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



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



D:\Projects\RamEnergy\RAMHWDQ991_Well 99\04_CAD\WDQSU#99_F01_T0P0.dwg on Jun 21, 2018-11:55am



ENVIRO CLEAN CARDINAL Enviro Clean Cardinal, LLC	DOCUMENT TITLE RELEASE CHARACTERIZATION REPORT		FIGUF	RE TITI
2405 East County Road 123 Midland, Texas 79706	CLIENT RAM ENERGY RESOURCES TULSA, OKLAHOMA	DESIGNE	D BY	GHR
432.301.0209	LOCATION WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE	APPROVE	D BY	GHR
www.EnviroCleanPS.com	SECTION 31, T24S, R38E, LEA COUNTY, NEW MEXICO	DRAW	N BY	SKG

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.

LEGEND



LOCATION OF RELEASE POINTS

LOCATION OF EM38-MK2 GROUND CONDUCTIVITY MEASUREMENT IN mmhos/m

OHIO LOCATION OF SOIL SAMPLES

APPARENT GROUND CONDUCTIVITIES

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



HAND AUGER SOIL BORING LOCATIONS

			PROJECT NUMBER	FIGURE NUMBER
SHR\JK				
GHR\JK	SCALE	1"= 50'	RAMHWDQ991	2
SKG	DATE	6/21/2018		





- 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 Enviro Clean Cardinal, LLC

2405 East County Road 123 Midland, Texas 79706 432.301.0209 www.EnviroCleanPS.com

DOCUME	RELEASE CHARACTERIZATION REPORT		FIGU	RE TI
CLIENT	RAM ENERGY RESOURCES TULSA, OKLAHOMA	DESIGNE	D BY	G⊦
LOCATION	WEST DOLLARHIDE OUEEN SAND UNIT #99 FLOWLINE RELEASE	APPROVE	DBY	GH
	DRAWN BY		SK	

LEGEND



LOCATION OF RELEASE POINTS

- LOCATION OF EM38-MK2 GROUND CONDUCTIVITY × MEASUREMENT IN mmhos/m
- OAH-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	í
200	250	
250	300	
300	350+	



TITLE PROPOSED SOIL BORING LOCATIONS

SHR\JK			PROJECT NOMBER	FIGURE NOMBER
HR\JK	SCALE	1"= 50'	RAMHWDQ991	3
KG	DATE	6/21/2018		

TABLE

	TABLE 1													
					RAM	I ENERG`	Y RESOUF	RCES						
					LAB	ORATOR	Y ANALYT	ICAL						
	WEST DOLLARHIDE QUEEN SAND UNIT #99 FLOWLINE RELEASE													
	NMOCD CASE NO. 1R-4961													
	LEA COUNTY, NEW MEXICO													
NMOC	NMOCD STANDARDS - - 1,000 10 - - 50 600													
Sample	Depth	Sample	TPH	TPH	TPH	TOTAL	BENZENE	TOLUENE	ETHYL	XYLENES	TOTAL	CHLORIDES		
ID		Date	GRO	DRO	ORO	TPH			BENZENE		BTEX			
AH-1	(0-6")	04/19/18	Odd Odd											
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	- - - - - - - - -											
AH-1	(5')	04/19/18	<15.0	<15.0 <15.0 <15.0 <15.0										
AH-2	(0-6")	04/19/18	419 6,210 624 7,250 <0.002 <0.002 0.00508 0.0618 0.0669											
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													
NMOC	CD STAN	DARDS	-	-	-	1,000	10	-	-	-	50	600		
Sample	Depth	Sample	TPH	TPH	TPH	TOTAL	BENZENE	TOLUENE	ETHYL	XYLENES	TOTAL	CHLORIDES		
ID		Date	GRO	DRO	ORO	TPH			BENZENE		BTEX			
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,

Huns hoah

Kelsey Brooks Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



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



CASE NARRATIVE

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.

son samples were not received in remacore kits and increase were prepared by method

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.



