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Final Closure Report

**Grizzly Operating, LLC
Horse Creek Com #2
Chaves County, New Mexico
Unit Letter "E", Section 11, Township 5 South, Range 24 East
Latitude 33.8888512 North, Longitude 104.3996964 West
NMOCD Incident # nAB1701252341**

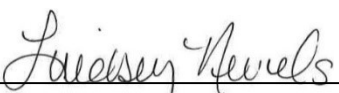
Prepared For:

Grizzly Operating, LLC
4001 Penbrook, Suite 201
Odessa, TX 79762

Prepared By:

Hungry Horse LLC
4024 Plains Hwy
Lovington, NM 88260

August 2020


Lindsey Nevels
Project Manager


Daniel Dominguez
Sr. Project Manager

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HUNGRY HORSE, LLC

The following *Final Closure Report* serves as a condensed update on field activities undertaken at the above referenced site which was remediated prior to the August 2018 rule replacement.

Background:

The site is located in Unit Letter E (SW/NW), Section 11, Township 5 South, Range 24 East, approximately 35 miles north of Roswell, in Chaves County, New Mexico. The property is owned by the Waynette Wooton Trust. Topographic Map, and Water Well Proximity Map are included as Figure 1 and Figure 2, respectively.

The release site was located on an active well pad; latitude 33.8888512 North, Longitude 104.3996964 West. The Initial NMOCD Form C-141 indicates that on December 20, 2016, a field inspector discovered apparent corrosion on the wellhead and a casing valve leak. An unknown amount of produced water was released affecting an approximate area of fifteen feet by fifteen feet at the well head. The visually stained area totaled approximately 225 square feet and was initially dug out to a depth of approximately seven feet below ground surface (bgs) by an environmental contractor hired by Vanguard Operating. Impacted soil was hauled to an NMOCD approved facility for disposal. Previously submitted Initial NMOCD Form C-141 is available on the NMOCD Imaging System. The Final NMOCD Form C-141 is included as Attachment IV.

Vanguard Operating then requested EPI conduct a site assessment, vertical and horizontal sampling, and prepare a Site Characterization and Work Plan.

NMOCD Site Classification:

A search of the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) groundwater databases was completed to determine the horizontal distance to known water sources within a half mile radius of the release site. The search returned no wells located within a half mile radius of the release site. Also, no wells (domestic, agriculture or public) and no bodies of surface water exist within a 1,000-foot radius of the release site. The NMOSE database indicates average water depth is approximately 199 feet bgs within a 4,500-meter radius. However, as this is too great a distance to accurately determine depth to water for this location and the closest documented well to this location is 1,943 meters away and doesn't provide depth to groundwater, the Chaves county groundwater flowline map was utilized to determine an approximate depth to water of seventy-five to one hundred feet bgs. Depth to groundwater information is provided as Attachment II and the results are depicted on Figure 2.

Utilizing this information and the NMOCD guidelines for spills that occurred prior to August 2018, it was determined that the Horse Creek Com #2 site have a ranking score of ten.



Based on this score, the NMOCD Recommended Remedial Action Levels (RRALs) for delineation at this site were determined as follows: Benzene – 10 mg/Kg, BTEX – 50 mg/Kg, TPH – 1,000 mg/Kg, and Chloride – 600 mg/Kg.

Regulatory Approval:

On July 26, 2017, a Site Characterization and Work Plan was submitted to the NMOCD. The report proposed a remediation strategy designed to progress the site toward approved closure. The Site Characterization and Work Plan was approved on August 10, 2017 and is available on the NMOCD imaging system.

Please refer to the Site Characterization and Work Plan for details regarding the site and proposed remediation activities.

Remediation Activities:

From November 16 – 18, 2017, remediation activities commenced on location. In accordance with the approved work plan, impacted soil around the edge of the existing excavation was excavated one foot laterally and three feet vertically. Excavated soil was then hauled to an NMOCD approved disposal facility. After excavation activities were complete, a 20-millimeter poly-ethylene liner was installed, at seven feet bgs, covering the deepest portion of the excavation and extended up the sidewalls to also cover the newly excavated area at three feet bgs.

An Excavation Area Map is provided as Figure 3, a Summary of Soil Sample Field and Laboratory Analytical Results is provided as Table 1, and Laboratory Analytical Reports are provided as Attachment III.

The final dimensions of the excavated area were approximately 20 ft. in length and 20 ft. in width and ranged from 3 ft. to 7 ft. in depth. During remediation activities approximately 40 cubic yards of impacted soil were hauled to an NMOCD approved disposal facility.

Restoration, Reclamation, and Re-Vegetation:

After the liner was installed the excavation was backfilled with clean, non-impacted, like material and replaced to the near original relative positions. The areas were contoured to achieve erosion control and preserve surface water flow. And as the release occurred on an active well pad, no seeding will be required.

