EMCON
18912 North Creek Parkway • Suite 100 • Bothell, Washington 98011-8016 • **(206) 485-5000** • Fax (206) 486-9766

September 30, 1996
Project 40358-017.002

Ms. Reta Jensen
Monroe Auto Salvage
426 Fremont Street
Monroe, Washington 98272

Re: Monroe Auto Salvage Groundwater Monitoring - August 1996 Sampling

Dear Ms. Jensen:

This letter report summarizes the results of August groundwater sampling conducted at the Monroe Auto Salvage site located at 426 Fremont Street in Monroe, Washington. The purpose of the groundwater sampling was to collect data to evaluate groundwater at the site. Groundwater samples were collected on August 21, 1996 following procedures in the Sampling and Analysis Plan prepared by EMCON on February 29, 1996.

Sample Collection

The proposed groundwater sampling included collection of samples from wells MW-1, MW-2, MW-3, MW-4, HC-4, and HC-5. Monitoring well MW-1 was dry at the time of sampling and well HC-4 could not be located; therefore, these two wells were not sampled. Groundwater samples were collected from wells MW-2, MW-3, MW-4, and HC-5, and a field duplicate sample was collected from well MW-2. Groundwater samples were submitted for laboratory analysis of total petroleum hydrocarbons as gasoline (TPH-G), as diesel (TPH-D), and as oil (TPH-O), total and dissolved cadmium, chromium, and lead, polychlorinated biphenyls (PCBs), and total suspended solids (TSS).

Groundwater Flow Direction

Groundwater levels were measured in monitoring wells MW-2, MW-3, MW-4, and HC-5 prior to sampling on August 21, 1996. Depth to groundwater varied from approximately 22 to 27 feet below ground surface. Groundwater elevations varied from 50.59 feet in HC-5 to 55.84 feet in MW-4. The groundwater elevations and measured field parameters from the May and August sampling are presented in Table 1. Measured groundwater elevations dropped from 0.99 feet at well MW-2 to 3.2 feet at well MW-4 between the May and August sampling events. Groundwater elevations are shown on Figure 1. Based

on surface topography, previous groundwater level measurements, and the August 21 groundwater level measurements, the hydraulic gradient is estimated to range from approximately 0.003 feet/foot in the northeast part of the site to approximately 0.007 feet/foot in the southwest part of the site.

Laboratory Results

Results of groundwater sample analyses are presented in Tables 2 and 3. All sample analyses except dissolved metals were conducted on unfiltered groundwater samples. PCBs, TPH-G, TPH-O, and cadmium were not detected in any of the groundwater samples. TPH-D was only detected in the sample from MW-2 and its duplicate, at concentrations of 0.346 mg/L and 0.308 mg/L. Total chromium was detected in wells MW-4 and HC-5 at concentrations of 50 µg/L and 103 µg/L, respectively. Dissolved chromium was only detected in the sample from HC-5, at a concentration of 6 µg/L. Total lead was detected in samples from wells MW-4 and HC-5 at concentrations of 5 µg/L and 10 µg/L, respectively. Dissolved lead was not detected in any samples. The only metal that was detected in the dissolved fraction was chromium at a concentration of 6 µg/L. Results indicate that the detected total metals concentrations are likely associated with soil particulate. Total suspended solids concentrations ranged from non-detect to 48 mg/L, and the higher metals concentrations were associated with the higher suspended solids concentrations.

Conclusions

TPH was not detected in the groundwater samples except for TPH-D at MW-2. The average detected concentration (0.328 mg/L) was below the Method A cleanup level of 1 mg/L and was also less than the average concentration of TPH-D (0.465 mg/L) measured during May at MW-2. Total chromium, total lead, and dissolved chromium were the only detected metals. Total and dissolved chromium concentrations were less than the Method C cleanup level. The total lead concentration reported in well HC-5 (10 µg/L) was greater than the Method A cleanup level. The total lead concentration appears to be associated with particulate; the dissolved lead concentration for this well was non-detect.

Please feel free to call if you have any questions or would like to discuss any findings.

