Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
JAN 31 2020
RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0063798

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
BLUE KRAIT 23-14 FED
32H (316705)

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY LP (6137)

9. API Well No.
30-025-46833

3a. Address
333 West Sheridan Avenue Oklahoma City OK 73102

3b. Phone No. *(include area code)*
(800)583-3866

10. Field and Pool, or Exploratory (98135)
WC-025 G-09 S263504N / WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SWSW / 245 FSL / 1040 FWL / LAT 32.196523 / LONG -103.548281
At proposed prod. zone NENW / 20 FNL / 2317 FWL / LAT 32.224804 / LONG -103.544165

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 23 / T24S / R33E / NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
245 feet

16. No of acres in lease
2480

17. Spacing Unit dedicated to this well
320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
1040 feet

19. Proposed Depth
12525 feet / 23000 feet

20. BLM/BIA Bond No. in file
FED: CO1104

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3556 feet

22. Approximate date work will start*
08/25/2019

23. Estimated duration
45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Rebecca Deal / Ph: (405)228-8429	01/28/2019

Title
Regulatory Compliance Professional

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	01/29/2020

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval 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.
Conditions of approval, if any, are attached.

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.

GCP Rec 01/31/2020

KZ 02/02/2020

NSL

APPROVED WITH CONDITIONS

REQUIRES NSL

(Continued on page 2)

Approval Date: 01/29/2020

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company LP**
LEASE NO.:	**NMLC0063798**
LOCATION:	Section 23, T.24 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Blue Krait 23-14 Fed 32H
SURFACE HOLE FOOTAGE:	245'/S & 1040'/W
BOTTOM HOLE FOOTAGE	20'/N & 2317'/W

WELL NAME & NO.:	Blue Krait 23 Fed 38H
SURFACE HOLE FOOTAGE:	200'/S & 1114'/E
BOTTOM HOLE FOOTAGE	20'/N & 1026'/E

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Pitchfork Ranch Pool**. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **1350 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must run a CBL from TD of the 7-5/8" casing to surface. Submit results to BLM.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

Cement excess is less than 25%, more cement might be required.

Alternate Casing Design:

4. The **13-3/8** inch surface casing shall be set at approximately **1350 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    e. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    f. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    g. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    h. If cement falls back, remedial cementing will be done prior to drilling out that string.

    Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

5. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

    Option 1 (Single Stage):

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

    Option 2:

    Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

    c. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

    d. Second stage above DV tool:

    - Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Operator has proposed to pump down 13-3/8" X 8-5/8" annulus. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to BLM.

Production casing must be kept fluid filled to meet BLM minimum collapse requirement.

6. The minimum required fill of cement behind the **5-1/2** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
      Cement excess is less than 25%, more cement might be required.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

01/30/2020

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Rebecca Deal **Signed on:** 01/24/2019

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK **Zip:** 73102

Phone: (405)228-8429

Email address: Rebecca.Deal@dvn.com

Field Representative

Representative Name:

Street Address: 333 W SHERIDAN AVE

City: OKC **State:** OK **Zip:** 73102

Phone: (405)552-6556

Email address: blake.richardson@dvn.com

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

01/30/2020

APD ID: 10400038433 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - General

APD ID: 10400038433 **Tie to previous NOS?** **Submission Date:** 01/28/2019

BLM Office: CARLSBAD **User:** Rebecca Deal **Title:** Regulatory Compliance Professional

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMLC0063798 **Lease Acres:** 2480

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Operator letter of designation:

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP

Operator Address: 333 West Sheridan Avenue **Zip:** 73102

Operator PO Box:

Operator City: Oklahoma City **State:** OK

Operator Phone: (800)583-3866

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-09 S263504N **Pool Name:** WOLFCAMP

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** BLUE KRAIT 23 FED WELLPAD **Number:** 5

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 1040 FT **Distance to lease line:** 245 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: BLUE_KRAIT_23_14_FED_32H_C_102_20190124123522.pdf

Well work start Date: 08/25/2019 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	245	FSL	1040	FWL	24S	33E	23	Aliquot SWSW	32.196523	-103.548281	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	3556	0	0	
KOP Leg #1	65	FSL	1840	FWL	24S	33E	23	Aliquot SESW	32.196013	-103.545774	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8194	11786	11750	
PPP Leg #1-1	100	FSL	2123	FWL	24S	33E	23	Aliquot SESW	32.196103	-103.544784	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8744	12443	12300	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
EXIT Leg #1	100	FNL	2317	FWL	24S	33E	14	Aliquot NENW	32.224584	-103.544165	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8969	22920	12525	
BHL Leg #1	20	FNL	2317	FWL	24S	33E	14	Aliquot NENW	32.224804	-103.544165	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063798	-8969	23000	12525	

APD ID: 10400038433 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
381806	---	3555	0	0	OTHER : Surface	NONE	N
381807	RUSTLER	2454	1101	1101	SANDSTONE	NONE	N
381808	TOP SALT	1933	1622	1622	SALT	NONE	N
381816	BASE OF SALT	-1493	5048	5048	LIMESTONE	NONE	N
381810	BELL CANYON	-1712	5267	5267	SANDSTONE	NATURAL GAS, OIL	N
381811	CHERRY CANYON	-2986	6301	6301	SANDSTONE	NATURAL GAS, OIL	N
381803	BRUSHY CANYON	-4616	7931	7931	SANDSTONE	NATURAL GAS, OIL	N
381804	BONE SPRING	-6126	9441	9441	SHALE	NATURAL GAS, OIL	N
381805	BONE SPRING 1ST	-6645	10200	10200	SANDSTONE	NATURAL GAS, OIL	N
381814	BONE SPRING 2ND	-7305	10860	10860	SANDSTONE	NATURAL GAS, OIL	N
381812	BONE SPRING 3RD	-8641	12196	12196	SANDSTONE	NATURAL GAS, OIL	N
381815	WOLFCAMP	-8702	12257	12257	SHALE	NATURAL GAS, OIL	Y
381813	STRAWN	-10245	13800	13800	LIMESTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Pressure Rating (PSI): 10M **Rating Depth:** 12525

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below intermediate casing, a BOP/BOPE system with the above minimum rating will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart. Devon requests a variance to run a 5M annular on a 10M BOP system. See separately attached variance request and support documents in AFMSS.
Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. 5M annular on 10M system will be tested to 100% of rated working pressure.
Choke Diagram Attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124094056.pdf

BOP Diagram Attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124094339.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 11965

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below surface casing, a BOP/BOPE system with the above minimum rating will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.
Choke Diagram Attachment:

5M_BOPE__CK_20190124094439.pdf

BOP Diagram Attachment:

5M_BOPE__CK_20190124094446.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1350	0	1350			1350	J-55	40.5	ST&C	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11965	0	11965			11965	P-110	29.7	OTHER - BTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	N	0	23000	0	12525			23000	P-110	20	OTHER - VAM SG	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Surf_Csg_Ass_20190124124004.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Int_Csg_Ass_20190124094716.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Prod_Csg_Ass_20190124124039.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead					1.33					
INTERMEDIATE	Lead					1.85					
INTERMEDIATE	Tail										

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead					1.33					

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1350	WATER-BASED MUD	8.5	9				2			
0	11965	SALT SATURATED	9	10				2			
11965	23000	OIL-BASED MUD	10	10.5				12			

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement. Stated logs run will be in the Completion Report and submitted to the BLM.

