

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

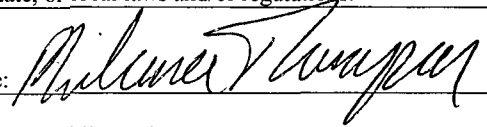
Name of Company Agua Moss, LLC	Contact Philana Thompson	
Address PO Box 600 Farmington, NM 87499	Telephone No. 505-324-5336 office 505-486-1171 Cell	
Facility Name Sunco Disposal #1	Facility Type un-lined pond	
Surface Owner Agua Moss, LLC	Mineral Owner Agua Moss, LLC	API No. 30-045-28653

LOCATION OF RELEASE

Unit Letter E	Section 2	Township 29N	Range 12W	Feet from the 1595	North/South Line North	Feet from the 1005	East/West Line West	County San Juan
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Latitude **36.75737** Longitude **-108.07279**

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release Unknown	Volume Recovered 0
Source of Release Overspray	Date and Hour of Occurrence Unknown	Date and Hour of Discovery 8/15/2012 date of sampling
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? Sample results were provided to Brad Jones 8/20/2012 Sample results were provided to Brandon Powell 11/15/2012	
By Whom? Philana Thompson, Company representative	Date and Hour see above	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* NA		
Describe Cause of Problem and Remedial Action Taken.* Discovered that soils were possibly contaminated upon regular sampling for closure. Performed additional sampling and delineation		
Describe Area Affected and Cleanup Action Taken.* Due to test results being below regulatory limits, we feel that no further action is necessary		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Philana Thompson	Approved by Environmental Specialist: 	
Title: Regulatory Compliance Specialist	Approval Date: 12-19-12	Expiration Date:
E-mail Address: pthompson@merrion.bz	Conditions of Approval:	Attached ☐
Date: 11-26-12 Phone: 505-324-5336		

* Attach Additional Sheets If Necessary

nBP1235440110

Crouch Mesa Disposal

Soil Sampling Results for unused Earthen Impoundment Closure

											Background Tests 9/17/2012		Pond Test Method 418.1 11/19/2012			
	Pond SB1	mg/kg	Pond SB2	mg/kg	Pond SB3	mg/kg	Pond SB4	mg/kg	Pond SB5	mg/kg	NW corner	SE Corner	NE Quad	NW Quad	SE Quad	SW Quad
Total Pet Hydrocarbons	ND		ND		ND		ND		ND		ND	ND	92.8	87.4	71.3	74
BTEX																
Benzene	ND		ND		ND		ND		ND		ND	ND				
Toluene (µg/Kg)	47.30	0.0473	40.50	0.0405	10.10	0.0101	15.10	0.0151	11.60	0.0116	ND	ND				
Ethylbenzene (µg/Kg)	ND		ND		ND		ND		ND		ND	ND				
Total Xylenes	42.80	0.0428	62.70	0.0627	12.00	0.0120	22.50	0.0225	11.60	0.0116	13.60	0.0136	-			
Total BTEX (µg/Kg)	90.10	0.0901	103.00	0.1032	22.00	0.0221	37.50	0.0376	23.20	0.0232	13.60	0.0136	ND			
Other																
Arsenic (mg/kg)	1.79		1.21		1.85		1.21		1.33		3.65	4.16				
Barium (mg/kg)	29.40		11.70		64.20		19.30		28.20		318.00	231.00				
Cadmium (mg/kg)	0.15		0.09		0.13		0.12		0.12		0.66	0.49				
Chromium (mg/kg)	1.60		0.81		1.47		1.16		1.22		9.25	8.63				
Copper (mg/kg)	3.52		1.84		3.03		2.64		2.67		14.00	6.68				
Lead (mg/kg)	4.09		2.71		3.14		3.49		3.47		22.30	11.80				
Manganese (mg/kg)	158.00		136.00		115.00		143.00		143.00		298.00	218.00				
Mercury (mg/kg)	0.05		ND		0.09		0.02		0.02		0.22	0.41				
Selenium (mg/kg)	ND		ND		ND		ND		ND		0.73	0.46				
Silver (mg/kg)	ND		ND		ND		ND		ND		0.50	ND				
Zinc (mg/kg)	10.60		5.34		7.98		8.08		7.68		54.90	21.90				
Cyanide (mg/l)	0.001		0.001		0.001		0.012		0.001		0.002	0.004				
pH	6.79		7.18		7.71		8.6		8.35		7.69	7.78				
Nitrate Nitrogen	28.9		0.01		0.34		0.01		0.01		23	21.6				
Chloride mg/l	1.54		0.8		1.66		3.84		0.78		40.1	38.2				
Fluoride mg/l	7.04		1.38		4.26		2.44		1.7		0.01	2.01				
Phosphate mg/l	2.94		0.38		0.26		0.48		0.46		3.4	0.01				
Sulfate mg/l	28.3		5.48		21.8		9.48		4.2		34.6	247				
Iron mg/l	0.491		0.995		0.284		8.12		3.3		0.01	0.01				
Calcium mg/l	8.15		6.11		6.33		1.96		10.1		37.9	36.5				
Magnesium mg/l	3.76		2.55		2.39		1.27		3.8		6.52	7.9				
Potassium mg/l	0.268		0.519		0.614		0.455		1.66		12.9	3.68				
Sodium mg/l	8.39		7.15		15		18.7		12.9		10.8	39.4				
TDS mg/l	102		70		114		150		90		288	332				

Notes:

- 1) µg/Kg (micrograms/kilogram) is the same as ppb (parts per billion)
- 2) mg/Kg (milligrams/kilogram) is the same as ppm (parts per million)
- 3) mg/L (milligrams/Liter) is the same as ppm (parts per million)
- 4) SSL is NMED "Soil Screening Levels" for TCLIP Analysis



November 26, 2012

Project Number: 07117-0008

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

RCVD NOV 27 '12
OIL CONS. DIV.
DIST. 3

Phone: (505)-324-5336

RE: UNLINED POND SOIL SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the analytical results for the Agua Moss Farmington-NM-01-0009 unlined pond located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting in alignment with *Attachment A* in the *Partial Closure Plan Unlined Evaporation Pond NM1-9* that was provided.

