

**Report of  
Underground Storage Tank Closure  
Chevron Service Station #7348  
502 North Wenatchee Avenue  
Wenatchee, Washington**

**April, 1991**

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*to Rattelm/mack  
6/7/91 - site  
register  
EP.*

**RECEIVED**  
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CENTRAL REGION OFFICE

*1 copy went to Jim Chiles, UST  
6/7/91 E Peterson*



## CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>i</b>
<b>INTRODUCTION</b> .....	<b>1</b>
<b>PURPOSE</b> .....	<b>1</b>
<b>BACKGROUND AND SITE SETTING</b> .....	<b>4</b>
<b>SCOPE OF SERVICES</b> .....	<b>5</b>
<b>UNDERGROUND STORAGE SYSTEM DECOMMISSIONING</b> .....	<b>6</b>
<b>GASOLINE USTs</b> .....	<b>6</b>
<b>PRODUCT LINES AND DISPENSER ISLANDS</b> .....	<b>9</b>
<b>HEATING-OIL AND USED-OIL USTs</b> .....	<b>9</b>
<b>HYDRAULIC LIFTS</b> .....	<b>10</b>
<b>SITE CONDITIONS</b> .....	<b>11</b>
<b>SOIL CONDITIONS</b> .....	<b>11</b>
<b>LABORATORY ANALYSIS</b> .....	<b>12</b>
<b>SOIL DISPOSAL</b> .....	<b>20</b>
<b>CONCLUSIONS</b> .....	<b>20</b>

## TABLES

TABLE A	ANALYTICAL RESULTS, AROMATIC VOLATILE ORGANICS AND TOTAL PETROLEUM HYDROCARBONS IN SOIL GASOLINE TANKS, SERVICE ISLANDS/PRODUCT LINES AND SOIL PILES .....	14
TABLE B	ANALYTICAL RESULTS, TOTAL PETROLEUM HYDROCARBONS IN SOIL HEATING-OIL AND WASTE-OIL EXCAVATIONS .....	15
TABLE C	ANALYTICAL RESULTS, POLYCHLORINATED BIPHENYLS IN SOIL .....	16
TABLE D	ANALYTICAL RESULTS, HALOGENATED VOLATILE ORGANICS IN SOIL .....	17
TABLE E	ANALYTICAL RESULTS, EXTRACTABLE METALS IN SOIL .....	18
TABLE F	ANALYTICAL RESULTS, FLASHPOINT IN SOIL .....	19

## FIGURES

FIGURE 1	SITE LOCATION MAP .....	2
FIGURE 2	SITE PLAN .....	3
FIGURE 3	SAMPLE LOCATION MAP .....	8

## **APPENDICES**

**APPENDIX I SYNOPSIS OF SUBSURFACE INVESTIGATION**

**APPENDIX II STANDARD OPERATING PROCEDURES**

**APPENDIX III LABORATORY ANALYTICAL RESULTS**

**APPENDIX IV WASHINGTON STATE DEPARTMENT OF ECOLOGY  
ADOPTED COMPLIANCE CLEAN-UP LEVELS, SOILS**

**APPENDIX V SYNOPSIS OF UST CLOSURE**

**APPENDIX VI WASTE PROFILE**

## EXECUTIVE SUMMARY

Groundwater Technology, Inc. (GTI) was contracted to observe, document and supervise the permanent closure of six (6) underground storage tanks at the Chevron U.S.A. Inc. Service Station #7348 in Wenatchee, Washington. The purpose of the site activity was to assess for the presence and concentrations of hydrocarbons in the backfill and soils adjacent to the storage tanks and piping; and the extent to which any further actions would be required. Tasks performed to obtain this information included: 1) the collection of strategic soil samples; 2) the quantitative chemical analysis of those samples; 3) the interpretation of the chemical analysis; and, 4) the compilation of the data for this report. The site examination occurred concurrently with tank removal on February 25 and 26, 1991.

GTI observations and findings:

- o Sediments observed at the site included a brown sand, with traces of silt, from the near surface to a depth of approximately 20 feet below grade level.
- o Groundwater was not encountered within the maximum depth of excavation, approximately 18 to 20 feet below grade level.  
*12/90 report = gw @ 19'*
- o Laboratory analyses list non-detectable concentrations for Total Petroleum Hydrocarbons (TPH)-as-gasoline, benzene, toluene, ethylbenzene, and xylenes (BTEX), and concentrations of total petroleum hydrocarbons (TPH) ranging from non-detectable to 10 parts per million (ppm) in the samples collected from the gasoline underground storage tank (UST) pit.

- o Analytical results of soil samples from the service islands excavation contained no detectable concentrations for TPH-as-gasoline. One sample contained detectable levels of BTEX, 0.1 parts per million (ppm) total BTEX. Concentrations of TPH by EPA Method 418.1 ranged from non-detectable to 14 ppm.
- o Concentrations of TPH in soil samples from the heating-oil and used-oil UST excavations located west of the garage, detected by EPA Method 418.1 ranged from non-detectable to 11 ppm.
- o Concentrations of TPH from a newly discovered UST near the gasoline USTs ranged from non-detectable to 2600 ppm before re-excavation. After re-excavation the concentration of TPH in a sample collected from beneath the UST was non-detectable.
- o Seven (7) soil samples, three (3) from the heating oil/used-oil USTs excavations, three (3) from the hydraulic lift excavation and one (1) from a stockpile of excavated soils were analyzed for halogenated volatile organics. The laboratory results indicated no detectable concentrations.
- o Five (5) soil samples, three (3) from the heating oil/used oil UST excavations and two (2) from the stockpiled excavation soil were analyzed for polychlorinated biphenyls (PCBs). Laboratory results indicates no detectable concentrations of PCBs.
- o Of the four (4) composite soil samples collected from excavated soils stockpiled on site, two (2) samples were analyzed for extraction procedure toxicity metals. Except for the barium at 1.1 and 0.09 ppm, the concentrations of target metals were below MDLs. All four (4) samples were also analyzed for BTEX, TPH-as-gasoline and TPH by EPA

Methods 8020, modified 8015 and 418.1 respectively. One (1) sample was non-detectable with respect to BTEX and TPH-as-gasoline. All other composite samples contained total BTEX concentrations equal to, or less than, 3.1 ppm, and TPH-as-gasoline concentrations of 8 ppm or less. The TPH concentrations ranged from 8 ppm to 4400 ppm. Two (2) samples were analyzed for flashpoint and were non-flash at 160 degrees fahrenheit.

- o Based on the results of composite sample analyses, a waste profile was developed and submitted to Waste Management of North America (WMNA). Following approval approximately 300 to 400 cubic yards of gasoline impacted soil were transported by Larson Demolition to WMNA's Wenatchee Landfill.

The following report discusses the investigative purpose, site background, scope of services, site conditions, and underground storage tank systems decommissioning. Included are a site location map, a site plan, and a sample location map, as well as, appendices containing laboratory results, standard sampling protocols, Clean-up Guidelines for soil from the Washington Department of Ecology, and a copy of the waste profile form.

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Wenatchee, Washington**

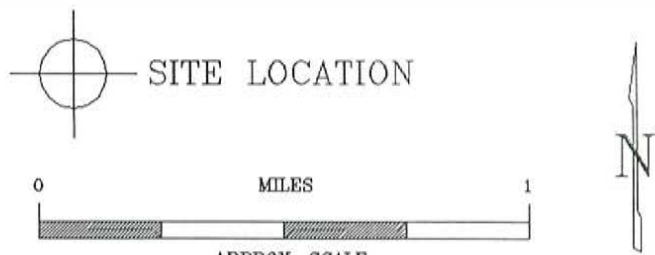
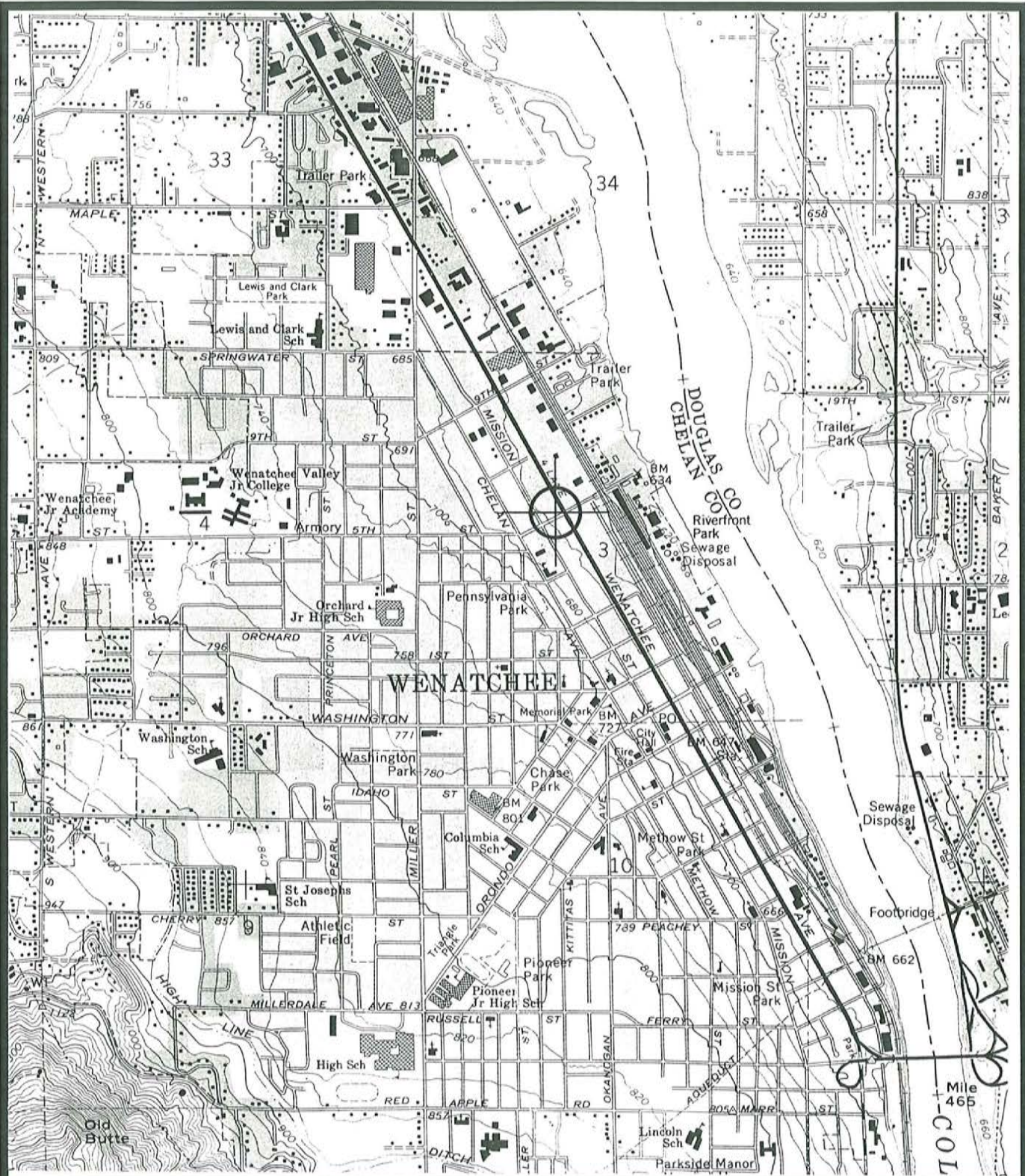
**INTRODUCTION**

This report presents the results of the underground storage tank (UST) closure activities at Chevron U.S.A. Inc's. abandoned service station #7348, located at 502 North Wenatchee Avenue, Wenatchee, Washington (Figure 1, Site Location Map). The UST closure work was conducted in accordance with Washington UST Guidelines and Title 40 Code of Federal Regulations (40 CFR) part 280, subpart G, Out-of-Service UST Systems and Closures.

**PURPOSE**

The purpose of the program was to permanently close six USTs: three gasoline (two (2) 9,960 and, one (1) 5000 gallon, steel); one used-oil (steel); one heating-oil (steel), and one UST of undetermined use (steel) at the subject site (Figure 2, Site Plan). As per federal regulations, 40 CFR 280.71 - 280.74, permanent closure is required for out-of-service UST systems. In accordance with 40 CFR 280.72(a), observation and sampling activities required for tank closure were conducted on February 25 and 26, 1991. The UST system removal and excavation were conducted by Larson Demolition, Inc. of Spokane, Washington (Washington contractor license number LARSODI164RU) and supervised by Groundwater Technology, Inc.





