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C – 138 LAND FARM

Date: 1999

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

March 1, 1999

Mr. Bill Beevers
Williams Field Service, Inc.
Manzanares District
P.O. Box 215
Bloomfield, NM 87413

(505) 320-4642
Fax (505) 632-4781

Project No.: 97050
Job No. : 705004

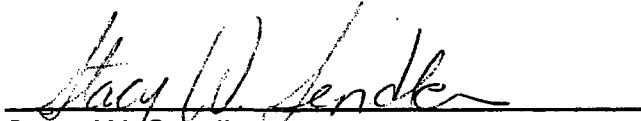
Dear Mr. Beevers,

Enclosed are the analytical results for one liquid sample collected from the location designated as "Horse Canyon". One liquid sample identified as "Waste Water" was collected by WFS designated personnel on 02/22/99, and delivered to the Envirotech laboratory on 02/22/99 for Major Anion/Cation analysis.

The sample was documented on Envirotech Chain of Custody No. 6616 and assigned Laboratory No. E697 for tracking purposes. The sample was analyzed on 02/23/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It has been our pleasure doing business with you and we hope you will consider Envirotech, Inc. for any of your future environmental contracting needs.

Respectfully submitted,
Envirotech, Inc.



Stacy W. Sandler
Environmental Scientist/Laboratory Manager

enclosure

SWS\sws\97050-04.lb1/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client: Williams Field Service
Sample ID: Waste Water
Laboratory Number: E697
Chain of Custody: 6616
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

Project #: 705004
Date Reported: 02-26-99
Date Sampled: 02-22-99
Date Received: 02-22-99
Date Extracted: N/A
Date Analyzed: 02-23-99

Parameter	Analytical Result	Units	Units
pH	6.87	s.u.	
Conductivity @ 25° C	3,465	umhos/cm	
Total Dissolved Solids @ 180C	1,730	mg/L	
Total Dissolved Solids (Calc)	1,712	mg/L	
SAR	8.6	ratio	
Total Alkalinity as CaCO3	970	mg/L	
Total Hardness as CaCO3	510	mg/L	
Bicarbonate as HCO3	970	mg/L	15.90 meq/L
Carbonate as CO3	<1	mg/L	0.00 meq/L
Hydroxide as OH	<1	mg/L	0.00 meq/L
Nitrate Nitrogen	3.0	mg/L	0.05 meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00 meq/L
Chloride	330	mg/L	9.31 meq/L
Fluoride	0.04	mg/L	0.00 meq/L
Phosphate	142	mg/L	4.49 meq/L
Sulfate	<0.1	mg/L	0.00 meq/L
Iron	14.0	mg/L	
Calcium	184	mg/L	9.18 meq/L
Magnesium	12.2	mg/L	1.00 meq/L
Potassium	6.8	mg/L	0.17 meq/L
Sodium	445	mg/L	19.36 meq/L
Cations			29.72 meq/L
Anions			29.74 meq/L
Cation/Anion Difference			0.09%

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

Comments: Horse Canyon.


Analyst


Review

CHAIN OF CUSTODY RECORD

6616

Client / Project Name Williams Field Service			Project Location Horse Canyon		ANALYSIS / PARAMETERS								
Sampler: Bill Beavers			Client No. 97050-04		No. of Containers 1	Carbide ✓	Balance						Remarks
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
WASTE WATER	2/22/99	1530	E697	LIQUID									
Relinquished by: (Signature) Bill Beavers			Date 2/22/99	Time 1440	Received by: (Signature) Don L. Caplan						Date 2-22-99	Time 1440	
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615										Sample Receipt			
											Y	N	N/A
										Received Intact	✓		
										Cool - Ice/Blue Ice	✓		

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

March 5, 1999

Mr. Bill Beevers
Williams Field Service, Inc.
Manzanares District
P.O. Box 215
Bloomfield, NM 87413

(505) 320-4642
Fax (505) 632-4781

Project No.: 97050
Job No. : 705004

Dear Mr. Beevers,

Enclosed are the analytical results for one liquid sample collected from the location designated as "Horse Canyon". One liquid sample identified as "Waste Water" was collected by WFS designated personnel on 02/22/99, and delivered to the Envirotech laboratory on 02/22/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6615 and assigned Laboratory No. E696 for tracking purposes. The sample was analyzed 02/22/99 through 03/05/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It has been our pleasure doing business with you and we hope you will consider Envirotech, Inc. for any of your future environmental contracting needs.

Respectfully submitted,
Envirotech, Inc.


Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

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Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-03-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Analyzed:	03-03-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.0473	0.0001	5.0
Barium	0.219	0.001	21
Cadmium	0.0083	0.0001	0.11
Chromium	0.0963	0.0001	0.60
Lead	0.0211	0.0001	0.75
Mercury	ND	0.0001	0.025
Selenium	0.0171	0.0001	5.7
Silver	ND	0.0001	0.14

ND - Parameter not detected at the stated detection limit.

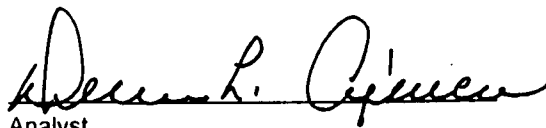
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

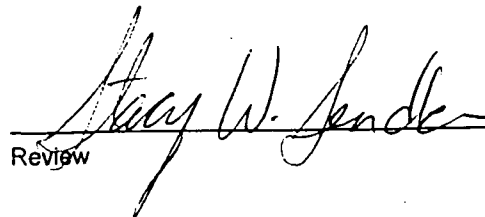
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

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

Comments: Horse Canyon.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	02-26-99
Lab ID#:	E696	Date Sampled:	02-22-99
Sample Matrix:	Water	Date Received:	02-22-99
Preservative:	Cool	Date Analyzed:	02-23-99
Condition:	Cool and Intact	Chain of Custody:	6615

Parameter	Result
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IGNITABILITY: Negative

CORROSIVITY: Negative pH = 6.87

REACTIVITY: Negative

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
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IGNITABILITY: Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.
(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

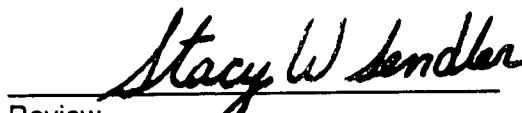
CORROSIVITY: Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.
(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY: Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23.
(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: Horse Canyon.


Analyst


Review

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-26-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.637	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.303	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	0.0035	0.0003	0.5
Tetrachloroethene	0.0012	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

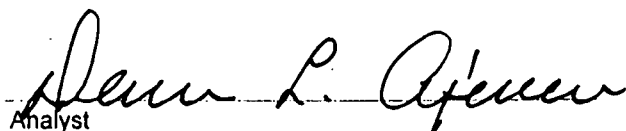
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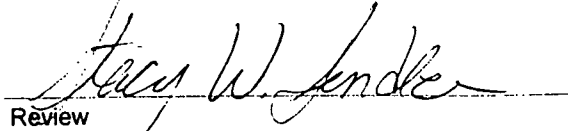
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Horse Canyon.


Analyst


Review

Client:	Williams field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E698	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-01-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	4.53	0.020	200
p,m-Cresol	6.08	0.040	200
2,4,6-Trichlorophenol	1.05	0.020	2.0
2,4,5-Trichlorophenol	17.1	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

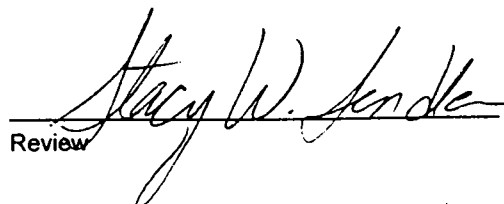
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: Horse Canyon.


Analyst


Review

Client:	Williams field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E896	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-01-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.236	0.020	5.0
Hexachloroethane	0.350	0.020	3.0
Nitrobenzene	0.207	0.020	2.0
Hexachlorobutadiene	0.430	0.020	0.5
2,4-Dinitrotoluene	0.076	0.020	0.13
HexachloroBenzene	0.100	0.020	0.13

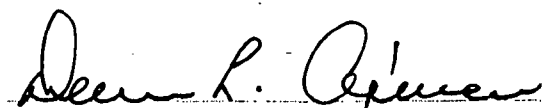
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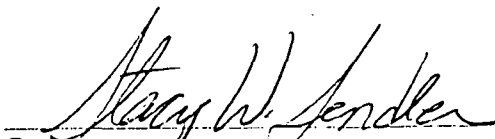
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Horse Canyon.


Analyst


Review

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

ENV RO TECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-01-99
Laboratory Number:	02-26-TCV Blank	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

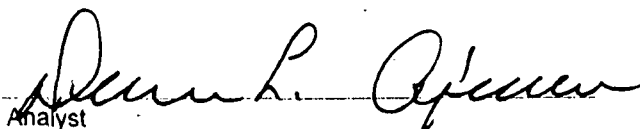
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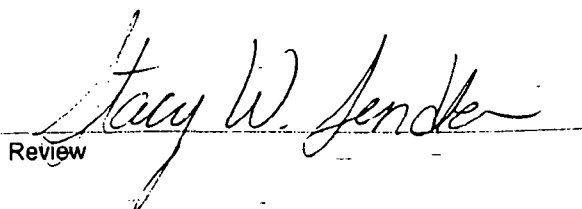
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-99
Condition:	N/A	Date Extracted:	02-22-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

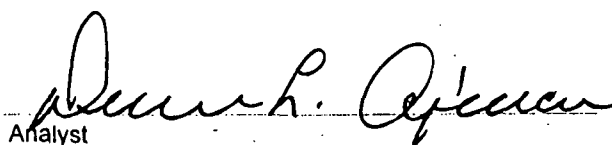
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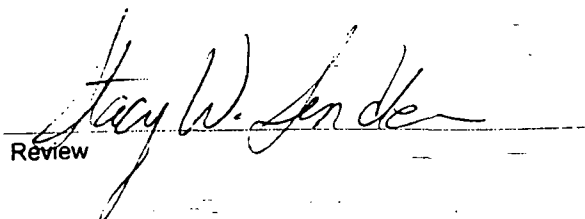
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

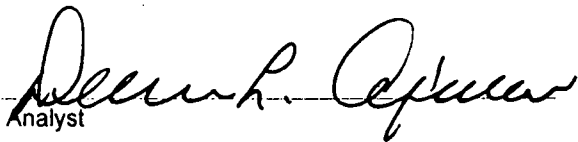
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-26-99
Condition:	N/A	Date Extracted:	N/A

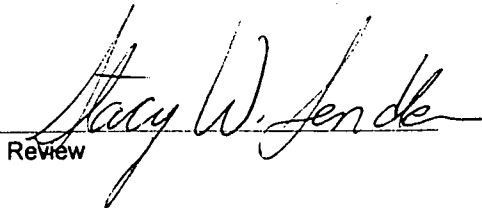
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Spike
Laboratory Number: E695
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

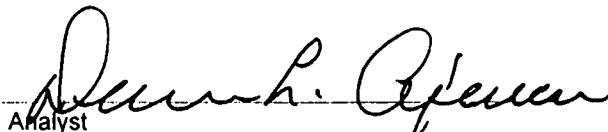
Project #: N/A
Date Reported: 03-01-99
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 02-26-99
Date Extracted: N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0495	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	ND	0.050	0.0498	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-01-99
Laboratory Number:	03-01-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-01-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results	Concentration	Detection	Regulatory
Parameter	(mg/L)	Limit	Limit
		(mg/L)	(mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

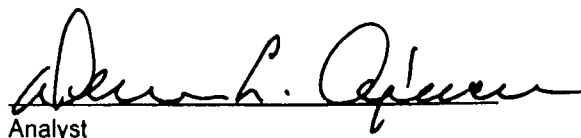
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

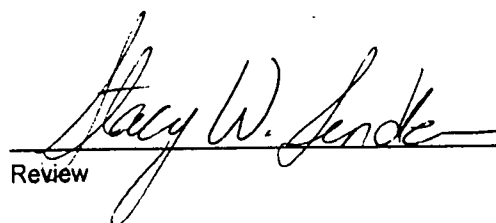
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-22-99
Condition:	Cool & Intact	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

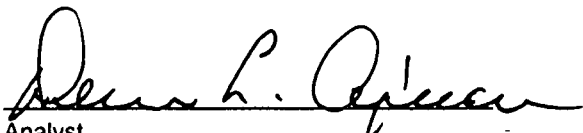
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

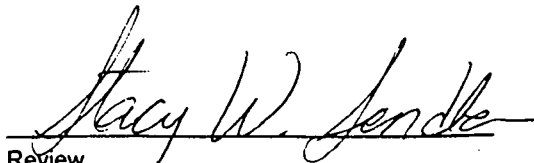
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

ENVIROTECH. LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report

Client: QA/QC
Sample ID: Matrix Duplicate
Laboratory Number: E695
Sample Matrix: Water
Preservative: Cool
Condition: Cool & Intact

Project #: N/A
Date Reported: 03-01-99
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 03-01-99
Analysis Requested: TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	0.708	0.701	0.020	1.0%
2,4,5-Trichlorophenol	0.222	0.219	0.020	1.1%
Pentachlorophenol	0.091	0.090	0.020	0.8%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

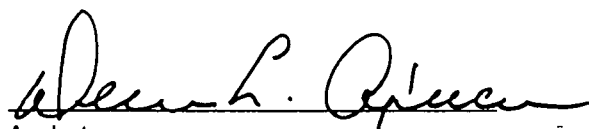
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

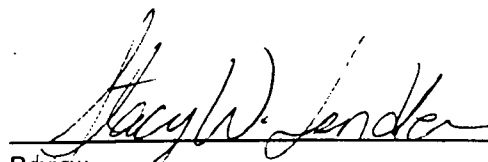
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client: QA/QC
Sample ID: Laboratory Blank
Laboratory Number: 03-01-TBN-Blank
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 03-01-99
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 03-01-99
Analysis Requested: TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

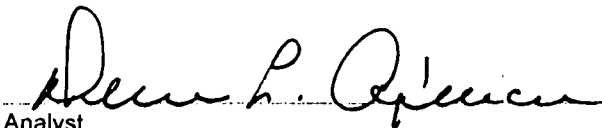
ND - Parameter not detected at the stated detection limit.

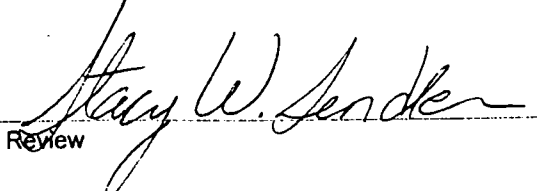
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-BN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-22-99
Condition:	Cool and Intact	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

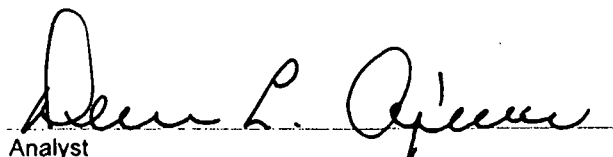
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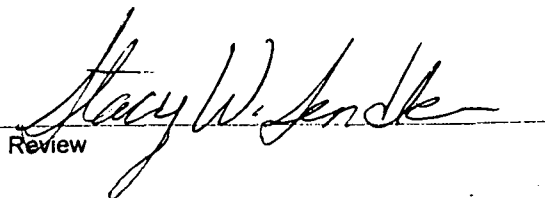
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-22-99
Condition:	N/A	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	ND	ND	0.0%	0.020
Hexachloroethane	0.056	0.055	1.0%	0.020
Nitrobenzene	ND	ND	0.0%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	ND	ND	0.0%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
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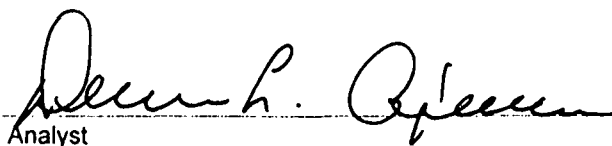
8090 Compounds

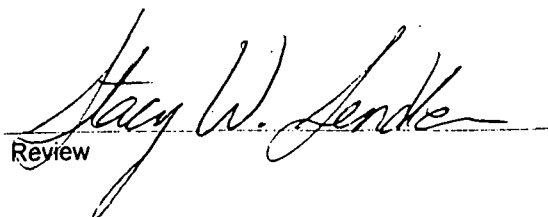
30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E695 - E696.


Analyst


Review

**EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	03-03-TCM QA/QC	Date Reported:	03-03-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	03-03-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	0.0437	0.0435	0.5%	0% - 30%
Barium	ND	ND	0.001	0.891	0.896	0.6%	0% - 30%
Cadmium	ND	ND	0.0001	0.0173	0.0174	0.6%	0% - 30%
Chromium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0149	0.0150	0.7%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	0.0315	0.0312	1.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Sample	Sample	Sample	Sample	Duplicate	Acceptance
Concentration	10%	10%	Sample	Recovery	Range
Arsenic	0.1000	0.0437	0.144	100.1%	80% - 120%
Barium	1.000	0.891	1.89	99.8%	80% - 120%
Cadmium	0.0500	0.0173	0.0672	99.9%	80% - 120%
Chromium	0.0500	ND	0.0498	99.6%	80% - 120%
Lead	0.1000	0.0149	0.115	99.9%	80% - 120%
Mercury	0.0250	ND	0.0249	99.6%	80% - 120%
Selenium	0.1000	0.0315	0.131	99.6%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

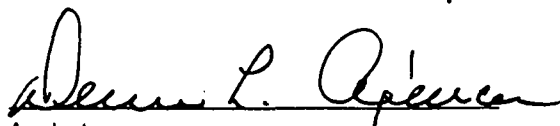
ND - Parameter not detected at the stated detection limit.

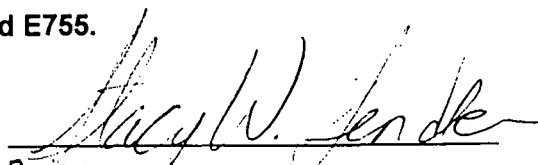
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: QA/QC for samples E695, E696 and E755.


Analyst


Review

CHAIN OF CUSTODY RECORD

6615

Client / Project Name Williams Field Service			Project Location Horse Canyon		ANALYSIS / PARAMETERS																				
Sampler: B. J. BEEVERS			Client No. 97050-04		No. of Containers 8	TCP w/o HEP						Remarks													
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix																					
WASTE WATER	2/22/99	1330	E696	LIQUID	8	✓																			
Relinquished by: (Signature) B. J. Beavers			Date 2/22/99	Time 1440	Received by: (Signature) Debra L. Apur			Date 2.22.99	Time 1440																
Relinquished by: (Signature)					Received by: (Signature)																				
Relinquished by: (Signature)					Received by: (Signature)																				
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615												Sample Receipt <table border="1"> <tr> <td></td> <td>Y</td> <td>N</td> <td>N/A</td> </tr> <tr> <td>Received Intact</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>Cool - Ice/Blue Ice</td> <td>✓</td> <td></td> <td></td> </tr> </table>			Y	N	N/A	Received Intact	✓			Cool - Ice/Blue Ice	✓		
	Y	N	N/A																						
Received Intact	✓																								
Cool - Ice/Blue Ice	✓																								

District I - (505) 393-6161
P. O. Box 1580
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

RECEIVED

JUN 16 1999

Environmental Bureau
Oil Conservation Division

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Burlington</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>LOCATION LIST</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR 3500 # 345 AZTEC NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>SEE LOCATION LIST</u>	
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

DRAIN WATER FROM COMPRESSOR OIL TANKS

RECEIVED
JUN 18 1999
OIL CON. DIV.
DIST. 3

RECEIVED
JUN 15 1999
OIL CON. DIV.
DIST. 3

CONTINUENCE of job (Permit)
FOR COMPRESSOR STATION
WASTE STREAMS

Estimated Volume 3000+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: mgr DATE: 6-11-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Douglas J. Faint TITLE: Geologist DATE: 6/15/99
APPROVED BY: Martyn J. Huber TITLE: Environmental Geologist DATE: 6/16/99

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
111 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Burlington</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>LOCATION LIST</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR 3500 # 345 AZtec NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>SEE LOCATION LIST</u>	
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>B.</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

DRAIN WATER FROM COMPRESSOR OIL TANKS

RECEIVED
JUN 15 1999
OIL CON. DIV.
DIST. 3

Continuance of Permit
for compressor stations
WASTESTREAM

Estimated Volume 3000+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 6-11-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Funt TITLE: Geologist DATE: 6/15/99
APPROVED BY: _____ TITLE: _____ DATE: _____

BURLINGTON RESOURCES

SAN JUAN DIVISION

June 2, 1999

Sunco Trucking
P.O. Box 900
5651 U.S. Highway 64
Farmington, NM 87499

Attention: Mike Talovich, Manager

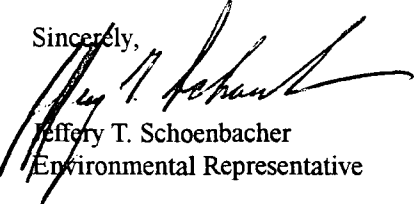
Re: Drained Water from Used Oil Tank Annual Non-Exempt Certification

Dear Mr. Talovich:

The purpose of this correspondence is to submit to your department the attached Certificate of Waste Status form for water generated from draining the used oil tank at the compressor stations. This waste stream was analyzed to comply with 40 CFR 262.11 waste determination requirements contained in the Resource Conservation and Recovery Act (RCRA). The parameters that were chosen for characterizing this waste stream was determined through "generators knowledge" defined under 40 CFR 262.11 (c) (2). The analysis for this waste stream exhibits this waste as being a non-hazardous waste. As required, the analysis was sent to you November 17, 1998 and was identified as Sample Project CC-51816.

Should you have any questions concerning the content or need additional information please feel free to contact me at 505-326-9537. Thank you for your time and consideration.

Sincerely,



Jeffery T. Schoenbacher
Environmental Representative

CC: Correspondence

JTS:

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Burlington Resources 3535 East 30 th Street Farmington NM 87401	2. Destination Name: Sunco Disposal
3. Originating Site (name): All Compressor Stations Unit:	Location of the Waste (Street address /or ULSTR): See Attached. Sampled under project CC-51816 (non-haz). Section: Township: Range:
4. Source and Description of Waste: Drained water from oil tank.	

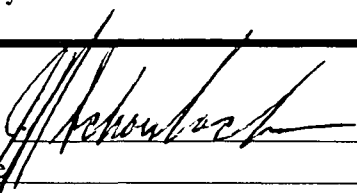
I, Jeff Schoenbacher representative for:
Burlington Resources do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check the appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): 
Title: Env. Representative
Date: Wednesday, June 02, 1999

Facility ID:	Compressor Site:	Quarter:	Section:	Township:	Range:	Lat./Long		
35	<u>311 Compressor Station</u>		SW	27	30N	7W		San Juan NM
4	<u>355 Compressor Station</u>		SW	14	32N	11W		San Juan NM
21	<u>Albright</u>		NW	22	29N	10W		San Juan NM
34	<u>Antler Compressor Station</u>		SW	15	32N	11W	W108°-1.544'	La Plata CO
6	<u>Arch Rock</u>	2/21/00	SW	14	32N	11W	W107°-51.536'	San Juan NM
5	<u>Buena Vista</u>	9/5/01	NE	13	30N	9W	W107°-43.702'	San Juan NM
7	<u>Cedar Hill</u>	9/30/01	SW	29	30N	10W	W107°-54.449'	San Juan NM
23	<u>Cox Canyon</u>		NE	24	30N	9W		San Juan NM
12	<u>Frances Mesa</u>	6/9/00	SW	27	30N	7W	W107°-33.719'	Rio Arriba NM
8	<u>Gobernador Compressor</u>	11/11/00	SW	10	31N	7W	W107°-37.028'	Rio Arriba NM
2	<u>Hart Canyon</u>	10/11/00	SE	20	31N	10W	W107°-54.032'	San Juan NM
13	<u>Manzanares</u>	10/11/00	SE	4	29N	8W		San Juan NM
17	<u>Middle Mesa Compressor</u>	11/14/01	SW	10	31N	7W	W107°-33.866'	San Juan NM
14	<u>Pump Canyon</u>	11/7/00	NE	24	30N	9W	W107°-43.936'	San Juan NM
28	<u>Pump Mesa</u>	8/19/03	SW	27	30N	7W	W107°-38.712'	San Juan NM
16	<u>Quinn</u>	8/9/01	SW	16	31N	8W	W107°-41.303'	San Juan NM

Facility ID:	Compressor Site:		Quarter:	Section:	Township:	Range:	Lat./Long		
22	<u>Rattlesnake</u>	1/17/02	SW	10	31N	7W		San Juan	NM
19	<u>Rudy</u>		SE	35	29N	11W		San Juan	NM
15	<u>Sandstone</u>	6/9/00	SE	32	31N	8W		San Juan	NM
18	<u>Sims Mesa</u>	8/19/03	NE	22	30N	7W	W107°-33.096'	Rio Arriba	NM
3	<u>Ute Compressor Station</u>		SW	14	32N	11W		La Plata	CO
36	<u>Val Verde Plant</u>	9/27/99	SE	11	29N	11W		San Juan	NM
20	<u>Zachary</u>		SW	34	29N	10W		San Juan	NM

BURLINGTON RESOURCES

SAN JUAN DIVISION
November 11, 1998

Sunco Trucking
P.O. Box 900
5651 U.S. Highway 64
Farmington, NM 87499

Attention: Mike Talovich, Manager

Re: Characterization of Drained Water from Used Oil Tank

Dear Mr. Talovich:

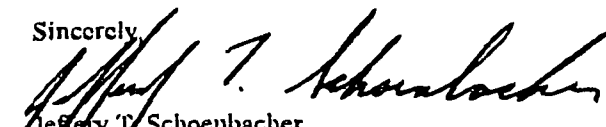
The purpose of this correspondence is to submit to your department the attached wastewater analysis for water generated from draining the used oil tank.

Per your request, I have enclosed the waste analysis (CC#51816) for your records and for submitting to OCD under the C-138 Non-Exempt Waste approval form. The main purpose for analyzing this particular waste streams was to comply with 40 CFR 262.11 waste determination requirements contained in the Resource Conservation and Recovery Act (RCRA). As a result, the water was analyzed for hazardous characteristics focusing on TCLP metals, TCLP VOA, TCLP Semi-VOA, and flash point. Upon evaluating the analysis for this waste, it appears the material does not exhibit the characteristics of a hazardous waste. The pH, herbicides, and pesticides were not analyzed since the liquid is wash-down water, which is not characteristically corrosive and herbicide/pesticide do not come in contact with this waste.

Regarding the generation rates, the material will be generated periodically at all the compressor units' (13) Burlington Resources currently operates. The plans for draining the waste oil tanks of water component would proceed by a company representative contacting Sunco when a waste oil shipment is warranted. The intention of removing the water component from the waste oil tank is a direct waste minimization practice to eliminate the oil/water from mixture Burlington Resources operations.

Should you have any questions concerning the content or need additional information please feel free to contact me at 505-326-9537. Thank you for your time and consideration.

Sincerely,



Jeffrey T. Schoenbacher
Environmental Representative

Enc. Sample Project CC-51816

CC: Bruce Gantner
Ed Hasely
Greg Kardo
Gaza Scabolt
Ken Johnson
Correspondence
Compressor Files

JTS:

2604 W. Main Street
Farmington, New Mexico 87401

PRELIMINARY

VOLATILE ORGANIC TOXICITY CHARACTERISTIC LIST
TCLP Leachate
Method 8260

Client:	Burlington Resources	Date Reported:	11/10/98
Project:	Oil Tank Water / Compressor Stations	Date Sampled:	11/02/98
Sample ID:	DW #11298	Date Received:	11/02/98
Laboratory ID:	0398G08445	Date Analyzed:	11/09/98
Sample Matrix:	Water/Oil Mix		



Benzene	0.20	0.10	0.5	mg/L
2-Butanone (MEK)	ND	0.10	0.5	mg/L
Carbon tetrachloride	ND	0.10	100	mg/L
Chlorobenzene	ND	0.10	6.0	mg/L
Chloroform	ND	0.10	7.5	mg/L
1,2-Dichloroethane	ND	0.10	0.6	mg/L
1,1-Dichloroethene	ND	0.10	0.7	mg/L
1,4 Dichlorobenzene	ND	0.10	200	mg/L
Tetrachloroethene	ND	0.10	0.7	mg/L
Trichloroethene	ND	0.10	0.5	mg/L
Vinyl chloride	ND	0.10	0.2	mg/L

ND- Analyte not detected at stated detection level.

Reported By 

Reviewed: _____

PRELIMINARY

SEMIVOLATILE ORGANICS /TCLP TCLP Leachate Method 8270

Client: **Burlington Resources**
Project: **Oil Tank Water / Compressor Stations**
Sample ID: **DW # 11298**
Laboratory ID: **0398G08448**
Sample Matrix: **Oil / Water Mix**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/09/98**



Cresol(Total)	ND	1.0	200.0	mg/L
2,4-Dinitrotoluene	ND	0.10	0.13	mg/L
Hexachlorobenzene	ND	0.10	0.13	mg/L
Hexachlorobutadiene	ND	0.20	0.5	mg/L
Hexachloroethane	ND	0.10	3.0	mg/L
Nitrobenzene	ND	0.50	2.0	mg/L
Pentachlorophenol	ND	0.20	100	mg/L
Pyridine	ND	0.50	5.0	mg/L
2,4,5-Trichlorophenol	ND	0.50	400.0	mg/L
2,4,6-Trichlorophenol	ND	0.50	2.0	mg/L

ND - Analyte not detected at stated detection level.

Reported By: 

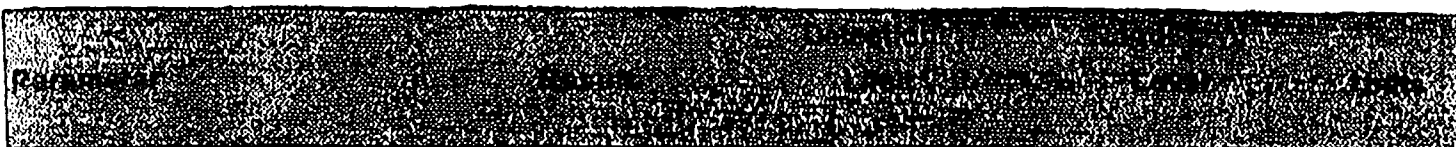
Reviewed: _____

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION**

PRELIMINARY

Client: **Burlington Resources**
Project: **Oil Tank Water / Compressor Stations**
Sample ID: **DW #11298**
Laboratory ID: **0398G08448**
Sample Matrix: **Oil / Water Mix**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/10/98**



Arsenic.....	<0.061	0.061	5	mg/L
Barium.....	0.21	0.001	100	mg/L
Cadmium.....	<0.008	0.008	1	mg/L
Chromium.....	0.084	0.008	5	mg/L
Lead.....	<0.04	0.04	5	mg/L
Mercury.....	<0.0004	0.0004	0.2	mg/L
Selenium.....	<0.05	0.05	1	mg/L
Silver.....	<0.03	0.03	5	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure,
SW-846 "Test Methods for Evaluating Solid Waste:
Physical/Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total
Metals, SW-846 "Test Methods for Evaluating Solid Waste: Physical/
Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Comments:

Reported By: 

Reviewed: _____

Office I - (505) 393-6161
Box 1980
S. First
Albuquerque, NM 87241-1980
Office II - (505) 748-1283
Office III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
MAY 28 1999
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95
Submit Original
Plus 1 Copy
to appropriate
District Office

OIL CON. DIV.
DIST. 3

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>FMC CORPORATION</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD WASH SUMPS</u>
2. Management Facility Destination <u>Key DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>#345 CR 3500 AZARC NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>#17 Canyon Road 5717</u> <u>FERRELLATION NM</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

water mixed with grease and pipe dope mostly water

RECEIVED
MAY 21 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 160 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: WMA DATE: 5-20-99
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. _____

(This space for State Use)

APPROVED BY: Denny G. Fent TITLE: Geologist DATE: 5/21/99
APPROVED BY: Martyn J. Kuby TITLE: Env Geologist DATE: 5-28-99

(505) 393-6161
Box 1980
Santa Fe, NM 87501-1980
Office II - (505) 748-1283
S. First
Office III - (505) 334-6178
Rio Brazos Road
Santa Fe, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/6/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒
Verbal Approval Received: Yes ☐ No ☒
2. Management Facility Destination Re DISPOSAL
3. Address of Facility Operator 345 W 3500 AZtec NM
4. Generator FC
5. Originating Site WASHSU S
6. Transporter
7. Location of Material (Street Address or ULSTR) #17 Canyon Road ST
8. State
9. Circle One:

- A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

water mixed with grease and pipe dope mostly water

RECEIVED
MAY 21 1999

OIL CON. DIV.
DIST. 3

Estimated Volume 160 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: mgr DATE: 5-20-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. _____

(This space for State Use)

APPROVED BY: Denny G. Funt TITLE: Geologist DATE: 5/21/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: FMC Corporation #20 County Road 5777 Farmington, NM	2. Destination Name: KEY ENERGY SERVICES DISPOSAL FACILITY
3. Originating Site (name): SAME →	
Location of the Waste (Street address &/or ULSTR): #17 County Road 5777 Farmington, NM	
Attach list of originating sites as appropriate	
4. Source and Description of Waste WASH BAY SUMP TANKS. MOSTLY WATER WITH RESIDUAL GREASE AND SMALL AMOUNTS OF PIPE DOPE FROM THE SPRAYING OFF OF WELLHEADS.	

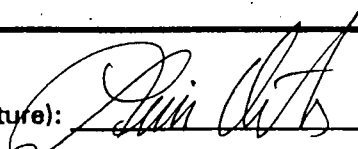
I, Luis Ortiz representative for: _____
(Print Name)
FMC CORP., WELLHEAD EQUIPMENT DIVISION do hereby certify that,
 according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste
 ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
 analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): 

Title: DIST. COORDINATOR

Date: 5-18-99

RECEIVED MAY 17 1999

ACZ**Analytical Results**

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

Lab Sample ID: **L22950-02**
Client Sample ID: **9905003-02A**
Client Project ID:
ACZ Report ID: **RG92326 FMC302 Indoor Sump**

On Site Technologies, LTD.
612 E Murray Dr
Farmington, NM 87499
David Cox

Date Sampled: **4/30/99 10:05**
Date Received: **5/4/99**
Date Reported: **5/13/99**

Sample Matrix: **Sludge**

Soil Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Ignitability (Flashpoint)	M1010, Pensky-Martens Closed Cup	No Flash		C	1	5	5/12/99	as/cv
pH, Corrosivity	M9045	8.6		units	0.1	0.1	5/12/99	as

Wet Chemistry

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Cyanide, reactive	Section 7.3 SW-846 (3rd Ed) & M9012		U	mg/Kg	0.03	0.1	5/6/99	bg
Sulfide, reactive	Section 7.3 SW-846 (3rd Ed) & M9030	2.1		mg/Kg	0.1	1	5/5/99	mh

Note: Flashpoint - No Flash to 94° C.

Inorganic Qualifiers (based on EPA CLP 1/90)

U = Analyte was analyzed for but not detected at the indicated MDL
B = Analyte concentration detected at a value between MDL and PQL
PQL = Practical Quantitation Limit

RVPoulsen
Vice President of Operations: Ralph Poulsen

On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

ACZ Laboratories, Inc.
2773 Downhill Drive

TEL: (800) 334-5493
FAX: (970) 879-2216

Steamboat Springs, Colorado 80487

Acct #: TJV0776

(10) 5/3/99

03-May-99

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests						
				E150.1	SW1010	Sw/7.3.3.2 CYANIDE	Sw/7.3.4.2 SULFIDE			
9905003-01A	Aqueous	4/30/99 9:20:00 AM	1LAMGU	1	1	1	1			
9905003-02A	Aqueous	4/30/99 10:05:00 AM	1LAMGU	1	1	1	1			

Comments: Please analyze two (2) water samples for Reactivity, Corrosivity and Ignitability.

