



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

RE: Closure Request Letter
WPX Energy Permian, LLC
RDX 21-13
Incident Number nMLB1113027936
Eddy County, New Mexico

To Whom It May Concern:

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of WPX Energy Permian, LLC (WPX), presents the following Closure Request Letter (CRL) to document that No Further Action is warranted for an inadvertent release of frac water and crude oil at the RDX 21-13 (Site) (**Figure 1 in Appendix A**), based on previous remediation efforts coordinated with the Bureau of Land Management (BLM) and the subsequent BLM approval documented on a Form 3160-5 *Sundry Notices and Reports on Wells* (Form 3160). It was determined by the BLM that the final excavation confirmation soil sample results were sufficient for closure of Incident Number nMLB1113027936, however, no further communication with the New Mexico Oil Conservation Division (NMOCD) has been documented. Since the completion of remediation efforts, the Site has been plugged and abandoned and approved by the BLM for Final Abandonment (**Figure 2 in Appendix A**). All communications and documentation of completed remediation efforts and investigation is included in **Appendix B**.

WPX believes the timely initial response and the documented remedial efforts have removed residual soil impacts at the Site and have met the requirements set forth in New Mexico Administrative Code (NMAC) guidelines and be protective of human health, the environment, and groundwater. The Site has met the requirements of the BLM for Final Abandonment, and as such, WPX requests the NMOCD to acknowledge the decision made by the BLM and update the Site status to "Incident Closure Approved".

If you have any questions or comments, please do not hesitate to contact Joseph Hernandez at (281) 702-2329 or joseph@etechenv.com or Anna Byers at (575) 200-6754 or anna@etechenv.com.

Sincerely,
Etech Environmental and Safety Solutions, Inc.

A handwritten signature in black ink, reading "Anna Byers".

Anna Byers
Senior Geologist

A handwritten signature in black ink, reading "Joseph S. Hernandez".

Joseph S. Hernandez
Senior Managing Geologist

cc: Jim Raley, WPX
New Mexico Oil Conservation Division
Bureau of Land Management

Appendices:

Appendix A: Figure 1 – Site Location Map

Figure 2 – Site Map

Appendix B: Communication and Document Archive

APPENDIX A

Figures

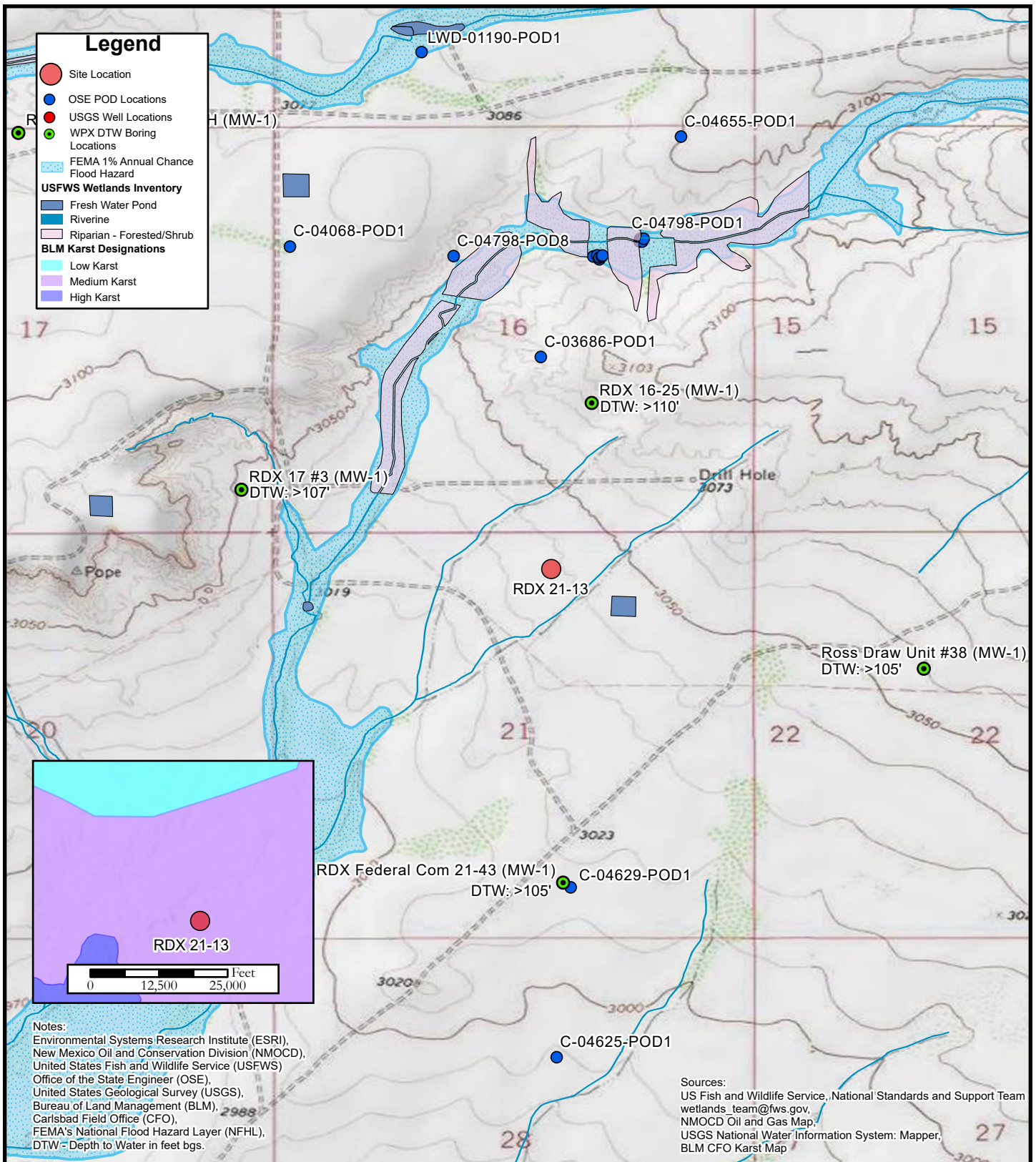


FIGURE 1

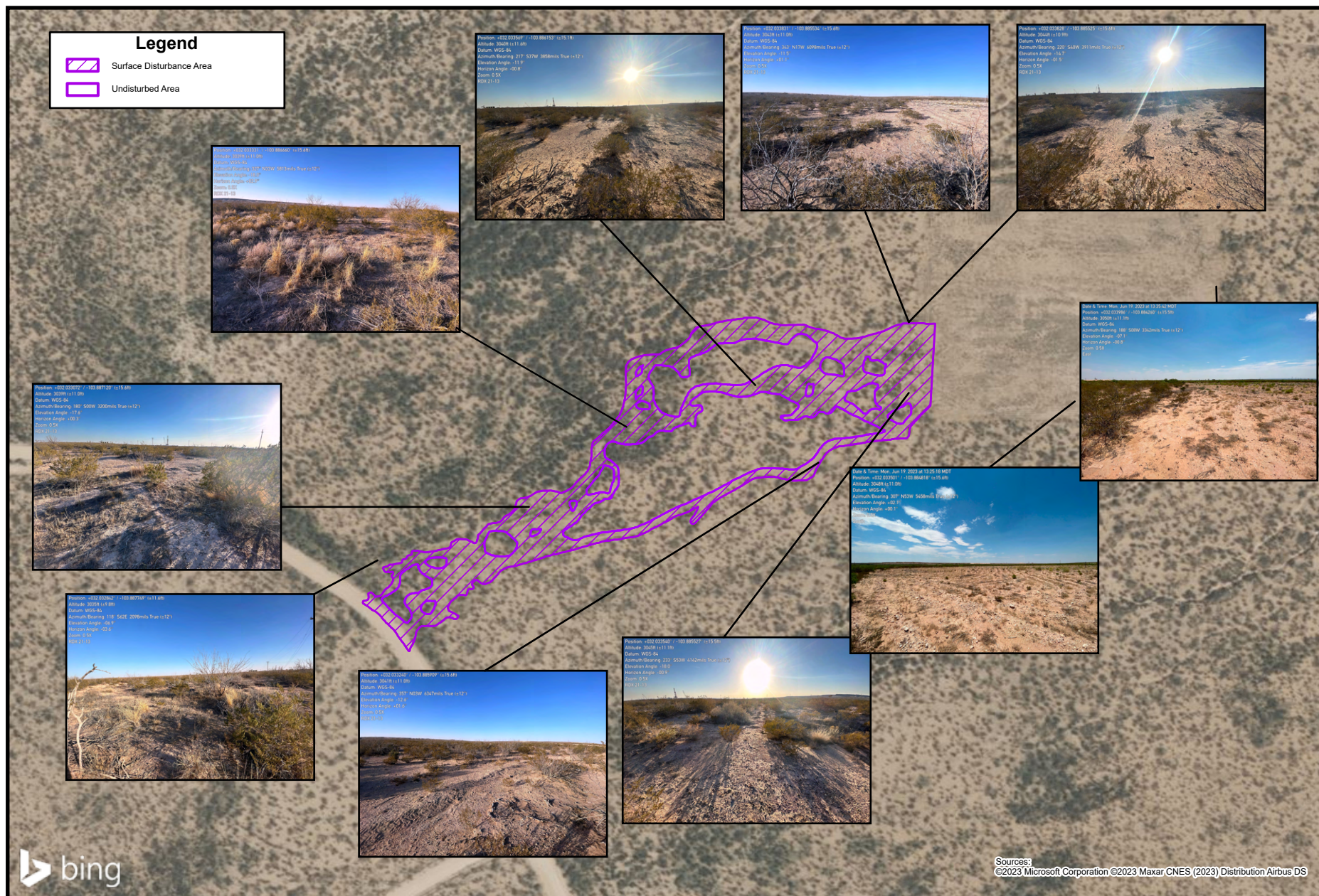
Site Location Map

WPX ENERGY PERMIAN, LLC
 RDX 21-13
 Unit B Sec 21 T26S R30E
 Eddy County, New Mexico

eTECH



0 1,000 2,000 Feet

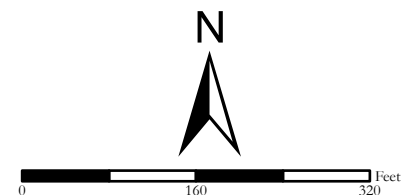


bing

eTECH

FIGURE 2
Site Map

WPX ENERGY PERMIAN, LLC
RDX 21-13
Unit B Sec 21 T26S R30E
Eddy County, New Mexico



APPENDIX B

Communication and Document Archive

District I
1625 N. Freisch Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

30-015-37781

Release Notification and Corrective Action

NMB1113027936

246289

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	RKI EXPLORATION & PRODUCTION	Contact	GENE SIMER
Address	P.O. BOX 370, CARLSBAD, NM 88221	Telephone No.	575-885-1313
Facility Name	RDX 21-13	Facility Type	OIL WELL
Surface Owner	BLM	Mineral Owner	BLM
		Lease No.	NM-102917

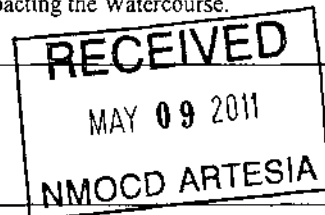
LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	21	26S	30E	500	NORTH	2200	EAST	EDDY

Latitude N32°02'02.05" Longitude W103°53'05.33"

NATURE OF RELEASE

Type of Release	FRAC WATER & OIL	Volume of Release ESTIMATE:	100-150 BBLS TOTAL FLUID	Volume Recovered	20 BBLS OF OIL & WATER, MIXED
Source of Release	FAULTY BOP	Date and Hour of Occurrence	3-22-11 OVERNIGHT	Date and Hour of Discovery	3-22-11 @ 0700
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	JIM AMOS W/ BLM		
By Whom?	GENE SIMER	Date and Hour	3-22-11 @ 1100		
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.*
PULLING UNIT CREW CLOSED BLIND RAMS ON BOP. THE BLINDS LACKED 1 1/4" CLOSING FOR UNKNOWN REASON. PULLING UNIT CREW LEFT LOCATION AND AT SOME TIME AFTER 9:30 PM THE WELL STARTING FLOWING UP THE CASING.