SITE: CHEVRON U.S.A. INC. SERVICE STATION #7348

JOB # 201  
175-3006

SITE LOC.: 502 N. WENATCHEE WENATCHEE, WA

DWG NAME  
3006SLM

MAP TYPE: SITE LOCATION MAP

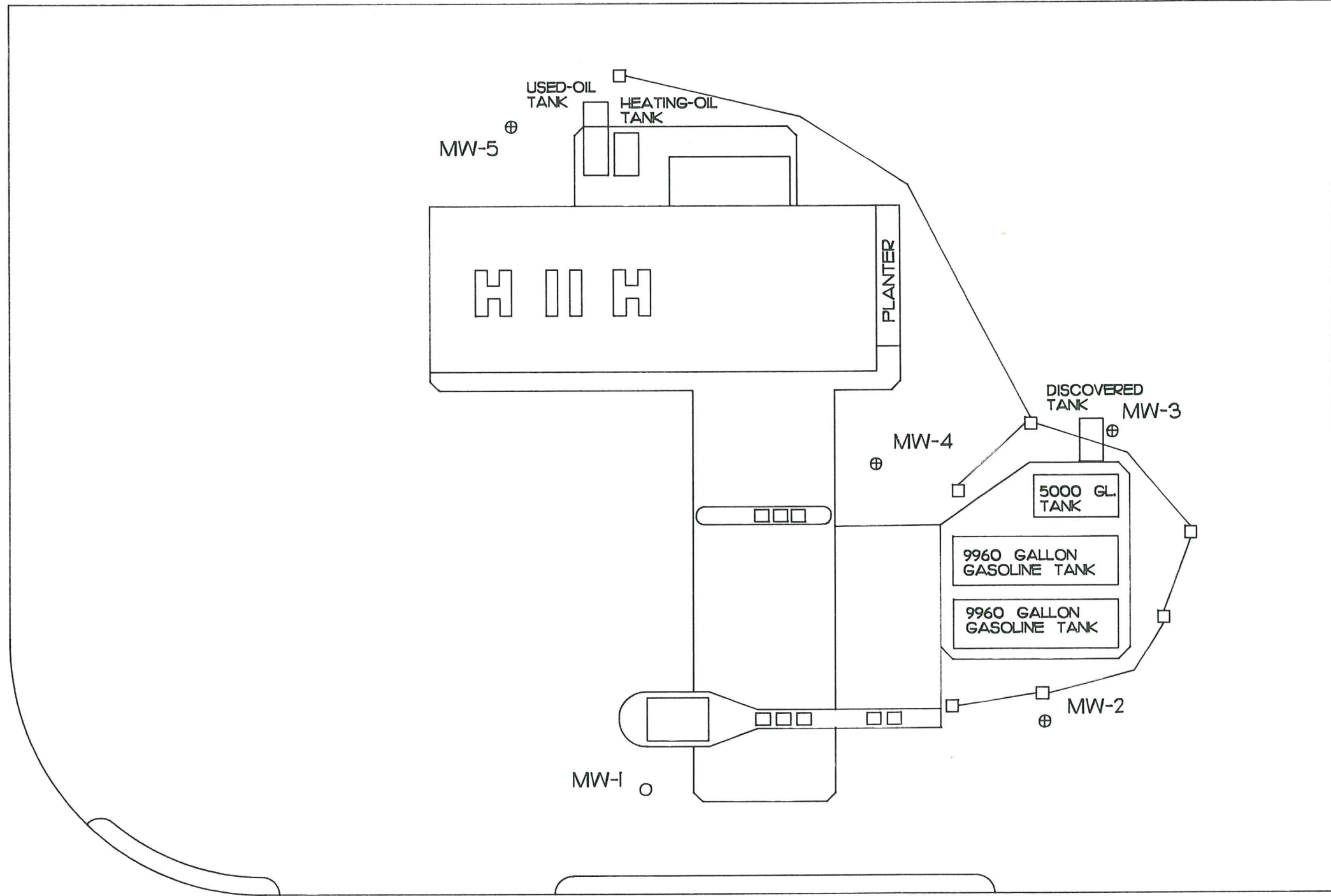
DRAWN BY	DATE	APPROVED BY	DATE
	12/4/90		

FIGURE 1



REFERENCE USGS 7.5' QUADRANGLE WENATCHEE

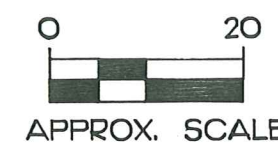
FIFTH STREET



N. WENATCHEE AVE.

LEGEND

- ⊕ MONITORING WELL
- SOIL BORING
- CATHODIC PROTECTION



SITE: CHEVRON U.S.A. INC. SERVICE STATION #7348		JOB # 20-175-3006	
SITE LOC.: 502 N. WENATCHEE AVE. WENATCHEE, WASHINGTON		REV REVISION DATE BY	
MAP TYPE: SITE PLAN		A	TANK PULL 4/8/91 SCH
DRAWN BY SCH		DRAWING NAME: 13006BM	
DATE 11/30/90		DATE	
APPROVED BY		DATE	

FIGURE 2

 GROUNDWATER TECHNOLOGY INC.

19033 W. VALLEY HWY.  
SUITE D-104  
KENT, WA. 98032  
206-251-5441

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### **BACKGROUND AND SITE SETTING**

The former service station facility was operated by Chevron U.S.A. Inc. for retail petroleum distribution. In addition to the petroleum retail operation, automotive servicing and general repair activities were provided. All buildings and structures on the site were removed during the week of February 18, 1991, prior to UST system removal.

Prior to the UST decommissioning, a subsurface investigation was conducted at the site in November, 1990. The investigation was documented in a report entitled "Report of Environmental Assessment, Chevron Service Station #7348, 502 North Wenatchee Avenue, Wenatchee, Washington" and dated December, 1990. Briefly, the activities conducted for the investigation included a hydrogeologic review, drilling of five (5) soil borings, installation of four (4) groundwater monitoring wells, analyses of soil and groundwater samples, and preparation of a report. A synopsis of the subsurface investigation is included in Appendix I.

The site is located in the northwest quarter of Section 3 of Township 22 North, Range 20 East. Topographically, the station is approximately 650 feet above Mean Sea Level and 30 feet above the Columbia River, which lies approximately 1,000 feet to the east. Wenatchee Avenue is a four-lane street through the main commercial district of town; the station lies on the northwest corner of its intersection with 5th Street.

The shallow subsurface geology in the vicinity of the site consists predominantly of unconsolidated deposits of brown medium sand, with traces of silt, to approximately 23 feet below grade, underlain by gray crystalline bedrock. Groundwater, based on the previous investigation, is approximately 19 feet below grade surface.

### **SCOPE OF SERVICES**

The following section presents the worksteps conducted by Groundwater Technology during the course of UST decommissioning.

- o Observed the decommissioning by removal of three (3) underground gasoline storage tanks, one (1) used-oil tank, one (1) heating-oil tank and one (1) other tank of undetermined use.
- o Collected and screened soil samples from the UST, hydraulic lift, and service island/product line excavations for volatile organic compounds with a portable photoionization detector (PID).
- o Submitted selected soil samples for laboratory analysis based on field screening and observations.
- o Analyzed selected soil samples from each excavation and excavated materials for either BTEX by EPA Method 8020, TPH-as-gasoline by modified EPA Method 8015, TPH by EPA Method 418.1, volatile halocarbons by EPA Method 8010, polychlorinated biphenyls (PCBs) by EPA Method 8080, extractable metals by EPA Method series 6000/7000 or flashpoint analyses by EPA Method 1010.
- o Compiled the data for this report.

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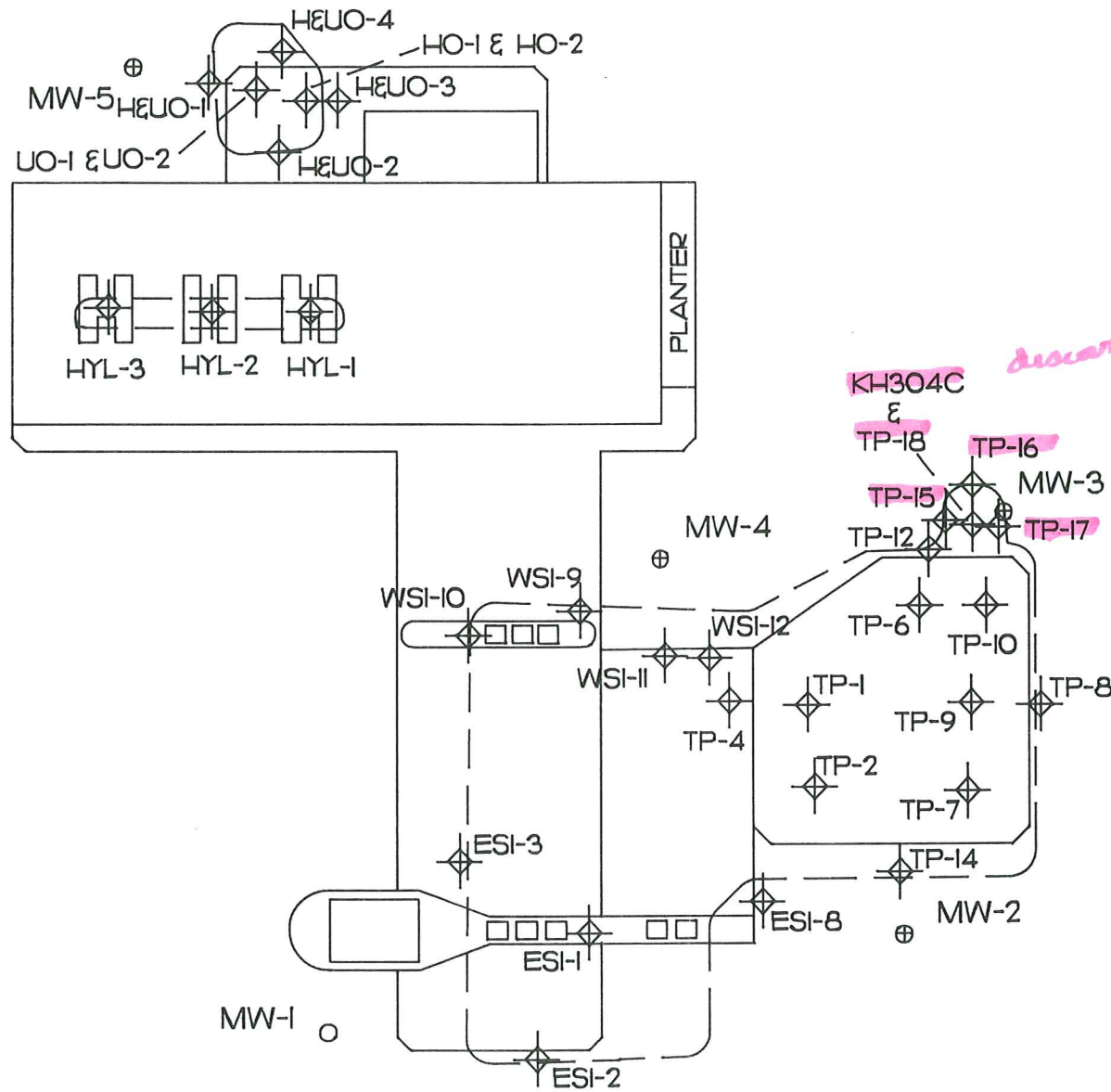
## **UNDERGROUND STORAGE SYSTEM DECOMMISSIONING**

The product lines, hydraulic lifts, building and drive slabs were removed prior to Groundwater Technology's arrival for the UST decommissioning. On February 25 and 26, 1991, Groundwater Technology, Inc. personnel observed the removal of six (6) USTs. During the UST decommissioning, soil samples were screened by headspace measurement of volatile hydrocarbons using a PID. Because the PID is a qualitative device, discrete soil samples were collected from each excavation for laboratory analysis. Figure 3, Sample Location Map, depicts the approximate sampling locations. Standard operating procedures (Appendix II) for sampling, preservation, handling, and shipping were followed. A chain-of-custody accompanied each sample sent to the laboratory.

### **Gasoline USTs**

On February 25 and 26, 1991, three gasoline USTs (two (2) 9,660 gallon and one (1) 5,000 gallon) were removed by excavation. The tanks had been used to store leaded, unleaded, and super-unleaded gasoline. Soil excavated during removal of the gasoline USTs was field screened with a PID. These readings ranged from 0 to 86 ppm. Based on PID headspace measurements and observations, additional excavation was conducted. The south wall of the gasoline UST excavation was extended outward approximately fifteen (15) feet and then sloped for entry and removal of the excavator. Based on PID readings, no additional excavation occurred on the other three walls of the gasoline UST pit. Soil headspace readings of 30 ppm by PID measurement were used to determine the extent of excavation. Soil removed during the excavation was stockpiled on site and covered with plastic pending laboratory analysis.

FIFTH STREET



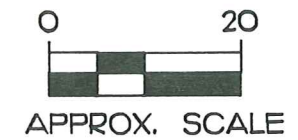
LEGEND

- ⊕ MONITORING WELL
- SOIL BORING

[- - -] APPROXIMATE EXCAVATION EXTENT

◆ SAMPLE LOCATION

N. WENATCHEE AVE.



REV	REVISION DATE BY
A	TANK PULL 4/8/91 SCH

SITE: CHEVRON U.S.A. INC. SERVICE STATION #7348	JOB # 20H75-3006
SITE LOC.: 502 N. WENATCHEE AVE. WENATCHEE, WASHINGTON	APPROVED BY DATE 11/30/90
MAP TYPE: SAMPLE LOCATION	DATE
DRAWN BY SCH	APPROVED BY

FIGURE 3

 GROUNDWATER TECHNOLOGY INC.

19033 W. VALLEY HWY.  
SUITE D-104  
KENT, WA. 98032  
206-251-5441

DRAWING NAME: \3006BM

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Subsequent to excavation, fourteen (14) soil samples, designated TP-1 through TP-14, were collected from the gasoline tank pit. Eight (8) samples were collected from the excavation walls approximately 7 feet below grade level, and six (6) were obtained from below the tanks (Figure 3). The bottom samples were collected from directly beneath each end of the gasoline tanks at approximately 15 feet below grade level (approximately 2 feet beneath the tank bottoms). Selected samples were sent to GTEL Environmental Laboratories, Concord, California, an EPA-certified laboratory, for analysis.

During the removal of the gasoline USTs a fourth tank was discovered. From observation and inspection, the tank appeared to have a 750 gallon (unconfirmed) capacity and may have been employed for used-oil storage. The tank was empty upon inspection except for approximately one (1) quart of what appeared to be degraded oil; the exterior of the tank was rusted in places and one hole, approximately 1/8-inch in diameter, was observed.

Monitoring well MW-3 was installed in the immediate vicinity of the newly-discovered UST, prior to its discovery. Due to the proximity of the tank to MW-3, the monitoring well had to be destroyed in order to excavate the tank and surrounding soils.

Four (4) samples designated TP-15 through TP-18, were collected from the excavation sidewalls and beneath the discovered tank. Samples TP-15, TP-16 and TP-17 were collected from the sidewalls of the excavation, approximately 5 feet bg. Sample TP-18 was collected from approximately three (3) feet beneath the tank at a depth of 11 feet bg. Based on preliminary laboratory results from soil sample TP-18, the excavation beneath the discovered UST was deepened on March 4, 1991, to a depth of approximately 20 feet bg, and sample KH304C was collected.

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### **Product Lines and Dispenser Islands**

The soils beneath the dispenser islands were excavated to a depth of 18 feet bg, beginning with the east dispenser island and continuing toward the western island. Due to the high PID measurements observed, in excess of 1,000 ppm, the excavation was continued to include the area between the two service islands and into the gasoline UST excavation. The samples collected from the dispenser islands and product lines excavation were designated ESI-1 through ESI-8 and WSI-9 through WSI-12. Figure 3 shows the sample locations. Soil removed from the service island and product lines excavation was stockpiled at the southern corner of the site.

### **Heating-Oil and Used-Oil USTs**

In addition to the gasoline UST's, one (1) heating-oil and one (1) used-oil UST, located west of the garage, were permanently removed from service by excavation. The tanks were located within 3 feet of each other; therefore, a single excavation was dug to remove both tanks. The excavation to remove the heating-oil and used-oil USTs was dug to a depth of 15 feet below grade, 9 feet below the bottom of the tanks, at which point samples were collected. Two (2) soil samples, designated HO-1 and HO-2, were collected from beneath the heating-oil UST (Figure 3). Sample HO-1 was collected at a depth of approximately 8 feet bg, two (2) feet below the tank bottom, and sample HO-2 was collected at a depth of approximately 15 feet bg, 9 feet below the tank bottom.