Relinquished by: <u>Heidi Rene</u>	Date/Time: <u>5/3/99 1530</u>	Received by: <u>[Signature]</u>	Date/Time: <u>5/4/99 10:00</u>
Relinquished by:		Received by:	

RECEIVED MAY 10 1999

SAMPLE RECEIPT FORM

CLIENT:

ON-SITE

DATE

5/4/99

PROJECT #

L22950

1) Does this project require special handling procedures such as CLP protocol?	<u>NA</u>	YES	NO
2) Are the custody seals on the cooler intact?	<u>NA</u>	YES	NO
3) Are the custody seals on the sample containers intact?	<u>NA</u>	YES	NO
4) Is there a Chain of Custody (COC), or other directive shipping papers present?		<u>YES</u>	NO
5) Is the COC complete? Relinquished? Yes ___ No ___ Requested Analysis? Yes ___ No ___		<u>YES</u>	NO
6) Is the COC in agreement with the samples received? # of Samples: Yes ___ No ___ Sample ID: Yes ___ No ___ Matrix: Yes ___ No ___ # of Containers: Yes ___ No ___		<u>YES</u>	NO
7) Is there enough sample for all requested analysis?		<u>YES</u>	NO
8) Are all samples within holding times for requested analysis?		<u>YES</u>	NO
9) Were all sample containers received intact?		<u>YES</u>	NO
10) Are samples requiring no headspace, headspace free?	<u>NA</u>	YES	NO
11) Do the samples require a Foreign Soils Permit Label or quarantine?		YES	<u>NO</u>
12) Do samples require special disposal/hold considerations? Non-Hazardous: Yes ___ No ___ Hazardous: Yes ___ No ___ Hold: ___ months			

Describe "NO" items (except #1, 11, & 12):

Was the client contacted? Yes ___ No ___

If yes: Date: _____

Name of person contacted: _____

Actions taken or client instructions:

Signature: [Signature]

CLIENT:

ON-SITE

DATE _____

5/4/99

PROJECT #:

122950

ANALYST:

DATE

If container radioactivity is
> 25 $\mu\text{R/hr}$ then each sample
must be screened.

[illegible]



CHA N OF C . STODY RECORD

10132

Date: 4/30/99Page: 1 of 1612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Purchase Order No.:		Project No.:		REPORT RESULTS TO	Name <u>Shawn Adams</u>		Title <u>Owner</u>								
SEND INVOICE TO	Name <u>Shawn Adams</u>				Company <u>Contract Environmental Services</u>										
	Company <u>Contract Environmental Svcs.</u>				Mailing Address <u>P.O. Box 3376</u>										
	Address <u>P.O. Box 3376</u>				City, State, Zip <u>Farmington NM 87499</u>										
	City, State, Zip <u>Farmington, NM 87499</u>				Telephone No. <u>325-1178</u>		Telefax No.								
PROJECT LOCATION: <u>FMC Outdoor Sump</u> <u>FMC Indoor Sump</u>				Number of Containers	ANALYSIS REQUESTED										
SAMPLER'S SIGNATURE: <u>Wes Hall</u>															
SAMPLE IDENTIFICATION					LAB ID										
DATE TIME MATRIX PRES.															
<u>FMC 301 Outdoor Sump</u> <u>4/30/99</u> <u>7:20</u> <u>A</u> <u>ALAC</u> <u>2</u>															
<u>FMC 302 Indoor Sump</u> <u>1</u> <u>10:05</u> <u>A</u> <u>ALAC</u> <u>2</u>															
Relinquished by: <u>Wes Hall</u>				Date/Time: <u>4/30/99</u>				Received by: <u>David D. Martinez</u>				Date/Time: <u>4/30/99</u>			
Relinquished by:				Date/Time:				Received by:				Date/Time:			
Relinquished by:				Date/Time:				Received by:				Date/Time:			
Method of Shipment:				Rush		24-48 Hours		10 Working Days		By Date					
Authorized by: <u>Wes Hall</u> Date <u>4/30/99</u> (Client Signature <u>Must</u> Accompany Request)				Special Instructions / Remarks: <u>Please process as soon as possible and for results immediately.</u>											

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

To Re-order Call 325-9600 or Fax 325-9764 Environmental Graphics FORM # 01

RECEIVED MAY 14 1999



Mountain States Analytical, Inc.

The Quality Solution

May 10, 1999

Mr. David Cox
On-Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: TCLP Analysis
Project No.: 9904032
MSAI Group: 26620

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following sample is included in the report.

9904032-01A **FMC Indoor Sump Composite** (X)

All holding times were met for the tests performed on these samples.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen
Project Manager





Mountain States Analytical, Inc.

The Quality Solution

Analytical Report

On-Site Technologies, Ltd.

612 E Murray Drive

Farmington, NM 87401

Attn: Mr. David Cox

Project: TCLP Analysis

Sample ID: 9904032-01A

Matrix: Waste Water

MSAI Sample: 95990

MSAI Group: 26620

Date Reported: 05/10/99

Discard Date: 06/09/99

Date Submitted: 04/20/99

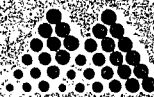
Date Sampled: 04/19/99

Collected by:

Purchase Order:

Project No.: 9904032

Test	Analysis	Results as Received	Units	Dilution Factor	Method Detection Limit
0393T	Flame/hrICP Prep, TCLP, 3010A Method: SW-846 3010A	Batch. w160		1	
0410	Mercury Prep CVAA, Filtration Method: SW-846 7470A	Batch. w434		1	
13027	Metals by hrICP, TCLP (UTS) Method: SW-846 6010B				
	Arsenic	ND	mg/l	1	0.02
	Barium	1.08	mg/l	1	0.004
	Cadmium	0.022	mg/l	1	0.004
	Chromium	ND	mg/l	1	0.010
	Lead	0.14	mg/l	1	0.02
	Selenium	ND	mg/l	1	0.02
	Silver	ND	mg/l	1	0.004
1524	Mercury by CVAA, TCLP, 7470A Method: SW-846 7470A	0.0001	mg/l	1	0.0001
0946	TCLP Extraction, ZHE, sw, 1311 Method: SW-846 1311	100	% Solids	1	
0947J	TCLP Extraction, hrICP, Metals Method: SW-846 1311	100	% Solids	1	
0947M	TCLP Extraction, Mercury, 1311 Method: SW-846 1311	100	% Solids	1	
0947S	TCLP Extraction, Semi-VOA, 1311 Method: SW-846 1311	100	% Solids	1	



Mountain States Analytical, Inc.

The Quality Solution

Analytical Report

Page 2

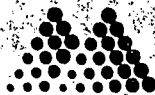
On-Site Technologies, Ltd.

Sample ID: 9904032-01A

MSAI Sample: 95990

MSAI Group: 26620

Test	Analysis	Results as Received	Units	Dilution Factor	Method Detection Limit
0949	Semi-VOA, TCLP				
	Method: SW-846 8270A				
	2,4-Dinitrotoluene	ND	mg/l	1	0.0060
	Hexachlorobenzene	ND	mg/l	1	0.0076
	Hexachlorobutadiene	ND	mg/l	1	0.029
	Hexachloroethane	ND	mg/l	1	0.032
	Nitrobenzene	ND	mg/l	1	0.0065
	Pyridine	ND	mg/l	1	0.0060
	2-Methylphenol (o-Cresol)	ND	mg/l	1	0.008
	3 and 4- Methylphenol (m+p cresol)	ND	mg/l	1	0.007
	Pentachlorophenol	ND	mg/l	1	0.0090
	2,4,5-Trichlorophenol	ND	mg/l	1	0.014
	2,4,6-Trichlorophenol	ND	mg/l	1	0.013
3000T	SVOA Extraction, TCLP	Complete		1	
	Method: SW-846 3510B				
14145	Volatiles, TCLP 8260B, SW				
	Method: SW-846 8260B				
	Benzene	ND	mg/l	10	0.0016
	Carbon tetrachloride	ND	mg/l	10	0.0037
	Chlorobenzene	ND	mg/l	10	0.0027
	Chloroform	ND	mg/l	10	0.0022
	1,2-Dichloroethane	ND	mg/l	10	0.0027
	1,1-Dichloroethene	ND	mg/l	10	0.0140
	2-Butanone (MEK)	ND	mg/l	10	0.100
	Tetrachloroethene	ND	mg/l	10	0.0023
	Trichloroethene	ND	mg/l	10	0.0032
	Vinyl chloride	ND	mg/l	10	0.0098
	1,4-Dichlorobenzene	ND	mg/l	10	0.0016



Mountain States Analytical, Inc.

The Quality Solution

Analytical Report

Page 3

On-Site Technologies, Ltd.

Sample ID: 9904032-01A

MSAI Sample: 95990

MSAI Group: 26620

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

Analysis Batch Number: 1524 -04/22/99-147 -1

Test Identification : 1524 -Mercury by CVAA, TCLP, 7470A

Sequence : 1524 -1

Number of Samples : 15

Batch Data-Date/Time : 04/22/99 / 15:14:59

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
26629-96011	Mercury	0.1120(1d)	0.1000

SPIKE		QC LIMITS					
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
26629-96019	Mercury	25.0000	0.1250	24.8160	98.8	80.0	120.0
26629-96018-2	Mercury	25.0000	0.1250	22.3600	88.9	50.0	150.0

MSD		QC LIMITS							
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
26629-96020	Mercury	25.0000	0.1250	24.6880	98.3	80.0	120.0	0.5	20.0

DUPLICATE		RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
26629-96018	Mercury	0.1250	0.0470	90.7(5a)	20.0	1.00

CONTROL		QC LIMITS				
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER
26629-96012	Mercury	2.6080	2.5000	104.3	80.0	115.0

CCV #		QC LIMITS			
ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
ICV-	Mercury	3.0000	3.1830	106.1	90.0 110.0
CCV--2	Mercury	5.0000	5.1060	102.1	80.0 120.0
CCV--3	Mercury	5.0000	4.9950	99.9	80.0 120.0
CCV--4	Mercury	5.0000	4.9940	99.9	80.0 120.0
CCV--5	Mercury	5.0000	5.0410	100.8	80.0 120.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Mercury	0.0340	0.1000
CCB-	Mercury	0.0560	0.1000
CCB-	Mercury	-0.0040	0.1000
CCB-	Mercury	-0.0450	0.1000
CCB-	Mercury	-0.0500	0.1000

----- Result Footnotes -----

(1d) - The preparation blank concentration is less than 5% of the regulatory limit

(5a) - Duplicates not evaluated: Results are <10x detection limit

Groups & Samples

26620-95990	26626-96008	26627-96009	26629-96011	26629-96012	26629-96013	26629-96014	26629-96015
26629-96016	26629-96017	26629-96018	26629-96019	26629-96020	26629-96021	26629-96022	26629-96026
26629-96027	26629-96028	26629-96029					

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/26/99
13:53:57
Group: 26620

Analysis Batch Number: HREXT-04/22/99-114-1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Data-Date/Time : 04/23/99 / 07:19:29

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW1-160	Silver	0.0001	0.0040
	Arsenic	0.0098	0.0200
	Barium	0.0008	0.0040
	Beryllium	ND	0.0002
	Cadmium	0.0006	0.0040
	Chromium	ND	0.0100
	Copper	0.0021	0.0100
	Nickel	ND	0.0040
	Lead	0.0011	0.0200
	Antimony	ND	0.0200
	Selenium	ND	0.0200
	Thallium	ND	0.0200
	Vanadium	ND	0.0040
	Zinc	0.0253	0.0500

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	QC LIMITS	
						LOWER	UPPER
26629-96018	Silver	0.1000	0.0856	0.1927	107.1	75.0	125.0
	Arsenic	5.0000	1.0347	6.2665	104.6	75.0	125.0
	Barium	10.0000	0.1766	9.6578	94.8	75.0	125.0
	Beryllium	0.1000	0.0605	0.1653	104.8	75.0	125.0
	Cadmium	0.1000	4.0258	4.1988	173.0(2k)	75.0	125.0
	Chromium	0.5000	0.0356	0.5346	99.8	75.0	125.0
	Copper	0.5000	10.7664	11.3455	115.8	75.0	125.0
	Nickel	5.0000	10.1367	14.7737	92.7	75.0	125.0
	Lead	0.5000	0.2250	0.6840	91.8	75.0	125.0
	Antimony	1.0000	1.0731	2.1852	111.2	75.0	125.0
	Selenium	5.0000	-0.0074	5.3374	106.9	75.0	125.0
	Thallium	0.2000	0.0926	0.2757	91.6	75.0	125.0
	Vanadium	1.0000	0.0175	1.0023	98.5	75.0	125.0
	Zinc	5.0000	92.8440	96.1863	66.8(2k)	75.0	125.0
26629-96018-2	Silver	0.1000	0.0856	0.1597	74.1(2b)	75.0	125.0
	Arsenic	5.0000	1.0347	5.9613	98.5	75.0	125.0
	Barium	10.0000	0.1766	9.2387	90.6	75.0	125.0
	Beryllium	0.1000	0.0605	0.1530	92.5	75.0	125.0
	Cadmium	0.1000	4.0258	3.8209	-204.9(2k)	75.0	125.0
	Chromium	0.5000	0.0356	0.5151	95.9	75.0	125.0
	Copper	0.5000	10.7664	10.1744	-118.4(2k)	75.0	125.0
	Nickel	5.0000	10.1367	14.2540	82.3	75.0	125.0
	Lead	0.5000	0.2250	0.6626	87.5	75.0	125.0
	Antimony	1.0000	1.0731	2.0435	97.0	75.0	125.0
	Selenium	5.0000	-0.0074	5.1196	102.5	75.0	125.0
	Thallium	0.2000	0.0926	0.2038	55.6(2b)	75.0	125.0
	Vanadium	1.0000	0.0175	0.9635	94.6	75.0	125.0
	Zinc	5.0000	92.8440	92.9369	1.9(2k)	75.0	125.0

MSD

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	QC LIMITS		RPD #	LIMIT
						LOWER	UPPER		
26629-96018	Silver	0.1000	0.0856	0.1846	99.0	75.0	125.0	4.3	20.0
	Arsenic	5.0000	1.0347	6.2140	103.6	75.0	125.0	0.8	20.0

Analysis Batch Number: HREXT-04/22/99-114 -1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Data-Date/Time : 04/23/99 / 07:19:29

MSD		QC LIMITS							
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC #	LOWER	UPPER	RPD #	LIMIT
26629-96018	Barium	10.0000	0.1766	9.6108	94.3	75.0	125.0	0.5	20.0
	Beryllium	0.1000	0.0605	0.1612	100.6	75.0	125.0	2.5	20.0
	Cadmium	0.1000	4.0258	4.0773	51.5(2k)	75.0	125.0	2.9	20.0
	Chromium	0.5000	0.0356	0.5364	100.2	75.0	125.0	0.3	20.0
	Copper	0.5000	10.7664	11.0722	61.2(2k)	75.0	125.0	2.4	20.0
	Nickel	5.0000	10.1367	14.5160	87.6	75.0	125.0	1.8	20.0
	Lead	0.5000	0.2250	0.6737	89.7	75.0	125.0	1.5	20.0
	Antimony	1.0000	1.0731	2.1233	105.0	75.0	125.0	2.9	20.0
	Selenium	5.0000	-0.0074	5.3157	106.5	75.0	125.0	0.4	20.0
	Thallium	0.2000	0.0926	0.2587	83.0	75.0	125.0	6.4	20.0
	Vanadium	1.0000	0.0175	0.9981	98.1	75.0	125.0	0.4	20.0
	Zinc	5.0000	92.8440	95.7562	58.2(2k)	75.0	125.0	0.4	20.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
26629-96018	Silver	0.0856	0.0891	3.9	20.0	1.00
	Arsenic	1.0347	1.0634	2.7	20.0	1.00
	Barium	0.1766	0.1807	2.3	20.0	1.00
	Beryllium	0.0605	0.0612	1.0	20.0	1.00
	Cadmium	4.0258	4.1278	2.5	20.0	1.00
	Chromium	0.0356	0.0367	2.8	20.0	1.00
	Copper	10.7664	10.9413	1.6	20.0	1.00
	Nickel	10.1367	10.3956	2.5	20.0	1.00
	Lead	0.2250	0.2305	2.4	20.0	1.00
	Antimony	1.0731	0.8731	20.6(5a)	20.0	1.00
	Selenium	-0.0074	0.0000	200.0(11)	20.0	1.00
	Thallium	0.0926	0.0715	25.8(5a)	20.0	1.00
	Vanadium	0.0175	0.0194	10.1	20.0	1.00
	Zinc	92.8440	95.1303	2.4	20.0	1.00

CONTROL

		QC LIMITS			
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER UPPER
LCSW-160	Silver	0.0979	0.1000	97.9	80.0 120.0
	Arsenic	5.0317	5.0000	100.6	80.0 120.0
	Barium	9.8980	10.0000	99.0	80.0 120.0
	Beryllium	0.0996	0.1000	99.6	80.0 120.0
	Cadmium	0.1032	0.1000	103.2	80.0 120.0
	Chromium	0.5204	0.5000	104.1	80.0 120.0
	Copper	0.5133	0.5000	102.7	80.0 120.0
	Nickel	5.0423	5.0000	100.8	80.0 120.0
	Lead	0.4969	0.5000	99.4	80.0 120.0
	Antimony	0.9997	1.0000	100.0	80.0 120.0
	Selenium	5.1649	5.0000	103.3	80.0 120.0
	Thallium	0.1956	0.2000	97.8	80.0 120.0
	Vanadium	0.9960	1.0000	99.6	80.0 120.0
	Zinc	4.9727	5.0000	99.5	80.0 120.0

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting04/26/99
13:53:59
Group: 26620

Analysis Batch Number: HREXT-04/22/99-114 -1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Data-Date/Time : 04/23/99 / 07:19:29

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS	
					LOWER	UPPER
ICV-	Silver	0.1000	0.0991	99.1	90.0	110.0
	Arsenic	1.0000	0.9804	98.0	90.0	110.0
	Barium	1.0000	1.0061	100.6	90.0	110.0
	Beryllium	0.1000	0.1026	102.6	90.0	110.0
	Cadmium	1.0000	1.0167	101.7	90.0	110.0
	Chromium	1.0000	1.0402	104.0	90.0	110.0
	Copper	1.0000	1.0015	100.1	90.0	110.0
	Nickel	2.0000	1.9955	99.8	90.0	110.0
	Lead	5.0000	4.9244	98.5	90.0	110.0
	Antimony	1.0000	1.0088	100.9	90.0	110.0
	Selenium	1.0000	0.9919	99.2	90.0	110.0
	Thallium	1.0000	0.9854	98.5	90.0	110.0
	Vanadium	0.4000	0.4248	106.2	90.0	110.0
	Zinc	1.0000	0.9922	99.2	90.0	110.0
CCV1--2	Silver	0.1000	0.1006	100.6	90.0	110.0
	Arsenic	1.0000	0.9892	98.9	90.0	110.0
	Barium	1.0000	1.0106	101.1	90.0	110.0
	Beryllium	0.1000	0.1023	102.3	90.0	110.0
	Cadmium	1.0000	1.0071	100.7	90.0	110.0
	Chromium	1.0000	1.0336	103.4	90.0	110.0
	Copper	1.0000	1.0074	100.7	90.0	110.0
	Nickel	2.0000	2.0107	100.5	90.0	110.0
	Lead	5.0000	4.9657	99.3	90.0	110.0
	Antimony	1.0000	1.0100	101.0	90.0	110.0
	Selenium	1.0000	0.9996	100.0	90.0	110.0
	Thallium	1.0000	0.9854	98.5	90.0	110.0
	Vanadium	0.4000	0.4289	107.2	90.0	110.0
	Zinc	1.0000	1.0025	100.3	90.0	110.0
CCV2--3	Silver	0.1000	0.0988	98.8	90.0	110.0
	Arsenic	1.0000	1.0082	100.8	90.0	110.0
	Barium	1.0000	1.0131	101.3	90.0	110.0
	Beryllium	0.1000	0.1010	101.0	90.0	110.0
	Cadmium	1.0000	1.0291	102.9	90.0	110.0
	Chromium	1.0000	1.0358	103.6	90.0	110.0
	Copper	1.0000	0.9868	98.7	90.0	110.0
	Nickel	2.0000	2.0325	101.6	90.0	110.0
	Lead	5.0000	5.0713	101.4	90.0	110.0
	Antimony	1.0000	1.0245	102.4	90.0	110.0
	Selenium	1.0000	1.0131	101.3	90.0	110.0
	Thallium	1.0000	0.9906	99.1	90.0	110.0
	Vanadium	0.4000	0.4253	106.3	90.0	110.0
	Zinc	1.0000	1.0118	101.2	90.0	110.0
CV3--4	Silver	0.1000	0.0982	98.2	90.0	110.0
	Arsenic	1.0000	0.9932	99.3	90.0	110.0
	Barium	1.0000	1.0115	101.2	90.0	110.0
	Beryllium	0.1000	0.1003	100.3	90.0	110.0
	Cadmium	1.0000	1.0455	104.6	90.0	110.0
	Chromium	1.0000	1.0479	104.8	90.0	110.0
	Copper	1.0000	0.9813	98.1	90.0	110.0

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/26/99
13:54:00
Group: 26620

Analysis Batch Number: HREXT-04/22/99-114 -1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Data-Date/Time : 04/23/99 / 07:19:29

QC LIMITS

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER
CCV3--4	Nickel	2.0000	2.0264	101.3	90.0	110.0
	Lead	5.0000	5.0431	100.9	90.0	110.0
	Antimony	1.0000	1.0196	102.0	90.0	110.0
	Selenium	1.0000	0.9995	100.0	90.0	110.0
	Thallium	1.0000	0.9777	97.8	90.0	110.0
	Vanadium	0.4000	0.4213	105.3	90.0	110.0
	Zinc	1.0000	1.0137	101.4	90.0	110.0
	Silver	0.1000	0.0993	99.3	90.0	110.0
	Arsenic	1.0000	0.9812	98.1	90.0	110.0
	Barium	1.0000	1.0031	100.3	90.0	110.0
CCV4--5	Beryllium	0.1000	0.1012	101.2	90.0	110.0
	Cadmium	1.0000	1.0305	103.1	90.0	110.0
	Chromium	1.0000	1.0412	104.1	90.0	110.0
	Copper	1.0000	0.9845	98.5	90.0	110.0
	Nickel	2.0000	1.9951	99.8	90.0	110.0
	Lead	5.0000	4.9377	98.8	90.0	110.0
	Antimony	1.0000	1.0073	100.7	90.0	110.0
	Selenium	1.0000	0.9852	98.5	90.0	110.0
	Thallium	1.0000	0.9681	96.8	90.0	110.0
	Vanadium	0.4000	0.4214	105.3	90.0	110.0
	Zinc	1.0000	1.0030	100.3	90.0	110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Silver	ND	0.0040
	Arsenic	0.0127	0.0200
	Barium	0.0001	0.0040
	Beryllium	ND	0.0002
	Cadmium	0.0002	0.0040
	Chromium	ND	0.0100
	Copper	0.0002	0.0100
	Nickel	ND	0.0040
	Lead	ND	0.0200
	Antimony	0.0019	0.0200
	Selenium	ND	0.0200
	Thallium	ND	0.0200
	Vanadium	0.0007	0.0040
	Zinc	ND	0.0500
CCB1-	Silver	0.0001	0.0040
	Arsenic	0.0017	0.0200
	Barium	ND	0.0040
	Beryllium	ND	0.0002
	Cadmium	0.0001	0.0040
	Chromium	ND	0.0100
	Copper	ND	0.0100
	Nickel	ND	0.0040
	Lead	0.0021	0.0200
	Antimony	ND	0.0200
	Selenium	0.0018	0.0200
	Thallium	ND	0.0200

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting04/26/99
13:54:00
Group: 26620

Analysis Batch Number: HREXT-04/22/99-114 -1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Data-Date/Time : 04/23/99 / 07:19:29

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB1-	Vanadium	ND	0.0040
	Zinc	ND	0.0500
CCB2-	Silver	ND	0.0040
	Arsenic	0.0045	0.0200
	Barium	ND	0.0040
	Beryllium	ND	0.0002
	Cadmium	0.0001	0.0040
	Chromium	ND	0.0100
	Copper	0.0004	0.0100
	Nickel	ND	0.0040
	Lead	ND	0.0200
	Antimony	0.0058	0.0200
	Selenium	ND	0.0200
	Thallium	ND	0.0200
	Vanadium	ND	0.0040
	Zinc	0.0046	0.0500
CCB3-	Silver	0.0003	0.0040
	Arsenic	0.0087	0.0200
	Barium	ND	0.0040
	Beryllium	ND	0.0002
	Cadmium	0.0002	0.0040
	Chromium	ND	0.0100
	Copper	0.0005	0.0100
	Nickel	ND	0.0040
	Lead	ND	0.0200
	Antimony	ND	0.0200
	Selenium	ND	0.0200
	Thallium	ND	0.0200
	Vanadium	ND	0.0040
	Zinc	0.0001	0.0500
CCB4-	Silver	0.0008	0.0040
	Arsenic	0.0033	0.0200
	Barium	0.0003	0.0040
	Beryllium	ND	0.0002
	Cadmium	ND	0.0040
	Chromium	ND	0.0100
	Copper	ND	0.0100
	Nickel	ND	0.0040
	Lead	0.0017	0.0200
	Antimony	ND	0.0200
	Selenium	ND	0.0200
	Thallium	ND	0.0200
	Vanadium	ND	0.0040
	Zinc	ND	0.0500

Analysis Batch Number: HREXT-04/22/99-114 -1

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ112

Number of Samples : 16

Batch Date/Time : 04/23/99 / 07:19:29

----- Result Footnotes -----

- (2k) - Sample concentration >4X spk added. Serial dilution was recovered within 10% limits.
(2b) - The action limit for pre-pres TCLP spike recov is <50% & the sample 80-100% of reg limit
(5a) - Duplicates not evaluated: Results are <10x detection limit
(11) - The duplicate results cannot be evaluated because both results are <MDL.

----- Batch Notes -----

Zinc serial dilution recovered at a 10x and 50x in DATP113(w160).
iti

Groups & Samples

26575-95831	26620-95990	26626-96008	26627-96009	26629-96013	26629-96014	26629-96015	26629-96016
26629-96017	26629-96018	26629-96021	26629-96022	26629-96026	26629-96027	26629-96028	26629-96029

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LEA0499AMB

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990430C

Matrix: (soil/water) WATER

Lab Sample ID: 96210

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: X6290

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: _____

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 04/30/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

95-48-7-----	2-Methylphenol (o-Cresol)	25.0	U
N0019500-----	3 and 4-Methylphenol	25.0	U
67-72-1-----	Hexachloroethane	10.0	U
98-95-3-----	Nitrobenzene	10.0	U
87-68-3-----	Hexachlorobutadiene	10.0	U
88-06-2-----	2,4,6-Trichlorophenol	25.0	U
95-95-4-----	2,4,5-Trichlorophenol	25.0	U
121-14-2-----	2,4-Dinitrotoluene	10.0	U
118-74-1-----	Hexachlorobenzene	10.0	U
87-86-5-----	Pentachlorophenol	25.0	U
110-86-1-----	Pyridine	10.0	U

2C
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990430C

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	LEA0499AMB	43	30	69	60	64	61			0
02	LEA0499ALCS	44	31	75	67	71	59			0
03	LEA0499ALCSD	51	36	84	70	70	56			0
04	CBSEBA	32	24	78	64	58	60			0
05	CBSEBAMS	44	34	85	72	70	61			0
06	CBSEBAMSD	45	35	88	72	66	59			0
07	CBNEBA	38	33	1*	66	64	72			1
08	CBNEAA	52	39	83	75	73	85			0
09	CBNEAB	50	35	79	70	68	87			0
10	CBSEAA	52	43	79	68	70	60			0
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (2FP) = 2-Fluorophenol (1- 90)
 S2 (PHL) = Phenol-d6 (1- 67)
 S3 (NBZ) = Nitrobenzene-d5 (18-114)
 S4 (FBP) = 2-Fluorobiphenyl (31- 97)
 S5 (TBP) = 2,4,6-Tribromophenol (19-139)
 S6 (TPH) = Terphenyl-d14 (15-141)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990504A2

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	SBLK1	49	35	66	76	97	76			0
02	LCS	54	33	75	85	98	90			0
03	1346-4	66	47	76	90	100	78			0
04	1346-4MS	57	41	78	86	92	82			0
05	1346-4MSD	57	16	79	81	89	82			0
06	990403201A	59	46	66	78	91	70			0
07	1347-3	52	42	82	90	88	75			0
08	SBLK1	60	25	78	77	63	64			0
09	LCS	59	14	86	80	65	75			0
10	S-5	55	41	70	76	63	78			0
11	RWMA-4	63	8	81	56	60	88			0
12	RWMA-3	67	50	84	76	64	85			0
13	GW-2	68	52	87	79	61	73			0
14	RWMA-2A	72	61	85	82	74	87			0
15	RWMA-1	61	54	77	80	67	64			0
16										
17										
18										
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QC LIMITS

S1 (2FP) = 2-Fluorophenol (1- 90)
 S2 (PHL) = Phenol-d6 (1- 67)
 S3 (NBZ) = Nitrobenzene-d5 (18-114)
 S4 (FBP) = 2-Fluorobiphenyl (31- 97)
 S5 (TBP) = 2,4,6-Tribromophenol (19-139)
 S6 (TPH) = Terphenyl-d14 (15-141)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990430C

Matrix Spike - EPA Sample No.: CBSEBA

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	100	0.00	31.9	32	12- 68
2-Chlorophenol	100	0.00	62.6	63	50- 98
1,4-Dichlorobenzene	100	0.00	49.3	49	35- 83
N-Nitrosodi-N-propylami	100	0.00	85.7	86	69-105
1,2,4-Trichlorobenzene	100	0.00	51.5	52	37- 89
4-Chloro-3-methylphenol	100	0.00	70.0	70	63-103
Acenaphthene	100	0.00	85.7	86	65- 97
4-Nitrophenol	100	0.00	45.0	45	8- 76
2,4-Dinitrotoluene	100	0.00	99.9	100	66-114
Pentachlorophenol	100	0.00	85.0	85	52-112
Pyrene	100	0.00	97.4	97	76-108

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	100	33.1	33	4	35	12- 68
2-Chlorophenol	100	63.9	64	2	17	50- 98
1,4-Dichlorobenzene	100	53.4	53	8	21	35- 83
N-Nitrosodi-N-propylami	100	87.8	88	2	10	69-105
1,2,4-Trichlorobenzene	100	58.9	59	13	21	37- 89
4-Chloro-3-methylphenol	100	68.9	69	2	12	63-103
Acenaphthene	100	86.1	86	0	10	65- 97
4-Nitrophenol	100	43.8	44	3	40	8- 76
2,4-Dinitrotoluene	100	94.0	94	6	13	66-114
Pentachlorophenol	100	83.0	83	2	18	52-112
Pyrene	100	93.1	93	5	8	76-108

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS:

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990430C

Matrix Spike - Sample No.: LEA0499ALCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	100		28.9	29	12- 68
2-Chlorophenol	100		59.0	59	50- 98
1,4-Dichlorobenzene	100		59.1	59	35- 83
N-Nitrosodi-N-propylami	100		74.2	74	69-105
1,2,4-Trichlorobenzene	100		67.8	68	37- 89
4-Chloro-3-methylphenol	100		75.0	75	63-103
Acenaphthene	100		85.9	86	65- 97
4-Nitrophenol	100		38.6	39	8- 76
2,4-Dinitrotoluene	100		90.4	90	66-114
Pentachlorophenol	100		80.1	80	52-112
Pyrene	100		91.8	92	76-108

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Phenol	100	33.7	34	15	35	12- 68
2-Chlorophenol	100	68.5	69	15	17	50- 98
1,4-Dichlorobenzene	100	61.7	62	4	21	35- 83
N-Nitrosodi-N-propylami	100	82.4	82	10	10	69-105
1,2,4-Trichlorobenzene	100	72.0	72	6	21	37- 89
4-Chloro-3-methylphenol	100	75.8	76	1	12	63-103
Acenaphthene	100	86.0	86	0	10	65- 97
4-Nitrophenol	100	38.4	38	1	40	8- 76
2,4-Dinitrotoluene	100	87.6	88	3	13	66-114
Pentachlorophenol	100	78.8	79	2	18	52-112
Pyrene	100	89.8	90	2	8	76-108

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VELK1

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990506WL

Matrix: (soil/water) WATER

Lab Sample ID: 990506WB

Sample wt/vol: 5.000 (g/ml) ML

Lab File ID: V8930

Level: (low/med) LOW

Date Received:

% Moisture: not dec. _____

Date Analyzed: 05/06/99

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L Q

74-97-5-----	Bromochloromethane	5	U
74-87-3-----	Chloromethane	5	U
75-01-4-----	Vinyl Chloride	5	U
74-83-9-----	Bromomethane	5	U
75-00-3-----	Chloroethane	5	U
67-64-1-----	Acetone	25	U
75-35-4-----	1,1-Dichloroethene	5	U
75-09-2-----	Methylene Chloride	5	U
75-15-0-----	Carbon Disulfide	5	U
156-60-5-----	trans-1,2-Dichloroethene	5	U
108-05-4-----	Vinyl Acetate	5	U
75-34-3-----	1,1-Dichloroethane	5	U
78-93-3-----	2-Butanone	25	U
156-59-2-----	cis-1,2-Dichloroethene	5	U
67-66-3-----	Chloroform	5	U
71-55-6-----	1,1,1-Trichloroethane	5	U
56-23-5-----	Carbon Tetrachloride	5	U
107-06-2-----	1,2-Dichloroethane	5	U
71-43-2-----	Benzene	5	U
79-01-6-----	Trichloroethene	5	U
78-87-5-----	1,2-Dichloropropane	5	U
75-27-4-----	Bromodichloromethane	5	U
100-75-8-----	2-Chloroethyl Vinyl Ether	5	U
10061-01-5-----	cis-1,3-Dichloropropene	5	U
108-88-3-----	Toluene	5	U
10061-02-6-----	trans-1,3-Dichloropropene	5	U
79-00-5-----	1,1,2-Trichloroethane	5	U
108-10-1-----	4-Methyl-2-Pentanone	5	U
591-78-6-----	2-Hexanone	5	U
127-18-4-----	Tetrachloroethene	5	U
124-48-1-----	Dibromochloromethane	5	U
108-90-7-----	Chlorobenzene	5	U
100-41-4-----	Ethylbenzene	5	U
108-38-3/106-42-	m+p-Xylene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990506WL

Matrix: (soil/water) WATER

Lab Sample ID: 990506WB

Sample wt/vol: 5.000 (g/ml) ML

Lab File ID: V8930

Level: (low/med) LOW

Date Received:

% Moisture: not dec. _____

Date Analyzed: 05/06/99

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
---------	----------	--	---

95-47-6-----o-Xylene	5	U
100-42-5-----Styrene	5	U
75-25-2-----Bromoform	5	U
140-88-5-----Ethyl Acrylate	20	U
79-34-5-----1,1,2,2-Tetrachloroethane	5	U
78-83-1-----Isobutyl Alcohol	250	U
71-36-3-----n-Butyl Alcohol	500	U
110-57-6-----trans-1,4-Dichloro-2-butene	20	U
80-62-6-----Methyl Methacrylate	20	U
123-91-1-----1,4-Dioxane	500	U
74-95-3-----Dibromomethane	5	U
79-46-9-----2-Nitropropane	20	U
97-63-2-----Ethyl Methacrylate	20	U
106-93-4-----1,2-Dibromoethane	5	U
630-20-6-----1,1,1,2-Tetrachloroethane	5	U
108-94-1-----Cyclohexanone	250	U
96-18-4-----1,2,3-Trichloropropane	5	U
10645-7-----Pentachloroethane	20	U
98-82-8-----Isopropylbenzene	5	U
100-44-7-----Benzyl Chloride	20	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
104-51-8-----n-Butylbenzene	5	U
91-20-3-----Naphthalene	5	U
75-71-8-----Dichlorodifluoromethane	5	U
75-69-4-----Trichlorofluoromethane	5	U
60-29-7-----Ethyl Ether	20	U
110-009-----Furan	5	U
107-08-8-----Acrolein	200	U
76-13-1-----Freon 113	20	U
504-60-9-----trans-Piperylene	20	U
504-60-9-----cis-Piperylene	20	U
75-05-8-----Acetonitrile	20	U
74-88-4-----Methyl Iodide	20	U

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990506WL

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	VBLK1	100	101	108		0
02	VLCS	100	106	108		0
03	VLCS D	99	103	105		0
04	CYSWA	99	101	112		0
05	CYNEA	98	100	113		0
06	CXSEA	99	104	112		0
07	13362	100	101	107		0
08	13362MS	99	101	108		0
09	13362MSD	98	102	108		0
10	13372	99	103	110		0
11	4130	98	100	109		0
12	9101	98	100	110		0
13	01A	97	100	106		0
14	13422	99	102	110		0
15	13553	98	102	109		0
16	13573	99	102	109		0
17	13583	99	102	110		0
18	13463	99	100	107		0
19	2749	99	100	106		0
20	SHOP	99	101	109		0
21	2829	100	102	107		0
22	1S90081	100	101	101		0
23	9108	100	100	103		0
24	1333	99	97	101		0
25	2821	100	100	103		0
26						
27						
28						
29						
30						

QC LIMITS

S1 (TOL) = Toluene-d8 (79-123)
 S2 (BFB) = Bromofluorobenzene (74-127)
 S3 (DCE) = 1,2-Dichloroethane-d4 (62-143)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990506WL

Matrix Spike - EPA Sample No.: 13362

COMPOUND	SPIKE ADDED ()	SAMPLE AMOUNT ()	MS AMOUNT ()	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	20.0	0.00	20.5	102	61-155
Benzene	20.0	0.00	22.5	112	86-122
Trichloroethene	20.0	0.00	37.4	187*	78-125
Toluene	20.0	0.00	22.4	112	86-115
Chlorobenzene	20.0	0.00	21.5	108	87-112

COMPOUND	SPIKE ADDED ()	MSD AMOUNT ()	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	20.0	21.5	108	6	10	61-155
Benzene	20.0	22.6	113	1	9	86-122
Trichloroethene	20.0	37.3	186*	0	14	78-125
Toluene	20.0	22.6	113	1	10	86-115
Chlorobenzene	20.0	21.8	109	1	7	87-112

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 2 out of 10 outside limits

COMMENTS: ms/msn m.i.s. / LCS OK

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990506WL

Matrix Spike - Sample No.: vlcs

COMPOUND	SPIKE ADDED ()	SAMPLE AMOUNT (ug/L)	LCS AMOUNT ()	LCS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	20.0		19.1	96	61-155
Benzene	20.0		21.1	106	86-122
Trichloroethene	20.0		20.4	102	78-125
Toluene	20.0		20.8	104	86-115
Chlorobenzene	20.0		20.3	102	87-112

COMPOUND	SPIKE ADDED ()	LCSD AMOUNT ()	LCSD % REC #	% RPD #	QC LIMITS	
=====	=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	20.0	18.9	94	2	10	61-155
Benzene	20.0	21.0	105	1	9	86-122
Trichloroethene	20.0	20.4	102	0	14	78-125
Toluene	20.0	21.0	105	1	10	86-115
Chlorobenzene	20.0	20.8	104	2	7	87-112

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

Mountain States Analytical, Inc.
1645 West 2200 South

TEL: (800) 973-6724

FAX: (801) 972-6278

Salt Lake City, UT 84119

Acct #:

19-Apr-99

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests						
				SW1311	SW1311/6010A	SW1311/8240A	SW1311/8270A	SW3010A	SW3510	SW7470
9904032-01A	Aqueous	4/19/99 11:00:00 AM	1LAMGU	3	1	1	1	1	1	1

Comments:

Please call David Cox @ 505-325-1556 for instructions on analysis. All samples will be composited for TCLP Metals, TCLP Volatiles and TCLP Semivolatiles analyses.