Describe Area Affected and Cleanup Action Taken.*
THE OIL & WATER RAN SEVERAL HUNDRED FEET TO THE SOUTHWEST OF LOCATION. USED VACUUM TRUCK TO PICK UP ALL STANDING FLUID. CALLED GRANDO'S LLC TO START EXCAVATING CONTAMINATED SOIL. GRANDO'S DUG OUT APPROX 1500 CU YDS OF DIRT. SAFETY & ENVIRONMENTAL SOLUTIONS, INC. COLLECTED SAMPLES THROUGHOUT THE SPILL AREA AND DELIVERED THOSE SAMPLES TO CARDINAL LABORATORIES FOR ANALYSIS.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC D 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 NMOC D 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, NMOC D 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: GENE SIMER	Approved by District Supervisor:	
Title: PRODUCTION SUPERINTENDENT	Approval Date: 5/10/2011	Expiration Date:
E-mail Address: gsimer@rkixp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5-2-11	Remediation per OCD Rules & Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN: 6/10/2011	

* Attach Additional Sheets If Necessary

2RA-778

Form 3160-5
(February 2005)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5 Lease Serial No
NM-102917

6 If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1 Type of Well

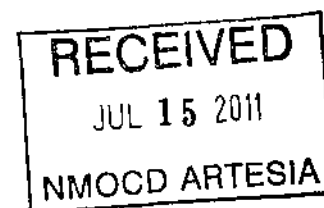
☒ Oil Well ☐ Gas Well ☐ Other2 Name of Operator
RKI EXPLORATION & PRODUCTION, LLC8 Well Name and No
RDX FEDERAL 21 #133a Address
3817 NW EXPRESSWAY, SUITE 950
OKLAHOMA CITY, OK 731123b Phone No (include area code)
575-885-131310 Field and Pool or Exploratory Area
BONE SPRINGS4 Location of Well (Footage, Sec, T, R, M, or Survey Description)
500' FNL & 2200' FEL
SEC 21, T-26S R-30E11 Country or Parish, State
EDDY, NEW MEXICO

12 CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input checked="" type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other OIL SPILL CLEAN UP
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13 Describe Proposed or Completed Operation. Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

ON 3/22/11, THIS WELL EXPERIENCED AN OIL & WATER SPILL DUE TO A FAULTY BOP. THE FOLLOWING CLEAN UP ACTIONS HAVE BEEN PERFORMED. GRANDO'S, LLC EXCAVATED ALL CONTAMINATED SOIL AND HAULED SAME TO CRI DISPOSAL IN LEA COUNTY. ENVIRONMENTAL SAFETY SOLUTIONS PULLED SOIL SAMPLES AND SENT TO LAB. LAB TESTS WERE SUBMITTED TO BLM AND NMOCD. AFTER READING LAB RESULTS, MR. JIM AMOS WITH THE BLM DETERMINED THAT MORE EXCAVATION WAS REQUIRED. MR. AMOS MET WITH GRANDO'S, LLC AND GAVE INSTRUCTIONS FOR CONTINUED EXCAVATION. GRANDO'S, LLC PERFORMED THE ADDITIONAL EXCAVATION AND CONTAMINATED SOIL WAS HAULED TO CRI DISPOSAL IN LEA COUNTY. ENVIRONMENTAL SAFETY SOLUTIONS COLLECTED MORE SOIL SAMPLES AND SUBMITTED SAMPLES TO LAB. AFTER EXAMINATION OF THE SECOND SAMPLES, MR. JIM AMOS APPROVED THE RECLAMATION OF THE SPILL. GRANDO'S, LLC RECONTOURED AND RE-SEEDED THE CONTAMINATED AREA. CLEAN UP COMPLETE.

Accepted for record
NMOCDContact Mike Bratcher
w/ NMOCD for State Closure
575-748-1283 x10814 I hereby certify that the foregoing is true and correct
Name (Printed/Typed)
GENE SIMER

Title PRODUCTION SUPERINTENDENT

Signature

Date 07/11/2011

ACCEPTED FOR RECORD

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

BUREAU OF LAND MANAGEMENT

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Anna Byers

From: Amos, James A <jamos@blm.gov>
Sent: Wednesday, January 31, 2024 12:24 PM
To: Anna Byers; Morgan, Crisha A
Cc: Devon-Team; Jim.Raley@dvn.com
Subject: Re: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

You don't often get email from jamos@blm.gov. [Learn why this is important](#)

Anna Byers,

The Bureau of Land Management, responded to the initial release on 3/22/11, conducting an inspection of the BOPE and the impact of the release. At this time a complete Arch survey was required prior to any remediation activities. I was on site for most of the spill remediation process and closure of the event 7/12/11. The well was Plugged and Abandoned on 6/30/17. The abandoned well location was placed into a monitoring status until a Final Abandonment inspection on 5/5/22 was conducted. At that time it was determined that the location and associated release met the BLMs standards for Final Abandonment. A FAN was submitted on 8/5/22 and the location was released on 8/8/22. As of that date the BLM considers all matters associated with the RDX 21-13 closed. All documentation, photos, etc. have been sent to archives. If any questions, feel free to give me a call. Thanks

From: Anna Byers <anna@etechenv.com>
Sent: Tuesday, January 30, 2024 9:41 AM
To: Morgan, Crisha A <camorgan@blm.gov>; Amos, James A <jamos@blm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dvn.com <Jim.Raley@dvn.com>
Subject: RE: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

Good morning all,

I was wondering if you've had a chance to review the documentation for this incident? Please let us know if you have any questions or require anything else.

Thank you,

Anna Byers
Senior Geologist



Work: (432) 305-6415
Cell: (575) 200-6754

From: Anna Byers <anna@etechenv.com>
Sent: Tuesday, January 23, 2024 12:44 PM
To: Morgan, Crisha A <camorgan@blm.gov>; jamos@blm.gov
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dvn.com
Subject: RE: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

Looping in Jim Amos with the correct email address.

Thank you,

Anna Byers
Senior Geologist



Work: (432) 305-6415

Cell: (575) 200-6754

From: Anna Byers <anna@etechenv.com>
Sent: Tuesday, January 23, 2024 12:02 PM
To: Morgan, Crisha A <camorgan@blm.gov>
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dnv.com
Subject: RE: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

Hi Crisha,

It appears all of these emails haven't been/aren't being delivered to Mr. Jim Amos with the "jmamos@blm.gov" email address I have on file. Could you please provide his email address so I may forward to him to review as well? It appears that he was an integral part of reviewing this project.

Thank you,

Anna Byers
Senior Geologist



Work: (432) 305-6415

Cell: (575) 200-6754

From: Anna Byers <anna@etechenv.com>
Sent: Tuesday, January 23, 2024 11:39 AM
To: Morgan, Crisha A <camorgan@blm.gov>; jmamos@blm.gov
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dnv.com
Subject: RE: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

Attached Laboratory Analytical Reports.

Thank you,

Anna Byers
Senior Geologist



Work: (432) 305-6415

Cell: (575) 200-6754

From: Anna Byers <anna@etechenv.com>
Sent: Tuesday, January 23, 2024 11:35 AM
To: Morgan, Crisha A <camorgan@blm.gov>; jmamos@blm.gov
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dnv.com
Subject: RE: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

Hi Crisha,

Figure 1 – Site Map has geo-referenced photos taken last Friday, but I can attach the original photo files if that would be better. I've also included the SSPS and Cultural Survey Reports conducted at and around the Site, which both contain additional descriptions and photos of the Site.

When reaching out to the NMOCD for Closure of the historical Site, I had only attached the Sundry Form and the initial Form C-141 and offered to provide additional documents by request. The email correspondence with Ashley Maxwell with NMOCD is included in this email for your review. She had previously closed another historical site for WPX under similar circumstances, but the "Final Report" for Closure was documented and signed on a Form C-141 versus a Sundry Form.

As for soil samples from the Site, I've attached an RKI report and analytical reports (analytical reports to follow in subsequent email), but unfortunately, the figures in the report are difficult to read and there aren't any better-quality scans of the file known to exist. As a result, I haven't been able to discern which samples were collected where or which had been excavated and re-sampled. However, as documented on the Sundry Form, it appears that the BLM reviewed the data and coordinated further remedial efforts with the contractor. Additional samples have not been collected due to the unknown extents of the final excavation and the NMOCD now requires 5-point composite excavation soil samples for Closure.

Thank you for taking the time to review this Site and please let us know if you have any questions, comments or concerns!

Thank you,

Anna Byers
Senior Geologist



Work: (432) 305-6415
Cell: (575) 200-6754

From: Morgan, Crisha A <camorgan@blm.gov>
Sent: Tuesday, January 23, 2024 10:16 AM
To: Anna Byers <anna@etechenv.com>; jmamos@blm.gov
Cc: Devon-Team <Devon-Team@etechenv.com>; Jim.Raley@dnv.com
Subject: Re: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

You don't often get email from camorgan@blm.gov. [Learn why this is important](#)

Bureau of Land Management



Anna,

Do you happen to have current ground photos, veg surveys, composite or grab samples of the area by chance? These documents may help to support your request for closure. Also, do you happen to have the closure information you submitted to NMOCD on hand for us to review? I would also be interested in reviewing the denial reasoning NMOCD submitted.

Please note, that the BLM's approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws/regulations.

We are happy to take a look at the documentation and assist wherever we can.

Thank you,

Crisha A. Morgan | Certified - Environmental Protection Specialist | Program Officer | COR | Spills Coordinator | Orphaned & Idled Well POC Lead
Bureau of Land Management | Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220
Cell 575-200-8648 | Office 575-234-5987 | camorgan@blm.gov



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From: Anna Byers <anna@etechnv.com>
Sent: Tuesday, January 23, 2024 9:48 AM
To: jmamos@blm.gov <jmamos@blm.gov>
Cc: Morgan, Crisha A <camorgan@blm.gov>; Devon-Team <Devon-Team@etechnv.com>; Jim.Raley@dvn.com <Jim.Raley@dvn.com>
Subject: [EXTERNAL] RDX 21-13 Incident Approval - 2RP-778

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Hi Jim,

On behalf of WPX, I've attached documents detailing an inadvertent release on Federal Land at the RDX 21-13 (Site) associated with a NMOCD assigned Order Number 2RP-778. The initial Form C-141 documents immediate remedial actions taken to address the inadvertent release and a subsequent soil sampling event, and the Sundry Form 3160-5 (Form 3160-5) appears to document an approved Closure, however, the NMOCD is not accepting these documents to close the Incident. This incident has already been excavated, backfilled, and re-seeded, and re-vegetation appears to be successful (see attached). As a result, we're trying to avoid further vegetation disturbance at a Site that was approved

for reclamation following the review and subsequent approval of remediation activities. Below is a summary of remediation activities completed at the site, based on the attached documents.