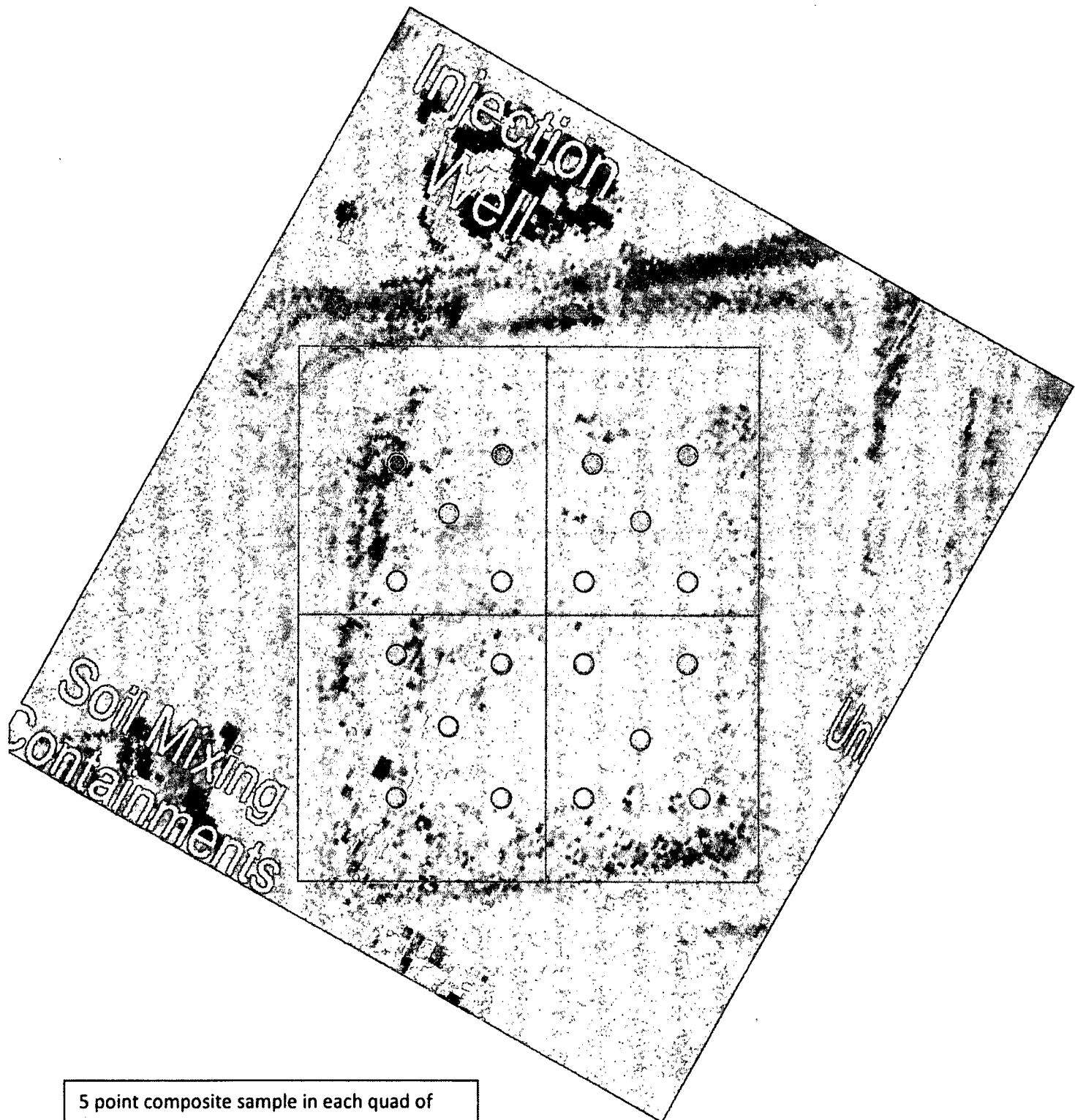
If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.


Christopher Arrigo
Staff Scientist
carrigo@envirotech-inc.com

Enclosure: Analytical Results

Cc: Client File Number: 07117



5 point composite sample in each quad of unlined pond



Report Summary

Client: Agua Moss

Chain of Custody Number: 14670

Samples Received: 11-16-12

Job Number: 07117-0008

Sample Number(s): 63693-63696

Project Name/Location: Crouch Mesa Unlined Pond

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to be "L. B.", written over a horizontal line.

Date:

11/20/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



**EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Agua Moss	Project #:	07117-0008
Sample ID:	NE Quadrant	Date Reported:	11-19-12
Laboratory Number:	63693	Date Sampled:	11-16-12
Chain of Custody No:	14670	Date Received:	11-16-12
Sample Matrix:	Soil	Date Extracted:	11-19-12
Preservative:	Cool	Date Analyzed:	11-19-12
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	92.8	6.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Crouch Mesa Unlined Pond**



**EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Agua Moss	Project #:	07117-0008
Sample ID:	NW Quadrant	Date Reported:	11-19-12
Laboratory Number:	63694	Date Sampled:	11-16-12
Chain of Custody No:	14670	Date Received:	11-16-12
Sample Matrix:	Soil	Date Extracted:	11-19-12
Preservative:	Cool	Date Analyzed:	11-19-12
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	87.4	6.7
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Crouch Mesa Unlined Pond**



EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Agua Moss	Project #:	07117-0008
Sample ID:	SW Quadrant	Date Reported:	11-19-12
Laboratory Number:	63695	Date Sampled:	11-16-12
Chain of Custody No:	14670	Date Received:	11-16-12
Sample Matrix:	Soil	Date Extracted:	11-19-12
Preservative:	Cool	Date Analyzed:	11-19-12
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	74.0	6.7

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: Crouch Mesa Unlined Pond



**EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS**

Client:	Agua Moss	Project #:	07117-0008
Sample ID:	SE Quadrant	Date Reported:	11-19-12
Laboratory Number:	63696	Date Sampled:	11-16-12
Chain of Custody No:	14670	Date Received:	11-16-12
Sample Matrix:	Soil	Date Extracted:	11-19-12
Preservative:	Cool	Date Analyzed:	11-19-12
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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Total Petroleum Hydrocarbons	71.3	6.7
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Crouch Mesa Unlined Pond**



EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	11-19-12
Laboratory Number:	11-19-TPH.QA/QC 63693	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	11-19-12
Preservative:	N/A	Date Extracted:	11-19-12
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	11-15-12	11-19-12	1,680	1,720	2.4%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	6.7

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	92.8	94.1	1.4%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	92.8	2,000	1,820	87.0%	80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for Samples 63692-63696, 63725.

xxRUSH xx

CHAIN OF CUSTODY RECORD

14670

Client: AGUA MOSS			Project Name / Location: CROUCH MESA UNLINED POND			ANALYSIS / PARAMETERS														
Email results to:			Sampler Name: T. McKnight			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact	
Client Phone No.:			Client No.: 07117-0008																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative															
					HgCl ₂	HCl	cat													
NE Quadrant	11/16/12	8:59	P211040-01 63693	1-4oz			✓							✓					✓	✓
NW Quadrant	11/16/12	8:55	P211040-02 63694	1-4oz			✓							✓					✓	✓
SW Quadrant	11/16/12	9:00	P211040-03 63695	1-4oz			✓							✓					✓	✓
SE Quadrant	11/16/12	9:10	P211040-04 63696	1-4oz			✓							✓					✓	✓
Relinquished by: (Signature) <i>T. McKnight</i>				Date 11/16/12	Time 9:45	Received by: (Signature) <i>[Signature]</i>				Date 11/16/12				Time 9:45						
Relinquished by: (Signature)						Received by: (Signature) <i>[Signature]</i>														
Sample Matrix Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐																				

☐ Sample(s) dropped off after hours to secure drop off area.

envirotech
Analytical Laboratory

5795 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • Three Springs • 65 Mercado Street, Suite 115, Durango, CO 81301 • laboratory@envirotech-inc.com

xxRUSH xx



September 26, 2012

Project Number: 07117-0005

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

Phone: (505)-324-5336

RE: BACKGROUND SOIL SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

RCVD NOV 27 '12
OIL CONS. DIV.

