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WA0010943 SW
102326

BISON ENVIRONMENTAL NORTHWEST, INC.

200 South 333rd Street • Northmark Bldg • Suite 120 • Federal Way, WA 98003 • 206/838-7261 • 206/927-2610

September 12, 1994

Mr. Dale Schuman
Bonneville, Viert, Morton, & McGoldrick
820 "A" Street, Suite 600
Tacoma, Washington 98401

RE: Phase 2B Subsurface Sampling
Walker Chevrolet - Paint Booth
633 Division Avenue
Tacoma, WA
Project# 94481-2

References: 1) Bison Environmental Northwest, Inc., August 1994. "Phase 1 Environmental Site Assessment", same site.

2) Bison Environmental Northwest, Inc., August 15, 1994. "Phase 2 Studies, Floor Drain and Heating Oil UST Closure, Walker Chevrolet - Paint Booth", same site.

Dear Mr. Schuman:

In response to your recent request, Bison Environmental Northwest, Inc., is pleased to provide this Phase 2B Subsurface Sampling report for the Walker Chevrolet Paint Booth in Tacoma, Washington. The work for this project was conducted in accordance with our proposal dated August 24, 1994.

BACKGROUND

As discussed in the referenced reports, two floor drains, a cleanout access, and a heating oil UST were present in the paint booth of the Main Building at Walker Chevrolet. The UST was an unregulated heating oil tank which had provided fuel for the building's boiler.

Sediments were observed inside both of the floor drains, which had reportedly received water from washing the paint booth floors. A pipe ran from the north drain toward the street, and may have been connected to the storm sewer system. The south drain contained a second lid at the bottom which opened to the heating oil UST. With the interior lid closed, the drain may have functioned as a dry well, allowing liquids to pass between the cinder block walls into the surrounding soil.

Laboratory analysis of samples of the drain sediments indicated that the sediments were contaminated with petroleum hydrocarbons in the gasoline and heavy oil ranges, lead, cadmium, chromium, and several types of volatile organic compounds (VOCs). The VOCs detected by the analysis are typically present in gasoline or are used as solvents.

On August 2, 1994, the drains, cleanout access, and UST were pumped out and cleaned, and the contents and rinse water disposed of. They were filled with concrete slurry on the following day.

On August 3, 1994, four borings (B1 through B4) were drilled beneath the concrete floor slab of the paint booth using a gasoline-powered portable auger. Borings B1 and B2 were advanced until refusal at a depth of 6 feet. Borings B3 and B4 were intended to assess soils in the immediate proximity of the drain and were advanced to a depth of 3 feet.

Laboratory analysis indicated that a sample collected from B1 at a depth of 5.5 feet contained concentrations of petroleum products, chromium, cadmium, and lead which exceeded regulatory cleanup levels specified in the Model Toxics Control Act (MTCA). The sample also contained detectable concentrations of several VOCs. Except for the gasoline constituents toluene and xylenes, the reported VOC concentrations were below MTCA cleanup levels.

Samples collected from the other three borings contained detectable concentrations of petroleum hydrocarbons, toluene, and xylenes. The sample from B4 contained hydrocarbon concentrations in excess of the cleanup level, and the remaining concentrations were well below MTCA cleanup levels.

The current study was conducted to better define the lateral and vertical extent of contamination.

SCOPE OF WORK

The scope of work for this project included:

- Subsurface exploration to a depth of 20 feet or refusal in the interior of the building in and around the paint booth.
- Collecting soil samples at intervals of 5 feet or less.
- Collecting groundwater samples if present.
- Delivery of samples to the project laboratory.
- Preparation of this report.

PROCEDURES

Subsurface exploration was conducted using a van-mounted "Geoprobe" owned and operated by Burlington Environmental of Seattle, Washington, on September 6, 1994. The system operates by driving a steel probe into subsurface soils under hydraulic pressure in combination with a pneumatic hammer. The probe is removed once the desired sampling is reached. Samples are then collected using a split spoon sampler.

Henry Perrin of Bison Environmental Northwest was present during exploration to record soil conditions and collect samples. Soils were classified according to the Unified System (ASTM Designation D-2487). Sampling protocols followed during this project were in accordance with WDOE and EPA guidelines, and are summarized below.

Samples were collected at intervals of 5 feet or less, and transferred to sterilized glassware provided by the project laboratory. A label indicating the sample number, project number, sampler, and date and time of sampling, was affixed to each sample, and the sample was recorded on a chain-of-custody form. Samples were stored in an iced chest on site and during transport to the laboratory.

To prevent cross-contamination, the sampler and probe were cleaned between samples using laboratory-grade detergent and distilled water. The holes were plugged using bentonite and concrete after sample collection.

Samples were taken to Spectra Laboratories, Inc. of Tacoma, Washington. A single "worst case" sample from each boring was selected and analyzed for petroleum hydrocarbons and volatile organic compounds (VOCs). The samples were selected based on observed indications of contamination, or in the absence of these indications, at the depth at which contamination was judged most likely to be present. Additional samples were analyzed from borings where contamination was identified.

RESULTS

Soil Conditions

Subsurface soils encountered during this study were similar at all the locations, consisting of roughly 6 inches of gravel subgrade directly beneath the slab, underlain by very dense, gravelly, slightly silty to silty sands. The unit was able to penetrate to depths ranging from 4 feet to 10 feet before refusal. Dark brown staining and moderate hydrocarbon odors were noted in samples collected from B5 from depths of 5 feet to the bottom of the boring at 10 feet. Moderate hydrocarbon odors were also noted in a sample from B6 from a 5-foot depth. No odors were noted in sample obtained from this boring at 8 feet. No odors, discoloration or other indications of contamination were observed in samples from the other borings. No groundwater was encountered in any of the borings.

Please refer to the appended soil logs for a detailed description of soil conditions encountered in the borings. The boring locations are included on the appended site plan.

Laboratory Results

The results of laboratory analysis of samples collected during this study are summarized in Table B appended to this report. The laboratory report has also been appended. With the exception of samples from B5 and B6, no hydrocarbon or VOC concentrations in excess of MTCA cleanup levels were reported.

Heavy oil concentrations ranging from 260 to 4,400 parts per million (ppm) were reported in samples collected from B5. The MTCA method A cleanup level for heavy oils in soil is 200 parts per million (ppm). Several VOCs were also detected in these samples, however the concentrations were trace levels and were well below MTCA cleanup levels.

A concentration of 100 ppm gasoline was reported in a sample collected from B6 at 5 feet. The MTCA method A cleanup level for gasoline in soils is also 100 ppm. Trace levels of several VOCs typically associated with gasoline were also detected in the sample. No gasoline or other petroleum hydrocarbons were detected in a sample collected from B6 at 8 feet. Trace concentrations of the gasoline constituents toluene and xylenes were identified in this sample, however, these contaminants also appeared in the laboratory blanks.

CONCLUSIONS

The results of this study and our previous study suggest that soils beneath the floor of the paint room contain concentrations of petroleum products, chromium, cadmium, lead, toluene, and xylenes which exceed "Method A" cleanup levels specified in the Model Toxics Control Act. As previously noted, the source of this contamination is most likely leakage of petroleum and paint products which had been disposed of in the two floor drains, and possibly leakage from the heating oil UST.

The very dense soils encountered beneath the floor slab prevented sampling at depths of more than 10 feet. The equipment used during this study is only slightly less powerful than the larger truck-mounted auger drilling units. These larger units exceed the maximum vertical clearance of 9 feet required to drill inside the paint booth.

The reported heavy oil concentration in a sample collected from B5 at a 9-foot depth was 4,400 ppm, as compared with the cleanup level of 200 ppm. A sample collected from the bottom of this boring at 10 feet contained 260 ppm heavy oils. This concentration slightly exceeds the cleanup level, however it does appear that the "bottom" of the contamination was nearly reached. Considering the density and silt content of the soils encountered during this study, it is doubtful that the contamination in the paint booth extends downward much further than 10 feet.

We have included an estimated zone of lateral contamination on the appended site plan. Assuming the zone of contamination is roughly circular, the diameter of the affected area would be roughly 14 feet. Clearly there are a number of assumptions in this estimate, however the data gathered during this study suggests that the extent of contamination is very limited.

The floor drains and UST have been cleaned and sealed, with the contents disposed of. Since the source of contamination has been eliminated, and since the contamination is covered by the floor slab, significant migration would not be expected. We do not recommend remedial action at the present time due to the risk of damaging the building. However, if the building is demolished in the future, the contaminated soil should be removed and properly treated or disposed of.

