

NM1-011

CONTINUED

C-138

YEAR(S):

2006-1997

**Certificate of
Analysis**

Quanterra Incorporated
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ANALYTICAL REPORT

PROJECT NO. RCRA

Farmington, NM

Lot #: 18B150103

Rick Johnson

B.J. Services Company

QUANTERRA INCORPORATED

A handwritten signature in cursive script, appearing to read "Sandra L. Green".

Sandra L. Green
Project Manager

March 4, 1998

EXECUTIVE SUMMARY - Detection Highlights

I8B150103

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
FWT-BACKFILL 02/12/98 10:15 001				
Flashpoint	>150	>150	deg F	SW846 1010
Total Recoverable	14000	1100	mg/kg	MCAWW 418.1
Petroleum Hydrocarbons				
Corrosivity	7.6	1.0	No Units	SW846 9045A
Percent Moisture	8.4	0.50	%	OCLP OLM03.1
AWT-BACKFILL 02/12/98 10:30 002				
Flashpoint	>150	>150	deg F	SW846 1010
Total Recoverable	110	11	mg/kg	MCAWW 418.1
Petroleum Hydrocarbons				
Corrosivity	7.9	1.0	No Units	SW846 9045A
Percent Moisture	8.8	0.50	%	OCLP OLM03.1
AWT-SOLIDS/SLUDGE 02/12/98 11:00 003				
Flashpoint	>150	>150	deg F	SW846 1010
Total Recoverable	49000	2900	mg/kg	MCAWW 418.1
Petroleum Hydrocarbons				
Corrosivity	9.5	1.0	No Units	SW846 9045A
Percent Moisture	30.1	0.50	%	OCLP OLM03.1
FWT-SLUDGE 02/12/98 13:00 004				
Benzene	0.18	0.050	mg/L	SW846 8260A
Flashpoint	>150	>150	deg F	SW846 1010
Total Recoverable	550000	10000	mg/kg	MCAWW 418.1
Petroleum Hydrocarbons				
Corrosivity	5.1	1.0	No Units	SW846 9045A
Percent Moisture	52.2	0.50	%	OCLP OLM03.1

ANALYTICAL METHODS SUMMARY

I8B150103

PARAMETER	ANALYTICAL METHOD
% Moisture, Decanted-CLP	OCLP OLM03.1
Corrosivity	SW846 9045A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Pensky-Martens Method for Determining Ignitability	SW846 1010
Reactive Cyanide	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4
Total Recoverable Petroleum Hydrocarbons	MCAWW 418.1
TCLP BNA's	SW846 8270B
TCLP Metals (ICP)	SW846 6010A
TCLP Volatiles	SW846 8260A

References:

- MCAWW "Methods for Chemical Analysis of Water and Wastes",
EPA-600/4-79-020, March 1983 and subsequent revisions.
- OCLP USEPA Contract Laboratory Program Statement of Work for
Organics Analysis, Multi-Media, Multi-Concentration.
- SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical
Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

I8B150103

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CFDA2	001	FWT-BACKFILL	02/12/98	10:15
CFDA3	002	AWT-BACKFILL	02/12/98	10:30
CFDA4	003	AWT-SOLIDS/SLUDGE	02/12/98	11:00
CFDA5	004	FWT-SLUDGE	02/12/98	13:00

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

B.J. SERVICES COMPANY

Client Sample ID: FWT-BACKFILL

TCLP GC/MS Semivolatiles

Lot-Sample #....: I8B150103-001	Work Order #....: CFDA2107	Matrix.....: SOLID
Date Sampled....: 02/12/98 10:15	Date Received...: 02/14/98	
Leach Date.....: 02/16/98	Prep Date.....: 02/18/98	Analysis Date...: 02/26/98
Leach Batch #...: P804704	Prep Batch #....: 8049233	Analysis Time...: 13:46
Dilution Factor: 1		
% Moisture.....: 8.4		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	69	(21 - 100)
Phenol-d5	85	(10 - 94)
Nitrobenzene-d5	75	(35 - 114)
2-Fluorobiphenyl	59	(43 - 116)
2,4,6-Tribromophenol	76	(10 - 123)
Terphenyl-d14	93	(33 - 141)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: FWT-BACKFILL

TCLP GC/MS Volatiles

Lot-Sample #....: I8B150103-001	Work Order #....: CFDA210J	Matrix.....: SOLID
Date Sampled....: 02/12/98 10:15	Date Received...: 02/14/98	
Leach Date.....: 02/23/98	Prep Date.....: 02/27/98	Analysis Date...: 02/28/98
Leach Batch #...: P805602	Prep Batch #....: 8062161	Analysis Time...: 00:41
Dilution Factor: 1		
% Moisture.....: 8.4		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8260A
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8260A
Tetrachloroethylene	ND	0.050	mg/L	SW846 8260A
Trichloroethylene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	94	(86 - 115)
Toluene-d8	100	(88 - 110)
Dibromofluoromethane	99	(86 - 118)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: AWT-BACKFILL

TCLP GC/MS Semivolatiles

Lot-Sample #.... I8B150103-002	Work Order #.... CFDA3107	Matrix..... SOLID
Date Sampled.... 02/12/98 10:30	Date Received... 02/14/98	Analysis Date... 02/26/98
Leach Date..... 02/16/98	Prep Date..... 02/18/98	Analysis Time... 15:49
Leach Batch #... P804704	Prep Batch #.... 8049233	
Dilution Factor: 1		
% Moisture..... 8.8		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	76	(21 - 100)
Phenol-d5	89	(10 - 94)
Nitrobenzene-d5	74	(35 - 114)
2-Fluorobiphenyl	57	(43 - 116)
2,4,6-Tribromophenol	79	(10 - 123)
Terphenyl-d14	88	(33 - 141)

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: AWT-BACKFILL

TCLP GC/MS Volatiles

Lot-Sample #....: I8B150103-002	Work Order #....: CFDA310J	Matrix.....: SOLID
Date Sampled....: 02/12/98 10:30	Date Received...: 02/14/98	
Leach Date.....: 02/23/98	Prep Date.....: 02/27/98	Analysis Date...: 02/28/98
Leach Batch #...: P805602	Prep Batch #....: 8062161	Analysis Time...: 01:15
Dilution Factor: 1		
% Moisture.....: 8.8		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8260A
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8260A
Tetrachloroethylene	ND	0.050	mg/L	SW846 8260A
Trichloroethylene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	95	(86 - 115)
Toluene-d8	98	(88 - 110)
Dibromofluoromethane	100	(86 - 118)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: AWT-SOLIDS/SLUDGE

TCLP GC/MS Semivolatiles

Lot-Sample #... I8B150103-003 **Work Order #...** CFDA4107 **Matrix.....** SOLID
Date Sampled... 02/12/98 11:00 **Date Received...** 02/13/98
Leach Date..... 02/16/98 **Prep Date.....** 02/18/98 **Analysis Date...** 02/26/98
Leach Batch #... P804704 **Prep Batch #...** 8049233 **Analysis Time...** 16:20
Dilution Factor: 1
% Moisture..... 30

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	79	(21 - 100)
Phenol-d5	96 *	(10 - 94)
Nitrobenzene-d5	106	(35 - 114)
2-Fluorobiphenyl	58	(43 - 116)
2,4,6-Tribromophenol	51	(10 - 123)
Terphenyl-d14	90	(33 - 141)

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

* Surrogate recovery is outside stated control limits.

The surrogate recovery in the sample is outside control limits due to confirmed matrix effect.

Surrogates outside acceptance criteria due to demonstrated matrix effect.

B.J. SERVICES COMPANY

Client Sample ID: AWT-SOLIDS/SLUDGE

TCLP GC/MS Volatiles

Lot-Sample #....: I8B150103-003	Work Order #....: CFDA410J	Matrix.....: SOLID
Date Sampled....: 02/12/98 11:00	Date Received...: 02/13/98	
Leach Date.....: 02/23/98	Prep Date.....: 02/27/98	Analysis Date...: 02/28/98
Leach Batch #...: P805602	Prep Batch #....: 8062161	Analysis Time...: 01:49
Dilution Factor: 1		
% Moisture.....: 30		

PARAMETER	RESULT	REPORTING		
		LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8260A
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8260A
Tetrachloroethylene	ND	0.050	mg/L	SW846 8260A
Trichloroethylene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

SURROGATE	PERCENT	
	RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	92	(86 - 115)
Toluene-d8	100	(88 - 110)
Dibromofluoromethane	97	(86 - 118)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: FWT-SLUDGE

TCLP GC/MS Semivolatiles

Lot-Sample #....: I8B150103-004 Work Order #....: CFDA5107
Date Sampled....: 02/12/98 13:00 Date Received...: 02/13/98
Leach Date.....: 02/16/98 Prep Date.....: 02/18/98
Leach Batch #...: P804704 Prep Batch #....: 8049233
Dilution Factor: 1
% Moisture.....: 52

Matrix.....: SOLID

Analysis Date...: 02/26/98
Analysis Time...: 16:50

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	83	(21 - 100)
Phenol-d5	94	(10 - 94)
Nitrobenzene-d5	76	(35 - 114)
2-Fluorobiphenyl	59	(43 - 116)
2,4,6-Tribromophenol	69	(10 - 123)
Terphenyl-d14	45	(33 - 141)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: FWT-SLUDGE

TCLP GC/MS Volatiles

Lot-Sample #.... I8B150103-004	Work Order #.... CFDA510J	Matrix..... SOLID
Date Sampled.... 02/12/98 13:00	Date Received... 02/13/98	
Leach Date..... 02/23/98	Prep Date..... 02/27/98	Analysis Date... 02/28/98
Leach Batch #... P805602	Prep Batch #.... 8062161	Analysis Time... 02:23
Dilution Factor: 1		
% Moisture..... 52		

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	0.18	0.050	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8260A
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8260A
Tetrachloroethylene	ND	0.050	mg/L	SW846 8260A
Trichloroethylene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	89	(86 - 115)
Toluene-d8	97	(88 - 110)
Dibromofluoromethane	97	(86 - 118)

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: FWT-BACKFILL

General Chemistry

Lot-Sample #....: I8B150103-001 Work Order #....: CFDA2 Matrix.....: SOLID
Date Sampled....: 02/12/98 10:15 Date Received...: 02/14/98
% Moisture.....: 8.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Corrosivity	7.6	1.0	No Units	SW846 9045A	02/16/98	8047188
				Dilution Factor: 1		
				Analysis Time...: 14:00		
Flashpoint	>150	>150	deg F	SW846 1010	02/15-02/16/98	8047152
				Dilution Factor: 1		
				Analysis Time...: 12:00		
Percent Moisture	8.4	0.50	%	OCLP OLM03.1	02/17-02/18/98	8048212
				Dilution Factor: 1		
				Analysis Time...: 10:00		
Reactive Cyanide	ND	220	mg/kg	SW846 7.3.3	02/16-02/17/98	8047136
				Dilution Factor: 1		
				Analysis Time...: 16:00		
Reactive Sulfide	ND	220	mg/kg	SW846 7.3.4	02/16/98	8047137
				Dilution Factor: 1		
				Analysis Time...: 13:00		
Total Recoverable Petroleum Hydrocarbons	14000	1100	mg/kg	MCAWW 418.1	02/24-02/25/98	8055155
				Dilution Factor: 100		
				Analysis Time...: 13:00		

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B.J. SERVICES COMPANY

Client Sample ID: AWT-BACKFILL

General Chemistry

Lot-Sample #....: I8B150103-002 Work Order #....: CFDA3 Matrix.....: SOLID
Date Sampled....: 02/12/98 10:30 Date Received...: 02/14/98
% Moisture.....: 8.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Corrosivity	7.9	1.0	No Units	SW846 9045A	02/16/98	8047188
			Dilution Factor: 1			
			Analysis Time...: 14:00			
Flashpoint	>150	>150	deg F	SW846 1010	02/15-02/16/98	8047152
			Dilution Factor: 1			
			Analysis Time...: 12:00			
Percent Moisture	8.8	0.50	%	OCLP OLM03.1	02/17-02/18/98	8048212
			Dilution Factor: 1			
			Analysis Time...: 10:00			
Reactive Cyanide	ND	220	mg/kg	SW846 7.3.3	02/16-02/17/98	8047136
			Dilution Factor: 1			
			Analysis Time...: 16:00			
Reactive Sulfide	ND	220	mg/kg	SW846 7.3.4	02/16/98	8047137
			Dilution Factor: 1			
			Analysis Time...: 13:00			
Total Recoverable Petroleum Hydrocarbons	110	11	mg/kg	MCAWW 418.1	02/24-02/25/98	8055155
			Dilution Factor: 1			
			Analysis Time...: 13:00			

NOTE (S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B.J. SERVICES COMPANY

Client Sample ID: AWT-SOLIDS/SLUDGE

General Chemistry

Lot-Sample #....: I8B150103-003 Work Order #....: CFDA4 Matrix.....: SOLID
Date Sampled....: 02/12/98 11:00 Date Received...: 02/13/98
% Moisture.....: 30

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Corrosivity	9.5	1.0	No Units	SW846 9045A	02/16/98	8047188
				Dilution Factor: 1 Analysis Time...: 14:00		
Flashpoint	>150	>150	deg F	SW846 1010	02/15-02/16/98	8047152
				Dilution Factor: 1 Analysis Time...: 12:00		
Percent Moisture	30.1	0.50	%	OCLP OLM03.1	02/17-02/18/98	8048212
				Dilution Factor: 1 Analysis Time...: 10:00		
Reactive Cyanide	ND	290	mg/kg	SW846 7.3.3	02/16-02/17/98	8047136
				Dilution Factor: 1 Analysis Time...: 16:00		
Reactive Sulfide	ND	290	mg/kg	SW846 7.3.4	02/16/98	8047137
				Dilution Factor: 1 Analysis Time...: 13:00		
Total Recoverable Petroleum Hydrocarbons	49000	2900	mg/kg	MCAWW 418.1	02/24-02/25/98	8055155
				Dilution Factor: 200 Analysis Time...: 13:00		

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B.J. SERVICES COMPANY

Client Sample ID: FWT-SLUDGE

General Chemistry

Lot-Sample #....: I8B150103-004 Work Order #....: CFDA5 Matrix.....: SOLID
Date Sampled....: 02/12/98 13:00 Date Received...: 02/13/98
% Moisture.....: 52

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Corrosivity	5.1	1.0	No Units	SW846 9045A	02/16/98	8047188
			Dilution Factor: 1			
			Analysis Time...: 14:00			
Flashpoint	>150	>150	deg F	SW846 1010	02/15-02/16/98	8047152
			Dilution Factor: 1			
			Analysis Time...: 12:00			
Percent Moisture	52.2	0.50	%	OCLP OLM03.1	02/17-02/18/98	8048212
			Dilution Factor: 1			
			Analysis Time...: 10:00			
Reactive Cyanide	ND	420	mg/kg	SW846 7.3.3	02/16-02/17/98	8047136
			Dilution Factor: 1			
			Analysis Time...: 16:00			
Reactive Sulfide	ND	420	mg/kg	SW846 7.3.4	02/16/98	8047137
			Dilution Factor: 1			
			Analysis Time...: 13:00			
Total Recoverable Petroleum Hydrocarbons	550000	10000	mg/kg	MCAWW 418.1	03/01-03/03/98	8061186
			Dilution Factor: 500			
			Analysis Time...: 10:00			

NOTE(S) :

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

B.J. SERVICES COMPANY

Client Sample ID: FWT-BACKFILL

TCLP Metals

Lot-Sample #....: I8B150103-001

Matrix.....: SOLID

Date Sampled...: 02/12/98 10:15 Date Received...: 02/14/98

Leach Date.....: 02/16/98 Leach Batch #...: P804704

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8049226						
Silver	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA2108
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Arsenic	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA2109
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Barium	ND	10.0	mg/L	SW846 6010A	02/18-02/19/98	CFDA210A
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Cadmium	ND	0.10	mg/L	SW846 6010A	02/18-02/19/98	CFDA210C
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Chromium	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA210D
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Lead	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA210E
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Selenium	ND	0.25	mg/L	SW846 6010A	02/18-02/19/98	CFDA210F
		Dilution Factor: 1				
		Analysis Time...: 14:22				
Prep Batch #...: 8051213						
Mercury	ND	0.0020	mg/L	SW846 7470A	02/20-02/24/98	CFDA210G
		Dilution Factor: 1				
		Analysis Time...: 08:53				

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: AWT-BACKFILL

TCLP Metals

Lot-Sample #...: I8B150103-002

Matrix.....: SOLID

Date Sampled...: 02/12/98 10:30 Date Received...: 02/14/98

Leach Date.....: 02/16/98 Leach Batch #...: P804704

		REPORTING			PREPARATION-	WORK
PARAMETER	RESULT	LIMIT	UNITS	METHOD	ANALYSIS DATE	ORDER #
Prep Batch #...: 8049226						
Silver	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA3108
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Arsenic	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA3109
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Barium	ND	10.0	mg/L	SW846 6010A	02/18-02/19/98	CFDA310A
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Cadmium	ND	0.10	mg/L	SW846 6010A	02/18-02/19/98	CFDA310C
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Chromium	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA310D
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Lead	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA310E
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Selenium	ND	0.25	mg/L	SW846 6010A	02/18-02/19/98	CFDA310F
		Dilution Factor: 1				
		Analysis Time...: 15:59				
Prep Batch #...: 8051213						
Mercury	ND	0.0020	mg/L	SW846 7470A	02/20-02/24/98	CFDA310G
		Dilution Factor: 1				
		Analysis Time...: 09:05				

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: AWT-SOLIDS/SLUDGE

TCLP Metals

Lot-Sample #...: I8B150103-003

Matrix.....: SOLID

Date Sampled...: 02/12/98 11:00 Date Received...: 02/13/98

Leach Date.....: 02/16/98 Leach Batch #...: P804704

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8049226						
Silver	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA4108
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Arsenic	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA4109
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Barium	ND	10.0	mg/L	SW846 6010A	02/18-02/19/98	CFDA410A
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Cadmium	ND	0.10	mg/L	SW846 6010A	02/18-02/19/98	CFDA410C
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Chromium	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA410D
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Lead	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA410E
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Selenium	ND	0.25	mg/L	SW846 6010A	02/18-02/19/98	CFDA410F
		Dilution Factor: 1				
		Analysis Time...: 16:01				
Prep Batch #...: 8051213						
Mercury	ND	0.0020	mg/L	SW846 7470A	02/20-02/24/98	CFDA410G
		Dilution Factor: 1				
		Analysis Time...: 09:07				