Lea County, New Mexico

Contact:

Project Location:

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX



Project Name: Ram #99 Flowline

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

	Lab Id:	583117-0	001	583117-0	02	583117-0	003	583117-0	04	583117-0	005	583117-0)06
Analysis Paguested	Field Id:	AH-1 (0-	·6")	AH-1 (6"-	-1')	AH-1 (2	:)	AH-1 (3	")	AH-1 (4	l')	AH-1 (5	5')
Analysis Kequestea	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 1	5:30	Apr-25-18 1	15:30	Apr-25-18	15:30	Apr-25-18	15:30	Apr-25-18 1	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

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Huns Boah

Kelsey Brooks Project Manager



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 amReport Date:03-MAY-18Project Manager:Kelsey Brooks

	Lab Id:	583117-	007	583117-0	08	583117-0)09	583117-0)10	583117-0)11	583117-0)12
Analysis Requested	Field Id:	AH-2 (0-	-6")	AH-2 (6"-	-1')	AH-2 (2	2')	AH-2 (3	3')	AH-2 (4	')	AH-2 (5	<i>;</i> ')
Analysis Kequestea	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	mg/kg RL										
Benzene		ND	ND 0.00200										
Toluene		ND	0.00200										
Ethylbenzene		0.00508	0.00200										
n,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 ()9:00
	Analyzed:	Apr-26-18	02:07	Apr-26-18 1	1:28	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

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

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Huns Boah

Kelsey Brooks Project Manager



Lea County, New Mexico

Contact:

Project Location:

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline



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

	Lab Id:	583117-0)13	583117-0	14	583117-	015	583117-0)16	583117-0	17	583117-0)18
Analysis Paguastad	Field Id:	AH-3 (0-	6")	AH-3 (6"-	-1')	AH-4 (0-	-6")	AH-4 (6"	-1')	AH-4 (2	')	AH-4 (3	3')
Anaiysis Kequesiea	Depth:												
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18	15:40	Apr-19-18 1	5:45	Apr-19-18	15:50	Apr-19-18	15:52	Apr-19-18 1	5:54	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	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 0	9:00	Apr-26-18 (09:00
	Analyzed:	Apr-26-18	13:33	Apr-26-18 1	3:39	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)	Gasoline Range Hydrocarbons (GRO)		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						

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Huns Roah

Kelsey Brooks Project Manager



Lea County, New Mexico

Contact:

Project Location:

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline



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

	Lab Id:	583117-0)19	583117-0	20	583117-	021	583117-0)22	583117-0	023	583117-0)24
Analysis Paguested	Field Id:	AH-4 (4	4')	AH-4 (5	")	AH-5 (0-	-6")	AH-5 (6"	-1')	AH-5 (2	!')	AH-5 (3	3')
Analysis Kequesiea	Depth:												
	Matrix:	SOIL		SOIL		SOIL	,	SOIL		SOIL		SOIL	
	Sampled:	Apr-19-18	15:56	Apr-19-18 1	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 1	4:44	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

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Huns Boah

Kelsey Brooks Project Manager



Lea County, New Mexico

Contact:

Project Location:

Certificate of Analysis Summary 583117

Enviroclean- Midland, Midland, TX

Project Name: Ram #99 Flowline



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

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') Analysis Requested Depth: Matrix: SOIL SOIL SOIL SOIL Apr-19-18 16:23 Apr-19-18 16:25 Apr-19-18 16:30 Sampled: Apr-19-18 16:20 BTEX by EPA 8021B Apr-21-18 08:30 Extracted: Analyzed: Apr-22-18 02:17 mg/kg RL Units/RL: ND 0.00199 Benzene Toluene ND 0.00199 Ethylbenzene ND 0.00199 0.00398 m,p-Xylenes ND o-Xylene ND 0.00199 Total Xylenes ND 0.00199 Total BTEX ND 0.00199 **Inorganic Anions by EPA 300** Apr-26-18 09:00 Apr-26-18 09:00 Extracted: Apr-25-18 15:30 Apr-25-18 15:30 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 Apr-21-18 10:00 Extracted: Analyzed: Apr-21-18 22:55 Units/RL: mg/kg RL Gasoline Range Hydrocarbons (GRO) ND 14.9 Diesel Range Organics (DRO) 14.9 ND Oil Range Hydrocarbons (ORO) 14.9 ND Total TPH ND 14.9

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Kms Boah

Kelsey Brooks Project Manager



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 LimitSDLSample Detection LimitLOD Limit of Detection
- PQL Practical Quantitation Limit MQL Method Quantitation Limit LOQ Limit of Quantitation
- DL Method Detection Limit
- NC Non-Calculable

SMP Clier	nt Sample	BLK	Method Blank	
BKS/LCS	Blank Spike/Laboratory Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labor	atory 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