Closure Request:

Remediation activities were conducted in accordance with the NMOCD approved Site Characterization and Work Plan, and applicable NMOCD Regulations for spills that occurred prior to August 2018. Soil affected above the NMOCD RRALs was excavated and hauled to an



NMOCD approved facility for disposal. Laboratory analytical results from soil samples indicate concentrations of BTEX, TPH, and chloride are below the NMOCD RRALs as well as the current NMOCD Closure Criteria. The Horse Creek Com #2 was subsequently plugged and abandoned on December 2, 2017, with final reclamation of the site pending closure of this incident file.

Based on laboratory analytical results and field activities conducted to date, Hungry Horse recommends Grizzly Operating, LLC provide copies of this *Final Closure Report* to the appropriate agencies and request closure be granted to the Horse Creek Com #2.

Limitations:

Hungry Horse, LLC, has prepared this Site Assessment and Remediation Work Plan to the best of its ability. No other warranty, expressed or implied, is made or intended. Hungry Horse has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Hungry Horse has not conducted an independent examination of the facts contained in referenced materials and statements. Hungry Horse has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Hungry Horse notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.



Distribution:

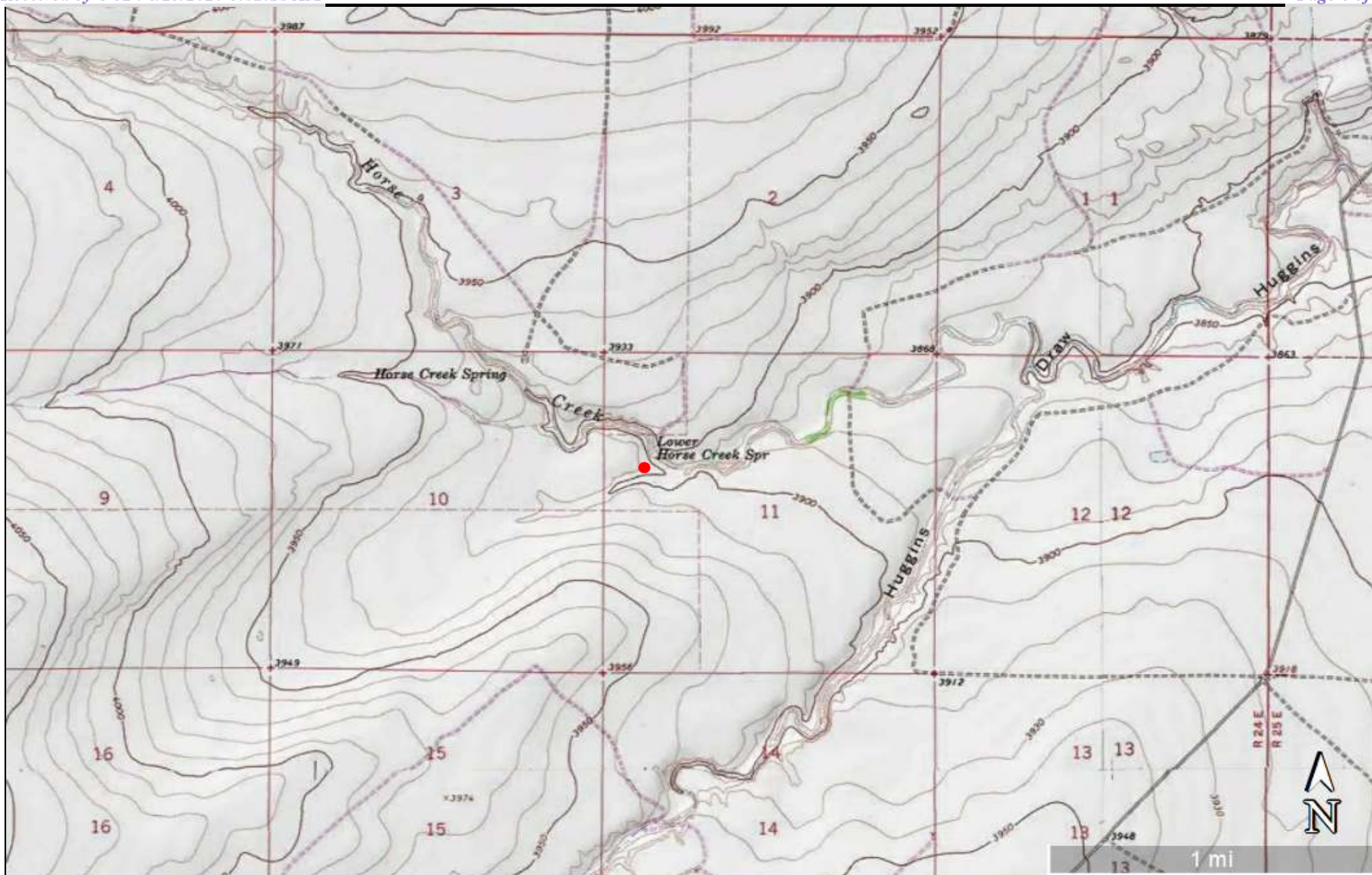
Grizzly Operating, LLC

4001 Penbrook, Suite 201
Odessa, TX 79762

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 2
811 S. First St.
Artesia, NM 88210