NOTE (S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

B.J. SERVICES COMPANY

Client Sample ID: FWT-SLUDGE

TCLP Metals

Lot-Sample #....: I8B150103-004

Matrix.....: SOLID

Date Sampled....: 02/12/98 13:00

Date Received...: 02/13/98

Leach Date.....: 02/16/98

Leach Batch #...: P804704

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8049226						
Silver	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA5108
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Arsenic	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA5109
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Barium	ND	10.0	mg/L	SW846 6010A	02/18-02/19/98	CFDA510A
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Cadmium	ND	0.10	mg/L	SW846 6010A	02/18-02/19/98	CFDA510C
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Chromium	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA510D
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Lead	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDA510E
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Selenium	ND	0.25	mg/L	SW846 6010A	02/18-02/19/98	CFDA510F
		Dilution Factor: 1				
		Analysis Time...: 16:04				
Prep Batch #...: 8051213						
Mercury	ND	0.0020	mg/L	SW846 7470A	02/20-02/24/98	CFDA510G
		Dilution Factor: 1				
		Analysis Time...: 09:09				

NOTE(S) :

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)

QC DATA ASSOCIATION SUMMARY

I8B150103

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	SOLID	SW846 1010		8047152	8047082
	SOLID	MCAWW 418.1		8055155	8055038
	SOLID	SW846 6010A	P804704	8049226	8049086
	SOLID	SW846 9045A		8047188	8047076
	SOLID	OCLP OLM03.1		8048212	
	SOLID	SW846 7.3.3		8047136	8047032
	SOLID	SW846 7.3.4		8047137	8047033
	SOLID	SW846 8270B	P804704	8049233	8049093
	SOLID	SW846 8260A	P805602	8062161	8062042
	SOLID	SW846 7470A	P804704	8051213	8051082
002	SOLID	SW846 1010		8047152	8047082
	SOLID	MCAWW 418.1		8055155	8055038
	SOLID	SW846 6010A	P804704	8049226	8049086
	SOLID	SW846 9045A		8047188	8047076
	SOLID	OCLP OLM03.1		8048212	
	SOLID	SW846 7.3.3		8047136	8047032
	SOLID	SW846 7.3.4		8047137	8047033
	SOLID	SW846 8270B	P804704	8049233	8049093
	SOLID	SW846 8260A	P805602	8062161	8062042
	SOLID	SW846 7470A	P804704	8051213	8051082
003	SOLID	SW846 1010		8047152	8047082
	SOLID	MCAWW 418.1		8055155	8055038
	SOLID	SW846 6010A	P804704	8049226	8049086
	SOLID	SW846 9045A		8047188	8047076
	SOLID	OCLP OLM03.1		8048212	
	SOLID	SW846 7.3.3		8047136	8047032
	SOLID	SW846 7.3.4		8047137	8047033
	SOLID	SW846 8270B	P804704	8049233	8049093
	SOLID	SW846 8260A	P805602	8062161	8062042
	SOLID	SW846 7470A	P804704	8051213	8051082
004	SOLID	SW846 1010		8047152	8047082
	SOLID	MCAWW 418.1		8061186	8061073
	SOLID	SW846 6010A	P804704	8049226	8049086
	SOLID	SW846 9045A		8047188	8047076
	SOLID	OCLP OLM03.1		8048212	
	SOLID	SW846 7.3.3		8047136	8047032
	SOLID	SW846 7.3.4		8047137	8047033
	SOLID	SW846 8270B	P804704	8049233	8049093
	SOLID	SW846 8260A	P805602	8062161	8062042
	SOLID	SW846 7470A	P804704	8051213	8051082

METHOD BLANK REPORT
TCLP GC/MS Semivolatiles

Client Lot #....: I8B150103
 MB Lot-Sample #: I8B160000-214
 Leach Date.....: 02/16/98
 Leach Batch #...: P804704
 Dilution Factor: 1

Work Order #....: CFDN9109
 Prep Date.....: 02/18/98
 Prep Batch #...: 8049233

Matrix.....: SOLID
 Analysis Date...: 02/26/98
 Analysis Time...: 12:45

PARAMETER	RESULT	REPORTING			METHOD
		LIMIT	UNITS		
o-Cresol	ND	0.050	mg/L		SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L		SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L		SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L		SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L		SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L		SW846 8270B
Hexachloroethane	ND	0.050	mg/L		SW846 8270B
Nitrobenzene	ND	0.050	mg/L		SW846 8270B
Pentachlorophenol	ND	0.25	mg/L		SW846 8270B
Pyridine	ND	0.10	mg/L		SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L		SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L		SW846 8270B

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
2-Fluorophenol	71	(21 - 100)
Phenol-d5	88	(10 - 94)
Nitrobenzene-d5	68	(35 - 114)
2-Fluorobiphenyl	50	(43 - 116)
2,4,6-Tribromophenol	71	(10 - 123)
Terphenyl-d14	90	(33 - 141)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I8B150103
MB Lot-Sample #: I8C030000-161

Work Order #...: CFLX7101

Matrix.....: SOLID

Analysis Date...: 02/27/98
Dilution Factor: 1

Prep Date.....: 02/27/98
Prep Batch #...: 8062161

Analysis Time...: 17:18

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8260A
Carbon tetrachloride	ND	0.050	mg/L	SW846 8260A
Chlorobenzene	ND	0.050	mg/L	SW846 8260A
Chloroform	ND	0.050	mg/L	SW846 8260A
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8260A
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8260A
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8260A
Tetrachloroethylene	ND	0.050	mg/L	SW846 8260A
Trichloroethylene	ND	0.050	mg/L	SW846 8260A
Vinyl chloride	ND	0.10	mg/L	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(86 - 115)
Toluene-d8	97	(88 - 110)
Dibromofluoromethane	96	(86 - 118)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

TCLP Metals

Client Lot #....: I8B150103

Matrix.....: SOLID

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
MB Lot-Sample #: I8B160000-214 Prep Batch #....: 8051213						
Leach Date.....: 02/16/98 Leach Batch #...: P804704						
Mercury	ND	0.0020	mg/L	SW846 7470A	02/20-02/24/98	CFDN9106
		Dilution Factor: 1				
		Analysis Time...: 08:49				
MB Lot-Sample #: I8B160000-214 Prep Batch #....: 8049226						
Leach Date.....: 02/16/98 Leach Batch #...: P804704						
Silver	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDN9107
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Arsenic	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDN9108
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Barium	ND	10.0	mg/L	SW846 6010A	02/18-02/19/98	CFDN9101
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Cadmium	ND	0.10	mg/L	SW846 6010A	02/18-02/19/98	CFDN9102
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Chromium	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDN9103
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Lead	ND	0.50	mg/L	SW846 6010A	02/18-02/19/98	CFDN9104
		Dilution Factor: 1				
		Analysis Time...: 14:17				
Selenium	ND	0.25	mg/L	SW846 6010A	02/18-02/19/98	CFDN9105
		Dilution Factor: 1				
		Analysis Time...: 14:17				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

General Chemistry

Client Lot #...: I8B150103

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Total Recoverable		Work Order #: CFH8D101 MB Lot-Sample #: I8B240000-155				
Petroleum Hydrocarbons	ND	10	mg/kg	MCAWW 418.1	02/24-02/25/98	8055155
		Dilution Factor: 1				
		Analysis Time...: 13:00				
Total Recoverable		Work Order #: CFLG2101 MB Lot-Sample #: I8C020000-186				
Petroleum Hydrocarbons	ND	10	mg/kg	MCAWW 418.1	03/01-03/03/98	8061186
		Dilution Factor: 1				
		Analysis Time...: 10:00				

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #....: I8B150103 Work Order #....: CFETD101 Matrix.....: SOLID
 LCS Lot-Sample#: I8B180000-233
 Prep Date.....: 02/18/98 Analysis Date...: 02/26/98
 Prep Batch #....: 8049233 Analysis Time...: 13:16
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Pyridine	0.40	0.18	mg/L	45	SW846 8270B
1,4-Dichlorobenzene	0.40	0.25	mg/L	63	SW846 8270B
o-Cresol	0.40	0.34	mg/L	84	SW846 8270B
m-Cresol & p-Cresol	0.80	0.69	mg/L	87	SW846 8270B
Hexachloroethane	0.40	0.25	mg/L	64	SW846 8270B
Nitrobenzene	0.40	0.30	mg/L	76	SW846 8270B
Hexachlorobutadiene	0.40	0.24	mg/L	60	SW846 8270B
2,4,6-Trichlorophenol	0.40	0.27	mg/L	67	SW846 8270B
2,4,5-Trichlorophenol	0.40	0.27	mg/L	67	SW846 8270B
2,4-Dinitrotoluene	0.40	0.28	mg/L	70	SW846 8270B
Hexachlorobenzene	0.40	0.35	mg/L	88	SW846 8270B
Pentachlorophenol	0.40	0.35	mg/L	87	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(21 - 100)
Phenol-d5	93	(10 - 94)
Nitrobenzene-d5	74	(35 - 114)
2-Fluorobiphenyl	61	(43 - 116)
2,4,6-Tribromophenol	78	(10 - 123)
Terphenyl-d14	104	(33 - 141)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #....: I8B150103 Work Order #....: CFLX7102 Matrix.....: SOLID
 LCS Lot-Sample#: I8C030000-161
 Prep Date.....: 02/27/98 Analysis Date...: 02/27/98
 Prep Batch #....: 8062161 Analysis Time...: 17:52
 Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	0.50	0.71	mg/L	142	SW846 8260A
1,1-Dichloroethylene	0.50	0.65	mg/L	129	SW846 8260A
Chloroform	0.50	0.50	mg/L	100	SW846 8260A
1,2-Dichloroethane	0.50	0.47	mg/L	94	SW846 8260A
Methyl ethyl ketone	0.50	0.13	mg/L	27	SW846 8260A
Carbon tetrachloride	0.50	0.57	mg/L	113	SW846 8260A
Trichloroethylene	0.50	0.52	mg/L	104	SW846 8260A
Benzene	0.50	0.51	mg/L	101	SW846 8260A
Tetrachloroethylene	0.50	0.56	mg/L	112	SW846 8260A
Chlorobenzene	0.50	0.52	mg/L	104	SW846 8260A
1,4-Dichlorobenzene	0.50	0.53	mg/L	107	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(86 - 115)
Toluene-d8	96	(88 - 110)
Dibromofluoromethane	104	(86 - 118)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #....: I8B150103

Matrix.....: SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Corrosivity	9.0	9.2	No Units	101	SW846 9045A	02/16/98	8047188
Work Order #: CFDLG101 LCS Lot-Sample#: I8B160000-188							
Dilution Factor: 1							
Analysis Time...: 14:00							
Flashpoint	81	81	deg F	100	SW846 1010	02/15-02/16/98	8047152
Work Order #: CFDMP101 LCS Lot-Sample#: I8B160000-152							
Dilution Factor: 1							
Analysis Time...: 10:00							
Reactive Cyanide	40	2.9	mg/L	7.3	SW846 7.3.3	02/16-02/17/98	8047136
Work Order #: CFDE0102 LCS Lot-Sample#: I8B160000-136							
Dilution Factor: 1							
Analysis Time...: 16:00							
Total Recoverable Petroleum Hydrocarbons	250	210	mg/kg	86	MCAWW 418.1	02/24-02/25/98	8055155
Work Order #: CFH8D102 LCS Lot-Sample#: I8B240000-155							
Dilution Factor: 1							
Analysis Time...: 00:00							
Total Recoverable Petroleum Hydrocarbons	250	230	mg/kg	91	MCAWW 418.1	03/01-03/03/98	8061186
Work Order #: CFLG2102 LCS Lot-Sample#: I8C020000-186							
Dilution Factor: 1							
Analysis Time...: 13:00							

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #....: I8B150103

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Corrosivity	9.0	9.2	No Units	101	SW846 9045A	02/16/98	8047188
Work Order #: CFDLG101 LCS Lot-Sample#: I8B160000-188 Dilution Factor: 1 Analysis Time...: 14:00							
Flashpoint	81	81	deg F	100	SW846 1010	02/15-02/16/98	8047152
Work Order #: CFDMP101 LCS Lot-Sample#: I8B160000-152 Dilution Factor: 1 Analysis Time...: 10:00							
Reactive Cyanide	40	2.9	mg/L	7.3	SW846 7.3.3	02/16-02/17/98	8047136
Work Order #: CFDE0102 LCS Lot-Sample#: I8B160000-136 Dilution Factor: 1 Analysis Time...: 16:00							
Total Recoverable Petroleum Hydrocarbons	250	210	mg/kg	86	MCAWW 418.1	02/24-02/25/98	8055155
Work Order #: CFH8D102 LCS Lot-Sample#: I8B240000-155 Dilution Factor: 1 Analysis Time...: 00:00							
Total Recoverable Petroleum Hydrocarbons	250	230	mg/kg	91	MCAWW 418.1	03/01-03/03/98	8061186
Work Order #: CFLG2102 LCS Lot-Sample#: I8C020000-186 Dilution Factor: 1 Analysis Time...: 13:00							

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

TCLP Metals

Client Lot #....: I8B150103

Matrix.....: SOLID

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCNT RECVRY</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: I8B180000-226 Prep Batch #....: 8049226							
Barium	2.0	2.0	mg/L	100	SW846 6010A	02/18-02/19/98	CFETA101
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Cadmium	0.050	0.054	mg/L	109	SW846 6010A	02/18-02/19/98	CFETA102
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Chromium	0.20	0.20	mg/L	101	SW846 6010A	02/18-02/19/98	CFETA103
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Lead	0.50	0.46	mg/L	93	SW846 6010A	02/18-02/19/98	CFETA104
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Selenium	2.0	1.9	mg/L	94	SW846 6010A	02/18-02/19/98	CFETA105
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Silver	0.050	0.046	mg/L	93	SW846 6010A	02/18-02/19/98	CFETA106
			Dilution Factor: 1				
			Analysis Time...: 14:20				
Arsenic	2.0	2.0	mg/L	100	SW846 6010A	02/18-02/19/98	CFETA107
			Dilution Factor: 1				
			Analysis Time...: 14:20				
LCS Lot-Sample#: I8B200000-213 Prep Batch #....: 8051213							
Mercury	0.0050	0.0049	mg/L	99	SW846 7470A	02/20-02/24/98	CFG8X101
			Dilution Factor: 1				
			Analysis Time...: 08:51				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #....: I8B150103 Work Order #....: CFETD101 Matrix.....: SOLID
 LCS Lot-Sample#: I8B180000-233
 Prep Date.....: 02/18/98 Analysis Date...: 02/26/98
 Prep Batch #....: 8049233 Analysis Time...: 13:16
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Pyridine	45	(1.0- 144)	SW846 8270B
1,4-Dichlorobenzene	63	(26 - 112)	SW846 8270B
o-Cresol	84	(21 - 137)	SW846 8270B
m-Cresol & p-Cresol	87	(19 - 126)	SW846 8270B
Hexachloroethane	64	(26 - 102)	SW846 8270B
Nitrobenzene	76	(42 - 120)	SW846 8270B
Hexachlorobutadiene	60	(33 - 111)	SW846 8270B
2,4,6-Trichlorophenol	67	(19 - 122)	SW846 8270B
2,4,5-Trichlorophenol	67	(29 - 123)	SW846 8270B
2,4-Dinitrotoluene	70	(31 - 106)	SW846 8270B
Hexachlorobenzene	88	(42 - 120)	SW846 8270B
Pentachlorophenol	87	(12 - 156)	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(21 - 100)
Phenol-d5	93	(10 - 94)
Nitrobenzene-d5	74	(35 - 114)
2-Fluorobiphenyl	61	(43 - 116)
2,4,6-Tribromophenol	78	(10 - 123)
Terphenyl-d14	104	(33 - 141)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I8B150103 Work Order #...: CFLX7102 Matrix.....: SOLID
LCS Lot-Sample#: I8C030000-161
Prep Date.....: 02/27/98 Analysis Date...: 02/27/98
Prep Batch #...: 8062161 Analysis Time...: 17:52
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	142	(1.0- 251)	SW846 8260A
1,1-Dichloroethylene	129	(59 - 155)	SW846 8260A
Chloroform	100	(51 - 136)	SW846 8260A
1,2-Dichloroethane	94	(49 - 155)	SW846 8260A
Methyl ethyl ketone	27	(25 - 250)	SW846 8260A
Carbon tetrachloride	113	(71 - 240)	SW846 8260A
Trichloroethylene	104	(71 - 157)	SW846 8260A
Benzene	101	(37 - 151)	SW846 8260A
Tetrachloroethylene	112	(46 - 157)	SW846 8260A
Chlorobenzene	104	(37 - 160)	SW846 8260A
1,4-Dichlorobenzene	107	(75 - 137)	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	91	(86 - 115)
Toluene-d8	96	(88 - 110)
Dibromofluoromethane	104	(86 - 118)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT
General Chemistry
Client Lot #...: I8B150103
Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Corrosivity	101	Work Order #: CFDLG101 (90 - 110)	LCS Lot-Sample#: I8B160000-188 SW846 9045A	02/16/98	8047188
Dilution Factor: 1 Analysis Time...: 14:00					
Flashpoint	100	Work Order #: CFDMP101 (95 - 105)	LCS Lot-Sample#: I8B160000-152 SW846 1010	02/15-02/16/98	8047152
Dilution Factor: 1 Analysis Time...: 10:00					
Reactive Cyanide	7.3	Work Order #: CFDE0102 (1.0- 64)	LCS Lot-Sample#: I8B160000-136 SW846 7.3.3	02/16-02/17/98	8047136
Dilution Factor: 1 Analysis Time...: 16:00					
Total Recoverable Petroleum Hydrocarbons	86	Work Order #: CFH8D102 (70 - 130)	LCS Lot-Sample#: I8B240000-155 MCAWW 418.1	02/24-02/25/98	8055155
Dilution Factor: 1 Analysis Time...: 00:00					
Total Recoverable Petroleum Hydrocarbons	91	Work Order #: CFLG2102 (70 - 130)	LCS Lot-Sample#: I8C020000-186 MCAWW 418.1	03/01-03/03/98	8061186
Dilution Factor: 1 Analysis Time...: 13:00					

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT
General Chemistry
Client Lot #...: I8B150103