LIMITATIONS

This report has been prepared for the exclusive use of the client and their representatives for specific application to this site. The work for this project was conducted in a manner consistent with generally accepted environmental science practices for consultants acting under similar conditions in the area, and in accordance with the terms of the client's request. No other warranty is expressed or implied.

If new information on the site is developed during future environmental studies, Bison Environmental, Inc., should be allowed to review this information, to reevaluate the conclusions of this report, and to provide amendments as required.

* * *

We appreciate the opportunity to provide environmental consulting services on this project. Should you have any questions or if there is additional information that you require, please do not hesitate to contact us.

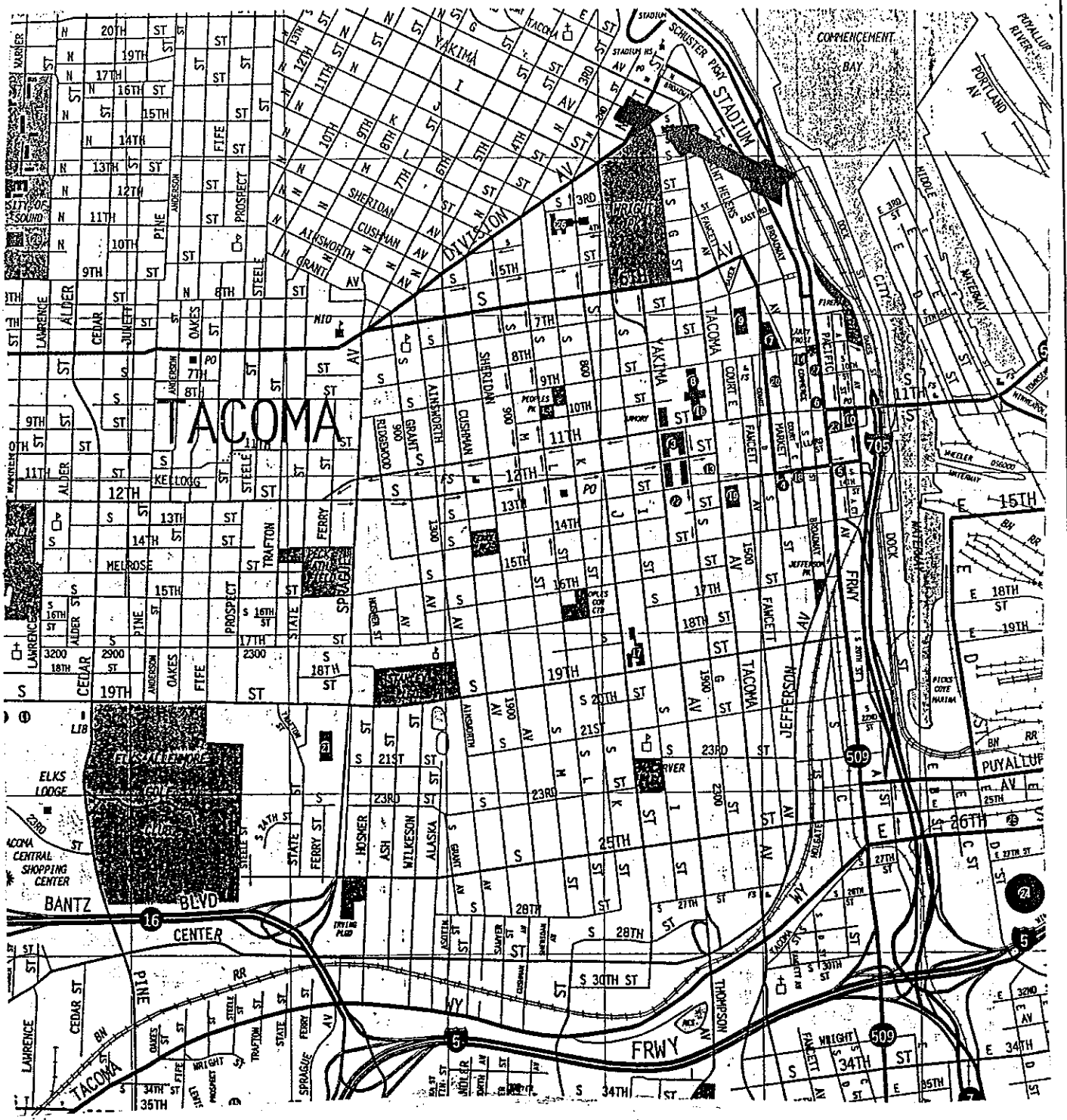
Sincerely,

BISON ENVIRONMENTAL NORTHWEST, INC.

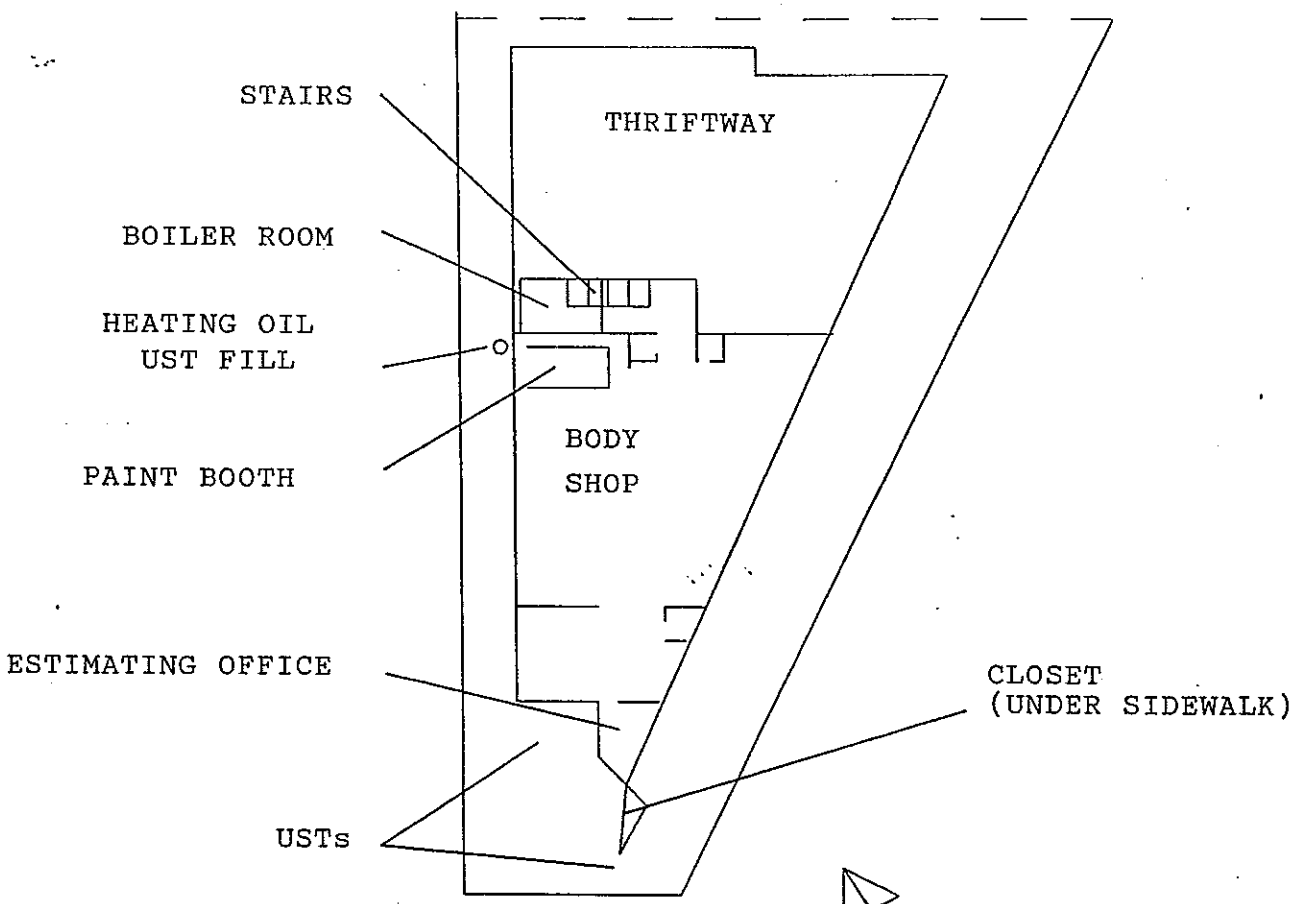
Henry Perrin
Environmental Engineer
WDOE-registered UST Site Assessor

Bill Shuck
President

Attachments: Site Location Map
Site Plans (2)
Soil Logs(5)
Tables A and B: Laboratory Results (3)
Laboratory Reports (19)