Figures

**Figure 1**

Topographic Map
 Grizzly Operating, LLC
 Horse Creek Com #2
 GPS: 33.8888512, -104.3996964
 Chaves County

Legend:

● Horse Creek Com #2 Location

Drafted: dd
 Checked: lmn
 Date: 8/18/20



**Figure 2**

Water Well Proximity Map
 Grizzly Operating, LLC
 Horse Creek Com #2
 GPS: 33.8888512, -104.3996964
 Chaves County

Legend:

- Horse Creek Com #2 Location
- OSE Active Well
- OSE Pending Well
- OSE Unknown Well
- USGS Well



Drafted: dd
 Checked: Imn
 Date: 8/18/20



**Figure 3**

Excavation Area Map
Grizzly Operating, LLC
Horse Creek Com #2
GPS: 33.8888512, -104.3996964
Chaves County

Legend:

-  Excavated three feet bgs and lined
-  Excavated seven feet bgs and lined

Drafted: dd
Checked: Imn
Date: 7/21/20



Tables

TABLE 1
Summary of Soil Sample Field and Laboratory Analytical Results
Grizzly Operating, LLC
Horse Creek Com #2
NMOCD Ref. #: nAB1701252341

Sample ID	Date	Depth (ft)	Soil Status	PIP Reading (ppm)	Field Chloride (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SP1	4/26/17	Surf	In-Situ	0.0	240	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	240
	4/26/17	3	In-Situ	0.0	640	-	-	-	-	-	-	-	-
	4/26/17	7	In-Situ	0.0	400	-	-	-	-	-	-	-	-
	4/26/17	10	In-Situ	0.0	240	-	-	-	-	-	-	-	-
	4/26/17	15	In-Situ	0.0	160	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96
SP2	4/26/17	Surf	In-Situ	0.0	240	<0.050	<0.300	<10.0	22.3	22.3	<10.0	22.3	176
	4/26/17	3	In-Situ	0.0	240	-	-	-	-	-	-	-	-
	4/26/17	5	In-Situ	0.0	160	-	-	-	-	-	-	-	-
	4/26/17	10	In-Situ	0.0	160	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	160
SP3	4/26/17	Surf	In-Situ	0.0	240	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	144
	4/26/17	3	In-Situ	0.0	240	-	-	-	-	-	-	-	-
	4/26/17	5	In-Situ	0.0	80	-	-	-	-	-	-	-	-
	4/26/17	8	In-Situ	0.0	80	-	-	-	-	-	-	-	-
	4/26/17	10	In-Situ	0.0	80	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
SP4	4/26/17	Surf	In-Situ	0.0	80	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	112
	4/26/17	3	In-Situ	0.0	80	-	-	-	-	-	-	-	-
	4/26/17	5	In-Situ	0.0	160	-	-	-	-	-	-	-	-
	4/26/17	8	In-Situ	0.0	80	-	-	-	-	-	-	-	-
	4/26/17	10	In-Situ	0.0	80	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96
NW	4/27/17	3	Excavated	0.0	1,360	-	-	-	-	-	-	-	-
EW	4/27/17	3	Excavated	0.0	720	-	-	-	-	-	-	-	-
SW	4/27/17	3	Excavated	0.0	1,600	-	-	-	-	-	-	-	-
WW	4/27/17	3	Excavated	0.0	400	-	-	-	-	-	-	-	-
SPA	7/11/17	8	In-Situ	1.4	240	<0.050	<0.300	<10.0	<10.0	<20.0	53.1	53.1	64
	7/11/17	10	In-Situ	1.0	200	-	-	-	-	-	-	-	-
	7/11/17	12	In-Situ	0.5	200	-	-	-	-	-	-	-	-
	7/11/17	14	In-Situ	0.2	200	-	-	-	-	-	-	-	-
	7/11/17	16	In-Situ	0.3	160	<0.050	<0.300	<10.0	<10.0	<20.0	12	12	80
SPB	7/11/17	8	In-Situ	1.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48
	7/11/17	10	In-Situ	0.5	160	-	-	-	-	-	-	-	-
	7/11/17	12	In-Situ	0.5	160	-	-	-	-	-	-	-	-
	7/11/17	14	In-Situ	0.5	160	-	-	-	-	-	-	-	-
	7/11/17	16	In-Situ	0.3	160	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	96
SPC	7/11/17	8	In-Situ	1.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	48
	7/11/17	10	In-Situ	0.8	200	-	-	-	-	-	-	-	-
	7/11/17	12	In-Situ	0.6	200	-	-	-	-	-	-	-	-
	7/11/17	14	In-Situ	0.6	200	-	-	-	-	-	-	-	-
	7/11/17	16	In-Situ	0.3	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
NMOCD Closure Criteria				-	-	10	50	-	-	-	-	1,000	600