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>PREP BATCH #</u>
Corrosivity	101	Work Order #: CFDLG101 (90 - 110)	LCS Lot-Sample#: I8B160000-188 SW846 9045A	02/16/98	8047188
Dilution Factor: 1 Analysis Time...: 14:00					
Flashpoint	100	Work Order #: CFDMP101 (95 - 105)	LCS Lot-Sample#: I8B160000-152 SW846 1010	02/15-02/16/98	8047152
Dilution Factor: 1 Analysis Time...: 10:00					
Reactive Cyanide	7.3	Work Order #: CFDE0102 (1.0- 64)	LCS Lot-Sample#: I8B160000-136 SW846 7.3.3	02/16-02/17/98	8047136
Dilution Factor: 1 Analysis Time...: 16:00					
Total Recoverable Petroleum Hydrocarbons	86	Work Order #: CFH8D102 (70 - 130)	LCS Lot-Sample#: I8B240000-155 MCAWW 418.1	02/24-02/25/98	8055155
Dilution Factor: 1 Analysis Time...: 00:00					
Total Recoverable Petroleum Hydrocarbons	91	Work Order #: CFLG2102 (70 - 130)	LCS Lot-Sample#: I8C020000-186 MCAWW 418.1	03/01-03/03/98	8061186
Dilution Factor: 1 Analysis Time...: 13:00					

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #....: I8B150103

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
LCS Lot-Sample#: I8B180000-226 Prep Batch #....: 8049226					
Barium	100	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA101
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Cadmium	109	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA102
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Chromium	101	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA103
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Lead	93	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA104
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Selenium	94	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA105
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Silver	93	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA106
		Dilution Factor: 1			
		Analysis Time...: 14:20			
Arsenic	100	(80 - 120)	SW846 6010A	02/18-02/19/98	CFETA107
		Dilution Factor: 1			
		Analysis Time...: 14:20			
LCS Lot-Sample#: I8B200000-213 Prep Batch #....: 8051213					
Mercury	99	(80 - 120)	SW846 7470A	02/20-02/24/98	CFG8X101
		Dilution Factor: 1			
		Analysis Time...: 08:51			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

Client Lot #....: I8B150103

Matrix.....: SOLID

Date Sampled....: 02/13/98 09:00 **Date Received...:** 02/13/98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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MS Lot-Sample #: I8B150103-001 **Prep Batch #....:** 8049226

Leach Date.....: 02/16/98 **Leach Batch #...:** P804704

Silver

ND	1.0	0.99	mg/L	99			SW846 6010A	02/18-02/19/98	CFDA210W
ND	1.0	1.0	mg/L	101	1.4		SW846 6010A	02/18-02/19/98	CFDA210X
Dilution Factor: 1									
Analysis Time... 14:27									

Arsenic

ND	5.0	4.9	mg/L	98			SW846 6010A	02/18-02/19/98	CFDA2110
ND	5.0	4.9	mg/L	98	0.32		SW846 6010A	02/18-02/19/98	CFDA2111
Dilution Factor: 1									
Analysis Time... 14:27									

Barium

ND	50.0	53.2	mg/L	101			SW846 6010A	02/18-02/19/98	CFDA210K
ND	50.0	53.7	mg/L	102	1.0		SW846 6010A	02/18-02/19/98	CFDA210L
Dilution Factor: 1									
Analysis Time... 14:27									

Cadmium

ND	1.0	0.92	mg/L	91			SW846 6010A	02/18-02/19/98	CFDA210M
ND	1.0	0.93	mg/L	92	1.0		SW846 6010A	02/18-02/19/98	CFDA210N
Dilution Factor: 1									
Analysis Time... 14:27									

Chromium

ND	5.0	4.8	mg/L	96			SW846 6010A	02/18-02/19/98	CFDA210P
ND	5.0	4.9	mg/L	97	0.82		SW846 6010A	02/18-02/19/98	CFDA210Q
Dilution Factor: 1									
Analysis Time... 14:27									

Lead

ND	5.0	4.5	mg/L	91			SW846 6010A	02/18-02/19/98	CFDA210R
ND	5.0	4.6	mg/L	92	0.70		SW846 6010A	02/18-02/19/98	CFDA210T
Dilution Factor: 1									
Analysis Time... 14:27									

Selenium

ND	1.0	0.90	mg/L	90			SW846 6010A	02/18-02/19/98	CFDA210U
ND	1.0	0.91	mg/L	91	1.5		SW846 6010A	02/18-02/19/98	CFDA210V
Dilution Factor: 1									
Analysis Time... 14:27									

MS Lot-Sample #: I8B150103-001 **Prep Batch #....:** 8051213

Leach Date.....: 02/16/98 **Leach Batch #...:** P804704

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: I8B150103

Matrix.....: SOLID

Date Sampled...: 02/13/98 09:00 Date Received...: 02/13/98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Mercury	ND	0.001	0.00089	mg/L	89		SW846 7470A	02/20-02/24/98	CFDA2114
	ND	0.001	0.00081	mg/L	81	9.4	SW846 7470A	02/20-02/24/98	CFDA2115

Dilution Factor: 1

Analysis Time...: 09:00

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

TCLP GC/MS Semivolatiles

Client Lot #....: I8B150103 Work Order #....: CFDA2112-MS Matrix.....: SOLID
 MS Lot-Sample #: I8B150103-001 CFDA2113-MSD
 Date Sampled....: 02/12/98 10:15 Date Received...: 02/14/98
 Leach Date.....: 02/16/98 Prep Date.....: 02/18/98 Analysis Date...: 02/26/98
 Leach Batch #...: P804704 Prep Batch #....: 8049233 Analysis Time...: 15:19
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
o-Cresol	ND	0.40	0.30	mg/L	76		SW846 8270B
	ND	0.40	0.30	mg/L	75	1.8	SW846 8270B
m-Cresol & p-Cresol	ND	0.80	0.64	mg/L	80		SW846 8270B
	ND	0.80	0.63	mg/L	78	2.0	SW846 8270B
1,4-Dichlorobenzene	ND	0.40	0.23	mg/L	56		SW846 8270B
	ND	0.40	0.23	mg/L	57	1.3	SW846 8270B
2,4-Dinitrotoluene	ND	0.40	0.29	mg/L	72		SW846 8270B
	ND	0.40	0.31	mg/L	79	8.2	SW846 8270B
Hexachlorobenzene	ND	0.40	0.21	mg/L	53		SW846 8270B
	ND	0.40	0.22	mg/L	55	5.0	SW846 8270B
Hexachlorobutadiene	ND	0.40	0.23	mg/L	57		SW846 8270B
	ND	0.40	0.24	mg/L	59	3.6	SW846 8270B
Hexachloroethane	ND	0.40	0.24	mg/L	59		SW846 8270B
	ND	0.40	0.25	mg/L	62	4.0	SW846 8270B
Nitrobenzene	ND	0.40	0.28	mg/L	70		SW846 8270B
	ND	0.40	0.29	mg/L	73	4.2	SW846 8270B
Pentachlorophenol	ND	0.40	0.27	mg/L	68		SW846 8270B
	ND	0.40	0.28	mg/L	71	4.4	SW846 8270B
Pyridine	ND	0.40	0.29	mg/L	72		SW846 8270B
	ND	0.40	0.30	mg/L	76	5.0	SW846 8270B
2,4,5-Trichlorophenol	ND	0.40	0.30	mg/L	74		SW846 8270B
	ND	0.40	0.32	mg/L	79	7.0	SW846 8270B
2,4,6-Trichlorophenol	ND	0.40	0.28	mg/L	69		SW846 8270B
	ND	0.40	0.28	mg/L	70	2.0	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	71	(21 - 100)
	71	(21 - 100)
Phenol-d5	83	(10 - 94)
	87	(10 - 94)
Nitrobenzene-d5	67	(35 - 114)
	70	(35 - 114)
2-Fluorobiphenyl	57	(43 - 116)
	55	(43 - 116)
2,4,6-Tribromophenol	67	(10 - 123)
	71	(10 - 123)
Terphenyl-d14	64	(33 - 141)
	50	(33 - 141)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

TCLP GC/MS Volatiles

Client Lot #....: I8B150103 Work Order #....: CFFV210E-MS Matrix.....: SOLID
 MS Lot-Sample #: I8B200120-002 CFFV210F-MSD
 Date Sampled...: 02/19/98 10:30 Date Received...: 02/20/98
 Leach Date.....: 02/23/98 Prep Date.....: 02/27/98 Analysis Date...: 02/27/98
 Leach Batch #...: P805602 Prep Batch #....: 8062161 Analysis Time...: 19:00
 Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Vinyl chloride	ND	0.50	0.68	mg/L	136		SW846 8260A
	ND	0.50	0.70	mg/L	140	2.8	SW846 8260A
1,1-Dichloroethylene	ND	0.50	0.50	mg/L	100		SW846 8260A
	ND	0.50	0.55	mg/L	110	9.0	SW846 8260A
Chloroform	ND	0.50	0.48	mg/L	96		SW846 8260A
	ND	0.50	0.48	mg/L	95	0.20	SW846 8260A
1,2-Dichloroethane	ND	0.50	0.46	mg/L	91		SW846 8260A
	ND	0.50	0.47	mg/L	94	2.5	SW846 8260A
Methyl ethyl ketone	ND	0.50	0.13	mg/L	26		SW846 8260A
	ND	0.50	0.15	mg/L	30	14	SW846 8260A
Carbon tetrachloride	ND	0.50	0.53	mg/L	106		SW846 8260A
	ND	0.50	0.55	mg/L	110	4.0	SW846 8260A
Trichloroethylene	ND	0.50	0.52	mg/L	104		SW846 8260A
	ND	0.50	0.53	mg/L	106	2.7	SW846 8260A
Benzene	ND	0.50	0.48	mg/L	96		SW846 8260A
	ND	0.50	0.50	mg/L	99	3.2	SW846 8260A
Tetrachloroethylene	ND	0.50	0.59	mg/L	119		SW846 8260A
	ND	0.50	0.55	mg/L	110	7.8	SW846 8260A
Chlorobenzene	ND	0.50	0.52	mg/L	103		SW846 8260A
	ND	0.50	0.52	mg/L	105	1.2	SW846 8260A
1,4-Dichlorobenzene	ND	0.50	0.52	mg/L	103		SW846 8260A
	ND	0.50	0.53	mg/L	105	1.6	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	90	(86 - 115)
	93	(86 - 115)
Toluene-d8	103	(88 - 110)
	95	(88 - 110)
Dibromofluoromethane	102	(86 - 118)
	101	(86 - 118)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT
General Chemistry
Client Lot #...: I8B150103

Matrix.....: SOLID

Date Sampled...: 02/13/98 09:00 **Date Received...**: 02/13/98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide			WO#: CFD2Q10K-MS/CFD2Q10L-MSD				MS Lot-Sample #	I8B140105-001	
ND	40	0.20	N mg/kg	0.51		SW846 7.3.3	02/16-02/17/98	8047136	
ND	40	0.20	N mg/kg	0.49	4.0	SW846 7.3.3	02/16-02/17/98	8047136	

Dilution Factor: 1

Analysis Time...: 16:00

Total Recoverable			WO#: CFDA310K-MS/CFDA310L-MSD				MS Lot-Sample #	I8B150103-002
Petroleum Hydrocarbons								
110	270	270	N mg/kg	57		MCAWW 418.1	02/24-02/25/98	8055155
110	270	200	N mg/kg	32	29	MCAWW 418.1	02/24-02/25/98	8055155

Dilution Factor: 1

Analysis Time...: 13:00

Total Recoverable			WO#: CFDA510K-MS/CFDA510L-MSD				MS Lot-Sample #	I8B150103-004
Petroleum Hydrocarbons								
550000	520	480000	NC mg/kg			MCAWW 418.1	03/01-03/03/98	8061186
550000	520	540000	NC mg/kg			MCAWW 418.1	03/01-03/03/98	8061186

Dilution Factor: 1

Analysis Time...: 10:00

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.

MATRIX SPIKE SAMPLE DATA REPORT
General Chemistry
Client Lot #... I8B150103

Matrix..... SOLID

Date Sampled... 02/13/98 09:00 **Date Received...** 02/13/98

PARAMETER	AMOUNT	SAMPLE SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECVRY	RPD	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide			WO#: CFD2Q10K-MS/CFD2Q10L-MSD				MS Lot-Sample #:	I8B140105-001	
ND	40	0.20	N mg/kg	0.51		SW846 7.3.3	02/16-02/17/98	8047136	
ND	40	0.20	N mg/kg	0.49	4.0	SW846 7.3.3	02/16-02/17/98	8047136	

Dilution Factor: 1

Analysis Time... 16:00

Total Recoverable WO#: CFDA310K-MS/CFDA310L-MSD MS Lot-Sample #: I8B150103-002

Petroleum Hydrocarbons

110	270	270	N mg/kg	57		MCAWW 418.1	02/24-02/25/98	8055155
110	270	200	N mg/kg	32	29	MCAWW 418.1	02/24-02/25/98	8055155

Dilution Factor: 1

Analysis Time... 13:00

Total Recoverable WO#: CFDA510K-MS/CFDA510L-MSD MS Lot-Sample #: I8B150103-004

Petroleum Hydrocarbons

550000	520	480000	NC mg/kg			MCAWW 418.1	03/01-03/03/98	8061186
550000	520	540000	NC mg/kg			MCAWW 418.1	03/01-03/03/98	8061186

Dilution Factor: 1

Analysis Time... 10:00

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #....: I8B150103

Matrix.....: SOLID

Date Sampled....: 02/13/98 09:00 **Date Received...:** 02/13/98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: I8B150103-001 Prep Batch #....: 8049226							
Leach Date.....: 02/16/98 Leach Batch #....: P804704							
Silver	99	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210W
	101	(80 - 120)	1.4	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210X
Dilution Factor: 1							
Analysis Time...: 14:27							
Arsenic	98	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA2110
	98	(80 - 120)	0.32	(0-20)	SW846 6010A	02/18-02/19/98	CFDA2111
Dilution Factor: 1							
Analysis Time...: 14:27							
Barium	101	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210K
	102	(80 - 120)	1.0	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210L
Dilution Factor: 1							
Analysis Time...: 14:27							
Cadmium	91	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210M
	92	(80 - 120)	1.0	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210N
Dilution Factor: 1							
Analysis Time...: 14:27							
Chromium	96	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210P
	97	(80 - 120)	0.82	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210Q
Dilution Factor: 1							
Analysis Time...: 14:27							
Lead	91	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210R
	92	(80 - 120)	0.70	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210T
Dilution Factor: 1							
Analysis Time...: 14:27							
Selenium	90	(80 - 120)			SW846 6010A	02/18-02/19/98	CFDA210U
	91	(80 - 120)	1.5	(0-20)	SW846 6010A	02/18-02/19/98	CFDA210V
Dilution Factor: 1							
Analysis Time...: 14:27							

MS Lot-Sample #: I8B150103-001 **Prep Batch #....:** 8051213

Leach Date.....: 02/16/98 **Leach Batch #....:** P804704

Mercury	89	(75 - 125)			SW846 7470A	02/20-02/24/98	CFDA2114
	81	(75 - 125)	9.4	(0-20)	SW846 7470A	02/20-02/24/98	CFDA2115
Dilution Factor: 1							
Analysis Time...: 09:00							

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Semivolatiles

Client Lot #...: I8B150103 Work Order #...: CFDA2112-MS Matrix.....: SOLID
MS Lot-Sample #: I8B150103-001 CFDA2113-MSD
Date Sampled...: 02/12/98 10:15 Date Received...: 02/14/98
Leach Date.....: 02/16/98 Prep Date.....: 02/18/98 Analysis Date...: 02/26/98
Leach Batch #...: P804704 Prep Batch #...: 8049233 Analysis Time...: 15:19
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
o-Cresol	76	(21 - 137)			SW846 8270B
	75	(21 - 137)	1.8	(0-70)	SW846 8270B
m-Cresol & p-Cresol	80	(19 - 126)			SW846 8270B
	78	(19 - 126)	2.0	(0-94)	SW846 8270B
1,4-Dichlorobenzene	56	(26 - 112)			SW846 8270B
	57	(26 - 112)	1.3	(0-40)	SW846 8270B
2,4-Dinitrotoluene	72	(31 - 106)			SW846 8270B
	79	(31 - 106)	8.2	(0-55)	SW846 8270B
Hexachlorobenzene	53	(42 - 120)			SW846 8270B
	55	(42 - 120)	5.0	(0-39)	SW846 8270B
Hexachlorobutadiene	57	(33 - 111)			SW846 8270B
	59	(33 - 111)	3.6	(0-40)	SW846 8270B
Hexachloroethane	59	(26 - 102)			SW846 8270B
	62	(26 - 102)	4.0	(0-44)	SW846 8270B
Nitrobenzene	70	(42 - 120)			SW846 8270B
	73	(42 - 120)	4.2	(0-40)	SW846 8270B
Pentachlorophenol	68	(12 - 156)			SW846 8270B
	71	(12 - 156)	4.4	(0-76)	SW846 8270B
Pyridine	72	(1.0- 144)			SW846 8270B
	76	(1.0- 144)	5.0	(0-95)	SW846 8270B
2,4,5-Trichlorophenol	74	(29 - 123)			SW846 8270B
	79	(29 - 123)	7.0	(0-63)	SW846 8270B
2,4,6-Trichlorophenol	69	(19 - 122)			SW846 8270B
	70	(19 - 122)	2.0	(0-64)	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	71	(21 - 100)
	71	(21 - 100)
Phenol-d5	83	(10 - 94)
	87	(10 - 94)
Nitrobenzene-d5	67	(35 - 114)
	70	(35 - 114)
2-Fluorobiphenyl	57	(43 - 116)
	55	(43 - 116)
2,4,6-Tribromophenol	67	(10 - 123)
	71	(10 - 123)
Terphenyl-d14	64	(33 - 141)
	50	(33 - 141)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Volatiles

