

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company <i>Caerus Southern Rockies LLC</i>	Contact <i>Peter Travers</i>	
Address <i>600 17th Street, Suite 1600N Denver, CO 80202</i>	Telephone No. <i>(720)880-6408</i>	
Facility Name <i>Tsah Tah SWD #1</i>	Facility Type <i>Salt Water Disposal</i>	
Surface Owner <i>Federal</i>	Mineral Owner <i>Federal</i>	API No. <i>30-045-34282</i>

LOCATION OF RELEASE

Unit Letter <i>B</i>	Section <i>1</i>	Township <i>24 N</i>	Range <i>10 W</i>	Feet from the <i>1,200'</i>	North/South Line <i>North</i>	Feet from the <i>1,511'</i>	East/West Line <i>East</i>	County <i>San Juan</i>
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Latitude 36.3471085209451 Longitude -107.844500524134

NATURE OF RELEASE

Type of Release <i>Produced Water</i>	Volume of Release <i>160 bbls</i>	Volume Recovered <i>160 bbls</i>
Source of Release	Date and Hour of Occurrence <i>1/3/2015 at 3:30 PM</i>	Date and Hour of Discovery <i>1/3/2015 at 5:30 PM</i>
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	
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.*

Describe Cause of Problem and Remedial Action Taken.*

The water line separator dump controls lost fuel gas due to a freeze and failed to dump to the tank battery, causing water to carry over into the gas gathering system. When the line filled with water, the compressor went down on high liquid level. The differential pressure caused the water line vent to open above a 20 bbl pit, located below the vent for excess water. The 20 bbl pit is within the SWD tank battery containment. Due to the constant flow from the line vent, the 20 bbl pit overflowed into the containment. To stop the flow, operators opened a bypass to the tanks upstream of the separator. Once the release was stopped, it was estimated that a total of 160 bbls was released within containment.

Describe Area Affected and Cleanup Action Taken.*

There was a total of 160 bbls released that pooled within a corner of the containment within the berms. The ground was frozen, so minimal infiltration occurred. A vac truck was able to recover all 160 bbls and dispose of at a third party disposal site. There is no evidence of hydrocarbon contamination where the produced water was released.

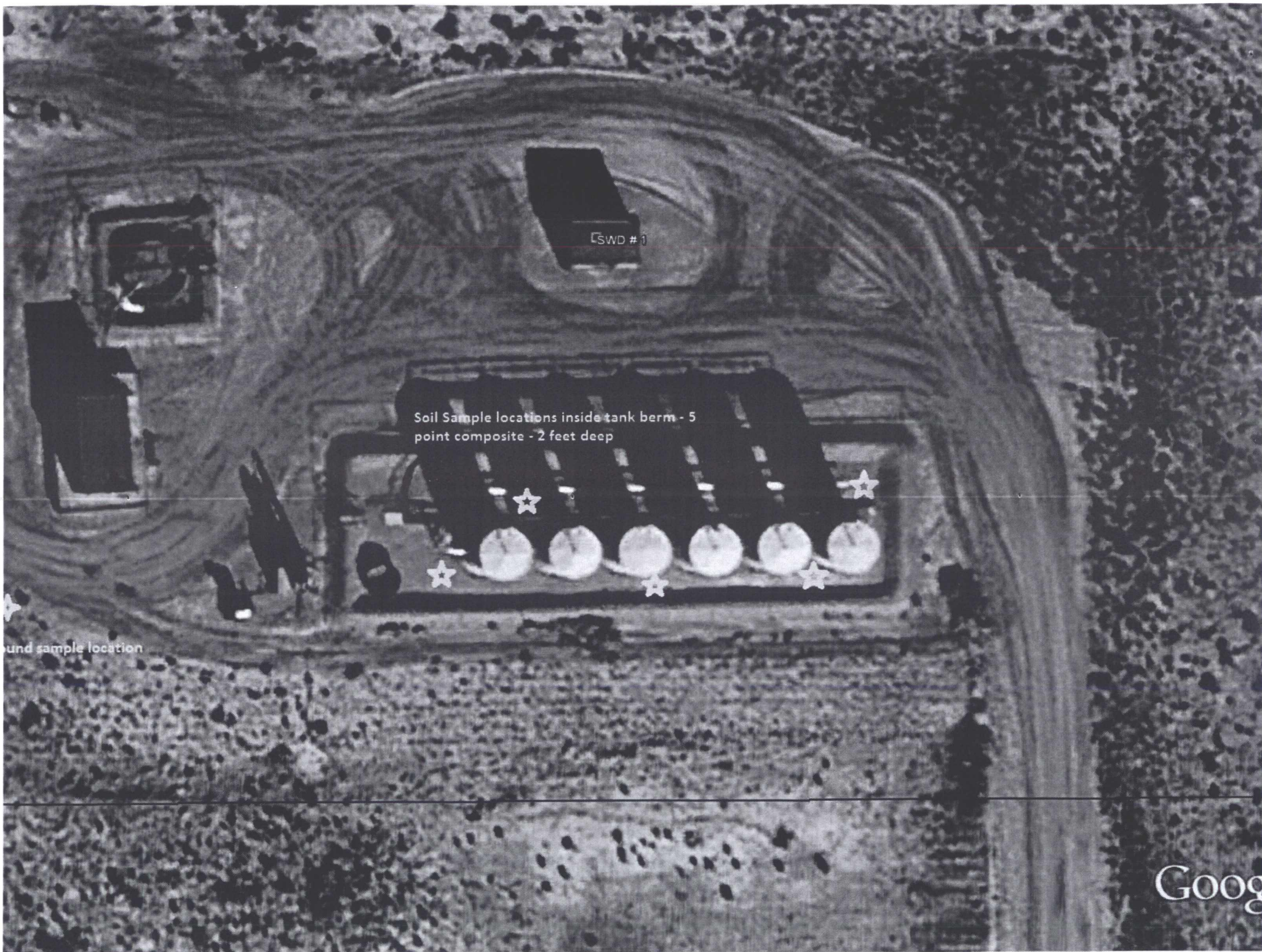
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger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

