARGER TECHNOLOGY, INC.

Analytical Laboratory

3050 Fite Circle, #112 Sacramento, CA 95827

Phone: (916) 362-8947

FAX: (916) 362-0947

CHAIN OF CUSTODY RECORD

C.O.C. No. 11128

5669

Page 1 of 1

STAL Invoice Number:

Company: Geocon Phone: 852-7118

Project Manager: Rick Wells FAX: 852-9132

Report Address:
3235 Sunrise BLVD. #G
Rancho Cordova, Ca 95742

Billing Name & Address:

Project Name: Hagenberger Project/Job#: 58100-06-34

Project Location: OAKLAND, CA P.O.#: 53W202

ANALYSIS REQUEST

REMARKS: CT53W202

Sampler's Name: Doug Winchester

		All OK	None OK	Some OK
Cooler Temp.	°C			
Sample Condition				
pH				

WET(STLC)

TCLP

Total

TAT

NO.	SAMPLE ID	Sampling: Date	Sampling: Time	Container: 40 mL VOA	Container: Brass Sleeve	Container: 1 L amber bottle	Container: 250 mL Plastic	Container: Other:	Preservative Used: HCl/HNO3/ICE	Preservative Used: None	Preservative Used: Other:	Matrix: Water	Matrix: Soil	Matrix: Air	Matrix: Other:	TCLP: BTEX (602/8020)503.1	TCLP: BTEX/TPHgas (602/8020/8015) (8015)	TCLP: TPHdiesel/TPHmotor oil/kerosene(8015)	TCLP: EPA 601/8010/502.2/504	TCLP: EPA 602/8020	TCLP: EPA 608/8080 (Pesticides)/505/508	TCLP: EPA 608/8080 (PCB'S)	TCLP: EPA 624/8240/524.2	TCLP: EPA 625/8270/525	TCLP: Total Oil & Grease (5520)	TCLP: Non-Polar O & G/TRPH (418.1)	TCLP: Organic Lead	TCLP: RCI	TCLP: H2LD	Total: CAM-17 Metals	Total: CAM-5 Metals (Cd, Cr, Pb, Ni, Zn)	Total: Lead	TAT: Standard	TAT: Rush Services (72hr / 48hr / 24hr / 12hr)	TAT: Holiday/Weekend Rush
1	MW-5	10-11	1145	3		3			X			X					X	X							X									X	
2	MW-3	10-11	1240	3		3			X			X					X	X							X									X	
3	MW-2	"	1335	3		3			X			X					X	X							X									X	
4	MW-4	"	1435	3		3			X			X					X	X							X									X	
5	MW-1	V	1455	3		3			X			X					X	X							X									X	
6	Trip Blank	V	—	1					X			X																	X						
7																																			
8																																			
9																																			
10																																			

Relinquished by:	Received by:	Relinquished by:	Received by:
Douglas Winchester	Geocon Cold storage		
Date: 10/11/95 Time: 1930	Date: 10/11/95 Time: 1530	Date: 10-12-95 Time: 1243	Date: 10/12/95 Time: 12:23 pm

PLEASE READ REVERSE SIDE FOR TERMS AND CONDITIONS