Please find enclosed the analytical results and aerial maps for the Agua Moss background samples located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting in alignment with the information and locations provided by Agua Moss.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

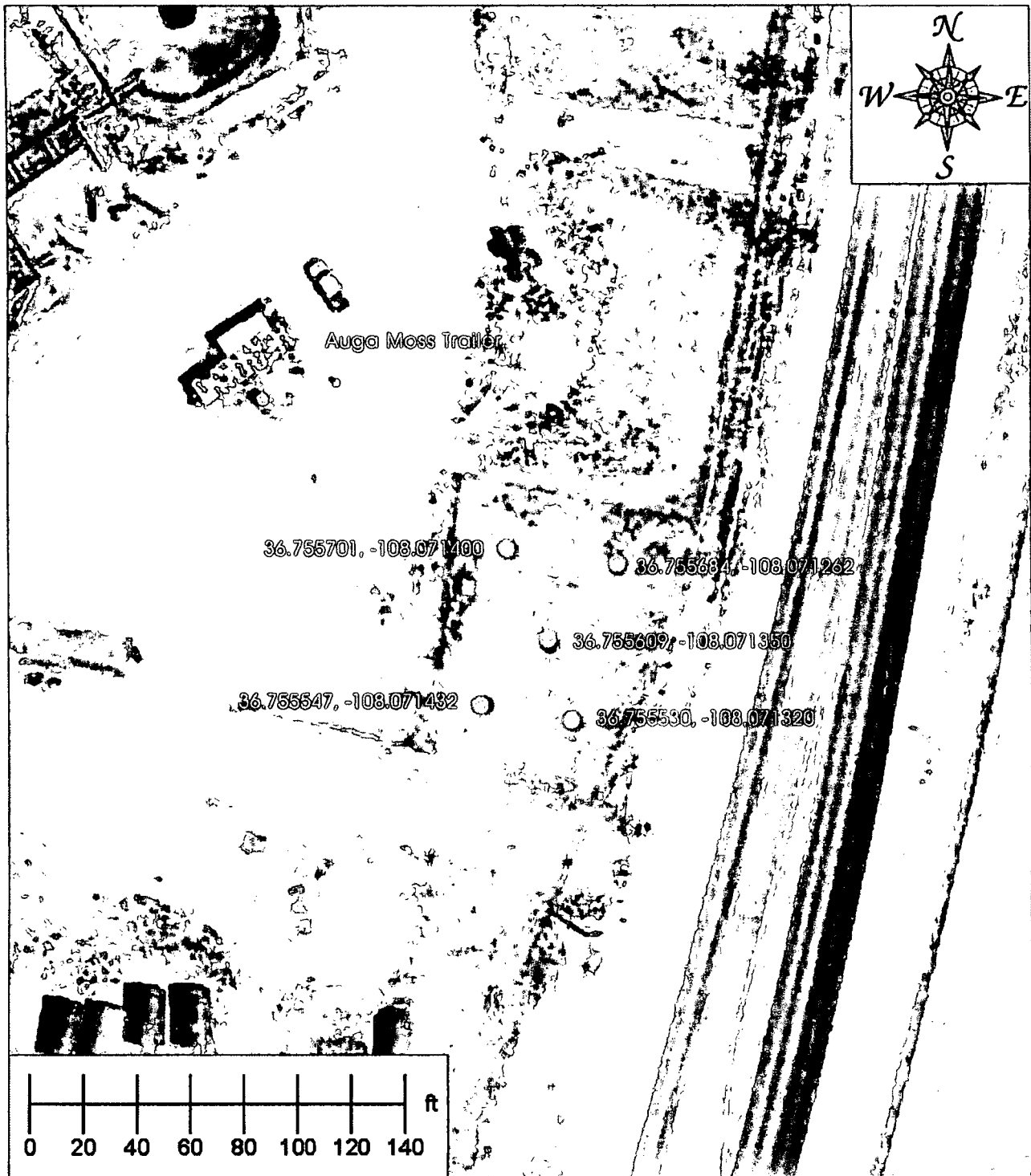
Respectfully Submitted,
ENVIROTECH, INC.

A handwritten signature in black ink, appearing to read 'Chris Arrigo', with a horizontal line underneath.

Christopher Arrigo
Environmental Scientist
carrigo@envirotech-inc.com

Enclosure: Analytical Results
Figure 1: Southeast Corner
Figure 2: Northwest Corner

Cc: Client File Number: 07117



Source: 2012 Google Earth,, San Juan County, New Mexico

LEGEND
 ○ Background Soil Sample



5796 U.S. HIGHWAY 64
 Farmington, New Mexico 87401
 505.632.0615

Figure 1

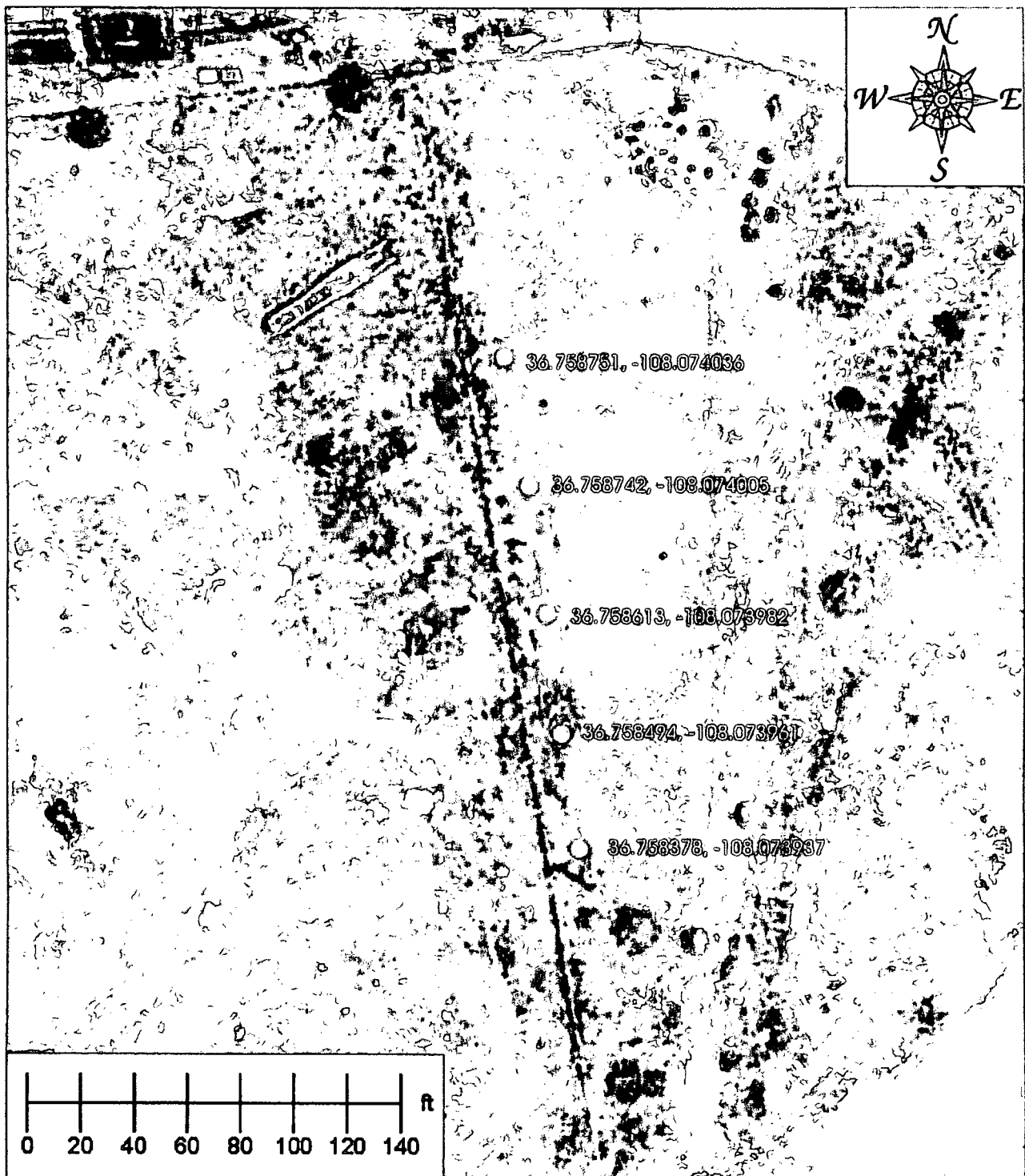
Agua Moss
 Aerial Map - Southeast Corner
 Section 2, Township 29 N, Range 12 W
 San Juan County, New Mexico