Client Lot #...: I8B150103 Work Order #...: CFFV210E-MS Matrix.....: SOLID
 MS Lot-Sample #: I8B200120-002 CFFV210F-MSD
 Date Sampled...: 02/19/98 10:30 Date Received...: 02/20/98
 Leach Date.....: 02/23/98 Prep Date.....: 02/27/98 Analysis Date...: 02/27/98
 Leach Batch #...: P805602 Prep Batch #...: 8062161 Analysis Time...: 19:00
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Vinyl chloride	136	(1.0- 251)			SW846 8260A
	140	(1.0- 251)	2.8	(0-30)	SW846 8260A
1,1-Dichloroethylene	100	(59 - 155)			SW846 8260A
	110	(59 - 155)	9.0	(0-30)	SW846 8260A
Chloroform	96	(51 - 136)			SW846 8260A
	95	(51 - 136)	0.20	(0-30)	SW846 8260A
1,2-Dichloroethane	91	(49 - 155)			SW846 8260A
	94	(49 - 155)	2.5	(0-30)	SW846 8260A
Methyl ethyl ketone	26	(25 - 250)			SW846 8260A
	30	(25 - 250)	14	(0-30)	SW846 8260A
Carbon tetrachloride	106	(71 - 240)			SW846 8260A
	110	(71 - 240)	4.0	(0-30)	SW846 8260A
Trichloroethylene	104	(71 - 157)			SW846 8260A
	106	(71 - 157)	2.7	(0-30)	SW846 8260A
Benzene	96	(37 - 151)			SW846 8260A
	99	(37 - 151)	3.2	(0-30)	SW846 8260A
Tetrachloroethylene	119	(46 - 157)			SW846 8260A
	110	(46 - 157)	7.8	(0-30)	SW846 8260A
Chlorobenzene	103	(37 - 160)			SW846 8260A
	105	(37 - 160)	1.2	(0-30)	SW846 8260A
1,4-Dichlorobenzene	103	(75 - 137)			SW846 8260A
	105	(75 - 137)	1.6	(0-30)	SW846 8260A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	90	(86 - 115)
	93	(86 - 115)
Toluene-d8	103	(88 - 110)
	95	(88 - 110)
Dibromofluoromethane	102	(86 - 118)
	101	(86 - 118)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT
General Chemistry
Client Lot #...: I8B150103

Matrix.....: SOLID

Date Sampled...: 02/13/98 09:00 **Date Received...**: 02/13/98

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS</u>	<u>PREP DATE</u>	<u>BATCH #</u>
Reactive Cyanide			WO#:	CFD2Q10K-MS/CFD2Q10L-MSD	MS Lot-Sample #:	I8B140105-001		
	0.51 N	(1.0 - 64)			SW846 7.3.3	02/16-02/17/98	8047136	
	0.49 N	(1.0 - 64)	4.0	(0-213)	SW846 7.3.3	02/16-02/17/98	8047136	

Dilution Factor: 1

Analysis Time...: 16:00

Total Recoverable			WO#:	CFDA310K-MS/CFDA310L-MSD	MS Lot-Sample #:	I8B150103-002
Petroleum Hydrocarbons						

57 N	(70 - 130)		MCAWW	418.1	02/24-02/25/98	8055155
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32 N	(70 - 130)	29	(0-30)	MCAWW	418.1	02/24-02/25/98 8055155
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Dilution Factor: 1

Analysis Time...: 13:00

Total Recoverable			WO#:	CFDA510K-MS/CFDA510L-MSD	MS Lot-Sample #:	I8B150103-004
Petroleum Hydrocarbons						

NC	(70 - 130)		MCAWW	418.1	03/01-03/03/98	8061186
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NC	(70 - 130)		(0-30)	MCAWW	418.1	03/01-03/03/98 8061186
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Dilution Factor: 1

Analysis Time...: 10:00

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I8B150103

Matrix.....: SOLID

Date Sampled...: 02/13/98 09:00 Date Received...: 02/13/98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide			WO#:	CFD2Q10K-MS/CFD2Q10L-MSD	MS Lot-Sample #:	I8B140105-001	
	0.51 N	(1.0 - 64)			SW846 7.3.3	02/16-02/17/98	8047136
	0.49 N	(1.0 - 64)	4.0	(0-213)	SW846 7.3.3	02/16-02/17/98	8047136
			Dilution Factor: 1				
			Analysis Time...: 16:00				

Total Recoverable			WO#:	CFDA310K-MS/CFDA310L-MSD	MS Lot-Sample #:	I8B150103-002	
Petroleum Hydrocarbons							
	57 N	(70 - 130)			MCAWW 418.1	02/24-02/25/98	8055155
	32 N	(70 - 130)	29	(0-30)	MCAWW 418.1	02/24-02/25/98	8055155
			Dilution Factor: 1				
			Analysis Time...: 13:00				

Total Recoverable			WO#:	CFDA510K-MS/CFDA510L-MSD	MS Lot-Sample #:	I8B150103-004	
Petroleum Hydrocarbons							
	NC	(70 - 130)			MCAWW 418.1	03/01-03/03/98	8061186
	NC	(70 - 130)		(0-30)	MCAWW 418.1	03/01-03/03/98	8061186
			Dilution Factor: 1				
			Analysis Time...: 10:00				

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: I8B150103 **Work Order #....:** CFD2Q-SMP **Matrix.....:** SOLID

CFD2Q-DUP

Date Sampled....: 02/13/98 09:00 **Date Received...:** 02/13/98

% Moisture.....: 0.0

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Reactive Cyanide	ND	ND	mg/kg	0	(0-213)	SW846 7.3.3	SD Lot-Sample #: I8B140105-001 02/16-02/17/98	8047136
Dilution Factor: 1								
Analysis Time...: 16:00								

Reactive Sulfide	ND	ND	mg/kg	0	(0-20)	SW846 7.3.4	SD Lot-Sample #: I8B140105-001 02/16/98/17/98	8047137
Dilution Factor: 1								
Analysis Time...: 00:00								

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #....: I8B150103

Work Order #....: CFD2Q-SMP
CFD2Q-DUP

Matrix.....: SOLID

Date Sampled....: 02/13/98 09:00 Date Received...: 02/13/98

% Moisture.....: 0.0

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION- ANALYSIS DATE	PREP BATCH #
Flashpoint	>150	>150	deg F	0.0	(0-20)	SD Lot-Sample #: I8B140105-001 SW846 1010	02/15-02/16/98	8047152

Dilution Factor: 1

Analysis Time...: 00:00

Corrosivity

6.5 6.4

No Units 0.62 (0-20) SD Lot-Sample #: I8B140105-001

SW846 9045A 02/16/98/16/98 8047188

Dilution Factor: 1

Analysis Time...: 00:00

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
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
(505) 827-7131

Form C-138
Originated 8/8/91

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>BS Services</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>BS YARD</u>
2. Management Facility Destination <u>SUNCO DISPOSAL</u>	6. Transporter <u>SUNCO</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>BS services</u> <u>3450 Southside</u> <u>RIVER ROAD, FARMINGTON</u> <u>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:

Liquid From ACID waste tank

RECEIVED
MAR - 8 1998
OIL CON. DIV.
DIST. 3

Sent to AZtec 3-11-98

Estimated Volume 100 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael Talovich TITLE: Manager DATE: 3-6-98
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. Faust TITLE: Geologist DATE: 3/9/98
APPROVED BY: Martyn J. Kirby TITLE: Env Geologist DATE: 3/11/98

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

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Originated 8/8/95

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to appropriate
District Office

Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>BS Services</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>BS YARD</u>
2. Management Facility Destination <u>SUNCO DISPOSAL</u>	6. Transporter <u>SUNCO</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>BS SERVICES</u> <u>3250 S. ALBUQUERQUE</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.	<u>RIVER ROAD, FARMINGTON</u> <u>NM</u>

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

BRIEF DESCRIPTION OF MATERIAL:

Liquid From ACID waste tank

RECEIVED
MAR - 8 1998
OIL CON. DIV.
DIST. 3

Sent to Aztec 3-11-98

Estimated Volume 100 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael P. Talovich TITLE: Manager DATE: 3-6-98
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. Faust TITLE: Geologist DATE: 3/9/98
APPROVED BY: Martyn G. Kirby TITLE: Env Geologist DATE: 3/11/98

District I - (505) 399-6161
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
Alamogordo, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
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Santa Fe, New Mexico 87505
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Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>BS Services</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>BS YARD</u>
2. Management Facility Destination <u>SWED DISPOSAL</u>	6. Transporter <u>SUNCO</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>BS Services</u> <u>3250 Sandstone</u> <u>River Road, Farmington</u> <u>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:

Liquid From Acid Waste Tank

RECEIVED
MAR - 6 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 100 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Michael P. Talovich TITLE: Manager DATE: 3-6-98
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. Faust TITLE: Geologist DATE: 3/9/98
APPROVED BY: Martyn J. Kirby TITLE: Env Geologist DATE: 3/11/98

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
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
(505) 827-7131

Roger Anderson
Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Environmental Bureau

Env JN: 92132

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator <u>Halliburton E.S.</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Main Yard</u>
2. Management Facility Destination <u>Envirotech Soil Remediation Facility Landfarm #2</u>	6. Transporter <u>T.B.A.</u>
3. Address of Facility Operator <u>5796 U.S. Highway 64 Farmington, NM 87401</u>	8. State <u>New Mexico</u>
7. Location of Material (Street Address or ULSTR)	<u>4109 E Main St 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:

Continuation of Wash Bay Solids

TCLP & REAFFIRMATION Statement Attached.

RECEIVED
MAR - 9 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 20 cy. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy.

SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 3.6.98
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. (505) 632-0615

(This space for State Use)

APPROVED BY: Denny D. Fount TITLE: Geologist DATE: 3/9/98
APPROVED BY: Morty J. Kelly TITLE: Env Geologist DATE: 3/11/98

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401	2. Destination Name: Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Solids stabilization pad East side of Main Yard Facility 4109 E. Main Street Farmington, New Mexico
4. Source and Description of Waste Continuation of wash bay solids; mud and related material generated at truck wash bay	

I, E.O. Shannon 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): E.O. Shannon
 Title: MAINT SUP V.
 Date: 03-07-98

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 12-23-98
Printed Name EO SHANNON
Title / Agency MAINT SUPV
Address 4109 E MAIN ST
FARMINGTON NM
Signature EO Shannon
Date 03-02-98

ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	12-29-97
Lab ID#:	C728	Date Sampled:	12-23-97
Sample Matrix:	Soild	Date Received:	12-23-97
Preservative:	Cool	Date Analyzed:	12-23-97
Condition:	Cool & Intact	Chain of Custody:	5698

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

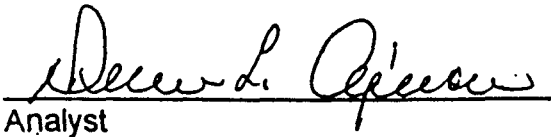
IGNITABILITY:	Negative	
CORROSIVITY:	Negative	8.52
REACTIVITY:	Negative	

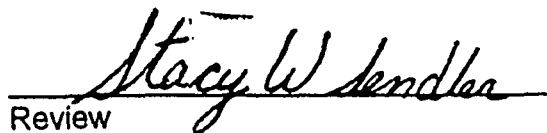
RCRA Hazardous Waste Criteria

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

PA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5898	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
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	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

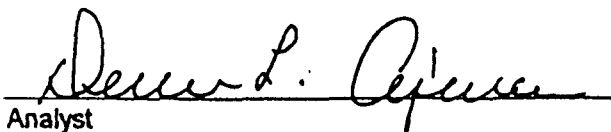
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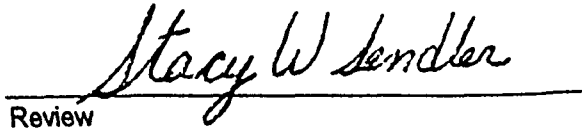
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	100%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5898	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	01-02-98
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	98%

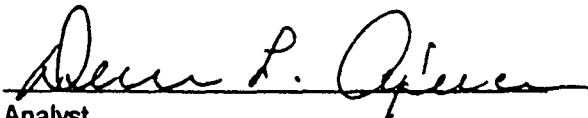
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

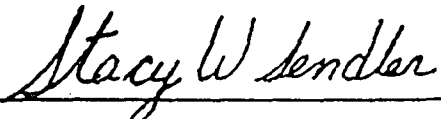
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

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

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5898	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.189	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	0.047	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	0.030	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

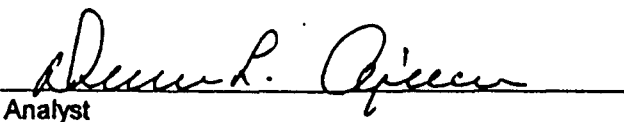
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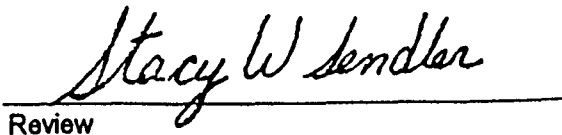
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

**EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS**

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5898	Date Received:	12-23-97
Sample Matrix:	Solid	Date Analyzed:	01-06-98
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.015	0.0001	5.00
Barium	1.62	0.001	100
Cadmium	0.001	0.0001	1.00
Chromium	0.006	0.0001	5.00
Lead	0.051	0.0001	5.00
Mercury	ND	0.0001	0.200
Selenium	ND	0.0001	1.00
Silver	ND	0.0001	5.0

ND - Parameter not detected at the stated detection limit.

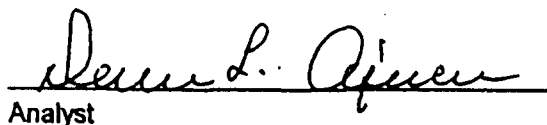
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

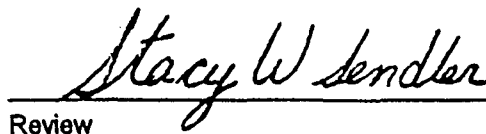
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

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

Comments: Halliburton, East Main St., Farmington, 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:	01-02-98
Laboratory Number:	12-31-TCV.BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
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

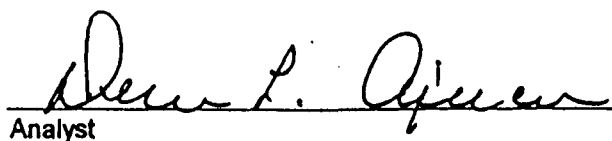
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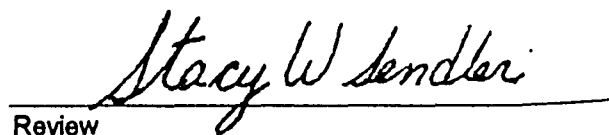
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-02-98
Laboratory Number:	12-23-TCV.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	12-23-97
		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

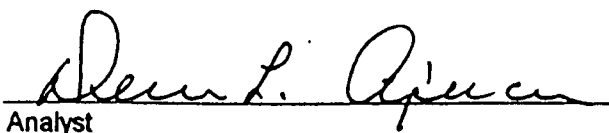
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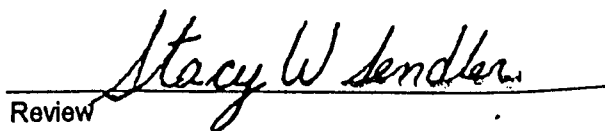
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


Analyst


Review

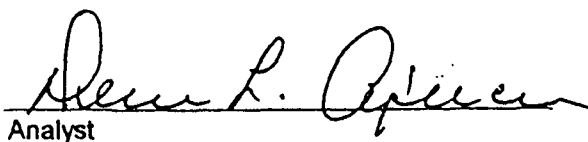
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	Solid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	N/A

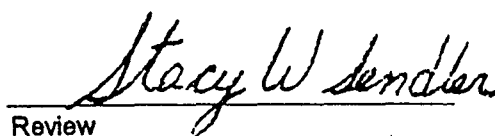
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
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 C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

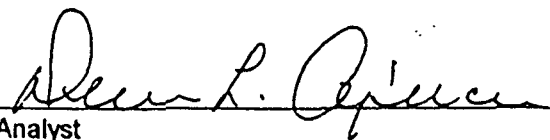
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	Solid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	N/A

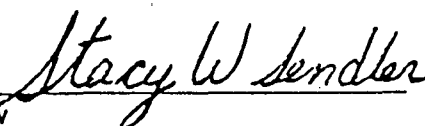
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0502	0.0001	100%	28-163
1,1-Dichloroethene	ND	0.050	0.0491	0.0001	98%	43-143
2-Butanone (MEK)	ND	0.050	0.0489	0.0001	98%	47-132
Chloroform	ND	0.050	0.0489	0.0001	98%	49-133
Carbon Tetrachloride	ND	0.050	0.0493	0.0001	99%	43-143
Benzene	ND	0.050	0.0498	0.0001	96%	39-150
1,2-Dichloroethane	ND	0.050	0.0497	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0492	0.0003	98%	35-146
Tetrachloroethene	ND	0.050	0.0482	0.0005	98%	26-162
Chlorobenzene	ND	0.050	0.0487	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0510	0.0002	101%	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 C728 and C748 - C751.


Analyst


Review

**EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank**

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-02-98
Laboratory Number:	01-02-TCA.BLNK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-02-98
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	101 %
	2,4,6-tribromophenol	99 %

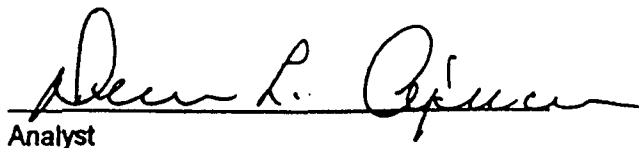
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

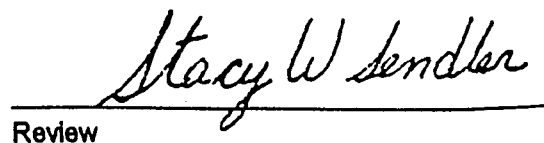
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

**EPA METHOD 8040
PHENOLS
Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	01-02-98
Laboratory Number:	12-23-TCA.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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	98%

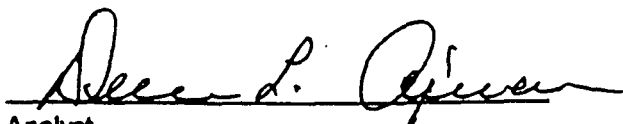
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

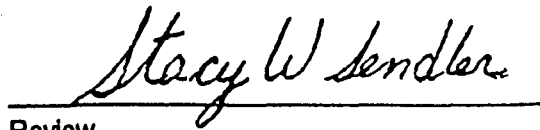
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


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**EPA METHOD 8040
PHENOLS
Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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%

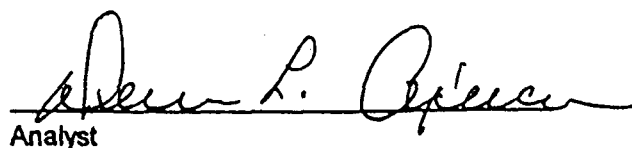
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

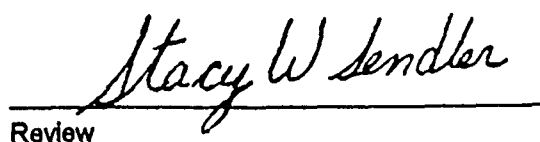
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

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 C728 and C748 - C751.


