

3R - 288

**GENERAL
CORRESPONDENCE**

YEAR(S):

1994-1993

MERIDIAN OIL

March 14, 1994

Certified - P 794 519 781

Roger Anderson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

**Re: Meridian Oil Transportation Inc. (MOTI)
Crude Oil Spills
Contaminated Soil Handling**

Dear Mr. Anderson,

MOTI operates a fleet of 18 crude oil tanker trucks and pup trailers, four central crude oil storage tank batteries and one crude oil pipeline. Occasionally an unplanned spill occurs which results in the contamination of soil. MOTI does not classify the contaminated media as RCRA Exempt. As a non-exempt contaminated media, MOTI must determine if the media is a hazardous waste.

On two recent spills MOTI evaluated hazardous waste potential by soil sampling and analysis for TCLP constituents. The TCLP analyses, in both spill instances, demonstrated that the contaminated media was not a hazardous waste. The contaminated media sampled was representative of most cleanup materials that might be encountered in MOTI spills and cleanups. The analyses are attached for your review. MOTI believes that the process and material involved in the spill cleanups described above are typical of those encountered in most MOTI spills.

In the future, if spill contaminated media is consistent with that described in the attached TCLP analyses, sampling or analyses will not be performed. MOTI will apply generators knowledge to make this determination on a case-by-case basis. If the process and spilled material are consistent as described above, the contaminated media will be managed as a non-hazardous waste. If the process and spilled material is not consistent, sampling and analysis will be performed. At least one TCLP analysis will be performed annually to verify our management strategy. MOTI will supply your office with the updated analysis.

MOTI personnel strive to eliminate spills during all phases of our operations. Spills are not accepted as normal operating procedure. MOTI conducts annual training on spill prevention and response and has developed a Transportation Oil Spill Response Plan to support our spill prevention efforts.

MOTI remains committed to spill prevention. However, when small unplanned events occur the above described waste management strategy will be implemented.

MOTI believes this waste management strategy addresses the NMOCD concerns stated during past phone conversations. If you have any questions or wish to discuss this strategy further, please call me at 326-9537.

Sincerely,

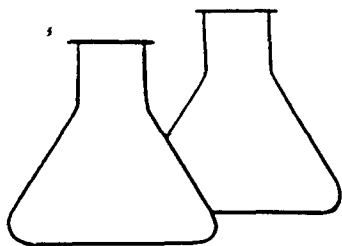
A handwritten signature in black ink, appearing to read "Craig A. Bock". The signature is fluid and cursive, with the first name "Craig" being more prominent.

Craig A. Bock
Associate Environmental Representative

Attachments: TCLP Analyses (2)

cc: L. Marshall - MOTI
G. Garretson - MOTI
Denny Foust - OCD, Aztec, N.M.

cab/sn/nmoedpf



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHODS 8010/8020 AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	Meridian	Project #:	92131
Sample ID:	Stockpile Comp.	Date Reported:	12-29-93
Laboratory Number:	6685	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-28-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	0.019	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	0.354	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	99 %
	Bromofluorobenzene	102 %

Method: Method 1311, Toxicity Characteristic Leaching Procedure
Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

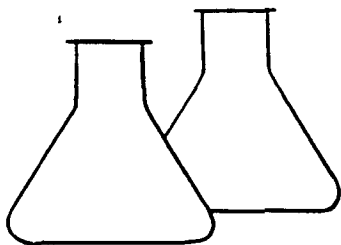
Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: Storage 1 Facility - Hart Canyon
5-Point Stockpile Composite

Kevin L. Spencer
Analyst

Marvin D. Young
Review



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EPA METHOD 8040 PHENOLS

Client:	Meridian	Project #:	92131
Sample ID:	Stockpile Comp.	Date Reported:	12-30-93
Laboratory Number:	6685	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	97 %
	2,4,6-tribromophenol	102 %

Method: 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.