Project Name: Ram #99 Flowline

Work Or Lab Batch	ders : 58311 #: 3047493	7, Sample: 583117-001 / SMP	Batch	Project ID:	Soil		
Units:	mg/kg	Date Analyzed: 04/21/18 20:35	SUE	ROCATE R	FCOVERV	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes					
1-Chlorooct	tane		97.2	100	97	70-135	
o-Terpheny	1		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	SUF	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		82.4	99.8	83	70-135	
o-Terpheny	1		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	SUF	ROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.011		Anarytes			[2]	70.407	
T-Chlorooct	lane		88.0	99.6	88	70-135	
I ah Datah	H. 2047402	Sementer 592117 021 / SMD	43.2	49.8	8/	70-135	
	#: 3047495	Sample: 383117-0217 SMP	Batch		5011		
Units:	mg/kg	Date Analyzed: 04/21/18 22:35	SUF	RROGATE R	ECOVERY	STUDY	
	TPHI	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		94.3	99.9	94	70-135	
o-Terpheny	1		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	SUF	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		85.5	99.6	86	70-135	
o-Terpheny	1		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



Project Name: Ram #99 Flowline

Work Or	rders: 58311'	7, Somula: 582117 025 / SMD	Datah	Project ID:	Soil		
Lab Balch	#: 504/4//	Sample: 383117-0237 SMP	Batch		5011		
Units:	mg/kg	Date Analyzed: 04/22/18 02:17	SUI	RROGATE R	ECOVERY	STUDY	
	BTEX	Applytos	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 Difluor	obenzene	Analytes	0.0265	0.0200	00	70.120	
1,4-Diluolo	orobenzene		0.0263	0.0300	86	70-130	
Lab Batch	#• 3047477	Sample: 583117-013 / SMP	Batch	• 1 Matrix:	Soil	70-130	
Units:	mg/kg	Date Analyzed: 04/22/18 02:36	SUI	RROGATE R	ECOVERY	STUDY	
	ВТЕХ	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluor	ohenzene		0.0271	0.0200	00	70.120	
4-Bromoflu	orobenzene		0.0271	0.0300	90	70-130	
Lab Batch	#: 3047477	Sample: 583117-001 / SMP	Batch	• 1 Matrix:		70-130	
Units:	mg/kg	Date Analyzed: 04/22/18 02:55	SUI	RROGATE R	ECOVERY	STUDY	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1,4-Difluor	obenzene		0.0231	0.0300	77	70-130	
4-Bromoflu	orobenzene		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	SUI	RROGATE R	ECOVERY	STUDY	
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0292	0.0300	97	70-130	
4-Bromoflu	orobenzene		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	SUI	RROGATE R	ECOVERY	STUDY	
	ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0235	0.0300	78	70-130	
4-Bromoflu	orobenzene		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



Project Name: Ram #99 Flowline

Work Orders : 583117, Sample: 583117-015/5 Lab Batch #: 3047477 Sample: 583117-015/5 Units: mg/kg Date Analyzed: 04/22/18 03:53	7,	D ()	Project ID:	G			
Lab Batch	#: 304/4//	Sample: 583117-0157 SMP	Batch		: 5011		
Units:	mg/kg	Date Analyzed: 04/22/18 03:55	SU	RROGATE R	ECOVERYS	STUDY	
	BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[IJ]		
1,4-Difluor	obenzene		0.0238	0.0300	79	70-130	
4-Bromoflu	orobenzene		0.0358	0.0300	119	70-130	
Lab Batch	#: 3047493	Sample: 583117-013 / SMP	Batch	a: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 04/22/18 09:24	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		100	99.8	100	70-135	
o-Terpheny	1		54.5	49.9	109	70-135	
Lab Batch	#: 3048686	Sample: 583117-006 / SMP	Batch	n: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 05/02/18 07:13	SU	RROGATE R	ECOVERYS	STUDY	
	TPH I	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1.011		Anarytes				70.107	
1-Chlorooc	tane		93.6	99.8	94	70-135	
Lob Potch	1 #• 2019696	Somple: 582117 012 / SMD	4/.0	49.9	95 • Soil	/0-135	
Lau Datti	#. 5048080	Data Analyzada 05/02/18 08:08	Daten				
Units:	mg/kg	Date Analyzed: 05/02/18 08:08	SU	RROGATE R	ECOVERY	STUDY	
	TPHI	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		100	99.7	100	70-135	
o-Terpheny	1		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	SU	RROGATE R	ECOVERYS	STUDY	
	TPH I	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		106	99.8	106	70-135	
o-Terpheny	1		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