PROJECT Number: 07117-0005

Date Drawn: 09/24/12

DRAWN BY:
 Christopher Arigo

PROJECT MANAGER:
 Greg Crabtree



Source: Google Earth, 2012, San Juan County, New Mexico

LEGEND
 ○ Background Soil Sample



5796 U.S. HIGHWAY 64
 Farmington, New Mexico 87401
 505.632.0615

Figure 2
 Agua Moss
 Aerial Map - Northwest Corner
 Section 2, Township 29 N, Range 12 W
 San Juan County, New Mexico

PROJECT Number: 07117-0005 Date Drawn: 09/24/12

DRAWN BY:
 Christopher Arigo

PROJECT MANAGER:
 Greg Crabtree



Report Summary

Client: Agua Moss

Chain of Custody Number: 14447

Samples Received: 09-17-12

Job Number: 07117-0005

Sample Number(s): 63243-63244

Project Name/Location: Background Samples

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to be 'L B O', written over a horizontal line.

Date:

9/25/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt Comp SE Corner	Date Reported:	09-19-12
Laboratory Number:	63243	Date Sampled:	09-17-12
Chain of Custody No:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Extracted:	09-17-12
Preservative:	Cool	Date Analyzed:	09-18-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Background Samples**



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt Comp NW Corner	Date Reported:	09-19-12
Laboratory Number:	63244	Date Sampled:	09-17-12
Chain of Custody No:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Extracted:	09-17-12
Preservative:	Cool	Date Analyzed:	09-18-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Background Samples**



EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0918TCAL QA/QC	Date Reported:	09-19-12
Laboratory Number:	63194	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-18-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	09-18-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	09-18-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	2.6	3.2	23.1%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	265	106%	75 - 125%
Diesel Range C10 - C28	2.6	250	270	107%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Was
SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 63194-63203 and 63242-63244



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt. Comp SE Corner	Date Reported:	09-19-12
Laboratory Number:	63243	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-19-12
Preservative:	Cool	Date Extracted:	09-17-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	ND	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	ND	10.0
o-Xylene	ND	10.0
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	84.5 %
	1,4-difluorobenzene	87.2 %
	Bromochlorobenzene	103 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Background Samples



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt. Comp NW Corner	Date Reported:	09-19-12
Laboratory Number:	63244	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-19-12
Preservative:	Cool	Date Extracted:	09-17-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	ND	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	13.6	10.0
o-Xylene	ND	10.0
Total BTEX	13.6	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	83.7 %
	1,4-difluorobenzene	96.1 %
	Bromochlorobenzene	88.3 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Background Samples



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	N/A	Project #:	N/A
Sample ID:	0919BCAL QA/QC	Date Reported:	09-19-12
Laboratory Number:	63184	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-19-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
	Accept. Range 0-15%				
Benzene	9.4668E-06	9.4668E-06	0.000	ND	0.2
Toluene	9.0840E-06	9.0840E-06	0.000	ND	0.2
Ethylbenzene	1.0248E-05	1.0248E-05	0.000	ND	0.2
p,m-Xylene	7.3297E-06	7.3297E-06	0.000	ND	0.2
o-Xylene	1.0222E-05	1.0222E-05	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	20.9	33.3	0.59	0 - 30%	10
Ethylbenzene	12.5	12.7	0.02	0 - 30%	10
p,m-Xylene	70.9	81.5	0.15	0 - 30%	10
o-Xylene	14.3	14.7	0.03	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2770	111	39 - 150
Toluene	20.9	2500	2840	113	46 - 148
Ethylbenzene	12.5	2500	2820	112	32 - 160
p,m-Xylene	70.9	5000	5590	110	46 - 148
o-Xylene	14.3	2500	2760	110	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 63184-63187, 63229 and 63243-63244

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt. Comp SE Corner	Date Reported:	09-20-12
Laboratory Number:	63243	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-18-12
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	7.78	s.u.		
Conductivity @ 25° C	476	umhos/cm		
Total Dissolved Solids @ 180C	332	mg/L		
SAR	1.50	ratio		
Total Alkalinity as CaCO3	98.0	mg/L		
Total Hardness as CaCO3	124	mg/L		
Bicarbonate as CaCO3	98.0	mg/L	1.6	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	21.6	mg/L	0.348	meq/L
Nitrite Nitrogen	< 0.01	mg/L	0.000	meq/L
Chloride	38.2	mg/L	1	meq/L
Fluoride	2.01	mg/L	0.106	meq/L
Phosphate	< 0.01	mg/L	0.000	meq/L
Sulfate	247	mg/L	5.15	meq/L
Iron	< 0.01	mg/L	0.000	meq/L
Calcium	36.5	mg/L	2	meq/L
Magnesium	7.90	mg/L	1	meq/L
Potassium	3.68	mg/L	0.1	meq/L
Sodium	39.4	mg/L	2	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
 Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Background Samples**

**CATION / ANION ANALYSIS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt. Comp NW Corner	Date Reported:	09-20-12
Laboratory Number:	63244	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-18-12
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	7.69	s.u.		
Conductivity @ 25° C	368	umhos/cm		
Total Dissolved Solids @ 180C	288	mg/L		
SAR	0.400	ratio		
Total Alkalinity as CaCO3	87.0	mg/L		
Total Hardness as CaCO3	121	mg/L		
Bicarbonate as CaCO3	87.0	mg/L	1.4	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	23.0	mg/L	0.371	meq/L
Nitrite Nitrogen	< 0.01	mg/L	0.000	meq/L
Chloride	40.1	mg/L	1	meq/L
Fluoride	< 0.01	mg/L	0.001	meq/L
Phosphate	3.40	mg/L	0.107	meq/L
Sulfate	34.6	mg/L	0.72	meq/L
Iron	< 0.01	mg/L	0.000	meq/L
Calcium	37.9	mg/L	2	meq/L
Magnesium	6.52	mg/L	1	meq/L
Potassium	12.9	mg/L	0.3	meq/L
Sodium	10.8	mg/L	0	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Background Samples**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5 pt. Comp SE Corner	Date Reported:	09-20-12
Laboratory Number:	63243	Date Sampled:	09-17-12
Sample Matrix:	Soil Extract	Date Received:	09-17-12
Preservative:	Cool	Date Analyzed:	09-19-12
Condition:	Intact	Chain of Custody:	14447

Parameter	Analytical Result	Units
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Cyanide (total)	0.004	mg/L
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Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Background Samples**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5 pt. Comp NW Corner	Date Reported:	09-20-12
Laboratory Number:	63244	Date Sampled:	09-17-12
Sample Matrix:	Soil Extract	Date Received:	09-17-12
Preservative:	Cool	Date Analyzed:	09-19-12
Condition:	Intact	Chain of Custody:	14447

Parameter	Analytical Result	Units
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Cyanide (total)	0.002	mg/L
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Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Background Samples**



TRACE METAL ANALYSIS

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt Comp SE Corner	Date Reported:	09-24-12
Laboratory Number:	63243	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-21-12
Preservative:	Cool	Date Digested:	09-19-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	100