Date/Time

Relinquished by: Heidi Reese

4/19/99 1610

Relinquished by:

Received by:

Ruth A. Anderson

Received by:

Date/Time

4/20/99 @ 1030

CHAIN OF CUSTODY RECORD

5226



657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 4/19/99

Page 1 of 1

Purchase Order No.:		Job No.		Name		Title	
SEND INVOICE TO	Name <u>Shawn Adams</u>			Company <u>SAME</u>			
	Company <u>Contract Environmental Svc</u>			Mailing Address			
	Address <u>P.O. Box 3376</u>			City, State, Zip			
	City, State, Zip <u>Farmington, NM 87499</u>			Telephone No. Telefax No.			
Sampling Location: <u>FMC Indoor Sump</u>				ANALYSIS REQUESTED			
Sampler: <u>WES HALL</u>							
SAMPLE IDENTIFICATION		SAMPLE		MATRIX	PRES.	Number of Containers	LAB ID
		DATE	TIME				
FMC201	40 ML VOA Indoor Sump 1st	4/19/99	11:00	HCL		X	
FMC201	40 ML VOA Indoor Sump 2nd		11:00	HCL		X	
FMC201	40 ML VOA Indoor Sump 3rd		11:00	HCL		X	
FMC201	40 ML VOA Indoor Sump 4th		11:05	HCL		X	
FMC201	40 ML VOA Indoor Sump 5th		11:05	HCL		X	
FMC201	40 ML VOA Indoor Sump 6th		11:10	HCL		X	
FMC201	40 ML VOA Indoor Sump 7th		11:10	HCL		X	
FMC201	Quart Amber Jar 1st		11:10	Water		X	
FMC201	Quart Amber Jar 2nd		11:10	Water		X	
Relinquished by: <u>Wes Hall</u>		Date/Time <u>4/19/99 1230</u>		Received by: <u>Helen K...</u>		Date/Time <u>4/19/99 1230</u>	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:				Rush	24-48 Hours	10 Working Days	Special Instructions:
Authorized by: <u>[Signature]</u> Date <u>4/19/99</u> (Client Signature Must Accompany Request)				STD			<u>For sample</u>

District I - (505) 393-6161
D. Box 1980
Albuquerque, NM 88241-1980
District II - (505) 748-1283
J. S. First
Albuquerque, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☒ Non-Exempt: ☐	4. Generator <u>WFS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>EL CEDRO COMPLEX</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>#345 CR3500 AZtec, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>WFS EL CEDRO COMPLEX</u>	
9. Circle One: ☒ A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☐ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Amine Treating Fluid mixed with Rain water

RECEIVED
MAY 10 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 200+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 5-10-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny Z. Fent TITLE: Geologist DATE: 5/13/99

APPROVED BY: Eric Brach TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Williams Field Service El Cedro Complex Hwy 64 Mile Marker 100.5 Blanco, N.M. 87412	2. Destination Name: Santa Disposal "KEU"
3. Originating Site (name): El-Cedro Complex	Location of the Waste (Street address &/or ULSTR):
Attach list of originating sites as appropriate	
4. Source and Description of Waste Amine Treating - 95% Rain Water - 2.5% Amine - 2.5% Treating TEG	

I, Bill Hargis representative for:
WFS (Print Name)
do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☒ EXEMPT oilfield waste ☐ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
plant side analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): Bill Hargis
Title: Lead Operator
Date: 5/04/99

ict I - (505) 393-6161
Box 1980
s. 111-86241-1980
ict II - (505) 748-1283
First
a. NM 88210
ict III - (505) 334-6178
Rio Brazos Road
NM 87410
ict IV - (505) 827-7131

New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

JUN 4 1999

Environmental Bureau
Oil Conservation Division

OIL CON. DIV.

DIST. 3
REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>FMC CORPORATION</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD</u>
2. Management Facility Destination <u>Key Services Disposal</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>223500 #345 AZtec NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>2405 Southside River Road Farmington NM</u>	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. (B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WASH WATER FROM oil field equipment washing bay.

RECEIVED
APR 29 1999

OIL CON. DIV.
DIST. 3

Previously verbally approved
4/29/99 - lacked characteristics
L 80661s

Estimated Volume L 80661s cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 4-29-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny L. Fount TITLE: Geologist DATE: 6/1/99

APPROVED BY: Martyn J. Kinsky TITLE: Environmental Geologist DATE: 6-4-99

Unit I - (505) 393-6161
Box 1980
NM 88241-1980
Unit II - (505) 748-1283
S. First
NM 88210
Unit III - (505) 334-6178
Rio Brazos Road
NM 87410
Unit IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/93

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒

Verbal Approval Received: Yes ☐ No ☒

4. Generator FMC Corporation

5. Originating Site YARD

2. Management Facility Destination Key Services Disposal

6. Transporter Key

3. Address of Facility Operator 023500 #345 AZtec NM

8. State NM

7. Location of Material (Street Address or ULSTR) 2405 Southside Blvd
Road Farmington NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

WASH WATER FROM oil field equipment washing bay.

RECEIVED
APR 29 1999

OIL CON. DIV.
DIST. 3

Estimated Volume 280661 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich
Waste Management Facility Authorized Agent

TITLE: MGR

DATE: 4-29-99

TYPE OR PRINT NAME: MICHAEL TALOVICH

TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Fent

TITLE: Geologist

DATE: 6/1/99

APPROVED BY: _____

TITLE: _____

DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: FMC CORPORATION #20 County Road 5777 Farmington, NM	2. Destination Name: KEY ENERGY SERVICES Disposal Facility
3. Originating Site (name): SAME →	Location of the Waste (Street address &/or ULSTR): 2405 SOUTH SIDE RIVER ROAD FARMINGTON, NM 87401
Attach list of originating sites as appropriate	
4. Source and Description of Waste Wash bay sump tanks. Waste Mostly water with residual grease and small amounts of pipe dope from the spraying-off of well heads.	

I, Luis ORTIZ representative for:
FMC CORP. WASHBAY EQUIP. DIV. (Print Name)
 do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☒ RCRA Hazardous Waste Analysis
☒ Chain of Custody

Name (Original Signature): 
 Title: DIST. COORDINATOR
 Date: 9-28-99

**Mountain States Analytical, Inc.***The Quality Source*

April 27, 1999

Mr. David Cox
On-Site Technologies, Ltd
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: TCLP Liquid Analysis
Project No.: 9904003
MSAI Group: 26488

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following sample is included in the report.

9904003-01A

All holding times were met for the tests performed on these samples

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf B. Larsen
Project Manager

Analytical Report



Mountain States Analytical, Inc.

The Quality Solution

On-Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: TCLP Liquid Analysis

Sample ID: 9904003-01A
Matrix: Water

MSAI Sample: 95512
MSAI Group: 26488
Date Reported: 04/27/99
Discard Date: 05/27/99
Date Submitted: 04/07/99
Date Sampled: 04/05/99
Collected by:
Purchase Order:
Project No.: 9904003

Test Analysis	Results as Received	Units	Method Detection Limit
0393T Flame/hrICP Prep, TCLP, 3010A Method: SW-846 3010A	Batch. w134		
0410 Mercury Prep CVAA, Filtration Method: SW-846 7470A	Batch. w428		
13027 Metals by hrICP, TCLP (UTS) Method: SW-846 6010B			
Arsenic	ND	mg/l	0.02
Barium	0.348	mg/l	0.004
Cadmium	ND	mg/l	0.004
Chromium	ND	mg/l	0.010
Lead	ND	mg/l	0.02
Selenium	ND	mg/l	0.02
Silver	ND	mg/l	0.004
1525 Mercury by CVAA, Filtration 7470A Method: SW-846 7470A	ND	mg/l	0.0001
0944 TCLP Filtration, Volatile (<0.5%) Method: IN HOUSE MSAI	0	% Solids	Not Determined
0945J TCLP Filtration, hrICP Metals <0.5 Method: SW-846 1311	0.030	% Solids	0.001
0945M TCLP Filtration, Mercury (<0.5%) Method: SW-846 1311	0.030	% Solids	0.001
0945S TCLP Filtration, Semi-VOA, (<0.5%) Method: SW-846 1311	0.030	% Solids	0.001

port

**Mountain States Analytical, Inc.***The Quality Solution***Analytical Re**

Page 2

On-Site Technologies, Ltd.

Sample ID: 9904003-01A

MSAI Sample: 95512

MSAI Group: 26488

Test Analysis	Results as Received	Units	Method Detection Limit
3939 SVQA Extraction, Filtration Method: SW-846 3510C	Complete		
7066 Semi-VQA, TCLP Filtration Method: SW-846 8270A			
2,4-Dinitrotoluene	ND	ug/l	6.0
Hexachlorobenzene	ND	ug/l	7.6
Hexachlorobutadiene	ND	ug/l	29
Hexachloroethane	ND	ug/l	32
Nitrobenzene	ND	ug/l	6.3
Pyridine	ND	ug/l	6.0
2-Methylphenol (o-Cresol)	ND	ug/l	9.2
3 and 4-Methylphenol (m+p cresol)	ND	ug/l	8.9
Pentachlorophenol	ND	ug/l	9.0
2,4,5-Trichlorophenol	ND	ug/l	14
2,4,6-Trichlorophenol	ND	ug/l	3.2
14146 Volatiles, TCLP Filtration, 8260B Method: SW-846 8260B			
Benzene	ND	ug/l	1.6
Carbon tetrachloride	ND	ug/l	3.7
Chlorobenzene	ND	ug/l	2.7
Chloroform	ND	ug/l	2.2
1,2-Dichloroethane	ND	ug/l	2.7
1,1-Dichloroethene	ND	ug/l	14.0
2-Butanone (MEK)	ND	ug/l	100
Tetrachloroethene	ND	ug/l	2.3
Trichloroethene	ND	ug/l	3.2
Vinyl chloride	ND	ug/l	9.8
1,4-Dichlorobenzene	ND	ug/l	1.6

-5-



**Mountain States Analytical, Inc.***The Quality Solution*

Analytical Report

Page 3

On-Site Technologies, Ltd.

Sample ID: 9904003-01A

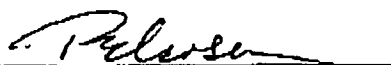
MSAI Sample: 95512

MSAI Group: 26488

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:


Rolf E. Larsen
Project Manager





RECE

MAY 17 1999

Analytical Results

ACZ Laboratories, Inc.
2773 Downhill Drive
Steamboat Springs, CO 80487
(800) 334-5493

On Site Technologies, LTD.
612 E Murray Dr
Farmington, NM 87499
David Cox

Lab Sample ID: L22950-01
Client Sample ID: 9905003-01A
Client Project ID:
ACZ Report ID: RG92325 FMC301

Outdoor Sump

Date Sampled: 4/30/99 09:20
Date Received: 5/4/99
Date Reported: 5/13/99

Sample Matrix: Waste Water

Soil Analysis

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Ignitability (Flashpoint)	M1010, Pensky-Martens Closed Cup	No Flash		C	1	5	5/12/99	as/cv

Wet Chemistry

Parameter	EPA Method	Result	Qual	Units	MDL	PQL	Date	Analyst
Cyanide, reactive	Section 7.3 SW-846 (3rd Ed) & M9012		U	mg/L	0.03	0.1	5/6/99	bg
pH (lab)	M150.1 - Electrometric	7.2		units	0.1	0.1	5/5/99	cd
Sulfide, reactive	Section 7.3 SW-846 (3rd Ed) & M9030	0.2	B	mg/Kg	0.1	1	5/5/99	mh

Note: Flashpoint - No Flash to 93° C.

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

Vice President of Operations: Ralph Poulsen

On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

L22950

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

ACZ Laboratories, Inc.
2773 Downhill Drive

TEL: (800) 334-5493
FAX: (970) 879-2216

Steamboat Springs, Colorado 80487

Acct #: TJV0776

(10) 5/3/99

03-May-99

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests					
				E150.1	SW1010	SW7.3.3.2 CYANIDE	SW7.3.4.2 SULFIDE		
9905003-01A	Aqueous	4/30/99 9:20:00 AM	1LAMGU	1	1	1	1		
9905003-02A	Aqueous	4/30/99 10:05:00 AM	1LAMGU	1	1	1	1		

Comments: Please analyze two (2) water samples for Reactivity, Corrosivity and Ignitability.

	Date/Time		Date/Time
Relinquished by: Heidi Rose	5/3/99 1530	Received by: [Signature]	5/4/99 10:00
Relinquished by:		Received by:	

RECEIVED MAY 10 1999

SAMPLE RECEIPT FORM

CLIENT:

ON-SITE

DATE

5/4/99

PROJECT #:

L22950

1) Does this project require special handling procedures such as CLP protocol?	<u>NA</u>	YES	NO
2) Are the custody seals on the cooler intact?	<u>NA</u>	YES	NO
3) Are the custody seals on the sample containers intact?	<u>NA</u>	YES	NO
4) Is there a Chain of Custody (COC), or other directive shipping papers present?		<u>YES</u>	NO
5) Is the COC complete?		<u>YES</u>	NO
Relinquished? Yes ___ No ___ Requested Analysis? Yes ___ No ___			
6) Is the COC in agreement with the samples received?		<u>YES</u>	NO
# of Samples: Yes ___ No ___ Sample ID: Yes ___ No ___			
Matrix: Yes ___ No ___ # of Containers: Yes ___ No ___			
7) Is there enough sample for all requested analysis?		<u>YES</u>	NO
8) Are all samples within holding times for requested analysis?		<u>YES</u>	NO
9) Were all sample containers received intact?		<u>YES</u>	NO
10) Are samples requiring no headspace, headspace free?	<u>NA</u>	YES	NO
11) Do the samples require a Foreign Soils Permit Label or quarantine?		YES	<u>NO</u>
12) Do samples require special disposal/hold considerations?			
Non-Hazardous: Yes ___ No ___ Hazardous: Yes ___ No ___ Hold: ___ months			

Describe "NO" items (except #1, 11, & 12):

Was the client contacted? Yes ___ No ___

If yes: Date: _____

Name of person contacted: _____

Actions taken or client instructions:

Signature: [Signature]

SAMPLE RECEIPT FORM

CLIENT: ON-SITE
PROJECT #: 122950

DATE 5/4/99
ANALYST: DAIF

TEMPERATURE VERIFICATION SAMPLE CHECK (°C)

CONTAINER ID	TEMP (°C) 2° to 6°	RAD μR/hr
CLIENT	4.6	12

If container radioactivity is
 $> 25 \mu\text{R/hr}$ then each sample
 must be screened.

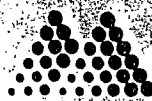
PRESERVATION CHECK (pH) & RADIOACTIVITY SCREEN

[illegible]

Temperature of container taken using temperature blank bottle next to samples or hand delivered on ice

INTERNAL COMMENTS:

REPORT COMMENTS:



Mountain States Analytical, Inc.

The Quality Solution

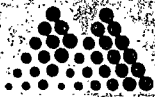
On-Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: TCLP Liquid Analysis

Sample ID: 9904003-01A
Matrix: Water

MSAI Sample: 95512
MSAI Group: 26488
Date Reported: 04/27/99
Discard Date: 05/27/99
Date Submitted: 04/07/99
Date Sampled: 04/05/99
Collected by:
Purchase Order:
Project No.: 9904003

Test Analysis	Results as Received	Units	Method Detection Limit
0393T Flame/hrICP Prep, TCLP, 3010A Method: SW-846 3010A	Batch. w134		
0410 Mercury Prep CVAA, Filtration Method: SW-846 7470A	Batch. w428		
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Selenium	ND	mg/l	0.02
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1525 Mercury by CVAA, Filtration 7470A Method: SW-846 7470A	ND	mg/l	0.0001
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0945M TCLP Filtration, Mercury (<0.5%) Method: SW-846 1311	0.030	% Solids	0.001
0945S TCLP Filtration, Semi-VOA, (<0.5%) Method: SW-846 1311	0.030	% Solids	0.001



Mountain States Analytical, Inc.

The Quality Solution

Analytical Report

Page 2

On-Site Technologies, Ltd.

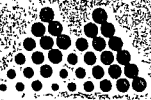
MSAI Sample: 95512

Sample ID: 9904003-01A

MSAI Group: 26488

Test	Analysis	Results as Received	Units	Method Detection Limit
3939	SVOA Extraction, Filtration Method: SW-846 3510C	Complete		
7066	Semi-VOA, TCLP Filtration Method: SW-846 8270A			
	2,4-Dinitrotoluene	ND	ug/l	6.0
	Hexachlorobenzene	ND	ug/l	7.6
	Hexachlorobutadiene	ND	ug/l	29
	Hexachloroethane	ND	ug/l	32
	Nitrobenzene	ND	ug/l	6.5
	Pyridine	ND	ug/l	6.0
	2-Methylphenol (o-Cresol)	ND	ug/l	9.2
	3 and 4- Methylphenol (m+p cresol)	ND	ug/l	8.9
	Pentachlorophenol	ND	ug/l	9.0
	2,4,5-Trichlorophenol	ND	ug/l	14
	2,4,6-Trichlorophenol	ND	ug/l	3.2
14146	Volatiles, TCLP Filtration, 82608 Method: SW-846 82608			
	Benzene	ND	ug/l	1.6
	Carbon tetrachloride	ND	ug/l	3.7
	Chlorobenzene	ND	ug/l	2.7
	Chloroform	ND	ug/l	2.2
	1,2-Dichloroethane	ND	ug/l	2.7
	1,1-Dichloroethene	ND	ug/l	14.0
	2-Butanone (MEK)	ND	ug/l	100
	Tetrachloroethene	ND	ug/l	2.3
	Trichloroethene	ND	ug/l	3.2
	Vinyl chloride	ND	ug/l	9.8
	1,4-Dichlorobenzene	ND	ug/l	1.6

Analytical Report



Mountain States Analytical, Inc.

The Quality Solution

Page 3

On-Site Technologies, Ltd.

Sample ID: 9904003-01A

MSAI Sample: 95512

MSAI Group: 26488

ND - Not detected at the Method Detection Limit.

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423A

Matrix: (soil/water) WATER

Lab Sample ID: 990413WB

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: Z4972

Level: (low/med) LOW

Date Received: _____

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: _____

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 04/23/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

95-48-7-----2-Methylphenol (o-Cresol)_____	25.0	U
N0019500-----3 and 4-Methylphenol_____	25.0	U
67-72-1-----Hexachloroethane_____	10.0	U
98-95-3-----Nitrobenzene_____	10.0	U
87-68-3-----Hexachlorobutadiene_____	10.0	U
88-06-2-----2,4,6-Trichlorophenol_____	25.0	U
95-95-4-----2,4,5-Trichlorophenol_____	25.0	U
121-14-2-----2,4-Dinitrotoluene_____	10.0	U
118-74-1-----Hexachlorobenzene_____	10.0	U
87-86-5-----Pentachlorophenol_____	25.0	U
110-86-1-----Pyridine_____	10.0	U

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990427A

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	9904003	68	50	82	78	80	75			0
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (2FP) = 2-Fluorophenol (1- 90)
 S2 (PHL) = Phenol-d6 (1- 67)
 S3 (NBZ) = Nitrobenzene-d5 (18-114)
 S4 (FBP) = 2-Fluorobiphenyl (31- 97)
 S5 (TBP) = 2,4,6-Tribromophenol (19-139)
 S6 (TPH) = Terphenyl-d14 (15-141)

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423A

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	CZEA	66	61	5*	78	95	84			1
02	CZNWA	63	60	83	94	25	101			0
03	SBK	55	38	71	66	80	87			0
04	LCS	54	38	82	77	89	87			0
05	WATER	60	43	70	66	83	82			0
06	WATERMS	59	42	82	76	88	85			0
07	WATERMSD	60	42	83	80	92	89			0
08	DRY	61	44	76	72	85	88			0
09	OIL	69	48	85	88	113	116			0
10	WWSAMPLE	75	59	95	106D	112	114			0
11	1326-4	8	54	91	89	96	104			0
12	1328-4	89	70D	95	100D	99	109			0
13	1329-3	56	40	70	64	75	87			0
14	TBLK04/09	62	43	79	73	82	91			0
15	ACETONE	0*	0*	0*	0*	0*	0*			6
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (2FP) = 2-Fluorophenol (1- 90)
 S2 (PHL) = Phenol-d6 (1- 67)
 S3 (NBZ) = Nitrobenzene-d5 (18-114)
 S4 (FBP) = 2-Fluorobiphenyl (31- 97)
 S5 (TBP) = 2,4,6-Tribromophenol (19-139)
 S6 (TPH) = Terphenyl-d14 (15-141)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423A

Matrix Spike - EPA Sample No.: WATER

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	400	97.9	269	43	12- 68
2-Chlorophenol	400	0.00	340	85	50- 98
1,4-Dichlorobenzene	400	0.00	278	70	35- 83
N-Nitrosodi-N-propylami	400	0.00	357	89	69-105
1,2,4-Trichlorobenzene	400	0.00	299	75	37- 89
4-Chloro-3-methylphenol	400	0.00	358	90	63-103
Acenaphthene	400	0.00	365	91	65- 97
4-Nitrophenol	400	0.00	198	50	8- 76
2,4-Dinitrotoluene	400	0.00	379	95	66-114
Pentachlorophenol	400	0.00	435	109	52-112
Pyrene	400	0.00	393	98	76-108

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Phenol	400	273	44	1	35	12- 68
2-Chlorophenol	400	329	82	3	17	50- 98
1,4-Dichlorobenzene	400	297	74	7	21	35- 83
N-Nitrosodi-N-propylami	400	349	87	2	10	69-105
1,2,4-Trichlorobenzene	400	311	78	4	21	37- 89
4-Chloro-3-methylphenol	400	367	92	2	12	63-103
Acenaphthene	400	375	94	3	10	65- 97
4-Nitrophenol	400	215	54	8	40	8- 76
2,4-Dinitrotoluene	400	391	98	3	13	66-114
Pentachlorophenol	400	440	110	1	18	52-112
Pyrene	400	399	100	2	8	76-108

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS:

FORM 3
WATER SEMI-VOLATILE LAB CONTROL SAMPLE

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423A

Matrix Spike - Sample No.: LCS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	100	.	39.8	40	12- 68
2-Chlorophenol	100		78.1	78	50- 98
1,4-Dichlorobenzene	100		65.9	66	35- 83
N-Nitrosodi-N-propylami	100		89.5	90	69-105
1,2,4-Trichlorobenzene	100		65.1	65	37- 89
4-Chloro-3-methylphenol	100		91.2	91	63-103
Acenaphthene	100		84.5	84	65- 97
4-Nitrophenol	100		46.8	47	8- 76
2,4-Dinitrotoluene	100		97.9	98	66-114
Pentachlorophenol	100		102	102	52-112
Pyrene	100		95.7	96	76-108

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 11 outside limits

COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423WL

Matrix: (soil/water) WATER

Lab Sample ID: 990423WB

Sample wt/vol: 5.000 (g/ml) ML

Lab File ID: V8670

Level: (low/med) LOW

Date Received:

% Moisture: not dec. _____

Date Analyzed: 04/23/99

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.

COMPOUND

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

Q

75-01-4-----	Vinyl Chloride	5	U
75-35-4-----	1,1-Dichloroethene	5	U
78-93-3-----	2-Butanone	25	U
67-66-3-----	Chloroform	5	U
56-23-5-----	Carbon Tetrachloride	5	U
107-06-2-----	1,2-Dichloroethane	5	U
71-43-2-----	Benzene	5	U
79-01-6-----	Trichloroethene	5	U
127-18-4-----	Tetrachloroethene	5	U
108-90-7-----	Chlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423WL

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	VBLK1	103	101	101		0
02	VLCS	104	104	101		0
03	VLCS D	103	103	101		0
04	01A	106	103	99		0
05						
06						
07						
08						
09						
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11						
12						
13						
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18						
19						
20						
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22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

S1 (TOL) = Toluene-d8 (79-123)
 S2 (BFB) = Bromofluorobenzene (74-127)
 S3 (DCE) = 1,2-Dichloroethane-d4 (62-143)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

FORM 3
WATER VOLATILE LAB CONTROL SAMPLE

Lab Name: MOUNTAIN STATES

Contract:

Lab Code: MSAI

Case No.:

SAS No.:

SDG No.: 990423WL

Matrix Spike - Sample No.: vlcs

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE AMOUNT (ug/L)	LCS AMOUNT (ug/L)	LCS % REC #	QC LIMITS REC.
1,1-Dichloroethene	20.0		24.3	122	61-131
Benzene	20.0		22.4	112	81-125
Trichloroethene	20.0		22.9	114	78-122
Toluene	20.0		21.9	110	88-119
Chlorobenzene	20.0		20.3	102	75-123

COMPOUND	SPIKE ADDED (ug/L)	LCSD AMOUNT (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	20.0	24.5	122	0	13	61-131
Benzene	20.0	22.0	110	2	11	81-125
Trichloroethene	20.0	22.6	113	1	12	78-122
Toluene	20.0	20.9	104	6	9	88-119
Chlorobenzene	20.0	20.3	102	0	12	75-123

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS:

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/21/99
14:31:08
Group: 26488

Analysis Batch Number: 1524 -04/14/99-147 -2

Test Identification : 1524 -Mercury by CVAA, TCLP, 7470A

Sequence : 1524 -2

Number of Samples : 9

Batch Date/Time : 04/14/99 / 15:07:31

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW-428	Mercury	0.0200	0.1000

						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
26527-95678	Mercury	25.0000	0.0210	23.8200	95.2	80.0	120.0
26527-95678-2	Mercury	25.0000	0.0210	21.3890	85.5	50.0	150.0

						QC LIMITS			
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
26527-95678	Mercury	25.0000	0.0210	24.4700	97.8	80.0	120.0	2.7	20.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
26527-95678	Mercury	0.0210	0.0020	165.2(11)	20.0	1.00

						QC LIMITS	
SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	LOWER	UPPER	
PBW-428	Mercury	2.5450	2.5000	101.8	80.0	115.0	

						QC LIMITS	
CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	LOWER	UPPER	
ICV-	Mercury	3.0000	3.2300	107.7	90.0	110.0	
CCV--2	Mercury	5.0000	5.0460	100.9	80.0	120.0	
CCV--3	Mercury	5.0000	5.0330	100.7	80.0	120.0	
CCV--4	Mercury	5.0000	4.9330	98.7	80.0	120.0	
CCV--5	Mercury	5.0000	4.8940	97.9	80.0	120.0	
CCV--6	Mercury	5.0000	4.8800	97.6	80.0	120.0	

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Mercury	0.0060	0.1000
CCB-	Mercury	0.0480	0.1000
CCB-	Mercury	-0.0010	0.1000
CCB-	Mercury	-0.0090	0.1000
CCB-	Mercury	-0.0110	0.1000
CCB-	Mercury	-0.0200	0.1000

----- Result Footnotes -----

(11) - The duplicate results cannot be evaluated because both results are <MDL.

Groups & Samples

26476-95486 26484-95500 26485-95504 26488-95512 26527-95678 26528-95679 26531-95682 26533-95687
26561-95789

Analysis Batch Number: HREXT-04/20/99-114 -2
Test Identification : HREXT-Metals for hr TCLP, by ICP
Number of Samples : 9
Batch Data-Date/Time : 04/21/99 / 07:46:52

Sequence : DATQ110

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW1-134	Silver	ND	0.0040
	Arsenic	0.0049	0.0200
	Barium	0.0010	0.0040
	Cadmium	ND	0.0040
	Chromium	0.0004	0.0100
	Copper	0.0023	0.0100
	Lead	0.0067	0.0200
	Selenium	0.0211(1d)	0.0200
	Zinc	0.0171	0.0500

SPIKE						QC LIMITS	
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	LOWER	UPPER
26527-95678	Silver	0.1000	0.0005	0.0976	97.1	75.0	125.0
	Arsenic	5.0000	0.0053	5.1771	103.4	75.0	125.0
	Barium	10.0000	0.0528	9.7419	96.9	75.0	125.0
	Cadmium	0.1000	0.0045	0.0981	93.6	75.0	125.0
	Chromium	0.5000	0.1556	0.6404	97.0	75.0	125.0
	Copper	0.5000	0.0128	0.5219	101.8	75.0	125.0
	Lead	0.5000	0.0138	0.4835	93.9	75.0	125.0
	Selenium	5.0000	0.0162	5.3638	107.0	75.0	125.0
	Zinc	5.0000	0.0462	5.0806	100.7	75.0	125.0
26527-95678-2	Silver	0.1000	0.0005	0.0954	94.9	75.0	125.0
	Arsenic	5.0000	0.0053	5.0210	100.3	75.0	125.0
	Barium	10.0000	0.0528	9.6155	95.6	75.0	125.0
	Cadmium	0.1000	0.0045	0.0962	91.7	75.0	125.0
	Chromium	0.5000	0.1556	0.6312	95.1	75.0	125.0
	Copper	0.5000	0.0128	0.5104	99.5	75.0	125.0
	Lead	0.5000	0.0138	0.4649	90.2	75.0	125.0
	Selenium	5.0000	0.0162	5.3097	105.9	75.0	125.0
	Zinc	5.0000	0.0462	4.9697	98.5	75.0	125.0

MSD							QC LIMITS		
SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	LOWER	UPPER	RPD #	LIMIT
26527-95678	Silver	0.1000	0.0005	0.0977	97.2	75.0	125.0	0.1	20.0
	Arsenic	5.0000	0.0053	5.1737	103.4	75.0	125.0	0.1	20.0
	Barium	10.0000	0.0528	9.7236	96.7	75.0	125.0	0.2	20.0
	Cadmium	0.1000	0.0045	0.0988	94.3	75.0	125.0	0.7	20.0
	Chromium	0.5000	0.1556	0.6412	97.1	75.0	125.0	0.1	20.0
	Copper	0.5000	0.0128	0.5212	101.7	75.0	125.0	0.1	20.0
	Lead	0.5000	0.0138	0.4827	93.8	75.0	125.0	0.2	20.0
	Selenium	5.0000	0.0162	5.4232	108.1	75.0	125.0	1.1	20.0
	Zinc	5.0000	0.0462	5.0729	100.5	75.0	125.0	0.2	20.0

DUPLICATE						
SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
26527-95678	Silver	0.0005	0.0005	4.1	20.0	1.00
	Arsenic	0.0053	0.0058	9.6	20.0	1.00
	Barium	0.0528	0.0534	1.2	20.0	1.00
	Cadmium	0.0045	0.0028	47.5(5a)	20.0	1.00
	Chromium	0.1556	0.1587	2.0	20.0	1.00

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/21/99
14:31:11
Group: 26488

Analysis Batch Number: HREXT-04/20/99-114 :2

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ110

Number of Samples : 9

Batch Data-Date/Time : 04/21/99 / 07:46:52

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
26527-95678	Copper	0.0128	0.0126	1.3	20.0	1.00
	Lead	0.0138	0.0116	17.7	20.0	1.00
	Selenium	0.0162	0.0264	48.1(5a)	20.0	1.00
	Zinc	0.0462	0.0574	21.6(5a)	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS	
LCSW-134	Silver	0.0984	0.1000	98.4	80.0	120.0
	Arsenic	4.8491	5.0000	97.0	80.0	120.0
	Barium	9.6968	10.0000	97.0	80.0	120.0
	Cadmium	0.0960	0.1000	96.0	80.0	120.0
	Chromium	0.4888	0.5000	97.8	80.0	120.0
	Copper	0.5082	0.5000	101.6	80.0	120.0
	Lead	0.4840	0.5000	96.8	80.0	120.0
	Selenium	5.1090	5.0000	102.2	80.0	120.0
	Zinc	4.8156	5.0000	96.3	80.0	120.0

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS	
ICV-	Silver	0.1000	0.1000	99.9	90.0	110.0
	Arsenic	1.0000	0.9832	98.3	90.0	110.0
	Barium	1.0000	1.0166	101.7	90.0	110.0
	Cadmium	1.0000	0.9788	97.9	90.0	110.0
	Chromium	1.0000	0.9992	99.9	90.0	110.0
	Copper	1.0000	0.9974	99.7	90.0	110.0
	Lead	5.0000	4.9879	99.8	90.0	110.0
	Selenium	1.0000	1.0075	100.8	90.0	110.0
	Zinc	1.0000	0.9952	99.5	90.0	110.0
CCV1--2	Silver	0.1000	0.0999	99.9	90.0	110.0
	Arsenic	1.0000	0.9743	97.4	90.0	110.0
	Barium	1.0000	1.0138	101.4	90.0	110.0
	Cadmium	1.0000	0.9798	98.0	90.0	110.0
	Chromium	1.0000	0.9989	99.9	90.0	110.0
	Copper	1.0000	0.9971	99.7	90.0	110.0
	Lead	5.0000	4.9911	99.8	90.0	110.0
	Selenium	1.0000	1.0007	100.1	90.0	110.0
	Zinc	1.0000	0.9952	99.5	90.0	110.0
CCV2--3	Silver	0.1000	0.0987	98.7	90.0	110.0
	Arsenic	1.0000	1.0029	100.3	90.0	110.0
	Barium	1.0000	1.0348	103.5	90.0	110.0
	Cadmium	1.0000	0.9575	95.8	90.0	110.0
	Chromium	1.0000	0.9989	99.9	90.0	110.0
	Copper	1.0000	1.0281	102.8	90.0	110.0
	Lead	5.0000	4.9387	98.8	90.0	110.0
	Selenium	1.0000	0.9965	99.7	90.0	110.0
	Zinc	1.0000	0.9843	98.4	90.0	110.0
CCV3--4	Silver	0.1000	0.0993	99.3	90.0	110.0
	Arsenic	1.0000	0.9867	98.7	90.0	110.0
	Barium	1.0000	1.0149	101.5	90.0	110.0

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/21/99
14:31:12
Group: 26488

Analysis Batch Number: HREXT-04/20/99-114 -2

Test Identification : HREXT-Metals for hr TCLP, by ICP

Sequence : DATQ110

Number of Samples : 9

Batch Data-Date/Time : 04/21/99 / 07:46:52

CCV #	ANALYTE	QC LIMITS			
		TRUE VALUE	BATCH READ	% REC #	LOWER UPPER
CCV3--4	Cadmium	1.0000	0.9836	98.4	90.0 110.0
	Chromium	1.0000	1.0069	100.7	90.0 110.0
	Copper	1.0000	0.9976	99.8	90.0 110.0
	Lead	5.0000	4.9862	99.7	90.0 110.0
	Selenium	1.0000	0.9866	98.7	90.0 110.0
	Zinc	1.0000	0.9965	99.7	90.0 110.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Silver	0.0001	0.0040
	Arsenic	0.0012	0.0200
	Barium	0.0000	0.0040
	Cadmium	ND	0.0040
	Chromium	0.0002	0.0100
	Copper	0.0019	0.0100
	Lead	0.0058	0.0200
	Selenium	ND	0.0200
	Zinc	0.0002	0.0500
CCB1-	Silver	0.0004	0.0040
	Arsenic	0.0073	0.0200
	Barium	ND	0.0040
	Cadmium	ND	0.0040
	Chromium	0.0000	0.0100
	Copper	0.0014	0.0100
	Lead	0.0026	0.0200
	Selenium	0.0059	0.0200
	Zinc	0.0001	0.0500
CCB2-	Silver	0.0002	0.0040
	Arsenic	0.0015	0.0200
	Barium	0.0006	0.0040
	Cadmium	0.0002	0.0040
	Chromium	0.0007	0.0100
	Copper	0.0011	0.0100
	Lead	0.0051	0.0200
	Selenium	ND	0.0200
	Zinc	0.0007	0.0500
CB3-	Silver	0.0013	0.0040
	Arsenic	0.0124	0.0200
	Barium	ND	0.0040
	Cadmium	0.0001	0.0040
	Chromium	ND	0.0100
	Copper	0.0012	0.0100
	Lead	ND	0.0200
	Selenium	0.0124	0.0200
	Zinc	ND	0.0500

----- Result Footnotes -----

1d) - The preparation blank concentration is less than 5% of the regulatory limit

5a) - Duplicates not evaluated: Results are <10x detection limit

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

04/21/99
14:31:13
Group: 26488

Analysis Batch Number: HREXT-04/20/99-114 -2

Test Identification : HREXT-Metals for hr TCLP, by ICP

Number of Samples : 9

Sequence : DATQ110

Batch Data-Date/Time : 04/21/99 / 07:46:52

Groups & Samples

26476-95486 26484-95500 26485-95504 26488-95512 26527-95678 26528-95679 26531-95682 26533-95687
26561-95789

1431
On Site Technologies, LTD.

612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

Mountain States Analytical, Inc.
1645 West 2200 South

TEL: (800) 973-6724

FAX: (801) 972-6278

Salt Lake City, UT 84119

Acct #:

06-Apr-99

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests						
				SW1311	SW1311/6010A	SW1311/8240A	SW1311/8270A	SW3010A	SW3510	SW7470
9904003-01A	Aqueous	4/5/99 11:06:00 AM	1LAMGU	3	1	1	1	1	1	1

Comments:

Please call David Cox @ 505-325-1556 for instructions on analysis. All samples will be composited for TCLP Metals, TCLP Volatiles and TCLP Semivolatiles analyses.