Sincerely,

EMCON

John Virgin
Environmental Scientist

Linda Dawson
Director of Environmental Services

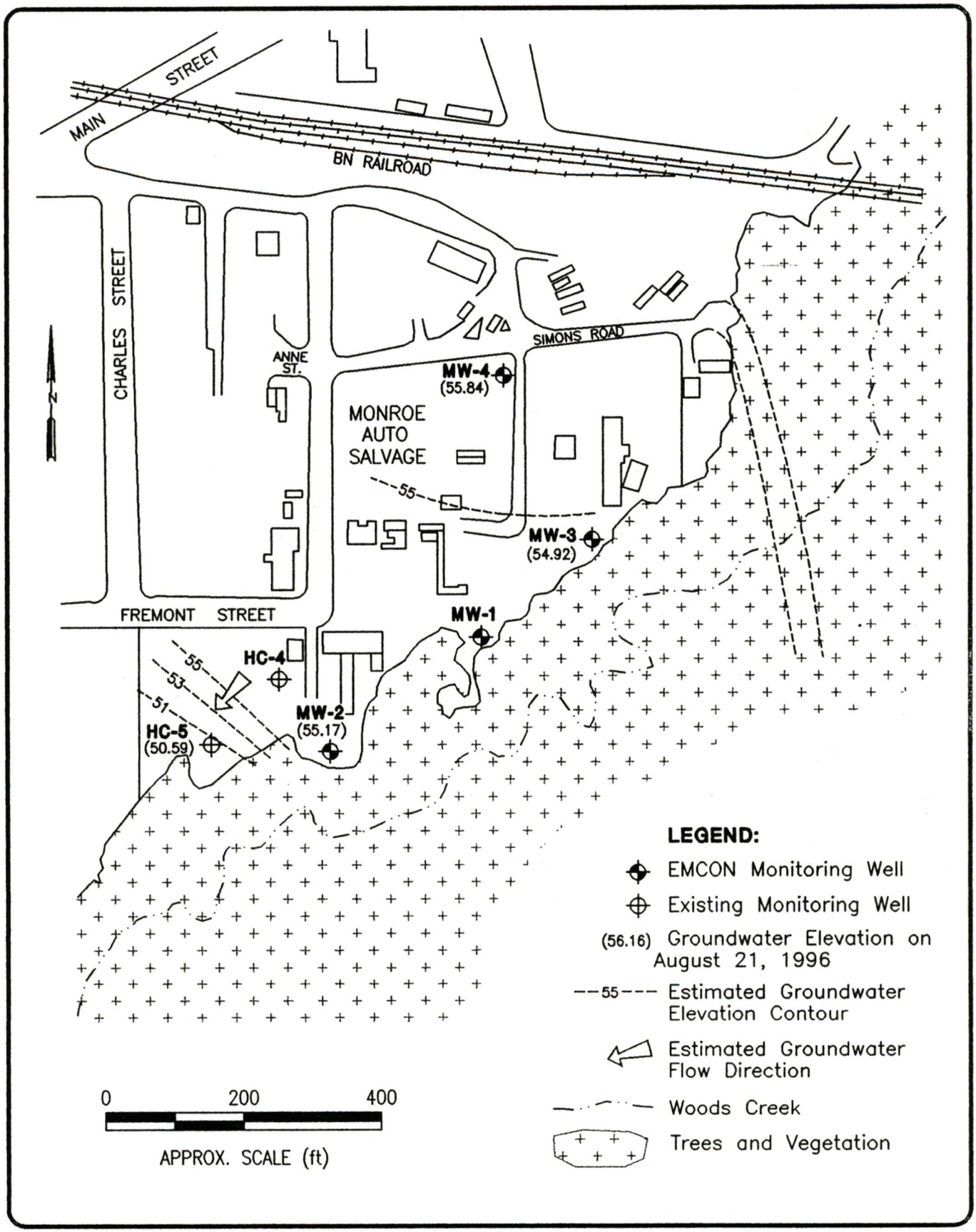
Attachments: Limitations
Figure 1 - Monitoring Well Locations
Table 1 - Groundwater Sample Field Measurements
Table 2 - Groundwater Sample TPH and Metals Results
Table 3 - Groundwater Sample PCB Results
Attachment A - Data Validation Results and Laboratory Data

cc w/att: Jim Crane; Copeland, Landye, Bennett and Wolf, LLP
John Sainsbury; USEPA Region 10
Gary Hanada, Snohomish Health District
Gail Colburn; Department of Ecology NWRO

LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.