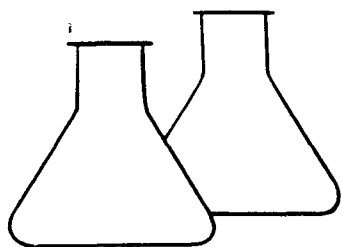
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments: Storage 1 Facility - Hart Canyon
5-Point Stockpile Composite

Devin L. Gainer
Analyst

Maris D. Young
Review



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EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	Meridian	Project #:	92131
Sample ID:	Stockpile Comp.	Date Reported:	12-30-93
Laboratory Number:	6685	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool and Intact	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-dinitrotoluene	ND	0.020	0.13
Hexachlorobenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	96.8 %

Method: 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.

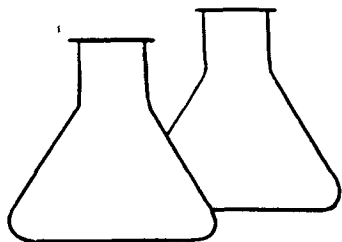
Method 8090, Nitroaromatics and Cyclic Ketones,
Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Storage 1 Facility - Hart Canyon
5-Point Sockpile Composite

Kevin L. Ciemer
Analyst

Marisa D. Young
Review



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EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Meridian	Project #:	92131
Sample ID:	Stockpile Comp.	Date Reported:	12-29-93
Laboratory Number:	6685	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Analyzed:	12-29-93
Condition:	Cool & Intact	Date Extracted:	12-27-93
		Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
ARSENIC	ND	0.001	5.000
BARIUM	2.3	0.1	100.0
CADMIUM	0.003	0.001	1.000
CHROMIUM	ND	0.001	5.000
LEAD	0.013	0.001	5.000
MERCURY	0.005	0.002	0.200
SELENIUM	ND	0.001	1.000
SILVER	ND	0.01	5.00

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

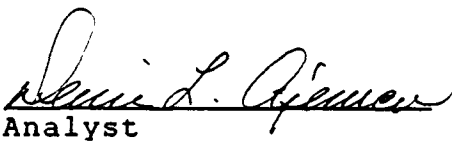
Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760A
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

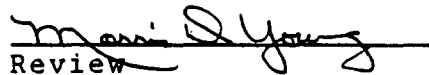
Method 1311, Toxicity Characteristic Leaching Procedure
SW-846, USEPA, July 1992.

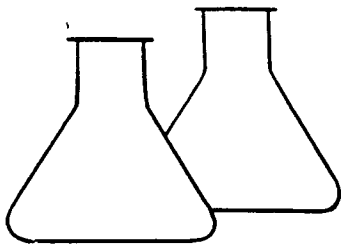
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: Storage 1 Facility - Hart Canyon
5-Point Stockpile Composite


Analyst


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RCRA CHARACTERISTICS

Client:	Meridian	Project #:	92131
Sample ID:	5-point Stockpile Comp.	Date Reported:	12-27-93
Lab ID#:	6685	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Analyzed:	12-27-93
Condition:	Cool & Intact		

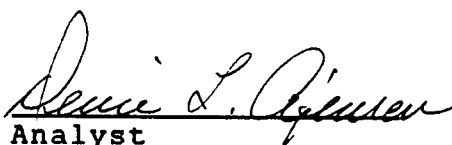
IGNITABILITY: Did not ignite upon direct contact with flame after heating to 600c.

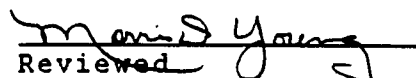
CORROSIVITY: pH of 7.64

REACTIVITY: Did not react violently with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrochloric acid).

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

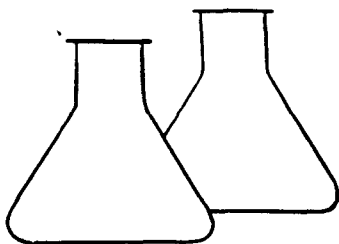
Comments: $\leq$ pH 2 or $\geq$ pH 12.5 is hazardous waste.
Storage 1 Facility - Hart Canyon


Analyst


Reviewed

QUALITY ASSURANCE/QUALITY CONTROL

DOCUMENTATION



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AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-29-93
Laboratory Number:	1228TCV.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	12-28-93
Condition:	NA	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	ND	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	ND	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	101 %
	Bromofluorobenzene	99 %

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

Method 5030, Purge-and-Trap, Test Methods for Evaluating
Solid Waste, SW-846, USEPA, July 1992.