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: 12-31-TBN.BLANK
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 12-31-97
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

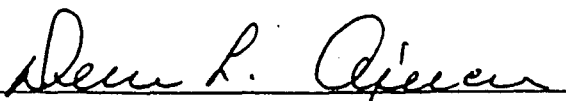
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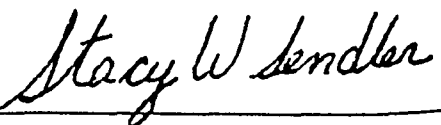
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	100%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TBN.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool and Intact	Date Analyzed:	12-31-97
		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

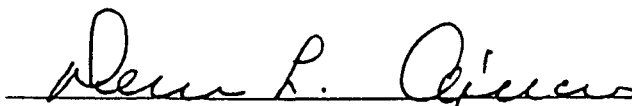
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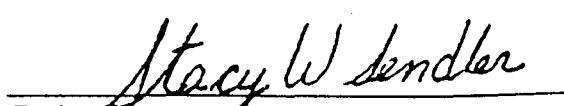
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	101%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	12-31-97
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	0.189	0.192	1.7%	0.020
Hexachloroethane	ND	ND	0.0%	0.020
Nitrobenzene	0.047	0.049	5.4%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	0.030	0.031	2.4%	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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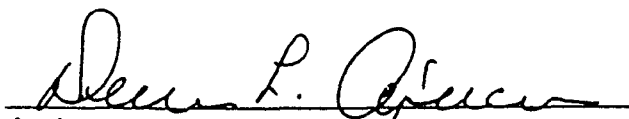
8090 Compounds

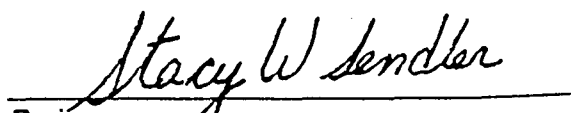
30%

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 C728 and C748 - C751.


Analyst


Review

**EP... METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS**

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	01-08-98
Laboratory Number:	N/A	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-08-98
Condition:	N/A	Date Extracted:	N/A

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	ND	ND	0.0001
Barium	ND	ND	0.001
Cadmium	ND	ND	0.0001
Chromium	ND	ND	0.0001
Lead	ND	ND	0.0001
Mercury	ND	ND	0.0001
Selenium	ND	ND	0.0001
Silver	ND	ND	0.0001

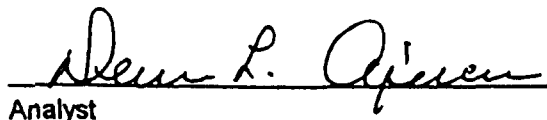
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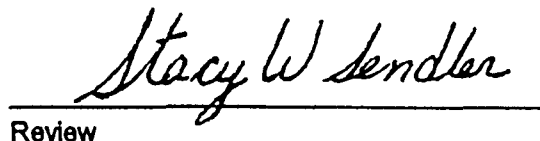
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Arsenic	0.015	0.015	0.0%
Barium	1.62	1.62	0.0%
Cadmium	0.001	0.001	0.0%
Chromium	0.006	0.006	0.0%
Lead	0.051	0.051	0.0%
Mercury	ND	ND	0.0%
Selenium	ND	ND	0.0%
Silver	ND	ND	0.0%

ND - Parameter not detected at the stated detection limit.

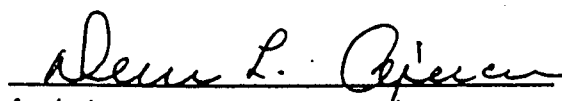
QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Trace Metals	30 %

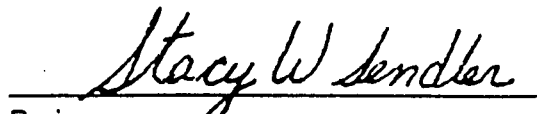
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	0.100	0.015	0.114	99%
Barium	1.00	1.62	2.62	100%
Cadmium	0.050	0.001	0.051	100%
Chromium	0.050	0.006	0.056	100%
Lead	0.100	0.051	0.151	100%
Mercury	0.025	ND	0.025	100%
Selenium	0.100	ND	0.100	100%
Silver	0.050	ND	0.050	100%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
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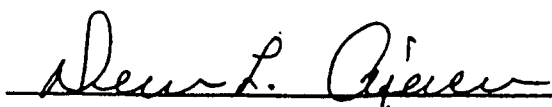
TCLP Metals 80 - 120 %

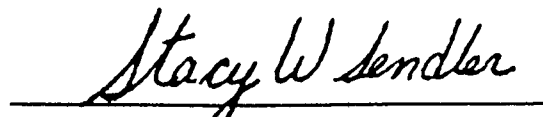
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

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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

Env JN: 96003-31

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator E.P.F.S.
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Chaco Plant.
2. Management Facility Destination Envirotech Soil Remediation Facility Landfarm #2	6. Transporter Dawn Trucking
3. Address of Facility Operator 5796 U.S. Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	SW 4, Sec 16, T26N, R12W, S1C, NMPH.
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:

Sludge from CONTACT WASTE WATER PONDS (natural gas processing plant waste)

TCLP ATTACHED

RECEIVED
FEB - 9 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 100 bbls cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 2-9-98
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. (505) 632-0615

(This space for State Use)

APPROVED BY: Denny G. Feunt TITLE: Geologist DATE: 2/9/98
APPROVED BY: Martyn J. Kelly TITLE: Env Geologist DATE: 2/11/98

RECEIVED FEB 6 1998

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: El Paso Field Services Co. 614 Reilly Avenue Farmington, NM 87401	2. Destination Name: Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): Chaco Plant	Location of Waste(Street address &/or ULSTR): SW/4, Section 16, T26N, R12W, San Juan County, NM
Attach list of originating sites as appropriate	
4. Source and Description of Waste Sludge from contact waste water ponds (natural gas processing plant waste)	

I, David Bays representative for:
(Print Name)

El Paso Field Services Co. 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-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): David Bays

Title: Principal Environmental Scientist

Date: Feb. 4, 1998

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 12, 1998

Mr. John Lambdin
El Paso Field Services
P.O. Box 4990
Farmington, New Mexico 87499

Project No.: 97057

Dear Mr. Lambdin,

Enclosed are the analytical results for the sample collected from the location designated as "Chaco Plant - 'Dawn' Frac Tank". One soil sample identified as EPFS No. 980000 was collected by EPFS personnel on December 31, 1997, and received by the Envirotech laboratory on January 2, 1998 for Hazardous Waste Characterization analysis (Volatiles, Semi-volatiles, Metals, Ignitability, Reactivity and Corrosivity).

The sample was documented on Envirotech Chain of Custody No. 4084 and assigned Laboratory No. C773 (EPFS No. 980000) for tracking purposes.

Results of the analysis indicate that the material contained in the sample from the designated location is not a characteristic hazardous waste as defined by 40 CFR, Section 261, Subpart C for the noted compounds.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It is always a pleasure doing business with you.

Respectfully submitted,
Envirotech, Inc.



Stacy W. Sandler
Environmental Scientist/Laboratory Manager

enc.

SWS\slws

97057lb2.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	El Paso Field Service	Project #:	97057
Sample ID:	980000	Date Reported:	01-08-98
Lab ID#:	C773	Date Sampled:	12-31-97
Sample Matrix:	Sludge	Date Received:	01-02-98
Preservative:	Cool	Date Analyzed:	01-06-98
Condition:	Cool & Intact	Chain of Custody:	4084

Parameter	Result
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IGNITABILITY: Negative

CORROSIVITY: Negative 5.59

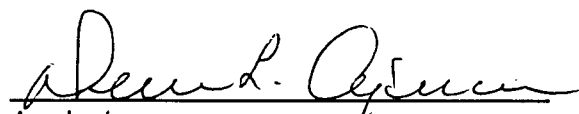
REACTIVITY: Negative

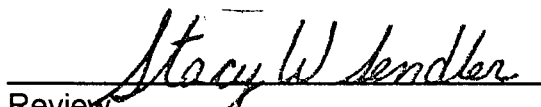
RCRA Hazardous Waste Criteria

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: Chaco Plant, "Dawn" Frac Tank.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	El Paso Field Service	Project #:	97057
Sample ID:	980000	Date Reported:	01-08-98
Laboratory Number:	C773	Date Sampled:	12-31-97
Chain of Custody:	4084	Date Received:	01-02-98
Sample Matrix:	Sludge	Date Extracted:	01-06-98
Preservative:	Cool	Date Analyzed:	01-07-98
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)	0.0251	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

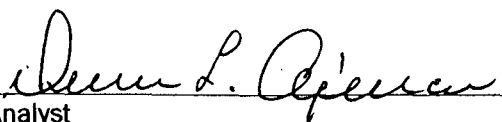
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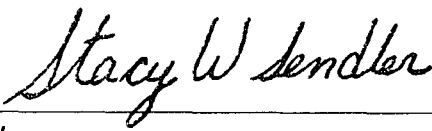
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	96%
	Bromofluorobenzene	100%

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: Chaco Plant, "Dawn" Frac Tank.


Analyst


Review

ENVIROTECH LABS

EPA METHOD 8040 PHENOLS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Client:	El Paso Field Service	Project #:	97057
Sample ID:	980000	Date Reported:	01-09-98
Laboratory Number:	C773	Date Sampled:	12-31-97
Chain of Custody:	4084	Date Received:	01-02-98
Sample Matrix:	Sludge	Date Extracted:	01-06-98
Preservative:	Cool	Date Analyzed:	01-09-98
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	99%
	2,4,6-Tribromophenol	98%

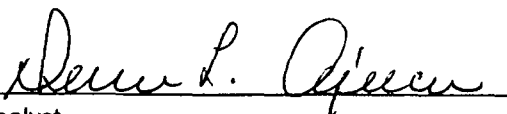
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

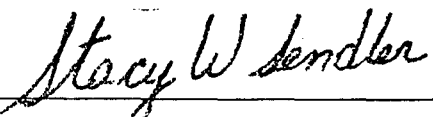
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: Chaco Plant, "Dawn" Frac Tank.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client:	El Paso Field Service	Project #:	97057
Sample ID:	980000	Date Reported:	01-09-98
Laboratory Number:	C773	Date Sampled:	12-31-97
Chain of Custody:	4084	Date Received:	01-02-98
Sample Matrix:	Sludge	Date Extracted:	01-06-98
Preservative:	Cool	Date Analyzed:	01-08-98
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.215	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	0.113	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.

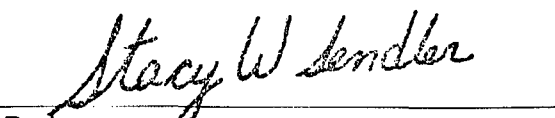
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	100%

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: Chaco Plant, "Dawn" Frac Tank.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	El Paso Field Service	Project #:	97057
Sample ID:	980000	Date Reported:	01-09-98
Laboratory Number:	C773	Date Sampled:	12-31-97
Chain of Custody:	4084	Date Received:	01-02-98
Sample Matrix:	Sludge	Date Analyzed:	01-09-98
Preservative:	Cool	Date Extracted:	01-06-98
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.003	0.0001	5.00
Barium	1.19	0.001	100
Cadmium	ND	0.0001	1.00
Chromium	0.008	0.0001	5.00
Lead	0.028	0.0001	5.00
Mercury	ND	0.0001	0.200
Selenium	ND	0.0001	1.00
Silver	ND	0.0001	5.0

ND - Parameter not detected at the stated detection limit.

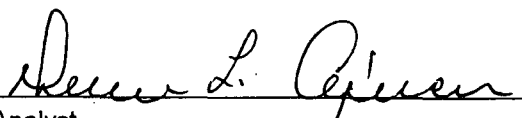
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

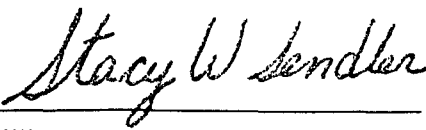
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

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

Comments: Chaco Plant, "Dawn" Frac Tank.


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:	01-08-98
Laboratory Number:	01-07-TCV.BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-07-98
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

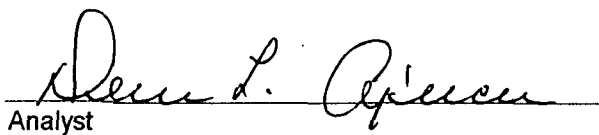
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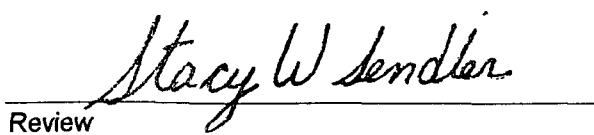
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	96%
	Bromofluorobenzene	98%

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 C773 and C780 - C781.


Analyst


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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:	01-08-98
Laboratory Number:	01-06-TCV.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-07-98
Condition:	N/A	Date Extracted:	01-06-98
		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

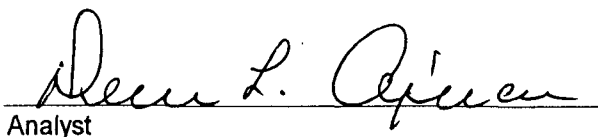
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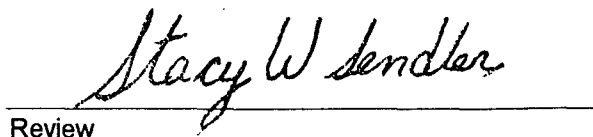
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	97%
	Bromofluorobenzene	99%

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: QA/QC for samples C773 and C780 - C781.


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

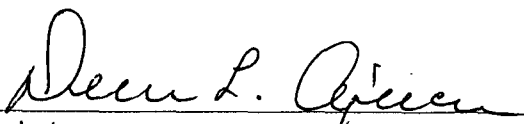
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-08-98
Laboratory Number:	C780	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-07-98
Condition:	N/A	Date Extracted:	N/A

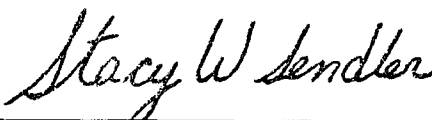
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0058	0.0058	0.0001	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 C773 and C780 - C781.


Analyst


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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: C780
Sample Matrix: TCLP Extract
Analysis Requested: TCLP
Condition: N/A

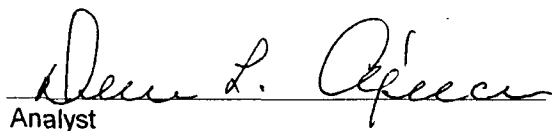
Project #: N/A
Date Reported: 01-08-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 01-07-98
Date Extracted: N/A

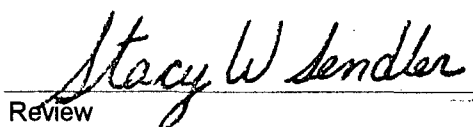
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0504	0.0001	101%	28-163
1,1-Dichloroethene	ND	0.050	0.0497	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0499	0.0001	100%	47-132
Chloroform	ND	0.050	0.0483	0.0001	97%	49-133
Carbon Tetrachloride	ND	0.050	0.0490	0.0001	98%	43-143
Benzene	0.0058	0.050	0.0552	0.0001	99%	39-150
1,2-Dichloroethane	ND	0.050	0.0488	0.0001	98%	51-147
Trichloroethene	ND	0.050	0.0493	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0489	0.0005	98%	26-162
Chlorobenzene	ND	0.050	0.0492	0.0003	98%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0483	0.0002	97%	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 C773 and C780 - C781.


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-09-98
Laboratory Number:	01-09-TCA.BLANK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-09-98
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	98 %

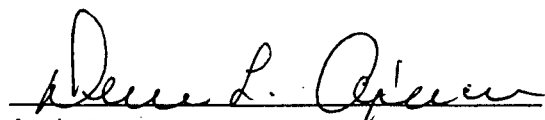
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

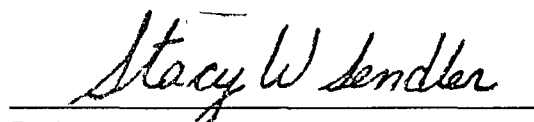
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C773 and C780 - C781.


Analyst


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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:	01-09-98
Laboratory Number:	01-06-TCA.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	01-06-98
Condition:	Cool & Intact	Date Analyzed:	01-09-98
		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	97%

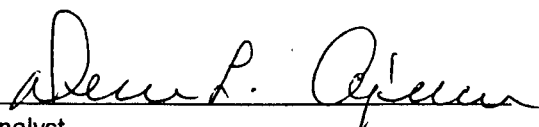
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

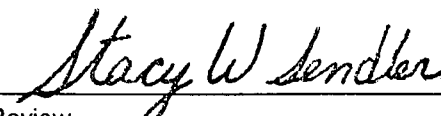
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C773 and C780 - C781.


Analyst


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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:	01-09-98
Laboratory Number:	C780	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-09-98
		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%

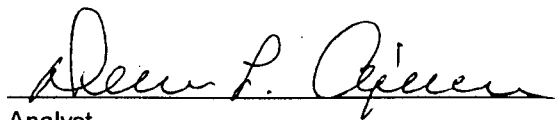
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

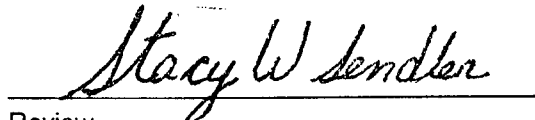
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

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 C773 and C780 - C781.


Analyst


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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:	01-09-98
Laboratory Number:	01-08-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:	01-08-98
		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

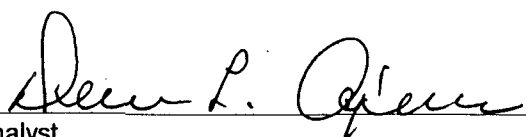
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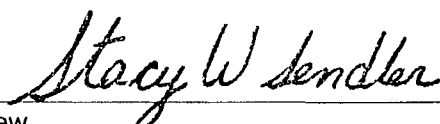
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

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 C773 and C780 - C781.


Analyst


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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: Method Blank
Laboratory Number: 01-06-TBN.MB
Sample Matrix: TCLP Extract
Preservative: Cool
Condition: Cool and Intact

Project #: N/A
Date Reported: 01-09-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: 01-06-98
Date Analyzed: 01-08-98
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

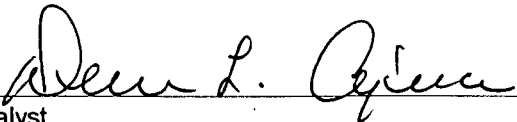
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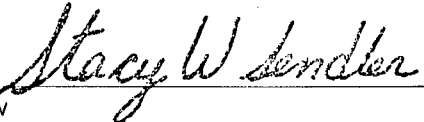
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	99%

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 C773 and C780 - C781.