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

TABLE 1
Summary of Soil Sample Field and Laboratory Analytical Results
Grizzly Operating, LLC
Horse Creek Com #2
NMOCD Ref. #: nAB1701252341

Sample ID	Date	Depth (ft)	Soil Status	PIP Reading (ppm)	Field Chloride (mg/kg)	Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SPD	7/11/17	Surf	Excavated	0.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	32
	7/11/17	3	In-Situ	0.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
SPE	7/11/17	Surf	Excavated	0.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
	7/11/17	3	In-Situ	0.0	160	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
SPF	7/11/17	Surf	Excavated	0.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
	7/11/17	3	In-Situ	0.0	200	<0.050	<0.300	<10.0	<10.0	<20.0	<10.0	<30.0	80
NMOCD Closure Criteria				-	-	10	50	-	-	-	-	1,000	600

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Attachment I

Site Photographs

Photographic Log


Photo 1	
Direction Northwest	
Description Excavation prior to extending the sidewalls one foot laterally and three feet vertically.	

Photo 2	
Direction Northwest	
Description After excavating the sidewalls.	

Photographic Log



Photo 3	
Direction Northwest	
Description Installation of liner at seven feet bgs and extended up the sidewalls to cover the newly excavated area at three feet bgs.	

Photo 4	
Direction North	
Description Backfilling after installation of liner.	

Photographic Log

Photo 5	
Direction Northwest	
Description Completion of backfill activities.	

Attachment II

Depth to Groundwater Information



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
FS 01132	FS	CH		1	1	3	14	05S	24E	555412	3748053*	1943	60		
FS 01134	FS	CH		2	2	2	21	05S	24E	553572	3747249*	3359	60		
FS 00557	FS	CH		3	3	4	22	05S	24E	554601	3745835*	4256	411	380	31
FS 01136	FS	CH		3	3	4	22	05S	24E	554601	3745835*	4256	378		
FS 01135	FS	CH		1	4	1	21	05S	24E	552559	3746845*	4314	40	18	22
FS 01137	FS	CH		1	4	3	24	05S	24E	557456	3746025*	4420	100		

Average Depth to Water: **199 feet**

Minimum Depth: **18 feet**

Maximum Depth: **380 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 555509

Northing (Y): 3749994

Radius: 4500

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/14/17 12:11 PM


Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	FS 01132	1	1	3	14	05S	24E	555412	3748053* 
Driller License:		Driller Company:							
Driller Name:									
Drill Start Date:		Drill Finish Date:		12/31/1944		Plug Date:			
Log File Date:		PCW Rev Date:				Source:			
Pump Type:		Pipe Discharge Size:				Estimated Yield:			
Casing Size:	6.63	Depth Well:		60 feet		Depth Water:			

*UTM location was derived from PLSS - see Help

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8/19/20 3:02 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)			(NAD83 UTM in meters)
Well Tag	POD Number	Q64 Q16 Q4 Sec Tws Rng	X	Y	
	FS 01134	2 2 2 21 05S 24E	553572	3747249*	

Driller License:**Driller Company:****Driller Name:** RED YOUNG**Drill Start Date:****Drill Finish Date:** 11/30/1980**Plug Date:****Log File Date:****PCW Rev Date:****Source:****Pump Type:****Pipe Discharge Size:****Estimated Yield:****Casing Size:** 6.63**Depth Well:** 60 feet**Depth Water:**

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.


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POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
	FS 01135	1	4	1	21	05S	24E	552559	3746845* 
Driller License: 399		Driller Company:				CONES DRILLING COMPANY			
Driller Name: CONES, RICKEY									
Drill Start Date:	02/28/2000	Drill Finish Date:				03/01/2000		Plug Date:	
Log File Date:	03/17/2000	PCW Rcv Date:						Source:	Shallow
Pump Type:		Pipe Discharge Size:						Estimated Yield:	10 GPM
Casing Size:	5.00	Depth Well:				40 feet		Depth Water:	18 feet
Water Bearing Stratifications:					Top	Bottom	Description		
					18	36	Sandstone/Gravel/Conglomerate		
Casing Perforations:					Top	Bottom			
					20	40			

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/19/20 3:00 PM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: FS 01446 **Subbasin:** FS **Cross Reference:** -
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: EXP EXPIRED
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: RASTER N CATTLE CO
Contact: RICHARD NOLTE

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
				1	2		To				
get images	409716	72121	2008-06-17	EXP	EXP	FS 01446	T			3	

Current Points of Diversion

POD Number	Well Tag	Source	Q					(NAD83 UTM in meters)		Other Location Desc
			64Q16Q4Sec	Tws	Rng			X	Y	
FS 01446 POD1			4	1	4	17	05S 24E	551606	3747823	m

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/19/20 3:00 PM

WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: FS 01583 **Subbasin:** FS **Cross Reference:** -
Primary Purpose: EXP EXPLORATION
Primary Status: PMT PERMIT
Total Acres: **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: TETRATECH
Contact: CHRIS CORTEZ