Project Name: Ram #99 Flowline

Work Or Lab Batch	ders : 58311 #: 3048686	7, Sample: 583117-024 / SMP	Batel	Project ID:	• Soil		
Units:	mg/kg	Date Analyzed: 05/02/18 09:05	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1.011		Analytes				50.105	
T-Chlorooct	tane		97.5	99.6	98	70-135	
o-Terpneny	1		49.5	49.8	99	70-135	
Lab Batch	#: 3047493	Sample: /643148-1-BLK/	SLK Bater	n: 1 Matrix	: Solid		
Units:	mg/kg	Date Analyzed: 04/21/18 15:56	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane	-	84.7	100	85	70-135	
o-Terpheny	1		45.1	50.0	90	70-135	
Lab Batch	#: 3047477	Sample: 7643133-1-BLK / H	BLK Batch	h: 1 Matrix	: Solid	1	
Units:	mg/kg	Date Analyzed: 04/21/18 20:49	SU	RROGATE R	ECOVERY	STUDY	
	втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	_	Analytes					
1,4-Difluor	obenzene		0.0275	0.0300	92	70-130	
4-Bromoflu	orobenzene		0.0248	0.0300	83	70-130	
Lab Batch	#: 3048686	Sample: 7643914-1-BLK / I	BLK Batch	h: 1 Matrix	: Solid		
Units:	mg/kg	Date Analyzed: 05/01/18 21:40	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		101	100	101	70-135	
o-Terpheny	1		51.7	50.0	103	70-135	
Lab Batch	#: 3047493	Sample: 7643148-1-BKS / I	BKS Batch	h: 1 Matrix	: Solid		
Units:	mg/kg	Date Analyzed: 04/21/18 16:16	SU	RROGATE R	ECOVERYS	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		101	100	101	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



Project Name: Ram #99 Flowline

Work Or	ders : 58311	7, Samular 7642122 1 BKS /		Project ID:	Salid		
Lab Balch	#: 504/4//	Sample: 7043135-1-BKS7			Solid		
Units:	mg/kg	Date Analyzed: 04/21/18 18:53	SU	RROGATE R	ECOVERY	STUDY	
	ВТЕХ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluor	henzene	Analytes	0.0315	0.0300	105	70.130	
4-Bromoflu	orobenzene		0.0291	0.0300	97	70-130	
Lab Batch	#: 3048686	Sample: 7643914-1-BKS /	BKS Batch	0.0300	Solid	70-150	
Units:	mg/kg	Date Analyzed: 05/01/18 22:06	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	ane	Analytes	111	100	111	70.135	
o-Ternhenv	1		54.7	50.0	109	70-135	
Lab Batch	#: 3047493	Sample: 7643148-1-BSD /	BSD Batch	<u> </u>	Solid	70-135	
Units:	mg/kg	Date Analyzed: 04/21/18 16:36	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
		Analytes			[D]		
1-Chlorooct	tane		102	100	102	70-135	
o-Terpheny	1		49.4	50.0	99	70-135	
Lab Batch	#: 3047477	Sample: 7643133-1-BSD /	BSD Batch	n: 1 Matrix:	Solid		
Units:	mg/kg	Date Analyzed: 04/21/18 19:13	SU	RROGATE R	ECOVERY	STUDY	
	ВТЕХ	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluoro	obenzene		0.0291	0.0300	97	70-130	
4-Bromoflu	orobenzene		0.0261	0.0300	87	70-130	
Lab Batch	#: 3048686	Sample: 7643914-1-BSD /	BSD Batch	n: 1 Matrix:	Solid	-	
Units:	mg/kg	Date Analyzed: 05/01/18 22:33	SU	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		111	100	111	70-135	
o-Terpheny	1		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