Two (2) samples designated UO-1 and UO-2 were collected from beneath the used-oil UST at depths similar to those for the samples collected from the heating-oil UST. Four (4) samples designated H&UO-1 through H&UO-4 were collected from the excavation sidewalls approximately 4 feet bg.



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### **Hydraulic Lifts**

Three (3) hydraulic lifts located in the service bays of the building were removed during the UST decommissioning. The lifts had been removed prior to the arrival of Groundwater Technology personnel. The areas where the hydraulic lifts had been located were re-excavated to a depth of approximately 10 feet and samples HYL-1, HYL-2 and HYL-3 were collected. Based on observations of the excavation and field screening of surrounding soils, no further excavation was conducted, and the removed soils were returned to the pit.

### **SITE CONDITIONS**

The topography in the immediate vicinity of the site is relatively flat lying. Run-off from the site, based on site observations and location of storm-drains, appeared to be to the south and east, toward 5th Street and Wenatchee Avenue, respectively. Surrounding properties include an active service station across 5th Street and an abandoned service station across Wenatchee Avenue.

The service station buildings and structures had been removed, the USTs uncovered, and the product lines and hydraulic lifts excavated prior to the arrival of Groundwater Technology's representative. Beneath 4 inches of asphaltic concrete which covered the site was a brown, fine-grained sand which was observed to the maximum depth of excavation, approximately 20 feet. No groundwater was observed during the excavation or sampling activities.

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## Soil Conditions

During initial exposure of the gasoline, heating-oil, and used-oil USTs the presence of hydrocarbon-like compounds was observed around soils to the south of the gasoline USTs. PID measurements of backfill material ranged up to 86 ppm for the gasoline USTs excavation.

Additional excavation was also conducted in the area beneath the dispenser islands and product lines, to remove soil with apparent adsorbed hydrocarbons. The excavation depth ranged from 8 to 18 feet bg. The lateral dimensions of the excavation were approximately 30 feet by 60 feet and encompassed the south end of the gasoline UST excavation (Figure 3). Visual observations and field screening with the PID indicated that soil with PID readings over 30 ppm had been removed.

The soil removed from the excavations was segregated, stockpiled on the site, and covered with plastic. The volume of the stockpiled soil removed from the gasoline USTs and product line excavations was approximately 400 cubic yards. Approximately 30 cubic yards was removed from the heating/used-oil and the extra tank excavations. Four (4) composite soil samples, designated Comp1 through Comp4, were collected from the stockpiled soil. Comp1, Comp3 and Comp4 were collected from material removed from the gasoline UST and service island/pump island excavations. Comp2 was collected from the used-oil excavation soils. Each composite sample was analyzed for BTEX, TPH-as-gasoline and TPH by EPA Method 418.1, per the requirements of Waste Management of North America for disposal at their Wenatchee facility. Selected composite samples were analyzed for PCBs, halogenated volatile organics, extractable metals and flashpoint.

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## Laboratory Analysis

The soil samples collected from the USTs and service island/product line excavations were submitted to GTEL Environmental Laboratories for analysis. The samples from the gasoline USTs and service island/product line excavations were analyzed for BTEX, TPH-as-gasoline and TPH by EPA Methods 8020, modified 8015 and 418.1, respectively. Laboratory results are shown in Table A and laboratory reports are presented in Appendix III.

BTEX and TPH-as-gasoline were non-detectable for the samples from the gasoline UST excavations. One sample from the service islands/product lines excavations had a total BTEX concentration of 0.1 ppm and was non-detectable with respect to TPH-as-gasoline. The service island/product line excavation samples were non-detectable for BTEX and TPH-as-gasoline at the analysis method detection limit (MDL). The MDL is 0.005 ppm for benzene, toluene and ethylbenzene, 0.015 ppm for xylenes, and 1 ppm for TPH-as-gasoline. Total Petroleum Hydrocarbons analysis results by EPA Method 418.1 ranged from non-detectable (MDL is 5 ppm) to 10 ppm for samples from the gasoline UST excavation (Figure 3). Total Petroleum Hydrocarbon levels by Method 418.1 in samples from the service island/product line excavation ranged from non-detectable to 14 ppm.

The samples collected from the hydraulic lifts were analyzed for halogenated volatile organics by EPA Method 8010 and TPH by EPA Method 418.1. Concentrations of halogenated volatile organics were non-detectable. Concentrations of TPH ranged from 5 ppm to 9 ppm for the samples designated HYL-1, 2 and 3 from the hydraulic lift area. Laboratory results are presented in Table A and the laboratory reports are included in Appendix III.

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Select samples collected from the heating/used-oil UST excavation were analyzed for TPH-as-gasoline, TPH, halogenated volatile organics, polychlorinated biphenyls (PCB) by Method 8080 and extractable metals by EPA Method series 6000/7000. Halogenated volatile organics and PCB were not detected. Barium was detected in sample UO-1 and UO-2 at 0.04 ppm and 0.14 ppm, respectively. Total Petroleum Hydrocarbon concentrations were 6 and 9 ppm for UO-1 and UO-2, respectively. Laboratory results are shown in Table B and the laboratory reports are presented in Appendix III. Tables C, D, and E present the results of the PCB, halogenated volatile organic, and extractable metals analyses.

The composite soil samples were analyzed for BTEX, TPH-as-gasoline, and TPH. Two (2) composite samples were analyzed for PCBs, flashpoint (EPA Method 1010) and toxicity metals. One (1) sample was analyzed for halogenated volatile organics.

Halogenated volatile organics and PCBs were not detected for the composite samples tested. Tests for flash were non-flash at 160° F (Table F). Extractable metals were not detected, except for barium at 1.1 and 0.09 ppm in samples Comp2 and Comp3, respectively. Results of BTEX analyses ranged from non-detectable in samples Comp1 and Comp2 to 0.1 benzene, 0.8 ppm toluene, 0.2 ppm ethylbenzene, and 2 ppm toluene in Comp3. Total petroleum hydrocarbon-as-gasoline ranged from non-detectable in samples Comp1 and Comp2 to 8 ppm in Comp3. TPH by EPA Method 418.1 ranged from 8 ppm in Comp1 to 4400 ppm in Comp2.

## TABLE A

### Analytical Results

Aromatic Volatile Organics and  
Total Petroleum Hydrocarbons in Soil

Chevron Service Station # 7348

EPA Methods 8020, Modified 8015 and 418.1

(Results in parts per million)

Sample I.D.	Benzene	Toluene	Ethylbenzene	Xylenes	TPH-as-Gasoline	TPH-418.1
*MDL	0.005	0.005	0.005	0.015	1	5
<b>GASOLINE TANKS</b>						
TP-1	**ND	ND	ND	ND	ND	ND
TP-2	ND	ND	ND	ND	ND	7
TP-4	ND	ND	ND	ND	ND	ND
TP-6	ND	ND	ND	ND	ND	ND
TP-7	ND	ND	ND	ND	ND	ND
TP-8	ND	ND	ND	ND	ND	10
TP-9	ND	ND	ND	ND	ND	ND
TP-10	ND	ND	ND	ND	ND	ND
TP-12	ND	ND	ND	ND	ND	ND
TP-14	ND	ND	ND	ND	ND	ND
<b>SERVICE ISLANDS AND PRODUCT LINES</b>						
ESI-1	ND	ND	ND	ND	ND	ND
ESI-2	ND	ND	ND	ND	ND	ND
ESI-3	ND	ND	ND	ND	ND	ND
ESI-8	ND	ND	ND	ND	ND	ND
WSI-9	ND	ND	ND	ND	ND	ND
WSI-10	ND	ND	ND	ND	ND	ND
WSI-11	ND	ND	ND	ND	ND	9
WSI-12	ND	0.01	0.01	0.08	ND	14
<b>SOIL PILES</b>						
COMP-1	ND	ND	ND	ND	ND	8
COMP-2	ND	ND	ND	0.05	ND	4400
COMP-3	0.1	0.8	0.2	2	8	45
COMP-4	0.07	0.4	0.08	0.6	4	15

\*MDL =Method Detection Limit

\*\*ND =Non-detectable at MDL

\*\*\*NA =Not Analyzed

## TABLE B

Analytical Results  
 Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons in Soil  
 Chevron Service Station # 7348  
 EPA Methods 8020, Modified 8015 and 418.1  
 (Results in parts per million)

Sample I.D.	Sample Location	TPH-as-Gasoline	TPH-418.1
*MDL		1	5
<b>HYDRALUIC LIFTS</b>			
HYL-1	Bottom of north lift	NA	5
HYL-2	Bottom of middle lift	NA	5
HYL-3	Bottom of south lift	NA	9
<b>USED OIL TANK</b>			
UO-1	2 feet below tank	ND	6
UO-2	9 feet below tank	ND	9
<b>HEATING OIL TANK</b>			
HO-1	2 feet below tank	ND	8
HO-2	9 feet below tank	ND	5
<b>UNDETERMINED USE TANK</b> <i>"used oil possibly"</i>			
TP-15	South wall	ND	ND
TP-16	West wall	ND	ND
TP-17	North wall	ND	ND
TP-18	Bottom at 11 feet BG	ND	2600
KH304C	Bottom at 20 feet BG	ND	ND
<b>USED/HEATING OIL PIT</b>			
H&UO-1	South wall	ND	11
H&UO-2	East Wall	ND	5
H&UO-3	North Wall	ND	ND
H&UO-4	West wall	ND	6

\*MDL =Method Detection Limit

\*\*ND =Non-detectable at MDL

\*\*\*NA =Not Analyzed

BG =Below Grade

## TABLE C

Analytical Results  
 Polychlorinated Biphenyls in Soil  
 Chevron Service Station # 7348  
 EPA Method 8080  
 (Results in parts per million)

Sample I.D.		UO-1	UO-2	COMP-2	COMP-3	KH304C
Analyte	*MDL	CONCENTRATION				
PCB-1016	0.1	ND	ND	ND	ND	**ND
PCB-1221	0.1	ND	ND	ND	ND	ND
PCB-1232	0.1	ND	ND	ND	ND	ND
PCB-1242	0.1	ND	ND	ND	ND	ND
PCB-1248	0.1	ND	ND	ND	ND	ND
PCB-1254	0.1	ND	ND	ND	ND	ND
PCB-1260	0.1	ND	ND	ND	ND	ND
Detection Limit Multiplier		1	1	1	1	1

\* MDL = Method Detection Limit

\*\* ND = Non-detectable at MDL

## TABLE D

Analytical Results  
Halogenated Volatile Organics in Soil  
Chevron Service Station # 7348  
EPA Method 8010  
(Results in parts per million)

Sample I.D.		UO-1	UO-2	HYL-1	HYL-2	HYL-3	COMP-2
Analyte	*MDL	CONCENTRATION					
Chloromethane	0.5	**ND	ND	ND	ND	ND	ND
Bromomethane	0.5	ND	ND	ND	ND	ND	ND
Vinyl chloride	1	ND	ND	ND	ND	ND	ND
Chloroethane	0.5	ND	ND	ND	ND	ND	ND
Methylene chloride	0.5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.2	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.5	ND	ND	ND	ND	ND	ND
Chloroform	0.5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	0.5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.5	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.5	ND	ND	ND	ND	ND	ND
Trichloroethene	0.5	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	0.5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.5	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	1	ND	ND	ND	ND	ND	ND
Bromoform	0.5	ND	ND	ND	ND	ND	ND
Tetrachloroethene	0.5	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.5	ND	ND	ND	ND	ND	ND
Chlorobenzene	0.5	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.5	ND	ND	ND	ND	ND	ND
Detection Limit Multiplier		1	1	1	1	1	1

\* MDL = Method Detection Limit

\*\* ND = Non-detectable at MDL



## TABLE D (continued)

Analytical Results  
 Halogenated Volatile Organics in Soil  
 Chevron Service Station # 7348  
 EPA Method 8010  
 (Results in parts per million)

Sample I.D.	KH304C					
Analyte	*MDL		CONCENTRATION			
Chloromethane	0.5	**ND				
Bromomethane	0.5	ND				
Vinyl chloride	1	ND				
Chloroethane	0.5	ND				
Methylene chloride	0.5	ND				
1,1-Dichloroethene	0.2	ND				
1,1-Dichloroethane	0.5	ND				
trans-1,2-Dichloroethene	0.5	ND				
Chloroform	0.5	ND				
1,2-Dichloroethane	0.5	ND				
1,1,1-Trichloroethane	0.5	ND				
Carbon tetrachloride	0.5	ND				
Bromodichloromethane	0.5	ND				
1,2-Dichloropropane	0.5	ND				
cis-1,3-Dichloropropene	0.5	ND				
Trichloroethene	0.5	ND				
Dichlorodifluoromethane	0.5	ND				
Dibromochloromethane	0.5	ND				
1,1,2-Trichloroethane	0.5	ND				
trans-1,3-Dichloropropene	0.5	ND				
2-Chloroethylvinyl ether	1	ND				
Bromoform	0.5	ND				
Tetrachloroethene	0.5	ND				
1,1,2,2-Tetrachloroethane	0.5	ND				
Chlorobenzene	0.5	ND				
1,2-Dichlorobenzene	0.5	ND				
1,3-Dichlorobenzene	0.5	ND				
1,4-Dichlorobenzene	0.5	ND				
Trichlorofluoromethane	0.5	ND				
Detection Limit Multiplier		1				

\* MDL = Method Detection Limit

\*\* ND = Non-detectable at MDL

## TABLE E

Analytical Results  
 Extraction Procedure Toxicity Metals  
 in Soil  
 Chevron Service Station # 7348  
 (Results in parts per million)

Sample I.D.			UO-1	UO-2	COMP-2	COMP-3	KH304C
Analyte	Method	*MDL	EXTRACT CONCENTRATION				
Arsenic	EPA 6010	1	**ND	ND	ND	ND	ND
Barium	EPA 6010	0.02	0.04	0.14	1.1	0.09	ND
Cadium	EPA 6010	0.02	ND	ND	ND	ND	ND
Chromium, total	EPA 6010	0.02	ND	ND	ND	ND	ND
Lead	EPA 6010	0.1	ND	ND	ND	ND	ND
Mercury	EPA 7470	0.0002	ND	ND	ND	ND	ND
Selenium	EPA 6010	1	ND	ND	ND	ND	ND
Silver	EPA 6010	0.5	ND	ND	ND	ND	ND
Detection Limit Multiplier			1	1	1	1	1

\* MDL = Method Detection Limit

\*\* ND = Non-detectable at MDL

## TABLE F

Analytical Results

Flashpoint

Chevron Service Station # 7348

(Results in degrees farheneit)

Sample I.D.		COMP-2	COMP-4
Analyte	Method		
Flashpoint	EPA 1010	NF	NF

Mr. Philip R. Briggs  
Chevron U.S.A. Inc.