Signature: <i>Peter Travers</i>	OIL CONSERVATION DIVISION	
Printed Name: <i>Peter Travers</i>	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: <i>Operations Engineer</i>	Approval Date: <i>4/13/15</i>	Expiration Date:
E-mail Address: <i>pтрavers@caerusoilandgas.com</i>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <i>1/16/2015</i>	Phone: <i>(720)880-6408</i>	

* Attach Additional Sheets If Necessary

15103390643

13





Analytical Report

Report Summary

Client: Caerus Southern Rockies

Chain Of Custody Number: -

Samples Received: 2/10/2015 11:55:00AM

Job Number: 11190-0001

Work Order: P502026

Project Name/Location: SWD #1

Entire Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Tim Cain', is written over a horizontal line.

Date: 2/20/15

Tim Cain, Laboratory Manager

Supplement to analytical report generated on: 2/20/15 9:43 am

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Caerus Southern Rockies
7415 E. Main
Farmington NM, 87413

Project Name: SWD #1
Project Number: 11190-0001
Project Manager: Vern Andrews (Walsh Engineering)

Reported:
20-Feb-15 15:00

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SWD #1 Tank Battery	P502026-01A	Soil	02/10/15	02/10/15	Glass Jar, 16 oz.
SWD #1 Control	P502026-02A	Soil	02/10/15	02/10/15	Glass Jar, 16 oz.

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Caerus Southern Rockies
 7415 E. Main
 Farmington NM, 87413

 Project Name: SWD #1
 Project Number: 11190-0001
 Project Manager: Vern Andrews (Walsh Engineering)

Reported:
 20-Feb-15 15:00

SWD #1 Tank Battery
P502026-01 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		86.5 %		50-150	1507033	02/13/15	02/19/15	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.94	mg/kg	1	1507033	02/13/15	02/19/15	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.8	mg/kg	1	1508012	02/16/15	02/17/15	EPA 8015D	
Surrogate: o-Terphenyl		113 %		50-200	1508012	02/16/15	02/17/15	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		86.5 %		50-150	1507033	02/13/15	02/19/15	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	63.8	34.9	mg/kg	1	1508017	02/17/15	02/17/15	EPA 418.1	
Cation/Anion Analysis									
Chloride	607	9.93	mg/kg	1	1508015	02/17/15	02/17/15	EPA 300.0	

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Caerus Southern Rockies
 7415 E. Main
 Farmington NM, 87413

 Project Name: SWD #1
 Project Number: 11190-0001
 Project Manager: Vern Andrews (Walsh Engineering)

Reported:
 20-Feb-15 15:00

SWD #1 Control
P502026-02 (Solid)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		88.6 %		50-150	1507033	02/13/15	02/20/15	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	9.88	mg/kg	1	1507033	02/13/15	02/20/15	EPA 8015D	
Diesel Range Organics (C10-C28)	ND	29.6	mg/kg	1	1508012	02/16/15	02/17/15	EPA 8015D	
Surrogate: o-Terphenyl		102 %		50-200	1508012	02/16/15	02/17/15	EPA 8015D	
Surrogate: 4-Bromochlorobenzene-FID		88.6 %		50-150	1507033	02/13/15	02/20/15	EPA 8015D	
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	51.8	34.9	mg/kg	1	1508017	02/17/15	02/17/15	EPA 418.1	
Cation/Anion Analysis									
Chloride	ND	9.85	mg/kg	1	1508015	02/17/15	02/17/15	EPA 300.0	