List of open and cased hole logs run in the well:

CALIPER,CBL,DS,GR,MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6839 **Anticipated Surface Pressure:** 4083.5

Anticipated Bottom Hole Temperature(F): 182

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Blue_Krait_23_14_Fed_32H_H2S_Plan_20190124124136.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Blue_Krait_23_14_Fed_32H_DIR_SVY_20190124124405.pdf

Blue_Krait_23_14_Fed_32H_Plot_20190124124407.pdf

Other proposed operations facets description:

DIRECTIONAL SURVEY
PLOT
DRILLING PLAN
MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD - 2 VARIATIONS OF 10M
10M ANNULAR VARIANCE DOC & SCHEMATIC
CLOSED LOOP DESIGN PLAN
CO-FLEX HOSE
SPUDDER RIG REQUEST
GCP FORM
SPEC SHEETS - 6

Other proposed operations facets attachment:

7.625_29.70_P110_Flushmax_20180802151741.pdf

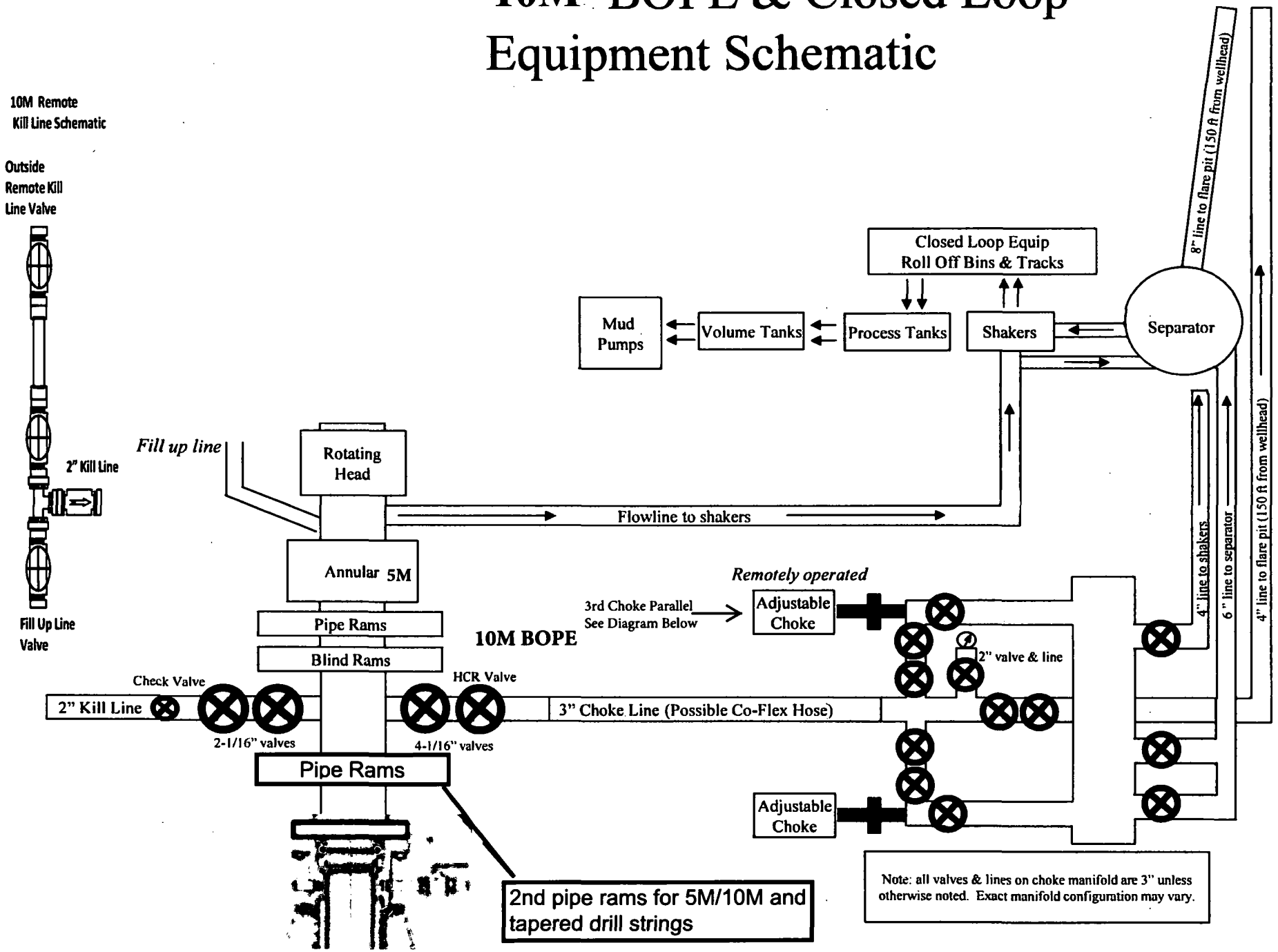
5.5_x_20_P110_EC_VAMSG_20180802151740.pdf

8.625_32__P110EC___7.875_SD_20180802151742.pdf
13.375_48__H40_20190124102551.pdf
5_500in_17_00__P110RY_DWC_C_20190124102614.pdf
MB_Verb_10M_20190124102727.pdf
Spudder_Rig_Info_20190124102728.pdf
MB_Wellhd_10M_2_20190124102943.PDF
MB_Wellhd_10M_20190124102944.pdf
Clsd_Loop_20190124102727.pdf
Blue_Krait_23_Fed_WP_5_GCP_20190124102726.pdf
10.750_40.50__J55_USS_20190124102537.PDF
Blue_Krait_23_14_Fed_32H_Drlg_Doc_R3_20200127131105.pdf

Other Variance attachment:

10M_BOPE_CHK_DR_CLS_RKL_20190124102805.pdf
Annular_Variance___Preventer_Summary_20190124102747.pdf
Co_flex_20190124102748.pdf