Project Name: Ram #99 Flowline

Work Or	rders : 58311	7,		Project ID:	:		
Lab Batch	#: 3047493	Sample: 583105-001 S / MS	Batch	: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 04/21/18 17:15	SUI	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 Chloroost	tana	Anarytes	109	00.7	100	70.125	
1-Cillolooci	1		50.4	40.0	108	70-135	
Lab Batch	#• 3047477	Sample: 582929-002 S / MS	Batch	49.9 • 1 Matrix		70-133	
Units:	mg/kg	Date Analyzed: 04/21/18 19:32	SUI	RROGATE R	ECOVERY S	STUDY	
	BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4 Difluor	hanzana	Anarytes	0.0207	0.0200	102	70.120	
1,4-Diluolo	orobenzene		0.0307	0.0300	02	70-130	
Lab Batch	#• 3048686	Sample: 584082-001 S / MS	Batch	• 1 Matrix		70-130	
Units:	mg/kg	Date Analyzed: 05/01/18 23:27	SU		ECOVEDV	STUDY	
	88	2 ave 1 1101 y 2001	501	KOGATE K			
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		105	100	105	70-135	
o-Terpheny	1		52.8	50.0	105	70-135	
Lab Batch	#: 3047493	Sample: 583105-001 SD / M	ISD Batch	: 1 Matrix	: Soil	10 100	
Units:	mg/kg	Date Analyzed: 04/21/18 17:34	SUI	RROGATE R	ECOVERY	STUDY	
	TPH	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooct	tane		106	99.9	106	70-135	
o-Terpheny	1		52.9	50.0	106	70-135	
Lab Batch	#: 3047477	Sample: 582929-002 SD / M	SD Batch	: 1 Matrix	: Soil		
Units:	mg/kg	Date Analyzed: 04/21/18 19:51	SUI	RROGATE R	ECOVERYS	STUDY	
	втех	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluor	obenzene		0.0312	0.0300	104	70-130	
4-Bromoflu	orobenzene		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



Project Name: Ram #99 Flowline

Work Orders : 5831	17,		Project ID:			
Lab Batch #: 3048686	Sample: 584082-001 SD / 1	MSD Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 05/01/18 23:54	SU	RROGATE RI	ECOVERY S	STUDY	
ТРН	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



BS / BSD Recoveries



Project Name: Ram #99 Flowline

Work Order #: 583117							Pro	ject ID:			
Analyst: ALJ	D	ate Prepar	red: 04/21/20	18			Date A	nalyzed: (04/21/2018		
Lab Batch ID: 3047477 Sample: 7643133-1-	BKS	Batcl	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUI	ΟY	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]		נטן	[E]	Kesult [F]	[G]				
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	D	ate Prepar	red: 04/25/202	18			Date A	nalyzed: (04/25/2018		
Lab Batch ID: 3047948 Sample: 7643398-1-	BKS	Batcl	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK	SPIKE / 1	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUI	ΟY	
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



BS / BSD Recoveries



Project Name: Ram #99 Flowline

Work Order #	#: 583117							Proj	ject ID:			
Analyst:	SCM	D	ate Prepar	red: 04/26/201	8			Date A	nalyzed: (04/26/2018		
Lab Batch ID:	Sample: 7643495-1-	BKS	Batcl	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK	SPIKE /]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Inor	rganic Anions by EPA 300 es	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	D	ate Prepar	red: 04/21/201	8	ł		Date A	nalyzed: ()4/21/2018	ł	, J
Lab Batch ID:	3047493 Sample: 7643148-1-	BKS	Batcl	h #: 1					Matrix: S	Solid		
Units:	mg/kg	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
	FPH by SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analyt	es		[B]	[C]	[D]	[E]	Result [F]	[G]				
Gasoline Ra	nge Hydrocarbons (GRO)	<15.0	1000	992	99	1000	1090	109	9	70-135	20	
Diesel Rang	e Organics (DRO)	<15.0	1000	957	96	1000	988	99	3	70-135	20	
Analyst:	ARM	D	ate Prepar	red: 05/01/201	8			Date A	nalyzed: (05/01/2018		
Lab Batch ID:	3048686 Sample: 7643914-1-	BKS	Batcl	h #: 1					Matrix: S	Solid		
Units:	mg/kg		BLAN	K /BLANK S	SPIKE /]	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Analyt	ГРН by SW8015 Mod es	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 Ra	nge Hydrocarbons (GRO)	<15.0	1000	1020	102	1000	1010	101	1	70-135	20	
Diesel Rang	e 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