EMCON

DATE 9-96
DWN. MLP
REV.
APPR.
PROJECT NO.
40358-017.002

Figure 1
MONROE AUTO SALVAGE SITE INVESTIGATION
MONROE, WASHINGTON
GROUNDWATER ELEVATIONS AUGUST 21, 1996

1= 200 7-24-96 G:\DWG\0358\017\002\BO002N01

Table 1

Groundwater Sample Field Measurements
Groundwater Monitoring - August 1996
Monroe Auto Salvage

Field Parameter	Monitoring Well Units	Date	MW-2	MW-3	MW-4	HC-5
Water elevation[a]	feet NAVD	5/23/96	56.16	56.30	57.66	52.46
		8/21/96	55.17	54.92	55.84	50.59
pH	standard units	5/23/96	6.13	5.95	6.40	6.08
		8/21/96	5.69	6.90	7.20	7.26
Specific Conductance	µmhos/cm	5/23/96	128	135	414	111
		8/21/96	119	143	665	151
Temperature	degrees C	5/23/96	12.4	11.9	11.6	15.8
		8/21/96	12.0	13.0	15.0	14.0
Turbidity	Ntu	5/23/96	10	75	>1000[b]	247
		8/21/96	4.7	47	>1000	>1000
Dissolved Oxygen	mg/L	5/23/96	6.04	4.61	6.24	6.26
		8/21/96	1.8	1.8	1.6	2.7

Notes:

[a] Groundwater elevation referenced to NAVD 1988.

[b] > indicates value was greater than the concentration indicated

Table 2
Groundwater Sample TPH and Metals Results
Groundwater Monitoring - August 1996
Monroe Auto Salvage

Analytical Parameter	Date Collected	Units	Results of Analyses					Method C Cleanup Level[b]
			MW-2[a]	MW-3	MW-4	HC-5	MW-5[a]	
TPH-G	5/23/96	mg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1
	8/21/96	mg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
TPH-D	5/23/96	mg/L	0.460[c]	< 0.250	< 0.250	< 0.250	0.470[c]	1
	8/21/96	mg/L	0.346[c]	< 0.250	< 0.250	< 0.250	0.308[c]	
TPH-O	5/23/96	mg/L	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750	1
	8/21/96	mg/L	< 0.750	< 0.750	< 0.750	< 0.750	< 0.750	
Cadmium, total	5/23/96	µg/L	< 4	< 4	< 4	< 4	< 4	17.5
	8/21/96	µg/L	< 4	< 4	< 4	< 4	< 4	
Cadmium, dissolved	5/23/96	µg/L	< 4	< 4	< 4	< 4	< 4	--
	8/21/96	µg/L	< 4	< 4	< 4	< 4	< 4	
Chromium, total	5/23/96	µg/L	< 5	21	35	13	< 5	175[d]
	8/21/96	µg/L	< 5	< 5	50	103	< 5	
Chromium, dissolved	5/23/96	µg/L	< 5	< 5	< 5	< 5	< 5	--
	8/21/96	µg/L	< 5	< 5	< 5	6	< 5	
Lead, total	5/23/96	µg/L	< 2	3	7	< 2	< 2	5
	8/21/96	µg/L	< 2	< 2	5	10	< 2	
Lead, dissolved	5/23/96	µg/L	< 2	< 2	< 2	< 2	< 2	--
	8/21/96	µg/L	< 2	< 2	< 2	< 2	< 2	
TSS	5/23/96	mg/L	< 5	109	170	74	5	--
	8/21/96	mg/L	< 5	< 5	48	46	< 5	

Notes: ND indicates element was not detected at method reporting limit shown in parentheses

[a] Sample MW-5 is a field duplicate collected at well MW-2.

[b] Method C formula values from Ecology, 1996. Model Toxics Control Act Cleanup Levels and Risk Calculations (CLARC II) Update. February. Values for TPH and lead are Method A cleanup levels from WAC 173-340-740.