10M BOPE & Closed Loop Equipment Schematic



devon

Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015

Hydrogen Sulfide (H_2S) Contingency Plan

For

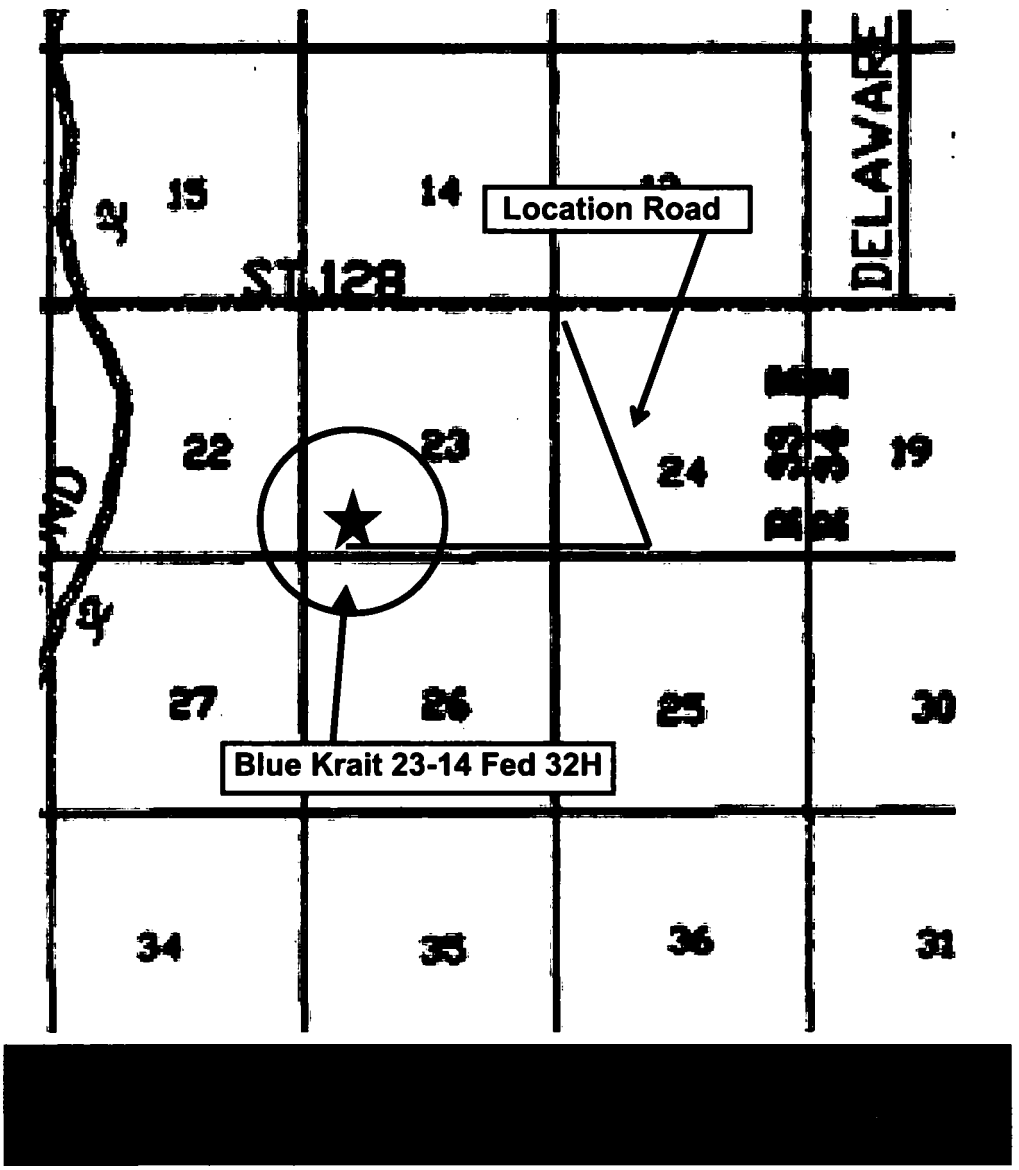
Blue Krait 23-14 Fed 32H

Sec-23 T-24S R-33E
245' FSL & 1040' FWL
LAT. = 32.196523' N (NAD83)
LONG = 103.548281' W

Lea County NM

Blue Krait 23-14 Fed 32H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.



Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'
100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with

the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

   - **Bell nipple**
   - **Rig floor**
   - **Cellar**
   - **Possum Belly/Shale shaker**
   - **Choke manifold**

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

5. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   B. All elastomers used for packing and seals shall be H_2S trim.

6. **Communication:**

   A. Company personnel have/use cellular telephones in the field.

   B. Land line (telephone) communications at Office

7. **Well testing:**

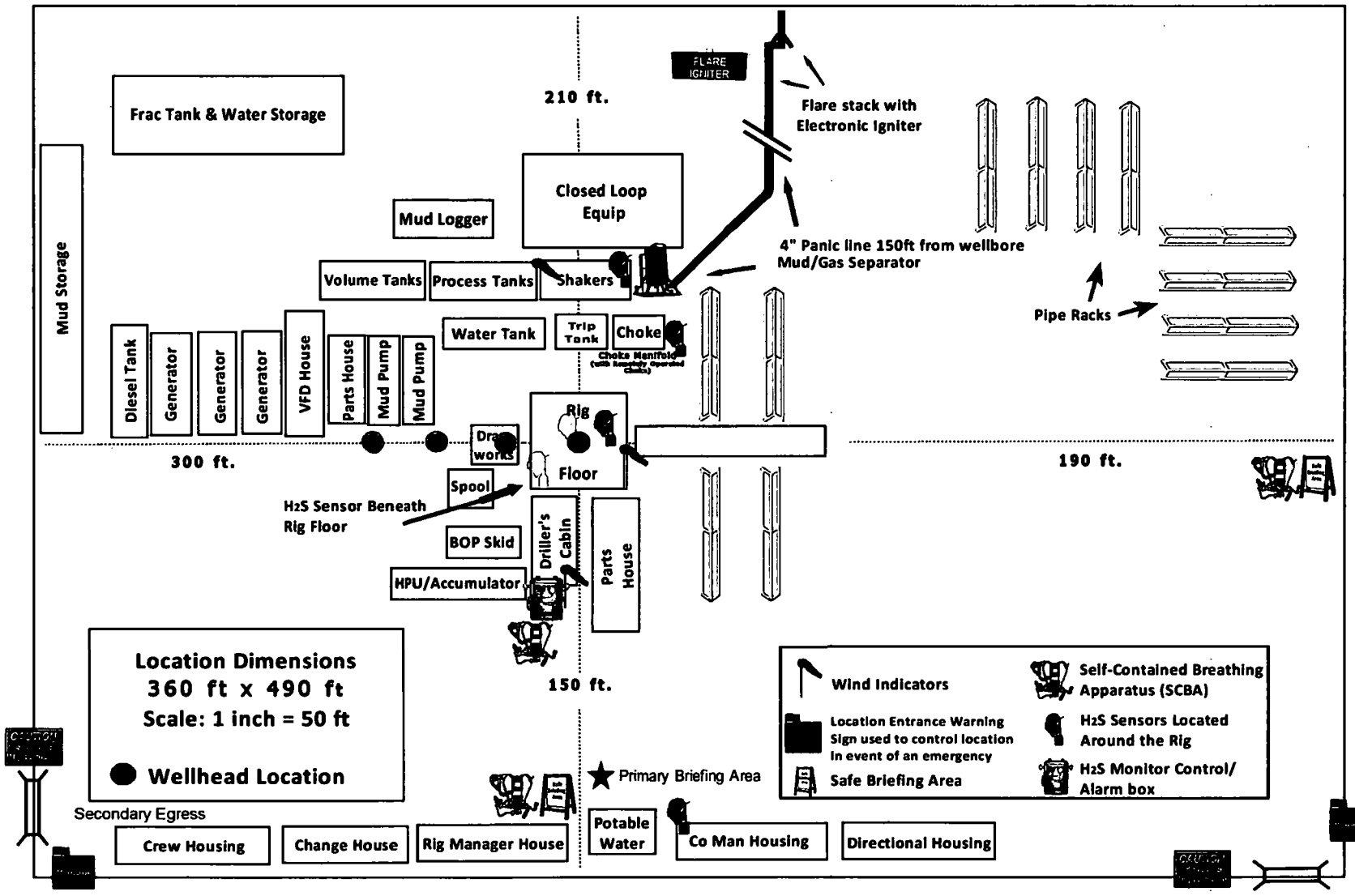
   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H_2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