Form 3 - MS / MSD Recoveries

Project Name: Ram #99 Flowline



Work Order # :	583117						Project II):				
Lab Batch ID:	3047477	QC- Sample ID:	582929	-002 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/21/2018	Date Prepared:	04/21/2	018	Ar	alyst: A	ALJ					
Reporting Units:	mg/kg		Ν	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
В	TEX by EPA 8021B	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes	[A]	[B]		[D]	[E]		[G]				
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	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/26/2018	Date Prepared:	04/25/2	018	Ar	alyst: S	SCM					
Date Analyzed: Reporting Units:	04/26/2018 mg/kg	Date Prepared:	04/25/2 N	018 I ATRIX SPIK	Ar E / MAT	alyst: S RIX SPI	SCM KE DUPLICA	TE REC	OVERY	STUDY		
Date Analyzed: Reporting Units: Inorg	04/26/2018 mg/kg manic Anions by EPA 300	Date Prepared: Parent Sample Result	04/25/2 N Spike	018 IATRIX SPIK Spiked Sample Result	Ar E / MAT Spiked Sample	RIX SPI	SCM KE DUPLICA Duplicate Spiked Sample	TE REC Spiked Dup.	OVERY S	STUDY Control Limits	Control Limits	Flag
Date Analyzed: Reporting Units: Inorg	04/26/2018 mg/kg canic Anions by EPA 300 Analytes	Date Prepared: Parent Sample Result [A]	04/25/2 N Spike Added [B]	018 IATRIX SPIK Spiked Sample Result [C]	Ar E / MAT Spiked Sample %R [D]	nalyst: S RIX SPI Spike Added [E]	SCM KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G]	OVERY S	STUDY Control Limits %R	Control Limits %RPD	Flag
Date Analyzed: Reporting Units: Inorg	04/26/2018 mg/kg canic Anions by EPA 300 Analytes	Date Prepared: Parent Sample Result [A] <5.00	04/25/2 N Spike Added [B] 250	018 IATRIX SPIK Spiked Sample Result [C] 248	Ar E / MAT Spiked Sample %R [D] 99	nalyst: S RIX SPI Spike Added [E] 250	SCM KE DUPLICA Duplicate Spiked Sample Result [F] 249	TE REC Spiked Dup. %R [G] 100	OVERY S RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: Reporting Units: Inorg Chloride Lab Batch ID:	04/26/2018 mg/kg anic Anions by EPA 300 Analytes 3047948	Date Prepared: Parent Sample Result [A] <5.00 QC- Sample ID:	04/25/2 N Spike Added [B] 250 583117	018 IATRIX SPIK Spiked Sample Result [C] 248 -026 S	Ar E / MAT Spiked Sample %R [D] 99 Ba	RIX SPI RIX SPI Spike Added [E] 250 ttch #:	SCM KE DUPLICA Duplicate Spiked Sample Result [F] 249 1 Matrix	TE REC Spiked Dup. %R [G] 100 x: Soil	OVERY S RPD %	STUDY Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: Reporting Units: Inorg Chloride Lab Batch ID: Date Analyzed:	04/26/2018 mg/kg canic Anions by EPA 300 Analytes 3047948 04/26/2018	Date Prepared: Parent Sample Result [A] <5.00 QC- Sample ID: Date Prepared:	04/25/2 M Spike Added [B] 250 583117 04/25/2	018 IATRIX SPIK Spiked Sample Result [C] 248 -026 S 018	Ar E / MAT Spiked Sample %R [D] 99 Ba Ar	RIX SPI Spike Added [E] 250 ttch #: nalyst: S	SCM KE DUPLICA Duplicate Spiked Sample Result [F] 249 1 Matrix SCM	TE REC Spiked Dup. %R [G] 100 x: Soil	OVERY S	Control Limits %R 90-110	Control Limits %RPD 20	Flag
Date Analyzed: Reporting Units: Inorg Chloride Lab Batch ID: Date Analyzed: Reporting Units:	04/26/2018 mg/kg canic Anions by EPA 300 Analytes 3047948 04/26/2018 mg/kg	Date Prepared: Parent Sample Result [A] <5.00 QC- Sample ID: Date Prepared:	04/25/2 N Spike Added [B] 250 583117 04/25/2 N	018 IATRIX SPIK Spiked Sample Result [C] 248 -026 S 018 IATRIX SPIK	Ar E / MAT Spiked Sample %R [D] 99 Ba Ar E / MAT	RIX SPI Spike Added [E] 250 Atch #: nalyst: S RIX SPI	SCM KE DUPLICA Duplicate Spiked Sample Result [F] 249 1 Matrix SCM KE DUPLICA	TE REC Spiked Dup. %R [G] 100 x: Soil TE REC	OVERY S RPD % 0	STUDY Control Limits %R 90-110 STUDY	Control Limits %RPD 20	Flag
Date Analyzed: Reporting Units: Inorg Chloride Lab Batch ID: Date Analyzed: Reporting Units: Inorg	04/26/2018 mg/kg canic Anions by EPA 300 Analytes 3047948 04/26/2018 mg/kg canic Anions by EPA 300 Analytes	Date Prepared: Sample Result [A] <5.00 QC- Sample ID: Date Prepared: Sample Result [A]	04/25/2 N Spike Added [B] 250 583117 04/25/2 N Spike Added [B]	018 IATRIX SPIK Spiked Sample Result [C] 248 -026 S 018 IATRIX SPIK Spiked Sample Result [C]	Ar E / MAT Spiked Sample %R [D] 99 Ba Ar E / MAT Spiked Sample %R [D]	Added [E] 250 Added [E] 250 Added [E] Spike Added [E]	SCM KE DUPLICA Duplicate Spiked Sample Result [F] 249 1 Matrix SCM KE DUPLICA Duplicate Spiked Sample Result [F]	TE REC Spiked Dup. %R [G] 100 x: Soil x: Soil TE REC Spiked Dup. %R [G]	OVERY S RPD % 0 OVERY S RPD %	STUDY Control Limits %R 90-110 STUDY Control Limits %R	Control Limits %RPD 20 20 Control Limits %RPD	Flag