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Arsenic	4.16	0.01
Barium	231	0.01
Cadmium	0.49	0.01
Chromium	8.63	0.01
Copper	6.68	0.01
Lead	11.8	0.01
Mercury	0.41	0.01
Manganese	218	0.01
Selenium	0.46	0.01
Silver	ND	0.01
Zinc	21.9	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: **Background Samples**



TRACE METAL ANALYSIS

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	5pt Comp NW Corner	Date Reported:	09-24-12
Laboratory Number:	63244	Date Sampled:	09-17-12
Chain of Custody:	14447	Date Received:	09-17-12
Sample Matrix:	Soil	Date Analyzed:	09-21-12
Preservative:	Cool	Date Digested:	09-19-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	100

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Arsenic	3.65	0.01
Barium	318	0.01
Cadmium	0.66	0.01
Chromium	9.25	0.01
Copper	14.0	0.01
Lead	22.3	0.01
Mercury	0.22	0.01
Manganese	298	0.01
Selenium	0.73	0.01
Silver	0.50	0.01
Zinc	54.9	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: **Background Samples**



TRACE METAL ANALYSIS
Quality Control /
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-21-TM QA/QC	Date Reported:	09-24-12
Laboratory Number:	63243	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total Metals	Date Analyzed:	09-21-12
Condition:	N/A	Date Digested:	09-19-12
		Dilution	100

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.01	4.16	4.14	0.43%	0% - 30%
Barium	ND	ND	0.01	231	232	0.78%	0% - 30%
Cadmium	ND	ND	0.01	0.49	0.50	1.57%	0% - 30%
Chromium	ND	ND	0.01	8.63	8.68	0.51%	0% - 30%
Copper	ND	ND	0.01	6.68	6.37	4.61%	0% - 30%
Lead	ND	ND	0.01	11.8	11.9	0.68%	0% - 30%
Mercury	ND	ND	0.01	0.41	0.37	10.1%	0% - 30%
Manganese	ND	ND	0.01	218	220	1.06%	0% - 30%
Selenium	ND	ND	0.01	0.46	0.44	5.86%	0% - 30%
Silver	ND	ND	0.01	ND	ND	0.00%	0% - 30%
Zinc	ND	ND	0.01	21.9	22.2	1.14%	0% - 30%

Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	25.0	4.16	28.8	98.8%	80% - 120%
Barium	500	231	760	104%	80% - 120%
Cadmium	25.0	0.49	24.3	95.3%	80% - 120%
Chromium	50.0	8.63	55.8	95.1%	80% - 120%
Copper	50.0	6.68	56.4	99.4%	80% - 120%
Lead	50.0	11.8	57.0	92.2%	80% - 120%
Mercury	10.0	0.41	10.1	97.0%	80% - 120%
Manganese	50.0	218	231	86.1%	80% - 120%
Selenium	10.0	0.46	9.70	92.6%	80% - 120%
Silver	10.0	ND	10.4	104%	80% - 120%
Zinc	50.0	21.9	70.1	97.5%	80% - 120%

ND - Parameter not detected at the stated detection limit.

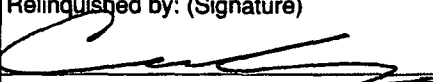
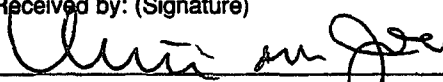
References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
 SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: QA/QC for Sample 63243-63244, 63268-63272, and 63275

CHAIN OF CUSTODY RECORD

14447

Client: Agua Moss			Project Name / Location: Background Samples			ANALYSIS / PARAMETERS													
Email results to: carri@envirotech-inc.com			Sampler Name: Chris Arrigo			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion, CV	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.:			Client No.: 07117-0005																
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative														
					HgCl ₂	HCl	cool												
Spt. Comp SE Corner	9/17/12	8:45am	63243	1-4oz				X	X	X								X	X
Spt. Comp NW Corner	9/17/12	9:00am	63244	1-4oz				X	X	X								X	X
Relinquished by: (Signature) 					Date	Time	Received by: (Signature) 					Date	Time						
					9/17/12	9:55am						9/17/12	9:54						
Relinquished by: (Signature) 							Received by: (Signature)												
Sample Matrix																			
Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐																			
☐ Sample(s) dropped off after hours to secure drop off area.																			





August 15, 2012

Project Number: 07117-0005

Ms. Philana Thompson
Regulatory Compliance
Agua Moss
345 CR 350
Farmington, New Mexico 87401

Phone: (505)-324-5336

RE: UNLINED POND SOIL SAMPLING AND ANALYTICAL RESULTS, AGUA MOSS, SAN JUAN COUNTY, NEW MEXICO

Dear Ms. Thompson:

Please find enclosed the analytical results and field notes for the Agua Moss Farmington-NM-01-0009 unlined pond located in Section 2, Township 29 North, Range 12 West, San Juan County, New Mexico. Activities included sample collection and analysis, documentation and reporting in alignment with *Attachment A* in the *Partial Closure Plan Unlined Evaporation Pond NM1-9* that was provided.

If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

RCVD NOV 27 '12
OIL CONS. DIV.
DIST. 3

A handwritten signature in black ink, appearing to read "Christopher Arrigo", written over a horizontal line.

Christopher Arrigo
Staff Scientist
carrigo@envirotech-inc.com

Enclosure: Analytical Results
Field Notes

Cc: Client File Number: 07117



Report Summary

Client: Agua Moss

Chain of Custody Number: 14221

Samples Received: 08-03-12

Job Number: 07117-0005

Sample Number(s): 62812-62816

Project Name/Location: Unlined Pond

Entire Report Reviewed By: _____

A handwritten signature in black ink, consisting of several stylized, overlapping strokes.

Date: _____

8/15/12

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-1	Date Reported:	08-13-12
Laboratory Number:	62812	Date Sampled:	08-03-12
Chain of Custody No:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Extracted:	08-10-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Unlined Pond**



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-2	Date Reported:	08-13-12
Laboratory Number:	62813	Date Sampled:	08-03-12
Chain of Custody No:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Extracted:	08-10-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Unlined Pond**



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-3	Date Reported:	08-13-12
Laboratory Number:	62814	Date Sampled:	08-03-12
Chain of Custody No:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Extracted:	08-10-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Unlined Pond**



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-4	Date Reported:	08-13-12
Laboratory Number:	62815	Date Sampled:	08-03-12
Chain of Custody No:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Extracted:	08-10-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Unlined Pond**



**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-5	Date Reported:	08-13-12
Laboratory Number:	62816	Date Sampled:	08-03-12
Chain of Custody No:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Extracted:	08-10-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Unlined Pond**



EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0813TCAL QA/QC	Date Reported:	08-13-12
Laboratory Number:	62812	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-13-12
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	08-13-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	08-13-12	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	246	98.2%	75 - 125%
Diesel Range C10 - C28	ND	250	237	94.7%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Ws
SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 62812-62816



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-1	Date Reported:	08-08-12
Laboratory Number:	62812	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-07-12
Preservative:	Cool	Date Extracted:	08-07-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	47.3	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	42.8	10.0
o-Xylene	ND	10.0
Total BTEX	90.1	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	82.8 %
	1,4-difluorobenzene	93.8 %
	Bromochlorobenzene	90.4 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Unlined Pond



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-2	Date Reported:	08-08-12
Laboratory Number:	62813	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-07-12
Preservative:	Cool	Date Extracted:	08-07-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	40.5	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	47.9	10.0
o-Xylene	14.8	10.0
Total BTEX	103	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	78.6 %
	1,4-difluorobenzene	87.6 %
	Bromochlorobenzene	99.1 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Unlined Pond