Analyst


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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
Sample ID: Matrix Duplicate
Laboratory Number: C780
Sample Matrix: TCLP Extract
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 01-09-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 01-08-98
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

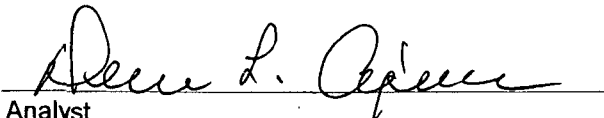
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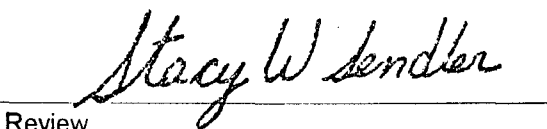
QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

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 C773 and C780 - C781.


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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	01-09-98
Laboratory Number:	N/A	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-09-98
Condition:	N/A	Date Extracted:	N/A

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	ND	ND	0.0001
Barium	ND	ND	0.001
Cadmium	ND	ND	0.0001
Chromium	ND	ND	0.0001
Lead	ND	ND	0.0001
Mercury	ND	ND	0.0001
Selenium	ND	ND	0.0001
Silver	ND	ND	0.0001

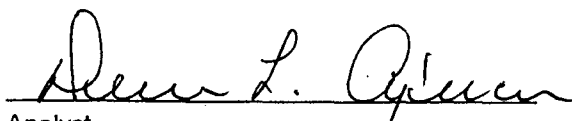
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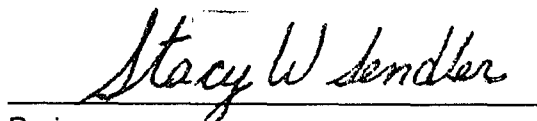
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C773 and C780 - C781.


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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-09-98
Laboratory Number:	C780	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-09-98
Condition:	N/A	Date Extracted:	01-06-98

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	0.100	0.022	0.122	100%
Barium	1.00	5.58	6.59	100%
Cadmium	0.050	0.060	0.110	100%
Chromium	0.050	0.029	0.079	100%
Lead	0.100	0.349	0.448	100%
Mercury	0.025	ND	0.025	100%
Selenium	0.100	0.012	0.112	100%
Silver	0.050	ND	0.050	100%

ND - Parameter not detected at the stated detection limit.

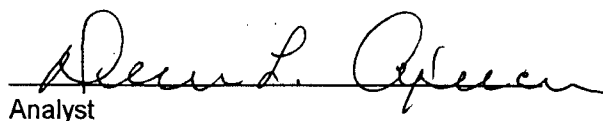
QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	TCLP Metals	80 - 120 %

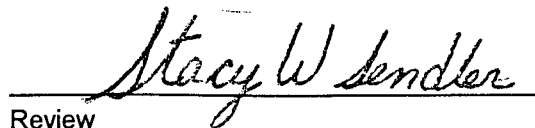
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C773 and C780 - C781.


Analyst


Review

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615

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

JAN 27 1998

Submit Original
Plus 1 Copy
to appropriate
District Office

Environmental Bureau
Oil Conservation Division
ENV JUN 4 1998

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☐	4. Generator <u>HALLIBURTON ENERGY</u>
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site <u>Main Yard Wash Bay.</u>
2. Management Facility Destination <u>Envirotech Soil Remediation Facility Landfarm #2</u>	6. Transporter <u>Envirotech</u>
3. Address of Facility Operator <u>5796 U.S. Highway 64 Farmington, NM 87401</u>	8. State <u>New Mexico</u>
7. Location of Material (Street Address or ULSTR)	<u>4109 E. Main St. 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:

Continuation of Wash Bay Solids

Reaffirmation Statement

TCLP ATTACHED.

RECEIVED
JAN 26 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 60 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 1-26-98
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. (505) 632-0615

(This space for State Use)

APPROVED BY: Denny G. Fount TITLE: Geologist DATE: 1/26/98
APPROVED BY: Martynne J. Kelly TITLE: Env Geologist DATE: 1/27/98

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 12-23-97
Printed Name EO SHANNON
Title / Agency MAINT SUPERV
Address 4109 EAST
MAIN, FARMINGTON N.M.
Signature EO Shannon
Date 1-23-1998

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401	2. Destination Name: Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Solids stabilization pad East side of Main Yard Facility 4109 E. Main Street Farmington, New Mexico
4. Source and Description of Waste Continuation of wash bay solids; mud and related material generated at truck wash bay	

I, EO SHANNON 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): EO Shannon
Title: MAINT SUPERV
Date: 01-23-1998

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401	2. Destination Name: Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): Halliburton Energy Services 4109 E. Main Street Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Solids stabilization pad East side of Main Yard Facility 4109 E. Main Street Farmington, New Mexico
4. Source and Description of Waste Continuation of wash bay solids; mud and related material generated at truck wash bay	

I, EO SHANNON _____ representative for:
 (Print Name)
HALLIBURTON ENG 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 ☒ 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): EO Shannon

Title: maint SUPER visor

Date: 1-8-98

ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

January 7, 1998

Mr. Rick Greenacre
Halliburton Energy Services, Inc.
4109 East Main Street
Farmington, New Mexico 87401

Project No.: 92132

Dear Mr. Greenacre,

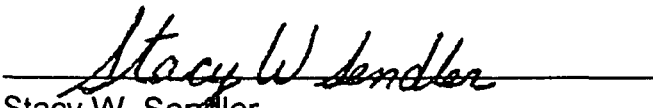
Enclosed are the analytical results for the sample collected from the wash bay located at the Halliburton facility on East Main St. in Farmington, New Mexico. One composite sample of wash bay solids was collected by Envirotech personnel on December 23, 1997, and delivered to the Envirotech laboratory on December 23, 1997 for Hazardous Waste Characterization analysis (Volatiles, Semi-Volatiles, Trace Metals, Corrosivity, Ignitability, and Reactivity).

The sample was documented on Envirotech Chain of Custody No. 5698 and assigned Laboratory No. C728 for tracking purposes. The sample was analyzed 12/23/97 through 01/06/98 using USEPA or equivalent methods.

Results of the analysis indicate that the material contained in the sample from the referenced location is not a characteristic hazardous waste as defined by 40 CFR, Section 261, Subpart C for the noted compounds.

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. Sessler
Environmental Scientist/Laboratory Manager

enc.

SWS/sws

92132/tclp1298.lb3

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	12-29-97
Lab ID#:	C728	Date Sampled:	12-23-97
Sample Matrix:	Soild	Date Received:	12-23-97
Preservative:	Cool	Date Analyzed:	12-23-97
Condition:	Cool & Intact	Chain of Custody:	5698

Parameter	Result
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IGNITABILITY: Negative

CORROSIVITY: Negative 8.52

REACTIVITY: Negative

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
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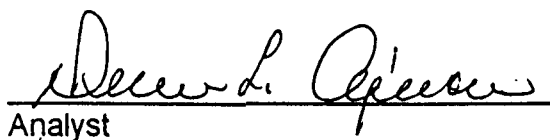
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. (i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)
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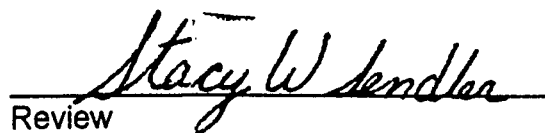
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. (i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)
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REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. (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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
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	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

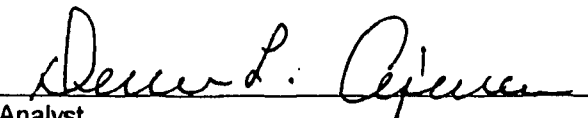
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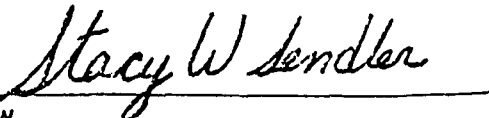
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	100%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040 PHENOLS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	01-02-98
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	98%

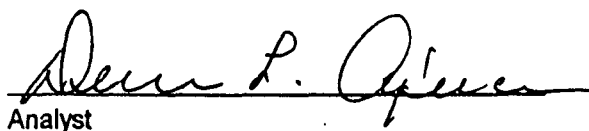
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

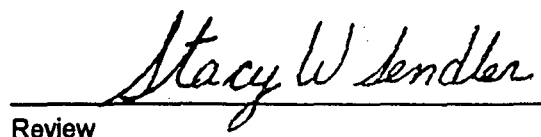
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.189	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	0.047	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	0.030	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

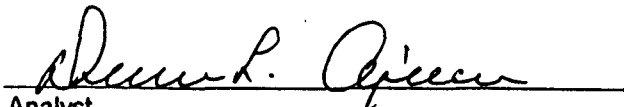
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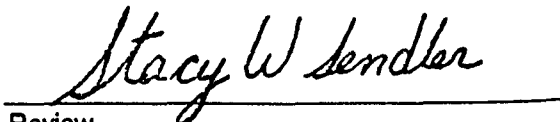
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Analyzed:	01-06-98
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.015	0.0001	5.00
Barium	1.62	0.001	100
Cadmium	0.001	0.0001	1.00
Chromium	0.006	0.0001	5.00
Lead	0.051	0.0001	5.00
Mercury	ND	0.0001	0.200
Selenium	ND	0.0001	1.00
Silver	ND	0.0001	5.0

ND - Parameter not detected at the stated detection limit.

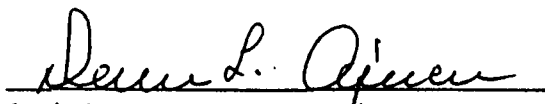
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

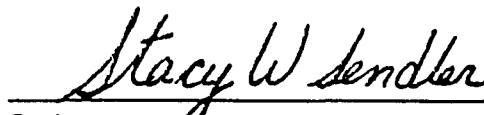
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

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

Comments: Halliburton, East Main St., Farmington, NM.


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:	01-02-98
Laboratory Number:	12-31-TCV.BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
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

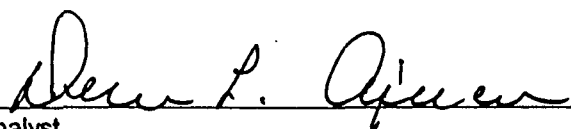
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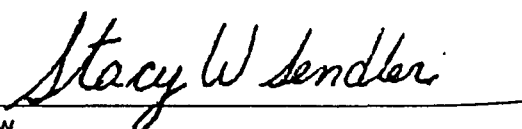
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TCV.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	12-23-97
		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

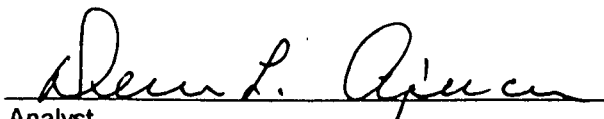
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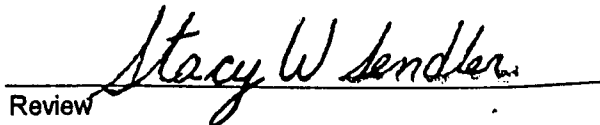
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

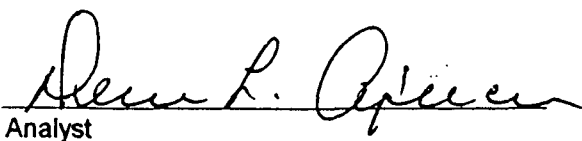
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	Solid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	N/A

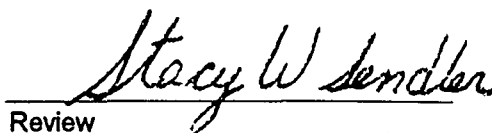
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
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 C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

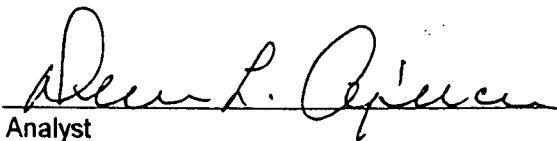
Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	Solid	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	N/A

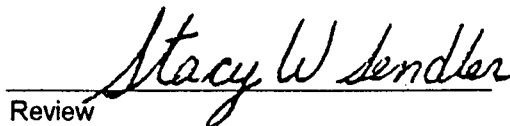
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0502	0.0001	100%	28-163
1,1-Dichloroethene	ND	0.050	0.0491	0.0001	98%	43-143
2-Butanone (MEK)	ND	0.050	0.0489	0.0001	98%	47-132
Chloroform	ND	0.050	0.0489	0.0001	98%	49-133
Carbon Tetrachloride	ND	0.050	0.0493	0.0001	99%	43-143
Benzene	ND	0.050	0.0498	0.0001	96%	39-150
1,2-Dichloroethane	ND	0.050	0.0497	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0492	0.0003	98%	35-146
Tetrachloroethene	ND	0.050	0.0482	0.0005	98%	26-162
Chlorobenzene	ND	0.050	0.0487	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0510	0.0002	101%	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 C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-02-98
Laboratory Number:	01-02-TCA.BLNK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-02-98
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	101 %
	2,4,6-tribromophenol	99 %

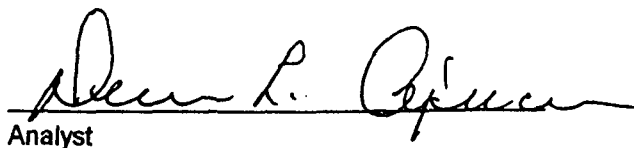
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

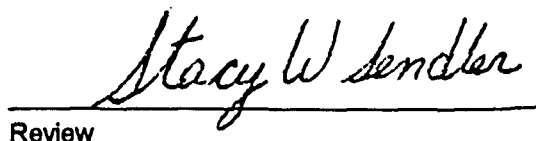
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TCA.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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	98%

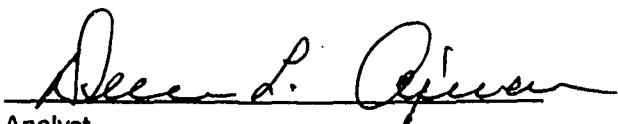
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

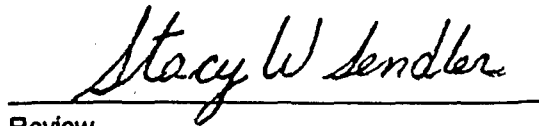
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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%

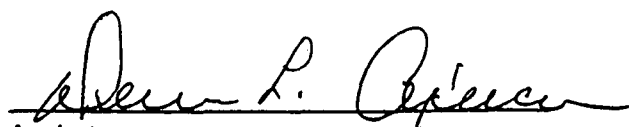
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

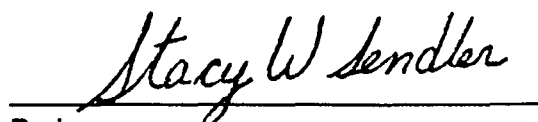
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

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 C728 and C748 - C751.


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: 12-31-TBN.BLANK
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 12-31-97
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

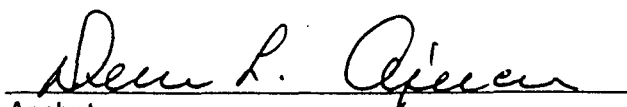
ND - Parameter not detected at the stated detection limit.

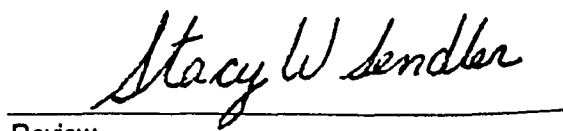
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	100%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TBN.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool and Intact	Date Analyzed:	12-31-97
		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

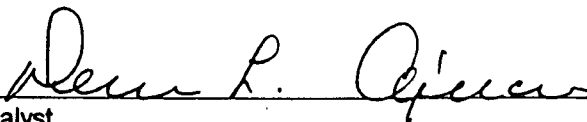
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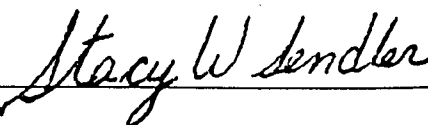
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	101%

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: QA/QC for samples C728 and C748 - C751.


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
Sample ID: Matrix Duplicate
Laboratory Number: C728
Sample Matrix: TCLP Extract
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 12-31-97
Analysis Requested: TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	0.189	0.192	1.7%	0.020
Hexachloroethane	ND	ND	0.0%	0.020
Nitrobenzene	0.047	0.049	5.4%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	0.030	0.031	2.4%	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
---------------------------	-----------	--------------------

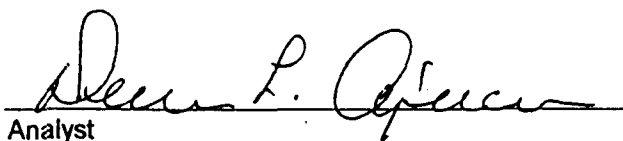
8090 Compounds

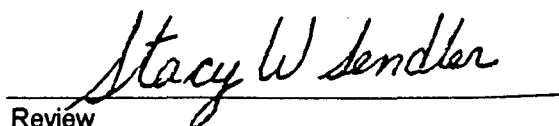
30%

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 C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	01-06-98
Laboratory Number:	N/A	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	N/A

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	ND	ND	0.0001
Barium	ND	ND	0.001
Cadmium	ND	ND	0.0001
Chromium	ND	ND	0.0001
Lead	ND	ND	0.0001
Mercury	ND	ND	0.0001
Selenium	ND	ND	0.0001
Silver	ND	ND	0.0001

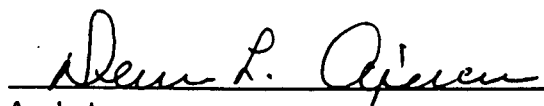
ND - Parameter not detected at the stated detection limit.

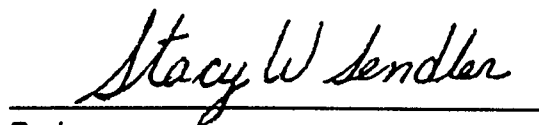
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Arsenic	0.015	0.015	0.0%
Barium	1.62	1.62	0.0%
Cadmium	0.001	0.001	0.0%
Chromium	0.006	0.006	0.0%
Lead	0.051	0.051	0.0%
Mercury	ND	ND	0.0%
Selenium	ND	ND	0.0%
Silver	ND	ND	0.0%

ND - Parameter not detected at the stated detection limit.

