NMOCD approves of the delineation completed thus far for 1RP-4961. The proposed additional delineation to complete release characterization is also approved.

APPROVED
By CHernandez at 3:37 pm, Aug 03, 2018

ENVIRO CLEAN CARDINAL

July 23, 2018

Ms. Olivia Yu
Environmental Specialist
New Mexico Oil Conservation Division
Hobbs District 1 Office
1625 French Drive
Hobbs, New Mexico 88240

SUBMITTED VIA EMAIL
Olivia.Yu@state.nm.us

Re: Release Characterization Work Plan Update
West Dollarhide Queen Sand Unit #99 Flowline Release
NMOCD Case No. 1RP-4961
Lea County, New Mexico

Dear Ms. Yu:

Enviro Clean Cardinal, LLC (ECC) has been retained by RAM Energy Resources (RAM) to prepare a Release Characterization Work Plan Update for RAM's West Dollarhide Queen Sand Unit (WDQSU) #99 flowline (Site) located in Unit Letter I, Section 31, Township 24 South, Range 38 East of Lea County, New Mexico (geographical coordinates 32.1703148N, 103.0941925W). The objective of this work plan update is to detail findings to date, and to propose additional soil borings in order to complete delineation of the impacts at the Site. The Site is approximately one and seven tenths (1.7) mile west of the New Mexico/Texas state line and seven (7) miles northeast of Jal, New Mexico. The Site location and topographical features are shown on the attached **Figure 1**. The original Release Characterization Work Plan dated March 12, 2018 was submitted to the NMOCD and approved via email on April 10, 2018. This update covers the soil hand auger installation and sampling as proposed in the original work plan.

Soil Boring Installation and Sample Collection

On April 19, 2018, ECC personnel were onsite to install six (6) hand auger borings (AH-1 through AH-6) within the release area. See **Figure 2** for hand auger soil boring locations. The soil borings were installed utilizing a stainless steel hand auger and samples were collected from the surface (0-6") to a maximum depth of five (5) feet below ground surface (bgs). Due to hard limestone, refusal was encountered from one (1) foot to five (5) feet bgs., thus impeding vertical delineation of the site. Soil samples were collected from each auger and placed in four (4) ounce glass containers provided by the laboratory. The auger was then decontaminated between each sample with Alconox© and deionized water. Samples collected were submitted to Xenco Laboratories (Xenco) of Midland, Texas under chain-of-custody for analysis of benzene, toluene, xylene, and ethylbenzene (BTEX) by EPA method 8021B, total petroleum hydrocarbons (TPH) by EPA method 8015B modified, and chlorides by EPA method 4500-CL-B. Analytical results for BTEX were below NMOCD standards, while TPH exceeded NMOCD standards for samples AH-1 (0-6") AH-2 (0-6"), AH-4 (0-6" and 5') and AH-5 (0-6") with results of 12,200 milligram per kilograms (mg/Kg), 7,250 mg/Kg, 15,300 mg/Kg, 10,383.1 mg/Kg and 12,700 mg/Kg, respectively. Chlorides ranged from <5.00 mg/Kg in AH-6 (0-6", 6"-1' and 2') to 8,380 mg/Kg in AH-3 (6"-1'). TPH was not delineated in auger hole AH-4, while chlorides were not delineated in auger holes AH-1, AH-2, AH-3, AH-4, and AH-5. See **Table 1** for analytical results. See **Attachment A** for Laboratory Analytical. Upon completion of the augers, each were grouted to the surface with

bentonite chips and hydrated to prevent further vertical penetration into the underlying sub strait by the release source.

Proposed Soil Boring Installation and Sample Collection

In order to complete vertical delineation of the hydrocarbons and chlorides at the site, RAM proposes to install three soil borings in the vicinity of auger holes AH-1, AH-4, and AH-5. An air rotary rig will be utilized to install the three soil borings. Soil samples from the drill rig will be collected with two (2) foot split spoon samplers from three (3') foot bgs for AH-5 and at five (5') foot bgs for AH-1 and AH-4. Samples will be collected every two (2') feet to a depth of ten (10') feet bgs, and thereafter every five (5') feet until field chloride samples are below 600 mg/Kg for two consecutive readings and TPH is below 1,000 mg/Kg. ECC anticipates the maximum depth will be thirty (30') feet bgs. Soil samples will be collected from the split spoon, bagged, field screened, and placed in four (4) ounce glass jars provided by the laboratory. The split spoon will be decontaminated between each sample with Alconox© and deionized water. The soil borings will be field screened with a photoionization detector (PID) for TPH and a field conductivity meter for chlorides. See **Figure 3** for proposed soil boring locations. Upon completion of the sampling, select soil samples will be collected and submitted to Xenco under chain-of-custody for analysis of TPH by EPA method 8015b modified and chlorides by EPA method E300.0. Upon completion of the soil sampling, each of the soil borings will be grouted from the maximum extent of the boring to the surface with bentonite chips and hydrated.

Upon receipt of the laboratory analytical results, ECC will prepare a remedial action work plan that will be submitted to the NMOCD for approval.

ECC hopes the NMOCD will find this Release Characterization Work Plan Update responsive to their C-141 response, and will approve its implementation. If you have questions regarding this document, please do not hesitate to contact Mr. Darrell Pennington at RAM at 918-947-6304, or myself at 432-301-0209.