Devon Energy Corp. Company Call List		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
Agency Call List		
Lea County (575)	**Hobbs**	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	**911**
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
Eddy County (575)	**Carlsbad**	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	**911**
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control (915) 699-0139	(915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	

Prepared in conjunction with
Dave Small SHARP communications and consulting

Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location



WCDSC Permian NM

Lea County (NAD83 New Mexico East)
Sec 23-T24S-R33E
Blue Krait 23-14 Fed 32H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

10 January, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project	Lea County (NAD83 New Mexico East)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sec 23-T24S-R33E				
Site Position:		**Northing:**	446,417.68 usft	**Latitude:**	32.224862
From:	Map	**Easting:**	783,057.71 usft	**Longitude:**	-103.551658
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.42 °

Well	Blue Krait 23-14 Fed 32H					
Well Position	**+N/-S**	0.00 ft	**Northing:**	436,115.91 usft	**Latitude:**	32.196523
	+E/-W	0.00 ft	**Easting:**	784,177.17 usft	**Longitude:**	-103.548281
Position Uncertainty		0.50 ft	**Wellhead Elevation:**		**Ground Level:**	3,555.80 ft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	12/26/2018	6.78	60.02	47,766.38783355

Design	Permit Plan 1				
Audit Notes:					
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	6.64	

Plan Survey Tool Program **Date** 1/10/2019

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	23,000.25	Permit Plan 1 (Wellbore #1)	MWD+IFR1	
				OWSG MWD + IFR1	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,039.18	5.39	103.04	3,038.39	-5.72	24.70	1.00	1.00	0.00	103.04	
11,077.44	5.39	103.04	11,041.07	-176.19	760.54	0.00	0.00	0.00	0.00	
11,436.89	0.00	0.00	11,400.00	-180.00	777.00	1.50	-1.50	0.00	180.00	
11,786.93	0.00	0.00	11,750.04	-180.00	777.00	0.00	0.00	0.00	0.00	
12,161.86	41.04	97.27	12,093.73	-196.27	904.60	10.95	10.95	0.00	97.27	
13,030.27	90.00	359.57	12,525.00	327.94	1,272.69	10.94	5.64	-11.25	-95.82	
23,000.25	90.00	359.57	12,525.00	10,297.64	1,197.87	0.00	0.00	0.00	0.00	PBHL - Blue Krait 23-

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
100.00	0.00	0.00	100.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
200.00	0.00	0.00	200.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
300.00	0.00	0.00	300.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
400.00	0.00	0.00	400.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
500.00	0.00	0.00	500.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
600.00	0.00	0.00	600.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
700.00	0.00	0.00	700.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
800.00	0.00	0.00	800.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
900.00	0.00	0.00	900.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,000.00	0.00	0.00	1,000.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,100.00	0.00	0.00	1,100.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,200.00	0.00	0.00	1,200.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,300.00	0.00	0.00	1,300.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,400.00	0.00	0.00	1,400.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,500.00	0.00	0.00	1,500.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,600.00	0.00	0.00	1,600.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,700.00	0.00	0.00	1,700.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,800.00	0.00	0.00	1,800.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
1,900.00	0.00	0.00	1,900.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,000.00	0.00	0.00	2,000.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,100.00	0.00	0.00	2,100.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,200.00	0.00	0.00	2,200.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,300.00	0.00	0.00	2,300.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,400.00	0.00	0.00	2,400.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,500.00	0.00	0.00	2,500.00	0.00	0.00	436,115.91	784,177.17	32.196523	-103.548281
2,600.00	1.00	103.04	2,599.99	-0.20	0.85	436,115.71	784,178.02	32.196523	-103.548279
2,700.00	2.00	103.04	2,699.96	-0.79	3.40	436,115.12	784,180.57	32.196521	-103.548270
2,800.00	3.00	103.04	2,799.86	-1.77	7.65	436,114.14	784,184.82	32.196518	-103.548257
2,900.00	4.00	103.04	2,899.68	-3.15	13.60	436,112.76	784,190.76	32.196514	-103.548237
3,000.00	5.00	103.04	2,999.37	-4.92	21.24	436,110.99	784,198.41	32.196509	-103.548213
3,039.18	5.39	103.04	3,038.39	-5.72	24.70	436,110.19	784,201.86	32.196507	-103.548202
3,100.00	5.39	103.04	3,098.94	-7.01	30.26	436,108.90	784,207.43	32.196503	-103.548184
3,200.00	5.39	103.04	3,198.49	-9.13	39.42	436,106.78	784,216.59	32.196497	-103.548154
3,300.00	5.39	103.04	3,298.05	-11.25	48.57	436,104.66	784,225.74	32.196491	-103.548125
3,400.00	5.39	103.04	3,397.61	-13.37	57.73	436,102.54	784,234.89	32.196485	-103.548095
3,500.00	5.39	103.04	3,497.17	-15.49	66.88	436,100.42	784,244.05	32.196479	-103.548065
3,600.00	5.39	103.04	3,596.72	-17.61	76.04	436,098.30	784,253.20	32.196473	-103.548036
3,700.00	5.39	103.04	3,696.28	-19.74	85.19	436,096.17	784,262.36	32.196467	-103.548006
3,800.00	5.39	103.04	3,795.84	-21.86	94.34	436,094.05	784,271.51	32.196461	-103.547977
3,900.00	5.39	103.04	3,895.40	-23.98	103.50	436,091.93	784,280.67	32.196455	-103.547947
4,000.00	5.39	103.04	3,994.95	-26.10	112.65	436,089.81	784,289.82	32.196449	-103.547918
4,100.00	5.39	103.04	4,094.51	-28.22	121.81	436,087.69	784,298.97	32.196443	-103.547888
4,200.00	5.39	103.04	4,194.07	-30.34	130.96	436,085.57	784,308.13	32.196437	-103.547859
4,300.00	5.39	103.04	4,293.63	-32.46	140.11	436,083.45	784,317.28	32.196431	-103.547829
4,400.00	5.39	103.04	4,393.18	-34.58	149.27	436,081.33	784,326.44	32.196425	-103.547800
4,500.00	5.39	103.04	4,492.74	-36.70	158.42	436,079.21	784,335.59	32.196419	-103.547770
4,600.00	5.39	103.04	4,592.30	-38.82	167.58	436,077.09	784,344.74	32.196413	-103.547740
4,700.00	5.39	103.04	4,691.86	-40.94	176.73	436,074.97	784,353.90	32.196407	-103.547711
4,800.00	5.39	103.04	4,791.41	-43.06	185.89	436,072.85	784,363.05	32.196401	-103.547681
4,900.00	5.39	103.04	4,890.97	-45.18	195.04	436,070.73	784,372.21	32.196395	-103.547652
5,000.00	5.39	103.04	4,990.53	-47.30	204.19	436,068.61	784,381.36	32.196389	-103.547622
5,100.00	5.39	103.04	5,090.09	-49.42	213.35	436,066.49	784,390.52	32.196383	-103.547593
5,200.00	5.39	103.04	5,189.64	-51.55	222.50	436,064.36	784,399.67	32.196377	-103.547563
5,300.00	5.39	103.04	5,289.20	-53.67	231.66	436,062.24	784,408.82	32.196371	-103.547534

