

District I - (505) 393-6161

P.O. Box 1980

Hobbs, NM 88241-1980

District II - (505) 748-1283

811 South First

Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Road

Aztec, NM 87410

District IV - (505) 334-6178

State of New Mexico

Energy Minerals and Natural Resources Department

Oil Conservation Division

2040 South Pacheco Street

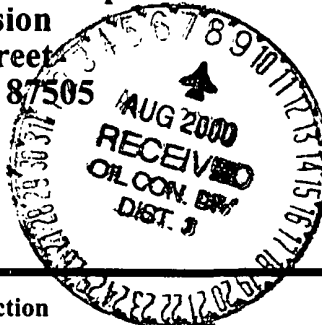
Santa Fe, New Mexico 87505

(505) 827-7131

Form C - 141

Originated 2/13/97

Submit 2 copies to
Appropriate District
Office in accordance
with Rule 116 on
back side of form



30-045-29749 Release Notification and Corrective Action
OPERATOR

Initial Report ☐ Final Report ☒

Name Conoco Inc.		Contact Gary Ledbetter
Address 3315 Bloomfield Hwy ; Farmington, NM 87401		Telephone No. 505-324-5837
Facility Name State Com 012 E		Facility Type Production Facility
Surface Owner State of New Mexico	Mineral Owner State of New Mexico	Lease No. E-1202-1

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	16	29N	8W	790	FSL	790	FEL	San Juan

NATURE OF RELEASE

Type of Release Condensate	Volume of Release 15 - 20 bbls	Volume Recovered none
Source of Release Oil tank manway	Date and Hour of Occurrence unknown	Date and Hour of Discovery 7-20-00 12:00 noon
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required <input type="checkbox"/>		
By Whom?		Date and Hour
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		If YES, Volume Impacting the Watercourse

If a Watercourse was Impacted, Describe Fully. (Attach additional Sheets If Necessary)

Describe Cause of Problem and Remedial Action Taken. (Attach Additional Sheets If Necessary)

Gasket material used during the tank construction appeared weathered and aged. Soil samples from 3' deep (bedrock) were taken from where the condensate first started leaking on the ground and the samples were sent in for analysis

Describe Area Affected and Cleanup Action Taken. (Attach Additional Sheets If Necessary)

Inside Berm area around tank manway. Soil samples analysis will be evaluated and affected area remediated in place or landfarm as per NMOCD guidelines.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state or local laws and/or regulations.

Signature: <i>Gary Ledbetter</i>	OIL CONSERVATION DIVISION	
Printed Name: Gary Ledbetter	Approved by: <i>Denny Fount</i>	District Supervisor: <i>for Frank Chavez</i>
SHEAR Specialist	Approval Date: <i>8/11/00</i>	Expiration Date:
7/31/2000 505-324-5837	Conditions of Approval:	Attached

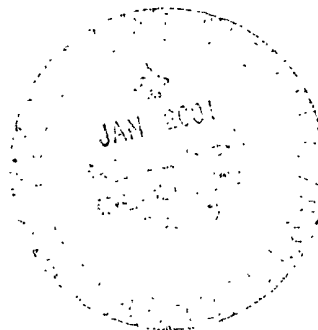
Not in computer
nJK1217343149



Conoco Inc.
P.O. Box 2197
Houston, TX 77252-2197

January 22, 2001

Mr. Denny G. Foust
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410



RE: State Com O 12-E, Rio Arriba, County
Unit A, Sec 29, T-29-N, R-8W

Dear Mr. Foust:

This letter is to serve as a written follow-up to our conversation last week and to provide a copy of analytical data from the remediation of the July 20, 2000, condensate spill at the State Com O 12-E. The spill at this site resulted from a defective manway gasket on the newly installed 300-bbl. condensate storage tank.