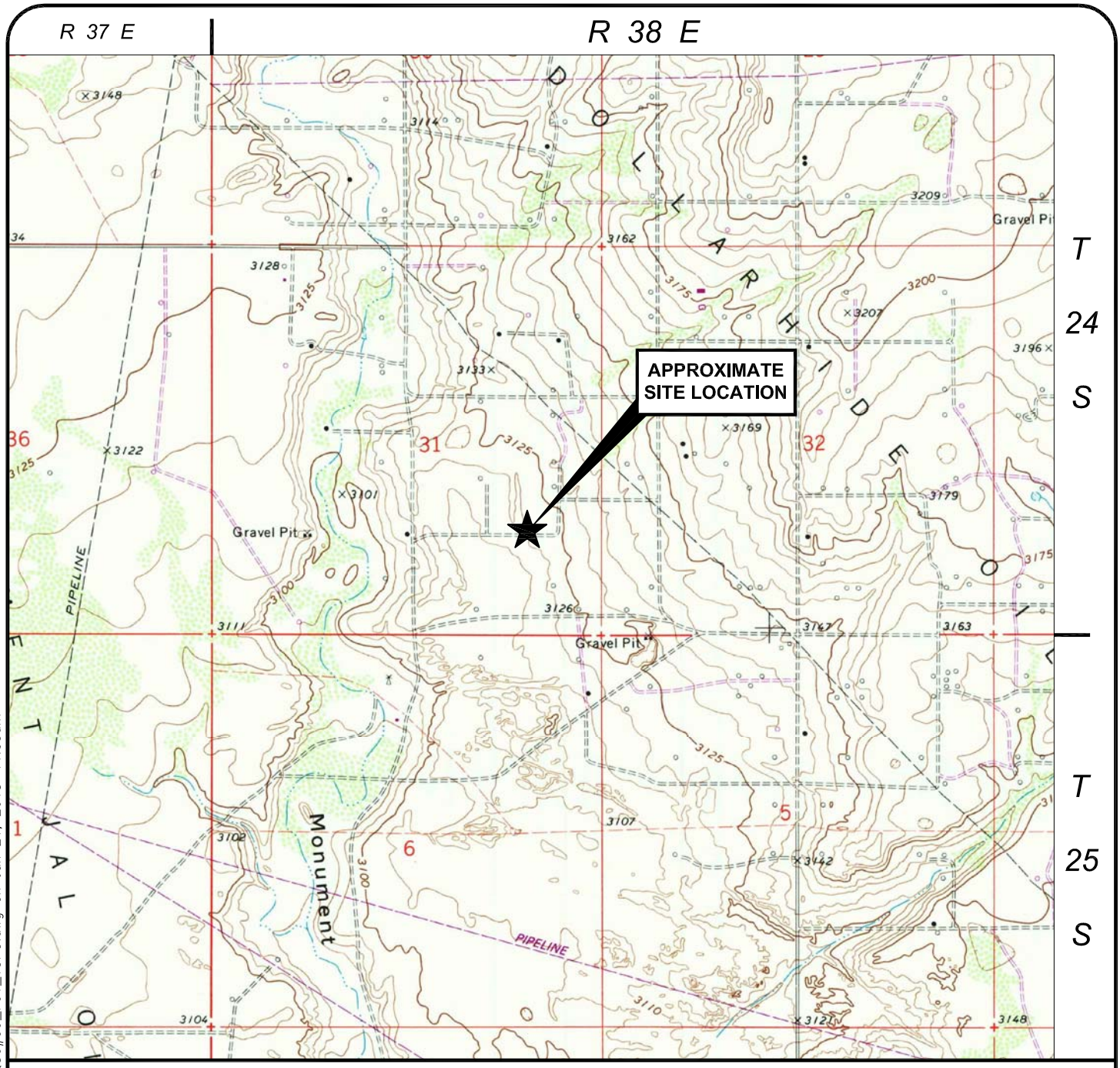
Sincerely,
Enviro Clean Cardinal, LLC

Jeffrey Kindley, P.G.
Senior Hydro Geologist

Attachments: Figure 1 – Site Location and Topographic Features
Figure 2 – Hand Auger Soil Boring Locations
Figure 3 – Proposed Soil Boring Locations
Table 1 – Laboratory Analytical
Attachment A – Laboratory Analytical

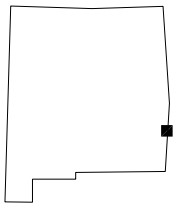
ATTACHMENTS

FIGURES



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
JAL NE, TEXAS-NEW MEXICO 1969, PHOTOREVISED 1979

NEW MEXICO



N

SCALE
0 1/2 1 MILE

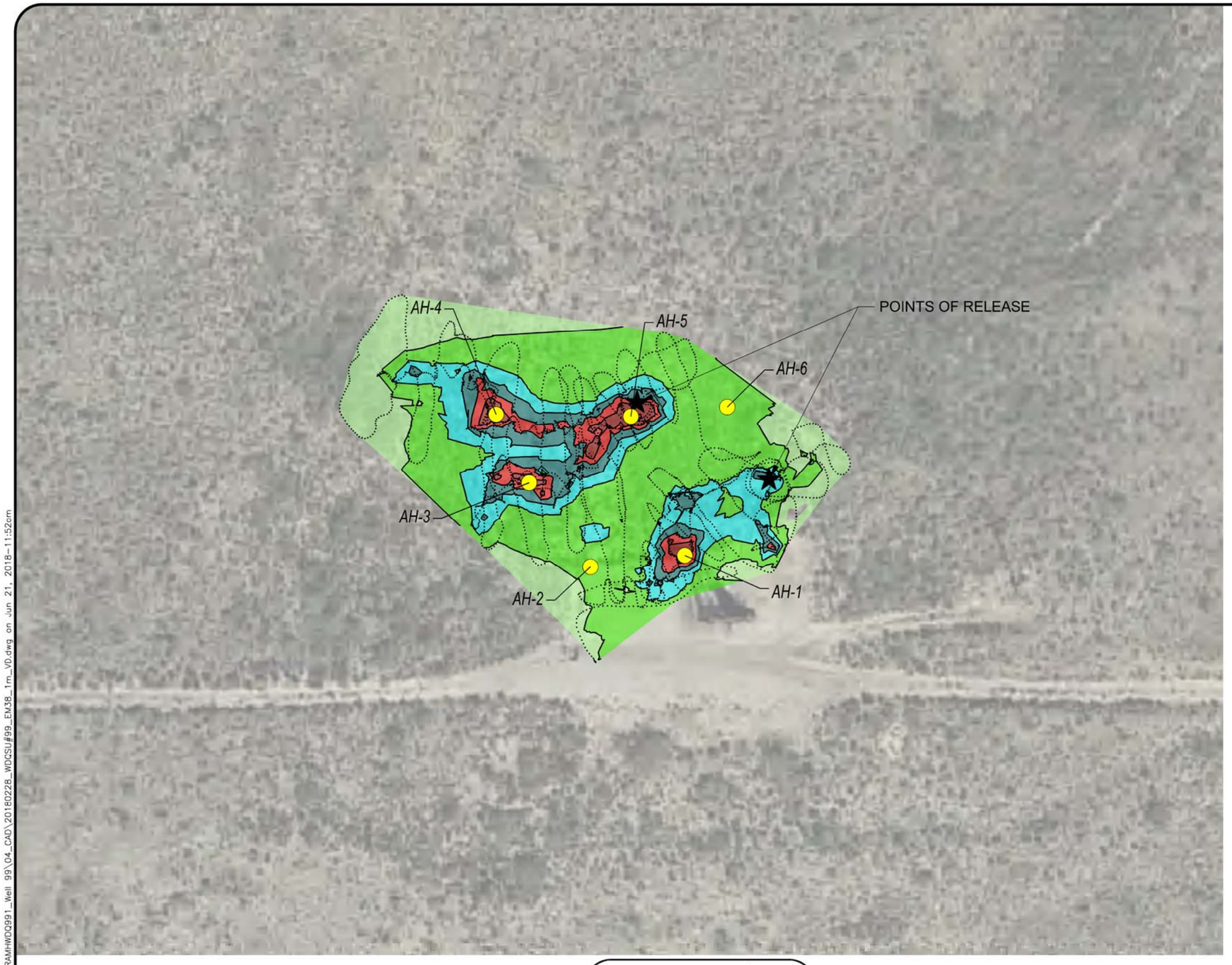
CLIENT RAM ENERGY RESOURCES TULSA, OKLAHOMA	FIGURE TITLE ***SITE LOCATION AND TOPOGRAPHIC FEATURES***
LOCATION WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE SEC. 31, T24S R38E, LEA COUNTY, NEW MEXICO	DOCUMENT TITLE RELEASE CHARACTERIZATION REPORT