According to the Form 3160-5, laboratory analytical results were submitted to the BLM and NMOCD following the removal of approximately 1,500 cubic yards of impacted soil, which after review, BLM decided further excavation was required. Further instruction from the BLM was given directly to the excavation contractor, Grado's, LLC, to further advance the excavation and remove impacted soil from the Site. Confirmation soil samples were collected from the new excavation area(s) and the laboratory analytical results were submitted to the BLM for consideration for Site Closure. The BLM reviewed the laboratory analytical results and approved the Site to undergo reclamation. As such, the Site was re-contoured in effort to match pre-existing conditions and re-seeded with the appropriate BLM approved seed mixture.

WPX believes that soil impacts associated with this inadvertent release have been removed and subsequently restored. As such, WPX requests that the BLM will once again consider Closure of this inadvertent release based on the previously reviewed documentation of remedial efforts and recent photographs/figures showing the incremental success of vegetative regrowth. In order to close this historical Site with the NMOCD without further vegetation disturbance, BLM must provide a formal approval of the remediation and reclamation indicating No Further Action is required based on completed corrective actions conducted in coordination with the BLM. If the BLM requires further information prior to making a decision, WPX has some additional documents to support the remedial efforts associated with this Site, which may be provided on request.

Please let us know if you require any additional information.

Thank you,

Anna Byers
Senior Geologist

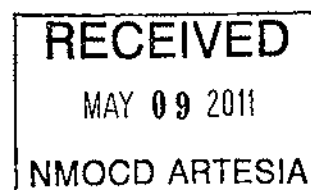
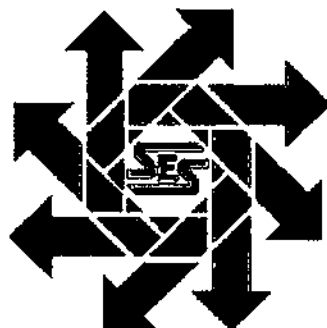


Work: (432) 305-6415
Cell: (575) 200-6754

**RKI Exploration & Production, LLC.
RDX Federal 21-13
Township 26 South, Range 30 East, Section 21
Eddy County, New Mexico**

Sampling Report

May 5, 2011



Prepared for:

**RKI Exploration & Production, LLC.
PO Box 370
Carlsbad, New Mexico 88221-0370**

Prepared by:

**Safety & Environmental Solutions, Inc.
703 East Clinton Street
Hobbs, New Mexico 88240
(575) 397-0510**

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RDX 21-13 Sampling Report
May 5, 2011

RKI Exploration & Production, LLC.
Eddy County, New Mexico

I. Company Contacts

Representative	Company	Telephone	E-mail
Gene Simer	RKI E&P, LLC.	575.885.1313	gsimer@rkixp.com
Isaac Kincaid	SESI	575.390.8841	ikincaid@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by RKI Exploration & Production, LLC. (RKI E&P LLC) to sample a release area located at the RDX Federal 21-13 in Unit B of Section 21 Township 26 South, Range 30 East, Eddy County, New Mexico.

III. Surface and Ground Water

The closest groundwater of record with the Office of the State Engineer is located 2.5 miles northwest of the location; in the Section 24 of Township 26 South and Range 30 East, Lea County New Mexico. The depth of water in this well was 184' in November 1987.

IV. Characterization

The target cleanup levels are reached by the application of the "Guidelines for Remediation of Leaks, Spills and Releases New Mexico Oil Conservation Division (NMOCD) – August 13, 1993 to this site is 5,000 parts per million (ppm) Total Petroleum Hydrocarbons (TPH).

Application of the New Mexico Oil Conservation Division's ranking criteria for contaminated soils at this site is presented below:

Total Ranking Score			
Score:	>19	10 - 19	0 - 9
Benzene (ppm)	10	10	10
Total BTEX (ppm)	50	50	50
TPH (ppm)	100	1,000	5,000

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			0

RDY 21-13 Sampling Report
May 5, 2011

RKI Exploration & Production, LLC.
Eddy County, New Mexico

V. Work Performed

On April 29, 2011, SESI was onsite with Mr. Lonnie Catt, representative for RKI E&P LLC. to obtain samples from release area. The release area was previously excavated to depths ranging from one (1) ft. below ground surface (bgs) to four (4) ft. bgs. Twelve (12) samples were randomly obtained approximately every 100 yards throughout the release area. Samples were retrieved at depths ranging from one (1) to two (2) ft. bgs and were properly preserved and transported under chain of custody to Cardinal Laboratories in Hobbs, New Mexico to be analyzed for Chlorides (EPA Method 4500B), Total Petroleum Hydrocarbons (TPH EPA Method 418.1), Benzene, Toluene, Ethyl Benzene, and Total Xylenes (BTEX EPA Method 8021B).

The results of the analysis are as follows:

Sample ID	Chlorides (mg/kg)	TPH 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl Benzene (mg/kg)	Xylenes (mg/kg)
Analysis Date	5/3/11	5/5/11	5/3/11	5/3/11	5/3/11	5/3/11
SP #1 2' bgs	6,320	<100	<0.050	<0.050	<0.050	<0.150
SP #2 1' bgs	240	<100	<0.050	<0.050	<0.050	<0.150
SP #3 1' bgs	10,800	<100	<0.050	<0.050	<0.050	<0.150
SP #4 1' bgs	7,700	488	<0.050	<0.050	<0.050	<0.150
SP #5 1' bgs	16.0	<100	<0.050	<0.050	<0.050	<0.150
SP #6 2' bgs	1,850	134	<0.050	<0.050	<0.050	<0.150
SP #7 2' bgs	<16.0	<100	<0.050	<0.050	<0.050	<0.150
SP #8 3' bgs	224	1,050	<0.050	<0.050	<0.050	<0.150
SP #9 1' bgs	6,800	114	<0.050	<0.050	<0.050	<0.150
SP #10 2' bgs	3,400	<100	<0.050	<0.050	<0.050	<0.150
SP #11 2' bgs	32.0	<100	<0.050	<0.050	<0.050	<0.150
SP #12 1' bgs	7,920	<100	<0.050	<0.050	<0.050	<0.150