Attached are two sets of sampling analyses. The first set of samples were taken on August 3, 2000, and obtained using a hand auger. The first sample was taken at the surface of the ground immediately below the leaking manway gasket, the second sample was taken 17-inches beneath the surface, and the third sample was taken at a total depth of 36-inches. Bedrock was reached at the third sample depth (36"). Analyses of the samples produce the following results (all units are ppm):

	<u>TPH</u>	<u>Benzene</u>	<u>Total BTEX</u>
Surface Sample	3,790	NA	NA
17" Sample	4,970	NA	NA
36" Sample	7,480	0.840	5.490

NA = Not Analyzed

All measured parameters meet or exceed the recommended remediation levels published in the "Unlined Surface Impoundment Closure Guidelines, February 1993, except for the TPH concentration of the 36-inch depth sample. However, it should be noted that this sample was collected immediately above bedrock depth.

The second set of samples were collected on September 8, 2000, and were obtained with the use of a backhoe. Approximately three (3) cubic yards of soil were removed from the area where the leak had occurred. The final excavation measured approximately nine (9) feet by nine (9) feet by three (3) feet deep. The removed soil was spread out on location. Again, three (3) samples were taken from the excavated area. The sample labeled "Floor" was taken at the bottom center of the excavation immediately above bedrock (approximately 36-inches). The sample labeled "Tank Side" was taken at the bottom of the excavation

Mr. Denny G. Foust
January 22, 2001
Page Two

closest to the storage tank. The sample labeled "Front Side" was taken at the bottom of the excavation farthest from the storage tank. Analysis of these samples produced the following data (all units are ppm).

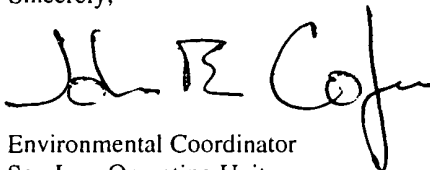
	<u>TPH</u>	<u>Benzene</u>	<u>Total BTEX</u>
Floor	4,780	1.4	8.9
Tank Side	6,100	0.179	5.16
Front Side	4,860	0.966	8.27

Again, all samples meet or exceed the remediation criteria set forth by NMOCD except for the TPH concentration of the sample labeled as "Tank Side". It should once more be pointed out that all three (3) of this second set of samples were collected immediately above bedrock (approximately 36 to 40-inches below surface).

Conoco respectfully requests that this matter be officially closed. It is our conclusion that even though TPH levels remain slightly above guideline concentrations, the bedrock encountered at this site will effectively isolate any remaining contamination from the area's groundwater.

We appreciate your consideration and understand that if you disagree with our conclusion we will be notified.

Sincerely,



Environmental Coordinator
San Juan Operating Unit

Attachments

cc: Donald Blair

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

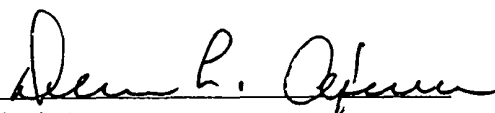
Client: Conoco, Inc. Project #: 707003-239
Sample ID: Tank Leaks (Top) Date Reported: 08-07-00
Laboratory Number: H857 Date Sampled: 08-03-00
Chain of Custody No: 7982 Date Received: 08-03-00
Sample Matrix: Soil Date Extracted: 08-07-00
Preservative: Cool Date Analyzed: 08-07-00
Condition: Cool and Intact Analysis Requested: 8015 TPH

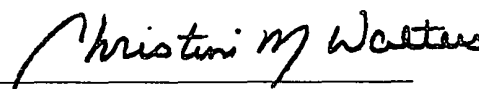
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3,310	0.2
Diesel Range (C10 - C28)	484	0.1
Total Petroleum Hydrocarbons	3,790	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: St. Com O 12 E.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

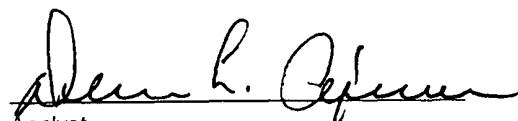
Client:	Conoco, Inc.	Project #:	707003-239
Sample ID:	17" (Middle)	Date Reported:	08-07-00
Laboratory Number:	H858	Date Sampled:	08-03-00
Chain of Custody No:	7982	Date Received:	08-03-00
Sample Matrix:	Soil	Date Extracted:	08-07-00
Preservative:	Cool	Date Analyzed:	08-07-00
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