[c] Laboratory indicated sample quantified as diesel but chromatogram did not match typical diesel fingerprint.

[d] Value is for hexavalent chromium.

Table 3
Groundwater Sample PCB Results
Groundwater Monitoring - August 1996
Monroe Auto Salvage

Sample Number	Date Collected	Results of Analyses (µg/L)						
		Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
MW-2[a]	5/23/96	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/21/96	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-3	5/23/96	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/21/96	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-4	5/23/96	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/21/96	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
MW-5[a]	5/23/96	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/21/96	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J
HC-5	5/23/96	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
	8/21/96	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J	< 0.1 J

Notes: < indicates compound was not detected at method reporting limit shown.

[a] MW-2 and MW-5 are field duplicate samples.

Data Validation

Data from the August 21, 1996 groundwater sampling were reviewed for compliance with method quality control (QC) criteria following procedures specified in *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, 1994a) and *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, 1994b). Items that were reviewed included sample holding times, method blank results, surrogate recovery for organics analyses, field and laboratory duplicate results, matrix spike and matrix spike/matrix spike duplicate (MS/MSD) results, reporting limits, and completeness. Only items that did not meet QC guidelines are discussed below.

Surrogate was not added to samples MW-4 and HC-5 during the initial PCB extraction.. These two samples were re-extracted, but the re-extraction occurred 6 days after the 7-day holding time limit. Based on USEPA guidelines (USEPA, 1994b), an estimated (J) data qualifier was assigned to the PCB results for these samples due to holding time exceedance.

The data are judged to be ACCEPTABLE for their intended use. The usefulness of results are modified by assignment of the following data qualifiers to individual compound and sample results:

- < - The material was analyzed for, but was not detected at a concentration greater than the associated value. The associated numerical value is the method reporting limit.

- < J - The material was analyzed for, but was not detected. The associated numerical value is the estimated method reporting limit.

Columbia Analytical Services, Inc.

September 6, 1996

Service Request No.: B9600620

John Virgin
EMCON Northwest
18912 N Creek Parkway
Suite 210
Bothell, WA 98011

Re: **Monroe Auto Salvage/Project #40358-017.001(5)**

Dear John:

Attached are the results of the sample(s) submitted to our laboratory on August 21, 1996. For your reference, these analyses have been assigned our service request number B9600620.

All analyses were performed consistent with our laboratory's quality assurance program. All results are intended to be considered in their entirety, and CAS is not responsible for use of less than the complete report. Results only apply to samples analyzed.

Please call if you have any questions.

Respectfully submitted,

Columbia Analytical Services, Inc.

C. Elliott

Colin B. Elliott
Laboratory Manager

CBE/bdr

18912 North Creek Parkway, Suite 118 • Bothell, WA 98011 • 206/486-6983 • Fax 206/486-7695

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	B9600620
Project:	Monroe Auto Salvage	**Date Collected:**	8/21/96
Sample Matrix:	Water	**Date Received:**	8/21/96
		Date Extracted:	NA
		Date Analyzed:	8/28/96

Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A and Washington DOE Method WTPH-G
Units: µg/L (ppb)

Analyte:	TPH as Gasoline
Method Reporting Limit:	50

Sample Name	Lab Code	
MW-2-0896	B9600620-01	ND
MW-3-0896	B9600620-02	ND
MW-4-0896	B9600620-03	ND
MW-5-0896	B9600620-04	ND
HC-5-0896	B9600620-05	ND
Method Blank	B9600620-WB	ND

Approved By: Cir. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client:	EMCON	**Service Request:**	B9600620
Project:	Monroe Auto Salvage	**Date Collected:**	8/21/96
Sample Matrix:	Water	**Date Received:**	8/21/96
		Date Extracted:	8/28/96
		Date Analyzed:	9/4/96

Total Petroleum Hydrocarbon as Diesel and Oil
Washington DOE Method WTPH-D
Units: µg/L (ppb)

Analyte:		**Diesel**	**Oil***
Method Reporting Limit:		250	750
Sample Name	**Lab Code**		
MW-2-0896	B9600620-01	346 (a)	ND
MW-3-0896	B9600620-02	ND	ND
MW-4-0896	B9600620-03	ND	ND
MW-5-0896	B9600620-04	308 (a)	ND
HC-5-0896	B9600620-05	ND	ND
Method Blank	B9600620-WB	ND	ND

* Quantified using 30 weight motor oil as a standard.

a Quantified as diesel. The sample contained components that eluted in the diesel range, but the chromatogram did not match the typical diesel fingerprint.