Method 8010, Halogenated Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

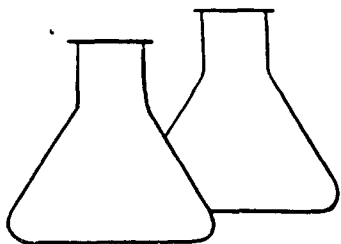
Note: Regulatory Limits based on 40 CFR part 261 Subpart C
section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments:

Dennis L. O'Brien
Analyst

M. Young
Review



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EPA METHODS 8010/8020 AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-29-93
Laboratory Number:	1227TCV.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-28-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	ND	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	ND	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	96 %
	Bromofluorobenzene	99 %

Method: Method 1311, Toxicity Characteristic Leaching Procedure
Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

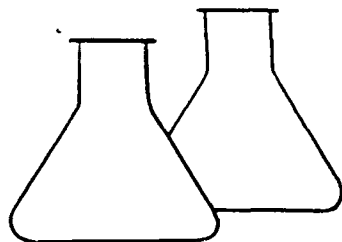
Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Kevin L. Jensen
Analyst

Marian D. Young
Review



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EPA METHOD 8040 PHENOLS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-30-93
Laboratory Number:	1230TCA.BLK	Date Sampled:	NA
Sample Matrix:	2-Propanol	Date Received:	NA
Preservative:	NA	Date Extracted:	NA
Condition:	NA	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	100 %
	2,4,6-tribromophenol	97 %

Method: 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.

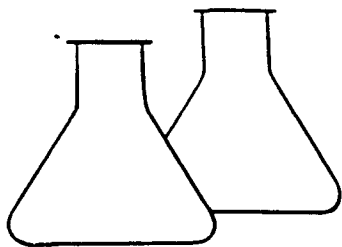
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments:

Dennis L. Givens
Analyst

Morris D. Young
Review



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EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-30-93
Laboratory Number:	1229TBN.BLK	Date Sampled:	NA
Sample Matrix:	Hexane	Date Received:	NA
Preservative:	NA	Date Extracted:	NA
Condition:	NA	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	97.5 %

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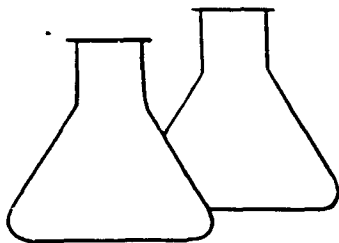
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Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

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Comments:

Dennis L. Jensen
Analyst

Morris D. Young
Review



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8040 PHENOLS

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-30-93
Laboratory Number:	1227TCA.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	103 %
	2,4,6-tribromophenol	102 %

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

Method 3510, Separatory Funnel Liquid-Liquid Extraction,
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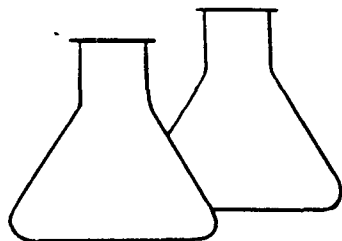
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Daniel L. Jensen
Analyst

Morgan D. Young
Review



ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-30-93
Laboratory Number:	1227TBN.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool and Intact	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-dinitrotoluene	ND	0.020	0.13
Hexachlorobenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	97.4 %

Method: 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,
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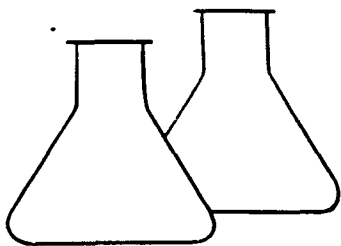
Method 8090, Nitroaromatics and Cyclic Ketones,
Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Kevin L. Pinner
Analyst

Mavis D. Young
Review



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS - BLANKS

Client:	NA	Project #:	NA
Sample ID:	Blanks	Date Reported:	12-29-93
Laboratory Number:	NA	Date Sampled:	NA
Sample Matrix:	TCLP Extract	Date Received:	NA
Analysis Requested:	TCLP	Date Analyzed:	12-29-93
Condition:	NA	Date Extracted:	NA