	Date/Time		Date/Time
Relinquished by: <i>David D. Martin</i>	4/6/99 1655	Received by: <i>Ruth A. Bunker</i>	04/07/99 @ 1030
Relinquished by:		Received by:	

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

District I - (505) 393-6161
P.O. Box 1090
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Roswell, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED

MAY 03 1999

Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>WJFS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>MILAGRO PLANT</u>
2. Management Facility Destination <u>KEY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>PHYSICAL CR 3500 #345 AZTEC, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>142 CR 4900</u> <u>Bloomfield, NM 87413</u>	
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WASTE WATER FROM EVAPORATION POND AT the NATURAL GAS
Breachment Plant.

RECEIVED
MAY 13 1999

OIL CON. DIV.
DIST. 3

RECEIVED
APR 29 1999

OIL CON. DIV.
DIST. 3

Estimated Volume 2500+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 4-29-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Michael Talovich TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny L. Fent TITLE: Geologist DATE: 4/29/99
APPROVED BY: Martinez J. Kelly TITLE: Env Geologist DATE: 5-4-99

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>WFS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>MILAGRO Plant</u>
2. Management Facility Destination <u>KEY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>PHYSICAL: CR 3500 #345 AZTEC, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>192 CR 4900 Bloomfield, NM 87413</u>	
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WASTE WATER FROM EVAPORATION POND AT the NATURAL GAS
Breachment Plant.

RECEIVED
APR 29 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 2500+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 4-29-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny B. Feunt TITLE: Geologist DATE: 4/29/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: WILLIAMS FIELD SERVICES 192 CR 4900 Bloomfield NM. 87413	2. Destination Name: KEY ENERGY DISPOSAL
3. Originating Site (name): MILABRO PLANT 192 CR 4900 Bloomfield NM 87413 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Waste water	

I, NELSON M JLY TD representative for:
(Print Name)
WILLIAMS FIELD SERVICES (MILABRO PLANT) do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information
☒ RCRA Hazardous Waste Analysis
☒ Chain of Custody

☐ Other (description):

Name (Original Signature): [Signature]

Title: Lead MECH

Date: 4/27/99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

November 17, 1998

Mr. Mike Talovich
Sunco, Inc.
P.O. Box 900
Farmington, New Mexico 87499

(505) 327-0416

Project No.: 98065-02

Dear Mr. Talovich,

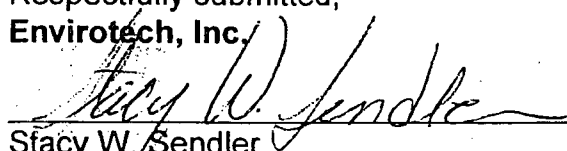
Enclosed are the analytical results for the sample collected from the location designated as "WFS Milagro Plant". One water sample identified as "Plant" was collected from the designated location by Sunco personnel on 10/29/98, and received by the Envirotech laboratory on 10/29/98 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6371 and assigned Laboratory No. E120 for tracking purposes.

The sample was analyzed on 10/29/98 through 11/16/98 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.


Stacy W. Sandler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws

98065-02.lb1/wpd

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	10-30-98
Lab ID#:	E120	Date Sampled:	10-29-98
Sample Matrix:	Soil	Date Received:	10-29-98
Preservative:	Cool	Date Analyzed:	10-29-98
Condition:	Cool and Intact	Chain of Custody:	6371

Parameter	Result
-----------	--------

IGNITABILITY: Negative

CORROSIVITY: Negative pH = 9.64

REACTIVITY: Negative

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
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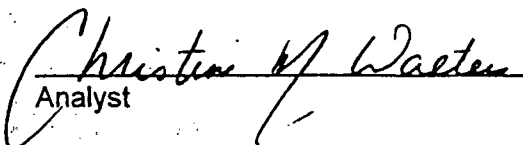
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)
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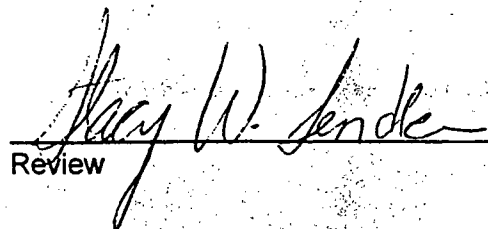
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. (i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)
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REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)
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Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.059	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0006	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	0.003	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

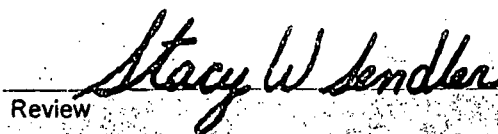
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-12-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	100%
	2,4,6-Tribromophenol	100%

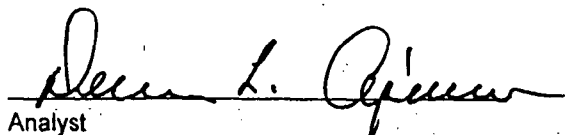
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

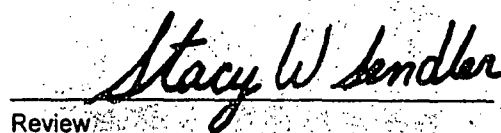
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-12-98
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.081	0.020	5.0
Hexachloroethane	0.190	0.020	3.0
Nitrobenzene	0.766	0.020	2.0
Hexachlorobutadiene	0.033	0.020	0.5
2,4-Dinitrotoluene	0.088	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

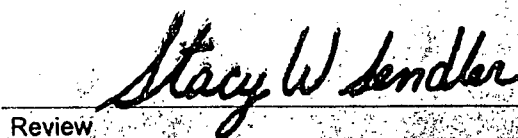
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-13-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Analyzed:	11-12-98
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	ND	0.0001	5.0
Barium	0.546	0.001	21
Cadmium	0.0017	0.0001	0.11
Chromium	ND	0.0001	0.60
Lead	0.0086	0.0001	0.75
Mercury	ND	0.0001	0.025
Selenium	ND	0.0001	5.7
Silver	ND	0.0001	0.14

ND - Parameter not detected at the stated detection limit.

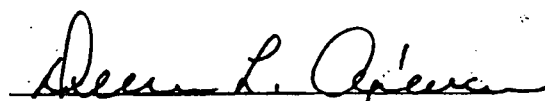
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

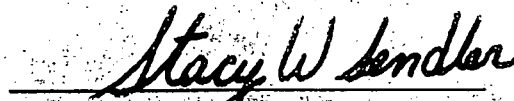
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

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

Comments: WFS Milagro Plant.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	11-12-98
Laboratory Number:	11-11-TCV-BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-11-98
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

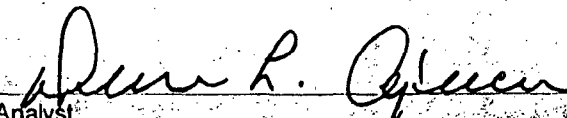
ND - Parameter not detected at the stated detection limit.

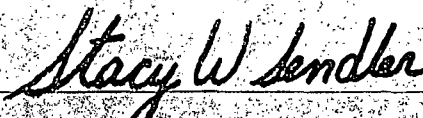
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-11-98
Condition:	N/A	Date Extracted:	11-04-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

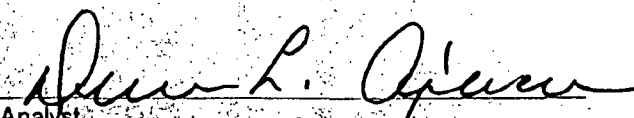
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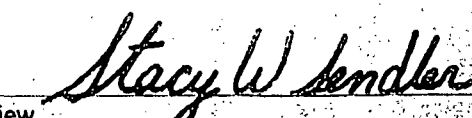
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

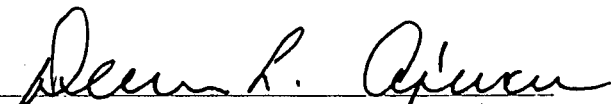
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	11-11-98
Condition:	N/A	Date Extracted:	N/A

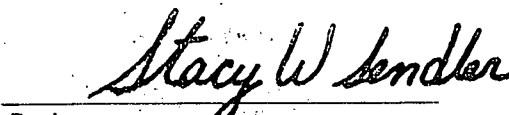
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.059	0.059	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0006	0.0006	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	0.003	0.003	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Spike
Laboratory Number: E120
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

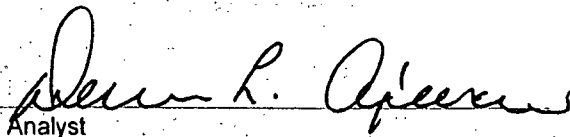
Project #: N/A
Date Reported: 11-12-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 11-11-98
Date Extracted: N/A

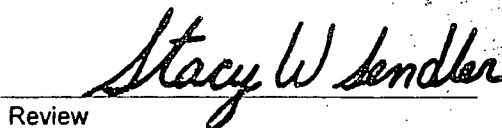
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.059	0.050	0.1084	0.0001	100%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0006	0.050	0.0504	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0498	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	0.003	0.050	0.0524	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	11-12-98
Laboratory Number:	11-12-TCA-BLANK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-12-98
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results	Concentration	Detection	Regulatory
Parameter	(mg/L)	Limit	Limit
		(mg/L)	(mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	99 %
	2,4,6-tribromophenol	97 %

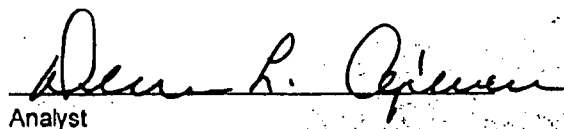
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

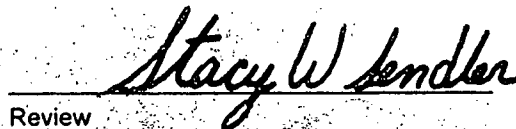
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24; July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040 PHENOLS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool & Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	101%
	2,4,6-Tribromophenol	100%

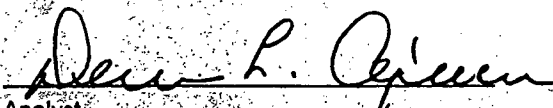
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

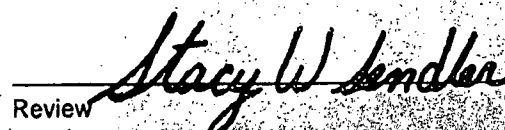
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool & Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

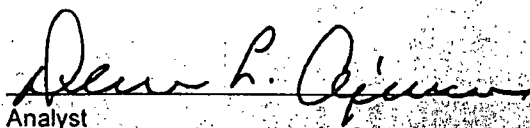
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

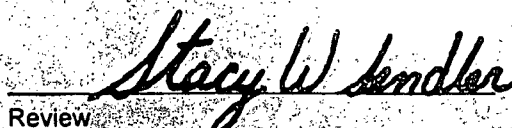
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client: QA/QC
Sample ID: Laboratory Blank
Laboratory Number: 11-12-TBN-Blank
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 11-12-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 11-12-98
Analysis Requested: TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.

Analyst

Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-BN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool and Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

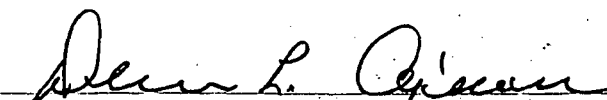
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090

Nitroaromatics and Cyclic Ketones

TCLP Base/Neutral Organics

QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	0.081	0.081	0.0%	0.020
Hexachloroethane	0.190	0.188	1.0%	0.020
Nitrobenzene	0.766	0.759	0.9%	0.020
Hexachlorobutadiene	0.033	0.032	1.1%	0.020
2,4-Dinitrotoluene	0.088	0.085	3.0%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

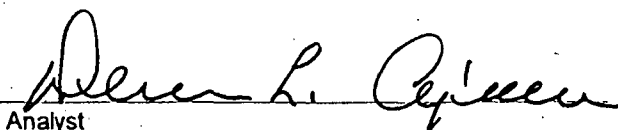
ND - Parameter not detected at the stated detection limit.

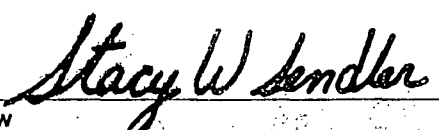
QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-12-TCM QA/QC	Date Reported:	11-13-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	11-12-98
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	0.546	0.544	0.4%	0% - 30%
Cadmium	ND	ND	0.0001	0.0017	0.0016	5.9%	0% - 30%
Chromium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0086	0.0087	1.2%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	ND	0.0998	99.8%	80% - 120%
Barium	1.000	0.546	1.55	100.3%	80% - 120%
Cadmium	0.0500	0.0017	0.0515	99.6%	80% - 120%
Chromium	0.0500	ND	0.0499	99.8%	80% - 120%
Lead	0.1000	0.0086	0.109	99.9%	80% - 120%
Mercury	0.0250	ND	0.0248	99.2%	80% - 120%
Selenium	0.1000	ND	0.0997	99.7%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

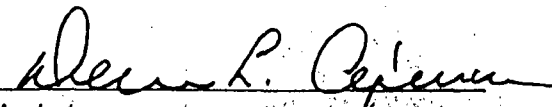
ND - Parameter not detected at the stated detection limit.

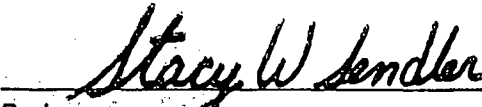
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals,
SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by
GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

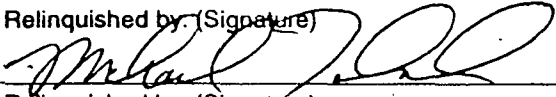
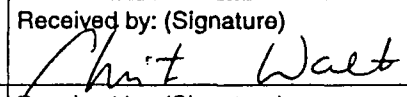
Comments: QA/QC for samples E120 and E147.


Analyst


Review

CHAIN OF CUSTODY RECORD

6371

Client / Project Name SUNCO DISPOSAL			Project Location WFS MILLABO PLANT		ANALYSIS / PARAMETERS							
Sampler: MIKETA LOVICH			Client No. 98065-02		No. of Containers 10	TCLP 25 H/P ☒						Remarks
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix								
PLANT	10-29-98	1030	E120	Water								
Relinquished by: (Signature) 			Date 10-29-98	Time 1115	Received by: (Signature) 						Date 10-29-98	Time 11:15
Relinquished by: (Signature)					Received by: (Signature)							
Relinquished by: (Signature)					Received by: (Signature)							

ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615				Sample Receipt			
					Y	N	N/A
				Received Intact	☒	☒	☒
				Cool - Ice/Blue Ice	☒	☒	☒

strict I - (505) 393-6161
Box 1980
bbs, NM 88241-1980
strict II - (505) 748-1283
S. First
esia, NM 88210
strict III - (505) 334-6178
Rio Brazos Road
ec, NM 87410
strict IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☒ Non-Exempt: ☐	4. Generator <i>WFS</i>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <i>ELCEDRO</i>
2. Management Facility Destination <i>KEY DISPOSAL</i>	6. Transporter <i>Key</i>
3. Address of Facility Operator <i>CR 3500 #345 AZTEC, NM</i>	8. State <i>NM</i>
7. Location of Material (Street Address or ULSTR) <i>HWY 64 NM 100.5 Blanco, NM</i>	
9. Circle One: ☒ A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☐ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

EXEMPT AMINE TREATING FLUID MIXED WITH RAIN WATER

RECEIVED
APR 23 1999
OIL CON. DIV.
DIST 3

Estimated Volume *160 bbls* cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: *Michael Talovich* TITLE: *MGR* DATE: *4-22-99*
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: *MICHAEL TALOVICH* TELEPHONE NO. *505-334-6186*

(This space for State Use)

APPROVED BY: *Derry G. Kent* TITLE: *Geology* DATE: *4/26/99*
APPROVED BY: *E. Busch* TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

Williams Field Service	
1. Generator Name and Address: EL CEDRO COMPLEX Hwy 64 Mile Marker 100.5 Blanco, N.M. 87413	2. Destination Name: KEY DISPOSAL
3. Originating Site (name): EL CEDRO COMPLEX	
Location of the Waste (Street address &/or ULSTR):	
Attach list of originating sites as appropriate	
4. Source and Description of Waste AMINE TREATING - 95% RAIN WATER 2.5% AMINE 2.5% TREATING TEG	

I, C.R. LEWIS (Print Name) representative for: Williams Field Service do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☒ EXEMPT oilfield waste PLANT SIDE ☐ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

- | | |
|--|---|
| ☐ MSDS Information | ☐ Other (description): |
| ☐ RCRA Hazardous Waste Analysis | |
| ☐ Chain of Custody | |

Name (Original Signature): C.R. Lewis
 Title: Operator
 Date: 4/21/99

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Roswell, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
APR 07 1999
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☒	4. Generator <u>Key Energy Serv.</u>
2. Management Facility Destination <u>Key Disposal</u>	5. Originating Site <u>Pine Vado</u>
3. Address of Facility Operator <u>CR3500 #345 AZtec NM</u>	6. Transporter <u>Key</u>
7. Location of Material (Street Address or ULSTR) <u>#328 CR3500 AZtec NM</u>	8. State <u>N.M.</u>
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Fresh water mixed with unused KCL fluid created from frac tank rinse out.

RECEIVED
APR 12 1999
OIL CON. DIV.
DIST. 3

RECEIVED
APR - 6 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 800 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talowicz TITLE: Manager DATE: 3-26-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOWICZ TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Feust TITLE: Geologist DATE: 4/6/99
APPROVED BY: Monty J. Kneib TITLE: Env. Geologist DATE: 4/7/99

District I - (505) 393-6161
O. Box 1980
Tobbs, NM 83241-1980
District II - (505) 748-1283
11 S. First
Tuesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Key Energy Serv.</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Pipe Yard</u>
2. Management Facility Destination <u>Key Disposal</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR3500 #345 AZtec NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>#328 CR3500 AZtec NM</u>	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

fresh water mixed with unused KCL fluid created
from frac tank rinse out.

RECEIVED
APR - 6 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 800 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: manager DATE: 3-26-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Feent TITLE: Geologist DATE: 4/6/99

APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: <i>Key ENERGY Ser.</i>	2. Destination Name: <i>Key ENERGY DISPOSAL</i>
3. Originating Site (name): <i>Key Pipeyard</i>	Location of the Waste (Street address &/or ULSTR): <i>328 CR. 3500 Aztec, New Mexico</i>
Attach list of originating sites as appropriate	
4. Source and Description of Waste <i>Fresh Water mixed with unused KCL Fluid Created from Frac Tank Rinse outs.</i>	

I, *Michael W. Church* representative for:
Key Energy Serv. Pipeyard (Print Name) do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☒ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature):

Michael W. Church

Title:

Regional Manager

Date:

3-26-99

MATERIAL SAFETY DATA SHEET

POTASH

CAUTION - MAY CAUSE SKIN AND
EYE IRRITATION**MOAB SALT, Inc.**P.O. Box 1208
Moab, Utah (801) 259-771**TEXASGULF Inc.**3101 Glenwood Avenue
P.O. Box 30321
Raleigh, N.C. 27622-0321 (919) 881-2700TRANSPORTATION EMERGENCIES: CALL (800) 424-9300 (CHEMTREC)
HEALTH EMERGENICES: CONTACT YOUR LOCAL POISON CENTER**PRODUCT INFORMATION****CHEMICAL NAME AND SYNONYMS**
POTASSIUM CHLORIDE**TRADE NAME AND SYNONYMS**
POTASH, POTASSIUM MURIATE,
MURIATE OF POTASH**CHEMICAL FAMILY**
INORGANIC SALT**FORMULA**
KC1**CAS NUMBER**
7447-40-7

Listed in: _____ OSHA SUBPART Z _____ ACGIH TLV LISTS; _____ NTP LIST;

_____ IARC MONOGRAPH; _____ X _____ NONE OF THE ABOVE

TYPICAL COMPOSITION
POTASSIUM CHLORIDE
SODIUM CHLORIDE_____
%
96.8
2.8 (CAS #7647-14-5)**PHYSICAL DATA****BOILING POINT (°F)**
VAPOR PRESSURE (mm Hg.)
VAPOR DENSITY (AIR-1)
SOLUBILITY IN WATER
APPEARANCE AND ODOR
pHSublimes @ 2732
N/A
N/A
25% @ 68°F
White crystals or granules, odorless
7 at 1%**MELTING POINT (°F)** 1423
SPECIFIC GRAVITY (H2O-1) 1.98
PERCENT VOLATILE N/A
EVAPORATION RATE N/A
OTHER**FIRE AND EXPLOSION HAZARD INFORMATION****FLASH POINT (METHOD USED)**

NOT COMBUSTIBLE

FLAMMABLE LIMITS

LEL N/A

EXTINGUISHING MEDIA

N/A

UEL N/A

SPECIAL FIRE FIGHTING PROCEDURES

NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE

HEALTH INFORMATION**THRESHOLD LIMIT VALUE:**NONE ESTABLISHED. OSHA total nuisance dust limit of 15 mg/m³ and a respirable fraction of 5 mg/m³. The ACGIH nuisance dust TLV of 10 mg/m³ for the 8 hour time weighted average applies.

EFFECTS OF OVEREXPOSURE EYE-Irritant, SKIN-Slightly irritating. INHALATION-Irritates trachea and upper breathing passages. INGESTION-Large doses and cause G.I. irritation, purging, weakness and circulatory disturbances. Low toxicity. (Toxicity LD50 Rat=3020 mg/kg).

EMERGENCY AND FIRST AID PROCEDURES

EYE-Flush thoroughly with water. Seek medical attention if irritation persists.

SKIN-Wash thoroughly with soap and water.

INHALATION-Remove to fresh air. If discomfort continues, seek medical attention.

INGESTION-If person is conscious, give large amounts of water to drink and induce vomiting. Seek medical attention.

REACTIVITY DATA

STABILITY



UNSTABLE
STABLE

CONDITIONS TO AVOID

NONE

INCOMPATIBILITY (Materials to Avoid) Strong acids-can cause release of toxic chloride gasses.

HAZARDOUS DECOMPOSITION PRODUCTS None

HAZARDOUS

POLYMERIZATION



May Occur
Will Not Occur

CONDITIONS TO AVOID

NONE

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED Prevent large quantities from contact with water ways or vegetation.

WASTE DISPOSAL METHOD If uncontaminated, recover and reuse product. Consult State or Federal environmental regulatory agencies for acceptable disposal procedures and location.

PERSONAL PROTECTION INFORMATION

EYE-Tight fitting goggles should be worn in dusty areas.

SKIN-if irritation occurs, long sleeves and impervious gloves should be worn.

RESPIRATORY-A NIOSH-approved dust respirator should be used when exposure exceeds the OSHA standard of 15 mg/m³.

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING NONE

OTHER PRECAUTIONS Potash is mildly corrosive to steel when wet

Office I - (505) 393-6161
Box 1980
bbs, NM 88241-1980
Office II - (505) 748-1283
1st Floor
cscia, NM 88210
Office III - (505) 334-6178
Rio Brazos Road
csc, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

RECEIVED

MAR 29 1999

Submit Original
Plus 1 Copy
to appropriate
District Office

Environmental Bureau

Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>VANWATERES + ROGERS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>PHY: CR3500 #345 AZTEC NM</u> <u>MAILING: PO BOX 900, FARMINGTON NM 87499</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>15th 5860</u> <u>FARMINGTON NM</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. (B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

RAIN water mixed (possibly) with METHANOL AND TRIETHYLENE GLYCOL.

RECEIVED
MAR 30 1999
OIL CON. DIV.
DIST. 3

RECEIVED
MAR 18 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 160 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 3-18-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186
6416

(This space for State Use)

APPROVED BY: Denny G. Zent TITLE: Geologist DATE: 3/19/99
APPROVED BY: Martyn J. Smith TITLE: Env. Geologist DATE: 3/29/99

Office I - (505) 393-6161
P.O. Box 1980
Albuquerque, NM 88241-1980
Office II - (505) 748-1283
1 S. First
Albuquerque, NM 88210
Office III - (505) 334-6178
7 Rio Brazos Road
Albuquerque, NM 87410
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New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
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Submit Original
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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

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BRIEF DESCRIPTION OF MATERIAL:

RAIN WATER MIXED (POSSIBLY) WITH METHANOL AND TRIETHYLENE GLYCOL

RECEIVED
MAR 18 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 160 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: M. J. Talovich TITLE: MGK DATE: 3-18-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186
6416

(This space for State Use)

APPROVED BY: Denny G. Kent TITLE: Geologist DATE: 3/19/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: VAN WATERS & ROGERS 15rd.5860 Farmington New Mexico 87401 325-3535 Tom Newman, Mike	2. Destination Name: KEY ENERGY
3. Originating Site (name): VAN WATERS&ROGERS 15Rd 5860 Farmington N.M. 87401 325-3535 Mike Anderson, Thomas A. Newman <i>Attach list of originating sites as appropriate</i>	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Rain water that has built up over the last 6 months there is roughly 7000 gallons of water the p.h. is 7 MSDS. METHANOL/TRIETHYLENE GLYCOL ATTACHED TO FORM	

I, MIKE ANDERSON/VAN WATERS&ROGERS representative for:
(Print Name)
VAN WATERS & ROGERS do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☒ MSDS Information
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

☐ Other (description):

Name (Original Signature):

Title:

Date:

[Signature]
Lead Material Handler
3/18/99

REPORT NUMBER: 971

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SDS NO: HZ216830

MATERIAL SAFETY DATA SHEET

INFRAME UPLOAD DATE: 01/08/99

VERSION: 001

PRODUCT: METHANOL

ORDER NO:

PROD NO :

VAN WATERS & ROGERS INC. , A ROYAL DAKHOED COMPANY (425)889-3400
100 CARILLON POINT , KIRKLAND , WA 98033

----- EMERGENCY ASSISTANCE -----

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

PRODUCT NAME:
ETHANOL

SDS #: HZ216830

. CHEMICAL PRODUCT IDENTIFICATION
PRODUCT NAME: METHANOL

SYNONYMS: CARBINOL
METHYL ALCOHOL
METHYL HYDROXIDE
MONOHYDROXYMETHANE

. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	
ETHANOL *	67-56-1	99.5 -99.85%

OSHA HAZARDOUS ACCORDING TO 29 CFR 1910.1206

. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ETHANOL IS A CLEAR, COLORLESS, MOBILE LIQUID WITH A MILD
ALCOHOL ODOR.

HAZARD:

FLAMMABLE (FLASH POINT: TOC, 60 F; TCC, 54 F)

VAPOR IS HEAVIER THAN AIR AND CAN TRAVEL CONSIDERABLE

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DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK.
MATERIAL CAN BURN WITH LITTLE OR NO VISIBLE FLAME.
POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:
(IN, EYES, INHALATION, INGESTION).
IMMEDIATE EFFECTS

SKIN:
REPEATED OR PROLONGED CONTACT CAUSES DRYING, BRITTLENESS,
CRACKING AND IRRITATION. PROLONGED AND REPEATED SKIN CON-
TACT WITH METHANOL-SOAKED MATERIAL HAS PRODUCED TOXIC
EFFECTS INCLUDING VISION EFFECTS AND DEATH.

EYES:
MAY CAUSE EYE INJURY WHICH MAY PERSIST FOR SEVERAL DAYS.
LIQUID (AND VAPOR IN HIGH CONCENTRATIONS) CAUSES IRRITATION,
TEARING AND A BURNING SENSATION.

INHALATION:
EXTREMELY HIGH LEVELS CAUSE STUPOR, HEADACHE, NAUSEA, DIZZI-
NESS, UNCONSCIOUSNESS AND MAY PRODUCE ADVERSE EFFECTS ON
VISION.

INGESTION:
POISONOUS OR FATAL IF SWALLOWED. A SMALL AMOUNT (USUALLY
TWO OR MORE OUNCES) CAN CAUSE MENTAL SLUGGISHNESS, NAUSEA
AND VOMITING LEADING TO SEVERE ILLNESS; AND MAY PRODUCE
ADVERSE EFFECTS ON VISION WITH POSSIBLE BLINDNESS OR DEATH
IF TREATMENT IS NOT RECEIVED.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
SIGNIFICANT EXPOSURE TO THIS CHEMICAL MAY ADVERSELY AFFECT
PEOPLE WITH CHRONIC DISEASE OF THE CENTRAL NERVOUS SYSTEM,
SKIN, GASTROINTESTINAL TRACT AND/OR EYES.

FOR FURTHER INFORMATION, SEE:
SECTION 4 - FIRST AID MEASURES
SECTION 5 - FIRE FIGHTING MEASURES
SECTION 6 - ACCIDENTAL RELEASE MEASURES
SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
SECTION 10 - STABILITY AND REACTIVITY
A. FIRST AID MEASURES

SKIN:
REMOVE CONTAMINATED CLOTHING AND WASH CONTAMINATED SKIN WITH
LARGE AMOUNTS OF SOAP AND WATER. IF IRRITATION PERSISTS,
CONTACT A PHYSICIAN.

EYES:
FLUSH EYES WITH WATER FOR AT LEAST 15 MINUTES. CONTACT A

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PHYSICIAN IMMEDIATELY.

INHALATION:

REMOVE PATIENT FROM CONTAMINATED AREA. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION, THEN OXYGEN IF NEEDED. CONTACT A PHYSICIAN IMMEDIATELY.

INGESTION:

INDUCE VOMITING OF CONSCIOUS PATIENT IMMEDIATELY BY GIVING TWO GLASSES OF WATER AND PRESSING FINGER DOWN THROAT. CONTACT A PHYSICIAN IMMEDIATELY.

NOTE TO PHYSICIANS:

WHEN PLASMA METHANOL CONCENTRATIONS ARE HIGHER THAN 20 MG/DECILITER, WHEN INGESTED DOSES ARE GREATER THAN 30 MILLILITERS, AND WHEN THERE IS EVIDENCE OF ACIDOSIS OR VISUAL ABNORMALITIES, A 10% SOLUTION OF ETHANOL IN 5% AQUEOUS DEXTROSE, ADMINISTERED INTRAVENOUSLY, IS A SAFE EFFECTIVE ANTIDOTE (WESTERN JOURNAL OF MEDICINE, MARCH 1985, P. 337).

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASHPOINT CLOSED CUP: 60.0 F (15.6 C)

FLASHPOINT OPEN CUP : 54.0 F (12.2 C)

UPPER EXPLOSIVE LMT : 36.5 %

IN AIR BY VOLUME.

LOWER EXPLOSIVE LMT : 5.5 %

IN AIR BY VOLUME.

HAZARDOUS PRODUCTS OF COMBUSTION:

CARBON MONOXIDE.

EXTINGUISHING MEDIA:

USE CARBON DIOXIDE OR DRY CHEMICAL FOR SMALL FIRES; ALCOHOL-TYPE AQUEOUS FILM-FORMING FOAM OR WATER SPRAY FOR LARGE FIRES. WATER MAY BE INEFFECTIVE BUT SHOULD BE USED TO COOL FIRE-EXPOSED STRUCTURES AND VESSELS.

FIRE FIGHTING INSTRUCTIONS:

IF POTENTIAL FOR EXPOSURE TO VAPORS OR PRODUCTS OF COMBUSTION EXISTS, WEAR COMPLETE PERSONAL PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE-PIECE OPERATED IN PRESSURE DEMAND OR OTHER POSITIVE PRESSURE MODE. WATER SPRAY CAN BE USED TO REDUCE INTENSITY OF FLAMES AND TO DILUTE SPILLS TO NONFLAMMABLE MIXTURE. VAPOR IS EASIER THAN AIR AND CAN TRAVEL CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. MATERIAL CAN BURN WITH LITTLE OR NO VISIBLE FLAME.

6. ACCIDENTAL RELEASE MEASURES

ELIMINATE IGNITION SOURCES. AVOID EYE OR SKIN CONTACT; SEE SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION" FOR RESPIRATOR INFORMATION. PLACE LEAKING CONTAINERS IN WELL-

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VENTILATED AREA WITH SPILL CONTAINMENT. IF FIRE POTENTIAL
EXISTS, BLANKET SPILL WITH ALCOHOL-TYPE AQUEOUS FILM-FORMING
FOAM OR USE WATER SPRAY TO DISPERSE VAPORS. CONTAIN SPILL TO
FACILITATE CLEAN-UP. CLEAN-UP METHODS MAY INCLUDE ABSORBENT
MATERIALS, VACUUM TRUCK, ETC. AVOID RUNOFF INTO STORM
SEWERS AND DITCHES WHICH LEAD TO NATURAL WATERWAYS.

CALL THE NATIONAL RESPONSE CENTER (800 424 8802) IF THE
QUANTITY (OF ANY COMPONENT) SPILLED IS EQUAL TO OR GREATER
THAN THE REPORTABLE QUANTITY (RQ) UNDER CERCLA "SUPERFUND":
1000 LB/DAY.

FOR MORE INFORMATION, SEE "SECTION 15 - REGULATORY INFORMA-
TION".