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/		Acres	Diversion	Consumptive
				1	2		To				
get images	510778	EXPL	2012-08-24	PMT	APR	FS 01583	T		0	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
FS 01583 POD1			3	4	1	24 05S 24E	557543	3746747	n

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/19/20 3:02 PM

WATER RIGHT SUMMARY



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: LWD 00624 **Subbasin:** FS **Cross Reference:** LWD-FS-161
Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING
Primary Status: DCL DECLARATION
Total Acres: 1 **Subfile:** - **Header:** -
Total Diversion: 0 **Cause/Case:** -
Owner: LOIS BENEDICT

Documents on File

	Trn #	Doc	File/Act	Status		Transaction Desc.	From/To		Acres	Diversion	Consumptive
				1	2						
get images	603585	DCL	1992-08-10	DCL	PRC	LWD-FS-161	T		1	0	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q	Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
LWD 00624 POD1			64	3	3	18 05S 25E	558781	3747538*	LWD-P-424

An () after northing value indicates UTM location was derived from PLSS - see Help

Priority Summary

Priority	Status	Acres	Diversion	Pod Number
12/31/1962	DCL	1	0	LWD 00624 POD1

Place of Use

Q	Q	Q16Q4Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
256	64	3	3	18 05S 25E	1	0		PLS	12/31/1962	DCL	

Source

Acres	Diversion	CU	Use	Priority	Source Description
1	0		PLS	12/31/1962	SW

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

8/19/20 3:03 PM

 WATER RIGHT
SUMMARY




USGS Home
Contact USGS
Search USGS

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category: Geographic Area:

Click to hideNews Bulletins

- [Introducing The Next Generation of USGS Water Data for the Nation](#)
- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs

site_no list =

- 335427104245401

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 335427104245401 05S.24E.03.112423

Chaves County, New Mexico

Latitude 33°54'27", Longitude 104°24'54" NAD27

Land-surface elevation 3,987 feet above NGVD29

The depth of the well is 230.00 feet below land surface.

This well is completed in the Artesia Group (313ARTS) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period

Date	Time	? Water-level date- time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water- level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measurem
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1988-12-29		D	142.83			2	R	S		
1994-02-03		D	142.52			2	Z	S		

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status	R	Site had been pumped recently.
Status	Z	Other conditions existed that would affect the measured water level (explain in remarks).
Method of measurement	S	Steel-tape measurement.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2020-08-19 16:45:56 EDT

0.24 0.22 nadww01

Attachment III

Laboratory Analytical Reports



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

May 05, 2017

Daniel Dominguez

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: HORSE CREEK COM #2

Enclosed are the results of analyses for samples received by the laboratory on 04/28/17 15:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/26/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP1 (SURFACE) (H701150-01)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/01/2017	ND	1.90	95.0	2.00	3.78	
Toluene*	<0.050	0.050	05/01/2017	ND	1.83	91.3	2.00	3.72	
Ethylbenzene*	<0.050	0.050	05/01/2017	ND	1.87	93.4	2.00	3.63	
Total Xylenes*	<0.150	0.150	05/01/2017	ND	5.33	88.9	6.00	3.74	
Total BTEx	<0.300	0.300	05/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/01/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/01/2017	ND	175	87.3	200	2.73	
DRO >C10-C28	<10.0	10.0	05/01/2017	ND	184	92.1	200	2.28	

Surrogate: 1-Chlorooctane 87.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.7 % 34.7-157

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/26/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP1 (15') (H701150-02)

BTX 8021B			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/01/2017	ND	1.90	95.0	2.00	3.78		
Toluene*	<0.050	0.050	05/01/2017	ND	1.83	91.3	2.00	3.72		
Ethylbenzene*	<0.050	0.050	05/01/2017	ND	1.87	93.4	2.00	3.63		
Total Xylenes*	<0.150	0.150	05/01/2017	ND	5.33	88.9	6.00	3.74		
Total BTX	<0.300	0.300	05/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 72-148

Chloride, SM4500CI-B			mg/kg							
			Analyzed By: AC							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/01/2017	ND	432	108	400	0.00		

TPH 8015M			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/01/2017	ND	175	87.3	200	2.73		
DRO >C10-C28	<10.0	10.0	05/01/2017	ND	184	92.1	200	2.28		

Surrogate: 1-Chlorooctane 84.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.2 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/26/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP2 (SURFACE) (H701150-03)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/01/2017	ND	1.90	95.0	2.00	3.78		
Toluene*	<0.050	0.050	05/01/2017	ND	1.83	91.3	2.00	3.72		
Ethylbenzene*	<0.050	0.050	05/01/2017	ND	1.87	93.4	2.00	3.63		
Total Xylenes*	<0.150	0.150	05/01/2017	ND	5.33	88.9	6.00	3.74		
Total BTEX	<0.300	0.300	05/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.0 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	05/01/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/01/2017	ND	175	87.3	200	2.73	
DRO >C10-C28	<10.0	10.0	05/01/2017	ND	184	92.1	200	2.28	