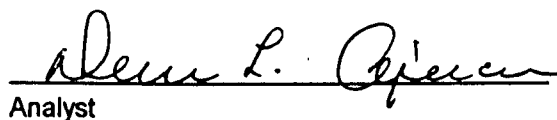
QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Trace Metals	30 %

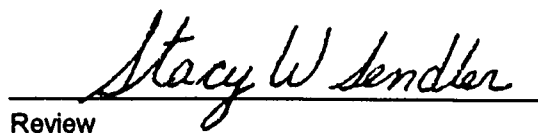
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	0.100	0.015	0.114	99%
Barium	1.00	1.62	2.62	100%
Cadmium	0.050	0.001	0.051	100%
Chromium	0.050	0.006	0.056	100%
Lead	0.100	0.051	0.151	100%
Mercury	0.025	ND	0.025	100%
Selenium	0.100	ND	0.100	100%
Silver	0.050	ND	0.050	100%

ND - Parameter not detected at the stated detection limit.

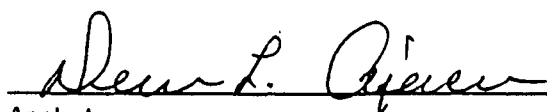
QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	TCLP Metals	80 - 120 %

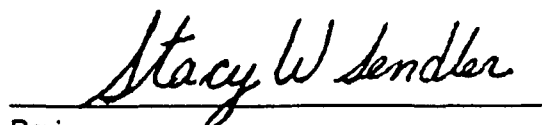
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

[illegible]

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
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
(505) 827-7131

RECEIVED
JAN 21 1998
Environmental Bureau
Oil Conservation Division
Env JN: 92130

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>HALLIBURTON ENERGY SERVICES</u>
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site <u>Main Yard</u>
2. Management Facility Destination <u>Envirotech Soil Remediation Facility Landfarm #2</u>	6. Transporter <u>ENVIROTECH</u>
3. Address of Facility Operator <u>5796 U.S. Highway 64 Farmington, NM 87401</u>	8. State <u>New Mexico</u>
7. Location of Material (Street Address or ULSTR)	<u>4109 E. Main St. Farmington, New Mexico</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:

CONTINUATION of Wash bay Solids

New TCLP ATTACHED

RECEIVED
JAN 08 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 40-60 cy cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 1-8-98
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. (505) 632-0615

(This space for State Use)

APPROVED BY: Denny G. Fount TITLE: Geologist DATE: 1/9/98
APPROVED BY: Martyn J. Kirby TITLE: Env Geologist DATE: 1/24/98

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

January 7, 1998

Mr. Rick Greenacre
Halliburton Energy Services, Inc.
4109 East Main Street
Farmington, New Mexico 87401

Project No.: 92132

Dear Mr. Greenacre,

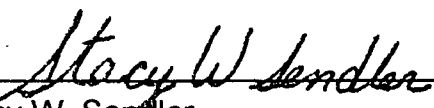
Enclosed are the analytical results for the sample collected from the wash bay located at the Halliburton facility on East Main St. in Farmington, New Mexico. One composite sample of wash bay solids was collected by Envirotech personnel on December 23, 1997, and delivered to the Envirotech laboratory on December 23, 1997 for Hazardous Waste Characterization analysis (Volatiles, Semi-Volatiles, Trace Metals, Corrosivity, Ignitability, and Reactivity).

The sample was documented on Envirotech Chain of Custody No. 5698 and assigned Laboratory No. C728 for tracking purposes. The sample was analyzed 12/23/97 through 01/06/98 using USEPA or equivalent methods.

Results of the analysis indicate that the material contained in the sample from the referenced location is not a characteristic hazardous waste as defined by 40 CFR, Section 261, Subpart C for the noted compounds.

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. Seppeler
Environmental Scientist/Laboratory Manager

enc.

SWS/sws

92132/tclp1298.lb3

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	12-29-97
Lab ID#:	C728	Date Sampled:	12-23-97
Sample Matrix:	Soild	Date Received:	12-23-97
Preservative:	Cool	Date Analyzed:	12-23-97
Condition:	Cool & Intact	Chain of Custody:	5698

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

IGNITABILITY: Negative

CORROSIVITY: Negative 8.52

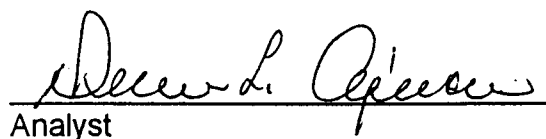
REACTIVITY: Negative

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
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	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

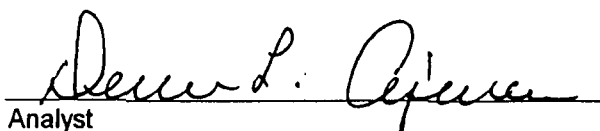
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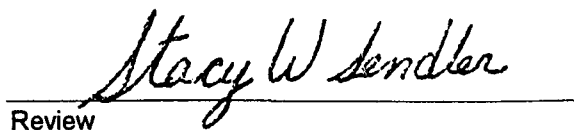
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	100%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	01-02-98
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	98%

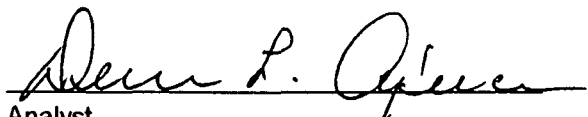
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

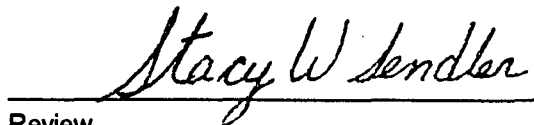
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-02-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Extracted:	12-23-97
Preservative:	Cool	Date Analyzed:	12-31-97
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	0.189	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	0.047	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	0.030	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

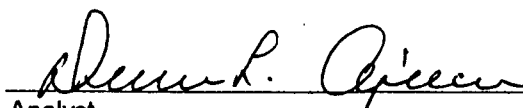
ND - Parameter not detected at the stated detection limit.

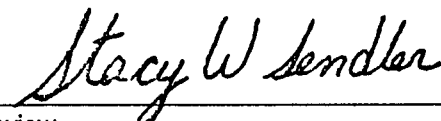
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

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: Halliburton, East Main St., Farmington, NM.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Halliburton	Project #:	92132
Sample ID:	Wash Bay Composite	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	12-23-97
Chain of Custody:	5698	Date Received:	12-23-97
Sample Matrix:	Solid	Date Analyzed:	01-06-98
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	0.015	0.0001	5.00
Barium	1.62	0.001	100
Cadmium	0.001	0.0001	1.00
Chromium	0.006	0.0001	5.00
Lead	0.051	0.0001	5.00
Mercury	ND	0.0001	0.200
Selenium	ND	0.0001	1.00
Silver	ND	0.0001	5.0

ND - Parameter not detected at the stated detection limit.

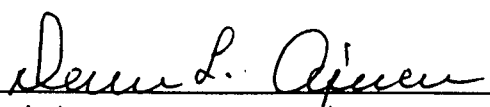
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

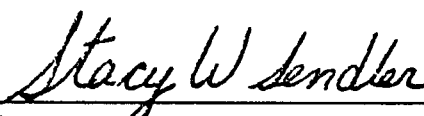
Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

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

Comments: Halliburton, East Main St., Farmington, NM.


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:	01-02-98
Laboratory Number:	12-31-TCV.BLANK	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
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

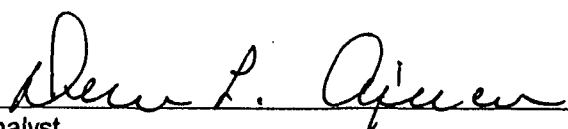
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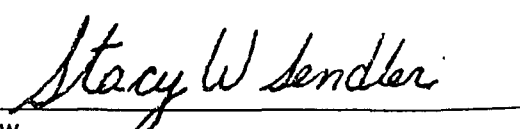
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


Analyst


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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:	01-02-98
Laboratory Number:	12-23-TCV.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-31-97
Condition:	N/A	Date Extracted:	12-23-97
		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

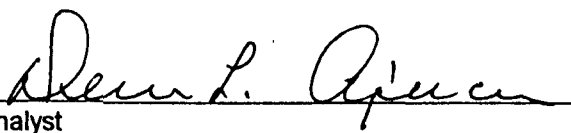
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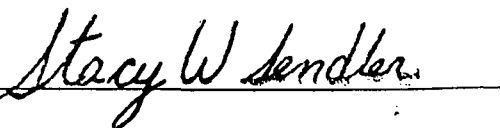
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	99%

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: QA/QC for samples C728 and C748 - C751.


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: C728
Sample Matrix: Solid
Analysis Requested: TCLP
Condition: N/A

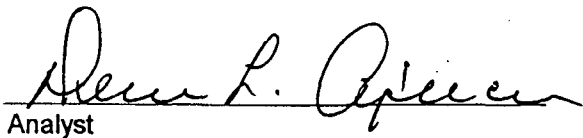
Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 12-31-97
Date Extracted: N/A

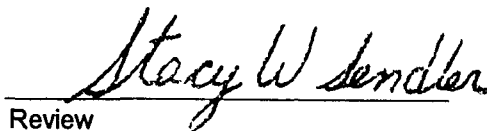
Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
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 C728 and C748 - C751.


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: C728
Sample Matrix: Solid
Analysis Requested: TCLP
Condition: N/A

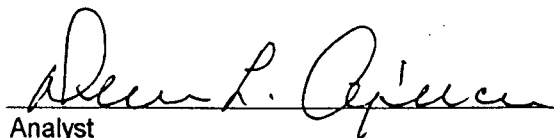
Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 12-31-97
Date Extracted: N/A

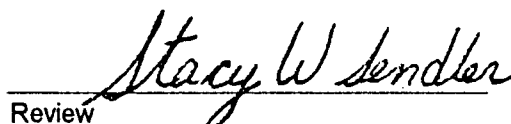
Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0502	0.0001	100%	28-163
1,1-Dichloroethene	ND	0.050	0.0491	0.0001	98%	43-143
2-Butanone (MEK)	ND	0.050	0.0489	0.0001	98%	47-132
Chloroform	ND	0.050	0.0489	0.0001	98%	49-133
Carbon Tetrachloride	ND	0.050	0.0493	0.0001	99%	43-143
Benzene	ND	0.050	0.0498	0.0001	96%	39-150
1,2-Dichloroethane	ND	0.050	0.0497	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0492	0.0003	98%	35-146
Tetrachloroethene	ND	0.050	0.0482	0.0005	98%	26-162
Chlorobenzene	ND	0.050	0.0487	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0510	0.0002	101%	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 C728 and C748 - C751.


Analyst


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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040

PHENOLS

Quality Assurance Report Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	01-02-98
Laboratory Number:	01-02-TCA.BLNK	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-02-98
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	101 %
	2,4,6-tribromophenol	99 %

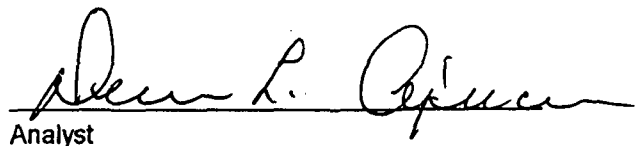
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

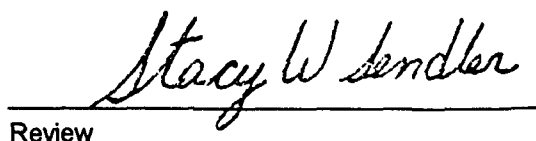
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TCA.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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	98%

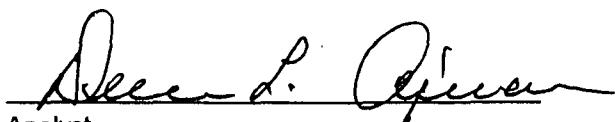
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

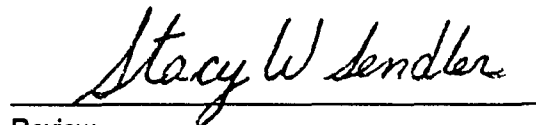
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 19

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

Comments: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	01-02-98
		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%

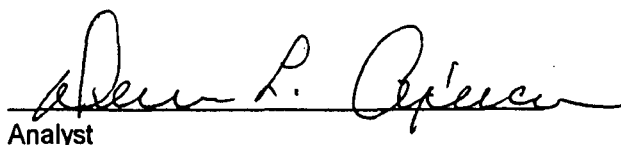
References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

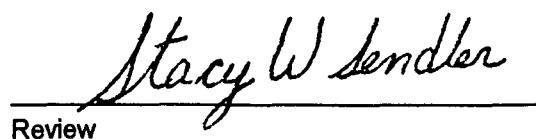
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

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 C728 and C748 - C751.


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: 12-31-TBN.BLANK
Sample Matrix: Hexane
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 01-02-98
Date Sampled: N/A
Date Received: N/A
Date Extracted: N/A
Date Analyzed: 12-31-97
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.

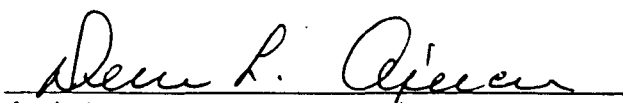
QA/QC Acceptance Criteria	Parameter	Percent Recovery
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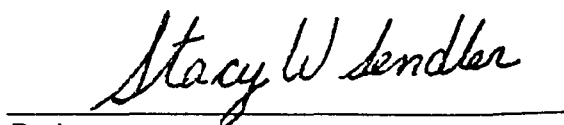
2-fluorobiphenyl 100%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	12-23-TBN.MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-23-97
Condition:	Cool and Intact	Date Analyzed:	12-31-97
		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

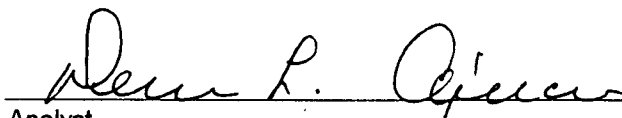
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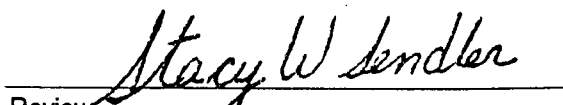
QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	101%

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: QA/QC for samples C728 and C748 - C751.


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:	01-02-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	12-31-97
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	0.189	0.192	1.7%	0.020
Hexachloroethane	ND	ND	0.0%	0.020
Nitrobenzene	0.047	0.049	5.4%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	0.030	0.031	2.4%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

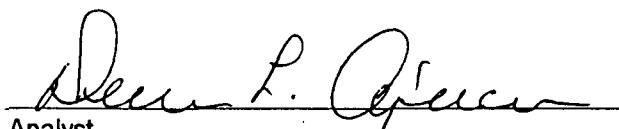
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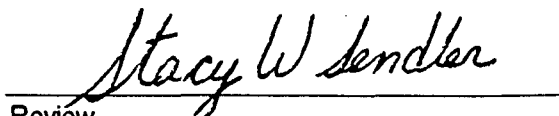
QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

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 C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Blanks	Date Reported:	01-06-98
Laboratory Number:	N/A	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	N/A

Parameter	Instrument Blank (mg/L)	Method Blank (mg/L)	Det. Limit (mg/L)
Arsenic	ND	ND	0.0001
Barium	ND	ND	0.001
Cadmium	ND	ND	0.0001
Chromium	ND	ND	0.0001
Lead	ND	ND	0.0001
Mercury	ND	ND	0.0001
Selenium	ND	ND	0.0001
Silver	ND	ND	0.0001

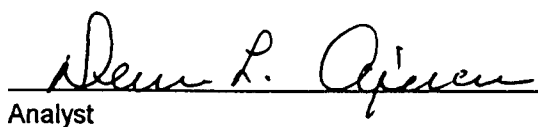
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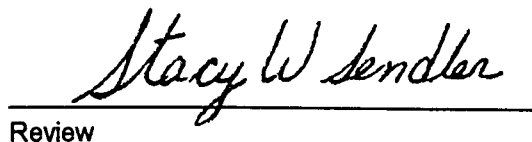
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference
Arsenic	0.015	0.015	0.0%
Barium	1.62	1.62	0.0%
Cadmium	0.001	0.001	0.0%
Chromium	0.006	0.006	0.0%
Lead	0.051	0.051	0.0%
Mercury	ND	ND	0.0%
Selenium	ND	ND	0.0%
Silver	ND	ND	0.0%

ND - Parameter not detected at the stated detection limit.

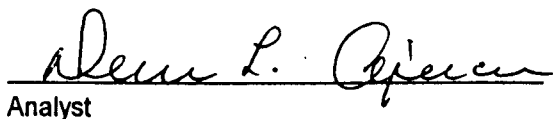
QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	Trace Metals	30 %

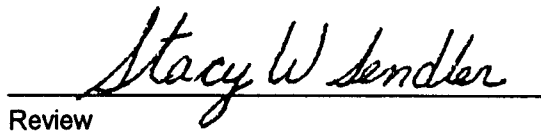
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	01-06-98
Laboratory Number:	C728	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	01-06-98
Condition:	N/A	Date Extracted:	12-23-97

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
Arsenic	0.100	0.015	0.114	99%
Barium	1.00	1.62	2.62	100%
Cadmium	0.050	0.001	0.051	100%
Chromium	0.050	0.006	0.056	100%
Lead	0.100	0.051	0.151	100%
Mercury	0.025	ND	0.025	100%
Selenium	0.100	ND	0.100	100%
Silver	0.050	ND	0.050	100%

ND - Parameter not detected at the stated detection limit.

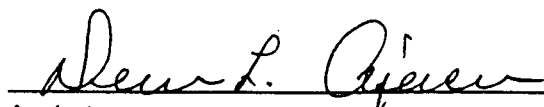
QA/QC Acceptance Criteria:	Parameter	Acceptance Range %
	TCLP Metals	80 - 120 %

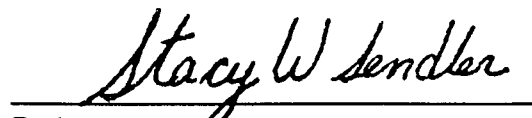
References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

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

Comments: QA/QC for samples C728 and C748 - C751.


Analyst


Review

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401

Roger Anderson

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

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

Env JN: 97033

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Scumbers Dow
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Main Yard Bulk plant
2. Management Facility Destination Envirotech Soil Remediation Fac. Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 U.S. Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	3106 Bloomfield Hwy Farmington N.M.
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:

Precision Continuous Mixer residual

PH ANALYSIS ATTACHED
MSDS sheets Attached.