ENVIRO CLEAN CARDINAL

Enviro Clean Cardinal, LLC
2405 East County Road 123
Midland, Texas 79706
432.301.0209
www.ECGRP.com

		DESIGNED BY	GHR\JK
DATE	6/21/2018	APPROVED BY	GHR\JK
SCALE	AS SHOWN	DRAWN BY	SKG
PROJECT NUMBER		FIGURE NUMBER	
RAMHWDQ991		1	

D:\Projects\RamEnergy\RAMHWDQ991_Well 99\04_CAD\WDQSU#99_F01_TOPO.dwg on Jun 21, 2018 - 11:55am



LEGEND

- ★ LOCATION OF RELEASE POINTS
- × LOCATION OF EM38-MK2 GROUND CONDUCTIVITY MEASUREMENT IN mmhos/m
- AH-1 LOCATION OF SOIL SAMPLES

APPARENT GROUND CONDUCTIVITIES

Minimum mmhos/m	Maximum mmhos/m	Color
0	50	
50	100	
100	150	
150	200	
200	250	
250	300	
300	350+	

N

25 0 25 50
SCALE FEET

NOTES:

1) EM SURVEY PERFORMED BY ENVIRO CLEAN CARDINAL, LLC ON FEBRUARY 28, 2018.
2) EM SURVEY CONDUCTED BY GEORGE H. (BUDDY) RICHARDSON, P.G. USING GEONICS EM38-MK2 GROUND CONDUCTIVITY METER.
3) AERIAL PHOTOGRAPH DATED NOVEMBER 22, 2016, GEOREFERENCED FROM GOOGLE EARTH IMAGE SERVICES.

ENVIRO CLEAN CARDINAL
Enviro Clean Cardinal, LLC
2405 East County Road 123
Midland, Texas 79706
432.301.0209
www.EnviroCleanPS.com

DOCUMENT TITLE: RELEASE CHARACTERIZATION REPORT

FIGURE TITLE: ***HAND AUGER SOIL BORING LOCATIONS***

CLIENT: RAM ENERGY RESOURCES TULSA, OKLAHOMA

LOCATION: WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE SECTION 31, T24S, R38E, LEA COUNTY, NEW MEXICO

DESIGNED BY	GHR\JK		
APPROVED BY	GHR\JK	SCALE	1"= 50'
DRAWN BY	SKG	DATE	6/21/2018

PROJECT NUMBER	FIGURE NUMBER
RAMHWDQ991	2

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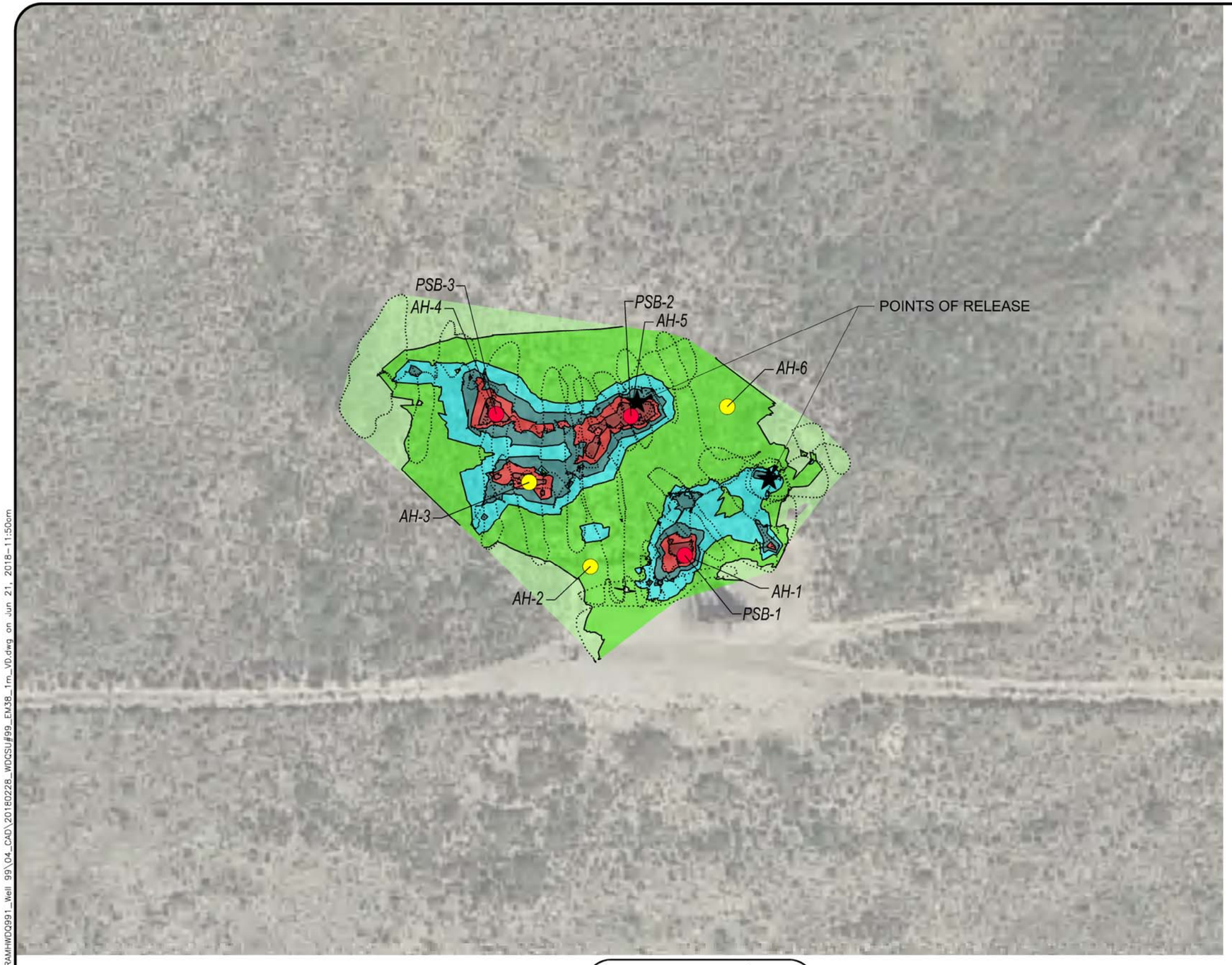

LEGEND

- ★ LOCATION OF RELEASE POINTS
- × LOCATION OF EM38-MK2 GROUND CONDUCTIVITY MEASUREMENT IN mmhos/m
- AH-1 LOCATION OF SOIL SAMPLES
- PSB-1 PROPOSED SOIL BORING

APPARENT GROUND CONDUCTIVITIES

Minimum mmhos/m	Maximum mmhos/m	Color
0	50	
50	100	
100	150	
150	200	
200	250	
250	300	
300	350+	

N

25 0 25 50
SCALE FEET

NOTES:

1) EM SURVEY PERFORMED BY ENVIRO CLEAN CARDINAL, LLC ON FEBRUARY 28, 2018.
2) EM SURVEY CONDUCTED BY GEORGE H. (BUDDY) RICHARDSON, P.G. USING GEONICS EM38-MK2 GROUND CONDUCTIVITY METER.
3) AERIAL PHOTOGRAPH DATED NOVEMBER 22, 2016, GEOREFERENCED FROM GOOGLE EARTH IMAGE SERVICES.