Surrogate: 1-Chlorooctane 61.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 73.3 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/26/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP2 (10') (H701150-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/02/2017	ND	1.91	95.5	2.00	0.137		
Toluene*	<0.050	0.050	05/02/2017	ND	1.83	91.5	2.00	0.106		
Ethylbenzene*	<0.050	0.050	05/02/2017	ND	1.87	93.7	2.00	0.609		
Total Xylenes*	<0.150	0.150	05/02/2017	ND	5.34	89.0	6.00	0.446		
Total BTEx	<0.300	0.300	05/02/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.6 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/01/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/01/2017	ND	175	87.3	200	2.73	
DRO >C10-C28	<10.0	10.0	05/01/2017	ND	184	92.1	200	2.28	

Surrogate: 1-Chlorooctane 86.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 97.0 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/27/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP3 (SURFACE) (H701150-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/02/2017	ND	1.91	95.5	2.00	0.137	
Toluene*	<0.050	0.050	05/02/2017	ND	1.83	91.5	2.00	0.106	
Ethylbenzene*	<0.050	0.050	05/02/2017	ND	1.87	93.7	2.00	0.609	
Total Xylenes*	<0.150	0.150	05/02/2017	ND	5.34	89.0	6.00	0.446	
Total BTEx	<0.300	0.300	05/02/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/01/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/02/2017	ND	183	91.4	200	2.09	
DRO >C10-C28	<10.0	10.0	05/02/2017	ND	194	96.9	200	2.95	

Surrogate: 1-Chlorooctane 75.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 97.3 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/27/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP3 (10') (H701150-06)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/02/2017	ND	1.91	95.5	2.00	0.137	
Toluene*	<0.050	0.050	05/02/2017	ND	1.83	91.5	2.00	0.106	
Ethylbenzene*	<0.050	0.050	05/02/2017	ND	1.87	93.7	2.00	0.609	
Total Xylenes*	<0.150	0.150	05/02/2017	ND	5.34	89.0	6.00	0.446	
Total BTEx	<0.300	0.300	05/02/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/01/2017	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/02/2017	ND	183	91.4	200	2.09	
DRO >C10-C28	<10.0	10.0	05/02/2017	ND	194	96.9	200	2.95	

Surrogate: 1-Chlorooctane 79.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.2 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/27/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP4 (SURFACE) (H701150-07)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/02/2017	ND	1.91	95.5	2.00	0.137		
Toluene*	<0.050	0.050	05/02/2017	ND	1.83	91.5	2.00	0.106		
Ethylbenzene*	<0.050	0.050	05/02/2017	ND	1.87	93.7	2.00	0.609		
Total Xylenes*	<0.150	0.150	05/02/2017	ND	5.34	89.0	6.00	0.446		
Total BTEx	<0.300	0.300	05/02/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.2 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/01/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/02/2017	ND	183	91.4	200	2.09	
DRO >C10-C28	<10.0	10.0	05/02/2017	ND	194	96.9	200	2.95	

Surrogate: 1-Chlorooctane 74.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.8 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	04/28/2017	Sampling Date:	04/27/2017
Reported:	05/05/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SP4 (15') (H701150-08)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2017	ND	2.07	103	2.00	3.76		
Toluene*	<0.050	0.050	05/03/2017	ND	1.91	95.4	2.00	3.63		
Ethylbenzene*	<0.050	0.050	05/03/2017	ND	1.88	94.2	2.00	3.64		
Total Xylenes*	<0.150	0.150	05/03/2017	ND	5.33	88.9	6.00	3.77		
Total BTEx	<0.300	0.300	05/03/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	05/01/2017	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/02/2017	ND	183	91.4	200	2.09	
DRO >C10-C28	<10.0	10.0	05/02/2017	ND	194	96.9	200	2.95	

Surrogate: 1-Chlorooctane 65.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 80.5 % 34.7-157

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Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB
Cardinal

Page 11 of 11

Company Name							Environmental Plus, Inc.							
EPI Project Manager							Daniel Dominguez							
Mailing Address							P.O. BOX 1558							
City, State, Zip							Eunice New Mexico 88231							
EPI Phone#/Fax#							575-394-3481 / 575-394-2601							
Client Company							Vanguard							
Facility Name							Horse Creek Com #2							
Location							UL - C Sec. 11, T5S, R24E							
Project Reference														
EPI Sampler Name							Dustin Crockett							
LAB I.D.							SAMPLE I.D.							
H201150														
1 SP1 (Surface)							(G)RAB OR (C)OMP.							
2 SP1 (15')							# CONTAINERS							
3 SP2 (Surface)							GROUND WATER							
4 SP2 (10')							WASTEWATER							
5 SP3 (Surface)							SOIL							
6 SP3 (10')							CRUDE OIL							
7 SP4 (Surface)							SLUDGE							
8 SP4 (15')							OTHER:							
9							ACID/BASE							
10							ICE/COOL							
							OTHER							
							DATE							
							TIME							
							BTX 8021B							
							TPH 8015M							
							CHLORIDES (Cl ⁻)							
							Sulfates (SO ₄ ⁼)							
							pH							
							TCLP							
							OTHER >>>							
							PAH							