SITE LOCATION
BISON ENVIRONMENTAL NORTHWEST, INC.
PROJECT #94481 AUGUST 1994

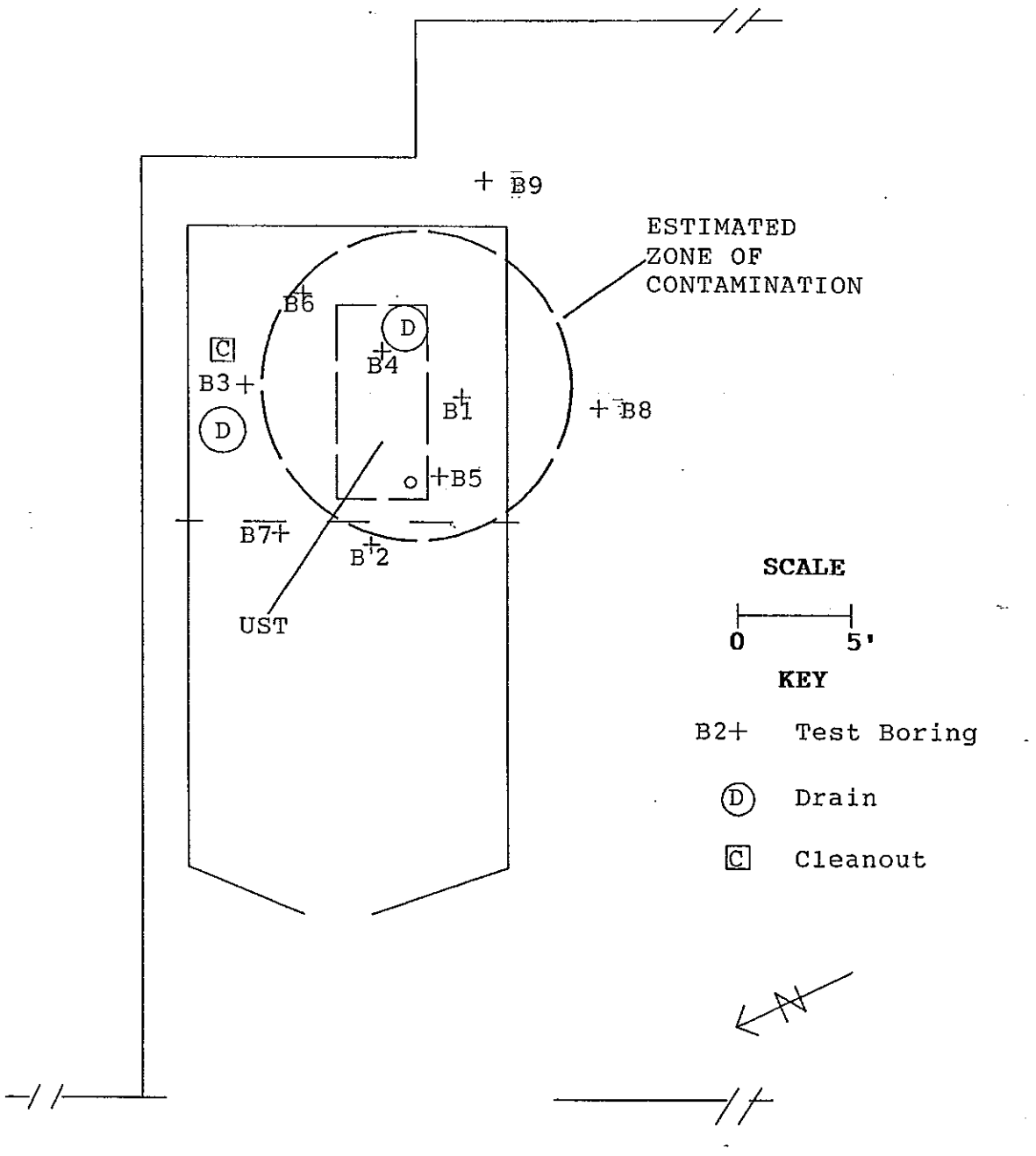


NOTE:
INTERIOR WALL LOCATIONS ARE APPROXIMATE

SCALE

0 50' 100'

SITE PLAN - LOWER FLOOR MAIN BUILDING
BISON ENVIRONMENTAL NORTHWEST, INC.
PROJECT# 94481 AUGUST 1994



SITE PLAN - WALKER CHEVROLET PAINT BOOTH
BISON ENVIRONMENTAL NORTHWEST, INC.
PROJECT# 94481-2 SEPTEMBER 1994

TABLE A:
LABORATORY RESULTS - PREVIOUS STUDY

Sample No./ Location	Analysis	Analyte	Results	Cleanup Level
B1-5.5'	WTPH-418.1	TPH	8,000 ppm	200 ppm
	Total Metals	Barium	43.8 ppm	5,600 ppm*
		Cadmium	50.2 ppm	2 ppm
		Chromium	110 ppm	100 ppm
		Lead	2140 ppm	250 ppm
		As, Cd, SE, & Ag	ND	-
	EPA 8240	Ethylbenzene	2,200 ppb	20,000 ppb
		Isopropylbenzene	1,600 ppb	NA
		p-Isopropyltoluene	480 ppb	NA
		Tetrachloroethene	210 ppb	500 ppb
		Naphthalene	1,100 ppb	320,000 ppb*
		n-Propylbenzne	1,500 ppb	NA
		Toluene	85,000 ppb	40,000 ppb
		1,2,4 Trimethylbenzene	11,000 ppb	NA
		1,3,5 Trimethylbenzene	5,000 ppb	NA
		Total Xylenes	143,000 ppb	20,000 ppb
		Other VOCs		
B2-5.5'	WTPH-418.1	TPH	79 ppm	200 ppm
B3-2'	WTPH-418.1	TPH	96 ppm	200 ppm
	EPA 8240	Toluene	13 ppb	40,000 ppb
		Total Xylenes	5 ppb	20,000 ppb
		Other VOCs	ND	-
B4-3'	WTPH-418.1	TPH	480 ppm	200 ppm
	EPA 8240	Toluene	7 ppb	40,000 ppb
		Total Xylenes	6 ppb	20,000 ppb
		Other VOCs	ND	-

TABLE B:
LABORATORY RESULTS - TEST BORINGS

Sample No./ Location	Analysis	Analyte	Results	Cleanup Level
B5-5'	WTPH-HCID	Hydrocarbons	Gasoline - ND Diesel - ND Oil - Detected	
	WTPH-418.1	TPH	390 ppm	200 ppm
	EPA 8240	Methylene Chloride	26 ppb+	500 ppb
		Toluene	96 ppb+	40,000 ppb
		Total Xylenes	10 ppb	20,000 ppb
		Other VOCs	ND	
B5-7.5'	WTPH-418.1	TPH	2500 ppm	200 ppm
B5-9'	WTPH-418.1	TPH	4400 ppm	200 ppm
B5-10'	WTPH-HCID	Hydrocarbons	Gasoline - ND Diesel - ND Oil - Detected	
	WTPH-418.1	TPH	260 ppm	200 ppm
	EPA 8240	Benzene	24 ppb	500 ppb
		n-Butylbenzene	15 ppb	NA
		sec-Butylbenzene	22 ppb	NA
		Ethylbenzene	130 ppb	20,000 ppb
		Isopropylbenzene	50 ppb	NA
		p-Isopropyltoluene	15 ppb	NA
		Tetrachloroethene	53 ppb	500 ppb
		Methylene Chloride	28 ppb+	500 ppb
		n-Propylbenzene	80 ppb	NA
		Toluene	720 ppb+	40,000 ppb
		1,2,4 Trimethylbenzene	130 ppb	NA
		1,3,5 Trimethylbenzene	170 ppb	NA
		Total Xylenes	790 ppb	20,000 ppb
		Other VOCs	ND	
B6-5'	WTPH-HCID	Hydrocarbons	Gas - Detected Diesel - ND Oil - ND	
	WTPH-G	Gasoline	100 ppm	100 ppm
	EPA 8240	n-Butylbenzene	15 ppb	NA
		sec-Butylbenzene	22 ppb	NA
		Ethylbenzene	690 ppb	20,000 ppb
		p-Isopropyltoluene	83 ppb	NA
		Naphthalene	190 ppb	320,000 ppb
		n-Propylbenzne	99 ppb	NA
		Toluene	8,600 ppb+	40,000 ppb
		1,2,4 Trimethylbenzene	790 ppb	NA
		1,3,5 Trimethylbenzene	300 ppb	NA
		Total Xylenes	7,100 ppb	20,000 ppb
		Other VOCs		

TABLE B (continued)

Sample No./ Location	Analysis	Analyte	Results	Cleanup Level
B6-8'	WTPH-HCID	Hydrocarbons	ND	
	EPA 8240	Ethylbenzene	12 ppb	20,000 ppb
		Toluene	370 ppb+	40,000 ppb
		Total Xylenes	150 ppb	20,000 ppb
		Methylene Chloride	39 ppb+	500 ppb
		1,2,4 Trimethylbenzene	13 ppb	NA
		1,3,5 Trimethylbenzene	6 ppb	NA
		Other VOCs	ND	
B7-4'	WTPH-HCID	Hydrocarbons	ND	
	EPA 8240	Toluene	11 ppb+	40,000 ppb
		Methylene Chloride	41 ppb+	500 ppb
		Other VOCs	ND	
B8-5'	WTPH-HCID	Hydrocarbons	ND	
	EPA 8240	Toluene	14 ppb+	40,000 ppb
		Methylene Chloride	48 ppb+	500 ppb
B9-5'	WTPH-HCID	Hydrocarbons	ND	
	EPA 8240	VOCs	ND	

NOTES:

\+ Compound also appeared in laboratory blank, suggesting cross-contamination in laboratory.