ENVIRO CLEAN CARDINAL
Enviro Clean Cardinal, LLC
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Midland, Texas 79706
432.301.0209
www.EnviroCleanPS.com

DOCUMENT TITLE: RELEASE CHARACTERIZATION REPORT

FIGURE TITLE: ***PROPOSED SOIL BORING LOCATIONS***

CLIENT: RAM ENERGY RESOURCES TULSA, OKLAHOMA

LOCATION: WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE SECTION 31, T24S, R38E, LEA COUNTY, NEW MEXICO

DESIGNED BY	GHR\JK		
APPROVED BY	GHR\JK	SCALE	1"= 50'
DRAWN BY	SKG	DATE	6/21/2018

PROJECT NUMBER	FIGURE NUMBER
RAMHWDQ991	3

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TABLE

TABLE 1
RAM ENERGY RESOURCES
LABORATORY ANALYTICAL
WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE
NMOCD CASE NO. 1R-4961
LEA COUNTY, NEW MEXICO

NMOCD STANDARDS			-	-	-	1,000	10	-	-	-	50	600
Sample ID	Depth	Sample Date	TPH GRO	TPH DRO	TPH ORO	TOTAL TPH	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL BTEX	CHLORIDES
AH-1	(0-6")	04/19/18	1,800	9,610	830	12,200	<0.002	0.102	0.151	1.16	1.42	1,910
AH-1	(6"-1')	04/19/18	-	-	-	-	-	-	-	-	-	3,070
AH-1	(2')	04/19/18	-	-	-	-	-	-	-	-	-	5,100
AH-1	(3')	04/19/18	-	-	-	-	-	-	-	-	-	7,150
AH-1	(4')	04/19/18	-	-	-	-	-	-	-	-	-	7,280
AH-1	(5')	04/19/18	<15.0	<15.0	<15.0	<15.0	-	-	-	-	-	3,750
AH-2	(0-6")	04/19/18	419	6,210	624	7,250	<0.002	<0.002	0.00508	0.0618	0.0669	2,480
AH-2	(6"-1')	04/19/18	-	-	-	-	-	-	-	-	-	2,510
AH-2	(2')	04/19/18	-	-	-	-	-	-	-	-	-	463
AH-2	(3')	04/19/18	-	-	-	-	-	-	-	-	-	365
AH-2	(4')	04/19/18	-	-	-	-	-	-	-	-	-	785
AH-2	(5')	04/19/18	<15.0	31.0	<15.0	31.0	-	-	-	-	-	1,040
AH-3	(0-6")	4/19/18	<15.0	319	56.8	375.8	<0.00199	<0.00199	<0.00199	0.00358	0.00358	7,290
AH-3	(6"-1')	4/19/18	-	-	-	-	-	-	-	-	-	8,380
AH-4	(0-6")	4/19/18	1,650	12,300	1,310	15,300	<0.00202	0.159	0.402	1.10	1.66	4,150
AH-4	(6"-1)	4/19/18	-	-	-	-	-	-	-	-	-	3,850
AH-4	(2')	4/19/18	-	-	-	-	-	-	-	-	-	5,410
AH-4	(3')	4/19/18	-	-	-	-	-	-	-	-	-	1,870
AH-4	(4')	4/19/18	-	-	-	-	-	-	-	-	-	2,980
AH-4	(5')	4/19/18	93.1	4,670	430	10,383.1	-	-	-	-	-	5,510
AH-5	(0-6")	4/19/18	1,390	10,200	1,070	12,700	0.00241	0.0119	<0.00201	1.05	1.06	1,340
AH-5	(6"-1)	4/19/18	-	-	-	-	-	-	-	-	-	2,170

TABLE 1
RAM ENERGY RESOURCES
LABORATORY ANALYTICAL
WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE
NMOCD CASE NO. 1R-4961
LEA COUNTY, NEW MEXICO

NMOCD STANDARDS			-	-	-	1,000	10	-	-	-	50	600
Sample ID	Depth	Sample Date	TPH GRO	TPH DRO	TPH ORO	TOTAL TPH	BENZENE	TOLUENE	ETHYL BENZENE	XYLENES	TOTAL BTEX	CHLORIDES
AH-5	(2')	4/19/18	-	-	-	-	-	-	-	-	-	5,400
AH-5	(3')	4/19/18	<14.9	41.1	<14.9	41.1	-	-	-	-	-	7,150
AH-6	(0-6")	4/19/18	<14.9	<14.9	<14.9	<14.9	<0.00199	<0.00199	<0.00199	<0.00199	<0.00199	<5.00
AH-6	(6"-1)	4/19/18	-	-	-	-	-	-	-	-	-	<5.00
AH-6	(2')	4/19/18	-	-	-	-	-	-	-	-	-	<5.00
AH-6	(3')	04/19/18	-	-	-	-	-	-	-	-	-	276

Results are in mg/Kg

ATTACHMENT A

LABORATORY ANALYTICAL

Analytical Report 583117

for

Enviroclean- Midland

Project Manager: Jeff Kindley

Ram #99 Flowline

03-MAY-18

Collected By: Client

1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-25), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-17-16), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab Code: TX00158): Texas (T104704400-18-14)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429)
Xenco-Lakeland: Florida (E84098)

03-MAY-18

Project Manager: **Jeff Kindley**
Enviroclean- Midland
2405 ECR 123
Midland, TX 79706

Reference: XENCO Report No(s): **583117**
Ram #99 Flowline
Project Address: Lea County, New Mexico

Jeff Kindley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 583117. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 583117 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks
Project Manager