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 II):				
Lab Batch ID:	3048018	QC- Sample ID:	583117	-012 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/26/2018	Date Prepared:	04/26/2	018	An	alyst: S	SCM					
Reporting Units:	mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inoi	ganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes	[A]	[B]		[D]	[E]		[G]				
Chloride		1040	250	1230	76	250	1230	76	0	90-110	20	X
Lab Batch ID:	3048018	QC- Sample ID:	583117	-027 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/26/2018	Date Prepared:	04/26/2	018	An	alyst: S	SCM					
Reporting Units:	mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
Inoi	ganic Anions by EPA 300	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]		%K [D]	E]	Kesuit [F]	%K [G]	70	%0K	%KPD	
Chloride		<5.00	250	258	103	250	265	106	3	90-110	20	
Lab Batch ID:	3047493	QC- Sample ID:	583105	-001 S	Ba	tch #:	1 Matrix	x: Soil				
Date Analyzed:	04/21/2018	Date Prepared:	04/21/2	018	An	alyst: A	ARM					
Reporting Units:	mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
	TPH by SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
	Analytes	[A]	[B]	[-]	[D]	[E]		[G]				
Gasoline Range	Hydrocarbons (GRO)	<15.0	997	867	87	999	869	87	0	70-135	20	

Matrix Spike Percent Recovery $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD = $200^{\circ}|(C-F)/(C+F)|$ 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 II):				
Lab Batch ID:	3048686 Q	C- Sample ID:	584082	-001 S	Ba	tch #:	1 Matrix	k: Soil				
Date Analyzed:	05/01/2018	Date Prepared:	05/01/2	018	An	alyst: A	ARM					
Reporting Units:	mg/kg		Μ	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY		
1	TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
	Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Gasoline Range I	Hydrocarbons (GRO)	<15.0	1000	1000	100	999	1000	100	0	70-135	20	
Diesel Range Org	ganics (DRO)	<15.0	1000	1100	110	999	1110	111	1	70-135	20	

Matrix Spike Percent Recovery $[D] = 100^{\circ}(C-A)/B$ Relative Percent Difference RPD = $200^{\circ}|(C-F)/(C+F)|$ 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.