1) ppm indicates parts per million.
2) ppb indicates parts per billion.
3) TPH indicates total petroleum hydrocarbons. The 418.1 analysis is designed for heavy oils, but also reports lighter hydrocarbon fractions.
4) ND denotes none detected. Refer to laboratory reports for detection limits.
5) Unless indicated by asterix, cleanup levels are "Method A" values as specified in the Model Toxics Control Act (MTCA), WAC 173-340. Asterix indicates MTCA Method B value.
6) NA indicates a published MTCA cleanup level for this compound is not currently available.

BISON ENVIRONMENTAL NORTHWEST, INC.
SOIL LOGS - TEST BORINGS

Site Walker Chevrolet - Paint Booth
Project Number 94481-2 Date 09/08/94
Driller Burlington Environmental Logged by Henry Perrin
Boring# B5
Location 11' W, 3' N, of SEC Paint Booth

Sample #	Depth	Group Symbol	Soil Description
	0-1.5'	FILL	8" Concrete Slab +/- 6" Gravel Subgrade
	1.5-4'	SP-SM	Light Brown, gravelly, slightly silty SAND, moist, medium dense to very dense
B5-5'	4-10'	SP-SM	Dark Brown, gravelly, slightly silty SAND, moist, very dense **Faint Hydrocarbon Odors**
B5-7.5'	"	"	"
B5-9'	"	"	"
B5-10'	"	"	"

Groundwater encountered? No Depth
Monitoring Well? No ft screen/blank
Comments Refusal at 10 feet. Boring plugged with bentonite.

BISON ENVIRONMENTAL NORTHWEST, INC.
SOIL LOGS - TEST BORINGS

Site Walker Chevrolet - Paint Booth
Project Number 94481-2 Date 09/08/94
Driller Burlington Environmental Logged by Henry Perrin
Boring# B6
Location 3' W, 5' S, of NEC Paint Booth

Sample #	Depth	Group Symbol	Soil Description
	0-1.5'	FILL	8" Concrete Slab +/- 6" Gravel Subgrade
	1.5-4'	SP-SM	Light Brown, gravelly, silty SAND, moist, medium dense to very dense
B6-5'	4-6'	SP-SM	Blue-gray, gravelly, silty SAND, moist, very dense **Moderate hydrocarbon odors**
B6-8'	6-8'	"	Light Brown, gravelly, slightly silt SAND, moist, very dense

Groundwater encountered? No Depth
Monitoring Well? No ft screen/blank
Comments Refusal at 8 feet. Boring plugged with bentonite.

BISON ENVIRONMENTAL NORTHWEST, INC.
SOIL LOGS - TEST BORINGS

Site Walker Chevrolet - Paint Booth
Project Number 94481-2 Date 09/08/94
Driller Burlington Environmental Logged by Henry Perrin
Boring# B7
Location 13.5' W, 4' S, of NEC Paint Booth

Sample #	Depth	Group Symbol	Soil Description
	0-1.5'	FILL	8" Concrete Slab +/- 6" Gravel Subgrade
B7-4'	1.5-4'	SP-SM	Light Brown, gravelly, slightly silty SAND, moist, very dense

Groundwater encountered? No Depth
Monitoring Well? No ft screen/blank
Comments Refusal at 4 feet. Boring plugged with bentonite.

BISON ENVIRONMENTAL NORTHWEST, INC.
SOIL LOGS - TEST BORINGS

Site Walker Chevrolet - Paint Booth
Project Number 94481-2 Date 09/08/94
Driller Burlington Environmental Logged by Henry Perrin
Boring# B8
Location 8' W, 4' S, of SEC Paint Booth

Sample #	Depth	Group Symbol	Soil Description
	0-1.5'	FILL	6" Concrete Slab +/- 6" Gravel Subgrade
B8-5'	1.5-5'	SP	Light Brown, gravelly, SAND, moist, medium dense to very dense
B8-8'	5-8'	SP-SM	Light Brown, gravelly, silty SAND, moist, very dense

Groundwater encountered? No Depth
Monitoring Well? No ft screen/blank
Comments Refusal at 8 feet. Boring plugged with bentonite.

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Sample ID: #22
Project: 94118-3
Sample Matrix: Soil
Date Sampled: 9-6-94
Date Received: 9-6-94
Spectra Project: S409-028
Spectra #9806
RUSH

Gasoline Concentration by WTPH-HCID, mg/Kg	<20
Diesel Concentration by WTPH-HCID, mg/Kg	<50
Heavy Oil Concentration by WTPH-HCID, mg/Kg	<100
Surrogate Recovery - p-Terphenyl	89%

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Vicrt, Morton
& McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Sample ID: #23
Project: 94118-3
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-028
Spectra #9807 RUSH

Date Extracted: 7-7-94
Date Analyzed: 7-7-94
Dilution: 5
< = less than

POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS METHOD 8270

Compound	mg/Kg	Compound	mg/Kg
Naphthalene	1.00J	Benzo(a)Anthracene	<1.65
2-Methylnaphthalene	<1.65	Chrysene	<1.65
Acenaphthylene	<1.65	Benzo(b)Fluoranthene	<1.65
Acenaphthene	<1.65	Benzo(k)Fluoranthene	<1.65
Fluorene	<1.65	Benzo(a)Pyrene	<1.65
Phenanthrene	<1.65	Indeno(1,2,3-cd)Pyrene	<1.65
Anthracene	<1.65	Dibenz(a,h)Anthracene	<1.65
Fluoranthene	<1.65	Benzo(ghi)Perylene	<1.65
Pyrene	<1.65		

SURROGATE RECOVERIES

Nitrobenzene-d5	59%	Phenol-d5	46%
2-Fluorobiphenyl	120%	2-Fluorophenol	68%
p-Terphenyl-d14	47%	2,4,6-Tribromophenol	104%

Sample contains a wide variety of compounds indicative of petroleum hydrocarbons.

SPECTRA LABORATORIES, INC.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton
& McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

METHOD BLANK
Sample Matrix: Soil
Spectra Project: S409-028
Applies to Spectra #9807

Date Extracted: 7-7-94
Date Analyzed: 7-7-94
Dilution: 1
< = less than

POLYNUCLEAR AROMATIC HYDROCARBON ANALYSIS METHOD 8270

Compound	mg/Kg	Compound	mg/Kg
Naphthalene	<0.33	Benzo(a)Anthracene	<0.33
2-Methylnaphthalene	<0.33	Chrysene	<0.33
Acenaphthylene	<0.33	Benzo(b)Fluoranthene	<0.33
Acenaphthene	<0.33	Benzo(k)Fluoranthene	<0.33
Fluorene	<0.33	Benzo(a)Pyrene	<0.33
Phenanthrene	<0.33	Indeno(1,2,3-cd)Pyrene	<0.33
Anthracene	<0.33	Dibenz(a,h)Anthracene	<0.33
Fluoranthene	<0.33	Benzo(ghi)Perylene	<0.33
Pyrene	<0.33		

SURROGATE RECOVERIES

Nitrobenzene-d5	57%	Phenol-d5	56%
2-Fluorobiphenyl	74%	2-Fluorophenol	66%
p-Terphenyl-d14	38%	2,4,6-Tribromophenol	79%

SPECTRA LABORATORIES, INC.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Sample Matrix: Soil
Sample Spiked: Method Blank
Date Extracted: 7-7-94
Date Analyzed: 7-7-94
Units: mg/Kg
Spectra Project: S409-028
Applies to Spectra #'s

SOIL SEMIVOLATILE MATRIX SPIKE QUALITY CONTROL

	Sample Result	Spike Added	MS Conc.	MS % Rec.	MSD Conc.	MSD Rec.	RPD
Phenol	<0.33	5.0	2.75	55	2.77	55	0
2-Chlorophenol	<0.33	5.0	2.78	56	2.78	56	0
1,4-Dichlorobenzene	<0.33	3.33	1.97	59	2.00	60	2
N-Nitroso-Di-n-Propylamine	<0.33	3.33	2.38	72	2.36	71	1
1,2,4-Trichlorobenzene	<0.33	3.33	2.23	67	2.23	67	0
4-Chloro-3-Methylphenol	<0.33	5.0	3.25	65	3.25	65	0
Acenaphthene	<0.33	3.33	2.41	72	2.40	72	1
4-Nitrophenol	<1.65	5.0	4.27	85	4.15	83	3
2,4-Dinitrotoluene	<0.33	3.33	2.56	77	2.57	77	0
Pentachlorophenol	<1.65	5.0	4.88	98	4.53	91	7
Pyrene	<0.33	3.33	2.21	66	2.22	67	0

SPECTRA LABORATORIES, INC.