1. HANDLING AND STORAGE

HANDLING:

USE WITH ADEQUATE VENTILATION. KEEP CONTAINERS CLOSED WHEN
NOT IN USE. ALWAYS OPEN CONTAINERS SLOWLY TO ALLOW ANY
EXCESS PRESSURE TO VENT. AVOID BREATHING VAPOR. AVOID CON-
TACT WITH EYES, SKIN OR CLOTHING. WASH THOROUGHLY WITH SOAP
AND WATER AFTER HANDLING. DECONTAMINATE SOILED CLOTHING
THOROUGHLY BEFORE RE-USE. DESTROY CONTAMINATED LEATHER
CLOTHING.

DO NOT EXPOSE TO TEMPERATURES ABOVE 49 C (120 F). USE
FIRE-RESISTANT TOOLS. DO NOT LOAD INTO COMPARTMENTS ADJA-
CENT TO HEATED CARGO. PROVIDE EMERGENCY EXHAUST.

CLOTHING.

STORAGE:

KEEP ALL CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. STORE
OUT OF DIRECT SUNLIGHT AND ON AN IMPERMEABLE FLOOR.

DO NOT STORE WITH INCOMPATIBLE MATERIALS; SEE "SECTION 10 -
STABILITY AND REACTIVITY".

2. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

GENERAL OR DILUTION VENTILATION IS FREQUENTLY INSUFFICIENT
& THE SOLE MEANS OF CONTROLLING EMPLOYEE EXPOSURE. LOCAL
VENTILATION IS USUALLY PREFERRED.

EXPLOSION-PROOF EQUIPMENT (FOR EXAMPLE, FANS, SWITCHES,
ROUNDED DUCTS) SHOULD BE USED IN MECHANICAL VENTILATION
SYSTEMS.

PROTECTIVE EQUIPMENT

SAFETY SHOWER AND EYE BATH SHOULD BE READILY AVAILABLE.

SKIN:

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WEAR IMPERVIOUS CLOTHING AND GLOVES TO PREVENT REPEATED OR
PROLONGED CONTACT. THE RECOMMENDED MATERIAL OF CONSTRUCTION
IS:

NITRILE RUBBER.

EYES:

WEAR CHEMICAL GOGGLES WHEN THERE IS A REASONABLE CHANCE OF
EYE CONTACT.

INHALATION:

BASED ON WORKPLACE CONTAMINATE LEVEL AND WORKING LIMITS OF
THE RESPIRATOR, USE A RESPIRATOR APPROVED BY NIOSH/MSHA.
THE FOLLOWING IS THE MINIMUM RECOMMENDED EQUIPMENT FOR AN
ACCEPTABLE LEVEL OF EXPOSURE. TO ESTIMATE AN ACCEPTABLE
LEVEL OF EXPOSURE, SEE "SECTION 3 - HAZARDS IDENTIFICATION".
SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION" AND
SECTION 11 - TOXICOLOGICAL INFORMATION".

FOR CONCENTRATIONS ≥ 1 AND ≤ 100 TIMES THE ACCEPTABLE
LEVEL: USE TYPE C FULL FACEPIECE SUPPLIED-AIR RESPIRATOR
OPERATED IN PRESSURE-DEMAND OR CONTINUOUS-FLOW MODE.
POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS ESCAPE
SYSTEM.

FOR CONCENTRATIONS ≥ 100 TIMES THE ACCEPTABLE LEVEL OR IDLH
LEVEL OR UNKNOWN CONCENTRATION (SUCH AS IN EMERGENCIES):
USE SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE
IN PRESSURE-DEMAND MODE. TYPE C POSITIVE-PRESSURE FULL
FACEPIECE SUPPLIED-AIR RESPIRATOR WITH AN AUXILIARY
POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS ESCAPE
SYSTEM.

FOR ESCAPE: USE SELF-CONTAINED BREATHING APPARATUS WITH
FULL FACEPIECE OR ANY RESPIRATOR SPECIFICALLY APPROVED FOR
ESCAPE.

EXPOSURE GUIDELINES:

METHANOL (67-56-1)

OSHA PEL	ACGIH TLV
100 PPM (TWA)	250 PPM (STEL)

----- 200 PPM (TWA)

ACGIH HAS GIVEN THIS SUBSTANCE A SKIN DESIGNATION.

ITALY HAS ADOPTED THE ACGIH TLV.

1990 NIOSH IDLH*: 25,000 PPM

1994 NIOSH IDLH: 6000 PPM

RECOGNIZED BY OSHA.

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PRODUCT: METHANOL

ORDER NO:
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PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE : CLEAR, COLORLESS, MOBILE LIQUID.
ODOR : MILD ALCOHOL ODOR.
PHYSICAL STATE : LIQUID
VAPOR PRESSURE : 96.0 HG
(20 C)
VAPOR DENSITY : 1.11
AIR = 1 AT 20 C
BOILING POINT : 64.6 C (148.3 F)
(760 MM HG)
FREEZING POINT : -97.8 C (-144.0 F)
SOLUBILITY : COMPLETE IN WATER.
SPECIFIC GRAVITY : 0.792
H2O = 1 @ 20/20 C
EVAPORATION RATE : 2.0
BUAC = 1
VOLATILES : 100.0
MOLECULAR WEIGHT : 32.0

3. STABILITY AND REACTIVITY

CHEMICAL STABILITY:
STABLE.
CONDITIONS TO AVOID:
HEAT, SPARKS, FLAME.
INCOMPATIBILITY:
SULFURIC ACID; OXIDIZING AGENTS SUCH AS HYDROGEN PEROXIDE,
NITRIC ACID, PERCHLORIC ACID AND CHROMIUM TRIOXIDE.
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

4. TOXICOLOGICAL INFORMATION

ORAL LD50 : 7.5 G/KG (RATS); PRACTICALLY NON-TOXIC TO
RATS.

DERMAL : MINIMUM LETHAL DOSE, 1.6 G/KG (MONKEYS);
LOW TOXICITY TO ANIMALS BY SKIN CONTACT.

INHALATION LD50 : 64,000 PPM (RATS, 4 HRS) PRACTICALLY NON-
TOXIC IN RATS. REPEATED EXPOSURE OF MONKEYS TO 5000 PPM,
8 HRS/DAY, 5 DAYS/WK FOR 4 WEEKS CAUSED NO TOXIC RESPONSE OR
EFFECTS ON VISION.

MUTAGENICITY : IN VITRO, LIMITED EVIDENCE OF MUTAGENI-
CITY (MOUSE LYMPHOMA FORWARD MUTATION ASSAY). IN VIVO, NO
INFORMATION.

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CARCINOGENICITY : NO EVIDENCE OF CARCINOGENIC POTENTIAL IN
LIMITED ANIMAL STUDIES IN WHICH METHANOL WAS GIVEN ORALLY OR
APPLIED TO THE SKIN.

REPRODUCTION : REPORTED TO CAUSE BIRTH DEFECTS IN RATS
EXPOSED TO VERY HIGH LEVELS OF VAPORS (20,000 PPM).

ECOLOGICAL INFORMATION

THIS INFORMATION IS BEING RESEARCHED.

DISPOSAL CONSIDERATIONS

LOCAL NOTIFICATION, CLEAN-UP AND DISPOSAL SHOULD BE CARRIED
OUT IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
PREFERRED METHODS OF WASTE DISPOSAL ARE INCINERATION OR BIO-
LOGICAL TREATMENT IN FEDERAL/STATE APPROVED FACILITY.

HAZARDOUS WASTE (40 CFR 261): YES; U154, D001.

TRANSPORT INFORMATION

SHIP NAME : METHANOL
HAZARD CLASS : 3, FLAMMABLE LIQUID
SECONDARY HAZARD : 6, POISONOUS MATERIALS
DOT HAZARD NO. : UN1230
PACKING GROUP : II
NORTH AMERICAN ER GUIDE : 131
DOT REPORTABLE QUANTITY (RQ): 5000 LB/2270 KG

INTERNATIONAL TRANSPORTATION OF DANGEROUS GOODS

CLASSIFICATION : FLAMMABLE LIQUID 3 (6.1)

REGULATORY INFORMATION

SHIPPER MUST COMMUNICATE ALL PERTINENT INFORMATION HEREIN
TO EMPLOYEES AND CUSTOMERS.

STATE REGULATIONS

THE FOLLOWING CHEMICALS ASSOCIATED WITH THE PRODUCT ARE
SUBJECT TO THE RIGHT-TO-KNOW REGULATIONS IN THESE STATES:

METHANOL (67-56-1): CT, FL, IL, LA, MA, NJ, NY, PA, RI

3. FEDERAL REGULATIONS

CERTIFY THAT ALL COMPONENTS ARE EITHER ON THE TSCA
INVENTORY OR QUALIFY FOR AN EXEMPTION.

RA 313 : METHANOL 99.85% (67-56-1)

ENVIRONMENTAL:

RCLA : METHANOL 99.85% (67-56-1)

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RA 304 : METHANOL 99.85% (67-56-1)

RA 311 :

UTE HEALTH----- YES

RONIC HEALTH----- YES

IRE----- YES

DDEN RELEASE OF PRESSURE-- NO

EACTIVE----- NO

INTERNATIONAL REGULATIONS

LISTED ON THE CHEMICAL INVENTORIES OF THE FOLLOWING

COUNTRIES: AUSTRALIA, CANADA, EUROPE (EINECS), JAPAN AND
KOREA.

HMIS INGREDIENT DISCLOSURE LISTED COMPONENTS:

HMIS CLASSIFICATION: CLASS B, DIVISION 2; CLASS D,

DIVISION 1, SUBDIVISION A.

THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZ-
ARD CRITERIA OF THE CPR AND THE MSDS CONTAINS ALL THE INFOR-
MATION REQUIRED BY THE CPR.

6. OTHER INFORMATION

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PROD NO :

----- FOR ADDITIONAL INFORMATION -----

CONTACT: MSDS COORDINATOR

VAN WATERS & ROGERS INC.

DURING BUSINESS HOURS, PACIFIC TIME

(425)889-3400

03/17/99 06:10

PRODUCT:

CUST NO:

ORDER NO:

----- NOTICE -----

* VAN WATERS & ROGERS INC. ("VWAR"), A ROYAL DAKHOED COMPANY, EXPRESSLY

DISCLAIMS ALL EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR

PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT OR INFORMATION PROVIDED

HEREIN, AND SHALL UNDER NO CIRCUMSTANCES BE LIABLE FOR INCIDENTAL OR

CONSEQUENTIAL DAMAGES. **

ALL INFORMATION APPEARING HEREIN IS BASED UPON DATA OBTAINED FROM THE
MANUFACTURER AND/OR RECOGNIZED TECHNICAL SOURCES. WHILE THE INFORMATION IS
BELIEVED TO BE ACCURATE, VWAR MAKES NO REPRESENTATIONS AS TO ITS ACCURACY OR
EFFICIENCY. CONDITIONS OF USE ARE BEYOND VWAR'S CONTROL AND THEREFORE USERS
ARE RESPONSIBLE TO VERIFY THIS DATA UNDER THEIR OWN OPERATING CONDITIONS TO
DETERMINE WHETHER THE PRODUCT IS SUITABLE FOR THEIR PARTICULAR PURPOSES AND THEY
ASSUME ALL RISKS OF THEIR USE, HANDLING, AND DISPOSAL OF THE PRODUCT, OR FROM
THE PUBLICATION OR USE OF, OR RELIANCE UPON, INFORMATION CONTAINED HEREIN.
THIS INFORMATION RELATES ONLY TO THE PRODUCT DESIGNATED HEREIN, AND DOES NOT
RELATE TO ITS USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY OTHER
PROCESS.

* * * E N D O F M S D S * * *

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VAN WATERS & ROGERS INC.
MATERIAL SAFETY DATA SHEET

PAGE: 001

OS NO: UCN0262M

INFRAME UPLOAD DATE: 02/25/99

VERSION: 011

PRODUCT: TRIETHYLENE GLYCOL

ORDER NO:

PROD NO :

VAN WATERS & ROGERS INC. , A ROYAL DAKHOED COMPANY (425)889-3400
100 CARILLON POINT , KIRKLAND , WA 98033

----- EMERGENCY ASSISTANCE -----

FOR EMERGENCY ASSISTANCE INVOLVING CHEMICALS CALL - CHEMTREC
(800)424-9300

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1 IDENTIFICATION

Product Name

TRIETHYLENE GLYCOL

Effective Date: 07/23/1998

Chemical Name

triethylene glycol

Chemical Family

ethylene glycol

Common Name

TRIETHYLENE GLYCOL

Formula

(C2H4O)3H

Nonym

G, Glycol-bis(hydroxyethyl)ether

2 COMPANY IDENTIFICATION

Union Carbide Corporation

Old Ridgebury Road

Ridgebury, CT 06817-0001

3 EMERGENCY TELEPHONE NUMBER

24 hours a day: 1-800-UCC-HELP (1-304-744-3487)

Number for non-emergency questions concerning MSDS (732) 563-5522

Additional information on this product may be obtained by calling the

Union Carbide Corporation Customer Service Center at 1-800-568-4000.

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ISDS NO: UCN0262M

MATERIAL SAFETY DATA SHEET

MAINFRAME UPLOAD DATE: 02/25/99

VERSION: 011

PRODUCT: TRIETHYLENE GLYCOL

ORDER NO:

PROD NO :

2. COMPOSITION INFORMATION

Component

CAS #

Amount

Triethylene glycol

112-27-6

99.5 %

Ethylene glycol

107-21-1

0.1 %

3. HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Appearance

Transparent colorless

Physical State

Liquid

Odor

Mild

Hazards of product

CAUTION!

REPEATED BREATHING OF AEROSOL IN HIGH CONCENTRATIONS IS HARMFUL.

3.2 POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure

Inhalation Short-term harmful health effects are not expected from vapor generated at ambient temperature. No evidence of short-term harmful effects from respirable aerosol based on available information. See "Effects of Repeated Overexposure."

Eye Contact No harmful effects expected from liquid. Vapor or mist may be irritating, experienced as discomfort, excess blinking and tear production, with excess redness of the conjunctiva.

Skin Contact Sustained contact may cause mild local redness.

Skin Absorption No evidence of harmful effects from available information.

Swallowing Abdominal discomfort, nausea and vomiting may occur.

Chronic, Prolonged or Repeated Overexposure

Effects of Repeated Overexposure Exposure to high concentrations of aerosol generated at room temperature may cause lung injury and liver dysfunction.

Other Effects of Overexposure Overexposure to vapor generated at high temperatures may result in eye and respiratory tract irritation,

dizziness, nausea and the inhalation of harmful amounts of material.

Medical Conditions Aggravated by Exposure

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

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PROD NO :

3 POTENTIAL ENVIRONMENTAL EFFECTS.
See Section 12 for Ecological Information.

FIRST AID PROCEDURES

1 INHALATION

Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

2 EYE CONTACT

Rush eyes thoroughly with water for several minutes. Remove contact lenses, if worn.

3 SKIN CONTACT

Rash skin with soap and water.

4 SWALLOWING

No emergency care anticipated.

5 NOTES TO PHYSICIAN

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

FIRE FIGHTING MEASURES

1.1 FLAMMABLE PROPERTIES

Flash Point - Closed Cup: Pensky-Martens Closed Cup ASTM D 93 176.6

deg C 350 deg F

Flash Point - Open Cup: Cleveland Open Cup ASTM D 92 190.5 deg C

75 deg F

Autoignition Temperature: Not currently available.

Flammable Limits In Air:

Lower

0.9 % (V) Calculated

Upper

2.2 % (V) Estimated

1.2 EXTINGUISHING MEDIA

Apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

1.3 EXTINGUISHING MEDIA TO AVOID

No information currently available.

1.4 SPECIAL FIRE FIGHTING PROCEDURES

Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.

1.5 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Use self-contained breathing apparatus and protective clothing.

1.6 UNUSUAL FIRE AND EXPLOSION HAZARDS

Spontaneous Combustion in Porous Insulation: Leaks into porous insulation material may ignite at temperatures far below published autoignition or ignition temperatures, potentially even below the normal flash point.

See Section 8.3 - Engineering Controls

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7 HAZARDOUS COMBUSTION PRODUCTS

Burning can produce the following combustion products: Carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant.

8 ACCIDENTAL RELEASE MEASURES

Steps to be taken if Material is Released or Spilled:

Small spills can be flushed with large amounts of water; larger spills should be collected for disposal.

9 HANDLING AND STORAGE

9.1 HANDLING

General Handling

Avoid breathing aerosol.

Keep container closed.

Use with adequate ventilation.

Wash thoroughly after handling.

FOR INDUSTRY USE ONLY.

Ventilation

General (mechanical) room ventilation is expected to be satisfactory.

9.2 STORAGE

No information currently available.

10 EXPOSURE CONTROLS AND PERSONAL PROTECTION

10.1 EXPOSURE LIMITS

Component

Exposure Limits

Skin

Health State

Triethylene glycol

100 mg/m3 CEILING ACGIH

Aerosol

25 mg/m3 CEILING OSHA

10 ppm CEILING OSHA

100 mg/m3 CEILING UCC

List

Triethylene glycol

100 mg/m3 TWAS UCC

10.2 PERSONAL PROTECTION

Respiratory Protection: At ambient temperature none needed for vapor.

Wear full face respirator when recurrent exposures to high aerosol concentrations may occur.

Ventilation: General (mechanical) room ventilation is expected to be satisfactory.

Eye Protection:

Monogoggles or faceshield

Protective Gloves:

PVC-coated

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Other Protective Equipment:

Eye Bath, Safety Shower

3 ENGINEERING CONTROLS

PROCESS HAZARD: Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapors."

4. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Transparent colorless

HM: Not currently available.

Solubility in Water (by weight): 100 %

Taste: Mild

Flash Point - Closed Cup: Pensky-Martens Closed Cup ASTM D 93 176.6 deg C
50 deg F

Flash Point - Open Cup: Cleveland Open Cup ASTM D 92 190.5 deg C
75 deg F

Molecular Weight: 150.17 g/mol

Boiling Point (760 mmHg): 288 deg C 550 deg F

Freezing Point: -4.3 deg C 24 deg F

Specific Gravity (H2O = 1): 1.126 20 deg C / 20 deg C

Vapor Pressure at 20 deg C: < 0.001 kPa 0.01 mmHg

Vapor Density (air = 1): 5.2

Evaporation Rate (Butyl Acetate = 1): < 0.001

Melting Point: Not determined.

5. STABILITY AND REACTIVITY

5.1 STABILITY/INSTABILITY Stable

Incompatible Materials: Explosive decomposition may occur if combined with strong acids or strong bases and subjected to elevated temperatures. Therefore, avoid strong acids and strong bases at elevated temperatures. Avoid contamination with strong oxidizing agents and materials reactive with hydroxyl compounds.

Hazardous Decomposition Products: If the fluid is heated above the temperature of the onset of initial decomposition, 206 C, thermal degradation may result in the formation of volatile organic compounds such as aldehydes including formaldehyde and acetaldehyde, dioxolanes, glycol ethers including ethylene glycol monomethyl ether, and other potentially harmful decomposition products. Respiratory protection may be required.

5.2 HAZARDOUS POLYMERIZATION Will Not Occur.

5.3 INHIBITORS/STABILIZERS Not applicable.

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ORDER NO:
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1. TOXICOLOGICAL INFORMATION
ACUTE TOXICITY

Peroral: rat male 16 ml/kg
Kill Rate: 0/5
Major Signs: sluggishness, unsteady gait
Gross Pathology: None.
Peroral: rat female 16 ml/kg
Kill Rate: 0/5
Major Signs: sluggishness, unsteady gait
Gross Pathology: None.
Percutaneous: rabbit 24 hr occluded male 16 ml/kg
Kill Rate: 0/5
Major Signs: emaciation and abdominal distention
Gross Pathology: lungs discolored; stomach and intestines liquid-filled; slight vascularization of skin at application site
Percutaneous: rabbit 24 hr occluded female 16 ml/kg
Kill Rate: 1/5
Major Signs: emaciation and abdominal distention
Gross Pathology: lungs discolored; stomach and intestines liquid-filled; slight vascularization of skin at application site
Inhalation: Exposure Time 4 h
at male 5.2 mg/l
Kill Rate: 0/5
Major Signs: periorcular wetness, blepharospasm, absence of pinch reflexes, unkempt fur
Gross Pathology: None.
Inhalation: Exposure Time 4 h
at female 5.2 mg/l
Kill Rate: 0/5
Major Signs: periorcular wetness, blepharospasm, absence of pinch reflexes, unkempt fur
Gross Pathology: None.
Inhalation: dynamic generation Exposure Time 6 h
at male
t deg C
Kill Rate: 0/5
Major Signs: None.
Gross Pathology: None.
Inhalation: dynamic generation Exposure Time 6 h
at female
t deg C
Kill Rate: 0/5
Major Signs: None.
Gross Pathology: None.
IRRITATION
Skin: rabbit 4 hr occluded no irritation
Eye: rabbit 0.1 ml minor iritis, minor conjunctival

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irritation. No corneal injury

SENSITIZATION (ANIMAL AND HUMAN STUDIES)

Guinea pig maximization procedure no reaction

CHRONIC TOXICITY AND CARCINOGENICITY

In a 9-day repeated inhalation exposure (6 hours/day) study with rats, mortality occurred at 4284 mg/m³; at 2011 mg/m³ effects included eye irritation and increased alanine aminotransferase and alkaline phosphatase activities; at 494 mg/m³ there was slightly increased alkaline phosphatase activity.

SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS

Triethylene glycol was given to rats by inclusion in the diet for 90 days at concentrations of 10,000, 20,000 or 50,000 ppm. At the highest dose, there were decreases in body weight. Physiologic responses to these high doses were observed in kidney weight and urinalysis. No specific organ toxicity was seen.

In a 9-day (whole body) repeated inhalation exposure (6 hr/day) study with rats, mortality occurred at 4284 mg/m³ and effects included eye irritation and increased alanine aminotransferase and alkaline phosphatase activities; at 494 mg/m³ there was slightly increased alkaline phosphatase activity. In a subsequent 9-day (nose-only) repeated aerosol study rats were exposed to concentrations up to 1036 mg/m³. The only effect noted was slight (not statistically or biologically significant) decrease in body weight gain at 517 mg/m³ and 1036 mg/m³, but not at 102 mg/m³. No indications of local or systemic target organ toxicity were noted, including effects on hematology, clinical chemistry or urinalysis. In a sensory irritation study in mice, exposure to high concentrations of triethylene glycol aerosol resulted in a decreased respiratory rate. The 150, or concentration which produced a 50% decrease in respiratory rate, was 5.1 mg/l.

There was no evidence in developmental toxicity studies for either embryotoxic or teratogenic effects in mice or rats given triethylene glycol by gavage. Maternal toxicity was seen as reduced body weight and food consumption, increased water consumption, and increased relative kidney weight with rats, and clinical signs and increased relative kidney weight with mice. There was no histologic evidence of damage to the kidneys in either species. The no-observable effect doses for maternal toxicity were 1125 mg/kg/day for rats and 5630 mg/kg/day for mice. Minor fetotoxicity (reduced fetal body weights and increased skeletal variations) was present with doses of 11260 mg/kg/day for rats, and 5630 and 11260 mg/kg/day for mice. The no-observable effect dose for fetotoxicity was 5630 mg/kg/day for rats and 563 mg/kg/day for mice.

ADDITIONAL STUDIES

No evidence for skin sensitizing potential in a human repeated insult study

2. ECOLOGICAL INFORMATION

2.1 ENVIRONMENTAL FATE

2.1.1 (% Oxygen consumption)

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ay 5
ay 10
ay 15
ay 20
ay 30

%
%
0 %

2.2 ECOTOXICITY

ecotoxicity to Micro-organisms: Bacterial/NA IC50 16 h > 10000 mg/l
ecotoxicity to Aquatic Invertebrates: Daphnia LC50 48 h > 10000 mg/l
ecotoxicity to Fish: Fathead Minnow LC50 96 h > 10000 mg/l

2.3 FURTHER INFORMATION

HOD (measured) 1.55 mg/mg

HOD (calculated) 1.6 mg/mg

ctanol/Water Partition Coefficient - Calculated: -2.08

3. DISPOSAL CONSIDERATIONS

3.1 WASTE DISPOSAL METHOD

Incinerate in a furnace where permitted under appropriate Federal, State, and local regulations. Dispose in accordance with all applicable federal, State, Provincial, and local environmental regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

3.2 DISPOSAL CONSIDERATIONS

See Section 13.1

Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permissible under applicable rules, regulations and/or laws governing your location.

4. TRANSPORT INFORMATION

4.1 U.S. D.O.T.

ON-BULK

proper Shipping Name : NOT REGULATED

ULK

proper Shipping Name : NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through your UCC sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

5. REGULATORY INFORMATION

5.1 FEDERAL/NATIONAL

ERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 SECTION 103)

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ORDER NO:

PROD NO :

The following components of this product are specifically listed as
hazardous substances in 40 CFR 302.4 (unlisted hazardous substances are
not identified) and are present at levels which could require reporting:

Component
CAS #
Amount
Triethylene glycol

07-21-1
≤ 0.1000 %

Acetic acid
4-19-7
≤ 0.0100 %

1,4-Dioxane
23-91-1
≤ 0.0001 %

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III
SECTIONS 302 AND 304

The following components of this product are listed as extremely hazardous
substances in 40 CFR Part 355 and are present at levels which could
require reporting and emergency planning:

None.
SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III
SECTION 313

The following components of this product are listed as toxic chemicals in
40 CFR 372.65 and are present at levels which could require reporting and
customer notification under Section 313 and 40 CFR Part 372:

This product does not contain toxic chemicals at levels which require
reporting under the statute.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III
SECTIONS 311 AND 312

Delayed Hazard : Yes

Fire Hazard : No

Immediate Health Hazard : Yes

Reactive Hazard : No

Sudden Release of Pressure Hazard : No

TOXIC SUBSTANCES CONTROL ACT (TSCA)

All components of this product are on the TSCA Inventory or are exempt
from TSCA Inventory requirements.

3.2 STATE/LOCAL

PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT)

This product is subject to the Worker and Community Right-to-Know Act. The
following components of this product are at levels which could require
identification in the MSDS:

Component
CAS #
Amount
Triethylene glycol
12-27-6

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PRODUCT: TRIETHYLENE GLYCOL

ORDER NO:

PROD NO :

(= 99.5000 %

MASSACHUSETTS (HAZARDOUS SUBSTANCES DISCLOSURE BY EMPLOYERS)

The following components of this product appear on the Massachusetts
Substance List and are present at levels which could require
identification in the MSDS:

Component

AS #

Amount

1,4-Dioxane

23-91-1

(= 0.0001 %

CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT
OF 1986)

This product contains trace levels of 1,4-DIOXANE known to the State of
California to cause cancer.

Component

AS #

Amount

1,4-Dioxane

23-91-1

(= 0.0001 %

CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
RULE 443.1, LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)

DC : Vapor pressure <0.01 mmHg at 20 deg C

2 g/l

2 g/l of material less water and less exempted solvents.

This section provides selected regulatory information on this product
including its components. This is not intended to include all regulations.
It is the responsibility of the user to know and comply with all
applicable rules, regulations and laws relating to the product being used.

6. OTHER INFORMATION

6.1 AVAILABLE LITERATURE AND BROCHURES

ADDITIONAL INFORMATION: Additional product safety information on this
product may be obtained by calling your Union Carbide Corporation Sales or
Customer Service contact. Ask for the brochure:

Product Information Bulletin on Triethylene Glycol.

6.2 SPECIFIC HAZARD RATING SYSTEM

Additional information on this product may be obtained by calling the
Union Carbide Corporation Customer Service Center at 1-800-568-4000.

6.3 RECOMMENDED USES AND RESTRICTIONS

FOR INDUSTRY USE ONLY

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----- FOR ADDITIONAL INFORMATION -----

CONTACT: MSDS COORDINATOR

VAN WATERS & ROGERS INC.

DURING BUSINESS HOURS, PACIFIC TIME

(425)889-3400

03/17/99 06:14

PRODUCT:

CUST NO:

ORDER NO:

----- NOTICE -----

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CONSEQUENTIAL DAMAGES. **

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PROCESS.

* * * E N D O F M S D S * * *

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88240-1980
District II - (505) 748-1283
311 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Las Cruces, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

RECEIVED
MAR 1 1999
Environmental Bureau
Oil Conservation Division

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Universal Compression</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>KEY ENERGY</u>
3. Address of Facility Operator <u>CR 3500 #345 AZTEC, NM</u> <u>P.O. Box 900 FARMINGTON, NM</u>	8. State <u>N.M.</u>
7. Location of Material (Street Address or ULSTR) <u>1125 US HWY 550</u> <u>AZTEC, NM 87410</u>	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WASTE WATER FROM WASHING COMPRESSORS

RECEIVED
MAR 2 2 1999
OIL CON. DIV.
DIST. 3

RECEIVED
MAR 1 2 1999
OIL CON. DIV.

Estimated Volume 150 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: mgr DATE: 3-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6416

(This space for State Use)

APPROVED BY: Denny Z. Fent TITLE: Geologist DATE: 3/15/99
APPROVED BY: Monty J. Kelly TITLE: Env Geologist DATE: 3/17/99

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
111 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Alamogordo, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
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Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Universal Compression</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>KEY ENERGY</u>
3. Address of Facility Operator <u>CR 3500 #345 AZTEC, NM</u> <u>P.O. BOX 900 FARMINGTON, NM</u>	8. State <u>N.M.</u>
7. Location of Material (Street Address or ULSTR) <u>1125 US HWY 550</u> <u>AZTEC, NM 87410</u>	
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BRIEF DESCRIPTION OF MATERIAL:

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RECEIVED
MAR 12 1999

OIL CON. DIV.
DIST. 3

Estimated Volume 150 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: mgr DATE: 3-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6416

(This space for State Use)

APPROVED BY: Denny G. Zent TITLE: Geologist DATE: 3/15/99

APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Universal Compression 1125 US Hwy 550 Aztec, NM 87410	2. Destination Name: Sunco Disposal
3. Originating Site (name): Universal Compression 1125 U.S. Hwy 550 Aztec NM 87410 Attach list of originating sites as appropriate	
Location of the Waste (Street address &/or ULSTR): → Same	
4. Source and Description of Waste Waste water from washing compressors.	

I, Phillip Creel representative for:
(Print Name)
Universal Compression do hereby certify that,
 according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☒ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): Phillip R Creel
 Title: Area Supervisor
 Date: 3-11-99

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Universal Compressor	Project #:	98059-2
Sample ID:	Wash Bay Solids	Date Reported:	09-13-98
Lab ID#:	D900	Date Sampled:	09-04-98
Sample Matrix:	Soil	Date Received:	09-04-98
Preservative:	Cool	Date Analyzed:	09-13-98
Condition:	Cool & Intact	Chain of Custody:	6261

Parameter	Result
-----------	--------

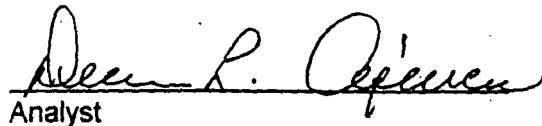
IGNITABILITY:	Negative
CORROSIVITY:	Negative pH = 6.59
REACTIVITY:	Negative

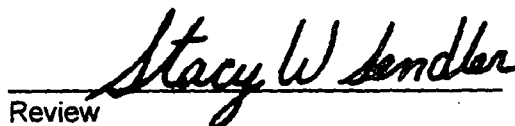
RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. (i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: Flora Vista, NM.


Analyst


Review

Client:	Universal Compressor	Project #:	98059-02
Sample ID:	Wash Bay Solids	Date Reported:	09-14-98
Laboratory Number:	D900	Date Sampled:	09-04-98
Chain of Custody:	6261	Date Received:	09-04-98
Sample Matrix:	Soil	Date Extracted:	09-13-98
Preservative:	Cool	Date Analyzed:	09-14-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	0.0659	0.0001	0.2
1,1-Dichloroethene	0.0046	0.0001	0.7
2-Butanone (MEK)	0.107	0.0001	200
Chloroform	0.0009	0.0001	6.0
Carbon Tetrachloride	0.0021	0.0001	0.5
Benzene	0.0003	0.0001	0.5
1,2-Dichloroethane	0.0004	0.0001	0.5
Trichloroethene	0.0008	0.0003	0.5
Tetrachloroethene	0.0031	0.0005	0.7
Chlorobenzene	0.0003	0.0003	100
1,4-Dichlorobenzene	0.0042	0.0002	7.5

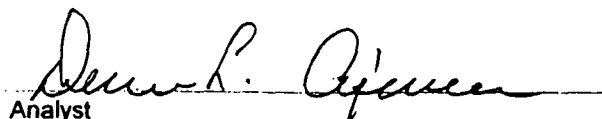
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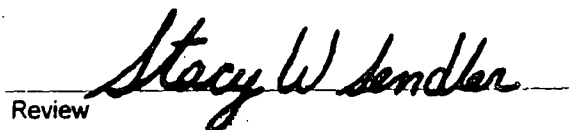
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Flora Vista, NM.


Analyst


Review

Client:	Universal Compressor	Project #:	98059-2
Sample ID:	Wash Bay Solids	Date Reported:	09-16-98
Laboratory Number:	D900	Date Sampled:	09-04-98
Chain of Custody:	6261	Date Received:	09-04-98
Sample Matrix:	Soil	Date Extracted:	09-13-98
Preservative:	Cool	Date Analyzed:	09-16-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	0.125	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	0.024	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	101%
	2,4,6-Tribromophenol	100%

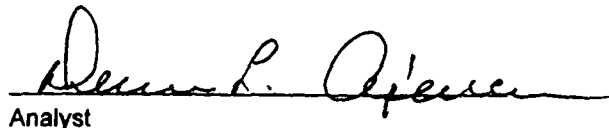
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

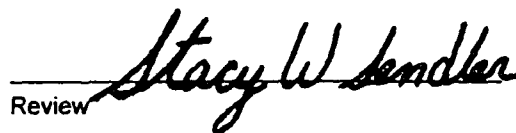
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: Flora Vista, NM.


Analyst


Review

Client:	Universal Compressor	Project #:	98059-2
Sample ID:	Wash Bay Solids	Date Reported:	09-15-98
Laboratory Number:	D900	Date Sampled:	09-04-98
Chain of Custody:	6261	Date Received:	09-04-98
Sample Matrix:	Soil	Date Extracted:	09-13-98
Preservative:	Cool	Date Analyzed:	09-15-98
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

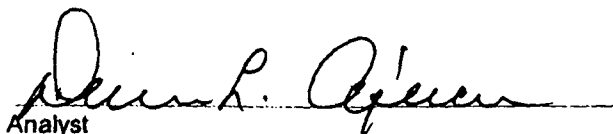
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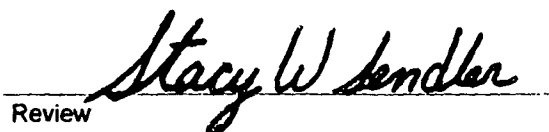
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Flora Vista, NM.