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	5.39	103.04	5,388.76	-55.79	240.81	436,060.12	784,417.98	32.196365	-103.547504
5,500.00	5.39	103.04	5,488.32	-57.91	249.97	436,058.00	784,427.13	32.196359	-103.547475
5,600.00	5.39	103.04	5,587.87	-60.03	259.12	436,055.88	784,436.29	32.196353	-103.547445
5,700.00	5.39	103.04	5,687.43	-62.15	268.27	436,053.76	784,445.44	32.196347	-103.547416
5,800.00	5.39	103.04	5,786.99	-64.27	277.43	436,051.64	784,454.59	32.196341	-103.547386
5,900.00	5.39	103.04	5,886.55	-66.39	286.58	436,049.52	784,463.75	32.196335	-103.547356
6,000.00	5.39	103.04	5,986.10	-68.51	295.74	436,047.40	784,472.90	32.196329	-103.547327
6,100.00	5.39	103.04	6,085.66	-70.63	304.89	436,045.28	784,482.06	32.196323	-103.547297
6,200.00	5.39	103.04	6,185.22	-72.75	314.04	436,043.16	784,491.21	32.196317	-103.547268
6,300.00	5.39	103.04	6,284.78	-74.87	323.20	436,041.04	784,500.37	32.196311	-103.547238
6,400.00	5.39	103.04	6,384.33	-76.99	332.35	436,038.92	784,509.52	32.196305	-103.547209
6,500.00	5.39	103.04	6,483.89	-79.11	341.51	436,036.80	784,518.67	32.196299	-103.547179
6,600.00	5.39	103.04	6,583.45	-81.23	350.66	436,034.68	784,527.83	32.196293	-103.547150
6,700.00	5.39	103.04	6,683.01	-83.36	359.82	436,032.55	784,536.98	32.196287	-103.547120
6,800.00	5.39	103.04	6,782.56	-85.48	368.97	436,030.43	784,546.14	32.196281	-103.547091
6,900.00	5.39	103.04	6,882.12	-87.60	378.12	436,028.31	784,555.29	32.196275	-103.547061
7,000.00	5.39	103.04	6,981.68	-89.72	387.28	436,026.19	784,564.45	32.196269	-103.547031
7,100.00	5.39	103.04	7,081.24	-91.84	396.43	436,024.07	784,573.60	32.196263	-103.547002
7,200.00	5.39	103.04	7,180.79	-93.96	405.59	436,021.95	784,582.75	32.196257	-103.546972
7,300.00	5.39	103.04	7,280.35	-96.08	414.74	436,019.83	784,591.91	32.196251	-103.546943
7,400.00	5.39	103.04	7,379.91	-98.20	423.90	436,017.71	784,601.06	32.196245	-103.546913
7,500.00	5.39	103.04	7,479.47	-100.32	433.05	436,015.59	784,610.22	32.196239	-103.546884
7,600.00	5.39	103.04	7,579.02	-102.44	442.20	436,013.47	784,619.37	32.196233	-103.546854
7,700.00	5.39	103.04	7,678.58	-104.56	451.36	436,011.35	784,628.52	32.196227	-103.546825
7,800.00	5.39	103.04	7,778.14	-106.68	460.51	436,009.23	784,637.68	32.196221	-103.546795
7,900.00	5.39	103.04	7,877.70	-108.80	469.67	436,007.11	784,646.83	32.196215	-103.546766
8,000.00	5.39	103.04	7,977.25	-110.92	478.82	436,004.99	784,655.99	32.196209	-103.546736
8,100.00	5.39	103.04	8,076.81	-113.04	487.97	436,002.87	784,665.14	32.196203	-103.546707
8,200.00	5.39	103.04	8,176.37	-115.16	497.13	436,000.74	784,674.30	32.196197	-103.546677
8,300.00	5.39	103.04	8,275.93	-117.29	506.28	435,998.62	784,683.45	32.196191	-103.546647
8,400.00	5.39	103.04	8,375.49	-119.41	515.44	435,996.50	784,692.60	32.196185	-103.546618
8,500.00	5.39	103.04	8,475.04	-121.53	524.59	435,994.38	784,701.76	32.196179	-103.546588
8,600.00	5.39	103.04	8,574.60	-123.65	533.75	435,992.26	784,710.91	32.196172	-103.546559
8,700.00	5.39	103.04	8,674.16	-125.77	542.90	435,990.14	784,720.07	32.196166	-103.546529
8,800.00	5.39	103.04	8,773.72	-127.89	552.05	435,988.02	784,729.22	32.196160	-103.546500
8,900.00	5.39	103.04	8,873.27	-130.01	561.21	435,985.90	784,738.37	32.196154	-103.546470
9,000.00	5.39	103.04	8,972.83	-132.13	570.36	435,983.78	784,747.53	32.196148	-103.546441
9,100.00	5.39	103.04	9,072.39	-134.25	579.52	435,981.66	784,756.68	32.196142	-103.546411
9,200.00	5.39	103.04	9,171.95	-136.37	588.67	435,979.54	784,765.84	32.196136	-103.546382
9,300.00	5.39	103.04	9,271.50	-138.49	597.83	435,977.42	784,774.99	32.196130	-103.546352
9,400.00	5.39	103.04	9,371.06	-140.61	606.98	435,975.30	784,784.15	32.196124	-103.546322
9,500.00	5.39	103.04	9,470.62	-142.73	616.13	435,973.18	784,793.30	32.196118	-103.546293
9,600.00	5.39	103.04	9,570.18	-144.85	625.29	435,971.06	784,802.45	32.196112	-103.546263
9,700.00	5.39	103.04	9,669.73	-146.97	634.44	435,968.94	784,811.61	32.196106	-103.546234
9,800.00	5.39	103.04	9,769.29	-149.10	643.60	435,966.81	784,820.76	32.196100	-103.546204
9,900.00	5.39	103.04	9,868.85	-151.22	652.75	435,964.69	784,829.92	32.196094	-103.546175
10,000.00	5.39	103.04	9,968.41	-153.34	661.90	435,962.57	784,839.07	32.196088	-103.546145
10,100.00	5.39	103.04	10,067.96	-155.46	671.06	435,960.45	784,848.22	32.196082	-103.546116
10,200.00	5.39	103.04	10,167.52	-157.58	680.21	435,958.33	784,857.38	32.196076	-103.546086
10,300.00	5.39	103.04	10,267.08	-159.70	689.37	435,956.21	784,866.53	32.196070	-103.546057
10,400.00	5.39	103.04	10,366.64	-161.82	698.52	435,954.09	784,875.69	32.196064	-103.546027
10,500.00	5.39	103.04	10,466.19	-163.94	707.68	435,951.97	784,884.84	32.196058	-103.545998
10,600.00	5.39	103.04	10,565.75	-166.06	716.83	435,949.85	784,894.00	32.196052	-103.545968
10,700.00	5.39	103.04	10,665.31	-168.18	725.98	435,947.73	784,903.15	32.196046	-103.545938
10,800.00	5.39	103.04	10,764.87	-170.30	735.14	435,945.61	784,912.30	32.196040	-103.545909