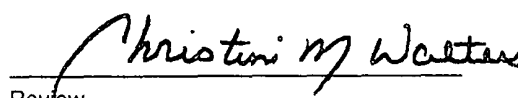
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4,060	0.2
Diesel Range (C10 - C28)	906	0.1
Total Petroleum Hydrocarbons	4,970	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: St. Com O 12 E.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Conoco, Inc.	Project #:	707003-239
Sample ID:	36" (Bottom)	Date Reported:	08-07-00
Laboratory Number:	H859	Date Sampled:	08-03-00
Chain of Custody No:	7982	Date Received:	08-03-00
Sample Matrix:	Soil	Date Extracted:	08-07-00
Preservative:	Cool	Date Analyzed:	08-07-00
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

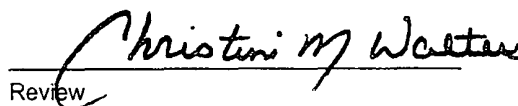
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	6,370	0.2
Diesel Range (C10 - C28)	1,110	0.1
Total Petroleum Hydrocarbons	7,480	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: St. Com O 12 E. Hit bedrock @ 3'.


Analyst


Review

ENVIROTECH LABS

INTEGRATED SOLUTIONS FOR A BETTER WORLD

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-07-TPH QA/QC	Date Reported:	08-07-00
Laboratory Number:	H854	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-07-00
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	08-03-00	2.1477E-002	2.1455E-002	0.10%	0 - 15%
Diesel Range C10 - C28	08-03-00	1.7996E-002	1.7960E-002	0.20%	0 - 15%

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

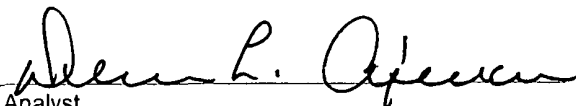
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	1,350	1,340	0.7%	0 - 30%
Diesel Range C10 - C28	2,860	2,860	0.0%	0 - 30%

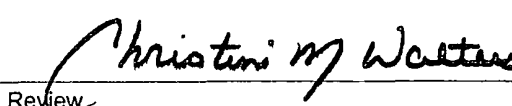
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	1,350	250	1,600	100%	75 - 125%
Diesel Range C10 - C28	2,860	250	3,110	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

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

Comments: QA/QC for samples H854 - H859 and H861 - H864.


Analyst


Review

ENVIROTECH LABS

INTEGRATED SOLUTIONS FOR ENVIRONMENTAL PROTECTION

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Conoco, Inc.	Project #:	707003-239
Sample ID:	36" (Bottom)	Date Reported:	08-07-00
Laboratory Number:	H859	Date Sampled:	08-03-00
Chain of Custody:	7982	Date Received:	08-03-00
Sample Matrix:	Soil	Date Analyzed:	08-07-00
Preservative:	Cool	Date Extracted:	08-07-00
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	840	1.8
Toluene	1,040	1.7
Ethylbenzene	1,090	1.5
p,m-Xylene	1,190	2.2
o-Xylene	1,330	1.0
Total BTEX	5,490	

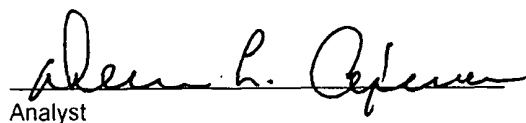
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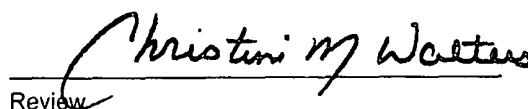
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: St. Com O 12 E. Hit bedrock @ 3'