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-3	Date Reported:	08-08-12
Laboratory Number:	62814	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-07-12
Preservative:	Cool	Date Extracted:	08-07-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	10.1	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	12.0	10.0
o-Xylene	ND	10.0
Total BTEX	22.0	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	88.2 %
	1,4-difluorobenzene	101 %
	Bromochlorobenzene	114 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Unlined Pond



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-4	Date Reported:	08-08-12
Laboratory Number:	62815	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-07-12
Preservative:	Cool	Date Extracted:	08-07-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	15.1	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	22.5	10.0
o-Xylene	ND	10.0
Total BTEX	37.5	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	85.6 %
	1,4-difluorobenzene	97.4 %
	Bromochlorobenzene	108 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Unlined Pond



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-5	Date Reported:	08-08-12
Laboratory Number:	62816	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-07-12
Preservative:	Cool	Date Extracted:	08-07-12
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	50

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	10.0
Toluene	11.6	10.0
Ethylbenzene	ND	10.0
p,m-Xylene	11.6	10.0
o-Xylene	ND	10.0
Total BTEX	23.2	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	84.7 %
	1,4-difluorobenzene	96.6 %
	Bromochlorobenzene	107 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846 USEPA, December 1996.

Comments: Unlined Pond



**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

Client:	N/A	Project #:	N/A
Sample ID:	0807BCAL QA/QC	Date Reported:	08-07-12
Laboratory Number:	62818	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-07-12
Condition:	N/A	Analysis:	BTEX
		Dilution:	50

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
	Accept. Range 0-15%				
Benzene	7.0301E-06	7.0301E-06	0.000	ND	0.2
Toluene	6.5473E-06	6.5473E-06	0.000	ND	0.2
Ethylbenzene	7.2704E-06	7.2704E-06	0.000	ND	0.2
p,m-Xylene	5.2861E-06	5.2861E-06	0.000	ND	0.2
o-Xylene	7.6016E-06	7.6016E-06	0.000	ND	0.2

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	14.0	13.7	0.02	0 - 30%	10
p,m-Xylene	60.5	62.7	0.04	0 - 30%	10
o-Xylene	11.8	12.2	0.03	0 - 30%	10

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	2500	2410	96.4	39 - 150
Toluene	ND	2500	2400	96.0	46 - 148
Ethylbenzene	14.0	2500	2410	95.9	32 - 160
p,m-Xylene	60.5	5000	4850	95.8	46 - 148
o-Xylene	11.8	2500	2410	95.9	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 62812-62816 and 62818-62822

Client: Agua Moss
 Sample ID: SB-1
 Laboratory Number: 62812
 Chain of Custody: 14221
 Sample Matrix: Soil
 Preservative: Cool
 Condition: Intact

Project #: 07117-0005
 Date Reported: 08-13-12
 Date Sampled: 08-03-12
 Date Received: 08-03-12
 Date Analyzed: 08-08-12

Parameter	Analytical Result	Units		
pH	6.79	s.u.		
Conductivity @ 25° C	121	umhos/cm		
Total Dissolved Solids @ 180C	102	mg/L		
SAR	0.600	ratio		
Total Alkalinity as CaCO3	112	mg/L		
Total Hardness as CaCO3	35.8	mg/L		
Bicarbonate as CaCO3	112	mg/L	1.8	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	28.9	mg/L	0.466	meq/L
Nitrite Nitrogen	0.280	mg/L	0.006	meq/L
Chloride	1.54	mg/L	0	meq/L
Fluoride	7.04	mg/L	0.371	meq/L
Phosphate	2.94	mg/L	0.093	meq/L
Sulfate	28.3	mg/L	0.59	meq/L
Iron	0.491	mg/L	0.018	meq/L
Calcium	8.15	mg/L	0	meq/L
Magnesium	3.76	mg/L	0	meq/L
Potassium	0.268	mg/L	0.0	meq/L
Sodium	8.39	mg/L	0	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
 Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Unlined Pond**



CATION / ANION ANALYSIS

Client: Agua Moss
 Sample ID: SB-2
 Laboratory Number: 62813
 Chain of Custody: 14221
 Sample Matrix: Soil
 Preservative: Cool
 Condition: Intact

Project #: 07117-0005
 Date Reported: 08-13-12
 Date Sampled: 08-03-12
 Date Received: 08-03-12
 Date Analyzed: 08-08-12

Parameter	Analytical Result	Units		
pH	7.18	s.u.		
Conductivity @ 25° C	79.7	umhos/cm		
Total Dissolved Solids @ 180C	70.0	mg/L		
SAR	0.600	ratio		
Total Alkalinity as CaCO3	112	mg/L		
Total Hardness as CaCO3	25.7	mg/L		
Bicarbonate as CaCO3	78.0	mg/L	1.3	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	< 0.01	mg/L	0.000	meq/L
Nitrite Nitrogen	< 0.01	mg/L	0.000	meq/L
Chloride	0.800	mg/L	0	meq/L
Fluoride	1.38	mg/L	0.073	meq/L
Phosphate	0.380	mg/L	0.012	meq/L
Sulfate	5.48	mg/L	0.11	meq/L
Iron	0.995	mg/L	0.036	meq/L
Calcium	6.11	mg/L	0	meq/L
Magnesium	2.55	mg/L	0	meq/L
Potassium	0.519	mg/L	0.0	meq/L
Sodium	7.15	mg/L	0	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
 Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Unlined Pond**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-3	Date Reported:	08-13-12
Laboratory Number:	62814	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-08-12
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	7.71	s.u.		
Conductivity @ 25° C	137	umhos/cm		
Total Dissolved Solids @ 180C	114	mg/L		
SAR	1.30	ratio		
Total Alkalinity as CaCO3	102	mg/L		
Total Hardness as CaCO3	25.6	mg/L		
Bicarbonate as CaCO3	102	mg/L	1.7	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	0.340	mg/L	0.005	meq/L
Nitrite Nitrogen	0.120	mg/L	0.003	meq/L
Chloride	1.66	mg/L	0	meq/L
Fluoride	4.26	mg/L	0.224	meq/L
Phosphate	0.260	mg/L	0.008	meq/L
Sulfate	21.8	mg/L	0.45	meq/L
Iron	0.284	mg/L	0.010	meq/L
Calcium	6.33	mg/L	0	meq/L
Magnesium	2.39	mg/L	0	meq/L
Potassium	0.614	mg/L	0.0	meq/L
Sodium	15.0	mg/L	1	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Unlined Pond**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-4	Date Reported:	08-13-12
Laboratory Number:	62815	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-08-12
Preservative:	Cool		
Condition:	Intact		

Parameter	Analytical Result	Units		
pH	8.60	s.u.		
Conductivity @ 25° C	137	umhos/cm		
Total Dissolved Solids @ 180C	150	mg/L		
SAR	2.60	ratio		
Total Alkalinity as CaCO3	150	mg/L		
Total Hardness as CaCO3	10.1	mg/L		
Bicarbonate as CaCO3	150	mg/L	2.5	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	< 0.01	mg/L	0.000	meq/L
Nitrite Nitrogen	< 0.01	mg/L	0.000	meq/L
Chloride	3.84	mg/L	0	meq/L
Fluoride	2.44	mg/L	0.128	meq/L
Phosphate	0.480	mg/L	0.015	meq/L
Sulfate	9.48	mg/L	0.20	meq/L
Iron	8.12	mg/L	0.291	meq/L
Calcium	1.96	mg/L	0	meq/L
Magnesium	1.27	mg/L	0	meq/L
Potassium	0.455	mg/L	0.0	meq/L
Sodium	18.7	mg/L	1	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
 Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Unlined Pond**