VI. Figures & Appendices

Figure 1 – Vicinity Map

Figure 2 – Site Map

Appendix A – Analytical Results

Appendix B – Site Photographs

Figure 1 Vicinity Map

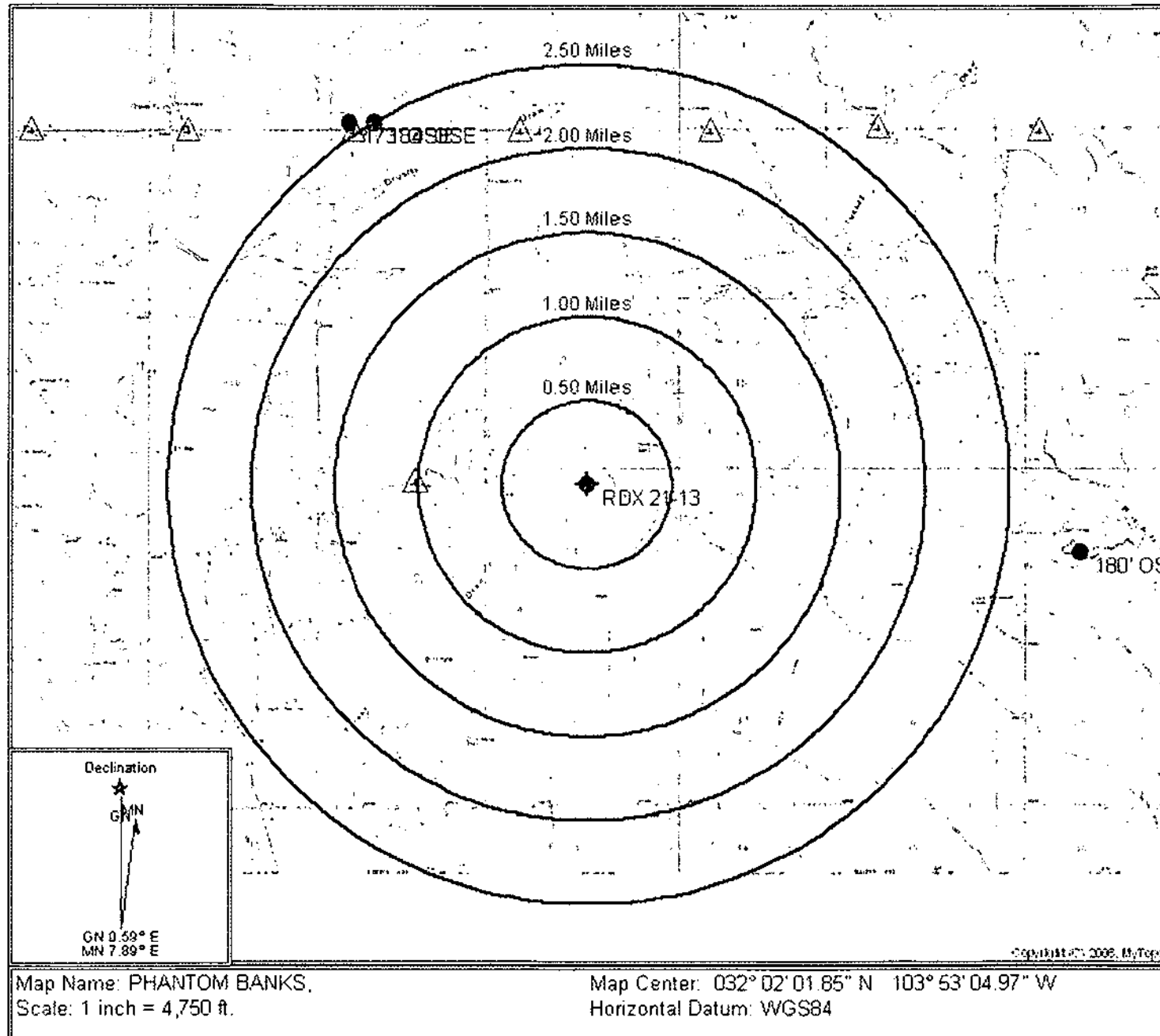


Figure 2 Site Map

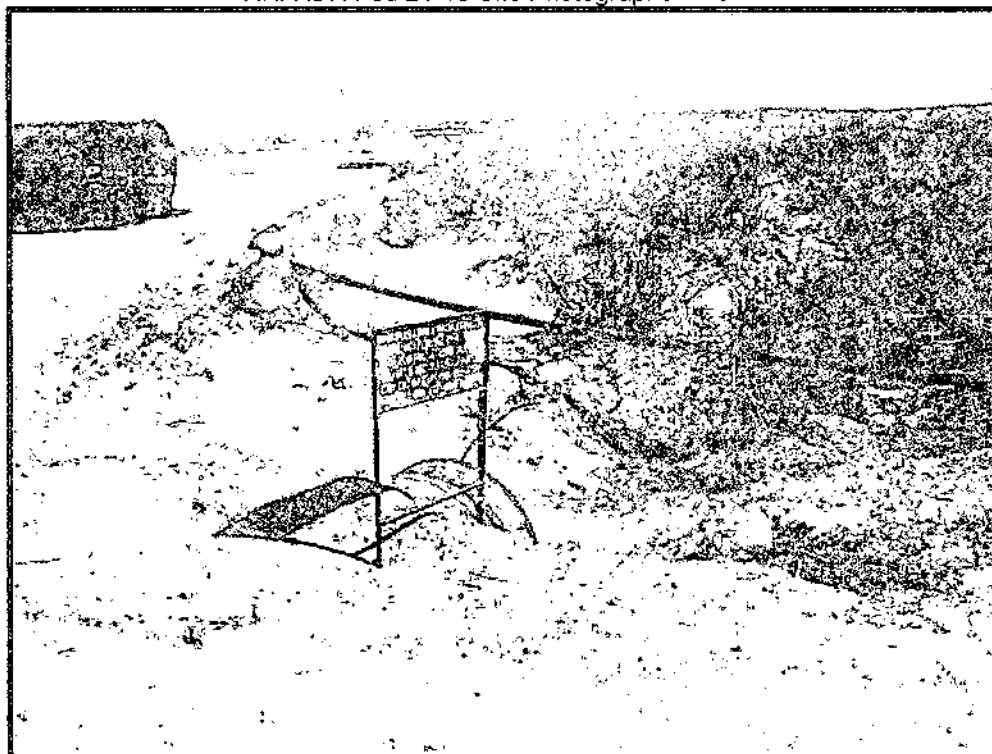


Appendix A

Analytical Results

Appendix B Site Photographs

RKI RDX Fed 21-13 Site Photographs 4-29-11



Well sign



Excavated area facing north



Excavated area facing north



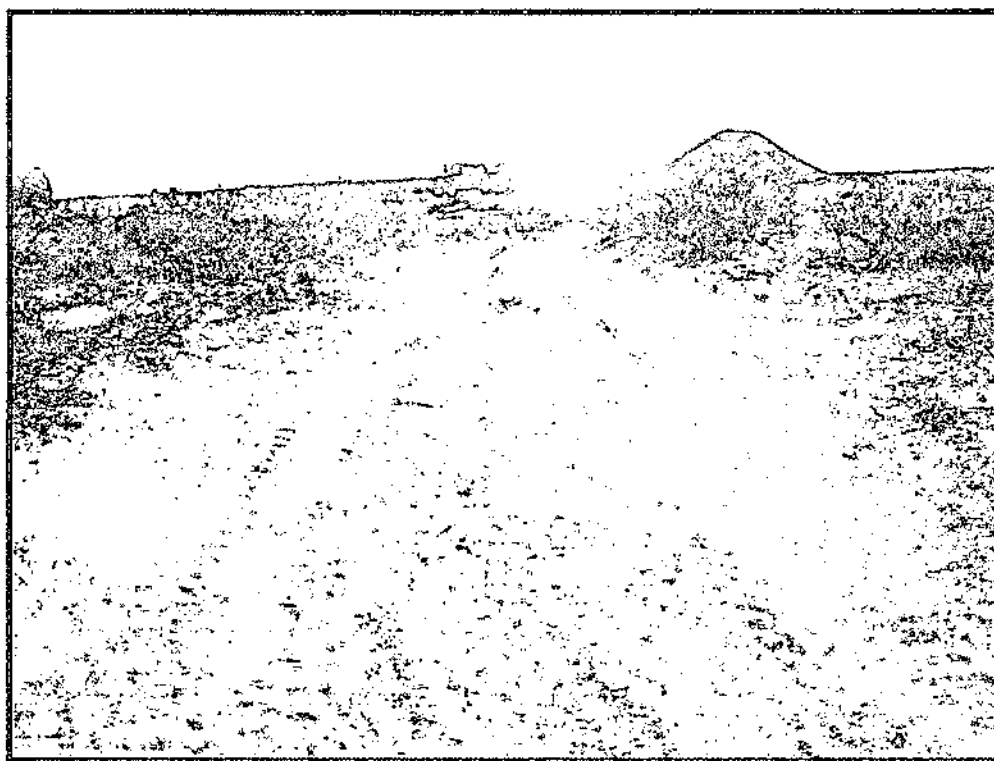
Excavated area facing northeast



Excavated area facing northeast



Excavated area facing northeast



Excavated area facing east



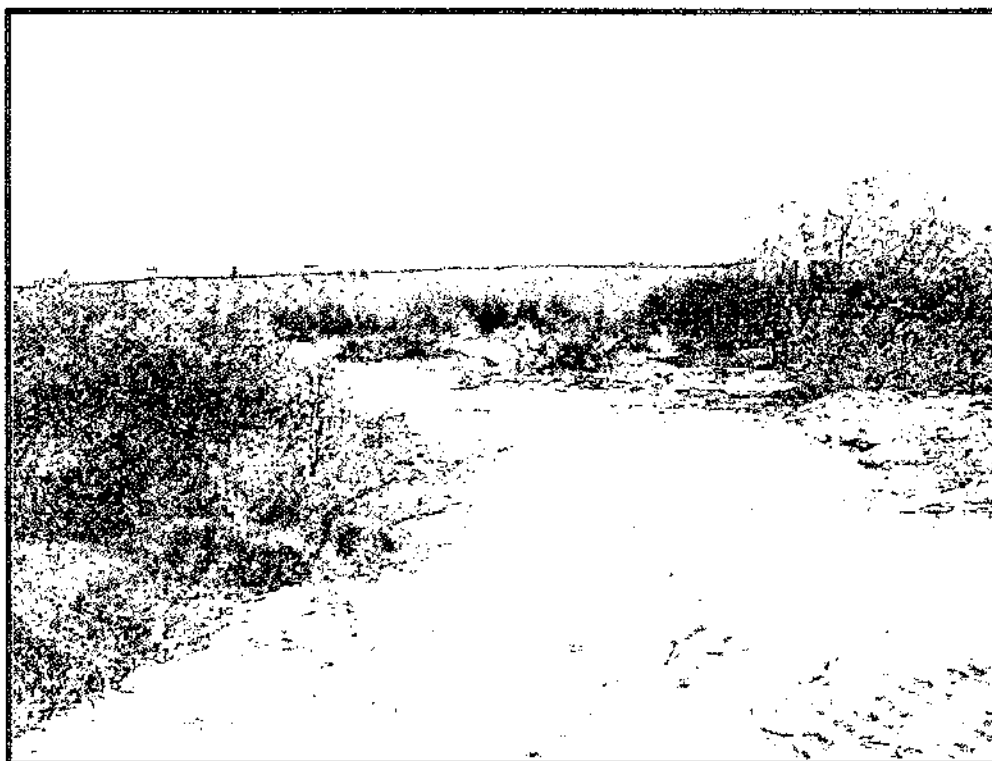
Excavated area facing east



Excavated area facing east



Excavated area facing south



Excavated area facing south



Excavated area facing south



Excavated area facing southwest



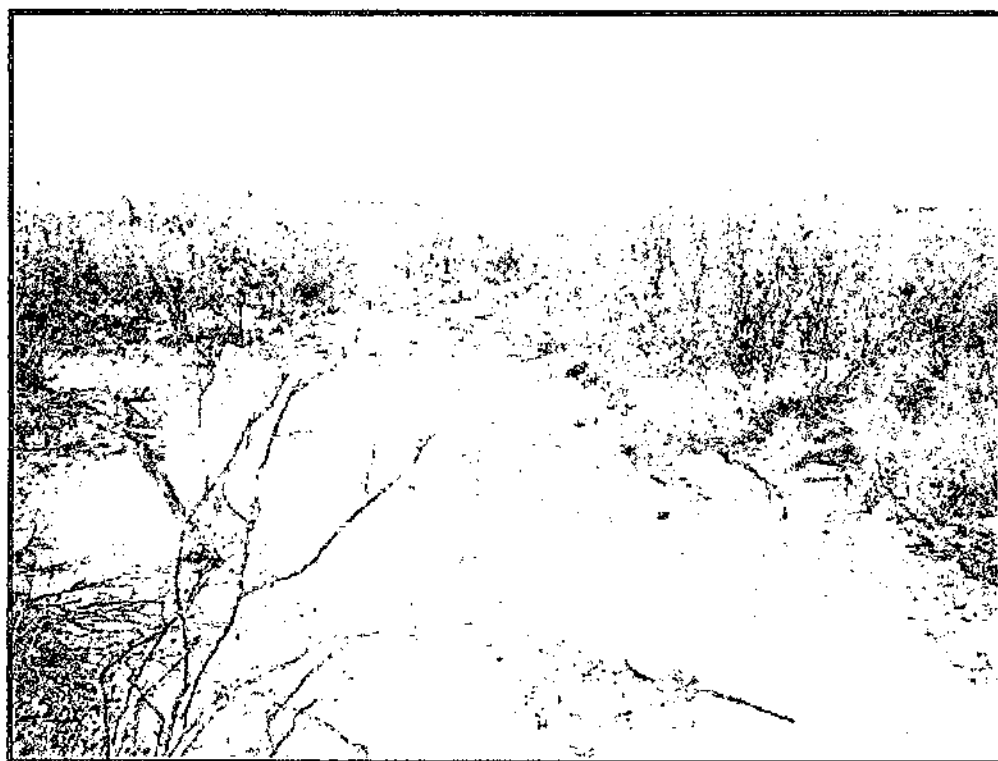
Excavated area facing southwest



Excavated area facing west



Excavated area facing west



Excavated area facing west



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

May 05, 2011

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: RKI-11-001

Enclosed are the results of analyses for samples received by the laboratory on 04/29/11 16:35.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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 fluid and cursive, with the first name "Celey" being more prominent.

Celey D. Keene

Lab Director/Quality Manager



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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #1 2' BGS (H100890-01)

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56	
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25	
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65	
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28	

Surrogate: 4-Bromofluorobenzene (PIL) 92.7 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6320	16.0	05/03/2011	ND	432	108	400	3.77	

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53	

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Analytical Results For:

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Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #2 1' BGS (H100890-02)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 95.4 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #3 1' BGS (H100890-03)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56	
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25	
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65	
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28	

Surrogate: 4-Bromofluorobenzene (PIL) 93.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	10800	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #4 1' BGS (H100890-04)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 90.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7700	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	488	100	05/05/2011	ND	1200	101	1190	2.53		

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Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #5 1' BGS (H100890-05)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 92.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #6 2' BGS (H100890-06)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56	
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25	
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65	
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28	

Surrogate: 4-Bromofluorobenzene (PIL) 91.9 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1850	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	134	100	05/05/2011	ND	1200	101	1190	2.53	

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Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #7 2' BGS (H100890-07)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 93.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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Analytical Results For:

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 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #8 3' BGS (H100890-08)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 93.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	224	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	1050	100	05/05/2011	ND	1200	101	1190	2.53		

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Analytical Results For:

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 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #9 1' BGS (H100890-09)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56	
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25	
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65	
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28	

Surrogate: 4-Bromofluorobenzene (PIL) 87.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6800	16.0	05/03/2011	ND	432	108	400	3.77	

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	114	100	05/05/2011	ND	1200	101	1190	2.53	

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #10 2' BGS (H100890-10)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 93.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3400	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #11 2' BGS (H100890-11)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 94.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	04/29/2011	Sampling Date:	04/29/2011
Reported:	05/05/2011	Sampling Type:	Soil
Project Name:	RKI-11-001	Sampling Condition:	Cool & Intact
Project Number:	RKI FED 21-13	Sample Received By:	Jodi Henson
Project Location:	RDK FED 21-13 EDDY CO, NM		

Sample ID: SP #12 1' BGS (H100890-12)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/03/2011	ND	1.57	78.5	2.00	3.56		
Toluene*	<0.050	0.050	05/03/2011	ND	1.62	80.8	2.00	3.25		
Ethylbenzene*	<0.050	0.050	05/03/2011	ND	1.63	81.4	2.00	3.65		
Total Xylenes*	<0.150	0.150	05/03/2011	ND	4.83	80.5	6.00	3.28		

Surrogate: 4-Bromofluorobenzene (PIL) 92.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	7920	16.0	05/03/2011	ND	432	108	400	3.77		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/05/2011	ND	1200	101	1190	2.53		

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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