Approved By: C. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96
Date Analyzed: 9/3-4/96

Polychlorinated Biphenyls (PCBs)
EPA Method 3510/8080
Units: ug/L (ppb)

Analyte:	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
Method Reporting Limit:	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sample Name	**Lab Code**						
MW-2-0896	B9600620-01	ND	ND	ND	ND	ND	ND	ND
MW-3-0896	B9600620-02	ND	ND	ND	ND	ND	ND	ND
MW-4-0896	B9600620-03	ND	ND	ND	ND	ND	ND	ND
MW-5-0896	B9600620-04 (a)	ND	ND	ND	ND	ND	ND	ND
HC-5-0896	B9600620-05 (a)	ND	ND	ND	ND	ND	ND	ND
Method Blank	B9600620-WB	ND	ND	ND	ND	ND	ND	ND

ND None Detected

(a) Surrogate was inadvertently not added during the original extraction of this sample. Reanalysis was performed on 9/4/96.

Approved By: C. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Monroe Auto Salvage/40358-017.001 (5)
Sample Matrix: Water

Service Request: K9605269
Date Collected: 8/21/96
Date Received: 8/23/96
Date Extracted: 9/3/96

Total Metals
Units: µg/L (ppb)

Analyte:	Cadmium	Chromium	Lead
EPA Method:	6010A	6010A	7421
Method Reporting Limit:	4	5	2
Date Analyzed:	9/3/96	9/3/96	9/4/96
Sample Name	**Lab Code**		
MW-2-0896	K9605269-001	ND	ND	ND
MW-3-0896	K9605269-002	ND	ND	ND
MW-4-0896	K9605269-003	ND	50	5
MW-5-0896	K9605269-004	ND	ND	ND
HC-5-0896	K9605269-005	ND	103	10
Method Blank	K9605269-MB	ND	ND	ND

Approved By: John Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Monroe Auto Salvage/40358-017.001 (5)
Sample Matrix: Water

Service Request: K9605269
Date Collected: 8/21/96
Date Received: 8/23/96
Date Extracted: 9/3/96

Dissolved Metals
Units: µg/L (ppb)

	Analyte:	Cadmium	Chromium	Lead
	EPA Method:	6010A	6010A	7421
	Method Reporting Limit:	4	5	2
	Date Analyzed:	9/3/96	9/3/96	9/4/96
Sample Name	**Lab Code**			
MW-2-0896	K9605269-001	ND	ND	ND
MW-3-0896	K9605269-002	ND	ND	ND
MW-4-0896	K9605269-003	ND	ND	ND
MW-5-0896	K9605269-004	ND	ND	ND
HC-5-0896	K9605269-005	ND	6	ND
Method Blank	K9605269-MB	ND	ND	ND

Approved By: A. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96

Inorganic Parameters
Units: mg/L (ppm)

	Sample Name:	MW-2-0896	MW-3-0896	MW-4-0896
	Lab Code:	B9600620-01	B9600620-02	B9600620-03
Analyte	**EPA Method**	**MRL**		
Solids, Total Suspended (TSS)	160.2	5	ND	ND	48

SM *Standard Methods for the Examination of Water and Wastewater*, 17th Ed., 1989.

Approved By: W. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96

Inorganic Parameters
Units: mg/L (ppm)

	Sample Name:	MW-5-0896	HC-5-0896	Method Blank
	Lab Code:	B9600620-04	B9600620-05	B9600620-WB
Analyte	**EPA Method**	**MRL**		
Solids, Total Suspended (TSS)	160.2	5	ND	46	ND

SM *Standard Methods for the Examination of Water and Wastewater*, 17th Ed., 1989.