Sample Cross Reference 583117

Enviroclean- Midland, Midland, TX

Ram #99 Flowline

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
AH-1 (0-6")	S	04-19-18 15:00		583117-001
AH-1 (6"-1')	S	04-19-18 15:03		583117-002
AH-1 (2')	S	04-19-18 15:05		583117-003
AH-1 (3')	S	04-19-18 15:07		583117-004
AH-1 (4')	S	04-19-18 15:08		583117-005
AH-1 (5')	S	04-19-18 15:10		583117-006
AH-2 (0-6")	S	04-19-18 15:15		583117-007
AH-2 (6"-1')	S	04-19-18 15:18		583117-008
AH-2 (2')	S	04-19-18 15:22		583117-009
AH-2 (3')	S	04-19-18 15:25		583117-010
AH-2 (4')	S	04-19-18 15:27		583117-011
AH-2 (5')	S	04-19-18 15:30		583117-012
AH-3 (0-6")	S	04-19-18 15:40		583117-013
AH-3 (6"-1')	S	04-19-18 15:45		583117-014
AH-4 (0-6")	S	04-19-18 15:50		583117-015
AH-4 (6"-1')	S	04-19-18 15:52		583117-016
AH-4 (2')	S	04-19-18 15:54		583117-017
AH-4 (3')	S	04-19-18 15:55		583117-018
AH-4 (4')	S	04-19-18 15:56		583117-019
AH-4 (5')	S	04-19-18 15:58		583117-020
AH-5 (0-6")	S	04-19-18 16:00		583117-021
AH-5 (6"-1')	S	04-19-18 16:03		583117-022
AH-5 (2')	S	04-19-18 16:06		583117-023
AH-5 (3')	S	04-19-18 16:10		583117-024
AH-6 (0-6")	S	04-19-18 16:20		583117-025
AH-6 (6"-1')	S	04-19-18 16:23		583117-026
AH-6 (2')	S	04-19-18 16:25		583117-027
AH-6 (3')	S	04-19-18 16:30		583117-028

Client Name: Enviroclean- Midland

Project Name: Ram #99 Flowline

Project ID:
Work Order Number(s): *583117*

Report Date: *03-MAY-18*
Date Received: *04/20/2018*

Sample receipt non conformances and comments:

Client called to take deeper depths off hold for TPH. Samples 006,012,020,024. Rush TAT. Samples break hold 05/03/18 JKR

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3047477 BTEX by EPA 8021B
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 583117-001.
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3048018 Inorganic Anions by EPA 300
Lab Sample ID 583117-027 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 583117-008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020, -021, -022, -023, -024, -027, -028.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline

Project Id:

Contact: Jeff Kindley

Project Location: Lea County, New Mexico

Date Received in Lab: Fri Apr-20-18 10:00 am

Report Date: 03-MAY-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	583117-001		583117-002		583117-003		583117-004		583117-005		583117-006	
	Field Id:	AH-1 (0-6")		AH-1 (6"-1')		AH-1 (2')		AH-1 (3')		AH-1 (4')		AH-1 (5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18 15:00		Apr-19-18 15:03		Apr-19-18 15:05		Apr-19-18 15:07		Apr-19-18 15:08		Apr-19-18 15:10	
BTEX by EPA 8021B	***Extracted:***	Apr-21-18 08:30											
	Analyzed:	Apr-22-18 02:55											
	Units/RL:	mg/kg	RL										
Benzene		ND	0.00200										
Toluene		0.102	0.00200										
Ethylbenzene		0.151	0.00200										
m,p-Xylenes		0.777	0.00399										
o-Xylene		0.385	0.00200										
Total Xylenes		1.16	0.00200										
Total BTEX		1.42	0.00200										
Inorganic Anions by EPA 300	***Extracted:***	Apr-25-18 15:30		Apr-25-18 15:30		Apr-25-18 15:30		Apr-25-18 15:30		Apr-25-18 15:30		Apr-25-18 15:30	
	Analyzed:	Apr-26-18 01:20		Apr-26-18 01:25		Apr-26-18 01:31		Apr-26-18 01:37		Apr-26-18 01:43		Apr-26-18 01:49	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1910	24.9	3070	25.0	5100	49.8	7150	49.9	7280	50.0	3750	24.8
TPH by SW8015 Mod	***Extracted:***	Apr-21-18 10:00										May-01-18 18:00	
	Analyzed:	Apr-21-18 20:35										May-02-18 07:13	
	Units/RL:	mg/kg	RL									mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		1800	150									ND	15.0
Diesel Range Organics (DRO)		9610	150									ND	15.0
Oil Range Hydrocarbons (ORO)		830	150									ND	15.0
Total TPH		12200	150									ND	15.0

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline

Project Id:

Contact: Jeff Kindley

Project Location: Lea County, New Mexico

Date Received in Lab: Fri Apr-20-18 10:00 am

Report Date: 03-MAY-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	583117-007		583117-008		583117-009		583117-010		583117-011		583117-012	
	Field Id:	AH-2 (0-6")		AH-2 (6"-1')		AH-2 (2')		AH-2 (3')		AH-2 (4')		AH-2 (5')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18 15:15		Apr-19-18 15:18		Apr-19-18 15:22		Apr-19-18 15:25		Apr-19-18 15:27		Apr-19-18 15:30	
BTEX by EPA 8021B	***Extracted:***	Apr-21-18 08:30											
	Analyzed:	Apr-22-18 03:14											
	Units/RL:	mg/kg	RL										
Benzene		ND	0.00200										
Toluene		ND	0.00200										
Ethylbenzene		0.00508	0.00200										
m,p-Xylenes		0.0295	0.00401										
o-Xylene		0.0323	0.00200										
Total Xylenes		0.0618	0.00200										
Total BTEX		0.0669	0.00200										
Inorganic Anions by EPA 300	***Extracted:***	Apr-25-18 15:30		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00	
	Analyzed:	Apr-26-18 02:07		Apr-26-18 11:28		Apr-26-18 11:34		Apr-26-18 11:40		Apr-26-18 11:46		Apr-26-18 14:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2480	24.9	2510	24.8	463	4.93	365	4.95	785	4.98	1040	4.99
TPH by SW8015 Mod	***Extracted:***	Apr-21-18 10:00										May-01-18 18:00	
	Analyzed:	Apr-21-18 21:35										May-02-18 08:08	
	Units/RL:	mg/kg	RL									mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		419	74.9									ND	15.0
Diesel Range Organics (DRO)		6210	74.9									31.0	15.0
Oil Range Hydrocarbons (ORO)		624	74.9									ND	15.0
Total TPH		7250	74.9									31.0	15.0

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline

Project Id:
Contact: Jeff Kindley
Project Location: Lea County, New Mexico

Date Received in Lab: Fri Apr-20-18 10:00 am
Report Date: 03-MAY-18
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	583117-013		583117-014		583117-015		583117-016		583117-017		583117-018	
	Field Id:	AH-3 (0-6")		AH-3 (6"-1')		AH-4 (0-6")		AH-4 (6"-1')		AH-4 (2')		AH-4 (3')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18 15:40		Apr-19-18 15:45		Apr-19-18 15:50		Apr-19-18 15:52		Apr-19-18 15:54		Apr-19-18 15:55	
BTEX by EPA 8021B	***Extracted:***	Apr-21-18 08:30				Apr-21-18 08:30							
	Analyzed:	Apr-22-18 02:36				Apr-22-18 03:53							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Benzene		ND	0.00199			ND	0.00202						
Toluene		ND	0.00199			0.159	0.00202						
Ethylbenzene		ND	0.00199			0.402	0.00202						
m,p-Xylenes		ND	0.00398			0.748	0.00403						
o-Xylene		0.00358	0.00199			0.347	0.00202						
Total Xylenes		0.00358	0.00199			1.10	0.00202						
Total BTEX		0.00358	0.00199			1.66	0.00202						
Inorganic Anions by EPA 300	***Extracted:***	Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00	
	Analyzed:	Apr-26-18 13:33		Apr-26-18 13:39		Apr-26-18 13:45		Apr-26-18 13:51		Apr-26-18 13:57		Apr-26-18 14:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		7290	99.0	8380	99.2	4150	49.5	3850	49.6	5410	49.9	1870	24.9
TPH by SW8015 Mod	***Extracted:***	Apr-21-18 10:00				Apr-21-18 10:00							
	Analyzed:	Apr-22-18 09:24				Apr-21-18 22:15							
	Units/RL:	mg/kg	RL			mg/kg	RL						
Gasoline Range Hydrocarbons (GRO)		ND	15.0			1650	149						
Diesel Range Organics (DRO)		319	15.0			12300	149						
Oil Range Hydrocarbons (ORO)		56.8	15.0			1310	149						
Total TPH		376	15.0			15300	149						