Analyst


Review

EPA ETHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Universal Compressor	Project #:	98059-2
Sample ID:	Wash Bay Solids	Date Reported:	09-16-98
Laboratory Number:	D800	Date Sampled:	09-04-98
Chain of Custody:	6261	Date Received:	09-04-98
Sample Matrix:	Soil	Date Analyzed:	09-16-98
Preservative:	Cool	Date Extracted:	09-13-98
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	ND	0.0001	5.0
Barium	0.691	0.001	21
Cadmium	0.0748	0.0001	0.11
Chromium	ND	0.0001	0.60
Lead	0.0059	0.0001	0.75
Mercury	ND	0.0001	0.025
Selenium	ND	0.0001	5.7
Silver	ND	0.0001	0.14

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

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

Comments: Flora Vista, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	09-14-98
Laboratory Number:	09-14-TCV-Blank	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-14-98
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

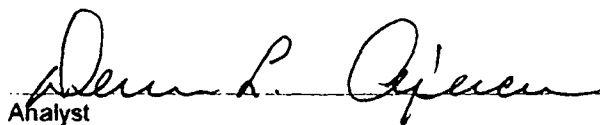
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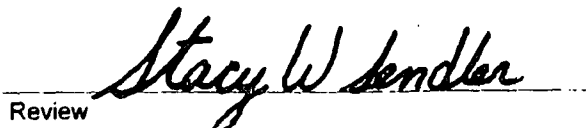
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	09-14-98
Laboratory Number:	09-13-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-14-98
Condition:	N/A	Date Extracted:	09-13-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

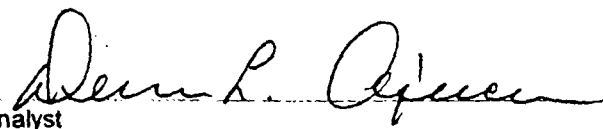
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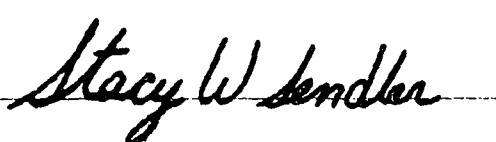
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Duplicate
Laboratory Number: D897
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

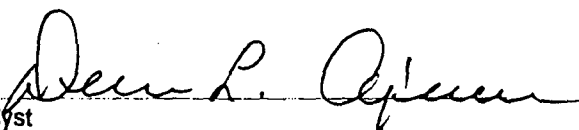
Project #: N/A
Date Reported: 09-14-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 09-14-98
Date Extracted: N/A

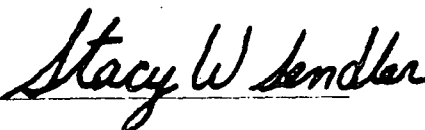
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.135	0.135	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0002	0.0002	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Spike
Laboratory Number: D897
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

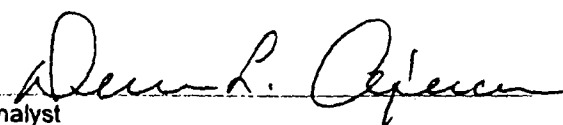
Project #: N/A
Date Reported: 09-14-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 09-14-98
Date Extracted: N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.135	0.050	0.185	0.0001	100%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0002	0.050	0.0500	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	09-16-98
Laboratory Number:	09-16-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-16-98
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:

Parameter

Percent Recovery

2-fluorophenol	101 %
2,4,6-tribromophenol	100 %

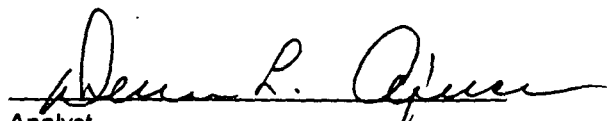
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

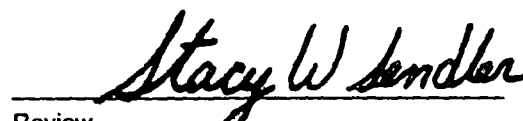
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	09-16-98
Laboratory Number:	09-13-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	09-13-98
Condition:	Cool & Intact	Date Analyzed:	09-16-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	99%
	2,4,6-Tribromophenol	101%

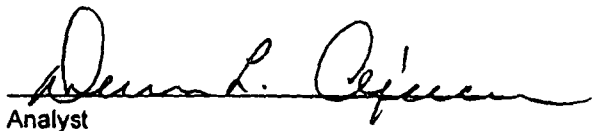
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

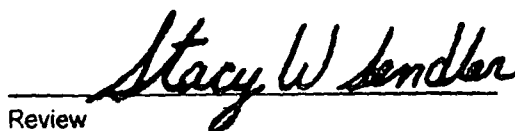
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA METHOD 8040 PHENOLS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	09-16-98
Laboratory Number:	D897	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	09-13-98
Condition:	Cool & Intact	Date Analyzed:	09-16-98
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

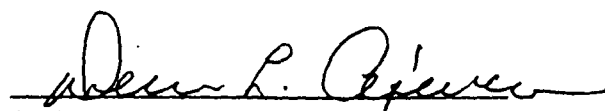
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	09-15-98
Laboratory Number:	09-15-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	09-15-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

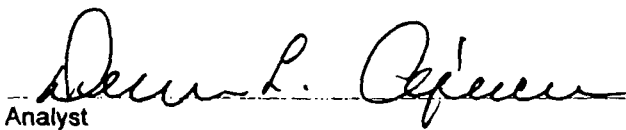
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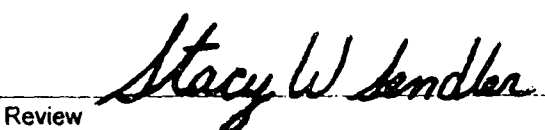
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	09-15-98
Laboratory Number:	09-13-TBN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	09-13-98
Condition:	Cool and Intact	Date Analyzed:	09-15-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

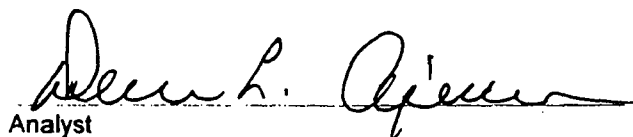
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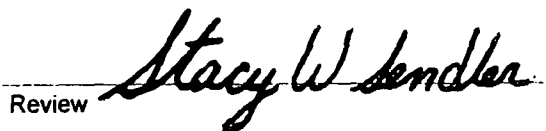
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


Analyst


Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client: QA/QC
 Sample ID: Matrix Duplicate
 Laboratory Number: D897
 Sample Matrix: TCLP Extract
 Preservative: N/A
 Condition: N/A

Project #: N/A
 Date Reported: 09-15-98
 Date Sampled: N/A
 Date Received: N/A
 Date Extracted: N/A
 Date Analyzed: 09-15-98
 Analysis Requested: TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	ND	ND	0.0%	0.020
Hexachloroethane	ND	ND	0.0%	0.020
Nitrobenzene	ND	ND	0.0%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	ND	ND	0.0%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

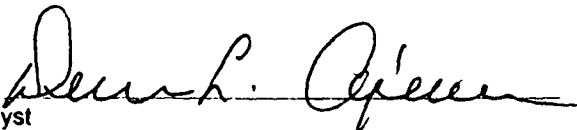
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
 Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
 Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples D897 and D900.


 Analyst


 Review

**EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	09-16-TCM QA/QC	Date Reported:	09-16-98
Laboratory Number:	D897	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	09-16-98
Condition:	N/A	Date Extracted:	09-13-98

Element	Sample	Blank	Method	Sample	Blank	Recovery	Range
Arsenic	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Cadmium	ND	ND	0.0001	0.282	0.282	0.2%	0% - 30%
Chromium	ND	ND	0.0001	0.0059	0.0060	1.7%	0% - 30%
Lead	ND	ND	0.0001	0.144	0.144	0.1%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Sample 1/Conc (mg/L)	Sample Added	Blank	Sample Measured	Recovery Efficiency	Acceptance Range
Arsenic	0.1000	ND	0.0997	100%	80% - 120%
Barium	1.000	ND	0.999	100%	80% - 120%
Cadmium	0.0500	0.282	0.331	100%	80% - 120%
Chromium	0.0500	0.0059	0.0558	100%	80% - 120%
Lead	0.1000	0.144	0.244	100%	80% - 120%
Mercury	0.0250	ND	0.0249	100%	80% - 120%
Selenium	0.1000	ND	0.0999	100%	80% - 120%
Silver	0.0500	ND	0.0498	100%	80% - 120%

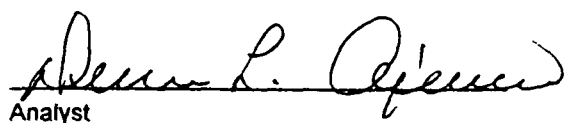
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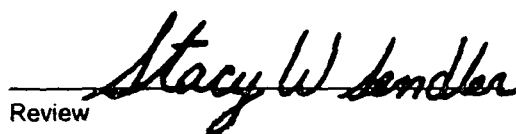
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

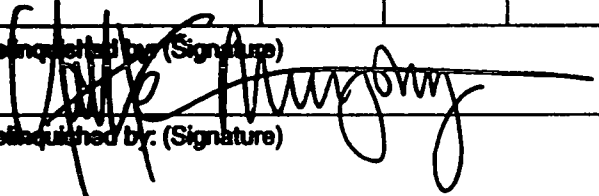
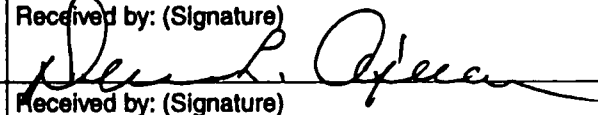
Comments: QA/QC for samples D897 and D900.


Analyst


Review

CHAIN OF CUSTODY RECORD

6261

Client / Project Name Universal Compressor			Project Location Flora Vista, NM		ANALYSIS / PARAMETERS									
Sampler Kathleen Murphy			Client No. 98059-2		No. of Containers 2	Tel 761	P 1	W 1	H 1	D 1	Remarks			
Sample No/ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix										
Wash Bay Solids	9/4/98	13:30	D900	soil	2	✓								
Relinquished by: (Signature) 			Date 9/4/98	Time 14:00	Received by: (Signature) 			Date 9.4.98	Time 1400					
Relinquished by: (Signature)					Received by: (Signature)									
Relinquished by: (Signature)					Received by: (Signature)									
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615								Sample Receipt						
									Y	N	N/A			
								Received Intact	✓					
								Cool - Ice/Blue Ice	✓					

Office - (505) 393-6161
P.O. Box 980
Albuquerque, NM 88241-1980
Office II - (505) 748-1283
1 S. First
Albuquerque, NM 88210
Office III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
MAR 1 1999
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Key Energy Services Inc.</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD WASTE WATER STORAGE TANK</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR 9500 #345 AZTEC, N.M.</u> <u>P.O. BOX 900 FARMINGTON 87499</u>	8. State <u>NM</u>
7. Location of Material (Street Address or U.S. Highway) <u>5651 U.S. Highway 64</u> <u>FARMINGTON, N.M.</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

OIL field Service equipment wash-water

RECEIVED
MAR 2 2 1999
OIL CON. DIV.
DIST. 3

RECEIVED
MAR 1 2 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 150 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Tacavich TITLE: MGR DATE: 3-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TACAVICH TELEPHONE NO. 505-394-6116

(This space for State Use)

APPROVED BY: Denny G. Frost TITLE: Geologist DATE: 3/15/99
APPROVED BY: Martyn J. Ship TITLE: Env. Geologist DATE: 3/17/99

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Artesia, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Key Energy Services Inc.</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>YARD WASTE WATER STORAGE TANK</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR 9500 #345 AZTEC, N.M. P.O. BOX 900 FARMINGTON 87499</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>5651 U.S. Highway 64 FARMINGTON, N.M.</u>	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>(B)</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Oil field Service equipment wash water

RECEIVED
MAR 12 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 150 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: [Signature] TITLE: MGR DATE: 3-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TACOVICH TELEPHONE NO. 505-394-6416

(This space for State Use)

APPROVED BY: [Signature] TITLE: Geologist DATE: 3/15/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: <i>Key Energy Service, Inc.</i> <i>Four Corner, Division</i> <i>5671 U.S. Highway 64 Farmington, NY 11737</i>	2. Destination Name: <i>Key Energy Service, Inc.</i> <i>Disposal</i>
3. Originating Site (name): <i>Same as above.</i>	Location of the Waste (Street address &/or ULSTR): <i>Farmington Yard</i> <i>Waste Water Storage tank</i>
Attach list of originating sites as appropriate	
4. Source and Description of Waste <i>Oilfield Service Equipment Wash Water</i>	

I, Bob James (Print Name) representative for: Key Energy Service, Inc. Four Corner Division do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

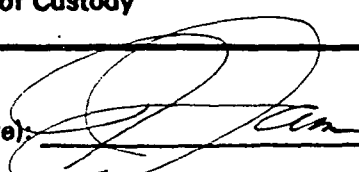
☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information
☒ RCRA Hazardous Waste Analysis
☒ Chain of Custody

☐ Other (description):

Name (Original Signature): 

Title: Shoo Magner

Date: March 12, 1999

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

March 8, 1999

Mr. Mike Talovich
Key Energy Services, Inc.
P.O. Box 900
Farmington, New Mexico 87499

(505) 327-0416

Project No.: 98065-02

Dear Mr. Talovich,

Enclosed are the analytical results for the sample collected from the location designated as "Shop". One water sample identified as "Shop" was collected from the designated location by Key Energy Services personnel on 03/01/99, and received by the Envirotech laboratory on 03/01/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6726 and assigned Laboratory No. E755 for tracking purposes.

The sample was analyzed on 03/02/99 through 03/05/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.


Stacy W. Sandler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws

98065-02.lb2/wpd

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	806502
Sample ID:	Shop	Date Reported:	03-04-99
Lab ID#:	E755	Date Sampled:	03-01-99
Sample Matrix:	Water	Date Received:	03-01-99
Preservative:	Cool	Date Analyzed:	03-03-99
Condition:	Cool and Intact	Chain of Custody:	6726

Parameter	Result
-----------	--------

IGNITABILITY: Negative

CORROSIVITY: Negative pH = 8.05

REACTIVITY: Negative

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
-----------	---------------------------

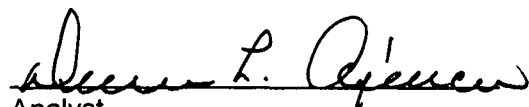
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)
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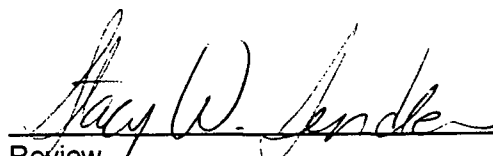
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. (i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)
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REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)
-------------	---

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: Shop.


Analyst


Review

Client:	Key Energy	Project #:	806502
Sample ID:	Shop	Date Reported:	03-02-99
Laboratory Number:	E755	Date Sampled:	03-01-99
Chain of Custody:	6726	Date Received:	03-01-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-02-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	0.0050	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	0.0007	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

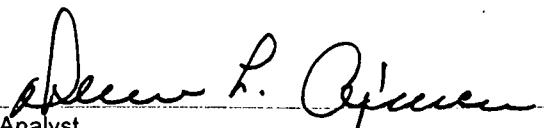
ND - Parameter not detected at the stated detection limit.

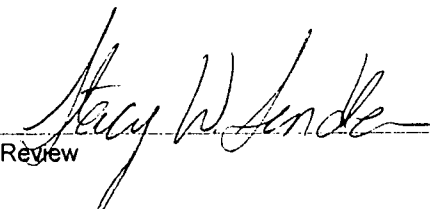
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Shop.


Analyst


Review

Client:	Key Energy	Project #:	806502
Sample ID:	Shop	Date Reported:	03-05-99
Laboratory Number:	E755	Date Sampled:	03-01-99
Chain of Custody:	6726	Date Received:	03-01-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-05-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	0.467	0.020	200
p,m-Cresol	1.189	0.040	200
2,4,6-Trichlorophenol	0.276	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	0.493	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

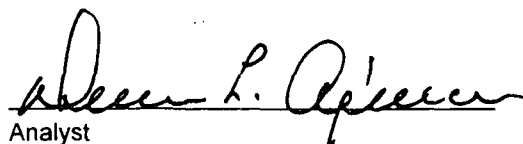
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

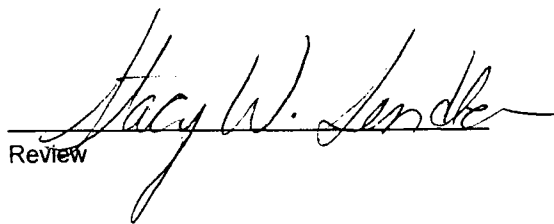
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: Shop.


Analyst


Review

Client:	Key Energy	Project #:	806502
Sample ID:	Shop	Date Reported:	03-05-99
Laboratory Number:	E755	Date Sampled:	03-01-99
Chain of Custody:	6726	Date Received:	03-01-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-05-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	0.103	0.020	3.0
Nitrobenzene	1.03	0.020	2.0
Hexachlorobutadiene	0.315	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	0.048	0.020	0.13

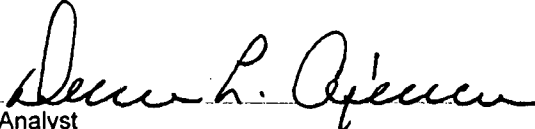
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	101%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: Shop.


Analyst


Review

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	806502
Sample ID:	Shop	Date Reported:	03-03-99
Laboratory Number:	E755	Date Sampled:	03-01-99
Chain of Custody:	6726	Date Received:	03-01-99
Sample Matrix:	Water	Date Analyzed:	03-03-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.0786	0.0001	5.0
Barium	0.464	0.001	21
Cadmium	0.0510	0.0001	0.11
Chromium	0.102	0.0001	0.60
Lead	0.213	0.0001	0.75
Mercury	ND	0.0001	0.025
Selenium	0.0329	0.0001	5.7
Silver	ND	0.0001	0.14

ND - Parameter not detected at the stated detection limit.

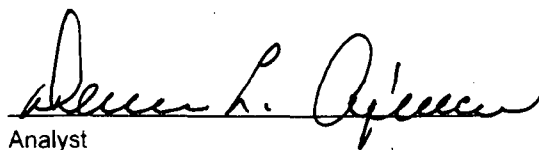
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

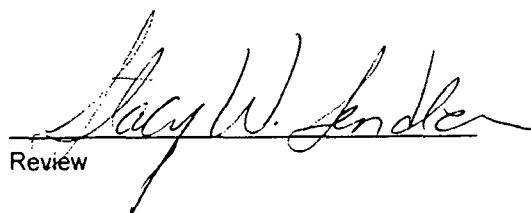
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

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

Comments: Shop.


Analyst


Review

**QUALITY ASSURANCE / QUALITY CONTROL
DOCUMENTATION**

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-02-99
Laboratory Number:	03-02-TCV-blank	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-02-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

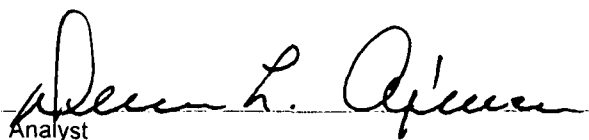
ND - Parameter not detected at the stated detection limit.

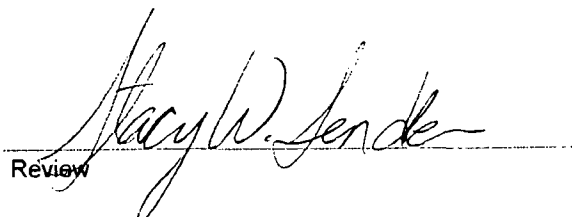
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Duplicate
Laboratory Number: E755
Sample Matrix: Water
Analysis Requested: TCLP
Condition: N/A

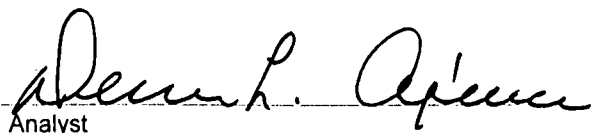
Project #: N/A
Date Reported: 03-02-99
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03-02-99
Date Extracted: N/A

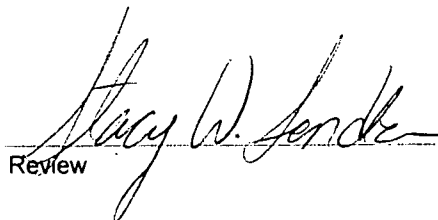
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	0.0050	0.0050	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
1,2-Dichloroethane	0.0007	0.0007	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for sample E755.


Analyst


Review

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client: QA/QC
Sample ID: Matrix Spike
Laboratory Number: E755
Sample Matrix: Water
Analysis Requested: TCLP
Condition: N/A

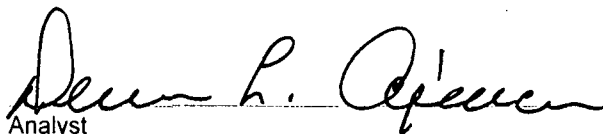
Project #: N/A
Date Reported: 03-02-99
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 03-02-99
Date Extracted: N/A

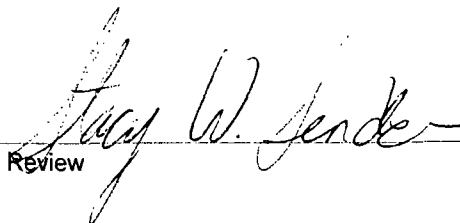
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0495	0.0001	99%	47-132
Chloroform	0.0050	0.050	0.0548	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	ND	0.050	0.0498	0.0001	100%	39-150
1,2-Dichloroethane	0.0007	0.050	0.0504	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for sample E755.


Analyst


Review

**EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank**

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-05-99
Laboratory Number:	03-05-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-05-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results		Detection	Regulatory
Parameter	Concentration (mg/L)	Limit (mg/L)	Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

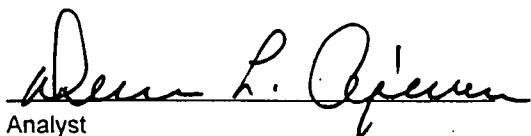
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

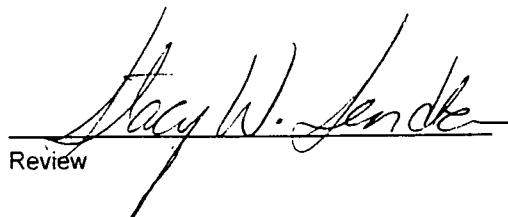
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-05-99
Laboratory Number:	03-04-TCA-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	03-05-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

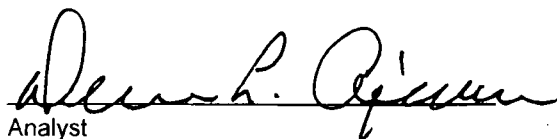
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

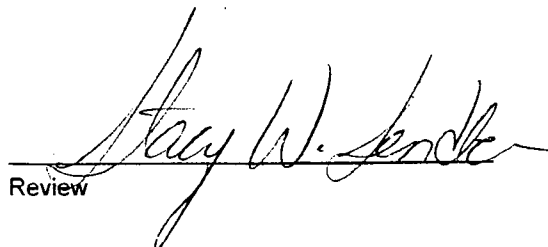
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-05-99
Laboratory Number:	E755	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	03-05-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	0.467	0.462	0.020	1.0%
p,m-Cresol	1.189	1.165	0.040	2.0%
2,4,6-Trichlorophenol	0.276	0.273	0.020	1.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	0.493	0.489	0.020	0.8%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

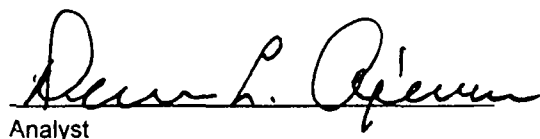
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-05-99
Laboratory Number:	03-05-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	03-05-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

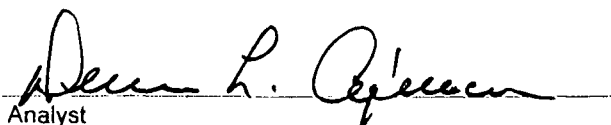
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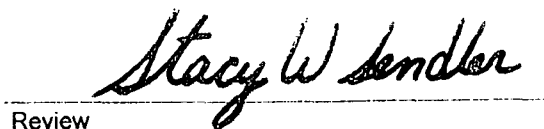
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-05-99
Laboratory Number:	03-04-TBN-MB	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool and Intact	Date Analyzed:	03-05-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

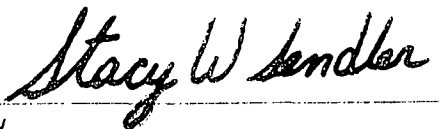
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-05-99
Laboratory Number:	E755	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	03-05-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	ND	ND	0.0%	0.020
Hexachloroethane	0.103	0.102	1.0%	0.020
Nitrobenzene	1.03	1.02	0.9%	0.020
Hexachlorobutadiene	0.315	0.312	1.1%	0.020
2,4-Dinitrotoluene	ND	ND	0.0%	0.020
HexachloroBenzene	0.048	0.047	1.8%	0.020

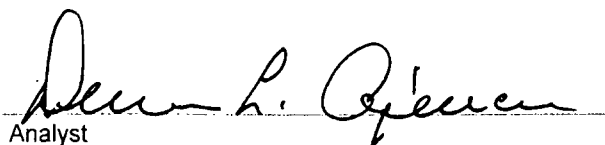
ND - Parameter not detected at the stated detection limit.

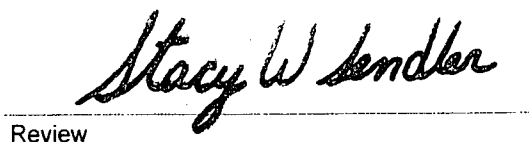
QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for sample E755.


Analyst


Review

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-03-TCM QA/QC	Date Reported:	03-03-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	03-03-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	0.0437	0.0435	0.5%	0% - 30%
Barium	ND	ND	0.001	0.891	0.896	0.6%	0% - 30%
Cadmium	ND	ND	0.0001	0.0173	0.0174	0.6%	0% - 30%
Chromium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0149	0.0150	0.7%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	0.0315	0.0312	1.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	0.0437	0.144	100.1%	80% - 120%
Barium	1.000	0.891	1.89	99.8%	80% - 120%
Cadmium	0.0500	0.0173	0.0672	99.9%	80% - 120%
Chromium	0.0500	ND	0.0498	99.6%	80% - 120%
Lead	0.1000	0.0149	0.115	99.9%	80% - 120%
Mercury	0.0250	ND	0.0249	99.6%	80% - 120%
Selenium	0.1000	0.0315	0.131	99.6%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

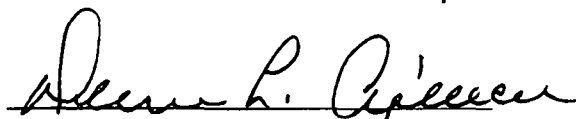
ND - Parameter not detected at the stated detection limit.

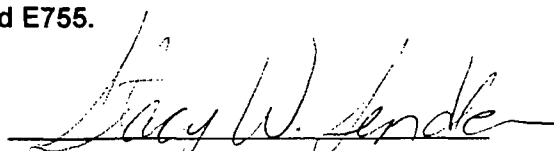
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals,
SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by
GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: QA/QC for samples E695, E696 and E755.


Analyst


Review

CHAIN OF CUSTODY RECORD

6726

Client / Project Name <i>KEY ENERGY / SHOP</i>			Project Location <i>SHOP</i>		ANALYSIS / PARAMETERS										
Sampler: <i>MIKE TALOVICH</i>			Client No. <i>806502</i>		No. of Containers <i>6</i>	KLP w/o H.P. <i>✓</i>						Remarks			
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix											
<i>Shop</i>	<i>3-1-99</i>	<i>950</i>	<i>E755</i>	<i>Water</i>											
Relinquished by: (Signature) <i>Mike Talovich</i>			Date <i>3-1-99</i>	Time <i>955</i>	Received by: (Signature) <i>John L. Agnew</i>			Date <i>3.1.99</i>	Time <i>955</i>						
Relinquished by: (Signature)					Received by: (Signature)										
Relinquished by: (Signature)					Received by: (Signature)										
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615												Sample Receipt			
													Y	N	N/A
												Received Intact	<i>✓</i>	<i>✓</i>	
												Cool - Ice/Blue Ice	<i>✓</i>	<i>✓</i>	

Office I - (505) 393-6161
P.O. Box 1980, Santa Fe, NM 87501-1980
Office II - (505) 748-1283
1 S. First
Santa Fe, NM 88210
Office III - (505) 334-6178
7 Rio Brazos Road
Santa Fe, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

RECEIVED
MAR - 2 1999

Submit Original
Plus 1 Copy
to appropriate
District Office

OIL CON. DIV.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>ENRON TRANSPORTATION</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Pipeline between Bloomfield + Gallup</u>
2. Management Facility Destination <u>KEY ENERGY SERVICES DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR3500 #345 AZtec NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR)	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>B.</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WATER + SOAP USED PIC PIPELINE between Bloomfield and Gallup

RECEIVED
FEB 22 1999

OIL CON. DIV.
DIST. 3

Estimated Volume 500+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: [Signature] TITLE: MGR DATE: 2-22-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: [Signature] TITLE: Geologist DATE: 2/24/99

APPROVED BY: [Signature] TITLE: no role DATE: 2/26/99

Office I - (505) 393-6161
Box 1980
Albuquerque, NM 87243-1980
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S. First
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Office III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>ENRON Transportation</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Pipeline between Bloomfield + Gallup</u>
2. Management Facility Destination <u>KEY ENERGY SERVICES DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR3500 #345 AZTEC NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR)	
9. <u>Circle One</u> : A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>B.</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WATER + SOAP USED PIG pipeline between
Bloomfield and Gallup

RECEIVED
FEB 22 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 500+ bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: [Signature] TITLE: MGR DATE: 2-22-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALCUM TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: [Signature] TITLE: Geologist DATE: 2/24/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: ENRON TRANSPORTATION & STORAGE	2. Destination Name: KEY ENERGY DISPOSAL
3. Originating Site (name): TRANSWESTERN GALLUP SAN JUAN INTERCONNECT 4MI EAST OF GALLUP NEW MEXICO Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR) OIL CON. DIV. DIST. 3
4. Source and Description of Waste WATER AND SOAP USED TO CLEAN THE SAN JUAN PIPELINE THAT RUNS FROM BLOOMFIELD N.M. TO THE GALLUP INTER CONNECT EAST OF GALLUP. THE WATER WAS INJECTED INTO THE PIPE AT BLOOMFIELD.	

I, JAMES R. RUSSELL representative for.

ENRON TRANSPORTATION & STORAGE do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1998, regulatory determination, the above-described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste

☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☒ MSDS Information

☒ Other (description): ANALYTICAL OF THE WATER

☐ RCRA Hazardous Waste Analysis

☐ Chain of Custody

Name (Original Signature):

James R. Russell

Title:

ENVIRONMENTAL SPECIALIST

Date: 2/17/99



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

February 10, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-357-870-065

Mr. James R. Russell
Enron Transportation and Storage
Summit Office Building
4001 Indian School Road, NE, Suite 250
Albuquerque, New Mexico 87110

**RE: Waste Water Disposal
Transwestern Pipeline Company
San Juan-Gallup Interconnect
Gallup, New Mexico**

Dear Mr. Russell:

The New Mexico Oil Conservation Division (OCD) has received the Enron Transportation & Storage (Enron) letter dated January 22, 1999 requesting that Enron be allowed to dispose of twenty two thousand (22000) gallons of wastewater generated from oil and gas activities. Based on the information provided, and the certification by Enron that this waste is non-hazardous and acceptable by the Key Energy, Farmington, New Mexico Class I disposal well facility, **the request is approved.**

Note, that OCD approval does not relieve Enron of liability should disposal of this material result in contamination of surface water, ground water or the environment. Also, OCD approval does not relieve Enron from compliance or reporting requirements that may apply from other federal, state, and local rules/regulations.

If you have any questions please feel free to call me at (505)-827-7156.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Jack Ford".

W. Jack Ford, C.P.G.
Geologist
Environmental Bureau-OCD

cc: Aztec OCD District Office

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name	NSPEC 105 Cleaner	Code	10259
Supplier	COASTAL FLUID TECHNOLOGIES, INC. 3520 Veterans Memorial Drive ABBEVILLE, LA 70510 318-893-1952	MSDS#	Not available.
Synonym	Not available.	Validation Date	3/17/97
Trade name	Not available.	Print Date	3/17/97
Material Uses	Not available.	In case of Emergency	TRANSPORTATION EMERGENCY: CHEM-TEL, INC. 1-800-255-3924
Manufacturer	COASTAL FLUID TECHNOLOGIES, INC. 3520 Veterans Memorial Drive ABBEVILLE, LA 70510 318-893-1952		

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	TLV/PEL	LC ₅₀ /LD ₅₀
Confidential Information				

Section 3. Hazards Identification

Emergency Overview	CAUTION! MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION.
Routes of Entry	Eye contact. Ingestion.
Potential Acute Health Effects	Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant). Very slightly to slightly dangerous in case of skin contact (permeator), of ingestion, of inhalation. This product may irritate eyes and skin upon contact.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. Toxicity of the product to the reproductive system: Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.
Skin Contact	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Continued on Next Page

Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Hazardous Inhalation	No additional information.
Ingestion	DO NOT induce vomiting. Have conscious person drink several glasses of water or milk. Seek immediate medical attention.
Hazardous Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Section 5. Fire and Explosion Data

Flammability of the Product	Combustible.
Auto-Ignition Temperature	Not available.
Flash Points	CLOSED CUP: >93.333°C (201.8°F)
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...).
Fire Hazards in Presence of Various Substances	Very slightly to slightly flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemicals, CO2, water spray or foam. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Special Remarks on Fire Hazards	When heated to decomposition, it emits toxics fumes. (Diethanolamine)
Special Remarks on Explosion Hazards	No additional remark.

Section 6. Accidental Release Measures

Small Spill	The concentrated form of this material is a cleaner and is not considered hazardous. During application, hazardous material on the apparatus or structure being cleaned may become part of the cleaning solution. Check with all applicable regulations before disposing of the material created during application.
Large Spill	The concentrated form of this material is a cleaner and is not considered hazardous. During application, hazardous material on the apparatus or structure being cleaned may become part of the cleaning solution. Check with all applicable regulations before disposing of the material created during application.

Section 7. Handling and Storage

Handling	Not available.
Storage	Keep container tightly closed in a cool, well-ventilated place.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.		
Personal Protection	Safety glasses. Lab coat. Gloves (impervious).		
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.		
Chemical Name or Product Name	CAS #	Exposure Limits	
Confidential Information			

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid.	Odor	Slight.
Molecular Weight	Not applicable.	Taste	Not available.
pH (1% soln/water)	7 to 8 [Basic.]	Color	Brown. (Dark.)
Boiling Point	The lowest known value is >275°C (528.8°F)		
Melting Point	Not available		
Critical Temperature	Not available.		
Specific Gravity	0.85 (Water = 1)		
Vapor Pressure	Not available.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Evaporation rate	Not available.		
Viscosity	Not available.		
Water/Oil Dist. Coeff.	The product is much more soluble in water.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, methanol.		
Solubility	Easily soluble in cold water, hot water, methanol. Insoluble in diethyl ether, n-octanol.		
Physical Chemical Comments	Not available.		

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with various substances	Slightly reactive to reactive with acids. Very slightly to slightly reactive with oxidizing agents.
Hazardous Decomposition Products	Not available.
Hazardous Polymerization	No.

Section 11. Toxicological Information

Toxicity to Animals	LD50: Not available. LC50: Not available.
Chronic Effects on Humans	Toxicity of the product to the reproductive system: Not available.
Other Toxic Effects on Humans	Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant). Very slightly to slightly dangerous in case of skin contact (permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	No additional remark.
Special Remarks on Chronic Effects on Humans	Can cause gastrointestinal disturbances. (1,2-Propylene glycol)
Special Remarks on other Toxic Effects on Humans	No additional remark.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Disposal	Recycle, if possible. Consult your local or regional authorities.
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Section 14. Transport Information

Proper Shipping Name	Not Regulated
DOT Classification	Not a DOT controlled material (United States).
DOT Identification Number	Not applicable (PIN and PG).
Packing Group	NONE
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	Not Regulated

Section 15. Regulatory Information

Federal and State Regulations	The following product(s) is (are) listed by the State of Massachusetts: Diethanolamine The following product(s) is (are) listed on TSCA: Diethanolamine, 1,2-Propylene glycol	
Other Classifications	WHMIS (Canada)	Not controlled under WHMIS (Canada).
	DSCL (EEC)	Not controlled under DSCL (Europe).

Continued on Next Page

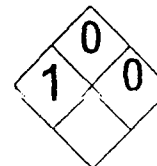
Section 16. Other Information

HMIS (U.S.A.)

Health Hazard	1
Fire Hazard	0
Reactivity	0
Personal Protection	B

National Fire
Protection
Association (U.S.A.)

Health



Fire Hazard

Reactivity

Specific hazard

References Not available.

Other Special
Considerations No additional remark.

Validated by Charles Toups on 3/17/97.

Verified by Charles Toups.

Printed 3/17/97.

Emergency Contact

CHEM-TEL, INC. - 1-800-255-3924

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



January 22, 1999

**Enron Transportation
& Storage**

*Services Provided by Northern
Natural Gas Company and
Transwestern Pipeline Company
Summit Office Building
4001 Indian School Road, NE, Suite 250
Albuquerque, NM 87110
(505) 260-4000
Fax (505) 254-1437*

Mr. Roger Anderson
Oil Conservation Division
P. O. Box 2040
South Pacheco Street
Santa Fe, New Mexico 87505

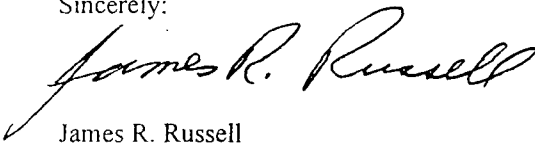
Re: Disposal of Wastewater at San Juan – Gallup interconnects Gallup New Mexico:

Dear Mr. Anderson:

Transwestern Pipeline Company, owner and operator of the San Juan – Gallup interconnect, request approval from your agency to dispose of waste generated from oil and gas activities at the above reference facility. This request address disposal of twenty two thousand gallons (22000 gal) that was used to clean the pipeline from our San Juan facility to the Gallup interconnects. The analytical for this water is attached. Key Energy, Farmington New Mexico, will dispose of this waste into a deep well class 1. Approval of this request will allow Transwestern Pipeline Company to complete this project and will not create any adverse impact to the facilities environment.