Parameter	Instrument Blank (mg/L)	Extraction Sol. Blank (mg/L)	Det. Limit (mg/L)
ARSENIC	ND	ND	0.001
BARIUM	ND	ND	0.1
CADMIUM	ND	ND	0.001
CHROMIUM	ND	ND	0.001
LEAD	ND	ND	0.001
MERCURY	ND	ND	0.002
SELENIUM	ND	ND	0.001
SILVER	ND	ND	0.01

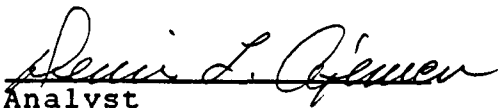
Method: Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

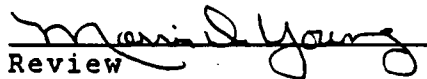
Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

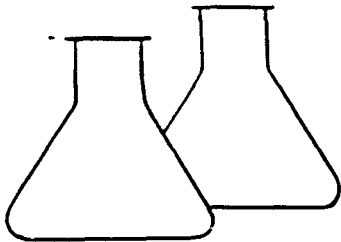
Method 1311, Toxicity Characteristic Leaching Procedure
SW-846, USEPA, July 1992.

ND - Parameter not detected at the stated detection limit.

Comments:


Analyst


Review



ENVIROTECH LABS

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**** QUALITY ASSURANCE** **EPA METHODS 8010/8020**
MATRIX SPIKE - AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Reported:	12-29-93
Laboratory Number:	6685STCV.	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Analysis Requested:	TCLP	Date Analyzed:	12-28-93
Condition:	NA		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	10.0	11.6	5.1	107	28-163
2-Butanone	19.4	10.0	30.7	6.7	104	47-132
1,1-Dichloroethene	ND	10.0	11.4	7.5	84	43-143
Chloroform	ND	10.0	8.2	5.0	82	49-133
Carbon Tetrachloride	ND	10.0	9.8	5.0	98	43-143
Benzene	354	10.0	363	5.4	100	39-150
1,2-Dichloroethane	ND	10.0	9.3	5.3	93	51-147
Trichloroethene	ND	10.0	8.6	5.1	86	35-146
Tetrachloroethene	ND	10.0	13.7	5.5	106	26-162
Chlorobenzene	ND	10.0	9.6	5.0	96	38-150
1,4-Dichlorobenzene	ND	10.0	8.1	5.0	81	42-143

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

Method 5030, Purge-and-Trap, Test Methods for Evaluating
Solid Waste, SW-846, USEPA, July 1992.

Method 8010, Halogenated Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, July 1992.

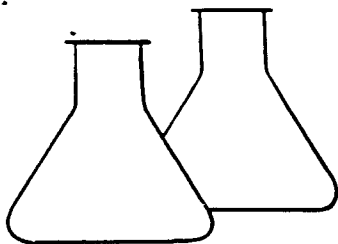
Method 8020, Aromatic Volatile Organics, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

Kevin L. Plummer
Analyst

Marianne Young
Review



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

QUALITY ASSURANCE REPORT
EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS - MATRIX SPIKE

Client:	NA	Project #:	NA
Sample ID:	NA	Date Reported:	12-29-93
Laboratory Number:	NA	Date Sampled:	12-27-93
Sample Matrix:	TCLP Extract	Date Received:	12-27-93
Analysis Requested:	TCLP	Date Analyzed:	12-29-93
Condition:	NA	Date Extracted:	12-27-93

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
ARSENIC	0.100	ND	0.102	102
BARIUM	10.0	2.26	12.4	101
CADMIUM	0.100	0.003	0.104	101
CHROMIUM	0.100	ND	0.102	102
LEAD	0.100	0.013	0.113	100
MERCURY	0.050	0.005	0.055	100
SELENIUM	0.100	ND	0.099	99
SILVER	1.00	ND	0.961	96

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TCLP Metals	80 - 120

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

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760A
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

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

ND - Parameter not detected at the stated detection limit.

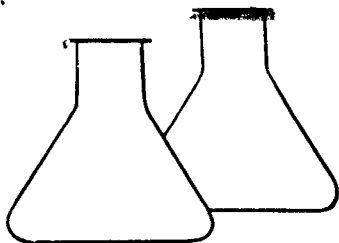
Comments:

Kevin L. Jensen
Analyst

Marion D. Young
Review

ENVIROTECH INC.