## **Soil Disposal**

The results of laboratory analyses for samples Comp1, Comp3 and Comp4 were used to prepare a Waste Profile Characterization (Appendix VI) for disposal of soil from the gasoline UST and service island excavations at Waste Management of North America's Wenatchee facility. Larson Demolition transported the soil from the site to the facility in March, 1991.

The soils removed from the heating-oil/used-oil and the tank of undetermined use excavations, approximately 30 yards, were on site and covered with plastic at the time of this report. Total petroleum hydrocarbon concentrations exceeded acceptable disposal levels for the Wenatchee landfill; therefore, optional disposal sites are currently under investigation.

## **CONCLUSIONS**

During the permanent UST closures at Chevron U.S.A. Inc. service station #7348, gasoline hydrocarbons were observed in the vicinity of the gasoline USTs and service islands; and total petroleum hydrocarbons in the vicinity of the UST. Soil and backfill near the service islands and UST excavations were excavated until observations and PID screening indicated Washington Department of Ecology (WDOE) compliance clean-up levels were met. Soil samples were then analyzed for confirmation. The petroleum hydrocarbon concentrations in soil samples based on laboratory results indicated clean-up levels were met for the analytes of concern. Laboratory analyses for PCB, halogenated volatile organics and extractable metals also indicate compliance with the WDOE clean-up levels and EPA hazardous waste criteria for metals. The WDOE

Mr. Philip R. Briggs  
Chevron U.S.A. Inc.

Compliance Clean-up Levels for soils adopted on December 4, 1990 are presented in Appendix IV.

Approximately 30 cubic yards of excavated soil containing TPH concentrations above WDOE Compliance Clean-up Levels and disposal levels for the Waste Management of America's Wenatchee facility remain on site. Disposal options for this material are under investigation.

Based upon the results of the tank closure activities, WDOE Compliance Clean-up Levels for soil at the extent of excavation have been met for the site.

**APPENDIX I**  
**SYNOPSIS OF SUBSURFACE INVESTIGATION**

## SYNOPSIS OF INVESTIGATION

An environmental site assessment was conducted at Chevron U.S.A. Inc. service station #7348 in Wenatchee, Washington during the month of November, 1990. Five (5) borings were drilled and four (4) groundwater monitoring wells installed. Material encountered during drilling was sand to a depth of approximately 20 to 25 feet and crystalline bedrock to the maximum depth drilled of 50 feet. Boring MW-1 was backfilled with bentonite as no water was encountered. Borings MW-2, MW-3, and MW-4 were completed as monitoring wells in the sand at approximately 25 feet. Monitoring well MW-5, which was dry in the sand was completed at a depth of 50 feet within a water zone observed at approximately 46 feet.

The results of soil sample analyses for the constituents of concern were non-detectable or below clean-up requirements for the samples collected during drilling. However, water samples from two monitoring wells, MW-2 and MW-5, had concentrations of gasoline hydrocarbons (MW-2) and lead (MW-5) above WDOE Compliance Clean Up Levels.

**APPENDIX II**  
**STANDARD OPERATING PROCEDURES**



## 7.0 Excavation and Trench Soil Sampling

### 7.1 Purpose

Underground Storage Tank (UST) decommissioning requires documentation of soil conditions. If tank closure is accomplished by excavation, removal and destruction of the tanks and lines, collection or representative samples for subsequent analysis is imperative. Utilizing the following procedures enables Groundwater Technology to secure the best possible retrieval of observations and samples.

### 7.2 Equipment

- Field Book, standard Surveyor's, waterproof, 5" x 7"
- Pencils
- Clipboard
- 6' folding ruler
- 50' cloth or fiberglass tape with weight
- Interface probe
- PID or other organic vapor screening device
- Sampling jars with air-tight Teflon lids, brass liners, 2" dia. x 6" long
- Aluminum foil or Teflon tape
- Bailer
- Rags probe wipers
- Alconox solution, distilled water, and H<sub>2</sub>O
- Contract Documents, site plan, site sampling plan (QAPP), Site Safety Plan
- Lumber crayon or waterproof marking pen
- Safety equipment such as hard hat, appropriate footwear, respirator, goggles, ear plugs, gloves
- Copies of maps such as topographic or site vicinity
- Pocket knife
- Camera

### 7.3 Procedure

There are a number of preparations to be made by the Geologist/Environmental Scientist before a site investigation begins. Attending to these preparations can increase the efficiency and quality of the work to be accomplished.

Before going into the field, each Geologist/Environmental Scientist should be completely familiar with the long and short term project objectives. He or she should review all of the available information about a site including site geology and the nature of the project. He or she should be familiar with all installation and sampling procedures that will be required.

It is the responsibility of the Project Manager to clearly describe the nature of each project and the amount of and type of work to be performed at a site. It is the responsibility of the Geologist/Environmental Scientist to make certain they understand what they are being asked to find out or do and, if they do not understand, then to ASK QUESTIONS.

The importance of communication and documentation cannot be stressed enough. What is not written down is often lost. What is written down and not pointed out may be inadvertently overlooked.

- 7.3.1 The principle reason for requiring excavation supervision is to acquire reliable information.
- 7.3.2 While supervising a tank or piping excavation, the Geologist should always make certain that accurate depth measurements are made by ruler and not by visually “eyeballing” the measurements.
- 7.3.3 Discrepancies between the excavator’s statements of depth and the Geologist’s should be immediately clarified by remeasurement so that the operator and the Geologist are in agreement.
- 7.3.4 Note strata changes that occur during excavation. Strata changes can be estimated by observing changes in color, soil-type, or the ease of excavation.
- 7.3.5 Photographic records of site conditions are an important tool for filling in narrative discussion. Do not hesitate to take pictures of all site activities before, during, and after. Label and record each photograph in your field notes according to procedures similar to section 7.4.1 (b).

#### 7.4 Sample Collection Methods

7.4.1 The following information must be kept during the sampling events:

(a) A sketch of the site must be made which clearly shows all of the sample locations and identifies each location with a unique sample identification code.

(b) Each soil and water sample must be clearly labeled with its sample identification code. A written record must be maintained which includes, but is not limited to: the date, time and location of the sample collection; the name of the person collecting the sample; how the sample was collected; and any unusual or unexpected problems encountered during the sample collection which may have affected the sample integrity.

(c) Formal chain-of-custody records must be maintained for each sample.

7.4.2 If soil samples cannot be safely collected from the excavation, a backhoe may be used to remove a bucket of native soil from each of the sample areas. The soil is to be brought rapidly to the surface where samples are to be immediately taken from the soil in the bucket.

7.4.3 The following procedures must be used for the collection of soil samples from open pits or trenches:

(a) Just prior to collecting each soil sample, approximately three inches of soil must be rapidly scraped away from the surface of the sample location.

(b) To minimize the loss of volatile materials, it is recommended that samples be taken using a driven-tube type sampler. A clean brass or stainless steel tube of at least one inch in diameter and three inches in length may be used for this purpose. The tube should be driven into the soil with a suitable instrument such as a wooden mallet or hammer.

(c) The ends of the sample-filled tube must be immediately covered with clean aluminum foil or Teflon<sup>R</sup> tape. The foil must be held in place by plastic end caps which are then sealed onto the tube with a suitable tape.

(d) Alternatively, samples may be taken with a minimum amount of disturbance and packed in a clean wide-mouth glass jar leaving as little headspace as possible. The jar must then be immediately sealed with a teflon-lined screw cap.

(e) After the samples are properly sealed, they are to be immediately placed on ice and maintained at a temperature of no greater than 4°C (39°F) until being prepared for analysis by the laboratory. All samples must be analyzed within 14 days of collection.

**APPENDIX III**  
**LABORATORY ANALYTICAL RESULTS**

RECEIVED MAR 18 1991



Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-084

**Northwest Region**  
4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

March 15, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/05/91, under chain of custody number 72-16287.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
**Total Petroleum Hydrocarbons as Gasoline in Soil**  
**Modified EPA Method 8015<sup>a</sup>**

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

GTEL Sample Number		01			
Client Identification		KH304C			
Date Sampled		03/04/91			
Date Extracted		03/07/91			
Date Analyzed		03/06/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	1	<1			
Detection Limit Multiplier		1			



Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-086

**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

March 12, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Halogenated Volatile Organics in Soil  
 EPA Method 8010<sup>a</sup>

GTEL Sample Number		01		
Client Identification		KH304C		
Date Sampled		03/04/91		
Date Extracted		03/02/91		
Date Analyzed		03/05/91		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg		
Chloromethane	0.5	<0.5		
Bromomethane	0.5	<0.5		
Vinyl chloride	1	<1		
Chloroethane	0.5	<0.5		
Methylene chloride	0.5	<0.5		
1,1-Dichloroethene	0.2	<0.2		
1,1-Dichloroethane	0.5	<0.5		
1,2-Dichloroethene	0.5	<0.5		
Chloroform	0.5	<0.5		
1,2-Dichloroethane	0.5	<0.5		
1,1,1-Trichloroethane	0.5	<0.5		
Carbon tetrachloride	0.5	<0.5		
Bromodichloromethane	0.5	<0.5		
1,2-Dichloropropane	0.5	<0.5		
cis-1,3-Dichloropropene	0.5	<0.5		
Trichloroethene	0.5	<0.5		
Dichlorodifluoromethane	0.5	<0.5		
Dibromochloromethane	0.5	<0.5		
1,1,2-Trichloroethane	0.5	<0.5		
trans-1,3-Dichloropropene	0.5	<0.5		
2-Chloroethylvinyl ether	1	<1		
Bromoform	0.5	<0.5		
Tetrachloroethene	0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5	<0.5		
Chlorobenzene	0.5	<0.5		
1,2-Dichlorobenzene	0.5	<0.5		
1,3-Dichlorobenzene	0.5	<0.5		
1,4-Dichlorobenzene	0.5	<0.5		
Trichlorofluoromethane	0.5	<0.5		
Detection Limit Multiplier		1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample prepared by EPA Method 5030 (high-level solvent extraction and purge and trap).





**Northwest Region**

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Concord, CA 94520  
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(800) 423-7143 from outside California

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Client Number: 201-175-3006  
Project ID: Wenatchee  
Work Order Number: C1-03-088

March 8, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/05/91, under chain of custody number 72-16287.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Extraction Procedure Toxicity Metals in Soil

GTEL Sample Number			01			
Client Identification			KH304C			
Date Sampled			03/04/91			
Date Extracted			03/06/91			
Date Analyzed (Method 6010)			03/07/91			
Date Analyzed (Method 7060)			03/07/91			
Date Analyzed (Method 7470)			03/07/91			
Date Analyzed (Method 7740)			03/07/91			
Analyte	Method <sup>a</sup>	Detection Limit, mg/L	Extract Concentration, mg/L			
Arsenic	EPA 6010	1	<1			
Barium	EPA 6010	0.02	<0.02			
Cadmium	EPA 6010	0.02	<0.02			
Chromium, total	EPA 6010	0.02	<0.02			
Lead	EPA 6010	0.1	<0.1			
Mercury	EPA 7470	0.0002	<0.0002			
Selenium	EPA 6010	1	<1			
Silver	EPA 6010	0.5	<0.5			
Detection Limit Multiplier			1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Extraction procedure by Method 1310. Digestion by Method 3005 except for: Method 7470 for mercury, Method 3020 for arsenic and selenium.

RECEIVED MAR 18 1991



Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-087

**Northwest Region**  
4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

March 7, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/05/91, under chain of custody number 72-16287.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director

Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-087

**Table 1**  
**ANALYTICAL RESULTS**  
**Polychlorinated Biphenyls in Soil**  
**EPA Method 8080<sup>a</sup>**

GTEL Sample Number		01			
Client Identification		KH304C			
Date Sampled		03/04/91			
Date Extracted		03/05/91			
Date Analyzed		03/06/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
PCB-1016	0.1	< 0.1			
PCB-1221	0.1	< 0.1			
PCB-1232	0.1	< 0.1			
PCB-1242	0.1	< 0.1			
PCB-1248	0.1	< 0.1			
PCB-1254	0.1	< 0.1			
PCB-1260	0.1	< 0.1			
Detection Limit Multiplier		1			

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3540.



4080- Pike Lane  
Concord, CA 94520  
415-685-7852

800-544-3422 (In CA)  
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD 72-16287  
AND ANALYSIS REQUEST

ANALYSIS REQUEST

CUSTODY RECORD

Project Manager: **Mark Nichols**  
Address: 19033 W. Valley Hwy #D-104  
Kent, WA 98032  
Project Number: 201-175-3006  
Site location: **Cheron/Wenatchee**  
Project Name: **Cheron/Wenatchee**  
Sampler Name (Print): **Kirk W. Hudson**

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

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix						Method Preserved		Sampling			
				WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	DATE
KH304A	~15'		1	X								X		3/4	11:45
KH304B	~15'		1	X								X		3/4	11:45
KH304C	~20'		1	X								X		3/4	12:00

**SPECIAL HANDLING**  
 24 HOURS   
 EXPEDITED 48 Hours   
 SEVEN DAY   
 OTHER \_\_\_\_\_ (#) BUSINESS DAYS  
 QA/QC CLP Level  Blue Level   
 FAX

**SPECIAL DETECTION LIMITS (Specify)**

**SPECIAL REPORTING REQUIREMENTS (Specify)**

**REMARKS:**

Lab Use Only \_\_\_\_\_ Storage Location \_\_\_\_\_  
 Lot #: \_\_\_\_\_ Work Order #: \_\_\_\_\_

Relinquished by Sampler: <i>Kirk W. Hudson</i>	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by Laboratory: Way bill #

3-5-91 11:05 *Jamie Davis*

- BTEX 602  8020  with MTBE
- BTEX/TPH Gas. 602/8015  8020/8015  MTBE
- TPH as Gas  Diesel  Jet Fuel
- Product I.D. by GC (SIMDIS)
- Total Oil & Grease: 413.1  413.2  503A
- Total Petroleum Hydrocarbons: 418.1  503E
- EPA 601  8010  DCA only
- EPA 602  8020
- EPA 608  8080  PCBs only
- EPA 610  8310
- EPA 624  8240  NBS +15
- EPA 625  8270  NBS +25
- EPTOX: Metals  Pesticides  Herbicides
- TCLP Metals  VOA  Semi VOA
- EPA Priority Pollutant Metals  HSL
- LEAD 7420  7421  239.2  6010  Org. Lead
- CAM Metals  STLC  TTLC
- Corrosivity  Flashpoint  Reactivity



# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Northwest Region**

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Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-085

March 7, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/05/91, under chain of custody number 72-16287.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-085

**Table 1**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
by Infrared Spectrometry**

**APHA Method 5520CF<sup>a</sup>**

- a. Standard Methods for the Examination of Water and Wastewater, 17th ed., American Public Health Association, 1989.