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,900.00	5.39	103.04	10,864.42	-172.42	744.29	435,943.49	784,921.46	32.196034	-103.545879
11,000.00	5.39	103.04	10,963.98	-174.54	753.45	435,941.37	784,930.61	32.196028	-103.545850
11,077.44	5.39	103.04	11,041.07	-176.19	760.54	435,939.72	784,937.70	32.196024	-103.545827
11,100.00	5.05	103.04	11,063.54	-176.65	762.54	435,939.26	784,939.70	32.196022	-103.545821
11,200.00	3.55	103.04	11,163.26	-178.34	769.85	435,937.57	784,947.01	32.196017	-103.545797
11,300.00	2.05	103.04	11,263.14	-179.45	774.61	435,936.46	784,951.78	32.196014	-103.545782
11,400.00	0.55	103.04	11,363.11	-179.96	776.83	435,935.95	784,953.99	32.196013	-103.545774
11,436.89	0.00	0.00	11,400.00	-180.00	777.00	435,935.91	784,954.17	32.196013	-103.545774
11,500.00	0.00	0.00	11,463.11	-180.00	777.00	435,935.91	784,954.17	32.196013	-103.545774
11,600.00	0.00	0.00	11,563.11	-180.00	777.00	435,935.91	784,954.17	32.196013	-103.545774
11,700.00	0.00	0.00	11,663.11	-180.00	777.00	435,935.91	784,954.17	32.196013	-103.545774
11,786.93	0.00	0.00	11,750.04	-180.00	777.00	435,935.91	784,954.17	32.196013	-103.545774
KOP @ 11786' MD, 65' FSL, 1840' FWL									
11,800.00	1.43	97.27	11,763.11	-180.02	777.16	435,935.89	784,954.33	32.196013	-103.545773
11,900.00	12.38	97.27	11,862.23	-181.54	789.07	435,934.37	784,966.23	32.196008	-103.545735
12,000.00	23.32	97.27	11,957.27	-185.41	819.42	435,930.50	784,996.59	32.195997	-103.545637
12,100.00	34.27	97.27	12,044.78	-191.49	867.13	435,924.42	785,044.30	32.195979	-103.545483
12,161.86	41.04	97.27	12,093.73	-196.27	904.60	435,919.64	785,081.76	32.195965	-103.545362
12,200.00	40.79	90.90	12,122.56	-198.05	929.48	435,917.86	785,106.65	32.195960	-103.545281
12,300.00	41.79	74.35	12,197.92	-189.56	994.43	435,926.35	785,171.59	32.195982	-103.545071
12,400.00	45.02	59.10	12,270.76	-162.32	1,057.06	435,953.59	785,234.22	32.196056	-103.544868
12,443.18	47.00	53.13	12,300.76	-145.00	1,082.81	435,970.91	785,259.97	32.196103	-103.544784
FTP @ 12443' MD, 100' FSL, 2123' FWL									
12,500.00	50.03	45.88	12,338.43	-117.35	1,115.09	435,998.56	785,292.26	32.196178	-103.544679
12,600.00	56.32	34.67	12,398.46	-56.27	1,166.42	436,059.64	785,343.58	32.196345	-103.544512
12,700.00	63.47	25.08	12,448.68	18.70	1,209.17	436,134.61	785,386.34	32.196550	-103.544372
12,800.00	71.19	16.66	12,487.25	104.82	1,241.80	436,220.73	785,418.97	32.196786	-103.544265
12,900.00	79.25	8.99	12,512.78	198.97	1,263.11	436,314.88	785,440.28	32.197045	-103.544193
13,000.00	87.49	1.74	12,524.32	297.72	1,272.33	436,413.63	785,449.50	32.197316	-103.544161
13,030.27	90.00	359.57	12,525.00	327.94	1,272.69	436,443.85	785,449.86	32.197399	-103.544159
13,100.00	90.00	359.57	12,525.00	397.67	1,272.17	436,513.57	785,449.33	32.197591	-103.544159
13,200.00	90.00	359.57	12,525.00	497.66	1,271.42	436,613.57	785,448.58	32.197865	-103.544160
13,300.00	90.00	359.57	12,525.00	597.66	1,270.67	436,713.57	785,447.83	32.198140	-103.544160
13,400.00	90.00	359.57	12,525.00	697.66	1,269.92	436,813.56	785,447.08	32.198415	-103.544160
13,500.00	90.00	359.57	12,525.00	797.65	1,269.16	436,913.56	785,446.33	32.198690	-103.544160
13,600.00	90.00	359.57	12,525.00	897.65	1,268.41	437,013.56	785,445.58	32.198965	-103.544160
13,700.00	90.00	359.57	12,525.00	997.65	1,267.66	437,113.56	785,444.83	32.199240	-103.544160
13,800.00	90.00	359.57	12,525.00	1,097.65	1,266.91	437,213.55	785,444.08	32.199515	-103.544160
13,900.00	90.00	359.57	12,525.00	1,197.64	1,266.16	437,313.55	785,443.33	32.199790	-103.544160
14,000.00	90.00	359.57	12,525.00	1,297.64	1,265.41	437,413.55	785,442.58	32.200064	-103.544160
14,100.00	90.00	359.57	12,525.00	1,397.64	1,264.66	437,513.54	785,441.83	32.200339	-103.544160
14,200.00	90.00	359.57	12,525.00	1,497.63	1,263.91	437,613.54	785,441.08	32.200614	-103.544160
14,300.00	90.00	359.57	12,525.00	1,597.63	1,263.16	437,713.54	785,440.33	32.200889	-103.544160
14,400.00	90.00	359.57	12,525.00	1,697.63	1,262.41	437,813.53	785,439.58	32.201164	-103.544160
14,500.00	90.00	359.57	12,525.00	1,797.63	1,261.66	437,913.53	785,438.82	32.201439	-103.544160
14,600.00	90.00	359.57	12,525.00	1,897.62	1,260.91	438,013.53	785,438.07	32.201714	-103.544160
14,700.00	90.00	359.57	12,525.00	1,997.62	1,260.16	438,113.53	785,437.32	32.201988	-103.544160
14,800.00	90.00	359.57	12,525.00	2,097.62	1,259.41	438,213.52	785,436.57	32.202263	-103.544160
14,900.00	90.00	359.57	12,525.00	2,197.61	1,258.66	438,313.52	785,435.82	32.202538	-103.544160
15,000.00	90.00	359.57	12,525.00	2,297.61	1,257.91	438,413.52	785,435.07	32.202813	-103.544161
15,100.00	90.00	359.57	12,525.00	2,397.61	1,257.16	438,513.51	785,434.32	32.203088	-103.544161
15,200.00	90.00	359.57	12,525.00	2,497.61	1,256.41	438,613.51	785,433.57	32.203363	-103.544161
15,300.00	90.00	359.57	12,525.00	2,597.60	1,255.66	438,713.51	785,432.82	32.203638	-103.544161
15,400.00	90.00	359.57	12,525.00	2,697.60	1,254.91	438,813.50	785,432.07	32.203913	-103.544161