5796 U.S. Highway 64-3014
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ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHODS 8010/8020 AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	Meridian	Project #:	93216
Sample ID:	Stockpile Comp.	Date Reported:	12-29-93
Laboratory Number:	6686	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-28-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	0.008	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	0.013	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

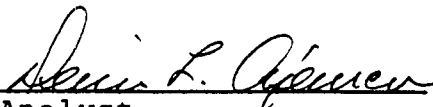
SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	97 %
	Bromofluorobenzene	105 %

Method: Method 1311, Toxicity Characteristic Leaching Procedure
Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

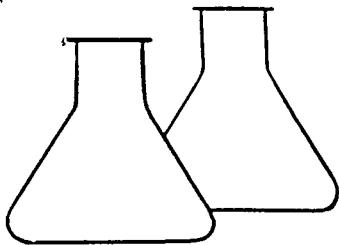
Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: Candelaria Stock Pond, 5-Point Stockpile Composite


Analyst


Review



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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8040 PHENOLS

Client:	Meridian	Project #:	93216
Sample ID:	Stockpile Comp.	Date Reported:	12-30-93
Laboratory Number:	6686	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	100 %
	2,4,6-tribromophenol	101 %

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

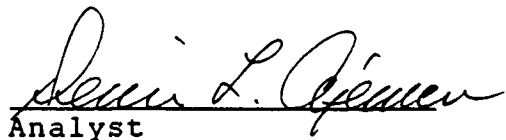
Method 3510, Separatory Funnel Liquid-Liquid Extraction,
Test Methods for Evaluating Solid Waste, SW-846, USEPA,
July 1992.

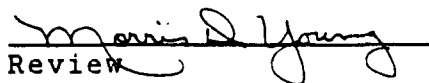
Method 8040, Phenols, Test Methods for Evaluating Solid
Waste, SW-846, USEPA, Sept. 1986.

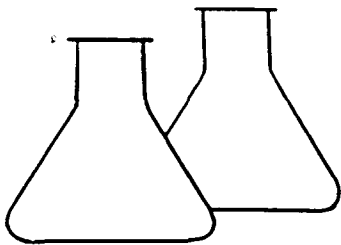
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments: Candelaria Stock Pond, 5-Point Stockpile Composite


Analyst


Review



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EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	Meridian	Project #:	93216
Sample ID:	Stockpile Comp.	Date Reported:	12-30-93
Laboratory Number:	6686	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool and Intact	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-dinitrotoluene	ND	0.020	0.13
Hexachlorobenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	102 %

Method: 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.

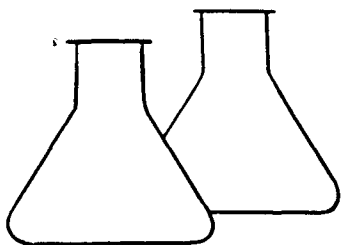
Method 8090, Nitroaromatics and Cyclic Ketones,
Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Candelaria Stock Pond, 5-Point Stockpile Composite

Analyst

Review



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EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	Meridian	Project #:	93216
Sample ID:	Stockpile Comp.	Date Reported:	12-29-93
Laboratory Number:	6686	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Analyzed:	12-29-93
Condition:	Cool & Intact	Date Extracted:	12-27-93
		Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
ARSENIC	0.014	0.001	5.000
BARIUM	2.1	0.1	100.0
CADMIUM	0.004	0.001	1.000
CHROMIUM	ND	0.001	5.000
LEAD	0.010	0.001	5.000
MERCURY	0.012	0.002	0.200
SELENIUM	ND	0.001	1.000
SILVER	ND	0.01	5.00

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

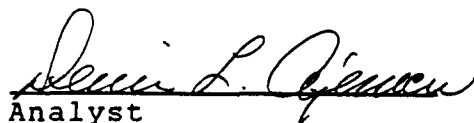
Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760A
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

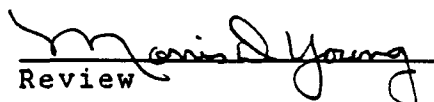
Method 1311, Toxicity Characteristic Leaching Procedure
SW-846, USEPA, July 1992.