Analyst


Review

ENVIROTECH LABS

Practical Solutions for a Better Environment

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	08-07-BTEX QA/QC	Date Reported:	08-07-00
Laboratory Number:	H854	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-07-00
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	6.1654E-002	6.1802E-002	0.2%	ND	0.2
Toluene	8.4151E-002	8.4303E-002	0.2%	ND	0.2
Ethylbenzene	1.0764E-001	1.0787E-001	0.2%	ND	0.2
p,m-Xylene	1.2081E-001	1.2111E-001	0.3%	ND	0.2
o-Xylene	1.1294E-001	1.1313E-001	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	210	209	0.5%	0 - 30%	1.8
Toluene	1,120	1,100	1.8%	0 - 30%	1.7
Ethylbenzene	808	801	0.9%	0 - 30%	1.5
p,m-Xylene	2,560	2,540	0.8%	0 - 30%	2.2
o-Xylene	1,370	1,370	0.0%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	210	50.0	260	100%	39 - 150
Toluene	1,120	50.0	1,170	100%	46 - 148
Ethylbenzene	808	50.0	856	100%	32 - 160
p,m-Xylene	2,560	100	2,650	100%	46 - 148
o-Xylene	1,370	50.0	1,420	100%	46 - 148

* - Administrative range set to 80 - 120%.

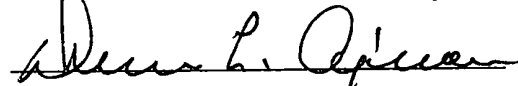
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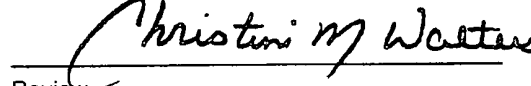
References.

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

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for samples H854 - H856, H859 and H861 - H864.


Analyst


Review

CHAIN OF CUSTODY RECORD

7982

Client / Project Name <i>Conoco Inc.</i>			Project Location <i>St. Com 0 12 E</i>		ANALYSIS / PARAMETERS								
Sampler: <i>Eickhoff / Coter</i>			Client No. <i>707003-239</i>		No. of Containers	TPH	BTEX					Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
<i>Tank Leaks (top)</i>	<i>8/3/00</i>	<i>1:00</i>	<i>H857</i>	<i>soil</i>	<i>1</i>	<i>✓</i>							
<i>17" (middle)</i>	<i>8/3/00</i>	<i>1:15</i>	<i>H858</i>	<i>soil</i>	<i>1</i>	<i>✓</i>							
<i>36" (bottom)</i>	<i>8/3/00</i>	<i>1:30</i>	<i>H859</i>	<i>soil</i>	<i>1</i>	<i>✓</i>	<i>✓</i>					<i>hit bedrock @ 3'</i>	
Relinquished by: (Signature) <i>[Signature]</i>			Date <i>8/3/00</i>	Time <i>14:20</i>	Received by: (Signature) <i>[Signature]</i>			Date <i>8.3.00</i>	Time <i>14:20</i>				
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615										Sample Receipt			
											Y	N	N/A
										Received Intact	<i>✓</i>		
										Cool - Ice/Blue Ice	<i>✓</i>		

ENVIROTECH LABS

~~PRACTICAL SOLUTIONS FOR A BETTER TOMORROW~~

September 13, 2000

Mr. John Cofer
Conoco, Inc.
3315 Bloomfield Highway
Farmington, New Mexico 87401

(505) 324-5813

(505) 324-5825

Client No.: 97070

Job No.: 707003


Dear Mr. Cofer:

Enclosed are the analytical results for the samples most recently submitted for the Pit Closures project.

The samples were extracted and/or analyzed using USEPA or equivalent methods.

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

Respectfully submitted,
Envirotech, Inc.


Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enclosure

CMW/cmw

C:\Files\Lab Reports\Conoco\wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

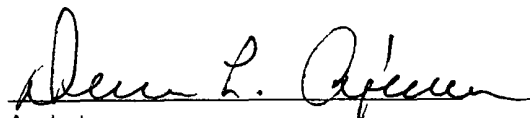
Client:	Conoco	Project #:	707003-248
Sample ID:	Floor	Date Reported:	09-13-00
Laboratory Number:	18127	Date Sampled:	09-08-00
Chain of Custody No:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Extracted:	09-12-00
Preservative:	Cool	Date Analyzed:	09-12-00
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