If you should have any question or need additional information please give me a call at our Albuquerque office (505) 260-4011.

Sincerely:



James R. Russell

Xc: Rich Jolly
PT Foster
Rick Smith
Gallup Team



L9103

December 8, 1998

Charlie Allen
Enron Transwestern Pipeline
P.O. Box 1019
Thoreau, NM 87323

Phone: (505) 862-7443
FAX: (505) 862-7826

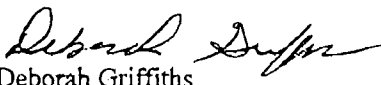
Re: Laboratory Sample Analysis
Project: Enron Transport & Storage
Station 1-8 PCB Sampling
Project Manager: Charlie Allen

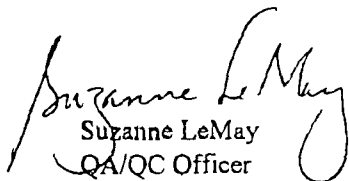
Dear Charlie Allen:

On Thursday, December 3, 1998, OAL received six (6) samples for analysis: four waste oil samples; and two water samples. The samples were analyzed utilizing EPA, ASTM, or equivalent methodology.

Should you have any questions concerning the results in this report, please contact us at (503) 590-5300. Refer to OAL login number L9103.

Sincerely,


Deborah Griffiths
Project Manager


Suzanne LeMay
QA/QC Officer

cc: Butch Russell, Charlie Allen, Larry Campbell

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404
www.oalab.com/oal • Toll-Free 1-800-744-0067



L9103

Sample Summary

<u>Sample ID</u>	<u>Lab #</u>	<u>Description</u>	<u>Sampled</u>	<u>Received</u>
NFT BOTTOM H2O PHASE	L9103-1	water	12/02/98 12:10	12/03/98
NFT TOP OIL PHASE	L9103-2	waste oil	12/02/98 12:15	12/03/98
NFT MIDDLE OIL PHASE	L9103-3	waste oil	12/02/98 12:20	12/03/98
SFT BOTTOM H2O PHASE	L9103-4	water	12/02/98 12:25	12/03/98
SFT TOP OIL PHASE	L9103-5	waste oil	12/02/98 12:30	12/03/98
SFT MIDDLE OIL PHASE	L9103-6	waste oil	12/02/98 12:35	12/03/98

Definition of Terms

ND Analytical result was below the reporting limit.

Analysts

<u>Initials</u>	<u>Analyst</u>	<u>Title</u>
CN	Cedric Neel	Analyst
DMC ²	Debbie McBreen-McKenzie	Chemist /Supervisor
GCK	Bill Kernion	Chemist

Method Summary

<u>Analysis</u>	<u>Method</u>
Arsenic	EPA 200.9
Flash Point (PMCC)	EPA 1010/ASTM D93
Lead	EPA 200.7/6010

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404



L9103

Client: *Enron Transport & Storage*
Contact: *Charlie Allen*

Project: *Station 1-8 PCB Sampling*

Oil Analyses

Sample ID	Matrix	Result	Reporting Limit	Units	Date Analyzed	Method	Lab Number	Comment Analyst
NFT BOTTOM H2O PHASE; NORTH FRAC TANK <i>Water</i> Sampled:12/02/98 L9103-1								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D93		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D93		CN
NFT TOP OIL PHASE; NORTH FRAC TANK <i>Waste Oil</i> Sampled:12/02/98 L9103-2								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D83		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D83		CN
NFT MIDDLE OIL PHASE; NORTH FRAC TANK <i>Waste Oil</i> Sampled:12/02/98 L9103-3								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D93		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D93		CN
SFT BOTTOM H2O PHASE; SOUTH FRAC TANK <i>Water</i> Sampled:12/02/98 L9103-4								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D93		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D93		CN
SFT TOP OIL PHASE; SOUTH FRAC TANK <i>Waste Oil</i> Sampled:12/02/98 L9103-5								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D93		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D93		CN
SFT MIDDLE OIL PHASE; SOUTH FRAC TANK <i>Waste Oil</i> Sampled:12/02/98 L9103-6								
Flash Point (PMCC)		>200.		°F	12/04/98	EPA 1010/ASTM D93		CN
Flash Point (PMCC)		>93.		°C	12/04/98	EPA 1010/ASTM D93		CN

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404
E-mail: oal@pge.com



L9103

Client: **Enron Transport & Storage**
Contact: **Charlie Allen**

Project: **Station 1-8 PCB Sampling**

TCLP Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment Analyst
-----------	--------	--------	-----------------	-------------	---------------	--------	------------	-----------------

					Sampled: 12/02/98			
					TCLP EPA 1311: 12/03/98			
NFT BOTTOM H2O PHASE; NORTH FRAC TANK		Water				Microwave Digestion EPA 3015: 12/04/98	L9103-1	
Arsenic	ND	0.20	mg/L	12/08/98	EPA 200.9			GCK
Lead	ND	2.5	mg/L	12/08/98	EPA 200.7/6010			DMC ²

					Sampled: 12/02/98			
					TCLP EPA 1311: 12/04/98			
SFT BOTTOM H2O PHASE; SOUTH FRAC TANK		Water				Microwave Digestion EPA 3015: 12/04/98	L9103-4	
Arsenic	ND	0.20	mg/L	12/08/98	EPA 200.9			GCK
Lead	ND	2.5	mg/L	12/08/98	EPA 200.7/6010			DMC ²

					Sampled: 12/02/98			
					TCLP EPA 1311: 12/04/98			
SFT TOP OIL PHASE; SOUTH FRAC TANK		Waste Oil				Microwave Digestion EPA 3016: 12/04/98	L9103-5	
Arsenic	ND	0.20	mg/L	12/08/98	EPA 200.9			GCK
Lead	ND	2.5	mg/L	12/08/98	EPA 200.7/6010			DMC ²

					Sampled: 12/02/98			
					TCLP EPA 1311: 12/04/98			
SFT MIDDLE OIL PHASE; SOUTH FRAC TANK		Waste Oil				Microwave Digestion EPA 3015: 12/04/98	L9103-6	
Arsenic	ND	0.20	mg/L	12/08/98	EPA 200.9			GCK
Lead	ND	2.5	mg/L	12/08/98	EPA 200.7/6010			DMC ²

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404
www.oal-lab.com • Toll-Free 1-800-644-0967



L9103

Client: **Enron Transport & Storage**
Contact: **Charlie Allen**

Project: **Station 1-8 PCB Sampling**

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
-----------	--------	--------	-----------------	-------------	---------------	--------	------------	---------	---------

NFT TOP OIL PHASE; NORTH FRAC TANK		Waste Oil		Sampled: 12/02/98		Microwave Digestion EPA 3051: 12/04/98		L9103-2	
Arsenic	0.21	0.20	mg/kg	12/08/98	EPA 200.9			GCK	
Lead	ND	2.5	mg/kg	12/08/98	EPA 200.7/6010			DMC	

NFT MIDDLE OIL PHASE; NORTH FRAC TANK		Waste Oil		Sampled: 12/02/98		Microwave Digestion EPA 3051: 12/04/98		L9103-3	
Arsenic	0.22	0.20	mg/kg	12/08/98	EPA 200.9			GCK	
Lead	ND	2.5	mg/kg	12/08/98	EPA 200.7/6010			DMC	

OREGON ANALYTICAL LABORATORY

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Phone 503-590-5300 • Fax 503-590-1404
www.oalab.com / e-mail: oal@oalab.com 1-800-644-0067



L9591

January 14, 1999

Charlie Allen
Enron Transwestern Pipeline
P.O. Box 1019
Thoreau, NM 87323

Phone: (505) 862-7443
FAX: (505) 862-7826

Re: Laboratory Sample Analysis
Project: San Juan Frac Tanks
Project Manager: Charlie Allen

Dear Charlie Allen:

On Monday, January 11, 1999, OAL received one (1) liquid sample for analysis. The sample was analyzed utilizing EPA, ASTM, or equivalent methodology.

Should you have any questions concerning the results in this report, please contact us at (503) 590-5300. Refer to OAL login number L9591.

Sincerely,

Kami Morrow
Project Manager

A handwritten signature in black ink, appearing to read "Suzanne LeMay".
Suzanne LeMay
QA/QC Officer

cc: Butch Russell, Charlie Allen, Larry Campbell

Oregon Analytical Laboratory
14855 S.W. Scholls Ferry Road
Beaverton, Oregon 97007

Facsimile Transmission Cover Sheet

Date: Thursday, January 14, 1999

Fax #: (505) 862-7826

To: Charlie Allen

Company: Enron Transwestern Pipeline

From: Doug McKenzie

Phone: (503) 590-5300

Total Number of Pages (including cover sheet): 16

Project: San Juan Frac Tanks

Re: Results for one liquid sample (L9591).

Thank you for choosing OAL for your testing needs!

Thanks,

Doug McKenzie
Technician

The information contained in this facsimile transmission is confidential and is intended only for the use of the individual or entity to whom it is addressed. If the reader of this message is not the intended receiver, you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance on the contents of this communication is strictly prohibited. If you have received this facsimile transmission in error, please immediately notify us by a collect telephone call to (503) 590-5300, and return the original facsimile to us at the address above via the U.S. Postal Service.



L9591

Sample Summary

<u>Sample ID</u>	<u>Lab #</u>	<u>Description</u>	<u>Sampled</u>	<u>Received</u>
SAN JUAN FRAC TANKS	L9591-1	liquid	01/08/99 13:30	01/11/99

Definition of Terms

D1 Reported value is based on a dilution due to matrix interference.
ND Analytical result was below the reporting limit.

Analysts

<u>Initials</u>	<u>Analyst</u>	<u>Title</u>
CN	Cedric Neel	Analyst
CV	Cheryl Vezzani	Chemist
DM	Dan Miller	Organics Chemist
JD	Jason Davendonis	Technician
PB	Pat Buddrus	Organics Chemist

Method Summary

<u>Analysis</u>	<u>Method</u>
Barium	EPA 200.7/6010
Cadmium	EPA 200.7/6010
Chromium	EPA 200.7/6010
Flash Point (PMCC)	EPA 1010/ASTM D93
Mercury	EPA 245.1/7470A
Selenium	EPA 200.7/6010
Silver	EPA 200.7/8010
TCLP Semivolatiles	EPA 8270
Volatile Organic Compounds (VOC)	EPA 8260



L9591

Client: *Enron Transwestern Pipeline*
Contact: *Charlie Allen*

Project: *San Juan Frac Tanks*

Oil Analyses

Sample ID	Matrix						Lab Number
Analyte		Result	Reporting Limit	Units	Date Analyzed	Method	Comment Analyst

SAN JUAN FRAC TANKS	Liquid					Sampled: 01/08/99	L9591-1
Flash Point (PMCC)		>200.		'F	01/11/99	EPA 1010/ASTM D93	CN
Flash Point (PMCC)		>93.		'C	01/11/99	EPA 1010/ASTM D93	CN

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric



L9591

Client: *Enron Transwestern Pipeline*
 Contact: *Charlie Allen*

Project: *San Juan Frac Tanks*

TCLP Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment Analyst
Analyte								

SAN JUAN FRAC TANKS		<i>Liquid</i>	Sampled: 01/08/99 TCLP EPA 1311: 01/11/99 Hot Plate Digestion EPA 200.2/3005A: 01/12/99 Mercury Digestion: 01/12/99						<i>L9591-1</i>
Barium		1.06	1.0	mg/L	01/13/99	EPA 200.7/6010	D1	CV	
Cadmium		ND	0.10	mg/L	01/13/99	EPA 200.7/6010	D1	CV	
Chromium		0.12	0.10	mg/L	01/13/99	EPA 200.7/6010	D1	CV	
Mercury		ND	0.010	mg/L	01/13/99	EPA 245.1/7470A	D1	JD	
Selenium		ND	1.0	mg/L	01/13/99	EPA 200.7/6010	D1	CV	
Silver		ND	0.10	mg/L	01/13/99	EPA 200.7/6010	D1	CV	

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
 12955 SW Sabatho Street, Beaverton, OR 97007

- 2 -



L9591

Client: *Enron Transwestern Pipeline*
Contact: *Charlie Allen*

Project: *San Juan Frac Tanks*

TCLP Semivolatiles
by EPA 8270

Sample ID	Matrix	Result	Reporting Limit	Units	Comment	Lab Number
Analyte						

SAN JUAN FRAC TANKS Liquid						L9591-1
See Attached Data Sheet						
Sampled: 01/08/99						
TCLP EPA 1311: 01/11/99						
Extracted: 01/12/99						
Analyzed: 01/13/99 by PB						



L9591

Client: Enron Transwestern Pipeline
Contact: Charlie Allen

Project: San Juan Frac Tanks

TCLP Semivolatiles (Totals*)

by EPA Method 8270

Sample ID								Lab Number
Analyte	Results	Blank Result	Reporting Limit	Regulatory Limit	Units	COMMENT		
SAN JUAN FRAC TANKS LIQUID		M001125				Sampled: 01/08/99 Analyzed: 01/12/99		
						L9591-1		
CASE								
110-85-1	Pyridine	nd	nd	500.00	5.0	mg/L	D1	
106-45-7	1,4-Dichlorobenzene	nd	nd	100.00	7.5	mg/L	D1	
	Total Cresol	nd	nd	100.00	200	mg/L	D1	
67-72-1	Hexachloroethane	nd	nd	100.00	3.0	mg/L	D1	
98-95-3	Nitrobenzene	nd	nd	100.00	2.0	mg/L	D1	
87-68-3	Hexachlorobutadiene	nd	nd	100.00	0.5	mg/L	D1	
88-08-2	2,4,6-Trichlorophenol	nd	nd	100.00	2.0	mg/L	D1	
95-95-4	2,4,5-Trichlorophenol	nd	nd	100.00	400	mg/L	D1	
121-14-2	2,4-Dinitrotoluene	nd	nd	100.00	0.13	mg/L	D1	
118-74-1	Hexachlorobenzene	nd	nd	100.00	0.13	mg/L	D1	
87-86-5	Pentachlorophenol	nd	nd	500.00	100	mg/L	D1	
						Recovery	Recovery	
Acid Surrogates:						L9591-1	M001125	
2-Fluorophenol						103%	107%	
Phenol-d6						98%	104%	
2,4,6-Tribromophenol						103%	92%	
Base / Neutral Surrogates:								
1,2-Dichlorobenzene d-4						103%	104%	
Nitrobenzene-d5						99%	96%	
2-Fluorobiphenyl						103%	103%	

none detected = nd

2-Methylphenol + 4-Methylphenol = Total Cresol

Elevated Reporting Limit due to sample matrix = D1

Samples containing less than half a percent solid are analyzed as totals = *

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric

14455 SW Scholls Ferry Road, Beaverton, OR 97007

314 P13 JAN 20 1999 12:06



L9591

Client: Enron Transwestern Pipeline
Contact: Charlie Allen

Project: San Juan Frac Tanks

Volatile Organic Compounds (VOC)
by EPA 8260

Sample ID	Matrix	Result	Reporting Limit	Units	Comment	Lab Number
Analyte						

SAN JUAN FRAC TANKS Liquid						Sampled: 01/08/99
						Extracted: 01/11/99
						Analyzed: 01/12/99 by DM
See Attached Data Sheet						L9591-1



L9591

Client: Enron Transwestern Pipeline
Contact: Charlie Allen

Project: San Juan Frac Tanks

TCLP Volatiles (Totals)

by EPA Method 8260

Sample ID								Lab Number
Analyte	Result	Blank Result	Reporting Limit	Regulatory Limit	Units	Comment		
SAN JUAN FRAC TANKS		MB0112		Sampled: 01/08/99		Analyzed: 01/12/99		
CAS #								L9591-1
75-01-4 Vinyl chloride	nd	nd	1	0.2	mg/L	D1		
75-35-4 1,1-Dichloroethene	nd	nd	1	0.7	mg/L	D1		
78-93-3 2-Butanone	nd	nd	20	200	mg/L	D1		
67-66-3 Chloroform	nd	nd	1	8	mg/L	D1		
58-23-5 Carbon tetrachloride	nd	nd	1	0.5	mg/L	D1		
71-43-2 Benzene	nd	nd	1	0.5	mg/L	D1		
107-06-2 1,2-Dichloroethane	nd	nd	1	0.5	mg/L	D1		
79-01-6 Trichloroethene	nd	nd	1	0.5	mg/L	D1		
127-18-4 Tetrachloroethene	nd	nd	1	0.7	mg/L	D1		
108-90-7 Chlorobenzene	nd	nd	1	100	mg/L	D1		
Surrogates				Recovery	Recovery			
1,2-Dichloroethane-d4				L9591-1	MB0112			
Toluene-d8				98%	100%			
4-Bromofluorobenzene				99%	100%			

none detected = nd

Samples containing less than half percent solids are analyzed as totals.

Elevated reporting limits due to sample matrix = D1

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric

14055 SW 20TH AVE. PORTLAND, OR 97205

314 P15 JAN 20 '99 12:07



L9591

Client: Enron Transwestern Pipeline
Contact: Charlie Allen

Project: San Juan Frac Tanks

Semivolatiles LCS & LCSD by EPA Method 8270

Sample ID	Lab Number	Lab Number		
Analyte	Recovery	Recovery	RPD	COMMENT

WATER		LCS0111S	LCSD0111S		Sampled: NA
CASE					Analyzed: 01/11/99
108-95-2	Phenol	50%	51%	1%	
95-57-8	2-Chlorophenol	98%	94%	4%	
106-46-7	1,4-Dichlorobenzene	105%	98%	7%	
621-64-7	N-Nitroso-di-n-propylamine	97%	92%	5%	
120-82-1	1,2,4-Trichlorobenzene	104%	97%	7%	
58-50-7	4-Chloro-3-methylphenol	90%	85%	6%	
83-32-0	Acenaphthene	118%	108%	7%	
121-14-2	2,4-Dinitrotoluene	90%	91%	1%	
100-02-7	4-Nitrophenol	35%	39%	11%	
87-86-5	Pentachlorophenol	89%	86%	4%	
129-00-0	Pyrene	110%	102%	8%	
				Recovery	Recovery
		Acid Surrogates:		LC00111S	LCSD0111S
		2-Fluorophenol		78%	83%
		Phenol-d8		58%	60%
		2,4,6-Tribromophenol		105%	108%
		Base / Neutral Surrogates:			
		1,2-Dichlorobenzene d-4		81%	80%
		Nitrobenzene-d5		98%	103%
		2-Fluorobiphenyl		95%	96%

none detected = nd



L9591

Client: Enron Transwestern Pipeline
Contact: Charlie Allen

Project: San Juan Frac Tanks

Volatiles LCS
by EPA Method 8260

					Lab Number
Analyte	Results	Amount Spiked	Units	Recovery	
Analyzed : 01/12/99					LCS0112
CAS #					
75-35-4	1,1-Dichloroethane	19.5	20.0	ug/L	98%
71-43-2	Benzene	21.3	20.0	ug/L	106%
79-01-6	Trichloroethene	20.9	20.0	ug/L	104%
108-88-3	Toluene	20.9	20.0	ug/L	104%
108-90-7	Chlorobenzene	20.8	20.0	ug/L	104%
Surrogates				Recovery	
				LCS0112	
1,2-Dichloroethane-d4				99%	
Toluene-d8				97%	
4-Bromofluorobenzene				97%	

none detected = nd

strict I - (505) 393-6161
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bbs, NM 88241-1980
strict II - (505) 748-1283
J. S. First
esia, NM 88210
strict III - (505) 334-6178
Rio Brazos Road
ec, NM 87410
strict IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☒ Non-Exempt: ☐	4. Generator <u>WFS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>EL CEDRO complex</u>
2. Management Facility Destination <u>Key Energy Services Disposal</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>CR 3500 #845 Aztec NM</u> <u>P.O. Box 900 Farmington, NM 87499</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>Hwy 64 nm 100.5</u> <u>Blanco NM 87412</u>	
9. Circle One: ☒ A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☐ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Amine Treating Fluid From Plant side

RECEIVED
MAR 17 1999
OIL CON. DIV.
DIST. 3

RECEIVED
MAR - 5 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 500 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 3-4-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Fout TITLE: Geologist DATE: 3/8/99
APPROVED BY: Ernie Busch TITLE: Geologist DATE: 3/18/99

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Williams Field Service El Cedro Complex Hwy 64 Mile Marker 100.5 Blanco, N.M. 87412	2. Destination Name: <i>SUNCO DISPOSAL</i>
3. Originating Site (name): <i>EL CEDRO COMPLEX</i>	Location of the Waste (Street address &/or ULSTR):
Attach list of originating sites as appropriate	
4. Source and Description of Waste <i>AMINE TREATING - 95% RAIN WATER</i> <i>- 2.5% AMINE</i> <i>- 2.5% TREATING TEL</i>	

I, JAMES RUIBALID representative for:
(Print Name)

do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☒ EXEMPT oilfield waste ☐ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification
PLANT SIDE

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): *James Ruibalid*

Title: LEAD OPER.

Date: 3/01/99

strict I - (505) 393-6161
Box 1280
bbs, NM 88241-1980
strict II - (505) 748-1283
S. First
esia, NM 88210
strict III - (505) 334-6178
Rio Brazos Road
ec, NM 87410
strict IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☒ Non-Exempt: ☐	4. Generator <u>BAKER OIL TOOLS</u>
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site <u>YARD</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>KEY</u>
3. Address of Facility Operator <u>CR 3500 #345 AZTEC, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>1732 E. MAIN FARMINGTON, NM</u>	
9. <u>Circle One</u> : (A) All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Wash water from Recycle unit, water used to wash
Down hole well tools

RECEIVED
FEB 12 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 30 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: mgr DATE: 2-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Kent TITLE: Geologist DATE: 2/15/99
APPROVED BY: Ernie Bush TITLE: u DATE: 2

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: <i>BAKER OIL TOOLS</i> <i>1732 E. MAIN</i> <i>FARMINGTON N.M.</i>	2. Destination Name: <i>KEY ENERGY DISPOSAL</i>
3. Originating Site (name): <i>YARD</i>	Location of the Waste (Street address &/or ULSTR):
Attach list of originating sites as appropriate	
4. Source and Description of Waste <i>RBF Re-cycled water, used to wash down hole tools.</i>	

I, *Patrick L. Mitchell* representative for: _____
(Print Name)
do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☒ EXEMPT oilfield waste _____ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

_____ MSDS Information _____ Other (description):
_____ RCRA Hazardous Waste Analysis
_____ Chain of Custody

Name (Original Signature): *Patrick L. Mitchell*
Title: *Warehouse Foreman*
Date: *2/12/99*

Office I - (505) 393-6161
D. Box 1980
Bbs, NM 88241-1980
Office II - (505) 748-1283
S. First
esla, NM 88210
Office III - (505) 334-6178
Rio Brazos Road
cc, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED Form C-138
Originated 8/8/95

FEB 1 1998

Environmental Bureau
Oil Conservation Division

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District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator: <u>PRODUCTION OPERATORS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>SEELIST</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>KEY</u>
3. Address of Facility Operator <u>CR 3500 #345 AZTEC, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>SEELIST</u>	
9. <u>Circle One:</u> A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>B.</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Williams Field Service
NON-EXEMPT WASTEWATER off compressor sites

Continuation

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: Mgr DATE: 2-11-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Funt TITLE: Geologist DATE: 2/12/99

APPROVED BY: Martyn J. Kelly TITLE: Env. Geologist DATE: 3/5/99

Office I - (505) 393-6161
P.O. Box 1980
Santa Fe, NM 87241-1980
Office II - (505) 748-1283
P.O. Box 1980
Santa Fe, NM 87241-1980
Office III - (505) 334-6178
P.O. Box 1980
Santa Fe, NM 87241-1980
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New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
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(505) 827-7131

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>PRODUCTION OPERATORS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>SEELIST</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>KEY</u>
3. Address of Facility Operator <u>CR 3500 #345 AZTEC, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>SEELIST</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☒ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Williams Field Service
NON-EXEMPT WASTE WATER OFF COMPRESSOR SITES

RECEIVED
FEB 12 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: Mgr DATE: 2-11-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny S. Feurt TITLE: Geologist DATE: 2/11/99
APPROVED BY: _____ TITLE: _____ DATE: _____

Month of January 1999

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: PRODUCTION OPERATORS, INC. 4000 Lomas Street Farmington, NM 87401	2. Destination Name: KEY ENERGY P.O. Box 900 Farmington, NM 87499
3. Originating Site (name): 29-6 #2, 29-6 #3, 29-6 #4, 29-7, 30-5, 30-6, 31-6, 32-7, 32-8 #2, 32-8 #3, 32-9, Aztec, Carracas, Cedar Hill, Coyote Springs, Decker Junction, Hart Mt., Horse Canyon, Kernaghan, La Cosa, Manzanares, Middle Mesa, Moore, N-30, Navajo, PLA-9, Pipkin, Pump Mesa, Simms Mesa, Trunks A,B,C,F,L,M,T, CDPS Attach list of originating sites as appropriate	
4. Source and Description of Waste RAIN WATER & WASH WATER	

I, Buster Gaston representative for:
(Print Name)
Production Operators, Inc. do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☒ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): Buster Gaston
Title: Operations Coordinator
Date: 2-9-99

Inter-Mountain Laboratories, Inc.

1701 Phillips Circle
Gillette, Wyoming 82718**TOXICITY CHARACTERISTIC LEACHING PROCEDURE
HSL SEMI-VOLATILE COMPOUNDS**

Client: WILLIAMS FIELD SERVICE

Sample ID: 29-6 #4

Project ID: 29-6 # 4 COP

Lab ID: B981407

0398G01561

Matrix: Water

Date Reported: 04/21/98

Date Sampled: 04/02/98

Date Received: 04/03/98

Date Extracted: 01/01/99

Date Analyzed: 01/01/99

Parameter	Result	PQL	Regulatory Level	Units
1,4-Dichlorobenzene	ND	0.1	7.5	mg/L
2,4,6-Trichlorophenol	ND	0.2	400	mg/L
2,4,6-Trichlorophenol	ND	0.2	2.0	mg/L
2,4-Dinitrotoluene	ND	0.1	0.13	mg/L
Hexachloro-1,3 butadiene	ND	0.2	0.5	mg/L
Hexachlorobenzene	ND	0.2	0.13	mg/L
Hexachloroethane	ND	0.2	3.0	mg/L
m,p-Cresol	ND	0.1	200	mg/L
Nitrobenzene	ND	0.1	2.0	mg/L
o-Cresol	ND	0.1	200	mg/L
Pentachlorophenol	ND	0.5	100	mg/L
Pyridine	ND	0.2	5.0	mg/L

QUALITY CONTROL - Surrogate Recovery

%

QC Limits

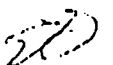
2,4,6-Tribromophenol	51	10 - 123
2-Fluorobiphenyl	45	43 - 116
2-Fluorophenol	58	21 - 100
Nitrobenzene-d5	57	35 - 114
Phenol-d6	69	10 - 94
Terphenyl-d14	56	33 - 121

ND - Not Detected at Practical Quantitation Level (PQL)

Reference: Method 8270B, Gas Chromatography/Mass Spectrometry for Semivolatile Organics, Test Methods for Evaluating Solid Wastes, SW-846, United States EPA, September 1994.

Method 1311, Toxicity Characteristic Leaching Procedure, Test Methods for Evaluating Solid Wastes, SW-846, United States EPA, September 1994.

Analyst



Reviewed



Client Name: Inter-Mountain Labs, Inc.
Submission #: 9804000047
Project Name: 29-6 #4 CDP/IML-FARMINGTON
Report Date: 04/06/98

Client Sample #: 29-6 #4

Laboratory ID #: 102821 Order Type: Normal Matrix: Liquid
Sample Container: 2xVOA Vial
Sampling Location: 0398 G01561
Sampling Date: 04/02/98

TCLP VOLATILES (EPA 8260)

Date analyzed: 04/03/98

<u>C.A.S.#</u>	<u>Analyte</u>	<u>Results(mg/l)</u>	<u>Detection Limit</u>	<u>Haz.Limit</u>
71-43-2	Benzene	0.18	0.10	0.5
56-23-5	Carbon Tetrachloride	<0.10	0.10	0.5
108-90-7	Chlorobenzene	<0.10	0.10	100
67-66-3	Chloroform	<0.10	0.10	8.0
106-46-7	1,4-Dichlorobenzene	<0.10	0.10	7.5
107-06-2	1,2-Dichloroethane	<0.10	0.10	0.5
75-35-4	1,1-Dichloroethylene	<0.10	0.10	0.7
78-93-3	Methyl Ethyl Ketone	<0.10	0.10	200.0
127-18-4	Tetrachloroethylene	<0.10	0.10	0.7
79-01-6	Trichloroethylene	<0.10	0.10	0.5
75-01-4	Vinyl Chloride	<0.10	0.10	0.2

TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL CONCENTRATION

Client: **Williams Field Service**
Project: **29-8 #4 CDP**
Sample ID: **Waste Water**
Laboratory ID: **0398G01581**
Sample Matrix: **Water**

Date Reported: **04/21/98**
Date Sampled: **04/02/98**
Date Received: **04/02/98**
Date Analyzed: **04/17/98**

Parameter	Result	Detection Limit	Regulatory Level	Units
Arsenic.....	<0.005	0.005	5	mg/L
Barium.....	0.41	0.01	100	mg/L
Cadmium.....	<0.004	0.004	1	mg/L
Chromium.....	<0.01	0.01	5	mg/L
Lead.....	0.393	0.05	5	mg/L
Mercury.....	<0.001	0.001	0.2	mg/L
Selenium.....	0.014	0.005	1	mg/L
Silver.....	<0.01	0.01	5	mg/L

References: Method 1311: Toxicity Characteristic Leaching Procedure,
SW-846, Rev. 0, July 1992.

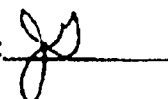
Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total
Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported By:



Reviewed:



Office I - (505) 393-6161
Box 1980
Albuquerque, NM 88241-1980
Office II - (505) 748-1283
S. First
Albuquerque, NM 88210
Office III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

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to appropriate
District Office

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FEB 1 1998

Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>BURLINGTON</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>COMPRESSOR STATIONS</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>PHYSICAL: CR 3500 #345 AZTEC NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>see list</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

DRAINED WATER FROM COMPRESSOR OIL TANKS

OIL CON. DIV.
DIST. 3
RECEIVED
FEB 12 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 2-12-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Gerry Z. Fendt TITLE: Geologist DATE: 2/12/99
APPROVED BY: Martyn J. Ziff TITLE: Env. Geologist DATE: 2/19/99

District I - (505) 393-6161
Box 1980
Albuquerque, NM 88241-1980
District II - (505) 748-1283
S. First
Albuquerque, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Burlington</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>compressor STATIONS</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key</u>
3. Address of Facility Operator <u>Physical: CR 3500 #345 AZTEC NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>see list</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☒ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

DRAINED WATER FROM COMPRESSOR OIL TANKS

RECEIVED
FEB 12 1999
OIL CON. DIV.
DIST. 3

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: [Signature] TITLE: MGR DATE: 2-12-99
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: MICHAEL TALDICK TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny J. Kent TITLE: Geologist DATE: 2/14/99

APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Burlington Resources 3535 East 30 th Street Farmington NM 87401	2. Destination Name: Sunco Disposal
3. Originating Site (name): All Compressor Stations Unit:	Location of the Waste (Street address /or ULSTR): See Attached. Sampled under project CC-51816 (non-haz). Section: Township: Range:
4. Source and Description of Waste: Drained water from oil tank.	

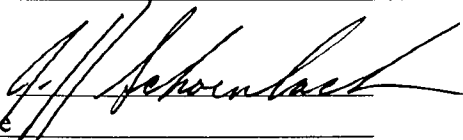
I, Jeff Schoenbacher representative for:
Burlington Resources do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check the appropriate classification)

☐ EXEMPT oilfield waste ☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic
analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information ☐ Other (description):
☐ RCRA Hazardous Waste Analysis
☐ Chain of Custody

Name (Original Signature): 
Title: Env. Representative
Date: Tuesday, February 09, 1999

**Burlington Resources Oil & Gas Company
Compressor Stations**

		QTR	SEC	TWP	RNG
1.	Frances Mesa	SW	27	30N	7W
2.	Cedar Hill	SW	29	32N	10W
3.	Gobernador	NW	31	30N	7W
4.	Manzanares	SE	4	29N	8W
5.	Pump Canyon	NE	24	30N	9W
6.	Hart Canyon	SE	20	31N	10W
7.	Buena Vista	NE	13	30N	9W
8.	Sandstone	SE	32	31N	8W
9.	Quinn	SW	16	31N	8W
10.	Arch Rock	SW	14	31N	10W
11.	Pump Mesa	SW	14	31N	8W
12.	Middle Mesa	SW	10	31N	7W
13.	Simms Mesa	NE	22	30N	7W
14.	Rudy	SE	35	29N	11W
15.	Zachry	SW	34	29N	10W
16.	Albright	NW	22	29N	10W
17.	Rattlesnake	SW	10	31N	7W
18.	Cox	SW	20	32N	10W
19.	Lateral 311	NE	17	29N	10W
20.	Lateral 355	SE	25	30N	11W
21.	Ute	SW	14	32N	11W
22.	State	NW	16	28N	9W

BURLINGTON RESOURCES

SAN JUAN DIVISION

February 9, 1999

Sunco Trucking
P.O. Box 900
5651 U.S. Highway 64
Farmington, NM 87499

Attention: Mike Talovich, Manager

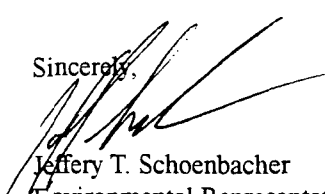
Re: Drained Water from Used Oil Tank Annual Non-Exempt Certification

Dear Mr. Talovich:

The purpose of this correspondence is to submit to your department the attached Certificate of Waste Status form for water generated from draining the used oil tank at the compressor stations. This waste stream was analyzed to comply with 40 CFR 262.11 waste determination requirements contained in the Resource Conservation and Recovery Act (RCRA). The parameters that were chosen for characterizing this waste stream was determined through "generators knowledge" defined under 40 CFR 262.11 (c) (2).). The analysis for this waste stream exhibits this waste as being a non-hazardous waste. As required, the analysis was sent to you November 17, 1998 and was identified as Sample Project CC-51816.

Should you have any questions concerning the content or need additional information please feel free to contact me at 505-326-9537. Thank you for your time and consideration.

Sincerely,



Jeffery T. Schoenbacher
Environmental Representative

CC: Bruce Gantner
Ed Hasely
Greg Kardos
Gaza Seabolt
Ken Johnson
Correspondence
Compressor Files

JTS:

**BURLINGTON
RESOURCES**

SAN JUAN DIVISION
November 11, 1998

Sunco Trucking
P.O. Box 900
5651 U.S. Highway 64
Farmington, NM 87499

Attention: Mike Talovich, Manager

Re: Characterization of Drained Water from Used Oil Tank

Dear Mr. Talovich:

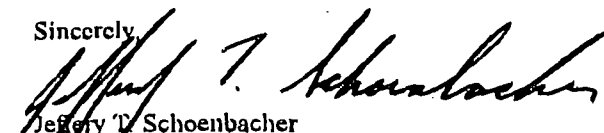
The purpose of this correspondence is to submit to your department the attached wastewater analysis for water generated from draining the used oil tank.

Per your request, I have enclosed the waste analysis (CC#51816) for your records and for submitting to OCD under the C-138 Non-Exempt Waste approval form. The main purpose for analyzing this particular waste streams was to comply with 40 CFR 262.11 waste determination requirements contained in the Resource Conservation and Recovery Act (RCRA). As a result, the water was analyzed for hazardous characteristics focusing on TCLP metals, TCLP VOA, TCLP Semi-VOA, and flash point. Upon evaluating the analysis for this waste, it appears the material does not exhibit the characteristics of a hazardous waste. The pH, herbicides, and pesticides were not analyzed since the liquid is wash-down water, which is not characteristically corrosive and herbicide/pesticide do not come in contact with this waste.