GTEL Sample Number		01			
Client Identification		KH304C			
Date Sampled		03/04/91			
Date Prepared		03/06/91			
Date Analyzed		03/06/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5			
Detection Limit Multiplier		1			



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

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Client Number: 201-175-3006  
Project ID: Not Given  
Work Order Number: C1-02-554

March 1, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289 and 72-12690.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Emma P. Popek / RMB*

Emma P. Popek  
Laboratory Director



**Table 1**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		01	02	03	04
Client Identification		HYL-1	HYL-2	HYL-3	UO-2
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Prepared		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	5	5	9	9
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		05	06	07	08
Client Identification		HO-2	H&UO04	TP-18	COMP-2
Date Sampled		02/25/91	02/25/91	02/25/91	02/26/91
Date Prepared		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	5	6	2600	4400
Detection Limit Multiplier		1	1	1	1

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		09	10	11	12
Client Identification		ESI-1	ESI-2	ESI-3	ESI-8
Date Sampled		02/26/91	02/26/91	02/26/91	02/26/91
Date Prepared		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5	<5	<5	<5
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		13	14	15	16
Client Identification		WSI-9	WSI-10	WSI-11	WSI-12
Date Sampled		02/26/91	02/26/91	02/26/91	02/26/91
Date Prepared		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5	<5	9	14
Detection Limit Multiplier		1	1	1	1

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		17	18	19	
Client Identification		COMP-1	COMP-3	COMP-4	
Date Sampled		02/26/91	02/26/91	02/26/91	
Date Prepared		02/28/91	02/28/91	02/28/91	
Date Analyzed		02/28/91	02/28/91	02/28/91	
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	8	45	15	
Detection Limit Multiplier		1	1	1	



**Northwest Region**

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(800) 423-7143 from outside California

RECEIVED MAR 13 1991

Client Number: 201-175-3006  
Project ID: Wenatchee  
Work Order Number: C1-02-524

February 28, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16221 and 72-16222.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Emma P. Popek/PS*

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		01	02	03	04
Client Identification		UO-1	HO-1	H & UO-1	H & UO-2
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Prepared		02/26/91	02/26/91	02/26/91	02/26/91
Date Analyzed		02/27/91	02/27/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	6	8	11	5
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		05	06	07	08
Client Identification		H & UO-3	TP-15	TP-16	TP-17
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Prepared		02/26/91	02/26/91	02/26/91	02/26/91
Date Analyzed		02/27/91	02/27/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5	<5	<5	<5
Detection Limit Multiplier		1	1	1	1

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		09	10	11	12
Client Identification		TP-1	TP-2	TP-4	TP-6
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Prepared		02/26/91	02/26/91	02/26/91	02/26/91
Date Analyzed		02/27/91	02/27/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5	7	<5	<5
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		13	14	15	16
Client Identification		TP-7	TP-8	TP-9	TP-10
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Prepared		02/26/91	02/26/91	02/26/91	02/26/91
Date Analyzed		02/27/91	02/27/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total petroleum hydrocarbons	5	<5	10	<5	<5
Detection Limit Multiplier		1	1	1	1

Client Number: 201-175-3006  
 Project ID: Wenatchee  
 Work Order Number: C1-02-524

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Soil  
 by Infrared Spectrometry**

**EPA 418.1a**

a. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983.

GTEL Sample Number		17	18		
Client Identification		TP-12	TP-14		
Date Sampled		02/25/91	02/25/91		
Date Prepared		02/26/91	02/26/91		
Date Analyzed		02/27/91	02/27/91		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Total Petroleum hydrocarbons	5	<5	<5		
Detection Limit Multiplier		1	1		









**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
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(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 18 1991

Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-528

March 7, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16221.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Extraction Procedure Toxicity Metals in Soil

GTEL Sample Number		01		
Client Identification		UO-1		
Date Sampled		02/25/91		
Date Extracted		02/26/91		
Date Analyzed (Method 6010)		03/04/91		
Date Analyzed (Method 7060)		03/04/91		
Date Analyzed (Method 7470)		03/04/91		
Date Analyzed (Method 7740)		02/28/91		
Analyte	Method <sup>a</sup>	Detection Limit, mg/L	Extract Concentration, mg/L	
Arsenic	EPA 6010	1	<1	
Barium	EPA 6010	0.02	0.04	
Cadmium	EPA 6010	0.02	<0.02	
Chromium, total	EPA 6010	0.02	<0.02	
Lead	EPA 6010	0.1	<0.1	
Mercury	EPA 7470	0.0005	<0.0005	
Selenium	EPA 6010	1	<1	
Silver	EPA 6010	0.5	<0.5	
Detection Limit Multiplier		1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Extraction procedure by Method 1310. Digestion by Method 3005 except for: Method 7470 for mercury, Method 3020 for arsenic and selenium.



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

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Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-527

March 14, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16221.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Polychlorinated Biphenyls in Soil  
 EPA Method 8080<sup>a</sup>

GTEL Sample Number		01			
Client Identification		UO-1			
Date Sampled		02/25/91			
Date Extracted		02/28/91			
Date Analyzed		03/01/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
PCB-1016	0.1	< 0.1			
PCB-1221	0.1	< 0.1			
PCB-1232	0.1	< 0.1			
PCB-1242	0.1	< 0.1			
PCB-1248	0.1	< 0.1			
PCB-1254	0.1	< 0.1			
PCB-1260	0.1	< 0.1			
Detection Limit Multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3540.

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Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-195

**Northwest Region**  
4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

March 13, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/08/91, under chain of custody number 72-16290.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Emma P. Popek / Ps*

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**

Extraction Procedure Toxicity Metals in Soil

GTEL Sample Number		01			
Client Identification		COMP-3			
Date Sampled		02/26/91			
Date Extracted		03/09/91			
Date Analyzed (Method 6010)		03/12/91			
Date Analyzed (Method 7060)		03/12/91			
Date Analyzed (Method 7470)		03/12/91			
Date Analyzed (Method 7740)		03/12/91			
Analyte	Method <sup>a</sup>	Detection Limit, mg/L	Extract Concentration, mg/L		
Arsenic	EPA 6010	1	<1		
Barium	EPA 6010	0.02	0.09		
Cadmium	EPA 6010	0.02	<0.02		
Chromium, total	EPA 6010	0.02	<0.02		
Lead	EPA 6010	0.1	<0.1		
Mercury	EPA 7470	0.0002	<0.0002		
Selenium	EPA 6010	1	<1		
Silver	EPA 6010	0.5	<0.5		
Detection Limit Multiplier			1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Extraction procedure by Method 1310. Digestion by Method 3005 except for: Method 7470 for mercury, Method 3020 for arsenic and selenium.



**Northwest Region**

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Concord, CA 94520  
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(800) 544-3422 from inside California  
(800) 423-7143 from outside California

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Client Number: 201-175-3006.  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-196

March 13, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 03/08/91, under chain of custody number 72-16290.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director



**Table 1**  
**ANALYTICAL RESULTS**  
 Polychlorinated Biphenyls in Soil  
 EPA Method 8080<sup>a</sup>

GTEL Sample Number		01			
Client Identification		COMP-3			
Date Sampled		02/26/91			
Date Extracted		03/09/91			
Date Analyzed		03/11/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
PCB-1016	0.1	< 0.1			
PCB-1221	0.1	< 0.1			
PCB-1232	0.1	< 0.1			
PCB-1242	0.1	< 0.1			
PCB-1248	0.1	< 0.1			
PCB-1254	0.1	< 0.1			
PCB-1260	0.1	< 0.1			
Detection Limit Multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3540.



**Northwest Region**

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Client Number: 201-175-3006  
Project ID: Chevron/Wenatchee  
Work Order Number: C1-03-194

March 12, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL Environmental Laboratories for samples received on 03/08/91, under chain of custody number 72-16289.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

Client Number: 201-175-3006  
 Project ID: Chevron/Wenatchee  
 Work Order Number: C1-03-194

## ANALYTICAL RESULTS

Matrix: Soil

Test Description	Units	Detection Limit	Sample Number		Date Sampled	Date Analyzed	Method	Test Result
			Sample Identification	01				
Flashpoint	deg F	NA	COMP 2	COMP 4	02/25/91	02/25/91	EPA 1010	NF @ <160 NF @ <160

NA = Not Applicable





**Northwest Region**

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(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 18 1991

Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-526

March 12, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16221.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Halogenated Volatile Organics in Soil  
 EPA Method 8010<sup>a</sup>

GTEL Sample Number		01		
Client Identification		UO-1		
Date Sampled		02/25/91		
Date Extracted		02/26/91		
Date Analyzed		02/26/91		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg		
Chloromethane	0.5	<0.5		
Bromomethane	0.5	<0.5		
Vinyl chloride	1	<1		
Chloroethane	0.5	<0.5		
Methylene chloride	0.5	<0.5		
1,1-Dichloroethene	0.2	<0.2		
1,1-Dichloroethane	0.5	<0.5		
1,2-Dichloroethene	0.5	<0.5		
Chloroform	0.5	<0.5		
1,2-Dichloroethane	0.5	<0.5		
1,1,1-Trichloroethane	0.5	<0.5		
Carbon tetrachloride	0.5	<0.5		
Bromodichloromethane	0.5	<0.5		
1,2-Dichloropropane	0.5	<0.5		
cis-1,3-Dichloropropene	0.5	<0.5		
Trichloroethene	0.5	<0.5		
Dichlorodifluoromethane	0.5	<0.5		
Dibromochloromethane	0.5	<0.5		
1,1,2-Trichloroethane	0.5	<0.5		
trans-1,3-Dichloropropene	0.5	<0.5		
2-Chloroethylvinyl ether	1	<1		
Bromoform	0.5	<0.5		
Tetrachloroethene	0.5	<0.5		
1,1,2,2-Tetrachloroethane	0.5	<0.5		
Chlorobenzene	0.5	<0.5		
1,2-Dichlorobenzene	0.5	<0.5		
1,3-Dichlorobenzene	0.5	<0.5		
1,4-Dichlorobenzene	0.5	<0.5		
Trichlorofluoromethane	0.5	<0.5		
Detection Limit Multiplier		1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample prepared by EPA Method 5030 (high-level solvent extraction and purge and trap).



**Northwest Region**

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Concord, CA 94520  
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(800) 423-7143 from outside California

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Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-557

March 8, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

A handwritten signature in cursive script that reads 'Emma P. Popek'.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**

Extraction Procedure Toxicity Metals in Soil

GTEL Sample Number			01	02		
Client Identification			UO-2	COMP-2		
Date Sampled			02/25/91	02/26/91		
Date Extracted			02/27/91	02/27/91		
Date Analyzed (Method 6010)			03/04/91	03/04/91		
Date Analyzed (Method 7060)			03/04/91	03/04/91		
Date Analyzed (Method 7470)			03/04/91	03/04/91		
Date Analyzed (Method 7740)			02/28/91	02/28/91		
Analyte	Method <sup>a</sup>	Detection Limit, mg/L	Extract Concentration, mg/L			
Arsenic	EPA 6010	1	<1	<1		
Barium	EPA 6010	0.02	0.14	1.1		
Cadmium	EPA 6010	0.02	<0.02	<0.02		
Chromium, total	EPA 6010	0.02	<0.02	<0.02		
Lead	EPA 6010	0.1	<0.1	<0.1		
Mercury	EPA 7470	0.0002	<0.0002	<0.0002		
Selenium	EPA 6010	1	<1	<1		
Silver	EPA 6010	0.5	<0.5	<0.5		
Detection Limit Multiplier			1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Extraction procedure by Method 1310. Digestion by Method 3005 except for: Method 7470 for mercury, Method 3020 for arsenic and selenium.