Richard J. Forrester
Manager, Organic Chemistry

BISON ENVIRONMENTAL NORTHWEST, INC.

NORTHMARK BUILDING
200 SOUTH 333RD STREET - SUITE 120
FEDERAL WAY, WASHINGTON 98003

OFFICE: 206/838-7261
FAX: 206/927-2610

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project# 9A481-3
Project Name Walker Chew
Client
Results to HENRY

Sample #	Location	Sample Description	Date	Time	Sample Type	Analysis Required
24	Bottom of NW corner AT 20 feet		9-7	9:15	Soil	HCID
25	Overburden Composite West Portion Pile		9-7	9:35	Soil	HCID
26	Overburden Composite East Portion Pile		9-7	1:05	Soil	HCID
27	Overburden Composite North portion		9-7	1:20	Soil	HCID
28	Overburden Composite South Portion		9-7	1:35	Soil	HCID

Sample Type: A=Air B=Bulk S-Soil W-Water Other-Describe

Special Instructions Rush! Bill To: B.V.M. & MG

SIGNATURES: (Name, Company, Date and Time) Laboratory Name: SPECTRA

1. Relinquished by: BENW/ HBank 2:46 9-7-94 2. Relinquished by:

Received by: Mitchell 9-7-94 2:46 pm Received by:

Delivered by: Hand _____ UPS _____ Airborne _____ Fed X _____ Other _____

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

SEP 0 9 1994

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-7-94
Date Received: 9-7-94
Spectra Project: S409-037
RUSH

WTPH-HCID, mg/Kg

Spectra #	Sample ID:	Gasoline Concentration	Diesel Concentration	Heavy Oil Concentration	Surrogate Recovery p-Terphenyl
9828	#24	<20	<50	<100	42*
9829	#25	<20	<50	<100	83
9830	#26	<20	<50	<100	35*
9831	#27	<20	<50	<100	88
9832	#28	<20	<50	<100	86

* Out of limits due to sample matrix effects.

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

BISON ENVIRONMENTAL NORTHWEST, INC.

NORTHMARK BUILDING
200 SOUTH 333RD STREET - SUITE 120
FEDERAL WAY, WASHINGTON 98003

OFFICE: 206/838-7261
FAX: 206/927-2610

CHAIN OF CUSTODY RECORD

SEP 1 2 1994

Page 1 of 1

Project# 94481-3

Project Name WAIKOL Chev.

Client

Results to HENRY PERRIN

Sample #	Location	Sample Description	Date	Time	Sample Type	Analysis Required
S 29	West Wall 10'	Not Small at 15'	9-8	10:15	Soil	HCID 5409-040-9843
S 30	West Wall 15'	Sof North Wall at 16'	9-8	10:20	Soil	HCID 9844
S 31	SE Corner of	Pit at 15-16'	9-8	10:25	Soil	HCID 9845
S	East Wall 20'	North of Sample 31 @ 15'	9-8	10:30	Soil	HCID 9846
S 33	NE Corner of	Pit at 15-16'	9-8	10:35	Soil	HCID 9847
S 34	North Wall 20'	W of Sample 33 @ 15-16'	9-8	10:45	Soil	HCID 9848
S 35	Bottom at 21'	Depth NEasterly most Sample	9-8	1:20	Soil	HCID 9849
S 36	Composite Sample	of Excavated material	9-8	2:00	Soil	418.1 9850

Sample Type: A=Air B=Bulk S-Soil W-Water Other-Describe

Special Instructions Rush!! Bill TO: B.V. M. & MG

SIGNATURES: (Name, Company, Date and Time) Laboratory Name: SPECTRA

1. Relinquished by: BENWI [illegible] 9-8-94 2:25P 2. Relinquished by:

Received by: Debbie Tristan 9-8-94 2:25 Received by:

Delivered by: Hand _____ UPS _____ Airborne _____ Fed X _____ Other _____

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 9, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-8-94
Date Received: 9-8-94
Spectra Project: S409-040
RUSH

WTPH-HCID, mg/Kg

Spectra #	Sample ID:	Gasoline Concentration	Diesel Concentration	Heavy Oil Concentration	Surrogate Recovery p-Terphenyl
9843	S29	<20	<50	<100	84%
9844	S30	<20	<50	<100	101%
9845	S31	<20	<50	<100	97%
9846	S32	<20	<50	<100	155% *
9847	S33	<20	<50	<100	89%
9849	S35	<20	<50	<100	83%

* Out of limits due to sample matrix effects.

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September 9, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: S34
Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-8-94
Date Received: 9-8-94
Spectra Project: S409-040
Spectra #9848
RUSH

Diesel Concentration by WTPH-HCID, mg/Kg	<50

Sample contains gasoline range and heavier than diesel range hydrocarbons.

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September 9, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Sample ID: S36
Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-8-94
Date Received: 9-8-94
Spectra Project: S409-040
Spectra #9850
RUSH

Total Petroleum Hydrocarbons, mg/Kg	210

Total Petroleum Hydrocarbons testing performed by WTPH-418.1 Modified

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September 9, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Method: WTPH-418.1 Mod.
Sample Matrix: Soil
Spectra Project: S409-040
Applies to Spectra #9850

HYDROCARBON ANALYSIS
QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample: Method Blank
Units: mg/Kg

Date Analyzed: 9-7-94

Compound	Sample Result	Spike Amount	Spike Result	% Recovery	Dup. Result	Dup. % Recovery	RPD
TPH	<20	204	216	106	206	101	5

METHOD BLANK

Date Extracted: 9-9-94

Date Analyzed: 9-9-94

Total Petroleum Hydrocarbons, mg/Kg <20

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SPECTRA Laboratories, Inc.

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: S34
Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-8-94
Date Received: 9-9-94
Spectra Project: S409-040
Spectra #9848
RUSH (Additional Testing)

BTEX, EPA Method 8020
Dilution Factor: 1

Date Extracted: 9-12-94
Date Analyzed: 9-12-94
Units: mg/Kg

Benzene	<0.3
Toluene	<0.3
Ethylbenzene	<0.3
Total Xylenes	<0.3

Surrogate Recovery - Trifluorotoluene 81%

WTPH-G, mg/Kg	108

Surrogate Recovery - Trifluorotoluene 88%

Total Petroleum Hydrocarbons, mg/Kg	2,200

Total Petroleum Hydrocarbon testing performed by WTPH-418.1 Modified

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: S36
Project: 94481-3
Sample Matrix: Soil
Date Sampled: 9-8-94
Date Received: 9-9-94
Spectra Project: S409-040
Spectra #9850
RUSH (Additional Testing)

BTEX, EPA Method 8020 Dilution Factor: 1	Date Extracted: 9-12-94 Date Analyzed: 9-12-94 Units: mg/Kg
Benzene	<0.3
Toluene	<0.3
Ethylbenzene	<0.3
Total Xylenes	<0.3
Surrogate Recovery - Trifluorotoluene 84%	
WTPH-G, mg/Kg	<20
Surrogate Recovery - Trifluorotoluene 85%	

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

METHOD BLANK
Sample Matrix: Soil
Spectra Project: S409-040
Applies to Spectra #'s
9848 and 9850

BTEX, EPA Method 8020
Dilution Factor: 1

Date Extracted: 9-12-94
Date Analyzed: 9-12-94
Units: mg/Kg

Benzene	<0.3
Toluene	<0.3
Ethylbenzene	<0.3
Total Xylenes	<0.3

Surrogate Recovery - Trifluorotoluene 103%

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample Matrix: Soil
EPA Method: BETX 8020
Sample Spiked: Method Blank
Date Extracted: 8-31-94
Date Analyzed: 8-31-94
Units: mg/Kg
Spectra Project: S409-040
Applies to Spectra #'s
9848 and 9850

VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL RESULTS

Compound	Sample Result	Spike Amount Added	Spike Amount Found	% Recovery	Dup. Spike Amount Found	% Recovery	RPD
Benzene	<0.30	1.046	0.996	95	1.040	99	4
Toluene	<0.30	1.048	0.880	84	0.903	86	3
Ethylbenzene	<0.30	1.039	1.055	101	1.097	106	4
m,p-Xylene	<0.30	2.060	2.052	100	2.148	104	5
o-Xylene	<0.30	1.020	1.101	108	1.125	110	2

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Method: WTPH-G
Sample Matrix: Soil
Spectra Project: S409-040
Applies to Spectra #'s
9848 and 9850

HYDROCARBON ANALYSIS
QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample: Method Blank
Units: mg/Kg

Date Extracted: 8-31-94
Date Analyzed: 8-31-94

Compound	Sample Result	Spike Amount	Spike Result	% Recovery	Dup. Result	Dup. % Recovery	RPD
Gasoline	<20	52	55	106	59	113	7

METHOD BLANK

Date Extracted: 9-12-94

Date Analyzed: 9-12-94

WTPH-G, mg/Kg

<20

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September 12, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Method: WTPH-418.1 Mod.
Sample Matrix: Soil
Spectra Project: S409-040
Applies to Spectra #9848

HYDROCARBON ANALYSIS
QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample: Method Blank
Units: mg/Kg

Date Analyzed: 9-7-94

Compound	Sample Result	Spike Amount	Spike Result	% Recovery	Dup. Result	Dup. % Recovery	RPD
TPH	<20	204	216	106	206	101	5

METHOD BLANK

Date Extracted: 9-12-94

Date Analyzed: 9-12-94

Total Petroleum Hydrocarbons, mg/Kg <20

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BISON ENVIRONMENTAL NORTHWEST, INC.

CHAIN OF CUSTODY RECORD

Page 1 of 1

NORTHMARK BUILDING
200 SOUTH 333RD STREET - SUITE 120
FEDERAL WAY, WASHINGTON 98003
OFFICE: 206/838-7261
FAX: 206/927-2610

Project# 91481-3
Project Name WAIKOL Chev.
Client
Results to HENRY PEERIN

mple #	Location	Sample Description	Date	Time	Sample Type	Analysis Required
29	WEST WALL 10'	Not Small AT 15'	9-8	10:15	Soil	HCID 5409-640-9843
30	WEST WALL 15'	Sat NORTH WALL AT 16'	9-8	10:20	Soil	HCID 9844
31	SE CORNER OF	PIT AT 15-16'	9-8	10:25	Soil	HCID 9845
32	EAST WALL 20'	North of Sample 31 @ 15'	9-8	10:30	Soil	HCID 9846
33	NE CORNER OF	PIT AT 15-16'	9-8	10:35	Soil	HCID 9847
34	NORTH WALL 20'	N of Sample 33 A 15-16'	9-8	10:45	Soil	HCID 9848
35	BOTTOM AT 21'	DEPTH NEAREST MOST Sample	9-8	1:20	Soil	HCID 9849
36	COMPOSITE SAMPLE	OF EXCAVATED MATERIAL	9-8	2:00	Soil	418.1 9850

Sample Type: A=Air B=Bulk S-Soil W-Water Other-Describe

cial Instructions Rush!! BILL TO: B.V. M. & MG

NATURES: (Name, Company, Date and Time) Laboratory Name: SPECTRA

Relinquished by: BENW/ [signature] 9-8-94 2:25P 2. Relinquished by:

Received by: Debbie Trotter 9-8-94 2:25 Received by:

'vered by: Hand ____ UPS ____ Airborne ____ Fed X ____ Other ____

BISON ENVIRONMENTAL NORTHWEST, INC.

NORTHMARK BUILDING
200 SOUTH 333RD STREET. - SUITE 120
FEDERAL WAY, WASHINGTON 98003

OFFICE: 206/838-7261
FAX: 206/927-2610

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project# 94491-3
Project Name Water
Client
Results to Henry Perrin

Sample #	Location	Sample Description	Date	Time	Sample Type	Analysis Required
537	N well a)	6	9/12	2:43	S	WTPH-HCID

Sample Type: A=Air B=Bulk S-Soil W-Water Other-Describe

Special Instructions Bill to B, V, M, + M RUSH Please Call as soon as results are known.

SIGNATURES: (Name, Company, Date and Time) Laboratory Name: Spectra

1. Relinquished by: BENW 9/12/94 2. Relinquished by:

Received by: Marie Holt Spectra 9/12/94 3:00 PM Received by:

Delivered by: Hand ✓ UPS _____ Airborne _____ Fed X _____ Other _____

SPECTRA Laboratories, Inc.

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September 13, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Sample ID: S-37
Project: Walker
Sample Matrix: Soil
Date Sampled: 9-12-94
Date Received: 9-12-94
Spectra Project: S409-065
Spectra #9932
RUSH

Gasoline Concentration by WTPH-HCID, mg/Kg	<20
Diesel Concentration by WTPH-HCID, mg/Kg	<50
Heavy Oil Concentration by WTPH-HCID, mg/Kg	<100
Surrogate Recovery - p-Terphenyl	85%

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

APPENDIX C

UST Closure Checklist
UST Destruction Certificate

09/13/1994 09:34 2069260815 FIFE SAND & GRAVEL PAGE 01

Post-it™ brand
Fax Transmittal Memo 672

To Henry
Company Bisl
Location
Fax # 927 2610

No. of Pages 1
From
Company Fife Sand + Gravel
Location Dept. Charge
Fax # 926 0815 Telephone # 922 7710

Today's Date 9-13-94 Time 10:30AM

Original Disposition: ☐ Destroy ☐ Return ☐ Call for pickup

Comments

Need ANYTHING else?? Give us a call.

Fife

SAND & GRAVEL

3120 Freeman Road East
Puyallup, Washington 98371-1838
Phone: (206) 922-7710

Mike & Kathy Kelley

September 13, 1994

DAVE SHAW
Walker Chevrolet
633 Division Ave
Tacoma, WA 98403

CERTIFICATE OF TANK DISPOSAL

This document serves as certification that 3 (three) 500 gallon underground storage tanks have been removed from Walker Chevrolet and were disposed of in accordance with all Federal, State and Local rules at General Metals in Tacoma.

BY: M L Kelley

BISON ENVIRONMENTAL NORTHWEST, INC.
SOIL LOGS - TEST BORINGS

Site Walker Chevrolet - Paint Booth
Project Number 94481-2 Date 09/08/94
Driller Burlington Environmental Logged by Henry Perrin
Boring# B9
Location 2' E, 1' N, of SEC Paint Booth

Sample #	Depth	Group Symbol	Soil Description
	0-1.5'	FILL	6" Concrete Slab +/- 6" Gravel Subgrade
B9-5'	1.5-5'	SP	Light Brown, gravelly, SAND, moist, medium dense to very dense
B9-8'	5-8'	SP-SM	Grayish Brown, gravelly, slightly silty SAND, moist, very dense

Groundwater encountered? No Depth
Monitoring Well? No ft screen/blank
Comments Refusal at 8 feet. Boring plugged with bentonite.

SPECTRA Laboratories, Inc.

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September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B5-5
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Date Received: 9-7-94
Spectra Project: S409-030
Spectra #9809
RUSH

Total Petroleum Hydrocarbons, mg/Kg	390
Gasoline Concentration by WTPH-HCID, mg/Kg	<20
Diesel Concentration by WTPH-HCID, mg/Kg	<50

Sample contains heavier than diesel range hydrocarbons

Surrogate Recovery - p-Terphenyl 90%

Total Petroleum Hydrocarbon testing performed by WTPH-418.1 Modified

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

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September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B5-5
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 1
< = less than
Spectra #9809 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichloroethene	156-60-5	<5
Benzene	71-43-2	<5	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	<5
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	<5	Isopropylbenzene	98-82-8	<5
sec-Butylbenzene	135-98-8	<5	p-Isopropyltoluene	99-87-6	<5
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	26B
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	<5
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	<5
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	96B
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	<5
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	<5
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	10

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	111%
Toluene-d8	108%
4-Bromofluorobenzene	126%*

B = Also found in blank. The sample result should be reduced by the amount found in the blank.