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Caerus Southern Rockies
7415 E. Main
Farmington NM, 87413

Project Name: SWD #1
Project Number: 11190-0001
Project Manager: Vern Andrews (Walsh Engineering)

Reported:
20-Feb-15 15:00

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1507033 - Purge and Trap EPA 5030A

Blank (1507033-BLK1)

Prepared: 13-Feb-15 Analyzed: 18-Feb-15

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	0.404		"	0.394		102	50-150			

LCS (1507033-BS1)

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Benzene	22.7	0.10	mg/kg	19.9		114	75-125			
Toluene	23.8	0.10	"	19.9		120	70-125			
Ethylbenzene	24.0	0.10	"	19.9		121	75-125			
p,m-Xylene	48.2	0.20	"	39.8		121	80-125			
o-Xylene	23.5	0.10	"	19.9		118	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.439		"	0.398		110	50-150			

Matrix Spike (1507033-MS1)

Source: P502037-01

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Benzene	22.3	0.10	mg/kg	19.8	ND	113	75-125			
Toluene	28.4	0.10	"	19.8	ND	144	70-125			SPK1
Ethylbenzene	23.5	0.10	"	19.8	ND	119	75-125			
p,m-Xylene	48.4	0.20	"	39.5	ND	122	80-125			
o-Xylene	23.4	0.10	"	19.8	ND	119	75-125			
Surrogate: 4-Bromochlorobenzene-PID	0.452		"	0.395		114	50-150			

Matrix Spike Dup (1507033-MSD1)

Source: P502037-01

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Benzene	22.4	0.10	mg/kg	19.8	ND	113	75-125	0.213	15	
Toluene	29.1	0.10	"	19.8	ND	147	70-125	2.57	15	SPK1
Ethylbenzene	23.8	0.10	"	19.8	ND	120	75-125	0.886	15	
p,m-Xylene	48.8	0.20	"	39.6	ND	123	80-125	0.890	15	
o-Xylene	23.3	0.10	"	19.8	ND	118	75-125	0.494	15	
Surrogate: 4-Bromochlorobenzene-PID	0.431		"	0.396		109	50-150			

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Caerus Southern Rockies
 7415 E. Main
 Farmington NM, 87413

 Project Name: SWD #1
 Project Number: 11190-0001
 Project Manager: Vern Andrews (Walsh Engineering)

Reported:
 20-Feb-15 15:00

Nonhalogenated Organics by 8015 - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1507033 - Purge and Trap EPA 5030A
Blank (1507033-BLK1)

Prepared: 13-Feb-15 Analyzed: 18-Feb-15

Gasoline Range Organics (C6-C10)	ND	9.86	mg/kg							
Surrogate: 4-Bromochlorobenzene-FID	0.399		"	0.394		101	50-150			

LCS (1507033-BS1)

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Gasoline Range Organics (C6-C10)	327	9.94	mg/kg	290		113	80-120			
Surrogate: 4-Bromochlorobenzene-FID	0.390		"	0.398		98.1	50-150			

Matrix Spike (1507033-MS1)

Source: P502037-01

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Gasoline Range Organics (C6-C10)	371	9.88	mg/kg	288	ND	129	75-125			SPK1
Surrogate: 4-Bromochlorobenzene-FID	0.432		"	0.395		109	50-150			

Matrix Spike Dup (1507033-MSD1)

Source: P502037-01

Prepared: 13-Feb-15 Analyzed: 16-Feb-15

Gasoline Range Organics (C6-C10)	366	9.89	mg/kg	289	ND	127	75-125	1.17	15	SPK1
Surrogate: 4-Bromochlorobenzene-FID	0.397		"	0.396		100	50-150			

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Caerus Southern Rockies
7415 E. Main
Farmington NM, 87413

Project Name: SWD #1
Project Number: 11190-0001
Project Manager: Vern Andrews (Walsh Engineering)

Reported:
20-Feb-15 15:00

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1508012 - DRO Extraction EPA 3550M

Blank (1508012-BLK1)

Prepared: 16-Feb-15 Analyzed: 17-Feb-15

Diesel Range Organics (C10-C28)	ND	24.9	mg/kg							
Surrogate: o-Terphenyl	43.0		"	39.8		108	50-200			

LCS (1508012-BS1)