4080- Pike Lane  
Concord, CA 94520  
415-685-7852  
800-544-3422 (In CA)  
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD 72-16290  
AND ANALYSIS REQUEST

ANALYSIS REQUEST

CUSTODY RECORD

Project Manager: MARK NICHOLS  
Address: KAT  
Project Number: 201-175-3006  
Site location: Chevron/Wenatche  
Phone #: 251-5441  
FAX #: 251-845-2

I attest that the proper field sampling procedures were used during the collection of these samples.  
Sampler Name (Print): S. HASKINS  
Project Name: Wenatche

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix					Method Preserved					Sampling			
				WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	DATE	TIME	
ESI-1	Excavator		1	X								X				2/24/8:30	
ESI-2	"		1	X								X				2/26 8:45	
ESI-3	"		1	X								X				8:50	
ESI-8	"		1	X								X				9:15	
WSI-9	"		1	X								X				12:20	
WSI-10	"		1	X								X				12:35	
WSI-11	"		1	X								X				12:00	
SI-12	"		1	X								X				12:05	
COMP-1	SI/BI		1	X								X				12:50	
COMP-3	"		1	X								X				12:55	
COMP-4	"		1	X								X				11:00	

BTEX 602  8020  with MTBE   
 BTEX/TPH Gas. 602/8015  8020/8015  MTBE   
 TPH as  Gas  Diesel  Jet Fuel  
 Product I.D. by GC (SIMDIS)   
 Total Oil & Grease: 413.1  413.2  503A   
 Total Petroleum Hydrocarbons: 418.1  503E   
 EPA 601  8010  DCA only   
 EPA 602  8020   
 EPA 608  8080  PCBs only   
 EPA 610  8310   
 EPA 624  8240  NBS +15   
 EPA 625  8270  NBS +25   
 EPTOX: Metals  Pesticides  Herbicides   
 TCLP Metals  VOA  Semi VOA   
 EPA Priority Pollutant Metals  HSL   
 LEAD 7420  7421  239.2  6010  Org. Lead   
 CAM Metals  STLC  TTLC  
 Corrosivity  Flashpoint  Reactivity

SPECIAL HANDLING

24 HOURS   
 EXPEDITED 48 Hours   
 SEVEN DAY

48 hrs

OTHER  (#) BUSINESS DAYS  
 QA/QC CLP Level  Blue Level   
 FAX

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Storage Location  
 Lot #: Work Order #:

Relinquished by Sampler: *[Signature]*  
 Relinquished by:  
 Relinquished by:

Date Time  
 Date Time  
 Date Time

Received by:  
 Received by:  
 Received by Laboratory:

2/27 10:00 Cathy Biana Way bill #





4080- Piko Lane  
Concord, CA 94520  
415-685-7852  
800-544-3422 (In CA)  
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD 72-16289  
AND ANALYSIS REQUEST

ANALYSIS REQUEST

CUSTODY RECORD

Project Manager:

MARK NICHOLS 206 Phone #: 251-5941  
FAX #: 251-8452

Address: Kent Site location:

Project Number:

201-175-3006 Project Name: Chevron/Wenardok

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

Sampler Name (Print): S. Haskins

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix					Method Preserved					Sampling			
				WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO3	H2SO4	ICE	NONE	OTHER	DATE	TIME	
HYL-1	Excavation		1	X						X						2/25/99	4:15
HYL-2	"		1	X						X						2/25	4:20
HYL-3	"		1	X						X						"	4:25
40-2	"	O1	1	X						X						"	4:45
40-2	"	"	1	X						X						"	4:45
H340-4	"	"	1	X						X						"	4:50
TP-18	"	"	1	X						X						"	4:55
Comp 5-2	Soil B/L	O2	1	X						X						2/26/99	1:10

SPECIAL HANDLING

24 HOURS   
SEVEN DAY   
OTHER \_\_\_\_\_ (#) BUSINESS DAYS  
QA/QC CLP Level  Blue Level   
FAX

SPECIAL DETECTION LIMITS (Specify)

SPECIAL REPORTING REQUIREMENTS (Specify)

REMARKS:

Lab Use Only Lot #: \_\_\_\_\_  
Storage Location Work Order #: \_\_\_\_\_

- BTEX 602  8020  with MTBE
- BTEX/TPH Gas. 602/8015  8020/8015  MTBE
- TPH as Gas  Diesel  Jet Fuel
- Product I.D. by GC (SIMDIS)
- Total Oil & Grease: 413.1  413.2  503A
- Total Petroleum Hydrocarbons: 418.1  503E
- EPA 601  8010  DCA only
- EPA 602  8020
- EPA 608  8080  PCBs only
- EPA 610  8310
- EPA 624  8240  NBS +15
- EPA 625  8270  NBS +25
- EPTOX: Metals  Pesticides  Herbicides
- TCLP Metals  VOA  Semi VOA
- EPA Priority Pollutant Metals  HSL
- LEAD 7420  7421  239.2  6010  Org. Lead
- CAM Metals  STLC  TTLC
- Corrosivity  Flashpoint  Reactivity

Relinquished by Sampler: Stan Haskins  
Relinquished by:  
Relinquished by:

Date Time  
Date Time  
Date Time

Received by:  
Received by:  
Received by Laboratory:

2/27 10:00

Kathy Blair

C102  
A-3  
Way bill #



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 18 1991

Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-525

February 28, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16222.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Emma P. Popek / PS*

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil  
 EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		01	02	03	04
Client Identification		TP-1	TP-2	TP-4	TP-6
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/27/91	02/27/91	02/26/91	02/26/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Xylene, total	0.015	<0.015	<0.015	<0.015	<0.015
BTEX, total	--	--	--	--	--
TPH as Gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil**

**EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>**

GTEL Sample Number		05	06	07	08
Client Identification		TP-7	TP-8	TP-9	TP-10
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/27/91	02/26/91	02/26/91	02/26/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Xylene, total	0.015	<0.015	<0.015	<0.015	<0.015
BTEX, total	--	--	--	--	--
TPH as Gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil**

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		09	10		
Client Identification		TP-12	TP-14		
Date Sampled		02/25/91	02/25/91		
Date Extracted		02/28/91	02/28/91		
Date Analyzed		02/26/91	02/27/91		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005		
Toluene	0.005	<0.005	<0.005		
Ethylbenzene	0.005	<0.005	<0.005		
Xylene, total	0.015	<0.015	<0.015		
BTEX, total	--	--	--		
TPH as Gasoline	1	<1	<1		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.





# GTEL

ENVIRONMENTAL  
LABORATORIES, INC.

**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 10 1991

Client Number: 201-175-3006.  
Project ID: Wenatchee  
Work Order Number: C1-02-522

March 5, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/26/91, under chain of custody number 72-16221.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons as Gasoline in Soil**

**Modified EPA Method 5030/8015**

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

GTEL Sample Number		01	02	03	04
Client Identification		UO-1	HO-1	H & UO-1	H & UO-2
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		05	06	07	08
Client Identification		H & UO-3	TP-15	TP-16	TP-17
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/28/91	02/28/91	02/28/91	02/28/91
Date Analyzed		02/28/91	02/28/91	02/28/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1



Project Manager: **MARK MILLER** Phone #: 251-5941  
 Address: **206 FAX #: 251-8452**

Project Number: **207-175-3006** Site location: **Wenatche**  
 Project Name: **Chemical Wash**

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

Sampler Name (Print):

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix					Method Preserved					Sampling		
				WATER	SOIL	AIR	SLUDGE	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	NONE	OTHER	DATE	TIME
UD-1	TPH/P15	01	1												2/15	12:35
HO-1	"	02	1												2/15	12:40
H40-1	"	03	1													12:40
H40-2	"	04	1													12:45
H40-3	"	05	1													12:45
TP-15	"	06	1													2:45
TP-16	"	07	1													2:50
TP-17	"	08	1													2:55

**SPECIAL HANDLING**  
 24 HOURS   
~~SEVEN DAY~~   
 OTHER \_\_\_\_\_ (#) BUSINESS DAYS  
 OAOQC CLP Level  Blue Level   
 FAX

**SPECIAL DETECTION LIMITS (Specify)**  
**SPECIAL REPORTING REQUIREMENTS (Specify)**

**REMARKS:**  
 NOT ANALYZED  
 Lab Use Only Lot #: \_\_\_\_\_  
 Storage Location Work Order #: \_\_\_\_\_

- BTEX 602  8020  with MTBE
- BTEX/TPH Gas. 602/8015  8020/8015  MTBE
- TPH as Gas  Diesel  Jet Fuel
- Product I.D. by GC (SIMDIS)
- Total Oil & Grease: 413.1  413.2  503A
- Total Petroleum Hydrocarbons: 418.1  503E
- EPA 601  8010  DCA only
- EPA 602  8020
- EPA 608  8080  PCBs only
- EPA 610  8310
- EPA 624  8240  NBS +15
- EPA 625  8270  NBS +25
- EPTOX: Metals  Pesticides  Herbicides
- TCLP Metals  VOA  Semi VOA
- EPA Priority Pollutant Metals  HSL
- LEAD 7420  7421  239.2  6010  Org. Lead
- CAM Metals  STLC  TTLC
- Corrosivity  Flashpoint  Reactivity

Relinquished by Sampler: <i>Str...</i>	Date _____ Time _____	Received by:
Relinquished by:	Date _____ Time _____	Received by:
Relinquished by:	Date <b>2/20/95</b> Time <b>5:00</b>	Received by Laboratory: <b>W Bohannon</b>

Way bill # **C1029**  
**A-1**



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 13 1991

RECEIVED MAR 13 1991

Client Number: 201-175-3006.  
Project ID: Not Given  
Work Order Number: C1-02-556

March 5, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,

GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
**Polychlorinated Biphenyls in Soil**  
**EPA Method 8080<sup>a</sup>**

GTEL Sample Number		01	02		
Client Identification		UO-2	COMP-2		
Date Sampled		02/25/91	02/26/91		
Date Extracted		02/27/91	02/27/91		
Date Analyzed		02/28/91	02/28/91		
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
PCB-1016	0.1	< 0.1	< 0.1		
PCB-1221	0.1	< 0.1	< 0.1		
PCB-1232	0.1	< 0.1	< 0.1		
PCB-1242	0.1	< 0.1	< 0.1		
PCB-1248	0.1	< 0.1	< 0.1		
PCB-1254	0.1	< 0.1	< 0.1		
PCB-1260	0.1	< 0.1	< 0.1		
Detection Limit Multiplier		1	1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3540.



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 13 1991

Client Number: C201-1763006  
Project ID: Not Given  
Work Order Number: C1-02-555

March 4, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Halogenated Volatile Organics in Soil  
 EPA Method 8010<sup>a</sup>

GTEL Sample Number		01	02	03	04
Client Identification		HYL-1	HYL-2	HYL-3	UO-2
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/27/91	02/27/91	02/27/91	02/27/91
Date Analyzed		02/27/91	02/27/91	02/26/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1	<1	<1	<1	<1
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1	<1	<1	<1	<1
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample prepared by EPA Method 5030 (high-level solvent extraction and purge and trap).

**Table 1 (Continued)**  
 ANALYTICAL RESULTS  
 Halogenated Volatile Organics in Soil  
 EPA Method 8010<sup>a</sup>

GTEL Sample Number		05			
Client Identification		COMP-2			
Date Sampled		02/26/91			
Date Extracted		02/27/91			
Date Analyzed		02/27/91			
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Chloromethane	0.5	<0.5			
Bromomethane	0.5	<0.5			
Vinyl chloride	1	<1			
Chloroethane	0.5	<0.5			
Methylene chloride	0.5	<0.5			
1,1-Dichloroethene	0.2	<0.2			
1,1-Dichloroethane	0.5	<0.5			
1,2-Dichloroethene	0.5	<0.5			
Chloroform	0.5	<0.5			
1,2-Dichloroethane	0.5	<0.5			
1,1,1-Trichloroethane	0.5	<0.5			
Carbon tetrachloride	0.5	<0.5			
Bromodichloromethane	0.5	<0.5			
1,2-Dichloropropane	0.5	<0.5			
cis-1,3-Dichloropropene	0.5	<0.5			
Trichloroethene	0.5	<0.5			
Dichlorodifluoromethane	0.5	<0.5			
Dibromochloromethane	0.5	<0.5			
1,1,2-Trichloroethane	0.5	<0.5			
trans-1,3-Dichloropropene	0.5	<0.5			
2-Chloroethylvinyl ether	1	<1			
Bromoform	0.5	<0.5			
Tetrachloroethene	0.5	<0.5			
1,1,2,2-Tetrachloroethane	0.5	<0.5			
Chlorobenzene	0.5	<0.5			
1,2-Dichlorobenzene	0.5	<0.5			
1,3-Dichlorobenzene	0.5	<0.5			
1,4-Dichlorobenzene	0.5	<0.5			
Trichlorofluoromethane	0.5	<0.5			
Detection Limit Multiplier		1			

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample prepared by EPA Method 5030 (high-level solvent extraction and purge and trap).

RECEIVED MAR 13 1991



Client Number: 201-175-3006.  
Project ID: Not Given  
Work Order Number: C1-02-553

**Northwest Region**  
4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

February 28, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

*Emma P. Popek /rc*  
Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Total Petroleum Hydrocarbons as Gasoline in Soil  
 Modified EPA Method 8015<sup>a</sup>

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

GTEL Sample Number		01	02	03	04
Client Identification		UO-2	HO-2	H&UO-4	TP-18
Date Sampled		02/25/91	02/25/91	02/25/91	02/25/91
Date Extracted		02/27/91	02/27/91	02/27/91	02/27/91
Date Analyzed		02/27/91	02/27/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
TPH as gasoline	10	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1





4080 Pike Lane  
Concord, CA 94520  
415-685-7852  
800-544-3422 (In CA)  
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD 72-16289  
AND ANALYSIS REQUEST

ANALYSIS REQUEST

CUSTODY RECORD

Project Manager: **MARK NICHOLS**  
Address: **Keat**  
Project Number: **201-175-3006**  
Phone #: **251-5441**  
Site location: **206 FAX #: 251-8452**

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

Project Name: **Chevron/Weatherford**  
Sampler Name (Print): **S. Haslekins**

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix						Method Preserved	Sampling DATE	TIME
				WATER	SOIL	AIR	SLUDGE	OTHER	HCl			
H12-1	Excavation	01	1	X					X	2/29	4:15	
H12-2	"	02	1	X					X	2/25	9:20	
H12-3	"	03	1	X					X	"	4:25	
U0-2	"	04	1	X					X	"	4:45	
H0-2	"	05	1	X					X	"	4:45	
H140-4	"	06	1	X					X	"	4:50	
TP-18	"	07	1	X					X	"	4:55	
<del>CP-2</del>	<del>Soil Pit</del>	<del>08</del>	<del>1</del>	<del>X</del>					<del>X</del>	<del>2/29</del>	<del>1:10</del>	

- BTEX 602  8020  with MTBE
- BTEX/TPH Gas. 602/8015  8020/8015  MTBE
- TPH as Gas  Diesel  Jet Fuel
- Product I.D. by GC (SIMDIS)
- Total Oil & Grease: 413.1  413.2  503A
- Total Petroleum Hydrocarbons: 418.1  503E
- EPA 601  8010  DCA only
- EPA 602  8020
- EPA 608  8080  PCBs only
- EPA 610  8310
- EPA 624  8240  NBS +15
- EPA 625  8270  NBS +25
- EPTOX: Metals  Pesticides  Herbicides
- TCLP Metals  VOA  Semi VOA
- EPA Priority Pollutant Metals  HSL
- LEAD 7420  7421  239.2  6010  Org. Lead
- CAM Metals  STLC  TTLC
- Corrosivity  Flashpoint  Reactivity

SPECIAL HANDLING  
24 HOURS   
EXPEDITED 48 Hours  **48**  
SEVEN DAY

OTHER  (#) BUSINESS DAYS  
QA/QC CLP Level  Blue Level   
FAX

SPECIAL DETECTION LIMITS (Specify)

**Dist**

REMARKS:

**T-A 2/28/91**

**10X2**

**C102 A-3**

Relinquished by Sampler: **Stan Haslekins**

Date: **2/27** Time: **10:00**

Received by:

Relinquished by:

Date: Time:

Received by:

Relinquished by:

Date: Time:

Received by Laboratory:

**Kathy Blair** Way bill #

SPECIAL REPORTING REQUIREMENTS (Specify)

Lab Use Only  Storage Location   
Lot #:  Work Order #:



**Northwest Region**

4080 Pike Lane  
Concord, CA 94520  
(415) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California

RECEIVED MAR 13 1991

Client Number: 201-175-3006.  
Project ID: Not Given  
Work Order Number: C1-02-552

March 7, 1991

Mark Nichols  
Groundwater Technology, Inc.  
19033 West Valley Hwy., D-104  
Kent, WA 98032

Enclosed please find the analytical results report prepared by GTEL for samples received on 02/27/91, under chain of custody number 72-16289 and 72-16290.