Test For Ignitability
or Recycle MJK 1/27/98

RECEIVED
JAN 22 1998
OIL CON. DIV.
DIST. 3

Estimated Volume 1661 cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 1-16-98
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. (505)632-0615

(This space for State Use)

APPROVED BY: Denny G. Fuent TITLE: Geologist DATE: 1/23/98
APPROVED BY: _____ TITLE: _____ DATE: _____
DENIED

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Sculumberger - Dowell 3106 Bloomfield Hwy Farmington, New Mexico	2. Destination Name: Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): S.A.A.	Location of the Waste (Street address &/or ULSTR): Bulk Plant.
Attach list of originating sites as appropriate	
4. Source and Description of Waste Precision Continuous Mixer Residual.	

I, Butch Janson representative for:
(Print Name)
Sculumberger Dowell 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): pH.
☐ RCRA Hazardous Waste Analysis
☒ Chain of Custody

Name (Original Signature): Butch Janson

Title: Bulk Plant Manager

Date: 1-16-98

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

pH OF Liquid

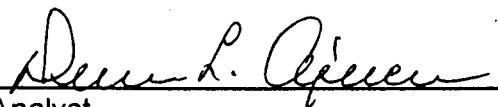
Client:	Schlumberger - Dowell	Project #:	97033-03
Sample ID:	Drum @ Cooling Dock	Date Reported:	12-22-97
Lab ID#:	C716	Date Sampled:	12-18-97
Sample Matrix:	Liquid	Date Received:	12-18-97
Preservative:	Cool	Date Analyzed:	12-18-97
Condition:	Cool & Intact	Chain of Custody:	5697

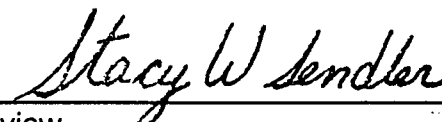
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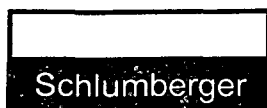
pH	9.74
----	------

Reference: Method 9045C, Soil and Waste pH, Test Methods for Evaluating Solid Waste, SW-846, USEPA, January 1995.

Comments: PSM Resid.


Analyst


Review



Dowell

MATERIAL SAFETY DATA SHEET

(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

DOWELL PRODUCT CODE:

F052.1

Effective Date:

04-March-1997

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

FOAMING AGENT F52.1

Company/undertaking identification:

Dowell Safety/Environment - Worldwide
300 Schlumberger Drive
Sugar Land, Texas 77478, USA

Corporate Emergency Phone:

USA 1-281-595-3518

Corporate Non-Emergency Phone:

USA 1-281-285-8081

2. COMPOSITION/INFORMATION ON INGREDIENTS

AMMONIUM FATTY ALCOHOL ETHER SULFATE; 30-60%

POLYPROPYLENE GLYCOL; CAS 25322-69-4; 10-30%

ETHANOL; CAS 64-17-5; 10-30%

FATTY ALCOHOL SURFACTANT; 1 - 5%

WATER; CAS 7732-18-5; 10 - 30%

3. HAZARDS IDENTIFICATION

Emergency Overview

Form:

Liquid

Color:

Light yellow

Odor:

Alcohol

Main environmental hazards:

Harmful to aquatic organisms.

Main Physical Hazards

Special Precautions:

None.

Physical Hazard:

flammable liquid

Main Health Hazards:

HMIS RATING: Health 2 Flammability 3 Reactivity 0

May cause eye irritation. May cause respiratory tract irritation.

May cause skin irritation.

See Section 11 for a complete discussion of health hazards.

4. FIRST AID MEASURES

Eye contact:

Immediately flush eyes with water for 15 minutes while holding eyelids open. Seek medical attention.

Skin contact:

Immediately remove contaminated clothes and shoes. Wash with soap and water for 15 minutes. Seek medical attention.

Inhalation:

Remove to fresh air. Seek medical attention if irritation persists or you feel unwell.

Swallowing:

Rinse mouth with water. Seek medical attention if

Notes: irritation occurs.
None.

5. FIRE FIGHTING MEASURES

Extinguishing media: Water Fog, Alcohol Foam, CO2, Dry Chemical
Further Information: Wear protective fire fighting clothing and avoid breathing vapors. Use self-contained breathing apparatus in closed areas. Vapors may travel along the ground and ignite when an ignition source is contacted. Avoid breathing vapors. Use SCBA in closed areas.

Flash point: 84°F
Method: Tag closed cup
Flammability (explosion limits in air):
Lower: Not determined Upper: Not determined
Autoflammability (auto-ignition temperature): Not determined
Explosive properties (thermal decomposition temperature): Not determined
NFPA Rating: Health 2 Flammability 3 Reactivity 0 Other: None
Combustion products: see Section 10.

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage: Contain with dikes. Use explosion proof equipment to recover. Remove all sources of ignition. Soak up residual on inert absorbant (sand). Put in steel or plastic drum approved for flammables.

See Section 8 for protective equipment information.
See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special Precautions: Keep away from heat, sparks, and flame. Store out of direct sunlight in well ventilated area. Keep container closed when not in use. Use with adequate ventilation. Do not cut or weld on container.

Packaging requirements: Steel or high density polyethylene (HDPE) container.
Ventilation: Provide ventilation to keep airborne concentrations below exposure limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection: Use NIOSH approved respirator with organic vapor/acid gas protection (color coded yellow). Use SCBA (self contained breathing apparatus) in confined areas and for emergencies.

Eye protection: Chemical splash goggles.
Hand protection: Impervious gloves made of: Rubber
Skin protection: Chemical resistant apron. For spills and emergencies, also wear boots and impervious suit.

Exposure Limit Guidelines (mg/m3)

Components having no established limits are not listed.

(NE: Not established, ND: Not determined)

These numbers may be referred to as OEL, MAC, MAK, MEL, OES, REL, PEL, or TLV.

TWA is the 8 hour time weighted average. STEL is the short term exposure limit.

"C" indicates the value is a maximum concentration (ceiling).

ETHANOL

	TWA	STEL	ANM
CANADA	ND	ND	
USA: ACGIH	1880	NE	
USA: OSHA	1900	NE	

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Color:	Light yellow
Odor:	Alcohol
pH value:	6-7 (68°F) (at 10 g/l)
Boiling point:	Not determined
Pour point:	-36°F
Vapor pressure:	Not determined
Relative density (specific gravity):	1.035 (68°F)
Bulk Density (solids):	Not applicable
Solubility in water:	Soluble 100 (68°F)
Viscosity:	28 mPa.s (77°F)
Relative Vapor Density (air=1):	>1
% Volatile:	35
Nature	Surfactant

10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions to avoid:	Not determined
Materials to avoid:	Oxidizers
Hazardous Polymerization:	Will not occur.
Dust explosion hazard (solids):	Not applicable.
Special hazards:	None.
Hazardous decomposition products:	When heated strongly or burned, oxides of carbon, sulfur oxides, nitrogen oxides, ammonia and harmful organic fumes are released.

11. TOXICOLOGICAL INFORMATION

Eye contact:	Irritant. May cause pain, redness, discomfort.
Skin contact:	Irritant; may cause pain, redness, dermatitis.
Inhalation:	Irritant; may cause pain and coughing.
Ingestion:	Swallowing large amounts may be harmful. LD50 (rats) > 2000 mg/kg.
Carcinogenicity:	Not listed by IARC, USA NTP, or USA OSHA.

Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs which may be affected:	Bladder, Blood, Liver
Sensitization:	Not known to cause allergic reaction.
Other:	May cause nausea. Can cause headache, narcosis.

12. ECOLOGICAL INFORMATION

Information on product as a whole:

Main environmental hazards:	Harmful to aquatic organisms.
Degradability:	Not determined
Fish Toxicity:	Not determined
Acute invertebrates toxicity:	Not determined
Growth Inhibition (algae):	Not determined
Other:	None known.

Information on components:

CHEMICAL NAME: ETHANOL

Fish Tox - Fresh Water: LC50=(7D) 11050 mg/l Species: Poecilia reticulata

13. DISPOSAL CONSIDERATIONS

Product:	Ship via permitted waste hauler to permitted hazardous waste disposal facility for incineration (preferred) or disposal well injection of all liquids and landfilling of solids.
Container:	Sell to approved drum reconditioner or render container unuseable by puncturing or crushing. Send to sanitary landfill unless prohibited by local regulations.
USA EPA RCRA:	D001 Flammable

14. TRANSPORT INFORMATION

ICC Tariff Classification	Compound, Gas or Oil Well Drilling		
ICC Item Number:	138640	ICC Class:	50 LTL 35 TL
CERCLA RQ:	Not established.		
Department of Transportation (DOT)			

Designation:	Hazardous Material *
Hazard Class:	3 *
Shipping Name:	Flammable liquids, n.o.s. (contains isopropanol), 3, UN 1993, PG III
DOT Label:	Flammable Liquid 3

Canadian Shipments

Shipping Name:	Flammable liquids, n.o.s. (contains isopropanol)		
Label:	Flammable Liquid 3		
Classification:	3	Package Group:	III
		PIN:	UN 1993

15. REGULATORY INFORMATION

Notification/restrictions status:

USA:

Some components of this material are not on the USA TSCA inventory. This material can not be used commercially in the USA.

CANADA:

Some components of this material are not on the Canada DSL. This material can be used in Canada only under applicable exemption or Interim Status.

This product contains no chemicals subject to the USEPA reporting requirements of SARA 313.

The USEPA CERCLA Reportable Quantity (RQ) for this product as a whole is: Not established.

Canadian WHMIS classification: B2 ,D2B

16. OTHER INFORMATION

Sections affected by last revision:

PHYSICAL AND CHEMICAL PROPERTIES

*Mark of Schlumberger. The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Dowell regarding the accuracy or completeness of the information.



MATERIAL SAFETY DATA SHEET

(Complies with USA OSHA 29 CFR 1910.1200 and ANSI Z 400.1)

DOWELL PRODUCT CODE: L010 Effective Date: 04-March-1997

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance or preparation:

CROSSLINKER L10

Company/undertaking identification: Dowell Safety/Environment - Worldwide
300 Schlumberger Drive
Sugar Land, Texas 77478, USA

Corporate Emergency Phone: USA 1-281-595-3518
Corporate Non-Emergency Phone: USA 1-281-285-8081

2. COMPOSITION/INFORMATION ON INGREDIENTS

BORIC ACID; CAS 10043-35-3; 60-100%

3. HAZARDS IDENTIFICATION

Emergency Overview

Form: Granules
Color: White
Odor: None

Main environmental hazards:
None known.

Main Physical Hazards

Special Precautions: None.
Physical Hazard: dust

Main Health Hazards:

HMIS RATING: Health 1 Flammability 0 Reactivity 0

May be mildly irritating to eyes.

See Section 11 for a complete discussion of health hazards.

4. FIRST AID MEASURES

Eye contact: Flush eyes with water for 5 minutes. Get medical attention if irritation occurs.
Skin contact: Rinse with water.
Inhalation: Remove to fresh air.
Swallowing: If several grams are swallowed, give 2 glasses of milk (preferred) or water and seek medical advice.
Notes: None.

5. FIRE FIGHTING MEASURES

Extinguishing media: None needed
Further Information: None known.
Flash point: Not combustible.

DOWELL PRODUCT CODE:	L010	Effective Date:	04-March-1997
Method:	Not applicable		
Flammability (explosion limits in air):			
Lower:	Not applicable	Upper:	Not applicable
Autoflammability (auto-ignition temperature):	Not applicable		
Explosive properties (thermal decomposition temperature):	Not determined		
NFPA Rating: Health 1 Flammability 0 Reactivity 0 Other: None			
Combustion products: see Section 10.			

6. ACCIDENTAL RELEASE MEASURES

After spillage/leakage: Scoop into containers. Flush residual with plenty of water.

See Section 8 for protective equipment information.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

Special Precautions: Keep material dry.

Packaging requirements: Paper bag (minimum 3 ply), or other industrial container designed for powders and granulated materials.

Ventilation: Provide ventilation to keep airborne concentrations below exposure limits.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection: Use NIOSH approved respirator with dust and mist protection (color coded gray or 3M 8710).

Eye protection: Chemical splash goggles.

Hand protection: Impervious gloves made of: PVC Butyl

Skin protection: Clean, body-covering clothing.

Exposure Limit Guidelines (mg/m³)

No components have established exposure limits.

Dust particles: total = 10 mg/m³, respirable fraction = 5 mg/m³.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Granules

Color: White

Odor: None

pH value: 5.1 (68°F) (at 10 g/l)

Boiling point: Decomposes

Pour point: 340°F

Vapor pressure: Not applicable

Relative density (specific gravity): 1.4 (68°F)

Bulk Density (solids): 500 kg/m³

Solubility in water: 46 g/l (68°F)

Viscosity: Not applicable

DOWELL PRODUCT CODE:	L010	Effective Date:	04-March-1997
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Relative Vapor Density (air=1):	Not applicable
% Volatile:	0
Nature	Acid

10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions to avoid:	Not determined
Materials to avoid:	None known
Hazardous Polymerization:	Will not occur.
Dust explosion hazard (solids):	No.
Special hazards:	None.
Hazardous decomposition products:	None.

11. TOXICOLOGICAL INFORMATION

Eye contact:	Mildly irritating.
Skin contact:	No effect expected. Prolonged or repeated contact may cause mild irritation.
Inhalation:	Mildly irritating.
Ingestion:	Swallowing large amounts may be harmful. LD50 (rats) = 2660 mg/kg.
Carcinogenicity:	Not listed by IARC, USA NTP, or USA OSHA.
Mutagenicity:	Not known to cause heritable genetic damage.
Teratogenicity:	Not known to cause birth defects.
Target organs which may be affected:	None known.
Sensitization:	Not known to cause allergic reaction.
Other:	None.

12. ECOLOGICAL INFORMATION

Information on product as a whole:	
Main environmental hazards:	None known.
Degradability:	Not applicable
Fish Toxicity:	Not determined
Acute invertebrates toxicity:	Not determined
Growth Inhibition (algae):	Scenedesmes EC50 = 34 mg/l
Other:	None known.

13. DISPOSAL CONSIDERATIONS

Product:	Hazardous waste landfill. Material may be acceptable in some sanitary landfills; check local regulations.
Container:	Send empty bags to sanitary landfill. Render other types of containers unuseable by puncturing or crushing and sanitary landfill unless prohibited by local regulations.
USA EPA RCRA:	None

DOWELL PRODUCT CODE:	L010	Effective Date:	04-March-1997
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14. TRANSPORT INFORMATION

ICC Tariff Classification	Compound, Gas or Oil Well Drilling		
ICC Item Number:	138640	ICC Class:	50 LTL TL
CERCLA RQ:	Not established.		
Department of Transportation (DOT)			

Designation:	Not Regulated
Hazard Class:	Not Regulated
Shipping Name:	Not Regulated
DOT Label:	

Canadian Shipments

Shipping Name:	Not Regulated		
Label:			
Classification:	Package Group:	PIN:	none

15. REGULATORY INFORMATION

Notification/restrictions status:

USA:

All components of this material are on the USA TSCA inventory, or the components are exempt from inventory reporting.

CANADA:

All components of this material are on the Canada DSL, or the components are exempt from inventory reporting.

This product contains no chemicals subject to the USEPA reporting requirements of SARA 313.

The USEPA CERCLA Reportable Quantity (RQ) for this product as a whole is: Not established.

16. OTHER INFORMATION

Sections affected by last revision:

FIRST AID MEASURES

EXPOSURE CONTROLS/PERSONAL PROTECTION

TOXICOLOGICAL INFORMATION

DISPOSAL CONSIDERATIONS

*Mark of Schlumberger. The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Dowell regarding the accuracy or completeness of the information.

FRICITION REDUCING AGENT J321

Dowell Schumberger

Chemical Code:

J321**SHIPPING INFORMATION**

ID NUMBER (UN # OR NA #):

FLASH PT. > 200 deg F, > 93 d**BOILING PT.** Not determined

ICC TARIFF CLASSIFICATION: Compound, Gas or Oil Well Drilling

ICC Item Number: 138640

ICC Class: 50 LTL

DEPARTMENT OF TRANSPORTATION - (DOT)

Description: Not Regulated

Hazard Class: Not Regulated

Shipping Name: Non-Regulated

DOT Label:

Comment:

DS Tank Ex. #: N/A

CERCLA RQ: Not established.

US FOREIGN TRADE SCHEDULE B# (EXPORT): 433.1095

CANADIAN SHIPMENTS -

Shipping Name:

Special Provision:

Classification:

ICAO Class:

Pkg Group:

WATER SHIPMENTS (IMO) -

Shipping Name:

Label(s):

Class:

Pkg Group:

IMDG Page:

MARPOL:

AIR SHIPMENTS (IATA) -

Shipping Name:

Label(s):

Class:

Sub Risk:

Pkg Group:

Passenger Aircraft Pkg. Instr.

Max. Net Qty./Pkg.

Cargo Aircraft Only Pkg. Instr.

Max. Net Qty./Pkg.

EUROPEAN ECONOMIC COMMUNITY (EEC) -

Risk Phrases:

Safety Phrases:

Classification (Label):

Label Description:

ADR Class:

RID Class:

TREM Card:

Hasard Classification:

COMMENT:

SECTION 5 - HANDLING PRECAUTIONS

PROTECTIVE EQUIPMENT CODE: Q1

VENTILATION: General and local ventilation is required.

RESPIRATORY PROTECTION: None normally needed. Use NIOSH approved respirator with organic vapor/acid gas protection (color coded yellow) if vapors are generated and for emergencies.

PROTECTIVE CLOTHING: Clean, body-covering clothing. For spills and emergencies, also wear impervious gloves.

EYE PROTECTION: Chemical goggles required and an eye wash in work area.

EXPOSURE GUIDELINE(S): Dow guide 10 mg/m³ polyacrylamide.

SECTION 6 - SPILL AND DISPOSAL PROCEDURE

CERCLA REPORTABLE QUANTITY: Not established.

SPECIAL HANDLING: Contain with dikes. Put in steel or plastic drum. Soak up residual on inert absorbant (sand). Use hot water and a squeegee to clean floor. Clean up as much as possible before using water.

DISPOSAL METHOD FOR:

PRODUCT: Ship via permitted waste hauler to permitted hazardous waste disposal facility for incineration (preferred) or disposal well injection of all liquids and landfilling of solids.

EPA Hazardous Waste Number: None

CONTAINER: Sell to approved drum reconditioner or render container unuseable by puncturing or crushing. Send to sanitary landfill unless prohibited by local regulations.

DEGRADABILITY: Partially biodegradable.

FISH TOXICITY: Low toxicity to fish.

ANIMAL TOXICITY: Low toxicity to mammals.