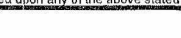


CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:						BILL TO								ANALYSIS REQUEST											
Project Manager:						P.O. #:																			
Address:						Company:																			
City:						Attn:																			
State:						Address:																			
Zip:						City:																			
						State:																			
						Zip:																			
						Phone #:																			
						Fax #:																			
						City:																			
						State:																			
						Zip:																			
						Phone #:																			
						Fax #:																			
FOR LAB USE ONLY																									
Lab I.D.		Sample I.D.				(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME							
H100890-1	SP#1	2' bgs	G	I					✓					✓			4/29/11	1010	✓	✓	✓				
2	SP#2	1' bgs																1015							
3	SP#3	1' bgs																1016							
4	SP#4	1' bgs																1023							
5	SP#5	1' bgs																1027							
6	SP#6	2' bgs																1030							
7	SP#7	2' bgs																1034							
8	SP#8	3' bgs																1038							
9	SP#9	1' bgs																1042							
10	SP#10	2' bgs																1050							

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Relinquished By:  Relinquished By: _____ Date: 4/29/14 Time: 1635 Delivered By: (Circle One) Sampler - UPS - Bus - Other: _____		Received By: Jodi Benson Received By: _____ Date: _____ Time: _____ Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No		Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ Add'l Fax #: _____ REMARKS: _____	
CHECKED BY: (Initials) 					

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

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

May 20, 2011

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240

RE: RKI-11-001

Enclosed are the results of analyses for samples received by the laboratory on 05/13/11 16:00.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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 (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:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #1 4' BGS (H100992-01)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/16/2011	ND	416	104	400	3.77	

Sample ID: TT #2 4' BGS (H100992-02)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/16/2011	ND	416	104	400	3.77	

Sample ID: TT #3 4' BGS (H100992-03)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/16/2011	ND	432	108	400	0.00	

Sample ID: TT #4 4' BGS (H100992-04)

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	05/16/2011	ND	432	108	400	0.00	

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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
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 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #5 7' BGS (H100992-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	05/16/2011	ND	432	108	400	0.00		

Sample ID: TT #6 5' BGS (H100992-06)

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	9.31	
Toluene*	<0.050	0.050	05/16/2011	ND	1.91	95.6	2.00	8.08	
Ethylbenzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	8.79	
Total Xylenes*	<0.150	0.150	05/16/2011	ND	5.71	95.2	6.00	8.20	

Surrogate: 4-Bromofluorobenzene (PIL) 94.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/16/2011	ND	432	108	400	0.00		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/18/2011	ND	872	86.3	1010	14.7		

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #7 7' BGS (H100992-07)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	9.31	
Toluene*	<0.050	0.050	05/16/2011	ND	1.91	95.6	2.00	8.08	
Ethylbenzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	8.79	
Total Xylenes*	<0.150	0.150	05/16/2011	ND	5.71	95.2	6.00	8.20	

Surrogate: 4-Bromofluorobenzene (PIL) 94.2 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	05/16/2011	ND	432	108	400	0.00		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte		Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1		<100	100	05/18/2011	ND	872	86.3	1010	14.7	

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Analytical Results For:

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 Bob Allen
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 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #8 6' BGS (H100992-08)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	9.31	
Toluene*	<0.050	0.050	05/16/2011	ND	1.91	95.6	2.00	8.08	
Ethylbenzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	8.79	
Total Xylenes*	<0.150	0.150	05/16/2011	ND	5.71	95.2	6.00	8.20	

Surrogate: 4-Bromofluorobenzene (PIL) 95.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/16/2011	ND	432	108	400	0.00		

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	147	100	05/20/2011	ND	872	86.3	1010	14.7	

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Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #9 4' BGS (H100992-09)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	9.31	
Toluene*	0.302	0.050	05/16/2011	ND	1.91	95.6	2.00	8.08	
Ethylbenzene*	0.216	0.050	05/16/2011	ND	1.92	96.1	2.00	8.79	
Total Xylenes*	0.348	0.150	05/16/2011	ND	5.71	95.2	6.00	8.20	

Surrogate: 4-Bromofluorobenzene (PIL) 88.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/16/2011	ND	432	108	400	0.00	

TPH 418.1		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	144	100	05/20/2011	ND	872	86.3	1010	14.7	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received: 05/13/2011
 Reported: 05/20/2011
 Project Name: RKI-11-001
 Project Number: RDX FED 23-13
 Project Location: EDDY CO, NM

Sampling Date: 05/13/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: TT #10 4' BGS (H100992-10)

BTEx 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	9.31	
Toluene*	<0.050	0.050	05/16/2011	ND	1.91	95.6	2.00	8.08	
Ethylbenzene*	<0.050	0.050	05/16/2011	ND	1.92	96.1	2.00	8.79	
Total Xylenes*	<0.150	0.150	05/16/2011	ND	5.71	95.2	6.00	8.20	

Surrogate: 4-Bromofluorobenzene (PIL) 95.0 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	05/16/2011	ND	432	108	400	0.00		

TPH 418.1		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	<100	100	05/20/2011	ND	872	86.3	1010	14.7		

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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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: <u>SESE</u>		BILL TO		ANALYSIS REQUEST																				
Project Manager: <u>Bob Allen</u>		P.O. #:																						
Address: <u>703 E Clinton</u>		Company:																						
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		Attn: <u>Same</u>																						
Phone #: <u>575-397-0810</u> Fax #:		Address:																						
Project #: <u>RKF-11-001</u> Project Owner: <u>RKF</u>		City:																						
Project Name: <u>RDX Fed 23-13</u>		State: Zip:																						
Project Location: <u>Eddy, NM</u>		Phone #:																						
Sampler Name: <u>Esaua Rincard</u>		Fax #:																						
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(GRAB OR C)OMP. # CONTAINERS	MATRIX					PRESERV.	SAMPLING														
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE: ICE / COOL	OTHER	DATE	TIME											
	H180992																							
	1	TT#1 4' bgs	6			✓				✓		5/13/11	0905	✓										
	2	TT#2 4' bgs											0920											
	3	TT#3 4' bgs											0930											
	4	TT#4 4' bgs											0940											
	5	TT#5 7' bgs											1010											
	6	TT#6 5' bgs											1055											
	7	TT#7 7' bgs											1130											
	8	TT#8 6' bgs											1140											
	9	TT#9 4' bgs											1200											
	10	TT#10 4' bgs											1220											

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Relinquished By:	Date: <u>5/13/11</u> Time: <u>1600</u>	Received By: <u>4odi Hanson</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler: <u>UPS</u> - Bus - Other:			REMARKS:	
Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No			CHECKED BY: (Initials) <u>GA</u>	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26



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SPECIAL-STATUS PLANT SPECIES TECHNICAL MEMORANDUM

To: Bureau of Land Management Carlsbad Field Office Special Status Plant Species
cc: Laurel Tashjian
Bureau of Land Management, Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220

From: Courtney Blair, Project Manager, SWCA Environmental Consultants

Date: December 19, 2023

Re: RDX 21-13 Inadvertent Release; Special-Status Plant Species Survey Results / SWCA
Project No. 85247

INTRODUCTION

SWCA Environmental Consultants (SWCA) was retained by WPX Energy, Inc. (WPX), a subsidiary of Devon, to complete a special-status plant species (SSPS) survey and associated technical memorandum for the RDX 21-13 inadvertent release area (project) in Eddy County, New Mexico (Figure A.1 in Appendix A). The project overlaps Bureau of Land Management (BLM)-mapped potential habitat for Scheer's beehive cactus (*Coryphantha robustispina* var. *scheeri*) (BLM 2023), which prompted the need for this SSPS survey and technical memorandum (BLM 2022). The project is located on BLM-managed land and would be permitted through the BLM Carlsbad Field Office (CFO). The SSPS survey area and protocol were identified based on the BLM's mapped potential unsurveyed habitat layer (BLM 2023) and the BLM CFO SSPS survey guidelines (BLM 2022).

BACKGROUND

Scheer's Beehive Cactus

Scheer's beehive cactus is a member of the Cactaceae family and is listed as a BLM sensitive species (BLM 2018) and an endangered species by the State of New Mexico (New Mexico Energy, Minerals and Natural Resources Department 2023). This species occupies soils with rocky and loamy components, as well as limestone benches and bajadas between 3,000 and 3,600 feet above mean sea level (New Mexico Rare Plant Technical Council [NMRPTC] 1999). In New Mexico, this species is known to occur only within Chaves and Eddy Counties; however, modeled habitat extends into Lea County. The project area elevation ranges from 3,030 to 3,045 feet above mean sea level, which is within the known elevation range of this species. Soils in the project area are composed of sandy loam, clay loam, loamy fine sands of the Gypsum land-Reeves complex, and Likes loamy fine sand, which are suitable for the species (Natural Resources Conservation Service [NRCS] 2023).

Threats to Scheer's beehive cactus include off-road vehicles, commercial and residential development, landscape-scale herbicide application, oil and gas development, and habitat degradation (NMRPTC 1999; NatureServe 2023).

SURVEY METHODOLOGY

Before conducting the SSPS surveys, biologists reviewed species identification and habitat requirements, NRCS soil maps (NRCS 2023), the New Mexico Rare Plants website (NMRPTC 1999), and the New Mexico State endangered plant species list (New Mexico Energy, Minerals and Natural Resources Department 2023). Species calibration occurred on December 4, 2023, for Scheer's beehive cactus (Figure A.2 in Appendix A) to ensure biologists were calibrated on this species. Data were collected using Samsung tablets connected to Geode GPS units with an average accuracy of 0.99 meter, and a tracking point was collected every 30 seconds.

SWCA biologists Emily Yannayon and Kim Goering conducted presence/absence SSPS survey within the survey area for Scheer's beehive cactus on December 6, 2023. The survey transects were spaced 20 meters (m) apart for the initial SSPS survey. An inventory-level survey would be initiated following the detection of any plant individuals and transect spacing would be decreased to 10 m within a 100-m buffer around the observed individuals in accordance with BLM SSPS survey standard protocols (BLM 2022).

The results of the survey are described below.

SPECIAL-STATUS PLANT SPECIES SURVEY RESULTS

The vegetation community within the project area consisted of Chihuahuan Desert Scrub based on LANDFIRE vegetation community descriptions and observations during the SSPS survey (LANDFIRE 2016). The species-specific survey for Scheer's beehive cactus was negative. The survey area is modeled as suitable habitat for the species; the habitat observed during the survey was characterized as unsuitable for Scheer's beehive cactus due to disturbance and heavy sheet flow throughout the area. No individuals were detected. In addition, no look-alike species were observed.

CONCLUSION

Scheer's beehive cactus individuals were not detected within the SSPS survey area during the species-specific survey. The project is also not likely to impact individuals that were not found during survey in the project vicinity.

LITERATURE CITED

- Bureau of Land Management (BLM). 2018. New Mexico Bureau of Land Management Sensitive Plant and Animal Lists. Carlsbad Field Office, New Mexico. Available at: <https://www.blm.gov/policy/nm-ib-2019-002>. Accessed December 2023.
- . 2022. New Mexico Bureau of Land Management Survey Policy and Protocols: Special Status Plant Species (SSPS). Carlsbad Field Office, New Mexico. Received July 2022.
- . 2023. Potential Unsurveyed Habitat for Special Status Plants GIS Layer. Carlsbad Field Office, New Mexico. Received October 2023.
- LANDFIRE. 2016. Existing Vegetation Type Layer, LANDFIRE 2.0.0. U.S. Department of the Interior, Geological Survey, and U.S. Department of Agriculture. Available at: <https://data-usfs.hub.arcgis.com/datasets/853b154e56184c0eb3f66715052293a5/explore?location=29.350297%2C-95.838368%2C4.74>. Accessed December 2023.
- Natural Resources Conservation Service (NRCS). 2023. Web Soil Survey. Available at: <http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed December 2023.
- NatureServe. 2023. NatureServe explorer. Available at: <http://explorer.natureserve.org/>. Accessed December 2023.
- New Mexico Energy, Minerals and Natural Resources Department. 2023. New Mexico State Endangered Plant Species (19.21.2.8 New Mexico Administrative Code). Available at: https://www.emnrd.nm.gov/sfd/wp-content/uploads/sites/4/NM-ENDANGERED-PLANT-List_2023.pdf. Accessed December 2023.
- New Mexico Rare Plant Technical Council (NMRPTC). 1999. New Mexico Rare Plants Website (Updated 2023). Available at: <http://nmrareplants.unm.edu>. Accessed December 2023.