* Surrogates out of limits due to matrix effects.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B5-10
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Date Received: 9-7-94
Spectra Project: S409-030
Spectra #9810
RUSH

Total Petroleum Hydrocarbons, mg/Kg	260
Gasoline Concentration by WTPH-HCID, mg/Kg	<20
Diesel Concentration by WTPH-HCID, mg/Kg	<50

Sample contains heavier than diesel range hydrocarbons

Surrogate Recovery - p-Terphenyl 54%

Total Petroleum Hydrocarbon testing performed by WTPH-418.1 Modified

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

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September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B5-10
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 1
< = less than
Spectra #9810 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichloroethene	156-60-5	<5
Benzene	71-43-2	24	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	130
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	15	Isopropylbenzene	98-82-8	50
sec-Butylbenzene	135-98-8	22	p-Isopropyltoluene	99-87-6	15
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	28B
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	80
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	53
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	720B
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	130
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	70
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	790

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	113%
Toluene-d8	118%*
4-Bromofluorobenzene	123%*

Sample contains a wide variety of compounds indicative of petroleum hydrocarbons.

B = Also found in blank. The sample result should be reduced by the amount found in the blank.

* Surrogates out of limits due to matrix effects.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

SEP 12 1994

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B6-5
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Date Received: 9-7-94
Spectra Project: S409-030
Spectra #9811
RUSH

Diesel Concentration by WTPH-HCID, mg/Kg	<50
Heavy Oil Concentration by WTPH-HCID, mg/Kg	<100
Surrogate Recovery - p-Terphenyl 81%	

Sample contains heavier than diesel range hydrocarbons.

WTPH-G, mg/Kg	100
Surrogate Recovery - Trifluorotoluene 89%	

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B6-5
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 10
< = less than
Spectra #9811 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<500	trans-1,2-Dichloroethene	156-60-5	<50
Benzene	71-43-2	<50	1,2-Dichloropropane	78-87-5	<50
Bromobenzene	108-86-1	<50	1,3-Dichloropropane	142-28-9	<50
Bromochloromethane	74-97-5	<50	2,2-Dichloropropane	594-20-7	<50
Bromodichloromethane	75-27-4	<50	1,1-Dichloropropene	563-58-6	<50
Bromoform	75-25-2	<50	Ethylbenzene	100-41-4	690
Bromomethane	74-83-9	<100	2-Hexanone (MBK)	591-78-6	<500
2-Butanone (MEK)	78-98-3	<500	Hexachlorobutadiene	87-68-3	<50
n-Butylbenzene	104-51-8	190	Isopropylbenzene	98-82-8	<50
sec-Butylbenzene	135-98-8	66	p-Isopropyltoluene	99-87-6	82
tert-Butylbenzene	98-06-6	<50	Methylene chloride	75-09-2	<200
Carbon tetrachloride	56-23-5	<50	4-Methyl-2-pentanone (MIBK)	108-10-1	<500
Chlorobenzene	108-90-7	<50	Naphthalene	91-20-3	190
Chlorodibromomethane	124-48-1	<50	n-Propylbenzene	103-65-1	99
Chloroethane	75-00-3	<100	Styrene	100-42-5	<50
Chloroform	67-66-3	<50	1,1,1,2-Tetrachloroethane	630-20-6	<50
Chloromethane	74-87-3	<100	1,1,2,2-Tetrachloroethane	79-34-5	<50
2-Chlorotoluene	95-49-8	<50	Tetrachloroethene	127-18-4	<50
4-Chlorotoluene	106-43-4	<50	Toluene	108-88-3	8,600
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<500	1,2,3-Trichlorobenzene	87-61-6	<50
1,2-Dibromoethane (EDB)	106-93-4	<100	1,2,4-Trichlorobenzene	120-82-1	<50
Dibromomethane	74-95-3	<50	1,1,1-Trichloroethane	71-55-6	<50
1,2-Dichlorobenzene	95-50-1	<50	1,1,2-Trichloroethane	79-00-5	<50
1,3-Dichlorobenzene	541-73-1	<50	Trichloroethene	79-01-6	<50
1,4-Dichlorobenzene	106-46-7	<50	Trichlorofluoromethane	75-69-4	<50
Dichlorodifluoromethane	75-71-8	<100	1,2,3-Trichloropropane	96-18-4	<50
1,1-Dichloroethane	75-34-3	<50	1,2,4-Trimethylbenzene	95-63-6	790
1,2-Dichloroethane	107-06-2	<50	1,3,5-Trimethylbenzene	108-67-8	300
1,1-Dichloroethene	75-35-4	<50	Vinyl chloride	75-01-4	<100
cis-1,2-Dichloroethene	156-59-2	<50	Total xylenes	---	7,100

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	108%
Toluene-d8	114%
4-Bromofluorobenzene	110%

Sample contains a wide variety of compounds indicative of petroleum hydrocarbons.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B6-8
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 1
< = less than
Spectra #9812 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichloroethene	156-60-5	<5
Benzene	71-43-2	<5	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	12
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	<5	Isopropylbenzene	98-82-8	<5
sec-Butylbenzene	135-98-8	<5	p-Isopropyltoluene	99-87-6	<5
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	39B
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	<5
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	<5
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	370
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	13
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	6
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	150

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	110%
Toluene-d8	110%
4-Bromofluorobenzene	108%

Sample contains a wide variety of compounds indicative of petroleum hydrocarbons.
B = Also found in blank. The sample result should be reduced by the amount found in the blank.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B7-4
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 1
< = less than
Spectra #9813 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichloroethene	156-60-5	<5
Benzene	71-43-2	<5	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	<5
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	<5	Isopropylbenzene	98-82-8	<5
sec-Butylbenzene	135-98-8	<5	p-Isopropyltoluene	99-87-6	<5
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	41B
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	<5
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	<5
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	11B
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	<5
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	<5
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	<5

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	108%
Toluene-d8	109%
4-Bromofluorobenzene	102%

B = Also found in blank. The sample result should be reduced by the amount found in the blank.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample ID: B8-5
Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Spectra Project: S409-030

Date Received: 9-7-94
Date Analyzed: 9-7-94
Dilution: 1
< = less than
Spectra #9814 RUSH

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichlorocthene	156-60-5	<5
Benzene	71-43-2	<5	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	<5
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	<5	Isopropylbenzene	98-82-8	<5
sec-Butylbenzene	135-98-8	<5	p-Isopropyltoluene	99-87-6	<5
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	48B
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	<5
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	<5
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	14B
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	<5
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	<5
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	<5

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	92%
Toluene-d8	110%
4-Bromofluorobenzene	106%

B = Also found in blank. The sample result should be reduced by the amount found in the blank.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Project: 94481-2
Sample Matrix: Soil
Date Sampled: 9-6-94
Date Received: 9-7-94
Spectra Project: S409-030
RUSH

WTPH-HCID, mg/Kg

Spectra #	Sample ID:	Gasoline Concentration	Diesel Concentration	Heavy Oil Concentration	Surrogate Recovery p-Terphenyl
9812	B6-8	<20	<50	<100	111%
9813	B7-4	<20	<50	<100	83%
9814	B8-5	<20	<50	<100	90%