Approved By: Cole Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: NA
Date Analyzed: 8/28/96

Surrogate Recovery Summary
Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A and Washington DOE Method WTPH-G

Sample Name	Lab Code	Percent Recovery 4-BFB (FID - GAS)
MW-2-0896	B9600620-01	106
MW-3-0896	B9600620-02	103
MW-4-0896	B9600620-03	99
MW-5-0896	B9600620-04	103
HC-5-0896	B9600620-05	104
Method Blank	B9600620-WB	104

CAS Acceptance Limits: 86-117

Approved By: W. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/28/96

Duplicate Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: B9600624-05

Analyte	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	CAS RPD Acceptance Limit
Benzene	0.5	1.0	0.9	1.0	11	30
Toluene	1	ND	ND	-	-	30
Ethylbenzene	1	5	4	5	22	30
Total Xylenes	1	13	10	12	26	30
Gasoline	50	360	320	340	12	30

Approved By: Chris Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/26/96
Date Received: 8/26/96
Date Extracted: NA
Date Analyzed: 8/28/96

Matrix Spike Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: µg/L (ppb)

Sample Name: Batch QC
Lab Code: B9600633-01

Analyte	MRL	Spike Level	Sample Result	Spiked Sample Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	0.5	100	ND	103	103	84-117
Toluene	1	100	ND	107	107	82-118
Ethylbenzene	1	100	ND	108	108	82-118
Gasoline	50	2500	NS	-	-	70-140

NS Not spiked with gasoline.

Approved By: Col. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
LCS Matrix: Water

Service Request: B9600620
Date Collected: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 8/28/96

Laboratory Control Sample Summary
BTEX and Total Petroleum Hydrocarbons as Gasoline
EPA Methods 5030A/8020 and Washington DOE Method WTPH-G
Units: µg/L (ppb)

Analyte	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Benzene	100	91	91	84-117
Toluene	100	109	109	82-118
Ethyl Benzene	100	114	114	82-118
Gasoline	5600	6110	109	70-140

Approved By: A. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96
Date Analyzed: 9/4/96

Surrogate Recovery Summary
Total Petroleum Hydrocarbons as Diesel and Oil
Washington DOE Method WTPH-D

Sample Name	Lab Code	Percent Recovery p-Terphenyl
MW-2-0896	B9600620-01	94
MW-3-0896	B9600620-02	80
MW-4-0896	B9600620-03	84
MW-5-0896	B9600620-04	98
HC-5-0896	B9600620-05	98
Method Blank	B9600620-WB	104

CAS Acceptance Limits: 59-131

Approved By: Chris Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
LCS Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96
Date Analyzed: 9/4/96

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary
Total Petroleum Hydrocarbons as Diesel and Oil
Washington DOE Method WTPH-D
Units: ug/L (ppb)

Analyte	True Value		Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	LCS	DLCS	LCS	DLCS	LCS	DLCS		
Diesel	3104	3104	3010	2790	97	90	82-121	8

Approved By: Ann Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96
Date Analyzed: 9/3-4/96

Surrogate Recovery Summary
Polychlorinated Biphenyls (PCBs)
EPA Method 3510/8080

Sample Name	Lab Code	Percent Recovery Decachlorobiphenyl
MW-2-0896	B9600620-01	62
MW-3-0896	B9600620-02	53
MW-4-0896	B9600620-03	55
MW-5-0896	B9600620-04 (a)	72 (a)
HC-5-0896	B9600620-05 (a)	86 (a)
Method Blank	B9600620-WB	68
Lab Control Sample	B9600620-LCS	74
Lab Control Sample	B9600620-DLCS	71

CAS Acceptance Limits: 50-131

(a) Result from a reextraction on 9/4/96.