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,500.00	90.00	359.57	12,525.00	2,797.60	1,254.16	438,913.50	785,431.32	32.204187	-103.544161
15,600.00	90.00	359.57	12,525.00	2,897.59	1,253.40	439,013.50	785,430.57	32.204462	-103.544161
15,700.00	90.00	359.57	12,525.00	2,997.59	1,252.65	439,113.50	785,429.82	32.204737	-103.544161
15,800.00	90.00	359.57	12,525.00	3,097.59	1,251.90	439,213.49	785,429.07	32.205012	-103.544161
15,900.00	90.00	359.57	12,525.00	3,197.59	1,251.15	439,313.49	785,428.32	32.205287	-103.544161
16,000.00	90.00	359.57	12,525.00	3,297.58	1,250.40	439,413.49	785,427.57	32.205562	-103.544161
16,100.00	90.00	359.57	12,525.00	3,397.58	1,249.65	439,513.48	785,426.82	32.205837	-103.544161
16,200.00	90.00	359.57	12,525.00	3,497.58	1,248.90	439,613.48	785,426.07	32.206112	-103.544161
16,300.00	90.00	359.57	12,525.00	3,597.58	1,248.15	439,713.48	785,425.32	32.206386	-103.544161
16,400.00	90.00	359.57	12,525.00	3,697.57	1,247.40	439,813.47	785,424.57	32.206661	-103.544161
16,500.00	90.00	359.57	12,525.00	3,797.57	1,246.65	439,913.47	785,423.82	32.206936	-103.544161
16,600.00	90.00	359.57	12,525.00	3,897.57	1,245.90	440,013.47	785,423.06	32.207211	-103.544161
16,700.00	90.00	359.57	12,525.00	3,997.56	1,245.15	440,113.47	785,422.31	32.207486	-103.544161
16,800.00	90.00	359.57	12,525.00	4,097.56	1,244.40	440,213.46	785,421.56	32.207761	-103.544161
16,900.00	90.00	359.57	12,525.00	4,197.56	1,243.65	440,313.46	785,420.81	32.208036	-103.544162
17,000.00	90.00	359.57	12,525.00	4,297.56	1,242.90	440,413.46	785,420.06	32.208311	-103.544162
17,100.00	90.00	359.57	12,525.00	4,397.55	1,242.15	440,513.45	785,419.31	32.208585	-103.544162
17,200.00	90.00	359.57	12,525.00	4,497.55	1,241.40	440,613.45	785,418.56	32.208860	-103.544162
17,300.00	90.00	359.57	12,525.00	4,597.55	1,240.65	440,713.45	785,417.81	32.209135	-103.544162
17,400.00	90.00	359.57	12,525.00	4,697.54	1,239.90	440,813.44	785,417.06	32.209410	-103.544162
17,500.00	90.00	359.57	12,525.00	4,797.54	1,239.15	440,913.44	785,416.31	32.209685	-103.544162
17,600.00	90.00	359.57	12,525.00	4,897.54	1,238.39	441,013.44	785,415.56	32.209960	-103.544162
17,700.00	90.00	359.57	12,525.00	4,997.54	1,237.64	441,113.44	785,414.81	32.210235	-103.544162
17,737.00	90.00	359.57	12,525.00	5,034.53	1,237.37	441,150.43	785,414.53	32.210336	-103.544162
Cross Section @ 17737' MD, 0' FSL, 2317' FWL									
17,800.00	90.00	359.57	12,525.00	5,097.53	1,236.89	441,213.43	785,414.06	32.210510	-103.544162
17,900.00	90.00	359.57	12,525.00	5,197.53	1,236.14	441,313.43	785,413.31	32.210784	-103.544162
18,000.00	90.00	359.57	12,525.00	5,297.53	1,235.39	441,413.43	785,412.56	32.211059	-103.544162
18,100.00	90.00	359.57	12,525.00	5,397.52	1,234.64	441,513.42	785,411.81	32.211334	-103.544162
18,200.00	90.00	359.57	12,525.00	5,497.52	1,233.89	441,613.42	785,411.06	32.211609	-103.544162
18,300.00	90.00	359.57	12,525.00	5,597.52	1,233.14	441,713.42	785,410.31	32.211884	-103.544162
18,400.00	90.00	359.57	12,525.00	5,697.52	1,232.39	441,813.41	785,409.56	32.212159	-103.544162
18,500.00	90.00	359.57	12,525.00	5,797.51	1,231.64	441,913.41	785,408.81	32.212434	-103.544162
18,600.00	90.00	359.57	12,525.00	5,897.51	1,230.89	442,013.41	785,408.06	32.212709	-103.544162
18,700.00	90.00	359.57	12,525.00	5,997.51	1,230.14	442,113.41	785,407.30	32.212983	-103.544162
18,800.00	90.00	359.57	12,525.00	6,097.50	1,229.39	442,213.40	785,406.55	32.213258	-103.544163
18,900.00	90.00	359.57	12,525.00	6,197.50	1,228.64	442,313.40	785,405.80	32.213533	-103.544163
19,000.00	90.00	359.57	12,525.00	6,297.50	1,227.89	442,413.40	785,405.05	32.213808	-103.544163
19,100.00	90.00	359.57	12,525.00	6,397.50	1,227.14	442,513.39	785,404.30	32.214083	-103.544163
19,200.00	90.00	359.57	12,525.00	6,497.49	1,226.39	442,613.39	785,403.55	32.214358	-103.544163
19,300.00	90.00	359.57	12,525.00	6,597.49	1,225.64	442,713.39	785,402.80	32.214633	-103.544163
19,400.00	90.00	359.57	12,525.00	6,697.49	1,224.89	442,813.38	785,402.05	32.214907	-103.544163
19,500.00	90.00	359.57	12,525.00	6,797.48	1,224.14	442,913.38	785,401.30	32.215182	-103.544163
19,600.00	90.00	359.57	12,525.00	6,897.48	1,223.39	443,013.38	785,400.55	32.215457	-103.544163
19,700.00	90.00	359.57	12,525.00	6,997.48	1,222.63	443,113.38	785,399.80	32.215732	-103.544163
19,800.00	90.00	359.57	12,525.00	7,097.48	1,221.88	443,213.37	785,399.05	32.216007	-103.544163
19,900.00	90.00	359.57	12,525.00	7,197.47	1,221.13	443,313.37	785,398.30	32.216282	-103.544163
20,000.00	90.00	359.57	12,525.00	7,297.47	1,220.38	443,413.37	785,397.55	32.216557	-103.544163
20,100.00	90.00	359.57	12,525.00	7,397.47	1,219.63	443,513.36	785,396.80	32.216832	-103.544163
20,200.00	90.00	359.57	12,525.00	7,497.47	1,218.88	443,613.36	785,396.05	32.217106	-103.544163
20,300.00	90.00	359.57	12,525.00	7,597.46	1,218.13	443,713.36	785,395.30	32.217381	-103.544163
20,400.00	90.00	359.57	12,525.00	7,697.46	1,217.38	443,813.35	785,394.55	32.217656	-103.544163
20,500.00	90.00	359.57	12,525.00	7,797.46	1,216.63	443,913.35	785,393.80	32.217931	-103.544163
20,600.00	90.00	359.57	12,525.00	7,897.45	1,215.88	444,013.35	785,393.05	32.218206	-103.544163