Attn: Daniel Dominguez
P.O. Box 1558
Eunice, NM 88231

Sample Relinquished by:

Date: 4-28-17
Time: 6:00 am

Received By: (lab staff)

Date: 4-28-17
Time: 3:30 pm

Relinquished by:

Date: 4-28-17
Time: 3:30 pm

Delivered by:

Date: 4-28-17
Time: 3:30 pm

Sample Cool & Intact
Yes No

Checked By:

E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com

NOTES:



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

July 18, 2017

Daniel Dominguez

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: HORSE CREEK COM #2

Enclosed are the results of analyses for samples received by the laboratory on 07/12/17 15:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPA (8') (H701813-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/14/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/14/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/14/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/14/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	53.1	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 93.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.2 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPA (16') (H701813-02)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/14/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/14/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/14/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/14/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	12.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 101 % 28.3-164

Surrogate: 1-Chlorooctadecane 101 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPB (8') (H701813-03)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/14/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/14/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/14/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/14/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/14/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 104 % 28.3-164

Surrogate: 1-Chlorooctadecane 107 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPB (16') (H701813-04)

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/14/2017	ND	2.15	108	2.00	1.12		
Toluene*	<0.050	0.050	07/14/2017	ND	2.04	102	2.00	0.920		
Ethylbenzene*	<0.050	0.050	07/14/2017	ND	2.17	109	2.00	1.49		
Total Xylenes*	<0.150	0.150	07/14/2017	ND	6.45	108	6.00	1.48		
Total BTEx	<0.300	0.300	07/14/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 94.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.5 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPC (8') (H701813-05)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12		
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920		
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49		
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48		
Total BTX	<0.300	0.300	07/15/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 96.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 98.1 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPC (16') (H701813-06)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 90.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 92.9 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPD (SURFACE) (H701813-07)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 94.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 97.8 % 34.7-157

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*=Accredited Analyte

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPD (3') (H701813-08)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 104 % 28.3-164

Surrogate: 1-Chlorooctadecane 104 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPE (SURFACE) (H701813-09)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTEX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 91.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 93.4 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPE (3') (H701813-10)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 88.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 89.8 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPF (SURFACE) (H701813-11)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 89.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 89.3 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
 Daniel Dominguez
 P.O. Box 1558
 Eunice NM, 88231
 Fax To: (505) 394-2601

Received:	07/12/2017	Sampling Date:	07/11/2017
Reported:	07/18/2017	Sampling Type:	Soil
Project Name:	HORSE CREEK COM #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	UL-C SEC.11, T5S, R24E		

Sample ID: SPF (3') (H701813-12)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/15/2017	ND	2.15	108	2.00	1.12	
Toluene*	<0.050	0.050	07/15/2017	ND	2.04	102	2.00	0.920	
Ethylbenzene*	<0.050	0.050	07/15/2017	ND	2.17	109	2.00	1.49	
Total Xylenes*	<0.150	0.150	07/15/2017	ND	6.45	108	6.00	1.48	
Total BTX	<0.300	0.300	07/15/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	07/13/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/14/2017	ND	189	94.7	200	3.41	
DRO >C10-C28	<10.0	10.0	07/14/2017	ND	195	97.7	200	17.0	
EXT DRO >C28-C36	<10.0	10.0	07/14/2017	ND					

Surrogate: 1-Chlorooctane 89.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 90.7 % 34.7-157

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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A handwritten signature in black ink, appearing to read "Mike Snyder".

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

Environmental Plus, Inc.2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form
LAB Cardinal

Bill To

ANALYSIS REQUEST

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company Vanguard

Facility Name Horse Creek Com #2

Location UL-C Sec. 11, T5S, R24E

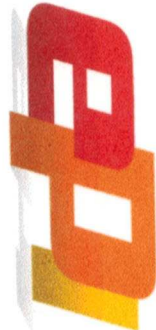
Project Reference

EPI Sampler Name David Robinson

Attn: Daniel Dominguez

P.O. Box 1558

Eunice, NM 88231



LAB I.D.		SAMPLE I.D.		(G)RAB OR (C)OMP.		MATRIX							PRESERV.		SAMPLING															
				# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M Ext.	CHLORIDES (Cl ⁻)	SULFATES (SO ₄ ²⁻)	pH	TCLP	OTHER >>>	PAH							
H-701813		1	SPA (8')	G	1		X					X		11-Jul-17	10:10	X	X	X												
		2	SPA (16')	G	1		X					X		11-Jul-17	11:19	X	X	X												
		3	SPB (8')	G	1		X					X		11-Jul-17	11:40	X	X	X												
		4	SPB (16')	G	1		X					X		11-Jul-17	12:10	X	X	X												
		5	SPC (8')	G	1		X					X		11-Jul-17	12:20	X	X	X												
		6	SPC (16')	G	1		X					X		11-Jul-17	13:08	X	X	X												
		7	SPD (Surface)	G	1		X					X		11-Jul-17	13:45	X	X	X												
		8	SPD (3')	G	1		X					X		11-Jul-17	13:55	X	X	X												
		9	SPE (Surface)	G	1		X					X		11-Jul-17	14:20	X	X	X												
		10	SPE (3')	G	1		X					X		11-Jul-17	14:30	X	X	X												