Approved By: Lab. Elliott Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
LCS Matrix: Water

Service Request: B9600620
Date Collected: NA
Date Received: NA
Date Extracted: 8/28/96
Date Analyzed: 9/3-4/96

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary
Polychlorinated Biphenyls (PCBs)
EPA Method 3510/8080
Units: ug/L (ppb)

Analyte	True Value		Result		Percent Recovery		CAS Acceptance Limits	Relative Percent Difference
	LCS	DLCS	LCS	DLCS	LCS	DLCS		
Aroclor 1260	1.00	1.00	1.05	0.99	105	99	62-154	6

Approved By: Carla Elliott Date: 9/12/96

DLCS/121594
00620PHC.CE1 - DLCS 9/6/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: 8/21/96
Date Received: 8/21/96
Date Extracted: 8/28/96

Duplicate Summary
Inorganic Parameters
Units: mg/L (ppm)

Sample Name: MW-5-0896
Lab Code: B9600620-04 DUP

Analyte	EPA Method	MRL	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference
Solids, Total Suspended (TSS)	160.2	5	ND	ND	-	-

SM *Standard Methods for the Examination of Water and Wastewater*, 17th Ed., 1989.

Approved By: _____ Date: 9/12/96

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: EMCON
Project: Monroe Auto Salvage
Sample Matrix: Water

Service Request: B9600620
Date Collected: NA
Date Received: NA
Date Extracted: 8/28/96

Lab Control Sample Summary
Inorganic Parameters
Units: mg/L (ppm)

Analyte	EPA Method	MRL	True Value	Result	Percent Recovery	CAS Percent Recovery Acceptance Limits
Solids, Total Suspended (TSS)	160.2	5	88	86	98	75-125

SM *Standard Methods for the Examination of Water and Wastewater*, 17th Ed., 1989.

Approved By: Col. Elliott Date: 9/12/96

EMCON

CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

DATE 8-21-96 PAGE 1 OF 1

PROJECT NAME Monroe Auto Salvage 40358-017.001 (5)

PROJECT

COMPANY/ADDRESS EMCON/John Virgin

18912 N. Creek Pkwy

Bothell, WA PHONE 485-5000

SAMPLERS SIGNATURE Michelle Lange

ANALYSIS REQUEST

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	TPH - HCID State:	TPH - G State: WA X	BTEX X	TPH - D State: WA X	OIL X extended	TPH - 418.1 State:	TPH - Other	Halogenated or Aromatic Volatiles 601/8010 ___ 602/8020 ___	Volatile Organics GC/MS 624-8240	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides 8080 PCBs ONLY X	PAH 8310	8100 GC ___ HPCL ___	TCLP Semi VOA ___ VOA ___	Metals Total X DISS X List Below (2)	Pest/Herb	Cyanide	pH, Cond Cl, SO_4, PO_4 F, Br	NO_2 NO_3 (Circle)	NH_3 - N, COD, Total-P TKN, TOC, TOX (Circle)	TSS (160.2)			REMARKS
MW-2-0896	8-21-96	1030	620-1	H2O	7		X	X							X			X							X			
MW-3-0896		1300	2		7		X	X							X			X							X			
MW-4-0896		1230	3		7		X	X							X			X							X			
MW-5-0896		1000	4		7		X	X							X			X							X			
HC-5-0896	↓	1120	5	↓	7		X	X							X			X							X			

RELINQUISHED BY:

Michelle Lange
Signature
Michelle Lange
Printed Name
EMCON
Firm
8-21-96 / 1418
Date/Time

RECEIVED BY:

DJ Mosier
Signature
DJ MOSIER
Printed Name
CAS
Firm
082196 1418
Date/Time

TURNAROUND REQUIREMENTS

___ 24 hr ___ 48 hr. ___ 5 day

X Standard (10-15 working days)

___ Provide Verbal Preliminary Results

___ Provide FAX preliminary Results

Requested Report Date ___

REPORT REQUIREMENTS

___ I. Routine Report

___ II. Report (includes DUP.MAS. MSD, as required, may be charged as samples)

___ III. Data Validation Report (includes All Raw Data)

___ IV. CLP Deliverable Report

INVOICE INFORMATION:

P.O.# ___

Bill To ___

SAMPLE RECEIPT:

Shipping VIA: ___

Shipping to: ___

Condition: ___

Lab No: B9600620

RELINQUISHED BY:

Signature

Printed Name

Firm

Date/Time

RECEIVED BY:

Signature

Printed Name

Firm

Date/Time

SPECIAL INSTRUCTIONS/COMMENTS:

(1) No BTEX

(2) Cd, Cr, Pb

* Dissolved metals were field filtered

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