APPENDIX A

Survey Map and Photograph

WPX Energy, Inc. RDX 21-13 Inadvertent Release; Special-Status Plant Species Survey Results

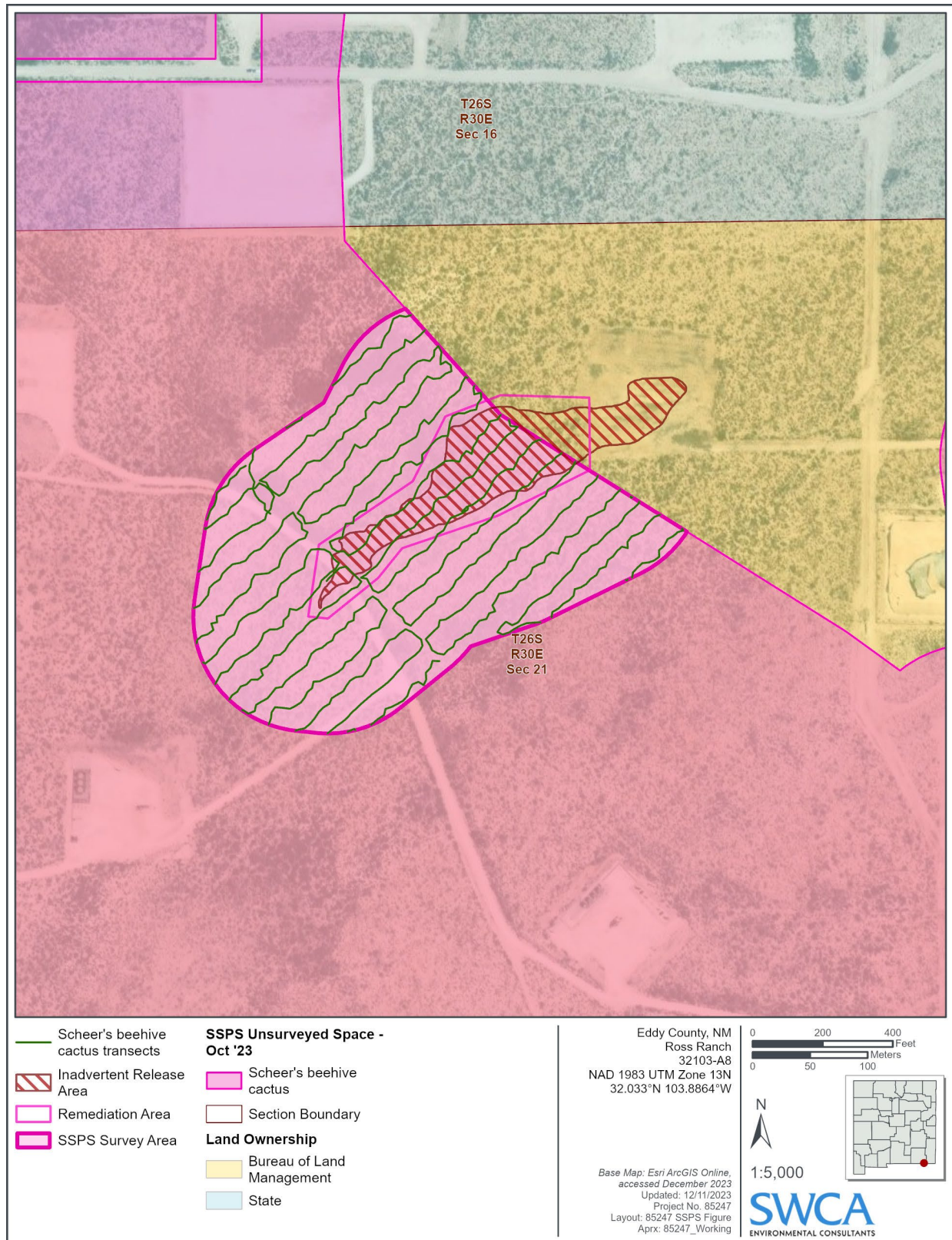


Figure A.1. Project area with SSPS habitat layers and transects walked.



Figure A.2. Calibration photograph of Scheer's beehive cactus.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

HPD Log No(s).

Registration

Lead Agency: US Bureau of Land Management Carlsbad Field Office

Performing Agency: SWCA Environmental Consultants

Activity ID: 85247

Performing Agency Report No: 23-781

Other Agencies:

Report Recipient (Your Client): WPX Energy, Inc.

- Activity Types:
- ☐ Research Design
 - ☒ Archaeological Survey/Inventory
 - ☐ Architectural Survey/Inventory
 - ☐ Test Excavation
 - ☐ Monitoring
 - ☐ Collections/Non-Field Study
 - ☐ Compliance Decision
 - ☐ Literature Review Overview
 - ☐ Excavation
 - ☐ Ethnographic Study
 - ☐ Resource/Property Visit
 - ☐ Historic Structures Report
 - ☐ Other:

Total Survey Acreage: 35.47

Total Tribal Acreage: 0.00

Total Resources Visited: 0

Report run on: Nov 22, 2023 09:27 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312 HPD Log No(s). Associate/Register Resources

Prefix	Number	Field Site/Other Number	In GIS	Resource Type	Collections Made?	Revisit
--------	--------	-------------------------	--------	---------------	-------------------	---------

Report run on: Nov 22, 2023 09:27 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312**HPD Log No(s).**

Report Details

Lead Agency

Lead Agency: US Bureau of Land Management Carlsbad Field Office

Lead Agency Report No.

Report Number:

Title of Report

Title of Report: A Cultural Resources Survey for the RDX 21-13 Inadvertent Release Remediation Project in Eddy County, New Mexico**Authors:** Courtney Blair and Cash Ficke

Type of Report

Publication Type: Report, Monograph, or Book

Negative

Description of Undertaking (what does the project entail?)

Description: WPX Energy, Inc. (WPX) proposes to remediate the RDX 21-13 Inadvertent Release in Eddy County, New Mexico. The remediation process consists of removing impacted sediments from the contaminated area and replacing them with clean soils. The inadvertent release and proposed remediation area consists of 4.71 acres (1.90 hectares) on Bureau of Land Management (BLM) Carlsbad Field Office (CFO) lands and surrounds an inadvertent release or spill area that is located off a reclaimed well pad. The inadvertent release measures 3.67 acres (1.48 hectares). The project area was placed around the spill for additional testing of possible chemicals in the soil that may be the result of spread of the release and for ease of remediation. The project is located approximately 26.77 kilometers (16.63 miles) southeast of Malaga, New Mexico.

Dates of Investigation

From: 09-Nov-2023 **To:** 13-Nov-2023

Report Date

Report Date: 22-Nov-2023

Performing Agency/Consultant

Name: SWCA Environmental Consultants**Principal Investigator:****Field Supervisor:** Cash Ficke**Field Personnel Names:**

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

HPD Log No(s).

Report Details

Historian/Other

Performing Agency Report Number

Report Number: 23-781

Client/Customer (project proponent)

Name: WPX Energy, Inc.

Contact: Jim Raley

Address: 5315 Buena Vista Drive, Carlsbad, NM

Phone (575) 885-1313

Client/Customer Project Number

Project Number: 85247

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

HPD Log No(s).

Ownership & Location

Land Ownership Status (Must be indicated on Project Map)

Owner/Manager List:

Land Owner/Manager	Protocol	Acres Surveyed	Acres in APE
US Bureau of Land Management Carlsbad Field Office	Class III	35.47	4.71

Total Survey Acreage: 35.47

Total Tribal Acreage: 0.00

Record Search(es)

Date of HPD/ARMS File Review: 19-Oct-2023

Date of Other Agency File Review 06-Nov-2023

Survey Data

Source Graphics: NAD 83

- ☒ USGS 7.5' (1:24,000) topo map
- ☐ Other Topo Map
- Scale:
- ☒ GPS Unit <1M
- ☐ Aerial Photos
- Other Source Graphic(s):

The following tables (b,c,& e) are calculated by the NMCRIS Map Service

USGS 7.5' Topographic Map(s) County(ies) Legal Description

Map Name	USGS Quad Code	County	FIPS	Unplatted	Township (N/S)	Range (E/W)	Section
Ross Ranch, NM	32103-A8	EDDY	35015	No	T26S	R30E	21

Projected Legal Description

Nearest City or Town: Malaga

Other Description:

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

GIS

HPD Log No(s).

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Report run on: Nov 22, 2023 09:27 AM

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312
HPD Log No(s).

Methodology

Survey Field Methods

Intensity: 100% coverage

Configuration: ☒ Block Survey Units ☐ Linear Survey Units (l x y)

Other Survey Units

Scope: All Resources

Coverage Method: ☒ Systematic Pedestrian Coverage **Other Method:**
Survey Interval (m): 15 **Crew Size** 1

Fieldwork Dates **From** 09-Nov-2023 **To** 13-Nov-2023

Survey Person Hours: 9.00 **Recording Person Hours** 0.00

Additional Narrative:

Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.)

Environmental Setting: The project area falls within the Chihuahuan Basins and Playas (24a) ecoregion. This ecoregion includes alluvial fans, internally drained basins, and river valleys mostly below 4,500 feet in elevation (Griffith et al. 2006). The elevation of the project area is 1,006.8 m (3,303 feet) above mean sea level. This ecoregion is composed of desert grasses and shrub land in erosional settings. This project is within the shrub land setting. Typical vegetation includes creosote bush, tarbush, yuccas, sandsage, viscid acacia, tasajillo, lechuguilla, mesquite, and ceniza. (Griffith et al. 2006). Plants observed during the survey include honey mesquite, creosote, desert sage, Russian Thistle, all-thorn, and various grasses. Wildlife in the area includes mule deer, prairie dog, gopher, fox, coyote, skunk, black-tailed jackrabbit, desert cottontail, scaled quail, burrowing owl, mourning dove, wrens, various hawks, bull snake, prairie rattlesnake, plain hognose snake, western hooknose snake and numerous lizards (Biota Information System of New Mexico 2023). Important animal species prehistorically include deer, jackrabbit, and cottontail.

Geology underlying the project area includes eolian deposits (Holocene to middle Pleistocene), piedmont alluvial deposits (Holocene to lower Pleistocene) – includes deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. May locally include uppermost Pliocene deposits (Griffith et al. 2006), and older alluvial deposits of upland plains and piedmont areas, and calcic soils and eolian cover sediments of High Plains region (middle to lower Pleistocene)—Includes scattered lacustrine, playa, and alluvial deposits of the Tahoka, Double Tanks, Tule, Blackwater Draw, and Gatuña Formations, the latter of which may be Pliocene at base; outcrops, however, are basically of Quaternary deposits (Griffith et al. 2006). Two soils are present within the project area: Likes loamy fine sand, 1 to 5 percent slopes and Gypsum land-Reeves complex, 0 to 3 percent slopes, eroded. The runoff class is negligible and

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312**HPD Log No(s).**

Methodology

excessively drained for the Likes loamy fine sand soil; whereas the Gypsum land-Reeves complex has a high runoff class and is well drained. The soil types are characterized as sandy loams or loamy fine sands, found on alluvial fans, plains, hills, and ridges. The Likes parent material is a calcareous alluvium and/or colluvium deposit and the Gypsum land-Reeves parent material is residuum weathered from gypsum (Natural Resources Conservation Service 2023).