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline

Project Id:

Contact: Jeff Kindley

Project Location: Lea County, New Mexico

Date Received in Lab: Fri Apr-20-18 10:00 am

Report Date: 03-MAY-18

Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	583117-019		583117-020		583117-021		583117-022		583117-023		583117-024	
	Field Id:	AH-4 (4')		AH-4 (5')		AH-5 (0-6")		AH-5 (6"-1')		AH-5 (2')		AH-5 (3')	
	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18 15:56		Apr-19-18 15:58		Apr-19-18 16:00		Apr-19-18 16:03		Apr-19-18 16:06		Apr-19-18 16:10	
BTEX by EPA 8021B	***Extracted:***					Apr-21-18 08:30							
	Analyzed:					Apr-22-18 03:33							
	Units/RL:					mg/kg	RL						
Benzene						0.00241	0.00201						
Toluene						0.0119	0.00201						
Ethylbenzene						ND	0.00201						
m,p-Xylenes						0.699	0.00402						
o-Xylene						0.346	0.00201						
Total Xylenes						1.05	0.00201						
Total BTEX						1.06	0.00201						
Inorganic Anions by EPA 300	***Extracted:***	Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00		Apr-26-18 09:00	
	Analyzed:	Apr-26-18 14:26		Apr-26-18 14:44		Apr-26-18 14:50		Apr-26-18 14:56		Apr-26-18 15:02		Apr-26-18 15:08	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		2980	24.8	5510	49.5	1340	49.5	2170	25.0	5400	50.0	7150	49.8
TPH by SW8015 Mod	***Extracted:***			May-01-18 18:00		Apr-21-18 10:00						May-01-18 18:00	
	Analyzed:			May-02-18 08:37		Apr-21-18 22:35						May-02-18 09:05	
	Units/RL:			mg/kg	RL	mg/kg	RL					mg/kg	RL
Gasoline Range Hydrocarbons (GRO)				93.1	74.9	1390	150					ND	14.9
Diesel Range Organics (DRO)				4670	74.9	10200	150					41.1	14.9
Oil Range Hydrocarbons (ORO)				430	74.9	1070	150					ND	14.9
Total TPH				5190	74.9	12700	150					41.1	14.9

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline

Project Id:

Contact: Jeff Kindley

Project Location: Lea County, New Mexico

Date Received in Lab: Fri Apr-20-18 10:00 am

Report Date: 03-MAY-18

Project Manager: Kelsey Brooks

Analysis Requested							
	Lab Id:	583117-025	583117-026	583117-027	583117-028		
	Field Id:	AH-6 (0-6")	AH-6 (6"-1')	AH-6 (2')	AH-6 (3')		
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL		
	Sampled:	Apr-19-18 16:20	Apr-19-18 16:23	Apr-19-18 16:25	Apr-19-18 16:30		
BTEX by EPA 8021B	***Extracted:***	Apr-21-18 08:30					
	Analyzed:	Apr-22-18 02:17					
	Units/RL:	mg/kg RL					
Benzene		ND 0.00199					
Toluene		ND 0.00199					
Ethylbenzene		ND 0.00199					
m,p-Xylenes		ND 0.00398					
o-Xylene		ND 0.00199					
Total Xylenes		ND 0.00199					
Total BTEX		ND 0.00199					
Inorganic Anions by EPA 300	***Extracted:***	Apr-25-18 15:30	Apr-25-18 15:30	Apr-26-18 09:00	Apr-26-18 09:00		
	Analyzed:	Apr-26-18 00:02	Apr-26-18 01:02	Apr-26-18 11:10	Apr-26-18 15:14		
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL		
Chloride		ND 5.00	ND 5.00	ND 5.00	276 4.98		
TPH by SW8015 Mod	***Extracted:***	Apr-21-18 10:00					
	Analyzed:	Apr-21-18 22:55					
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		ND 14.9					
Diesel Range Organics (DRO)		ND 14.9					
Oil Range Hydrocarbons (ORO)		ND 14.9					
Total TPH		ND 14.9					

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3047493 **Sample:** 583117-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 20:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.2	100	97	70-135	
o-Terphenyl	47.3	50.0	95	70-135	

Lab Batch #: 3047493 **Sample:** 583117-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 21:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	99.8	83	70-135	
o-Terphenyl	37.9	49.9	76	70-135	

Lab Batch #: 3047493 **Sample:** 583117-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 22:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	88.0	99.6	88	70-135	
o-Terphenyl	43.2	49.8	87	70-135	

Lab Batch #: 3047493 **Sample:** 583117-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 22:35

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.3	99.9	94	70-135	
o-Terphenyl	48.8	50.0	98	70-135	

Lab Batch #: 3047493 **Sample:** 583117-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 22:55

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.5	99.6	86	70-135	
o-Terphenyl	43.0	49.8	86	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3047477 **Sample:** 583117-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 02:17

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0265	0.0300	88	70-130	
4-Bromofluorobenzene	0.0258	0.0300	86	70-130	

Lab Batch #: 3047477 **Sample:** 583117-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 02:36

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	70-130	
4-Bromofluorobenzene	0.0246	0.0300	82	70-130	

Lab Batch #: 3047477 **Sample:** 583117-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 02:55

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0231	0.0300	77	70-130	
4-Bromofluorobenzene	0.0443	0.0300	148	70-130	**

Lab Batch #: 3047477 **Sample:** 583117-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 03:14

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	70-130	
4-Bromofluorobenzene	0.0317	0.0300	106	70-130	

Lab Batch #: 3047477 **Sample:** 583117-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 03:33

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0235	0.0300	78	70-130	
4-Bromofluorobenzene	0.0336	0.0300	112	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3047477 **Sample:** 583117-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 03:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0238	0.0300	79	70-130	
4-Bromofluorobenzene	0.0358	0.0300	119	70-130	

Lab Batch #: 3047493 **Sample:** 583117-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/22/18 09:24

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.8	100	70-135	
o-Terphenyl	54.5	49.9	109	70-135	

Lab Batch #: 3048686 **Sample:** 583117-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/02/18 07:13