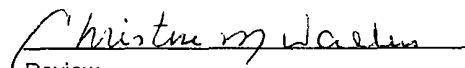
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4,600	0.2
Diesel Range (C10 - C28)	179	0.1
Total Petroleum Hydrocarbons	4,780	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: State Com O 12-E.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Conoco	Project #:	707003-248
Sample ID:	Tank Side	Date Reported:	09-13-00
Laboratory Number:	18128	Date Sampled:	09-08-00
Chain of Custody No:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Extracted:	09-12-00
Preservative:	Cool	Date Analyzed:	09-12-00
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

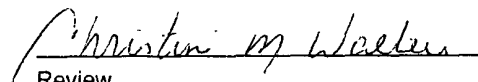
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5,660	0.2
Diesel Range (C10 - C28)	441	0.1
Total Petroleum Hydrocarbons	6,100	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: State Com O 12-E.


Analyst


Review

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

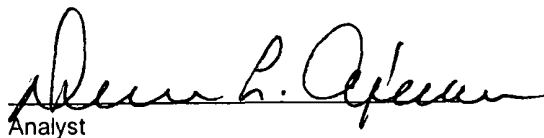
Client:	Conoco	Project #:	707003-248
Sample ID:	Front Side	Date Reported:	09-13-00
Laboratory Number:	18129	Date Sampled:	09-08-00
Chain of Custody No:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Extracted:	09-12-00
Preservative:	Cool	Date Analyzed:	09-12-00
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

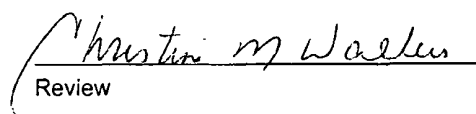
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	4,710	0.2
Diesel Range (C10 - C28)	149	0.1
Total Petroleum Hydrocarbons	4,860	0.1

ND - Parameter not detected at the stated detection limit.

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

Comments: **State Com O 12-E.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-12-TPH QA/QC	Date Reported:	09-13-00
Laboratory Number:	18127	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-12-00
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	08-03-00	2.2704E-002	2.2681E-002	0.10%	0 - 15%
Diesel Range C10 - C28	08-03-00	1.1286E-002	1.1263E-002	0.20%	0 - 15%

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

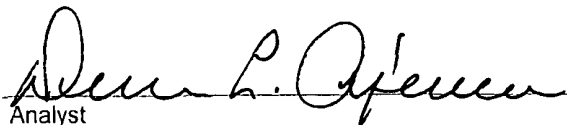
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	4,600	4,580	0.4%	0 - 30%
Diesel Range C10 - C28	179	178	0.3%	0 - 30%

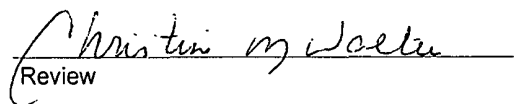
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	4,600	250	4,840	100%	75 - 125%
Diesel Range C10 - C28	179	250	428	100%	75 - 125%

ND - Parameter not detected at the stated detection limit.

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

Comments: QA/QC for samples 18127 - 18129, 18132 - 18135 and 18140 - 18141.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Conoco	Project #:	707003-248
Sample ID:	Floor	Date Reported:	09-12-00
Laboratory Number:	18127	Date Sampled:	09-08-00
Chain of Custody:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Analyzed:	09-12-00
Preservative:	Cool	Date Extracted:	09-12-00
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,400	1.8
Toluene	2,800	1.7
Ethylbenzene	1,470	1.5
p,m-Xylene	1,310	2.2
o-Xylene	1,930	1.0
Total BTEX	8,900	

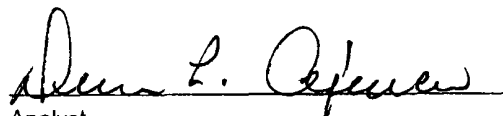
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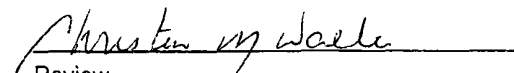
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: State Com O 12-E.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Conoco	Project #:	707003-248
Sample ID:	Tank Side	Date Reported:	09-12-00
Laboratory Number:	18128	Date Sampled:	09-08-00
Chain of Custody:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Analyzed:	09-12-00
Preservative:	Cool	Date Extracted:	09-12-00
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	179	1.8
Toluene	178	1.7
Ethylbenzene	1,480	1.5
p,m-Xylene	959	2.2
o-Xylene	2,360	1.0
Total BTEX	5,160	