The climate information for the survey area was compiled using the Carlsbad, New Mexico (291469), climate station data (period of record February 1, 1900, to June 10, 2016). Rainfall for the general project area is most abundant from May through October, averaging 4.1 centimeters (cm) (1.6 inches), with September having the heaviest average precipitation. Snowfall is expectedly heaviest between December and January, with an average of 3.1 cm (1.2 inches) for both months and can fall from November through April; annual snowfall averages 11.2 cm (4.4 inches). Average temperatures are coldest in January at -2.3 degrees Celsius (°C) (27.8 degrees Fahrenheit [°F]) and warmest in July at 35.3 °C (95.6 °F) (Western Regional Climate Center 2023).

References:

Biota Information System of New Mexico

2023 Database Query for Eddy County. Available at: <http://www.bison-m.org/>. Accessed November 2023.

Griffith, G. E., J. M. Omernik, M. M. McGraw, G. Z. Jacobi, C. M. Canavan, T. S. Schrader, D. Mercer, R. Hill, and B. C. Moran

2006 Ecoregions of New Mexico. Color poster with map, descriptive text, summary tables, and photographs. Map scale 1:1,100,000. U.S. Geological Survey, Reston, Virginia.

Natural Resources Conservation Service

2023 Web Soil Survey of Eddy County, New Mexico. Available at: <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed November 2023.

Western Regional Climate Center

2023 Climate Summary for Carlsbad Caverns Climate Station (291480). Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm1480>. Accessed November 2023.

Percent Ground Visibility

Ground Visibility: 76-99%

Condition of Survey Area: The survey area has been previously disturbed by oil and gas activities including a lease road along the western portion of the project area, a reclaimed well pad in the northeast portion of the project area where the inadvertent release is located, a transmission line,

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312**HPD Log No(s).**

Methodology

fencing, surface flow lines, well pads with a central tank battery, and a buried pipeline. Natural disturbances to the overall survey area include cattle grazing, bioturbation, and wind and water erosion.

Attachments (check all appropriate boxes)

- ☒ USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)
- ☒ Copy of NMCRIS Map Check (required)
- ☐ LA Site Forms - new sites (with sketch map & topographic map) if applicable
- ☐ LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
- ☐ Historic Cultural Property Inventory Forms, if applicable
- ☐ List and Description of Isolates, if applicable
- ☐ List and Description of Collections, if applicable

Other Attachments

- ☒ Photographs and Log
- ☒ Other attachments **Describe:** BLM authorization form

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312 HPD Log No(s). Cultural Resource Findings

Investigation Results

Archaeological Sites Discovered and Registered: 0

Archaeological Sites Discovered and NOT Registered: 0

Previously Recorded Archaeological Sites Revisited (site update form required): 0

Previously Recorded Archaeological Sites Not Relocated (site update form required): 0

Total Archaeological Sites (visited & recorded): 0

Total Isolates Recorded: 0

☒ Non-Selective Isolate Recording

HCPI Properties Discovered and Registered: 0

HCPI Properties Discovered And NOT Registered: 0

Previously Recorded HCPI Properties Revisited: 0

Previously Recorded HCPI Properties NOT Relocated: 0

Total HCPI Properties (visited & recorded, including acequias): 0

If No Cultural Resources Found, Discuss Why:

While the area did not undergo recent surveys within the last 10 years and required new investigations, the area has been heavily surveyed by multiple surveys and no cultural sites were observed during those visits. The size of the survey area is large but the site density in the surrounding area is low.

Management Summary

Summary: SWCA was contracted to complete an intensive pedestrian survey for the RDX 21-13 Inadvertent release remediation project. The total surveyed area covered 35.47 acres (14.33 hectares) and initially included a 30-m (100-foot) cultural resources buffer around the project area on lands managed by the BLM CFO in Eddy County, New Mexico to provide sufficient area for remediation activities. However, after the cultural resources survey was conducted, the remediation area was significantly reduced in size. The reason for the size reduction was that the client asserted that the potential spread of the inadvertent release was less extensive than initially estimated. Hence the current cultural resources buffer is larger than the required 100 feet.

No previous qualifying surveys were used. SWCA surveyed the entire original proposed project area. No archaeological sites, historic properties, or isolated manifestations were observed during the current investigation. No additional investigation or treatment is recommended regarding the current undertaking. If subsurface cultural materials are encountered during remediation, all work should cease, and the managing agency should be

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

HPD Log No(s).

Cultural Resource Findings

notified immediately.

In accordance with policies and regulations implementing Section 106 of the National Historic Preservation Act (Public Law 89-665), as amended, the cultural resources inventory was completed to locate, identify, and record any cultural resources that might be affected within the APE of the proposed project and to provide recommendations of eligibility for the National Register of Historic Places. SLO cultural resources preservation efforts requires that an archaeological survey be conducted to current standards for the APE pursuant to and in compliance with New Mexico Administrative Code (NMAC) 4.10.15 to ensure that cultural properties are not inadvertently excavated, harmed, or destroyed by any person.

NMCRIS Investigation Abstract Form (NIAF)

NMCRIS Activity No. 154312

HPD Log No(s).

Attachments

Documents

Attachment Type	Description	Name	File Type	Size	Upload Date	Upload By
Report/Manuscript	Negative NIAF Report	NMCRIS_154312	PDF document	1782 KB	22-Nov-2023	Courtney Blair

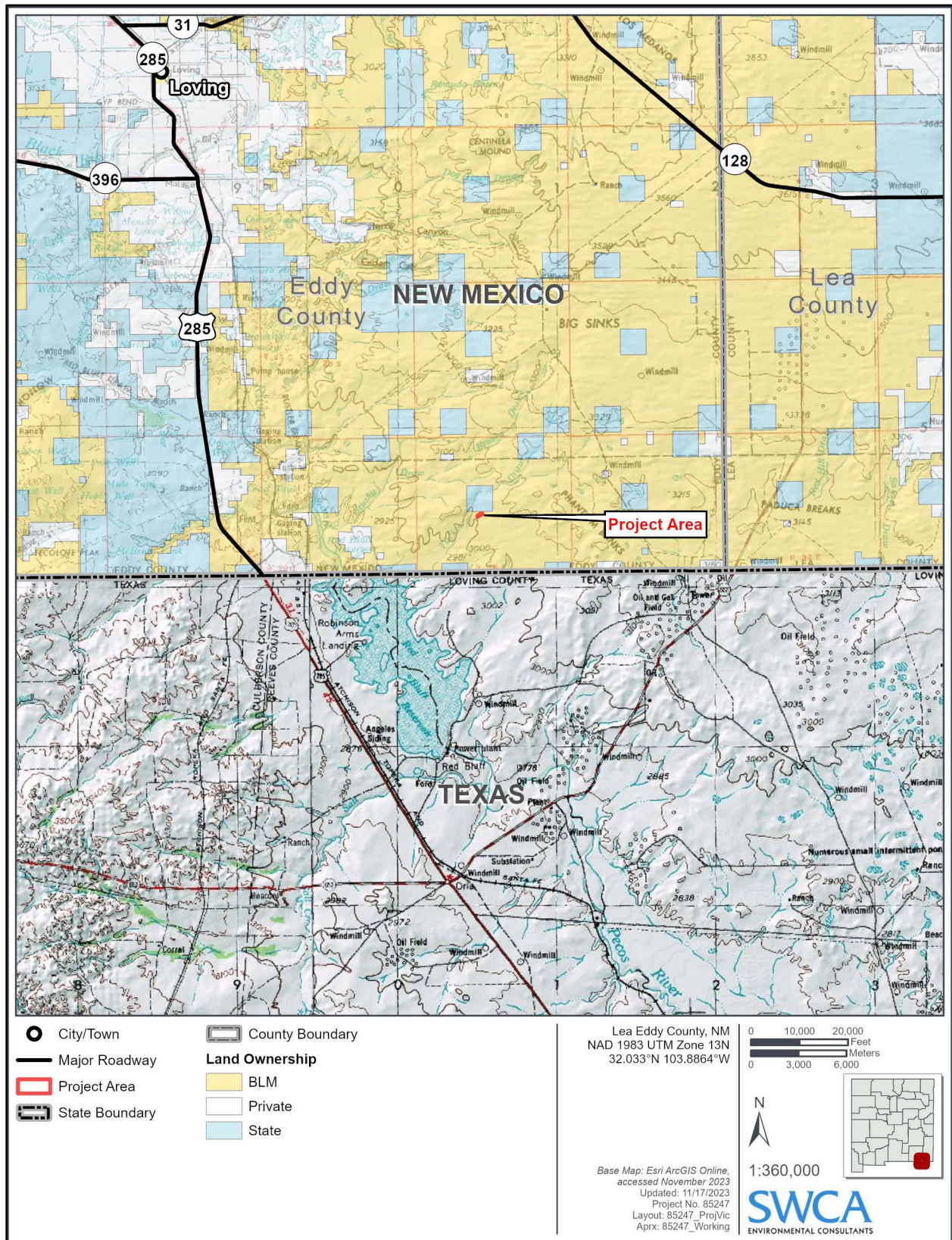


Figure 1. Project Vicinity map.

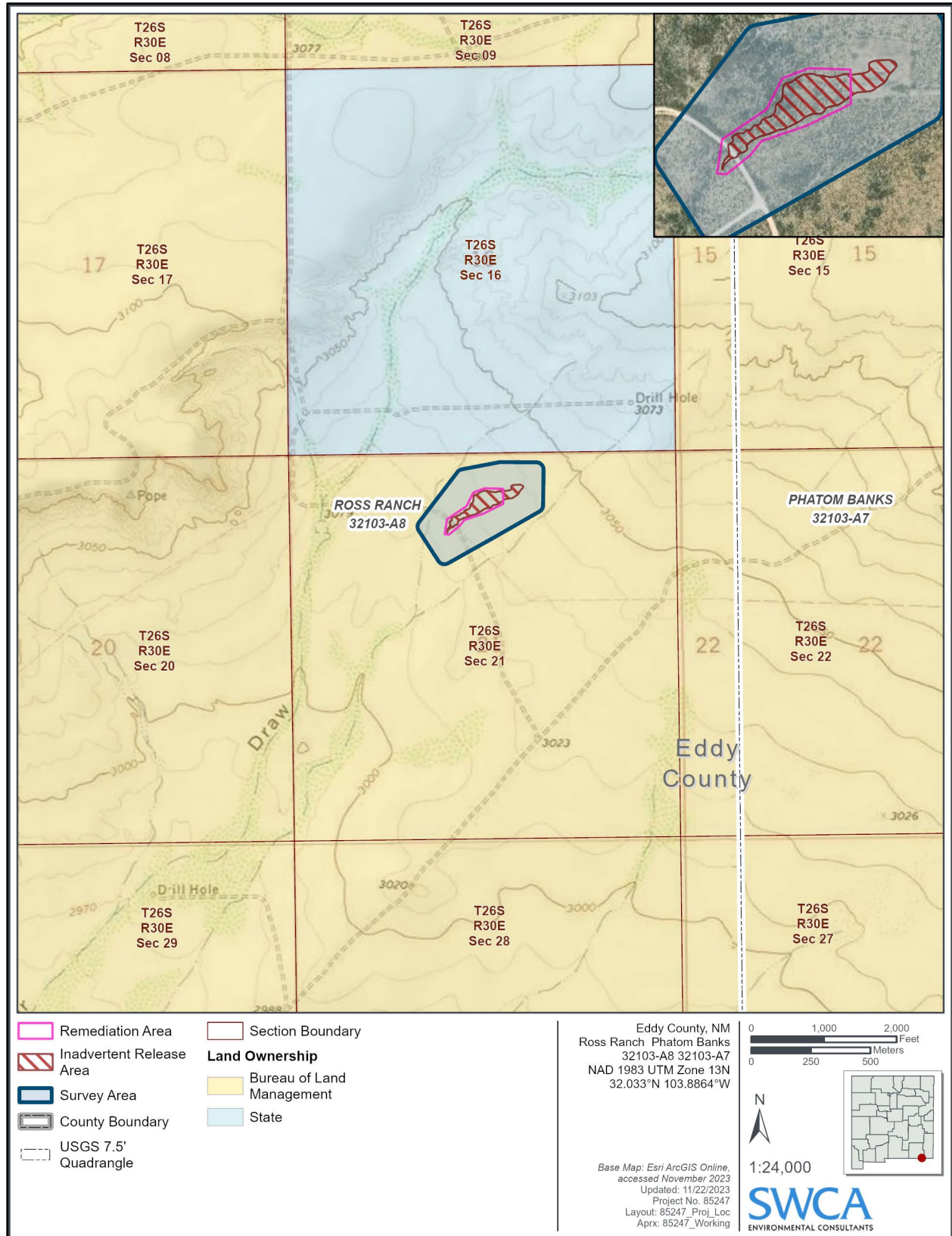


Figure 2. Project Location Map.