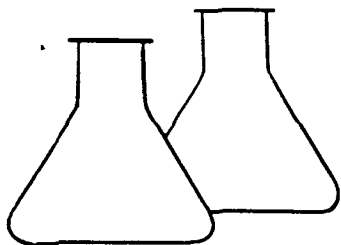
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: Candelaria Stock Pond, 5-Point Stockpile Composite


Analyst


Review



ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

RCRA CHARACTERISTICS

Client:	Meridian	Project #:	93216
Sample ID:	5-point Stockpile Comp.	Date Reported:	12-27-93
Lab ID#:	6686	Date Sampled:	12-27-93
Sample Matrix:	Soil	Date Received:	12-27-93
Preservative:	Cool	Date Analyzed:	12-27-93
Condition:	Cool & Intact		

IGNITABILITY: Did not ignite upon direct contact with flame after heating to 600c.

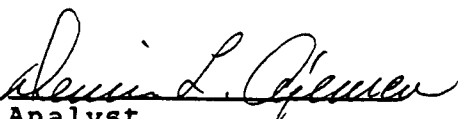
CORROSIVITY: pH of 8.07

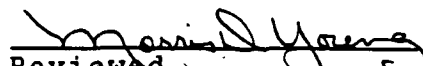
REACTIVITY: Did not react violently with water, strong base (10N Sodium Hydroxide), or strong acid (6N Hydrochloric acid).

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

Comments: $\leq$ pH 2 or $\geq$ pH 12.5 is hazardous waste.

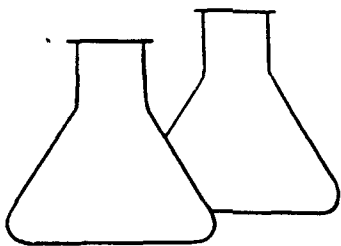
Candelaria Stock Pond


Analyst


Reviewed

QUALITY ASSURANCE/QUALITY CONTROL

DOCUMENTATION



ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-29-93
Laboratory Number:	1228TCV.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	12-28-93
Condition:	NA	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	ND	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	ND	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	101 %
	Bromofluorobenzene	99 %

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

Method 5030, Purge-and-Trap, Test Methods for Evaluating
Solid Waste, SW-846, USEPA, July 1992.

Method 8010, Halogenated Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

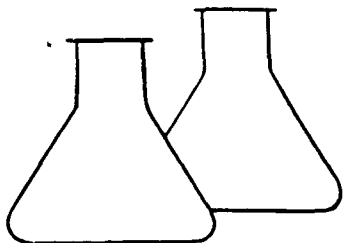
Note: Regulatory Limits based on 40 CFR part 261 Subpart C
section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments:

Kevin L. Givens
Analyst

Morgan D. Young
Review



EQVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHODS 8010/8020 AROMATIC VOLATILE ORGANICS/HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-29-93
Laboratory Number:	1227TCV.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-28-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.005	0.2
2-Butanone	ND	0.007	200
1,1-Dichloroethene	ND	0.008	0.7
Chloroform	ND	0.005	6.0
Carbon Tetrachloride	ND	0.005	0.5
Benzene	ND	0.005	0.5
1,2-Dichloroethene	ND	0.005	0.5
Trichloroethene	ND	0.005	0.5
Tetrachloroethene	ND	0.006	0.7
Chlorobenzene	ND	0.005	100
1,4-Dichlorobenzene	ND	0.005	7.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromochloromethane	96 %
	Bromofluorobenzene	99 %

Method: Method 1311, Toxicity Characteristic Leaching Procedure
Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

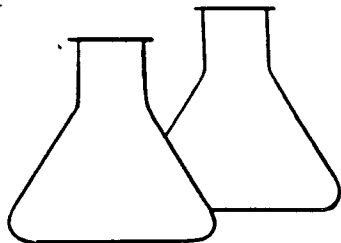
Note: Regulatory Limits based on 40 CFR part 261 Subpart C section 261.24, July 1, 1992

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Kevin L. Pinner
Analyst

Marion D. Young
Review



ENVIROTECH LABS

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EPA METHOD 8040 PHENOLS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-30-93
Laboratory Number:	1230TCA.BLK	Date Sampled:	NA
Sample Matrix:	2-Propanol	Date Received:	NA
Preservative:	NA	Date Extracted:	NA
Condition:	NA	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	100 %
	2,4,6-tribromophenol	97 %

Method: 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.