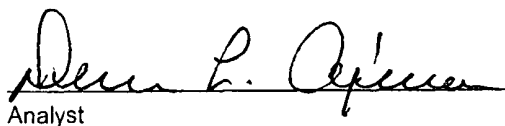
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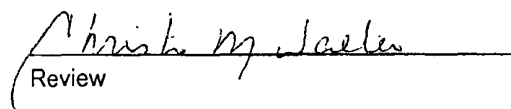
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: State Com O 12-E.


Analyst


Review

ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Conoco	Project #:	707003-248
Sample ID:	Front Side	Date Reported:	09-12-00
Laboratory Number:	18129	Date Sampled:	09-08-00
Chain of Custody:	7987	Date Received:	09-08-00
Sample Matrix:	Soil	Date Analyzed:	09-12-00
Preservative:	Cool	Date Extracted:	09-12-00
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	966	1.8
Toluene	2,420	1.7
Ethylbenzene	1,150	1.5
p,m-Xylene	1,550	2.2
o-Xylene	2,180	1.0
Total BTEX	8,270	

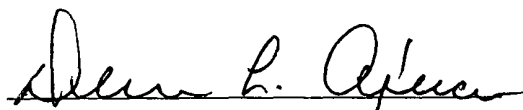
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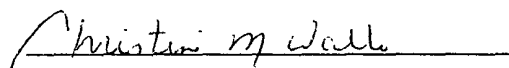
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: State Com O 12-E.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-12-BTEX QA/QC	Date Reported:	09-12-00
Laboratory Number:	18127	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-12-00
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	4.5223E-002	4.5332E-002	0.2%	ND	0.2
Toluene	4.9589E-002	4.9679E-002	0.2%	ND	0.2
Ethylbenzene	7.1608E-002	7.1758E-002	0.2%	ND	0.2
p,m-Xylene	7.6571E-002	7.6763E-002	0.3%	ND	0.2
o-Xylene	6.8123E-002	6.8239E-002	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1,400	1,360	2.9%	0 - 30%	1.8
Toluene	2,800	2,710	3.2%	0 - 30%	1.7
Ethylbenzene	1,470	1,430	2.7%	0 - 30%	1.5
p,m-Xylene	1,310	1,270	3.1%	0 - 30%	2.2
o-Xylene	1,930	1,880	2.6%	0 - 30%	1.0


Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1,400	50.0	1,450	100%	39 - 150
Toluene	2,800	50.0	2,840	100%	46 - 148
Ethylbenzene	1,470	50.0	1,520	100%	32 - 160
p,m-Xylene	1,310	100	1,410	100%	46 - 148
o-Xylene	1,930	50.0	1,980	100%	46 - 148

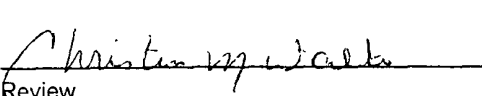
* - Administrative range set to 80 - 120%.

ND - Parameter not detected at the stated detection limit.

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

Comments: QA/QC for samples 18127 - 18129 and 18141.


Analyst


Review

CHAIN OF CUSTODY RECORD

7987

Client / Project Name Conoco			Project Location State Com O 12-E		ANALYSIS / PARAMETERS								
Sampler: John Cofer			Client No. 707003-248		No. of Containers	TPH	BTEX					Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
Floor	9/8/00	9:45	18127	Soil	1	✓	✓						
Tank Slick	9/8/00	9:50	18128	Soil	1	✓	✓						
Front Slick	9/8/00	9:55	18129	Soil	1	✓	✓						
Relinquished by: (Signature) John Cofer			Date 9/8/00	Time 12:15	Received by: (Signature) [Signature]			Date 9-8-00	Time 12/15				
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								
ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615										Sample Receipt			
											Y	N	N/A
										Received Intact	✓		
										Cool - Ice/Blue Ice	✓		