Figure 3. Overview from southern survey boundary showing undisturbed landscape, facing northeast (Frame -6434).



Figure 4. Overview of the eastern-most extent of release disturbance in the direction showing access road with transmission line, facing northeast (Frame -7802).



Figure 5. Overview of reclaimed well pad from eastern extent of survey area, facing west (Frame -3546).

Form 8151-3 United States Department of the Interior Bureau of Land Management FIELDWORK AUTHORIZATION REQUEST To Conduct Specific Cultural Resource Work under the Authority of a Cultural Resource Use Permit Issued by the Bureau of Land Management Pursuant to Sec. 302 (b) of P. L. 94-579, October 21, 1976, 43 USC 1732 Sec. 4 of P. L. 96-95, October 31, 1979, 16 USC, 470cc		INFORMATION REQUIREMENT APPROVED OMB NO. 1024-0037 For BLM Use Only
1. Permit Number and Date Issued 110-2920-20-EEEE	2. Name of Permittee Courtney Blair	
3. Mailing Address and Telephone Number Address: SWCA Environmental Consultants 7770 Jefferson St. NE, Unit 410 Albuquerque, New Mexico 87109 Telephone [(xxx) xxx-xxxx]: (505) 254-1115		
4. Nature of Cultural Resources Work Proposed (if Consultation Work, Identify Client and Project) Cultural Survey of proposed RDX 21-13 Inadvertent Release Remediation Project in Eddy County. SURVEY ALL.		
5. Location of Proposed Work (Include Map) a. Description of Public Lands Involved SE New Mexico, BLM CFO in Eddy County, NM	b. Identification of Cultural Resource(s) Involved (if applicable) No sites within 100 feet of the proposed project. There is previous surveys but they are all over 10 years in age. Will survey the entire area.	
6. Period During Which Work Will Be Conducted From [mm/dd/yy]: 11/9/23	To [mm/dd/yy]: 11/11/23	
7. Name of Individual(s) Responsible for Planning and Supervising Fieldwork and Approving Report, Evaluations, and Recommendations Courtney Blair - Project Manager Ad Muniz - Cultural Resources Lead Alissa Healy-PI		
8. Signature Courtney Blair	9. Date [mm/dd/yy]: 11/6/23	
10. Approved <i>Brandon Jonia</i> (Authorized Officer)	11. Date [mm/dd/yy]: 11/7/23	
Submit one copy of each request, by mail, FAX, or in person to the Field Office Manager in the BLM Field Office with administrative jurisdiction over the public lands involved.		

Figure 6. BLM Authorization Form

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State of New Mexico
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Oil Conservation Division
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Santa Fe, NM 87505

QUESTIONS

Action 341038

QUESTIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 341038
	Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Prerequisites	
Incident ID (n#)	nMLB1113027936
Incident Name	NMLB1113027936 RDX 21-13 @ 30-015-37781
Incident Type	Oil Release
Incident Status	Re-vegetation Report Received
Incident Well	[30-015-37781] RDX 21 #013

Location of Release Source	
Please answer all the questions in this group.	
Site Name	RDX 21-13
Date Release Discovered	03/22/2011
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Not answered.
Produced Water Released (bbls) Details	Not answered.
Is the concentration of chloride in the produced water >10,000 mg/l	Not answered.
Condensate Released (bbls) Details	Not answered.
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Not answered.
Other Released Details	Cause: Equipment Failure Producing Well Gelled Brine (Frac Fluid) Released: 150 BBL Recovered: 20 BBL Lost: 130 BBL.
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Not answered.

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QUESTIONS, Page 2

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number:
	341038
Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)	

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	No, according to supplied volumes this does not appear to be a "gas only" report.
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	Yes
Reasons why this would be considered a submission for a notification of a major release	From paragraph A. "Major release" determine using: (1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.

The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	Not answered.

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 05/06/2024
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QUESTIONS, Page 3

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:
	246289
	Action Number: 341038
Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)	

QUESTIONS**Site Characterization**

Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	NM OSE iWaters Database Search
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 300 and 500 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Greater than 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 300 and 500 (ft.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1000 (ft.) and ½ (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan

Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No

Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)

Chloride	(EPA 300.0 or SM4500 Cl B)	10800
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	1050
GRO+DRO	(EPA SW-846 Method 8015M)	1050
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0

Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.

On what estimated date will the remediation commence	04/29/2011
On what date will (or did) the final sampling or liner inspection occur	04/29/2011
On what date will (or was) the remediation complete(d)	04/29/2011
What is the estimated surface area (in square feet) that will be reclaimed	55600
What is the estimated volume (in cubic yards) that will be reclaimed	1500
What is the estimated surface area (in square feet) that will be remediated	55600
What is the estimated volume (in cubic yards) that will be remediated	1500

These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.

The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.

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QUESTIONS, Page 4

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:	246289
	Action Number:	341038
	Action Type:	[C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Remediation Plan (continued)	
<i>Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.</i>	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
<i>(Select all answers below that apply.)</i>	
(Ex Situ) Excavation and off-site disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for off-site disposal	Not answered.
OR which OCD approved well (API) will be used for off-site disposal	Not answered.
OR is the off-site disposal site, to be used, out-of-state	Not answered.
OR is the off-site disposal site, to be used, an NMED facility	Yes
What is the name of the NMED facility	CRI Facility in Lea County
(Ex Situ) Excavation and on-site remediation (i.e. On-Site Land Farms)	Not answered.
(In Situ) Soil Vapor Extraction	Not answered.
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	Not answered.
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	Not answered.
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	Not answered.
Ground Water Abatement pursuant to 19.15.30 NMAC	Not answered.
OTHER (Non-listed remedial process)	Not answered.
<i>Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 05/06/2024
<i>The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.</i>	

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QUESTIONS, Page 5

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 341038
	Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Deferral Requests Only	
Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 341038
	Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	341048
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	04/29/2011
What was the (estimated) number of samples that were to be gathered	12
What was the sampling surface area in square feet	55600

Remediation Closure Request

Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.

Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	55600
What was the total volume (cubic yards) remediated	1500
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	55600
What was the total volume (in cubic yards) reclaimed	1500
Summarize any additional remediation activities not included by answers (above)	Remediation area was excavated, re-countered to match preexisting conditions, and re-seeded with the appropriate BLM approved seed mixture. Additional cubic yards of impacted soil was removed under direction of BLM personnel beyond the 1,500 cubic yards documented in the initial remedial efforts, however the exact quantity removed during additional efforts was not documented. The Site has been since approved by the BLM for Final Abandonment and has been released.

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (in .pdf format) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 05/06/2024
--	--

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QUESTIONS, Page 7

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 341038
	Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Reclamation Report	
<i>Only answer the questions in this group if all reclamation steps have been completed.</i>	
Requesting a reclamation approval with this submission	Yes
What was the total reclamation surface area (in square feet) for this site	55600
What was the total volume of replacement material (in cubic yards) for this site	1500
<i>Per Paragraph (1) of Subsection D of 19.15.29.13 NMAC the reclamation must contain a minimum of four feet of non-waste containing, uncontaminated, earthen material with chloride concentrations less than 600 mg/kg as analyzed by EPA Method 300.0, or other test methods approved by the division. The soil cover must include a top layer, which is either the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.</i>	
Is the soil top layer complete and is it suitable material to establish vegetation	Yes
On what (estimated) date will (or was) the reseeded commence(d)	07/11/2011
Summarize any additional reclamation activities not included by answers (above)	Remediation area was excavated, re-countered to match preexisting conditions, and re-seeded with the appropriate BLM approved seed mixture. Additional cubic yards of impacted soil was removed under direction of BLM personnel beyond the 1,500 cubic yards documented in the initial remedial efforts, however the exact quantity removed during additional efforts was not documented. The Site has been since approved by the BLM for Final Abandonment and has been released.
<i>The responsible party must attach information demonstrating they have complied with all applicable reclamation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any proposed reseeded plans or relevant field notes, photographs of reclaimed area, and a narrative of the reclamation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.ralej@dmn.com Date: 05/06/2024

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QUESTIONS, Page 8

Action 341038

QUESTIONS (continued)

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID:	246289
	Action Number:	341038
	Action Type:	[C-141] Revegetation Report C-141 (C-141-v-Revegetation)

QUESTIONS

Revegetation Report	
<i>Only answer the questions in this group if all surface restoration, reclamation and re-vegetation obligations have been satisfied.</i>	
Requesting a restoration complete approval with this submission	Yes
What was the total revegetation surface area (in square feet) for this site	55600
<i>Per Paragraph (2) of Subsection D of 19.15.29.13 NMAC the responsible party must reseed disturbed area in the first favorable growing season following closure of the site.</i>	
On what date did the reseeded commence	07/11/2011
On what date was the vegetative cover inspected	05/05/2022
What was the life form ratio compared to pre-disturbance levels	75
What was the total percent plant cover compared to pre-disturbance levels	80
Summarize any additional revegetation activities not included by answers (above)	Remediation area was excavated, re-countered to match preexisting conditions, and re-seeded with the appropriate BLM approved seed mixture. Additional cubic yards of impacted soil was removed under direction of BLM personnel beyond the 1,500 cubic yards documented in the initial remedial efforts, however the exact quantity removed during additional efforts was not documented. The Site has been since approved by the BLM for Final Abandonment and has been released.
<i>The responsible party must attach information demonstrating they have complied with all applicable re-vegetation requirements and any conditions or directives of the OCD. This demonstration should be in the form of attachments (in .pdf format) including a scaled site map, any life form ratio and percent plant cover sampling diagrams or other relevant field notes, photographs of re-vegetated areas, and a narrative of the re-vegetation activities. Refer to 19.15.29.13 NMAC.</i>	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.	
I hereby agree and sign off to the above statement	Name: James Raley Title: EHS Professional Email: jim.raley@dmn.com Date: 05/06/2024
<i>Per Paragraph (4) of Subsection (D) of 19.15.29.13 NMAC for any major or minor release containing liquids, the responsible party must notify the division when reclamation and re-vegetation are complete.</i>	

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
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District III
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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 341038

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 341038
	Action Type: [C-141] Revegetation Report C-141 (C-141-v-Revegetation)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Revegetation approved.	5/31/2024