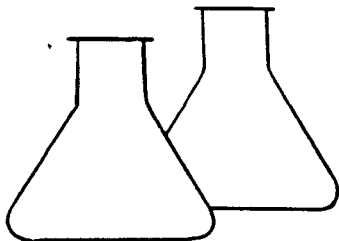
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments:

Kevin L. Cramer
Analyst

Marissa Young
Review



EOVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	12-30-93
Laboratory Number:	1229TBN.BLK	Date Sampled:	NA
Sample Matrix:	Hexane	Date Received:	NA
Preservative:	NA	Date Extracted:	NA
Condition:	NA	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	97.5 %

Method: 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.

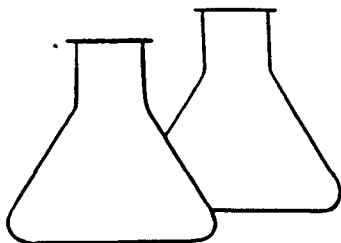
Method 8090, Nitroaromatics and Cyclic Ketones,
Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

Kevin L. Givner
Analyst

Mavis D. Young
Review



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EPA METHOD 8040 PHENOLS

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-30-93
Laboratory Number:	1227TCA.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool & Intact	Date Analyzed:	12-30-93
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200.0
p,m-Cresol	ND	0.040	200.0
2,4,6-Trichlorophenol	ND	0.040	2.0
2,4,5-Trichlorophenol	ND	0.040	2.0
Pentachlorophenol	ND	0.020	100.0

SURROGATE RECOVERY	Parameter	Percent Recovery
	2-fluorophenol	103 %
	2,4,6-tribromophenol	102 %

Method: 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.

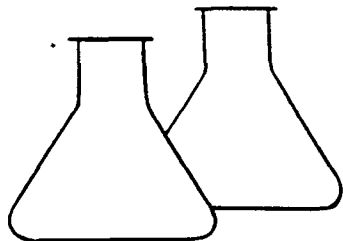
Note: Regulatory Limits based on 40 CFR part 261 subpart C
section 261.24, July 1992

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Kevin L. Cooper
Analyst

Maris D. Young
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EPA METHOD 8090 NITROAROMATICS AND CYCLIC KETONES

Client:	NA	Project #:	NA
Sample ID:	Method Blank	Date Reported:	12-30-93
Laboratory Number:	1227TBN.MB	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Preservative:	Cool	Date Extracted:	12-27-93
Condition:	Cool and Intact	Date Analyzed:	12-29-93
		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	5.0
Nitrobenzene	ND	0.020	5.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-nitrotoluene	ND	0.020	0.13
Hexachlorobenzene	ND	0.020	0.13

SURROGATE RECOVERY:	Parameter	Percent Recovery
	2-fluorobiphenyl	97.4 %

Method: 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.

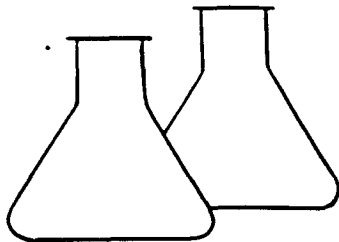
Method 8090, Nitroaromatics and Cyclic Ketones,
Test Methods for Evaluating Solid Waste, SW-846,
USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: TCLP Extraction Method Blank

Daniel L. Jensen
Analyst

Maria D. Young
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EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS - BLANKS

Client:	NA	Project #:	NA
Sample ID:	Blanks	Date Reported:	12-29-93
Laboratory Number:	NA	Date Sampled:	NA
Sample Matrix:	TCLP Extract	Date Received:	NA
Analysis Requested:	TCLP	Date Analyzed:	12-29-93
Condition:	NA	Date Extracted:	NA

Parameter	Instrument Blank (mg/L)	Extraction Sol. Blank (mg/L)	Det. Limit (mg/L)
ARSENIC	ND	ND	0.001
BARIUM	ND	ND	0.1
CADMIUM	ND	ND	0.001
CHROMIUM	ND	ND	0.001
LEAD	ND	ND	0.001
MERCURY	ND	ND	0.002
SELENIUM	ND	ND	0.001
SILVER	ND	ND	0.01