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	93.6	99.8	94	70-135	
o-Terphenyl	47.6	49.9	95	70-135	

Lab Batch #: 3048686 **Sample:** 583117-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/02/18 08:08

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	100	99.7	100	70-135	
o-Terphenyl	51.7	49.9	104	70-135	

Lab Batch #: 3048686 **Sample:** 583117-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/02/18 08:37

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.8	106	70-135	
o-Terphenyl	37.8	49.9	76	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3048686 **Sample:** 583117-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/02/18 09:05

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.5	99.6	98	70-135	
o-Terphenyl	49.5	49.8	99	70-135	

Lab Batch #: 3047493 **Sample:** 7643148-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 15:56

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	84.7	100	85	70-135	
o-Terphenyl	45.1	50.0	90	70-135	

Lab Batch #: 3047477 **Sample:** 7643133-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 20:49

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0275	0.0300	92	70-130	
4-Bromofluorobenzene	0.0248	0.0300	83	70-130	

Lab Batch #: 3048686 **Sample:** 7643914-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/01/18 21:40

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 3047493 **Sample:** 7643148-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 16:16

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	50.0	50.0	100	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3047477 **Sample:** 7643133-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 18:53

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0315	0.0300	105	70-130	
4-Bromofluorobenzene	0.0291	0.0300	97	70-130	

Lab Batch #: 3048686 **Sample:** 7643914-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/01/18 22:06

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	54.7	50.0	109	70-135	

Lab Batch #: 3047493 **Sample:** 7643148-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 16:36

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	49.4	50.0	99	70-135	

Lab Batch #: 3047477 **Sample:** 7643133-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 04/21/18 19:13

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	70-130	
4-Bromofluorobenzene	0.0261	0.0300	87	70-130	

Lab Batch #: 3048686 **Sample:** 7643914-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 05/01/18 22:33

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod

Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	54.4	50.0	109	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3047493 **Sample:** 583105-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 17:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	50.4	49.9	101	70-135	

Lab Batch #: 3047477 **Sample:** 582929-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 19:32

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	70-130	
4-Bromofluorobenzene	0.0280	0.0300	93	70-130	

Lab Batch #: 3048686 **Sample:** 584082-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/01/18 23:27

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	52.8	50.0	106	70-135	

Lab Batch #: 3047493 **Sample:** 583105-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 17:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	106	99.9	106	70-135	
o-Terphenyl	52.9	50.0	106	70-135	

Lab Batch #: 3047477 **Sample:** 582929-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 04/21/18 19:51

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0312	0.0300	104	70-130	
4-Bromofluorobenzene	0.0295	0.0300	98	70-130	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Ram #99 Flowline

Work Orders : 583117,

Project ID:

Lab Batch #: 3048686 **Sample:** 584082-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 05/01/18 23:54

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.9	105	70-135	
o-Terphenyl	51.8	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

BS / BSD Recoveries

Project Name: Ram #99 Flowline

Work Order #: 583117 **Project ID:**

Analyst: ALJ **Date Prepared:** 04/21/2018 **Date Analyzed:** 04/21/2018

Lab Batch ID: 3047477 **Sample:** 7643133-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00200	0.0998	0.122	122	0.100	0.112	112	9	70-130	35	
Toluene	<0.00200	0.0998	0.115	115	0.100	0.105	105	9	70-130	35	
Ethylbenzene	<0.00200	0.0998	0.114	114	0.100	0.102	102	11	70-130	35	
m,p-Xylenes	<0.00399	0.200	0.246	123	0.200	0.215	108	13	70-130	35	
o-Xylene	<0.00200	0.0998	0.119	119	0.100	0.106	106	12	70-130	35	

Analyst: SCM **Date Prepared:** 04/25/2018 **Date Analyzed:** 04/25/2018

Lab Batch ID: 3047948 **Sample:** 7643398-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	254	102	250	242	97	5	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: Ram #99 Flowline

Work Order #: 583117 **Project ID:**

Analyst: SCM **Date Prepared:** 04/26/2018 **Date Analyzed:** 04/26/2018

Lab Batch ID: 3048018 **Sample:** 7643495-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	259	104	250	258	103	0	90-110	20	

Analyst: ARM **Date Prepared:** 04/21/2018 **Date Analyzed:** 04/21/2018

Lab Batch ID: 3047493 **Sample:** 7643148-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	992	99	1000	1090	109	9	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	957	96	1000	988	99	3	70-135	20	

Analyst: ARM **Date Prepared:** 05/01/2018 **Date Analyzed:** 05/01/2018

Lab Batch ID: 3048686 **Sample:** 7643914-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1020	102	1000	1010	101	1	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1150	115	1000	1130	113	2	70-135	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Ram #99 Flowline

Work Order # : 583117 **Project ID:**

Lab Batch ID: 3047477 **QC- Sample ID:** 582929-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/21/2018 **Date Prepared:** 04/21/2018 **Analyst:** ALJ

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00202	0.101	0.100	99	0.100	0.101	101	1	70-130	35	
Toluene	<0.00202	0.101	0.0942	93	0.100	0.0933	93	1	70-130	35	
Ethylbenzene	<0.00202	0.101	0.0922	91	0.100	0.0927	93	1	70-130	35	
m,p-Xylenes	<0.00403	0.202	0.191	95	0.200	0.191	96	0	70-130	35	
o-Xylene	<0.00202	0.101	0.0952	94	0.100	0.0951	95	0	70-130	35	

Lab Batch ID: 3047948 **QC- Sample ID:** 583117-025 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/26/2018 **Date Prepared:** 04/25/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	248	99	250	249	100	0	90-110	20	

Lab Batch ID: 3047948 **QC- Sample ID:** 583117-026 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/26/2018 **Date Prepared:** 04/25/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	252	101	250	261	104	4	90-110	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Ram #99 Flowline

Work Order # : 583117 **Project ID:**

Lab Batch ID: 3048018 **QC- Sample ID:** 583117-012 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/26/2018 **Date Prepared:** 04/26/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1040	250	1230	76	250	1230	76	0	90-110	20	X

Lab Batch ID: 3048018 **QC- Sample ID:** 583117-027 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/26/2018 **Date Prepared:** 04/26/2018 **Analyst:** SCM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<5.00	250	258	103	250	265	106	3	90-110	20	

Lab Batch ID: 3047493 **QC- Sample ID:** 583105-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 04/21/2018 **Date Prepared:** 04/21/2018 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	997	867	87	999	869	87	0	70-135	20	
Diesel Range Organics (DRO)	<15.0	997	905	91	999	920	92	2	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Ram #99 Flowline

Work Order # : 583117 **Project ID:**

Lab Batch ID: 3048686 **QC- Sample ID:** 584082-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 05/01/2018 **Date Prepared:** 05/01/2018 **Analyst:** ARM

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	1000	100	999	1000	100	0	70-135	20	
Diesel Range Organics (DRO)	<15.0	1000	1100	110	999	1110	111	1	70-135	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