GTEL is certified by the California State Department of Health Services to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

A formal quality control/quality assurance program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project was performed in strict adherence to our QA/QC program to ensure sample integrity and to meet quality control criteria.

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

Sincerely,  
GTEL Environmental Laboratories, Inc.

Emma P. Popek  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**  
 Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil  
 EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		01	02	03	04
Client Identification		COMP-2	ESI-1	ESI-2	ESI-3
Date Sampled		02/26/91	02/26/91	02/26/91	02/26/91
Date Extracted		03/01/91	03/01/91	03/01/91	03/01/91
Date Analyzed		02/28/91	02/27/91	02/27/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Xylene, total	0.015	0.05	<0.015	<0.015	<0.015
BTEX, total	--	0.05	--	--	--
TPH as Gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil**

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		05	06	07	08
Client Identification		ESI-8	WSI-9	WSI-10	WSI-11
Date Sampled		02/26/91	02/26/91	02/26/91	02/26/91
Date Extracted		03/01/91	03/01/91	03/01/91	03/01/91
Date Analyzed		02/28/91	02/28/91	02/27/91	02/28/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005	<0.005	<0.005
Toluene	0.005	<0.005	<0.005	<0.005	<0.005
Ethylbenzene	0.005	<0.005	<0.005	<0.005	<0.005
Xylene, total	0.015	<0.015	<0.015	<0.015	<0.015
BTEX, total	--	--	--	--	--
TPH as Gasoline	1	<1	<1	<1	<1
Detection Limit Multiplier		1	1	1	1

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Soil

EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>

GTEL Sample Number		09	10	11	12
Client Identification		WSI-12	COMP-1	COMP-3	COMP-4
Date Sampled		02/26/91	02/26/91	02/26/91	02/26/91
Date Extracted		03/01/91	03/01/91	03/01/91	03/01/91
Date Analyzed		02/27/91	02/28/91	02/27/91	02/27/91
Analyte	Detection Limit, mg/Kg	Concentration, mg/Kg			
Benzene	0.005	<0.005	<0.005	0.1	0.07
Toluene	0.005	0.01	<0.005	0.8	0.4
Ethylbenzene	0.005	0.01	<0.005	0.2	0.08
Xylene, total	0.015	0.08	<0.015	2	0.6
BTEX, total	--	0.1	--	3	1
TPH as Gasoline	1	<1	<1	8	4
Detection Limit Multiplier		1	1	1	1

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



4080- Pike Lane  
Concord, CA 94520  
415-685-7852  
800-544-3422 (In CA)  
800-423-7143 (Outside CA)

CHAIN-OF-CUSTODY RECORD 72- 16289  
AND ANALYSIS REQUEST

ANALYSIS REQUEST

CUSTODY RECORD

Project Manager: **MARK NICHOLS**  
Address: **Keat**  
Phone #: **251-5441**  
FAX #: **251-8452**  
Site location:

Project Number: **201-175-3006**  
Project Name: **Chevron/Weatherford**

I attest that the proper field sampling procedures were used during the collection of these samples.  
Sampler Name (Print): **S. Haskins**

Field Sample ID	Source of Sample	GTEL Lab # (Lab use only)	# CONTAINERS	Matrix					Method Preserved	Sampling	
				WATER	SOIL	AIR	SLUDGE	OTHER		DATE	TIME
HYL-1	Excavation		1	X				X	2/25/99	4:15	
HYL-2	"		1	X				X	2/25	4:20	
HYL-3	"		1	X				X	"	4:25	
UO-2	"		1	X				X	"	4:45	
HO-2	"		1	X				X	"	4:45	
H340-4	"		1	X				X	"	4:50	
TP-18	"		1	X				X	"	4:55	
<del>CO-2</del>	<del>Soil Pit</del>	<del>01</del>	<del>1</del>	<del>X</del>				<del>X</del>	<del>2/27/99</del>	<del>1:10</del>	

BTEX 602 <input type="checkbox"/> 8020 <input type="checkbox"/> with MTBE <input type="checkbox"/>
BTEX/TPH Gas. 602/8015 <input checked="" type="checkbox"/> 8020/8015 <input type="checkbox"/> MTBE <input type="checkbox"/>
TPH as Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Jet Fuel <input type="checkbox"/>
Product I.D. by GC (SIMDIS) <input type="checkbox"/>
Total Oil & Grease: 413.1 <input type="checkbox"/> 413.2 <input type="checkbox"/> 503A <input type="checkbox"/>
Total Petroleum Hydrocarbons: 418.1 <input checked="" type="checkbox"/> 503E <input type="checkbox"/>
EPA 601 <input type="checkbox"/> 8010 <input checked="" type="checkbox"/> DCA only <input type="checkbox"/>
EPA 602 <input type="checkbox"/> 8020 <input type="checkbox"/>
EPA 608 <input type="checkbox"/> 8080 <input checked="" type="checkbox"/> PCBs only <input checked="" type="checkbox"/>
EPA 610 <input type="checkbox"/> 8310 <input type="checkbox"/>
EPA 624 <input type="checkbox"/> 8240 <input type="checkbox"/> NBS +15 <input type="checkbox"/>
EPA 625 <input type="checkbox"/> 8270 <input type="checkbox"/> NBS +25 <input type="checkbox"/>
EPTOX: Metals <input checked="" type="checkbox"/> Pesticides <input type="checkbox"/> Herbicides <input type="checkbox"/>
TCLP Metals <input type="checkbox"/> VOA <input type="checkbox"/> Semi VOA <input type="checkbox"/>
EPA Priority Pollutant Metals <input type="checkbox"/> HSL <input type="checkbox"/>
LEAD 7420 <input type="checkbox"/> 7421 <input type="checkbox"/> 239.2 <input type="checkbox"/> 6010 <input type="checkbox"/> Org. Lead <input type="checkbox"/>
CAM Metals <input type="checkbox"/> STLC <input type="checkbox"/> TTLC <input type="checkbox"/>
Corrosivity <input type="checkbox"/> Flashpoint <input type="checkbox"/> Reactivity <input type="checkbox"/>

**102**

SPECIAL HANDLING  
24 HOURS   
EXPEDITED 48 Hours  **48**  
SEVEN DAY

SPECIAL DETECTION LIMITS (Specify)

REMARKS:

**102**

OTHER  (#) BUSINESS DAYS  
QA/QC  CLP Level  Blue Level   
FAX

SPECIAL REPORTING REQUIREMENTS (Specify)

Lab Use Only  Storage Location   
Lot #:  Work Order #:

Relinquished by Sampler: **Stan Haskins**

Relinquished by:

Relinquished by:

Date: **2/27** Time: **10:00** Received by: **Kathy Blaise**  
Way bill # **C102 A-3**

**APPENDIX IV**  
**WASHINGTON STATE DEPARTMENT OF ECOLOGY**  
**ADOPTED COMPLIANCE CLEAN-UP LEVELS, SOILS**

detected values or values below the practical quantitation limit.

(e) Sampling and analysis of fish tissue or shellfish may be required to supplement water column sampling during compliance monitoring.

**NEW SECTION**

**MAC 173-340-740 SOIL CLEANUP STANDARDS. (1) General considerations.**

(a) Soil cleanup levels shall be based on estimates of the reasonable maximum exposure expected to occur under both current and future site use conditions. The department has determined that residential site use is generally the site use requiring the most protective cleanup levels and that exposure to hazardous substances in the soil via soil ingestion under residential site use conditions represents the reasonable maximum exposure scenario. In the event of a release of a hazardous substance, treatment, removal, or containment measures shall be implemented to reduce the levels of hazardous substances in soils to levels consistent with this use unless the following can be demonstrated:

- (i) The site does not serve as a current residential area;
- (ii) The site does not have the potential to

serve as a future residential area based on the consideration of site zoning, statutory and regulatory restrictions, comprehensive plans, historical site use, adjacent land uses, and other relevant factors; and

(iii) Appropriate site use restrictions are implemented at the site to prohibit residential use; or

(iv) More stringent concentrations are necessary to protect human health and the environment

(b) Soil cleanup levels for industrial sites shall be established in accordance with the requirements in MAC 173-340-745.

(c) Soil cleanup levels for other non-residential site uses such as recreational or agricultural uses shall be established on a case-by-case basis. Cleanup levels for these types of sites shall be at least as stringent as conditional cleanup levels established under subsection (4) of this section.

(d) Soil cleanup levels shall be established at concentrations which do not directly or indirectly cause violations of ground water, surface water, sediment, or air cleanup standards established under this chapter or applicable state and federal laws.

(2) Method A compliance cleanup levels. Compliance cleanup levels established using method A shall be at least as stringent as all of the following:

- (a) Concentrations in the following table:

Table 2

Method A Compliance Cleanup Levels - Soil		
Hazardous Substance	CAS Number	Cleanup Level
Arsenic	7440-38-2	20.0 mg/kg
Benzene	71-43-2	0.5 mg/kg
Cadmium	7440-43-9	2.0 mg/kg
Chromium	7440-47-3	100.0 mg/kg
DOT	50-29-3	1.0 mg/kg
Ethylbenzene	100-41-4	20.0 mg/kg
Ethylene dibromide	106-93-4	0.001 mg/kg
Lead	7439-92-1	250.0 mg/kg
Lindane	58-89-9	1.0 mg/kg
Methylene chloride	75-09-2	0.5 mg/kg
Mercury (inorganic)	7439-97-6	1.0 mg/kg
PAHs (carcinogenic)		1.0 mg/kg
PCB Mixtures		1.0 mg/kg
Pentachlorophenol	87-86-5	10.0 mg/kg
Tetrachloroethylene	127-18-4	0.5 mg/kg
Toluene	108-88-3	40.0 mg/kg
TPH (gasoline)		100.0 mg/kg
TPH (diesel)		200.0 mg/kg
TPH (other)		200.0 mg/kg
1,1,1 Trichloroethane	71-55-6	20.0 mg/kg
Trichloroethylene	79-01-5	0.5 mg/kg
Xylenes	1330-20-7	20.0 mg/kg

(b) Concentrations established under applicable state and federal laws;

(c) Any other concentrations which the department determines are necessary to protect human health or environment.

(3) Method B compliance cleanup levels. Compliance cleanup levels for soils established using method B shall be at least as stringent as all of the following:

(a) Concentrations established under applicable state and federal laws;

(b) For those hazardous substances for which human health or environmental protection criteria or standards have not been established under applicable state and federal laws, those concentrations which

protect human health and the environment as determined by the following methods:

(1) Concentrations which will not cause contamination of ground water at levels which exceed ground water cleanup levels established under MAC 173-340-720 as determined using the following procedures:

(A) For individual hazardous substances or mixtures, concentrations that are equal to or less than one hundred (100) times the ground water compliance cleanup level established in accordance with MAC 173-340-720 unless it can be demonstrated that a higher concentration is protective of ground water at the site;

(B) For total petroleum hydrocarbons, the person undertaking the cleanup may elect to make this demonstration on the basis of data on individual



**APPENDIX V**  
**SYNOPSIS OF UST CLOSURE**

## SYNOPSIS OF UST CLOSURE

During February, 1991, the permanent closure of six (6) underground storage tanks (USTs), three (3) gasoline, one (1) used-oil, one (1) heating/used-oil, and one (1) tank of undetermined use and ancillary piping was conducted at Chevron U.S.A. Inc. Service Station #7348 in Wenatchee, Washington. Three (3) hydraulic lifts were also decommissioned by removal as part of the closure activities. Based upon field observations, additional excavation was conducted to remove hydrocarbon-stained soils adjacent to the UST, and service island excavations. These soils (approximately 430 cubic yards) were stockpiled on site for confirmatory laboratory analysis. Subsequently, soil samples were collected for petroleum hydrocarbon analysis from the UST, service island/product lines and hydraulic lift excavations to document the condition of the remaining unexcavated soils. Soil samples from the used-oil excavations were also submitted for polychlorinated biphenyl (PCB), halogenated volatile organic and extractable metals analyses.

The laboratory analyses indicated that the Washington Department of Ecology (WDOE) Compliance clean-up levels adopted on December 4, 1990, were met for all of the analytes of concern in the remaining soils. Laboratory analyses for the stockpiled soils showed hydrocarbon levels exceeding the compliance clean-up levels. Based upon the results of the UST closure activities, the WDOE compliance clean-up levels have been met and no further activities are required at the site.

**APPENDIX VI**  
**WASTE PROFILE**



WASTE MANAGEMENT OF NORTH AMERICA  
GENERATOR'S SPECIAL WASTE PROFILE SHEET  
TYPE A WASTE  
INSTRUCTIONS

Information on this form is used to determine if the waste may be transported, treated, stored or disposed in a legal, safe, and environmentally sound manner. This information will be maintained in strict confidence. Answers must be printed in ink or typed. A response of "NONE," or "NA" can be made if appropriate.

**PART A. WHERE IS THE WASTE GENERATED?**

1. GENERATOR NAME - Enter the name of the facility where the waste is generated.
2. FACILITY ADDRESS - Enter the street address (not P.O. Box) of the facility where the waste is generated.
3. GENERATOR CITY, STATE/PROVINCE - Enter the city and state or province.
4. ZIP/POSTAL CODE - Enter the generating facility's zip or postal code.
5. GENERATOR USEPA/CANADIAN FEDERAL ID - Enter the identification number issued by the USEPA or CANADIAN FEDERAL AGENCY to the facility generating the waste (if applicable).
6. GENERATOR STATE/PROVINCIAL ID - Enter the identification number issued by the state or province to the facility generating the waste (if applicable).
7. TECHNICAL CONTACT - Enter the name of a person who can answer technical questions about the waste.
8. PHONE - Enter technical contact's telephone number.