Sampler Relinquished:

Date 7-12-17

Received By:

E-mail results to: ddominguezepi@gmail.com & cjohnston@vnrllc.com

NOTES:

& bboonepi@gmail.com

Relinquished by:

Date 7/12/17

Received By: (lab staff)

Time 6:00 am

Time 3:42 pm

Sample Cool & Intact (Yes)

No

Checked By:

70-#45

Delivered by:

-6.98

Corrected - 7.158

Environmental Plus, Inc.2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form
LAB Cardinal

ANALYSIS REQUEST

Bill To

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company Vanguard

Facility Name Horse Creek Com #2

Location UL-C Sec. 11, T5S, R24E

Project Reference

EPI Sampler Name David Robinson

Attn: Daniel Dominguez
P.O. Box 1558
Eunice, NM 88231

MATRIX

PRESERV.

SAMPLING

LAB I.D.

SAMPLE I.D.

(G)RAB OR (C)OMP.

CONTAINERS

GROUND WATER

WASTEWATER

SOIL

CRUDE OIL

SLUDGE

OTHER:

ACID/BASE

ICE/COOL

OTHER

DATE

TIME

BTEX 8021B

TPH 8015M Ext.

CHLORIDES (Cl⁻)SULFATES (SO₄²⁻)

pH

TCLP

OTHER >>>

PAH

11 SPF (Surface)

12 SPF (3')

13

14

15

16

17

18

19

20

G

1

X

X

X

X

X

X

X

X

X

11-Jul-17

14:45

X

X

X

X

X

X

X

X

Sampler Relinquished:

Relinquished by:

Delivered by:

Date 7-12-17

Time 6:00 am

Date 7/12/17

Time 3:46

Received By:

Received By: (lab staff)

Sample Cool & Intact

Yes

Checked By:

E-mail results to: ddominguezepi@gmail.com & cjohnston@vrrlc.com
NOTES: & bbooneepi@gmail.com-6.98
Corrected -7.158

Attachment IV
Final NMOCD Form C-141

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

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

Initial Report ☐ X Final Report

Name of Company: Vanguard Operating, LLC	Contact : Chuck Johnston
Address: 4001 Penbrook Suite 201 Odessa, TX 79762	Telephone No. 432-202-4771
Facility Name: Horse Creek Com #002	Facility Type: Well Site

Surface Owner	Mineral Owner	API No. 30-005-61335
---------------	---------------	----------------------

LOCATION OF RELEASE

Unit Letter E	Section 11	Township 05 S	Range 24E	Feet from the 1930	North/South Line North	Feet from the 660	East/West Line West	County Chaves
------------------	---------------	------------------	--------------	-----------------------	---------------------------	----------------------	------------------------	------------------

Latitude 33.8888512 Longitude -104.3996964

NATURE OF RELEASE

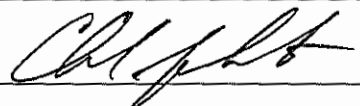

Type of Release: Produced Water	Volume of Release: Unknown	Volume Recovered:
Source of Release: Wellhead area	Date and Hour of Occurrence	Date and Hour of Discovery 12-20-2016 11:47 a.m. by field inspector
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour:	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken. Appears to be corrosion on wellhead and casing valve leak.

Describe Area Affected and Cleanup Action Taken. A small area around the wellhead was excavated including an additional 1 foot horizontally and 4 ft. vertically. A 20 – millimeter poly-ethylene liner was installed at the bottom of the 7 foot excavated depth to just below surface. The excavation was backfilled and contoured to blend with existing pad area.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: Chuck Johnston	Approved by Environmental Specialist: 	
Title: EHS / Operations Specialist	Approval Date: 10/25/2022	Expiration Date: Not applicable
E-mail Address: cjohnston@vnrenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 1-3-2018	Phone: 432-202-4771	

Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 9814

CONDITIONS

Operator: Grizzly Operating, LLC 5847 San Felipe, Suite 3000 Houston, TX 77057	OGRID: 258350
	Action Number: 9814
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	In future reports include the current C-141 form regardless of when the release occurred.	10/25/2022
bhall	In future reports please include a scaled site and sampling diagram. Sampling points need to be illustrated and labeled on the diagram.	10/25/2022