Prepared: 16-Feb-15 Analyzed: 17-Feb-15

Diesel Range Organics (C10-C28)	538	24.7	mg/kg	494		109	38-132			
Surrogate: o-Terphenyl	49.9		"	39.5		126	50-200			

Matrix Spike (1508012-MS1)

Source: P502025-01

Prepared: 16-Feb-15 Analyzed: 17-Feb-15

Diesel Range Organics (C10-C28)	596	30.0	mg/kg	500	ND	119	38-132			
Surrogate: o-Terphenyl	58.0		"	40.0		145	50-200			

Matrix Spike Dup (1508012-MSD1)

Source: P502025-01

Prepared: 16-Feb-15 Analyzed: 17-Feb-15

Diesel Range Organics (C10-C28)	633	30.0	mg/kg	500	ND	127	38-132	5.93	20	
Surrogate: o-Terphenyl	58.0		"	40.0		145	50-200			

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Caerus Southern Rockies
 7415 E. Main
 Farmington NM, 87413

Project Name: SWD #1
 Project Number: 11190-0001
 Project Manager: Vern Andrews (Walsh Engineering)

Reported:
 20-Feb-15 15:00

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1508017 - 418 Freon Extraction

Blank (1508017-BLK1)

Prepared & Analyzed: 17-Feb-15

Total Petroleum Hydrocarbons ND 35.0 mg/kg

Duplicate (1508017-DUP1)

Source: P502051-01

Prepared & Analyzed: 17-Feb-15

Total Petroleum Hydrocarbons 64.0 35.0 mg/kg 76.0 17.2 30

Matrix Spike (1508017-MS1)

Source: P502051-01

Prepared & Analyzed: 17-Feb-15

Total Petroleum Hydrocarbons 2050 34.9 mg/kg 2020 76.0 97.8 80-120

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Caerus Southern Rockies	Project Name:	SWD #1	Reported: 20-Feb-15 15:00
7415 E. Main	Project Number:	11190-0001	
Farmington NM, 87413	Project Manager:	Vern Andrews (Walsh Engineering)	

Cation/Anion Analysis - Quality Control
Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1508015 - Anion Extraction EPA 300.0										
Blank (1508015-BLK1)				Prepared & Analyzed: 17-Feb-15						
Chloride	ND	9.83	mg/kg							
LCS (1508015-BS1)				Prepared & Analyzed: 17-Feb-15						
Chloride	469	9.91	mg/kg	495		94.6	90-110			
Matrix Spike (1508015-MS1)				Source: P502051-01 Prepared & Analyzed: 17-Feb-15						
Chloride	474	9.90	mg/kg	495	ND	95.9	80-120			
Matrix Spike Dup (1508015-MSD1)				Source: P502051-01 Prepared & Analyzed: 17-Feb-15						
Chloride	474	9.83	mg/kg	492	ND	96.4	80-120	0.0568	20	

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Caerus Southern Rockies
7415 E. Main
Farmington NM, 87413

Project Name: SWD #1
Project Number: 11190-0001
Project Manager: Vern Andrews (Walsh Engineering)

Reported:
20-Feb-15 15:00

Notes and Definitions

SPK1 The spike recovery for this QC sample is outside of control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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CHAIN OF CUSTODY RECORD

Client: Caerus			Project Name / Location: SWD #1			ANALYSIS / PARAMETERS													
Email results to: vern@walsheng.net			Sampler Name: Lee Robbins			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	PCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE	pH - Per	Vern 2/10/14 TL	Sample Cool	Sample Intact
Client Phone No.: 320-1763			Client No.: 11190-0001																
Sample No. / Identification	Sample Date	Sample Time	Lab No.	No./Volume of Containers	Preservative														
					HNO ₃	HCl													
SWD #1 Tank Battery	2-10	10:45A	P502026-01	1 16 oz	Yes	g/l 1045		X	X					X	X	X		Y	Y
SWD #1 Control	2-10	11:00A	-02	1 16 oz	Yes	g/l 1045		X	X					X	X	X		✓	✓
Relinquished by: (Signature) Lee Robbins				Date 2-10	Time 11:55	Received by: (Signature) [Signature]				Date 2/10/14	Time 11:55								
Relinquished by: (Signature)						Received by: (Signature)													
Sample Matrix																			
Soil <input checked="" type="checkbox"/> Solid <input type="checkbox"/> Sludge <input type="checkbox"/> Aqueous <input type="checkbox"/> Other <input type="checkbox"/>																			
<input type="checkbox"/> Sample(s) dropped off after hours to secure drop off area.																			



envirotech
Analytical Laboratory

15.7 °C 14.8

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