Regarding the generation rates, the material will be generated periodically at all the compressor units' (13) Burlington Resources currently operates. The plans for draining the waste oil tanks of water component would proceed by a company representative contacting Sunco when a waste oil shipment is warranted. The intention of removing the water component from the waste oil tank is a direct waste minimization practice to eliminate the oil/water from mixture Burlington Resources operations.

Should you have any questions concerning the content or need additional information please feel free to contact me at 505-326-9537. Thank you for your time and consideration.

Sincerely,



Jeffrey T. Schoenbacher
Environmental Representative

Enc. Sample Project CC-51816

CC: Bruce Gantner
Ed Hasely
Greg Kardo
Gaza Scabolt
Ken Johnson
Correspondence
Compressor Files

JTS:

PRELIMINARY**VOLATILE ORGANIC TOXICITY CHARACTERISTIC LIST****TCLP Leachate****Method 8260**

Client: **Burlington Resources**
Project: **Oil Tank Water / Compressor Stations**
Sample ID: **DW #11298**
Laboratory ID: **0398G08445**
Sample Matrix: **Water/Oil Mix**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/09/98**

Parameter	100 mg/L	10 mg/L	1 mg/L	Unit
-----------	----------	---------	--------	------

Benzene	0.20	0.10	0.5	mg/L
2-Butanone (MEK)	ND	0.10	0.5	mg/L
Carbon tetrachloride	ND	0.10	100	mg/L
Chlorobenzene	ND	0.10	6.0	mg/L
Chloroform	ND	0.10	7.5	mg/L
1,2-Dichloroethane	ND	0.10	0.6	mg/L
1,1-Dichloroethene	ND	0.10	0.7	mg/L
1,4 Dichlorobenzene	ND	0.10	200	mg/L
Tetrachloroethene	ND	0.10	0.7	mg/L
Trichloroethene	ND	0.10	0.5	mg/L
Vinyl chloride	ND	0.10	0.2	mg/L

ND- Analyte not detected at stated detection level.

Reported By: 

Reviewed: _____

PRELIMINARY

SEMIVOLATILE ORGANICS /TCLP TCLP Leachate Method 8270

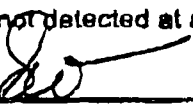
Client: **Burlington Resources**
Project: **Oil Tank Water / Compressor Stations**
Sample ID: **DW # 11298**
Laboratory ID: **0398G06445**
Sample Matrix: **Oil / Water Mix**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/09/98**

Parameter	Result	Unit	Limit	Unit
-----------	--------	------	-------	------

Cresol(Total)	ND	1.0	200.0	mg/L
2,4-Dinitrotoluene	ND	0.10	0.13	mg/L
Hexachlorobenzene	ND	0.10	0.13	mg/L
Hexachlorobutadiene	ND	0.20	0.5	mg/L
Hexachloroethane	ND	0.10	3.0	mg/L
Nitrobenzene	ND	0.50	2.0	mg/L
Pentachlorophenol	ND	0.20	100	mg/L
Pyridine	ND	0.50	5.0	mg/L
2,4,5-Trichlorophenol	ND	0.50	400.0	mg/L
2,4,6-Trichlorophenol	ND	0.50	2.0	mg/L

ND - Analyte not detected at stated detection level.

Reported By: 

Reviewed: _____

**TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL CONCENTRATION****PRELIMINARY**

Client: **Burlington Resources**
Project: **Oil Tank Water / Compressor Stations**
Sample ID: **DW #11298**
Laboratory ID: **0398G06448**
Sample Matrix: **Oil / Water Mix**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/10/98**

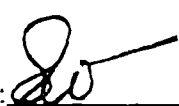
Parameter	Result	Method	Units
-----------	--------	--------	-------

Arsenic.....	<0.061	0.061	5	mg/L
Barium.....	0.21	0.001	100	mg/L
Cadmium.....	<0.008	0.008	1	mg/L
Chromium.....	0.084	0.008	5	mg/L
Lead.....	<0.04	0.04	5	mg/L
Mercury.....	<0.0004	0.0004	0.2	mg/L
Selenium.....	<0.05	0.05	1	mg/L
Silver.....	<0.03	0.03	5	mg/L

References:

Method 1311: Toxicity Characteristic Leaching Procedure,
SW-846 "Test Methods for Evaluating Solid Waste:
Physical/Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total
Metals, SW-846 "Test Methods for Evaluating Solid Waste: Physical/
Chemical Methods" 3rd Edition, Final Update III, December, 1996.

Comments:Reported By: 

Reviewed: _____

Flash Point**PRELIMINARY**

Client: **Burlington Resources**
Project: **Oil Water Tank / Compressor Stations**
Sample ID: **DW #11298**
Laboratory ID: **0398G08445**
Sample Matrix: **Oil / Water Mix**
Condition: **Intact**

Date Reported: **11/10/98**
Date Sampled: **11/02/98**
Date Received: **11/02/98**
Date Analyzed: **11/05/98**

Analysis		
Flash Point	> 140	°F

References:

Analysis performed according to SW-846 "Test Methods for Evaluating Solid Waste: Physical / Chemical Methods" United States Environmental Protection Agency 3rd Edition, Final Update II, September, 1994.

Annual Book of ASTM Standards, Method D58.

Reported by: 

Reviewed by: _____

BURLINGTON RESOURCES

SAN JUAN DIVISION
March 3, 1999

Southern Ute Tribe Natural Resources
Environmental Programs Division
P.O. Box 737
Ignacio, CO 81137

Attention: Cherly Wiescamp, Environmental Director

Re: Regulatory Disposal Release for Drained Water from Used Oil Tank

Dear Ms. Wiescamp:

Per our conversation today, the purpose of this correspondence is to submit to your department the attached waste analysis data characterizing the non-exempt waste water generated at the Antler and Ute Compressor Stations.

The main purpose for analyzing this particular waste streams was to comply with 40 CFR 262.11 waste determination requirements contained in the Resource Conservation and Recovery Act (RCRA). As a result, the water was analyzed for hazardous characteristics focusing on TCLP metals, TCLP VOA, TCLP Semi-VOA, and flash point. Upon evaluating the analysis for this waste, it appears the material does not exhibit the characteristics of a hazardous waste. The pH, herbicides, and pesticides parameters were not analyzed since the water is not characteristically corrosive and herbicide/pesticide do not come in contact with this waste.

Regarding the generation rates, the material is generated periodically when draining the water from the waste oil tanks at both compressor stations. Once the water is drained it is transported across state lines and disposed at the Key Energy Disposal facility located in Aztec, New Mexico. The purpose of removing the water component from the waste oil tank is a direct waste minimization practice that minimizes the oil/water mixture from both compressor operations. As a result, Burlington Resources is requesting the Southern Ute regulatory release to transport this material across state lines and dispose of this waste water at the Key Energy Disposal facility in Aztec, New Mexico.

Should you have any questions concerning the content or need additional information please feel free to contact me at 505-326-9537. Thank you for your time and consideration.

Sincerely,

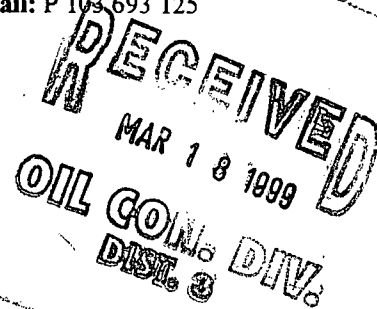

Jeffery T. Schoenbacher
Environmental Representative

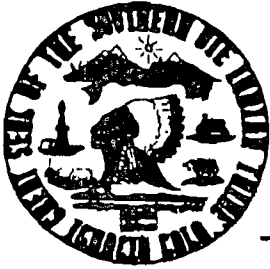
Enc. Sample Project CC-51816

CC: Bruce Gantner
Ed Hasely
Greg Kardos
Ken Johnson
Mike Tolavich, Key Energy
Correspondence
Antler Compressor File
Ute Compressor File

JTS:

Certified Mail: P 103 693 125





SOUTHERN UTE INDIAN TRIBE

Tribal Affairs Building

March 10, 1999

Jeffrey T. Schoenbacher
Burlington Resources
San Juan Division
P.O. Box 4289
Farmington, NM 87499-4289

Via fax: (505) 326-9833 (followed by hard copy)

Dear Mr. Schoenbacher:

Re: Tribal notification of Transportation of Waste Water, non-exempt
Liquid waste from the draining of Waste Oil Tanks
Antler and Ute Compressor Stations

Dear Mr. Schoenbacher:

Thank you for notifying the Environmental Programs Division of the Southern Ute Indian Tribe of the transportation of oil field waste from the above referenced site to an approved disposal site in New Mexico. It is our understanding that liquid waste will be removed to the Key Energy Disposal facility in Aztec, New Mexico.

Certification may be required by the State of New Mexico Oil Conservation Commission (NMOCD) from your company, the transporter or the generator. Transportation of this waste may be subject to other state and Federal laws. The Southern Ute Indian Tribe accepts no liability associated with the disposal of this waste.

Sincerely,

A handwritten signature in cursive script, reading "Cheryl L. Wiescamp".

Cheryl L. Wiescamp
Division Head
Environmental Programs

II - (505) 393-6161
Box 1980
NM 88241-1980
III - (505) 334-6178
Jo Brazos Road
NM 87410
IV - (505) 827-7131

New Mexico
Energy, Mining, and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

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to appropriate
District Office

Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

RCRA Exempt: ☐ Non-Exempt: ☒

Verbal Approval Received: Yes ☐ No ☒

Management Facility Destination Key Disposal

Address of Facility Operator Physical: 23500 #345
AZtec, NM

Location of Material (Street Address or ULSTR) 192 rd 4900
Bloomfield, NM 87413

4. Generator WFS

5. Originating Site Milagro Plant

6. Transporter

8. State

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FEB 1 8 1999

Circle One:

- A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
- B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

WASTE WATER FROM EVAPORATION POND AT the NATURAL
Gas Breechment Plant

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FEB 12 1999

OIL CON. DIV.
DIST. 3

Continuation - new TCLP

Estimated Volume 1000 + bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich
Waste Management Facility Authorized Agent

TITLE: MGR

DATE: 2-10-99

TYPE OR PRINT NAME: MICHAEL TALOVICH

TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Dennis G. Zant TITLE: Geologist

DATE: 2/12/99

APPROVED BY: Martyn J. Kelly TITLE: Env. Geologist

DATE: 2/17/99

Office I - (505) 393-6161
P.O. Box 1980
Santa Fe, NM 87241-1980
Office II - (505) 748-1283
1 S. First
Santa Fe, NM 87210
Office III - (505) 334-6178
Rio Brazos Road
Santa Fe, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
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to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>WFS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>MILAGRO Plant</u>
2. Management Facility Destination <u>Key DISPOSAL</u>	6. Transporter
3. Address of Facility Operator <u>Physical: CR 3500 #345</u> <u>AZtec, NM</u>	8. State
7. Location of Material (Street Address or ULSTR) <u>192 CR 4900</u> <u>Bloomfield, NM 87413</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. ☒ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

WASTE WATER FROM EVAPORATION POND AT the NATURAL
GAS Processing Plant

RECEIVED
FEB 12 1999

OIL CON. DIV.
DIST. 3

Continuation
new TCLP

Estimated Volume 1000 + bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 2-10-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Fout TITLE: Geologist DATE: 2/15/99
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Williams Field Services 295 CHIPOTA WAY SALT LAKE CITY, UT 84158	2. Destination Name: SUNCO DISPOSAL
3. Originating Site (name): MILAGRO PLANT	Location of the Waste (Street address &/or ULSTR): 192 CR 4900 Bloomfield, NM 87413
Attach list of originating sites as appropriate	
4. Source and Description of Waste WASTEWATER from EVAPORATION PONDS at NATURAL GAS BREACHMENT PLANT	

I, Rick Wooten representative for: William Field Services (MILAGRO PLANT) do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

☐ EXEMPT oilfield waste

☒ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste only the following documentation is attached (check appropriate items):

☐ MSDS Information
☒ RCRA Hazardous Waste Analysis
☐ Chain of Custody

☐ Other (description):

Name (Original Signature): [Signature]

Title: PLANT SUPERINTENDENT

Date: 2-9-99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

November 17, 1998

Mr. Mike Talovich
Sunco, Inc.
P.O. Box 900
Farmington, New Mexico 87499

(505) 327-0416

Project No.: 98065-02

Dear Mr. Talovich,

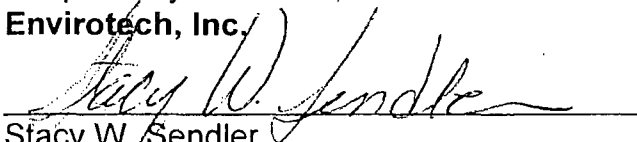
Enclosed are the analytical results for the sample collected from the location designated as "WFS Milagro Plant". One water sample identified as "Plant" was collected from the designated location by Sunco personnel on 10/29/98, and received by the Envirotech laboratory on 10/29/98 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6371 and assigned Laboratory No. E120 for tracking purposes.

The sample was analyzed on 10/29/98 through 11/16/98 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.


Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS/sws

98065-02.lb1/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	10-30-98
Lab ID#:	E120	Date Sampled:	10-29-98
Sample Matrix:	Soil	Date Received:	10-29-98
Preservative:	Cool	Date Analyzed:	10-29-98
Condition:	Cool and Intact	Chain of Custody:	6371

Parameter	Result
-----------	--------

IGNITABILITY: Negative

CORROSIVITY: Negative pH = 9.64

REACTIVITY: Negative

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
-----------	---------------------------

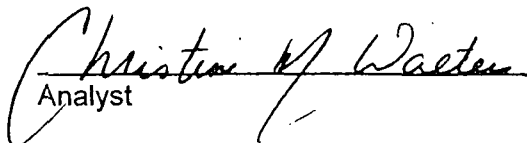
IGNITABILITY: Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.
(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

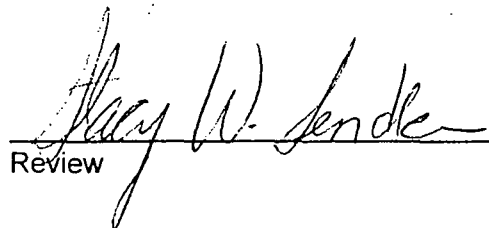
CORROSIVITY: Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.
(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY: Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23.
(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-11-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.059	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0006	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	0.003	0.0002	7.5

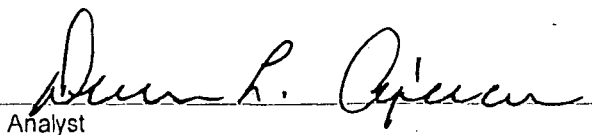
ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	11-09-98
Preservative:	Cool	Date Analyzed:	11-12-98
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	100%
	2,4,6-Tribromophenol	100%

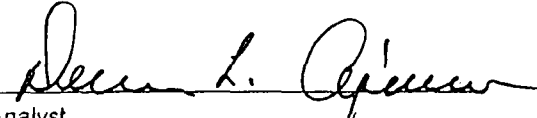
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

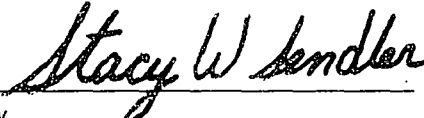
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: **WFS Milagro Plant.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	11-12-98
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.081	0.020	5.0
Hexachloroethane	0.190	0.020	3.0
Nitrobenzene	0.766	0.020	2.0
Hexachlorobutadiene	0.033	0.020	0.5
2,4-Dinitrotoluene	0.088	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

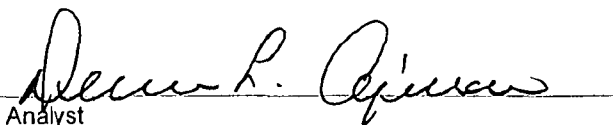
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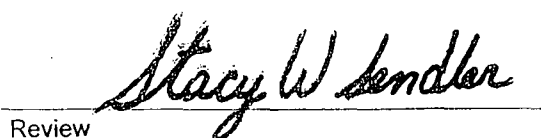
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: WFS Milagro Plant.


Analyst


Review

**EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS**

Client:	Sunco Disposal	Project #:	98065-02
Sample ID:	Plant	Date Reported:	11-13-98
Laboratory Number:	E120	Date Sampled:	10-29-98
Chain of Custody:	6371	Date Received:	10-29-98
Sample Matrix:	Water	Date Analyzed:	11-12-98
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	ND	0.0001	5.0
Barium	0.546	0.001	21
Cadmium	0.0017	0.0001	0.11
Chromium	ND	0.0001	0.60
Lead	0.0086	0.0001	0.75
Mercury	ND	0.0001	0.025
Selenium	ND	0.0001	5.7
Silver	ND	0.0001	0.14

ND - Parameter not detected at the stated detection limit.

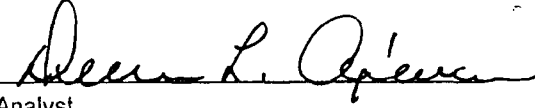
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

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

Comments: **WFS Milagro Plant.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	11-12-98
Laboratory Number:	11-11-TCV-BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-11-98
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

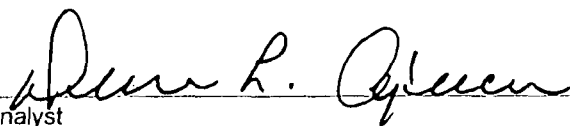
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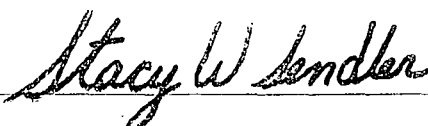
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

**EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-11-98
Condition:	N/A	Date Extracted:	11-04-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

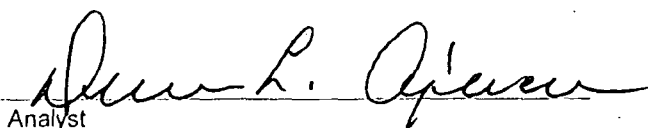
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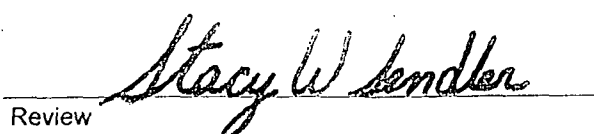
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

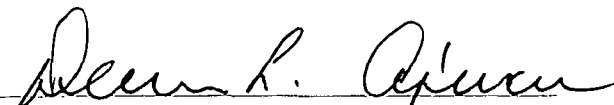
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	11-11-98
Condition:	N/A	Date Extracted:	N/A

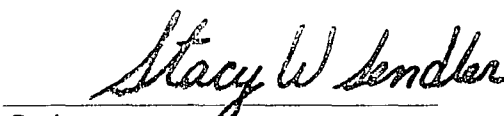
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.059	0.059	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0006	0.0006	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	0.003	0.003	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

Client: QA/QC
Sample ID: Matrix Spike
Laboratory Number: E120
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

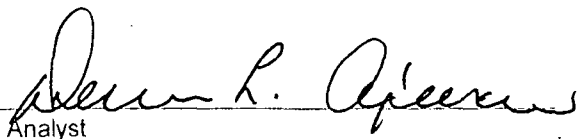
Project #: N/A
Date Reported: 11-12-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 11-11-98
Date Extracted: N/A

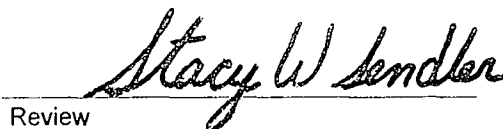
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.059	0.050	0.1084	0.0001	100%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0006	0.050	0.0504	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0498	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	0.003	0.050	0.0524	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	11-12-98
Laboratory Number:	11-12-TCA-BLANK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-12-98
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results	Concentration	Detection	Regulatory
Parameter	(mg/L)	Limit	Limit
		(mg/L)	(mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	99 %
	2,4,6-tribromophenol	97 %

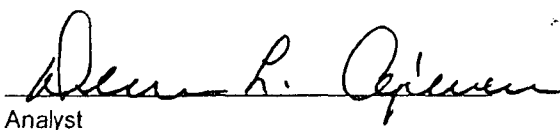
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040 PHENOLS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool & Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	101%
	2,4,6-Tribromophenol	100%

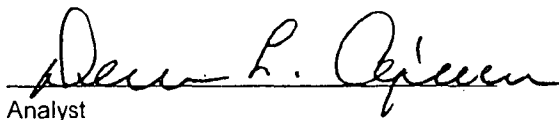
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

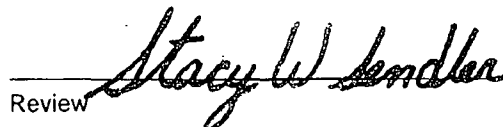
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool & Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

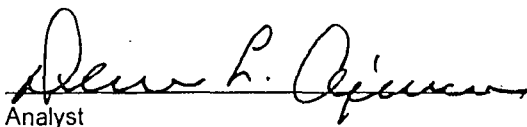
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147 - E148.


Analyst


Review

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client: QA/QC
Sample ID: Laboratory Blank
Laboratory Number: 11-12-TBN-Blank
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 11-12-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 11-12-98
Analysis Requested: TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

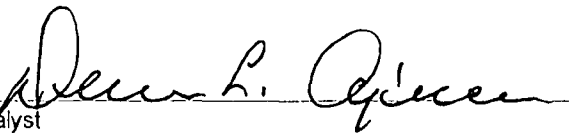
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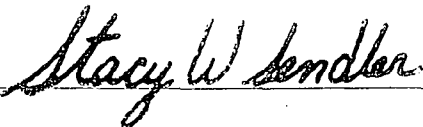
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	11-12-98
Laboratory Number:	11-04-BN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	11-04-98
Condition:	Cool and Intact	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

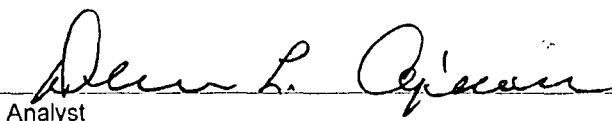
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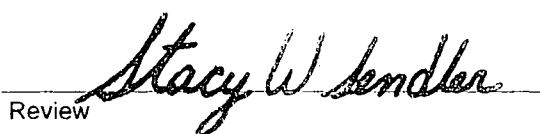
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	11-12-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	11-12-98
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	0.081	0.081	0.0%	0.020
Hexachloroethane	0.190	0.188	1.0%	0.020
Nitrobenzene	0.766	0.759	0.9%	0.020
Hexachlorobutadiene	0.033	0.032	1.1%	0.020
2,4-Dinitrotoluene	0.088	0.085	3.0%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
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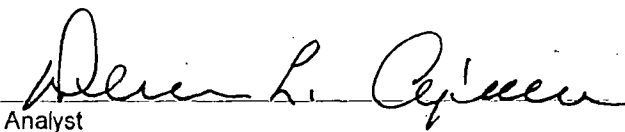
8090 Compounds

30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992.

Comments: QA/QC for samples E120 and E147.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	11-12-TCM QA/QC	Date Reported:	11-13-98
Laboratory Number:	E120	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	11-12-98
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Barium	ND	ND	0.001	0.546	0.544	0.4%	0% - 30%
Cadmium	ND	ND	0.0001	0.0017	0.0016	5.9%	0% - 30%
Chromium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0086	0.0087	1.2%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	ND	0.0998	99.8%	80% - 120%
Barium	1.000	0.546	1.55	100.3%	80% - 120%
Cadmium	0.0500	0.0017	0.0515	99.6%	80% - 120%
Chromium	0.0500	ND	0.0499	99.8%	80% - 120%
Lead	0.1000	0.0086	0.109	99.9%	80% - 120%
Mercury	0.0250	ND	0.0248	99.2%	80% - 120%
Selenium	0.1000	ND	0.0997	99.7%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

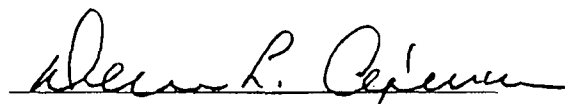
ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals,
SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by
GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

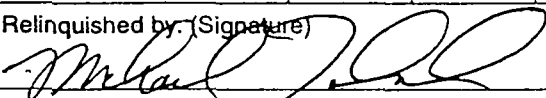
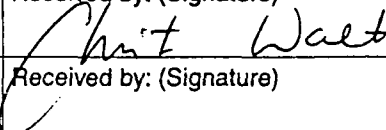
Comments: QA/QC for samples E120 and E147.


Analyst


Review

CHAIN OF CUSTODY RECORD

6371

Client / Project Name SUNCO DISPOSAL			Project Location WFS MILLARD PLANT		ANALYSIS / PARAMETERS									
Sampler: MIKETA LOUICHI			Client No. 98065-02		No. of Containers 10	TCLP 20 H/P						Remarks		
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix										
PLANT	10-29-98	1030	E120	Water										
Relinquished by: (Signature) 			Date 10-29-98	Time 1115	Received by: (Signature) 						Date 10-29-98	Time 11:15		
Relinquished by: (Signature)					Received by: (Signature)									
Relinquished by: (Signature)					Received by: (Signature)									
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615											Sample Receipt			
												Y	N	N/A
											Received Intact	☒	☐	☐
											Cool - Ice/Blue Ice	☒	☐	☐

Box 1980
NM 88241-1980
(505) 748-1283
S. First
NM 88210
(505) 334-6178
Rio Brazos Road
NM 87410
(505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131
RECEIVED
MAR 10 1999
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95
Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>WAS</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Lybrook Plant</u>
2. Management Facility Destination <u>KEY ENERGY DISPOSAL</u>	6. Transporter <u>Key Energy</u>
3. Address of Facility Operator <u>PHYSICAL: CR 3500 # 345 AZtec, NM</u>	8. State <u>NM</u>
7. Location of Material (Street Address or ULSTR) <u>MM 103 Hwy 44 Liba NM 87013</u>	
9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job. <u>B.</u> All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport.	

BRIEF DESCRIPTION OF MATERIAL:

Williams Field Service
PLANT WASTE WATER FROM NATURAL GAS PROCESSING

LAST FILED
ON 12-29-98

334-6186
334-6416

RECEIVED
FEB 12 1999
OIL CON. DIV.
DIST. 3

Continuation

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 2-29-99
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Fent TITLE: Geologist DATE: 2/12/99
APPROVED BY: Mustapha J. Khy TITLE: Env. Geologist DATE: 3/5/99

Office I - (505) 393-6161
P.O. Box 1980
Albuquerque, NM 88241-1980
Office II - (505) 748-1283
1 S. First
Albuquerque, NM 88210
Office III - (505) 334-6178
Rio Brazos Road
Albuquerque, NM 87410
Office IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

RECEIVED
FEB 12 1999

Submit Original
Plus 1 Copy
to appropriate
District Office

OIL CON. DIV.
DIST. 3

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒

Verbal Approval Received: Yes ☐ No ☒

2. Management Facility Destination KEY ENERGY DISPOSAL

3. Address of Facility Operator PHYSICAL: CR 3500 # 345 AZtec, NM

7. Location of Material (Street Address or ULSTR) MM 103 Highway 44
Libert NM 87013

4. Generator WAS

5. Originating Site Lybrook Plant

6. Transporter Key Energy

8. State NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

☒ B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

PLANT WASTE WATER FROM NATURAL GAS PROCESSING

LAST FILED
ON 12-29-98

Continuation

Estimated Volume 500 bbls + cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Michael Talovich TITLE: MGR DATE: 12-29-99
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: MICHAEL TALOVICH TELEPHONE NO. 505-334-6186

(This space for State Use)

APPROVED BY: Denny G. Fount TITLE: Geologist DATE: 2/9/99

APPROVED BY: TITLE: DATE:

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: WFS 295 CHIPETA WAY SALT LAKE CITY, UT 84158	2. Destination Name: Key ENERGY DISPOSAL
3. Originating Site (name): WFS Lybrook Plant	Location of the Waste (Street address &/or ULSTR): mile post 103 Hiway 44 Cuba NM 87013
4. Source and Description of Waste Plant WASTEWATER FROM NATURAL GAS PROCESSING OPERATIONS	

I, CARLOS D. ADAIR representative for:
(Print Name)

_____ do hereby certify that,
according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

MSDS Information
RCRA Hazardous Waste Analysis
Chain of Custody

Name (Original Signature): Carlos D. Cedano
Title: Lead Mechanic
Date: 2/8/99

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #:

9812755

SENT WILLIAMS GAS PIPELINE
 TO: 295 CHIPETA WAY
 SALT LAKE CITY, UT 84108
 801-584-6543 FAX 584-7760
 DUANE ADAIR

DATE REPORTED: 12/28/98
 DATE COLLECTED: 12/21/98
 DATE RECEIVED: 12/22/98

P.O. #:

PROJECT: WASTEWATER POND

Sample ID: LYB-WW POND

Sample Matrix: WATER

Sample Date Collected: 12/21/98

TEST	METHOD	RESULT	UNITS	DL	ANALYSED	BY
TCLP EXTRACTION	EPA 1311	DONE				RH
SILVER, TCLP	SW 846 6010	0.020	MG/L	0.01	12/28/98	MS2
ARSENIC, TCLP	SW 846 7060	0.003	MG/L	0.001	12/23/98	MS
BARIUM, TCLP	SW 846 6010	0.610	MG/L	0.005	12/28/98	MS2
CADMIUM, TCLP	SW 846 6010	<0.005	MG/L	0.005	12/28/98	MS2
CHROMIUM, TCLP	SW 846 6010	0.167	MG/L	0.01	12/28/98	MS2
MERCURY, TCLP	SW 846 7470	<0.0002	MG/L	0.0002	12/28/98	JMP
LEAD, TLCP	SW 846 6010	<0.050	MG/L	0.05	12/28/98	MS2
SELENIUM, TCLP	SW 846 7740	0.0039	MG/L	0.002	12/23/98	MS

Sample ID: LYB-WW POND MS

Sample Matrix: WATER

Sample Date Collected: 12/21/98

TEST	METHOD	RESULT	UNITS	DL	ANALYSED	BY
TCLP EXTRACTION	EPA 1311	DONE				RH
SILVER, TCLP	SW 846 6010	96.5	% REC		12/28/98	MS2
ARSENIC, TCLP	SW 846 7060	104.7	% REC		12/23/98	MS
BARIUM, TCLP	SW 846 6010	118.9	% REC		12/28/98	MS2
CADMIUM, TCLP	SW 846 6010	124.8	% REC		12/28/98	MS2
CHROMIUM, TCLP	SW 846 6010	99.9	% REC		12/28/98	MS2
MERCURY, TCLP	SW 846 7470	101.4	% REC		12/28/98	JMP
LEAD, TLCP	SW 846 6010	81.8	% REC		12/28/98	MS2
SELENIUM, TCLP	SW 846 7740	92.0	% REC		12/23/98	MS

Sample ID: LYB-WW POND

Sample Matrix: WATER

Sample Date Collected: 12/21/98

TEST	METHOD	RESULT	UNITS	DL	ANALYSED	BY
TCLP EXTRACTION	EPA 1311	DONE				RH

REFERENCE #: 9812755

PAGE: 1

Sample ID: LYB-WW POND

Sample Matrix: WATER

Sample Date Collected: 12/21/98

TEST	METHOD	RESULT	UNITS	DL	ANALYSED	BY
TCLP SEMI-VOLATILES	SW 846 8270					
O-CRESOL		ND	MG/L	0.10	12/23/98	SKY
P-CRESOL		ND	MG/L	0.10	12/23/98	SKY
M-CRESOL		ND	MG/L	0.10	12/23/98	SKY
1,4-DICHLOROBENZENE		ND	MG/L	0.10	12/23/98	SKY
2,4-DINITROTOLUENE		ND	MG/L	0.10	12/23/98	SKY
HEXACHLOROBENZENE		ND	MG/L	0.10	12/23/98	SKY
HEXACHLOROBUTADIENE		ND	MG/L	0.10	12/23/98	SKY
HEXACHLOROETHANE		ND	MG/L	0.10	12/23/98	SKY
NITROBENZENE		ND	MG/L	0.10	12/23/98	SKY
PENTACHLOROPHENOL		ND	MG/L	0.50	12/23/98	SKY
PYRIDINE		ND	MG/L	0.10	12/23/98	SKY
2,4,5-TRICHLOROPHENOL		ND	MG/L	0.10	12/23/98	SKY
2,4,6-TRICHLOROPHENOL		ND	MG/L	0.10	12/23/98	SKY
TCLP EXTRACTION	EPA 1311	DONE				RH
TCLP VOLATILES	SW 846 8260					
BENZENE		ND	MG/L	0.015	12/22/98	TK
CARBON TETRACHLORIDE		ND	MG/L	0.015	12/22/98	TK
CHLOROBENZENE		ND	MG/L	0.015	12/22/98	TK
CHLOROPFORM		ND	MG/L	0.015	12/22/98	TK
1,2-DICHLOROETHANE		ND	MG/L	0.015	12/22/98	TK
1,1-DICHLOROETHYLENE		ND	MG/L	0.015	12/22/98	TK
METHYL ETHYL KETONE		ND	MG/L	0.015	12/22/98	TK
TETRACHLOROETHYLENE		ND	MG/L	0.015	12/22/98	TK
TRICHLOROETHYLENE		ND	MG/L	0.015	12/22/98	TK
VINYL CHLORIDE		ND	MG/L	0.015	12/22/98	TK

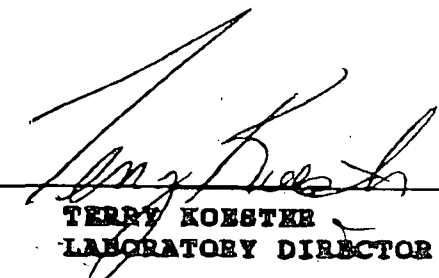
ND=NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


 TERRY KOESTER
 LABORATORY DIRECTOR

*FAX COPY TO INGRID AT 801-584-7760 ALSO.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 28, 1999

Mr. Duane Adair
Williams Field Services, Inc.
WFS-Lybrook
HCR 17 Box 360
Cuba, NM 87013

(505) 324-7210
Fax (505) 632-4845

Project No.: 97073
Job No. : 707304

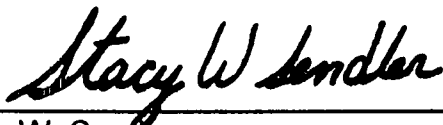
Dear Mr. Adair,

Enclosed are the analytical results for one water sample collected from the location designated as "Lybrook - North Pond. One water sample identified as Water-Grab' " was collected by WFS designated personnel on 02/22/99, and delivered to the Envirotech laboratory on 02/22/99 for RCRA Characterization analysis (Ignitability, Reactivity, and Corrosivity).

The sample was documented on Envirotech Chain of Custody No. 6617 and assigned Laboratory No. E705 for tracking purposes. The sample was analyzed on 02/23/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It has been our pleasure doing business with you and we hope you will consider Envirotech, Inc. for any of your future environmental contracting needs.

Respectfully submitted,
Envirotech, Inc.



Stacy W. Sender
Environmental Scientist/Laboratory Manager

enclosure

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Williams Field Service	Project #:	707304
Sample ID:	Water - Grab	Date Reported:	02-24-99
Lab ID#:	E705	Date Sampled:	02-22-99
Sample Matrix:	Water	Date Received:	02-22-99
Preservative:	Cool	Date Analyzed:	02-23-99
Condition:	Cool and Intact	Chain of Custody:	6617

Parameter	Result
IGNITABILITY:	Negative
CORROSIVITY:	Negative pH = 9.78
REACTIVITY:	Negative Cyanide = <0.001 mg/L Sulfide = 0.052 mg/L

RCRA Hazardous Waste Criteria

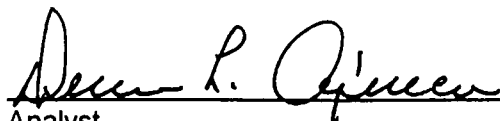
IGNITABILITY: Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21.
(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)

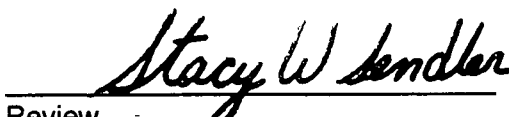
CORROSIVITY: Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22.
(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)

REACTIVITY: Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23.
(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: Lybrook - North Pond.


Analyst


Review

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FA# 505-632-4845
page: 324-7210

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