**CATION / ANION ANALYSIS**

Client: Agua Moss
Sample ID: SB-5
Laboratory Number: 62816
Chain of Custody: 14221
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Project #: 07117-0005
Date Reported: 08-13-12
Date Sampled: 08-03-12
Date Received: 08-03-12
Date Analyzed: 08-08-12

Parameter	Analytical Result	Units		
pH	8.35	s.u.		
Conductivity @ 25° C	89.4	umhos/cm		
Total Dissolved Solids @ 180C	90.0	mg/L		
SAR	0.900	ratio		
Total Alkalinity as CaCO3	113	mg/L		
Total Hardness as CaCO3	40.8	mg/L		
Bicarbonate as CaCO3	113	mg/L	1.9	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	< 0.01	mg/L	0.000	meq/L
Nitrite Nitrogen	< 0.01	mg/L	0.000	meq/L
Chloride	0.780	mg/L	0	meq/L
Fluoride	1.70	mg/L	0.089	meq/L
Phosphate	0.460	mg/L	0.015	meq/L
Sulfate	4.20	mg/L	0.09	meq/L
Iron	3.30	mg/L	0.118	meq/L
Calcium	10.1	mg/L	1	meq/L
Magnesium	3.80	mg/L	0	meq/L
Potassium	1.66	mg/L	0.0	meq/L
Sodium	12.9	mg/L	1	meq/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **Unlined Pond**



TRACE METAL ANALYSIS

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-1	Date Reported:	08-14-12
Laboratory Number:	62812	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-13-12
Preservative:	Cool	Date Digested:	08-13-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	10

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
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Arsenic	1.79	0.01
Barium	29.4	0.01
Cadmium	0.15	0.01
Chromium	1.60	0.01
Copper	3.52	0.01
Lead	4.09	0.01
Manganese	158	0.01
Mercury	0.05	0.01
Selenium	ND	0.01
Silver	ND	0.01
Zinc	10.6	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Unlined Pond**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-2	Date Reported:	08-14-12
Laboratory Number:	62813	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-13-12
Preservative:	Cool	Date Digested:	08-13-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	10

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
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Arsenic	1.21	0.01
Barium	11.7	0.01
Cadmium	0.09	0.01
Chromium	0.81	0.01
Copper	1.84	0.01
Lead	2.71	0.01
Manganese	136	0.01
Mercury	ND	0.01
Selenium	ND	0.01
Silver	ND	0.01
Zinc	5.34	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Unlined Pond**



TRACE METAL ANALYSIS

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-3	Date Reported:	08-14-12
Laboratory Number:	62814	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-13-12
Preservative:	Cool	Date Digested:	08-13-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	10

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
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Arsenic	1.85	0.01
Barium	64.2	0.01
Cadmium	0.13	0.01
Chromium	1.47	0.01
Copper	3.03	0.01
Lead	3.14	0.01
Manganese	115	0.01
Mercury	0.09	0.01
Selenium	ND	0.01
Silver	ND	0.01
Zinc	7.92	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Unlined Pond**

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-4	Date Reported:	08-14-12
Laboratory Number:	62815	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-13-12
Preservative:	Cool	Date Digested:	08-13-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	10

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
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Arsenic	1.21	0.01
Barium	19.3	0.01
Cadmium	0.12	0.01
Chromium	1.16	0.01
Copper	2.64	0.01
Lead	3.49	0.01
Manganese	143	0.01
Mercury	0.02	0.01
Selenium	ND	0.01
Silver	ND	0.01
Zinc	8.08	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Unlined Pond**



TRACE METAL ANALYSIS

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-5	Date Reported:	08-14-12
Laboratory Number:	62816	Date Sampled:	08-03-12
Chain of Custody:	14221	Date Received:	08-03-12
Sample Matrix:	Soil	Date Analyzed:	08-13-12
Preservative:	Cool	Date Digested:	08-13-12
Condition:	Intact	Analysis Needed:	Total RCRA Metals
		Dilution	10

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
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Arsenic	1.33	0.01
Barium	28.2	0.01
Cadmium	0.12	0.01
Chromium	1.22	0.01
Copper	2.67	0.01
Lead	3.47	0.01
Manganese	143	0.01
Mercury	0.02	0.01
Selenium	ND	0.01
Silver	ND	0.01
Zinc	7.68	0.01

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, August 24, 1998.

Comments: **Unlined Pond**

Client:	QA/QC	Project #:	N/A
Sample ID:	08-13-TM QA/QC	Date Reported:	08-14-12
Laboratory Number:	62901	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Total Metals	Date Analyzed:	08-13-12
Condition:	N/A	Date Digested:	08-13-12
		Dilution	10

Blank & Duplicate Conc. (mg/Kg)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.01	3.25	3.16	2.68%	0% - 30%
Barium	ND	ND	0.01	58.0	56.3	2.98%	0% - 30%
Cadmium	ND	ND	0.01	0.21	0.21	0.00%	0% - 30%
Chromium	ND	ND	0.01	2.27	2.21	2.73%	0% - 30%
Copper	ND	ND	0.01	5.44	5.25	3.51%	0% - 30%
Lead	ND	ND	0.01	3.93	3.84	2.17%	0% - 30%
Mercury	ND	ND	0.01	0.01	0.01	0.00%	0% - 30%
Manganese	ND	ND	0.01	74.2	71.7	3.37%	0% - 30%
Selenium	ND	ND	0.01	0.11	0.10	12.6%	0% - 30%
Silver	ND	ND	0.01	ND	ND	0.00%	0% - 30%
Zinc	ND	ND	0.01	13.0	12.6	3.09%	0% - 30%

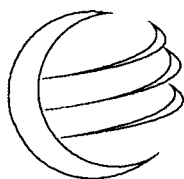
Spike Conc. (mg/Kg)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	2.50	3.25	5.57	96.9%	80% - 120%
Barium	5.00	58.0	57.1	90.6%	80% - 120%
Cadmium	2.50	0.21	2.56	94.5%	80% - 120%
Chromium	5.00	2.27	6.76	92.9%	80% - 120%
Copper	5.00	5.44	10.1	96.7%	80% - 120%
Lead	5.00	3.93	8.14	91.2%	80% - 120%
Mercury	1.00	0.01	0.96	95.2%	80% - 120%
Manganese	5.00	74.2	69.4	87.7%	80% - 120%
Selenium	1.00	0.11	1.08	97.6%	80% - 120%
Silver	1.00	ND	1.00	99.5%	80% - 120%
Zinc	5.00	13.0	17.0	94.5%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.
 SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: **QA/QC for Sample 62901, 62812-62816 and 62827**



envirotech

Analytical Laboratory

Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-1	Date Reported:	08-13-12
Laboratory Number:	62812	Date Sampled:	08-03-12
Sample Matrix:	Soil Extract	Date Received:	08-03-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Chain of Custody:	14221

Parameter	Analytical Result	Units
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Cyanide (total)	0.001	mg/L
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Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Unlined Pond**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-2	Date Reported:	08-13-12
Laboratory Number:	62813	Date Sampled:	08-03-12
Sample Matrix:	Soil Extract	Date Received:	08-03-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Chain of Custody:	14221

Parameter	Analytical Result	Units
-----------	-------------------	-------

Cyanide (total)	0.001	mg/L
-----------------	-------	------

Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Unlined Pond**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-3	Date Reported:	08-13-12
Laboratory Number:	62814	Date Sampled:	08-03-12
Sample Matrix:	Soil Extract	Date Received:	08-03-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Chain of Custody:	14221

Parameter	Analytical Result	Units
-----------	-------------------	-------

Cyanide (total)	0.001	mg/L
-----------------	-------	------

Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Unlined Pond**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-4	Date Reported:	08-13-12
Laboratory Number:	62815	Date Sampled:	08-03-12
Sample Matrix:	Soil Extract	Date Received:	08-03-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Chain of Custody:	14221

Parameter	Analytical Result	Units
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Cyanide (total)	0.012	mg/L
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Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Unlined Pond**



Water Analysis

Client:	Agua Moss	Project #:	07117-0005
Sample ID:	SB-5	Date Reported:	08-13-12
Laboratory Number:	62816	Date Sampled:	08-03-12
Sample Matrix:	Soil Extract	Date Received:	08-03-12
Preservative:	Cool	Date Analyzed:	08-13-12
Condition:	Intact	Chain of Custody:	14221

Parameter	Analytical Result	Units
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Cyanide (total)	0.001	mg/L
-----------------	-------	------

Reference: U.S.E.P.A., Method 335.3 Cyanide, Total.