CHAIN OF CUSTODY

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Dallas, TX (214) 902-0300 | Lubbock, TX (806) 794-1296 | San Antonio, TX (210) 509-3334 | Service Center - Baton Rouge, LA (832) 712-8143 | Service Center- Hobbs, NM (575) 392-7550

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Xenco Quote #

Xenco Job # 583117

Client / Reporting Information

Company Name / Branch: Enviro Clean

Company Address: 2405 E. County Road 123 Midland, Tx 79706

Email: JeFfrey, Kindley @ eccgrp.com

Phone No: 432-305-6214

Project Contact: Jeffrey Kindley

Samplers's Name: Travis Mayan / Casey Smith

Project Information

Project Name/Number: RAM #99 Flowline

Project Location: Lea County, New Mexico

Invoice To: Enviro Clean, 2405 E. County Road 123, Midland, Tx 79706

PO Number:

Analytical Information

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

No.	Field ID / Point of Collection	Collection: Sample Depth	Date	Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015M *	BTEX **	Chlorides	Field Comments
1	AH-1 (0-6")		04/19/18	1500	S	1								✓	✓	✓	✓	
2	AH-1 (6"-1')		04/19/18	1503	S	1								✓			✓	
3	AH-1 (2')		04/19/18	1505	S	1								✓			✓	
4	AH-1 (3')		04/19/18	1507	S	1								✓			✓	
5	AH-1 (4')		04/19/18	1508	S	1								✓			✓	
6	AH-1 (5')		04/19/18	1510	S	1								✓			✓	
7	AH-2 (0-6")		04/19/18	1515	S	1								✓	✓	✓	✓	
8	AH-2 (6"-1')		04/19/18	15 18	S	1								✓			✓	
9	AH-2 (2')		04/19/18	1522	S	1								✓			✓	
10	AH-2 (3')		04/19/18	1525	S	1								✓			✓	

Temp: 4.9 IR ID:R-8
CF:(0-6: -0.2°C)
(6-23: +0.2°C)
Corrected Temp: 4.7

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] Level II Report with TRRP checklist

Notes:

* IF TPH total is ≥ 1,000 mg/Kg run next deepest sample and continue until TPH ≤ 1000 mg/Kg

** IF Benzene is 10 mg/Kg or greater and Total BTEx is ≥ 50 mg/Kg run next sample down until both are below 10 mg/Kg / 50mg/Kg

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Jeffrey Kindley	04/20/18 1000		2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice / Cooler Temp. / Thermo. Corr. Factor
			5			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of $75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at $5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

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Xenco Quote #

Xenco Job # 583117

Client / Reporting Information

Company Name / Branch: Enviro Clean

Company Address: 2405 E County Road 123 Midland, Tx 79706

Email: Jeffrey.Kindley@eccgrp.com

Phone No: 432-305-6214

Project Contact: Jeffrey Kindley

Samplers's Name: Travis Morgan / Casey Smith

Project Information

Project Name/Number: RAM #99 Flowline

Project Location: Lea County, New Mexico

Invoice To: Enviro Clean, 2405 E County Road 123, Midland, Texas 79706

PO Number:

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 M *	BTEX **	Chlorides	Field Comments
1	AH-2 (4')		04/19/18	1527	S	1								✓			✓	
2	AH-2 (5')		04/19/18	1530	S	1								✓			✓	
3	AH-3 (0-6")		04/19/18	1540	S	1								✓	✓	✓	✓	
4	AH-3 (6"-1')		04/19/18	1545	S	1								✓			✓	
5	AH-4 (0-6")		04/19/18	1550	S	1								✓	✓	✓	✓	
6	AH-4 (6"-1')		04/19/18	1552	S	1								✓			✓	
7	AH-4 (2')		04/19/18	1554	S	1								✓			✓	
8	AH-4 (3')		04/19/18	1555	S	1								✓			✓	
9	AH-4 (4')		04/19/18	1556	S	1								✓			✓	
10	AH-4 (5')		04/19/18	1558	S	1								✓			✓	

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL = Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

Notes:

* IF TPH total is ≥ 1000 mg/kg run next deepest sample. Continue until TPH is < 1000 mg/kg

** IF Benzene is 10 mg/kg or greater and/or Total BTEX is 50 mg/kg or greater run next deepest sample until both are below 10 mg/kg (benzene) and 50 mg/kg (Total BTEX)

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Jeffrey Kindley	04/20/18 1000	1	2		
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	

Temp: 4.9 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 4.7

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Xenco Quote #

Xenco Job # 583117

Client / Reporting Information

Company Name / Branch: Enviro Clean

Company Address: 2405 E. County Road 123 Midland, Tx 79706

Email: JeFfrey.Kindley@eccgrp.com

Phone No: 432-305-6214

Project Contact: JeFfrey Kindley

Samplers's Name: Travis Morgan / Casey Smith

Project Information

Project Name/Number: RAM #99 Flowline

Project Location: Lea County, New Mexico

Invoice To: Enviro Clean, 2405 E County Road 123, Midland, Texas 79706

PO Number:

Analytical Information

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	TPH 8015 E *	BTEX **	Chlorides	Field Comments
1	AH-5 (0-6")		04/19/18	1600	S	1								✓	✓	✓	✓	
2	AH-5 (6"-1')		04/19/18	1603	S	1								✓			✓	
3	AH-5 (2')		04/19/18	1606	S	1								✓			✓	
4	AH-5 (3')		04/19/18	1610	S	1								✓			✓	
5	AH-6 (0-6")		04/19/18	1620	S	1								✓	✓	✓	✓	
6	AH-6 (6"-1')		04/19/18	1623	S	1								✓			✓	
7	AH-6 (2')		04/19/18	1625	S	1								✓			✓	
8	AH-6 (3')		04/19/18	1630	S	1								✓			✓	
9																		
10																		

Matrix Codes

W = Water
S = Soil/Sed/Solid
GW = Ground Water
DW = Drinking Water
P = Product
SW = Surface Water
SL - Sludge
OW = Ocean/Sea Water
WI = Wipe
O = Oil
WW = Waste Water
A = Air

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 5:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ Level II Report with TRRP checklist

Notes:

* IF TPH total is ≥ 1000 mg/kg run next deepest sample. Continue until TPH is < 1000 mg/kg

* IF Benzene is 10 mg/kg or greater and/or Total BTEX is 50 mg/kg or greater run next deepest sample until both are below 10 mg/kg (benzene) and 50 mg/kg (total BTEX)

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	Jeffrey Kindley	04/20/18 1000	1	2		2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	
			5			

Temp: 4.9 IR ID:R-8

CF:(0-6: -0.2°C)
(6-23: +0.2°C)

Corrected Temp: 4.7

XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In

Client: Enviroclean- Midland

Date/ Time Received: 04/20/2018 10:00:00 AM

Work Order #: 583117

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	4.7	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	TPH received in bulk container
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**No**	
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 04/24/2018

Checklist reviewed by: Date: 04/20/2018