**PART B. WHERE ARE WASTE MANAGEMENT OF NORTH AMERICA INVOICES MAILED?**

1. If you want the invoice mailed to the same address as in PART A, check "Generating Facility." If you want the invoices mailed elsewhere, then answer Questions 2, 3, 4, 5 and 6.
2. COMPANY NAME - Enter the name of the company which will receive invoices.
3. PHONE - Enter the telephone number of the company receiving invoices.
4. ADDRESS - Enter the address of the company receiving invoices.
5. CITY, STATE/PROVINCE - Enter the city and state or province of the company receiving invoices.
6. ZIP/POSTAL CODE - Enter the zip or postal code of the company receiving invoices.

**PART C. PHYSICAL CHARACTERISTICS OF WASTE**

1. NAME OF WASTE - Enter a name generally descriptive of this waste. (e.g. paint sludge, contaminated soil, incinerator ash)
2. PROCESS GENERATING WASTE - List the specific process/operation or source that generates the waste. (e.g. paint spray booth, spill clean up, incineration of municipal refuse)
3. SPECIAL HANDLING INSTRUCTIONS - Describe any special handling requirements for proper management of the waste.
4. COLOR - Describe the color of the waste (e.g., blue, transparent, varies).
5. ODOR - **DO NOT SMELL THE WASTE!** If the waste has a known incidental odor, then describe it (e.g., acrid, pungent, solvent, sweet).
6. PHYSICAL STATE - If the four boxes provided do not apply, a descriptive phrase may be entered after "Other" (e.g., gas).
7. LAYERS - Check all applicable boxes. Multi-layered means more than two layers (e.g., oil/water/sludge). Bi-layered means the waste is comprised of two layers which may or may not be of the same phase (e.g., oil/water, solvent/sludge). Single phased means the waste is homogeneous.
8. SPECIFIC GRAVITY - Indicate the range. The specific gravity of water is 1.0. Most organics are less than 1.0. Most inorganics and paint sludge are greater than 1.0.
9. FREE LIQUIDS - Check "YES" if liquid is usually present when packaging for shipment and estimate the percent of liquid volume. Check "NO" if there are no free liquids as determined by the Paint Filter Test or direct observation.
10. pH - Indicate for liquid portions of the waste. Check the appropriate boxes which cover the pH of the waste. Use the "Range" space if appropriate. For solid or organic liquid wastes, indicate the pH of a 10% aqueous solution of the waste if applicable. Check "NA" for non-water soluble materials (e.g., foundry sands).
11. FLASH POINT - Indicate the flash point obtained using the appropriate testing method.

**WASTE MANAGEMENT OF NORTH AMERICA  
GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE  
INSTRUCTIONS**

**PART A. SAMPLING METHOD**

Check the sampling method employed and sign line 5 of section C.

Some Special Wastes require analytical data to determine their chemical composition, regulatory status, and if they are acceptable for transportation, treatment or disposal. This form is used to certify that a representative sample was collected for testing by Waste Management of North America (WMNA) or to certify that analytical data being presented to WMNA were derived from testing of a representative sample. The sample should be collected in accordance with "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods," SW846, USEPA, and/or 40CFR261-Appendix I, or approved Canadian equivalent methods. A suitable sample container for most wastes is a wide mouth glass bottle with a plastic cap having a non-reactive liner. Plastic containers are recommended for strong caustics or fluorides. Fill to approximately 90% of capacity to allow for expansion during transportation. The peel off label on this form must be completed prior to removal from the form. The label must be attached to the sample container, not the shipping container.

The sample must be packed and shipped in accordance with U.S. DOT or Canadian equivalent regulations and any specific requirements imposed by the carrier. Improperly packaged samples may be disposed upon receipt.

**PART B. SAMPLE SOURCE**

Describe exactly where the sample was taken (e.g., conveyor, drum, lagoon, pipe, pit, pond, tank, vat).

**PART C. SAMPLE LABEL**

**THE SAMPLE LABEL MUST BE COMPLETED BEFORE IT IS REMOVED FROM THIS FORM.**

Apply the completed peel off label to the container which actually holds the sample, not to the shipping container.

1. WASTE PROFILE SHEET CODE - Enter the code from the Generator's Special Waste Profile Sheet for this waste. This Certification and its peel off label must be used to identify **ONLY** the sample of the Special Waste described in the Generator's Special Waste Profile Sheet bearing this code.
2. GENERATOR'S NAME - Enter the name of the facility where the waste is generated.
3. NAME OF WASTE - Enter a name which is generally descriptive of this waste (e.g., paint sludge, diesel oil contaminated dirt, wastewater treatment sludge). This name should be the same as Section C on the Generator's Special Waste Profile Sheet.
4. SAMPLE HOUR/DATE - Enter the hour and date the sample was collected.
5. SAMPLER'S SIGNATURE - The sampler must sign in the space provided.
6. PRINT SAMPLER'S NAME - Enter the sampler's name.
7. SAMPLER'S TITLE - Enter the sampler's title.
8. SAMPLER'S EMPLOYER (If other than generator see D. Below) - Enter the sampler's employer's name.

Remove the completed peel off label and affix it to the sample container at the time of sampling. If this label is lost or destroyed, the sample must be labeled with equivalent information, including the Waste Profile Sheet Code. If the Certification of Representative Sample Form is lost or destroyed, please contact your WMNA Sales Representative to obtain a new one.

**PART D. WITNESS VERIFICATION (if required):**

If a Waste Management of North America employee or other contractor obtains the sample on your site, then one of your employees must direct the contractor's employee to the sample source and witness the sampling. Your employee must also provide the information requested in PART D.

1. WITNESS' SIGNATURE - Sign in the space provided.
2. WITNESS' NAME - Print the name of the customer's employee who witnessed the sampling.
3. WITNESS' TITLE - Enter the witness' title.
4. WITNESS' EMPLOYER - Enter the witness' employer's name.
5. DATE - Enter the date the sampling event was witnessed.

**PART E. REPRESENTATIVE DATA CERTIFICATION**

If the customer is presenting their own analytical data to WMNA, they must sign this section, certifying that the analytical data presented were derived from testing of a representative sample taken in accordance with one of the methods listed in Part A. Parts B & C should also be completed to the extent possible.



WASTE MANAGEMENT OF NORTH AMERICA
GENERATOR'S CERTIFICATION OF REPRESENTATIVE SAMPLE

PLEASE PRINT IN INK OR TYPE

841 WMA 094012

Waste Profile Sheet Code

(Shaded area for WMNA use only) WMNA Sales Rep. #

This completed form must be returned, with the representative sample, to:

Blank lines for return address

INSTRUCTIONS FOR COMPLETING THIS FORM ARE FOUND ON THE OPPOSITE SIDE. In order to determine whether Waste Management of North America (WMNA) can accept the Special Waste described in the Generator's Special Waste Profile Sheet referenced above, you must supply a representative sample of the waste, or sign Part E below certifying that analytical data presented to Waste Management were derived from testing of a representative sample.

A. SAMPLING METHOD (Indicate the method used and sign line 5 in Section C to certify a representative sample was taken)

- 1. I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above according to the sampling methods specified in 40 CFR 261-Appendix I or equivalent Canadian rules.
2. I have obtained a representative sample of the waste material described in the Generator's Special Waste Profile Sheet referenced above by an equivalent method.

B. SAMPLING SOURCE (e.g., drum, lagoon, pit, pond, tank, vat)

C. REPRESENTATIVE SAMPLE CERTIFICATION AND SAMPLE LABEL (COMPLETE LABEL BEFORE REMOVING)

- 1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:
1. Waste Profile Sheet Code:
2. Generator's Name:
3. Name of Waste:
4. Sample Hour/Date:
5. Sampler's Signature:

- 6. Print Sampler's Name:
7. Sampler's Title:
8. Sampler's Employer (if other than generator, see D. below):

D. WITNESS VERIFICATION (if required) In most circumstances the customer will obtain the sample. However, in those cases in which WMNA or another contractor obtains the sample, one of the customer's employees must be present to direct the particular source to be sampled, to witness the sampling, and to complete this Part D.

I was personally present during the sampling described. I directed the waste source to be sampled, and I verify the information noted above.

- 1. Witness' Signature:
2. Witness' Name:
3. Witness' Title:
4. Witness' Employer:
5. Date:

E. REPRESENTATIVE DATA CER

By signing below the customer is certifying that the analytical data presented to WMNA were derived from testing of a representative sample taken in accordance with one of the methods specified in Section C to the extent possible)

Phil
Sign Item E.

Signature

to the extent possible)

were derived from testing of a representative sample taken

Title

Name

Date



# Waste Management of North America GENERATOR'S SPECIAL WASTE PROFILE SHEET

TYPE A Waste  
PLEASE PRINT IN INK OR TYPE

841 WMA 094012

Waste Profile Sheet Code

INSTRUCTIONS FOR COMPLETING THIS FORM ARE ATTACHED

(Shaded Areas for WMA Use Only)

Renewal Date of Service Agreement: \_\_\_\_\_ WMA Sales Rep: \_\_\_\_\_

**A. WHERE IS THE WASTE GENERATED?**

1. Generator Name: Chevron U.S.A.  
 2. Facility Address (site of waste generation): 502 N. Wenatchee Avenue  
 3. Generator City, State/Province: Wenatchee, WA 4. Zip/Postal Code: 98801  
 5. Generator USEPA/Federal ID: \_\_\_\_\_  
 6. Generator State/Province ID: \_\_\_\_\_  
 7. Technical Contact: Philip R. Briggs 8. Phone: (206) 628-5200  
Mark E. Nichols (206) 625-5441

**B. WHERE ARE WASTE MANAGEMENT, INC. INVOICES SENT?**

1.  Generating Facility (A, above), or  
 2. Company Name: Chevron U.S.A. Inc. 3. Phone: (206) 628-5200  
 4. Address: P.O. Box 220  
 5. Generator City, State/Province: Seattle, WA 6. Zip/Postal Code: 98111

**C. PHYSICAL CHARACTERISTICS OF WASTE (See Instructions)**

1. Name of Waste: Soil with Petroleum Hydrocarbons  
 2. Process Generating Waste: Underground Storage Tank Closure  
 Special Handling Instructions: No special handling

4. Color <u>Varies</u>	5. Does the waste have a strong incidental odor? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes if so, describe: <u>Gasoline</u>	6. Physical State @ 70°F/21°C: <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Semi-Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Powder Other: _____	7. Layers <input type="checkbox"/> Multi-layered <input type="checkbox"/> Bi-layered <input checked="" type="checkbox"/> Single Phased	8. Specific Gravity: Range <u>1.5 - 2.5</u>	9. Free Liquids: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Volume: _____ %
10. pH: <input type="checkbox"/> ≤ 2 <input type="checkbox"/> > 2-4 <input type="checkbox"/> 4-7 <input type="checkbox"/> 7 <input type="checkbox"/> 7-10 <input type="checkbox"/> 10- < 12.5 <input type="checkbox"/> ≥ 12.5 <input type="checkbox"/> Range <input checked="" type="checkbox"/> NA					
11. Flash Point: <input checked="" type="checkbox"/> None <input type="checkbox"/> < 140°F/60°C <input type="checkbox"/> 140°-199°F/60°-83°C <input type="checkbox"/> ≥ 200°F/93°C <input type="checkbox"/> Closed Cup <input checked="" type="checkbox"/> Open Cup					

**D. TRANSPORTATION INFORMATION**

1. Method of Shipment:  Bulk Liquid    Bulk Sludge    Bulk Solid    Drum/Box    Other \_\_\_\_\_  
 2. Annual Amount/Units: approx. 400 cubic yards  
 3. Supplemental Information: \_\_\_\_\_  
 4. Is this a DOT hazardous material?  No    Yes (If so, complete 5, 6 & 7)   5. Hazard Class/ID #: \_\_\_\_\_  
 6. Reportable Quantity/ Units (lb/kg): \_\_\_\_\_ 7. Shipping Name: \_\_\_\_\_

Check this box if additional information is attached.

Turn Page and Complete Side 2





**PART D. TRANSPORTATION INFORMATION**

1. METHOD OF SHIPMENT - Indicate the anticipated method of shipment by checking the appropriate box.
2. ANNUAL AMOUNT/UNITS - Enter the amount of special waste that will be generated and transported annually. Use appropriate units to describe this volume (e.g., cubic yards, gallons, kilograms, pounds).
3. SUPPLEMENTAL INFORMATION - Enter any additional shipping information.
4. INDICATE IF THIS WASTE IS A USDOT OR CANADIAN FEDERAL HAZARDOUS MATERIAL. If so, answer Questions 5, 6, and 7 below:
5. HAZARD CLASS/ID - Enter the proper USDOT or Canadian Federal hazard class/enter the proper USDOT or Canadian Federal Identification Number
6. REPORTABLE QUANTITY (RQ)/RQ Units (lb/kg)/Enter the Reportable Quantity for this waste. Indicate the appropriate units for the RQ.
7. SHIPPING NAME - Enter the proper USDOT or Canadian Federal shipping name for this waste.

**PART E. CHEMICAL COMPOSITION**

1. List all organic and/or inorganic components of the waste using **specific chemical names**. If trade names are used, attach Material Safety Data Sheets or other documents which adequately describe the composition of the waste. For each component, estimate the range (in percents) in which the component is present. The total of the maximum values of the components must be greater than or equal to 100% including water, earth, etc.
2. If this waste contains PCBs, cyanides, phenolics or sulfides, indicate the concentration(s). If this waste does not contain these constituents, indicate by checking the "NO" box(es) which apply. If the concentration of these constituents is unknown, please indicate "UNK" under "ACTUAL".

**PART F. METALS**

1. Indicate whether any of the heavy metals are present in the waste. For each metal, check the box indicating that the metal content will not exceed the stated amount or enter the actual metal content, in parts per million, if available. If metals concentrations are unknown or not present indicate by writing "UNK" or "NA" respectively.
2. If actual concentrations are provided, indicate whether results were determined by the EP TOX (extraction procedure toxicity) or TCLP (Toxicity Characteristics Leaching Procedure) method, or whether the value represents the total metal concentrations.

**PART G. GENERATOR CERTIFICATION**

By signing this Special Waste Profile Sheet the generator certifies that the statements in Nos. 1, 2, 3 and 4 are true and accurate with respect to the waste streams listed.

5. SIGNATURE - An authorized employee of the generator must sign this Generator's Special Waste Profile Sheet.
6. TITLE - Enter employee's title.
7. NAME - Enter employee's name.
8. DATE - Enter the date signed.

**KEEP A COPY OF THIS GENERATOR'S SPECIAL WASTE PROFILE SHEET FOR YOUR RECORDS. SEND THE ORIGINAL AND ATTACHMENTS TO YOUR WASTE MANAGEMENT OF NORTH AMERICA SALES REPRESENTATIVE.**