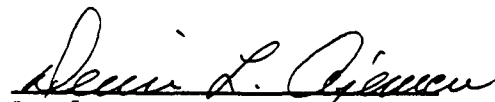
Method: Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, July 1992.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

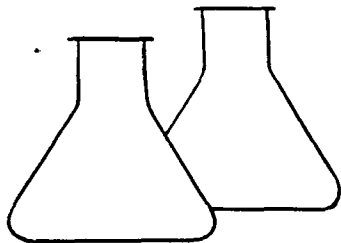
Method 1311, Toxicity Characteristic Leaching Procedure
SW-846, USEPA, July 1992.

ND - Parameter not detected at the stated detection limit.

Comments:


Analyst


Review



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**** QUALITY ASSURANCE** EPA METHODS 8010/8020
MATRIX SPIKE - AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Reported:	12-29-93
Laboratory Number:	6685STCV.	Date Sampled:	NA
Sample Matrix:	Soil	Date Received:	NA
Analysis Requested:	TCLP	Date Analyzed:	12-28-93
Condition:	NA		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	10.0	11.6	5.1	107	28-163
2-Butanone	19.4	10.0	30.7	6.7	104	47-132
1,1-Dichloroethene	ND	10.0	11.4	7.5	84	43-143
Chloroform	ND	10.0	8.2	5.0	82	49-133
Carbon Tetrachloride	ND	10.0	9.8	5.0	98	43-143
Benzene	354	10.0	363	5.4	100	39-150
1,2-Dichloroethane	ND	10.0	9.3	5.3	93	51-147
Trichloroethene	ND	10.0	8.6	5.1	86	35-146
Tetrachloroethene	ND	10.0	13.7	5.5	106	26-162
Chlorobenzene	ND	10.0	9.6	5.0	96	38-150
1,4-Dichlorobenzene	ND	10.0	8.1	5.0	81	42-143

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

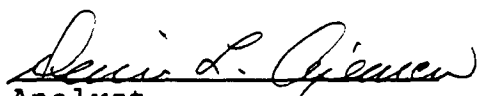
Method 5030, Purge-and-Trap, Test Methods for Evaluating
Solid Waste, SW-846, USEPA, July 1992.

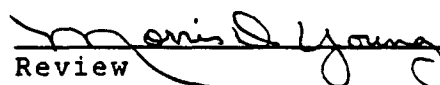
Method 8010, Halogenated Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, July 1992.

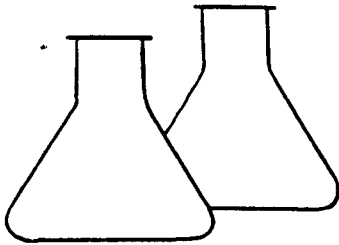
Method 8020, Aromatic Volatile Organics, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:


Analyst


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QUALITY ASSURANCE REPORT
EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS - MATRIX SPIKE

Client:	NA	Project #:	NA
Sample ID:	NA	Date Reported:	12-29-93
Laboratory Number:	NA	Date Sampled:	12-27-93
Sample Matrix:	TCLP Extract	Date Received:	12-27-93
Analysis Requested:	TCLP	Date Analyzed:	12-29-93
Condition:	NA	Date Extracted:	12-27-93

Parameter	Spike Added (mg/L)	Sample Result (mg/L)	Spiked Sample Result (mg/L)	Percent Recovery
ARSENIC	0.100	ND	0.102	102
BARIUM	10.0	2.26	12.4	101
CADMIUM	0.100	0.003	0.104	101
CHROMIUM	0.100	ND	0.102	102
LEAD	0.100	0.013	0.113	100
MERCURY	0.050	0.005	0.055	100
SELENIUM	0.100	ND	0.099	99
SILVER	1.00	ND	0.961	96

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TCLP Metals	80 - 120

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

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7760A
Analysis of Metals by GFAA and FLAA, SW-846, USEPA

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

ND - Parameter not detected at the stated detection limit.

Comments:

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Analyst

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