Comments: **Unlined Pond**

CHAIN OF CUSTODY RECORD

14221

Client: <u>Agua Moss</u>		Project Name / Location: <u>Unlined Pond</u>		ANALYSIS / PARAMETERS													
Email results to: <u>Carri@envirotech-inc.com</u>		Sampler Name: <u>Chris Arrigo</u>		TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion / CN-	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
Client Phone No.:		Client No.: <u>07117-0005</u>															

Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion / CN-	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
					HgCl ₂	HCl	cod														
SB-1	8/3/12	8:55a	02812	1-4oz + 1 qt bag			✓	X	X		X	X								X	X
SB-2	8/3/12	9:00a	02813	1-4oz + 1 qt bag			✓	X	X		X	X								X	X
SB-3	8/3/12	9:10a	02814	1-4oz + 1 qt bag			✓	X	X		X	X								X	X
SB-4	8/3/12	9:20a	02815	1-4oz + 1 qt bag			✓	X	X		X	X								X	X
SB-5	8/3/12	9:30a	02816	1-4oz + 1 qt bag			✓	X	X		X	X								X	X

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/3/12</u> Time <u>10:12a</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/3/12</u> Time <u>10:12am</u>
Relinquished by: (Signature) <u>[Signature]</u>		Received by: (Signature)	
Sample Matrix Soil ☒ Solid ☐ Sludge ☐ Aqueous ☐ Other ☐			

PAGE NO: 1 OF 1



envirotech
(505) 632-0615 (800) 362-1879
5756 U.S. Hwy 64, Farmington, NM 87401

ENVIRONMENTAL SPECIALIST:
Chris Amigo
LAT: 36.757628
LONG: -108.072523

DATE STARTED: 8/3/12
DATE FINISHED: 8/3/12

(Agua Moss) FIELD REPORT: BGT / PIT CLOSURE VERIFICATION

LOCATION: NAME: Unlined Evap. Pond WELL #: _____ TEMP PIT: _____ PERMANENT PIT: ☒ BGT: _____
LEGAL ADD: UNIT: _____ SEC: 2 TWP: 29N RNG: 12W PM: _____
QTR/FOOTAGE: _____ CNTY: San Juan ST: NM

EXCAVATION APPROX: 275 FT. X 285 FT. X 25 FT. DEEP CUBIC YARDAGE: _____
DISPOSAL FACILITY: _____ REMEDIATION METHOD: _____
LAND OWNER: _____ ABL: _____ BGT / PIT VOLUME: _____
CONSTRUCTION MATERIAL: _____ DOUBLE-WALLED, WITH LEAK DETECTION: _____

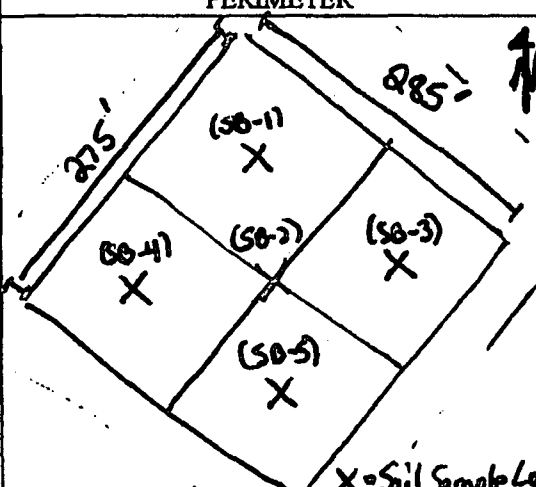
LOCATION APPROXIMATELY: _____ FT. FROM WELLHEAD _____
DEPTH TO GROUNDWATER: _____

TEMPORARY PIT - GROUNDWATER 50-100 FEET DEEP
BENZENE $\leq$ 0.2 mg/kg, BTEX $\leq$ 50 mg/kg, GRO & DRO FRACTION (8015) $\leq$ 500 mg/kg, TPH (418.1) $\leq$ 2500 mg/kg, CHLORIDES $\leq$ 500 mg/kg
TEMPORARY PIT - GROUNDWATER $\geq$ 100 FEET DEEP
BENZENE $\leq$ 0.2 mg/kg, BTEX $\leq$ 50 mg/kg, GRO & DRO FRACTION (8015) $\leq$ 500 mg/kg, TPH (418.1) $\leq$ 2500 mg/kg, CHLORIDES $\leq$ 1000 mg/kg
☒ PERMANENT PIT OR BGT
BENZENE $\leq$ 0.2 mg/kg, BTEX $\leq$ 50 mg/kg, TPH (418.1) $\leq$ 100 mg/kg, CHLORIDES $\leq$ 250 mg/kg

FIELD 418.1 ANALYSIS

TIME	SAMPLE ID.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (mg/kg)
	STD						
		1					
		2					
		3					
		4					
		5					
		6					

PERIMETER



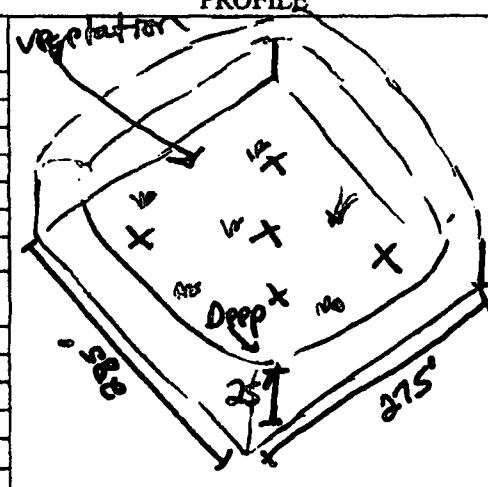
FIELD CHLORIDES RESULTS

SAMPLE ID	READING	CALC. (mg/kg)

PID RESULTS

SAMPLE ID	RESULTS (mg/kg)

PROFILE



LAB SAMPLES

SAMPLE ID	ANALYSIS	RESULTS
SB1-5	BENZENE	
SB1-5	BTEX	
SB1-5	GRO & DRO	
	CHLORIDES	
SB1-5	Metals	
SB1-5	Anion/Cation	

NOTES: Soil Samples were collected from 6" to 12" from the surface
SB-1: 36.757669, -108.072815 SB-3: 36.757848, -108.072472
SB-2: 36.757628, -108.072523 SB-4: 36.757377, -108.072596
SB-5: 36.757572, -108.072223
Ranking: _____
WORKORDER # _____ WHO ORDERED _____