Relinquished by: Date T	3 Bate 1	1 - Han Kinn Well Orl	Relinquished by Sampler; Date 1	IAI Starts Day received by Lab, if received by 5:00 pm	TAT Office Documents I for Lot 16 months of the 7.00 months	3 Day EMERGENCY	2 Day EMERGENCY	Next Day EMERGENCY		Same Day TAT	Turnaround Time (Business days)	10 AH-2 (3')	9 AH-2 (2')	8 AH-2 ("-1")	7 AH-2 (0-6")	6 AH-1 (5')	5 AH-1 (4)	4 AH-1 (3)	3 171-1 (2)		1 AH-1 (0-6")	No. Field ID / Point of Collection Sam		Travis Maryan Casey Smith	Je Hoy Mariles	Project Contact:	Teffer Kindler & and H32-305	Email: (X / / / C bhone No:	2405 E. County Rund 123	Company Address:	Company Name / Branch:	Client / Reporting Information			Stafford, TX (281) 240-4200 El Paso, TX (915) 585-3443 Dallas, TX (214) 902-0300 Lubbock, TX (806) 794-129	Setting the Standard since 1990	LABORATORIES
rime: Received By: Cust	Time: Reficeivent By: Relin	1 1000 1 1 1 1 1 1 1 1 2 2	Time: Received by:	BE DOCIMENTED DEI ANTEACH THE CAMPI ES CHANGE DOCCESSI		Level II Report with TRRP checklist	Level 3 (CLP Forms)	Level III Std QC+ Forms TRF			Data Deliverable Information	04119118 1525 S 1	04/19/18 1522 5 1	64119118 15 18 S 1	04/19/18 1515 S 1	0411918 1510 5 1	04119118 1508 S 1	04/19/18/1507 2 1	1 C 5050 81161140	1 C 2001 SIISIAD	ortholds 1505 < 1	th Date Time Matrix bottles HCI NaOH/Zn Accetate HNO3 H2SO4	Collection Number of press	-	PO Number:	Turner	involue in Enviro Clean Road 123	Invoice To: (7) I Vew Iteli W		Project ocation:	Project Name/Number:	Project Information		www.xenco.com	3 Midland, TX (432) 704-5440 96 San Antonio, TX (210) 509-3334		Page 1 of 3
tody Seal # Preserved where appl	nquished By:		nquished By: Date Time:	FED.			T/RG -411	RP Level IV	rel IV (Full Data Pkg /raw data)	K	-	× ×	< <	<	<pre></pre>	<	<		<			NaOH NaHSO4 MEOH NONE TPI B Cik	erved bottles	× id	51	m K	*						Analytical Info		Phoenix, AZ (480) 355-0900 Service Center - Baton Rouge, LA (83		
licable On Ice Cooler Temp. Thermo. Corr. Factor	Received By:	2	Received By:	-EX / UPS: Tracking # be www to my ka / Stomak	Next Simple during under Ling & UN	and Total BTEX & 2 50 mg 1/2	* IF Romand in 10 ma Ka on a ratio	UNHI TPH & 1000 malka	15 IT A TOTAL OF JUNE 11111 10 500 HAVE	TE TOULLAN is > 1 MOD malks man	Notes:		Corrected Temp:			Temp: A. Q in in.n.o						Field Comments			A = Air	0=01	SL - Sudge OW = Ocean/Sea Water WI = Wine	SW = Surface Water	DW = Drinking Water P = Product	GW = Ground Water	W = Water		ormation Matrix Codes	Xenco 100# 0000 - +	12) 712-8143 Service Center- Hobbs, NM (575) 392-7550		

Final 1.001

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CHAIN OF CUSTODY Page $\frac{2}{3}$ of $\frac{3}{3}$

0-6: -0.2°C) 6-23: +0.2°C)	-	-												
0-A. 7000 1	oplicable (erved where ap	Prese	al#	Custody Se			d By:	Received	me:	Date Ti			nquished by:
DI A. Y IR ID	L Iem	Date Time:		d By:	Relinquishe 4	/	0	d'By:	Received	me:	Date Ti			
2	Received By	Date Time:		d By:	Relinquishe		Ø	ABR.	Receive	0 8 00	Date Ti		Kmuliky	nuished by Sample
# 50 mg 1Kg (Total)	ED-EX / UPS: Tracking	F			FSSION INC	HANGE POSS	SAMPLES CI	EAOH JIME	TED BELOW	E DOCUMEN	y 5:00 pm	sample cus	eived by Lab, if	T Starts Day rec
both an below 10 m	Sample until				t	RP checklis	ort with TRI	evel II Repo						3 Day EMERGENCY
x is so - in a grant	Top 1 BLE			411	UST / RG -		Forms)	evel 3 (CLP			AT	Contract T		2 Day EMERGENCY
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Setting the Standard since 1990

CHAIN OF CUSTODY Page $\underline{3}$ of $\underline{3}$

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Client: Enviroclean- Midland

XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 04/20/2018 10:00:00 AM Temperature Measuring device used : R8 Work Order #: 583117 Comments Sample Receipt Checklist #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 #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?

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

Analyst:

PH Device/Lot#:

Checklist completed by: Mms Moah Kelsey Brooks

Date: 04/24/2018

N/A

Checklist reviewed by:

Date: 04/20/2018

TPH received in bulk container