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

METHOD BLANK
Sample Matrix: Soil
Spectra Project: S409-030
Spectra #9809

Date Analyzed: 9-7-94
Dilution: 1
< = less than

VOLATILE ORGANIC COMPOUNDS — **EPA METHOD 8260**

Compound	CAS#	ug/Kg	Compound	CAS#	ug/Kg
Acetone	67-64-1	<50	trans-1,2-Dichloroethene	156-60-5	<5
Benzene	71-43-2	<5	1,2-Dichloropropane	78-87-5	<5
Bromobenzene	108-86-1	<5	1,3-Dichloropropane	142-28-9	<5
Bromochloromethane	74-97-5	<5	2,2-Dichloropropane	594-20-7	<5
Bromodichloromethane	75-27-4	<5	1,1-Dichloropropene	563-58-6	<5
Bromoform	75-25-2	<5	Ethylbenzene	100-41-4	<5
Bromomethane	74-83-9	<10	2-Hexanone (MBK)	591-78-6	<50
2-Butanone (MEK)	78-98-3	<50	Hexachlorobutadiene	87-68-3	<5
n-Butylbenzene	104-51-8	<5	Isopropylbenzene	98-82-8	<5
sec-Butylbenzene	135-98-8	<5	p-Isopropyltoluene	99-87-6	<5
tert-Butylbenzene	98-06-6	<5	Methylene chloride	75-09-2	24
Carbon tetrachloride	56-23-5	<5	4-Methyl-2-pentanone (MIBK)	108-10-1	<50
Chlorobenzene	108-90-7	<5	Naphthalene	91-20-3	<5
Chlorodibromomethane	124-48-1	<5	n-Propylbenzene	103-65-1	<5
Chloroethane	75-00-3	<10	Styrene	100-42-5	<5
Chloroform	67-66-3	<5	1,1,1,2-Tetrachloroethane	630-20-6	<5
Chloromethane	74-87-3	<10	1,1,2,2-Tetrachloroethane	79-34-5	<5
2-Chlorotoluene	95-49-8	<5	Tetrachloroethene	127-18-4	<5
4-Chlorotoluene	106-43-4	<5	Toluene	108-88-3	6
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8	<50	1,2,3-Trichlorobenzene	87-61-6	<5
1,2-Dibromoethane (EDB)	106-93-4	<10	1,2,4-Trichlorobenzene	120-82-1	<5
Dibromomethane	74-95-3	<5	1,1,1-Trichloroethane	71-55-6	<5
1,2-Dichlorobenzene	95-50-1	<5	1,1,2-Trichloroethane	79-00-5	<5
1,3-Dichlorobenzene	541-73-1	<5	Trichloroethene	79-01-6	<5
1,4-Dichlorobenzene	106-46-7	<5	Trichlorofluoromethane	75-69-4	<5
Dichlorodifluoromethane	75-71-8	<10	1,2,3-Trichloropropane	96-18-4	<5
1,1-Dichloroethane	75-34-3	<5	1,2,4-Trimethylbenzene	95-63-6	<5
1,2-Dichloroethane	107-06-2	<5	1,3,5-Trimethylbenzene	108-67-8	<5
1,1-Dichloroethene	75-35-4	<5	Vinyl chloride	75-01-4	<10
cis-1,2-Dichloroethene	156-59-2	<5	Total xylenes	---	10

CAS# = Chemical Abstract Services Registry Number

VOA Surrogate Percent Recoveries

Dibromofluoromethane	110%
Toluene-d8	107%
4-Bromofluorobenzene	101%

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
P.O. Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

Sample Matrix: Soil
EPA Method: 8260
Sample Spiked: Method Blank
Date Analyzed: 8-25-94
Units: ug/Kg
Spectra Project: S409-030
Applies to Spectra #'s
9809 - 9814

GCMS VOLATILE ORGANIC ANALYSIS
QUALITY CONTROL RESULTS

Compound	Sample Result	Spike Amount Added	Spike Amount Found	% Recovery	Dup. Spike Amount Found	% Recovery	RPD
1,1-Dichloroethene	<5	50.0	48.3	97	49.8	100	3
Trichloroethene	<5	50.0	43.9	88	43.9	88	0
Benzene	<5	50.0	47.9	96	48.0	96	0
Toluene	<5	50.0	46.6	93	45.5	91	2
Chlorobenzene	<5	50.0	44.1	88	42.0	84	5

SPECTRA LABORATORIES, INC.

Richard J. Forrester
Manager, Organic Chemistry

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton, & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Method: WTPH-418.1 Mod.
Sample Matrix: Soil
Spectra Project: S409-030
Applies to Spectra #'s
9809 and 9810

HYDROCARBON ANALYSIS
QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample: Method Blank
Units: mg/Kg

Date Analyzed: 8-29-94

Compound	Sample Result	Spike Amount	Spike Result	% Recovery	Dup. Result	Dup. % Recovery	RPD
TPH	<20	204	189	92	187	92	1

METHOD BLANK

Date Extracted: 9-8-94

Date Analyzed: 9-8-94

Total Petroleum Hydrocarbons, mg/Kg <20

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

SPECTRA Laboratories, Inc.

2221 Ross Way • Tacoma, WA 98421 • (206) 272-4850

September 8, 1994

Bonneville, Viert, Morton & McGoldrick
PO Box 1533
Tacoma, WA 98401

Attn: Dale Schuman

METHOD BLANK
Sample Matrix: Soil
Date Analyzed: 9-8-94
Spectra Project: S409-030
Spectra #9811

WTPH-G, mg/Kg	<20

Surrogate Recovery - Trifluorotoluene 113%

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September 8, 1994

Bonneville, Viert, Morton & McGoldrick
PO Box 1533
Tacoma WA 98401

Attn: Dale Schuman

Method: WTPH-G
Sample Matrix: Soil
Spectra Project: S409-030
Applies to Spectra #9811

HYDROCARBON ANALYSIS
QUALITY CONTROL RESULTS

MS/MSD

Spiked Sample: Method Blank
Units: mg/Kg

Date Extracted: 8-31-94
Date Analyzed: 8-31-94

Compound	Sample Result	Spike Amount	Spike Result	% Recovery	Dup. Result	Dup. % Recovery	RPD
Gasoline	<20	52	55	106	59	113	7

METHOD BLANK

Date Extracted: 9-8-94

Date Analyzed: 9-8-94

WTPH-G, mg/Kg

<20

SPECTRA LABORATORIES, INC.

Steven G. Hibbs, Chemist

BISON ENVIRONMENTAL NORTHWEST, INC.

NORTHMARK BUILDING
200 SOUTH 333RD STREET, - SUITE 120 OFFICE: 206/838-7261
FEDERAL WAY, WASHINGTON 98003 FAX: 206/927-2610

CHAIN OF CUSTODY RECORD

Page 1 of 1

Project# 94481-2
Project Name Walker
Client
Results to

5409-030

Sample #	Location	Sample Description	Date	Time	Sample Type	Analysis Required	
B5-5'			9/6	915	S	HCID, 8240-Volatiles	980
B5-7.5'				950		HOLD	981
B5-9'				955		HOLD	981
B5-10'				1015		HCID 8240	981
B6-5'				1130		HCID 8240	981
B6-8'				1200		HCID, 8240	981
B7-4'				200		HCID, 8240	9813
B8-5'				310		HCID, 8240	981
B5-5'				400		HOLD	981
B9-5'				450		HOLD	981
B9-8'				520		HOLD	981

Sample Type; A=Air B=Bulk S-Soil W-Water Other-Describe

Special Instructions Rush! Bill to B.M. Walker — Start any quantitatives immediately, page Henry @ 314-6761 as results come in.

SIGNATURES: (Name, Company, Date and Time) Laboratory Name: Spectra

1. Relinquished by: BENW 5:30 PM 9/7/94 2. Relinquished by:

Received by: Debbie Tichy 8:50 9/7/94 Received by:

Delivered by: Hand ✓ UPS Airborne Fed X Other

WASHINGTON STATE DEPARTMENT OF ECOLOGY

UNDERGROUND STORAGE TANK TEMPORARY/PERMANENT CLOSURE and SITE ASSESSMENT NOTICE

See back of form for instructions
Please ☑ the appropriate box(es)
Please type or print information

For Office Use Only
Owner # U0010943
Site # 102326

☐ Temporary Tank Closure ☑ Permanent Tank Closure ☐ Change-In-Service ☐ Site Assessment/Site Check

RECEIVED SEP 22 1994 DEPT. OF ECOLOGY

SITE INFORMATION:

Site ID Number (on invoice or available from Ecology if the tanks are registered): 102326

Site/Business Name: Walker Chevrolet - North Parking Lot

Site Address: 633 Division Ave (Street) Telephone: (206) 627-311

Tacoma (City) WA (State) 98403 (ZIP-Code)

TANK INFORMATION:

Tank ID	Closure Date	Tank Capacity	Substance Stored
1	8/26/94	500 gallons	Unknown
2	"	"	"
3	"	"	"

RECEIVED SEP 16 1994 ECOLOGY

CONTAMINATION PRESENT AT THE TIME OF CLOSURE

☑ Yes ☐ No ☐ Unknown

Check unknown if no obvious contamination was observed and sample results have not yet been received from analytical lab.

UST SYSTEM OWNER/OPERATOR:

UST Owner/Operator: Walker Chevrolet - Dave Shaw

Owners Signature: [signature] Telephone: (206) 627-3111

Address: 633 Division Ave (Street)

Tacoma (City) WA (P.O. Box State) 98403 (ZIP-Code)

TANK CLOSURE/CHANGE-IN-SERVICE PERFORMED BY:

Service Provider: Fife Sand & Gravel License Number: 500124B

Licensed Supervisor: M L Kelly Decommissioning License Number: W 000724

Supervisors Signature: [signature]

Address: 3120 Freeman Rd. E. (Street)

Puyallup (City) WA (State) 98371-1838 (P.O. Box ZIP-Code)

Telephone: (206) 922-7710

SITE CHECK/SITE ASSESSMENT CONDUCTED BY:

Name of Registered Site Assessor: Henry Perrin - Bison Environmental NW

Telephone: (206) 838-7281

Address: 200 S 333rd St Ste 120 (Street)

Federal Way (City) WA (P.O. Box State) 98003 (ZIP-Code)

ECY 020-34