Database:	EDM r5000.141_Prod US	**Local Co-ordinate Reference:**	Well Blue Krait 23-14 Fed 32H
Company:	WCDSC Permian NM	**TVD Reference:**	RKB @ 3580.80ft
Project:	Lea County (NAD83 New Mexico East)	**MD Reference:**	RKB @ 3580.80ft
Site:	Sec 23-T24S-R33E	**North Reference:**	Grid
Well:	Blue Krait 23-14 Fed 32H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,700.00	90.00	359.57	12,525.00	7,997.45	1,215.13	444,113.34	785,392.30	32.218481	-103.544164
20,800.00	90.00	359.57	12,525.00	8,097.45	1,214.38	444,213.34	785,391.54	32.218756	-103.544164
20,900.00	90.00	359.57	12,525.00	8,197.45	1,213.63	444,313.34	785,390.79	32.219031	-103.544164
21,000.00	90.00	359.57	12,525.00	8,297.44	1,212.88	444,413.34	785,390.04	32.219305	-103.544164
21,100.00	90.00	359.57	12,525.00	8,397.44	1,212.13	444,513.33	785,389.29	32.219580	-103.544164
21,200.00	90.00	359.57	12,525.00	8,497.44	1,211.38	444,613.33	785,388.54	32.219855	-103.544164
21,300.00	90.00	359.57	12,525.00	8,597.43	1,210.63	444,713.33	785,387.79	32.220130	-103.544164
21,400.00	90.00	359.57	12,525.00	8,697.43	1,209.88	444,813.32	785,387.04	32.220405	-103.544164
21,500.00	90.00	359.57	12,525.00	8,797.43	1,209.13	444,913.32	785,386.29	32.220680	-103.544164
21,600.00	90.00	359.57	12,525.00	8,897.43	1,208.38	445,013.32	785,385.54	32.220955	-103.544164
21,700.00	90.00	359.57	12,525.00	8,997.42	1,207.63	445,113.31	785,384.79	32.221230	-103.544164
21,800.00	90.00	359.57	12,525.00	9,097.42	1,206.87	445,213.31	785,384.04	32.221504	-103.544164
21,900.00	90.00	359.57	12,525.00	9,197.42	1,206.12	445,313.31	785,383.29	32.221779	-103.544164
22,000.00	90.00	359.57	12,525.00	9,297.41	1,205.37	445,413.31	785,382.54	32.222054	-103.544164
22,100.00	90.00	359.57	12,525.00	9,397.41	1,204.62	445,513.30	785,381.79	32.222329	-103.544164
22,200.00	90.00	359.57	12,525.00	9,497.41	1,203.87	445,613.30	785,381.04	32.222604	-103.544164
22,300.00	90.00	359.57	12,525.00	9,597.41	1,203.12	445,713.30	785,380.29	32.222879	-103.544164
22,400.00	90.00	359.57	12,525.00	9,697.40	1,202.37	445,813.29	785,379.54	32.223154	-103.544164
22,500.00	90.00	359.57	12,525.00	9,797.40	1,201.62	445,913.29	785,378.79	32.223428	-103.544164
22,600.00	90.00	359.57	12,525.00	9,897.40	1,200.87	446,013.29	785,378.04	32.223703	-103.544164
22,700.00	90.00	359.57	12,525.00	9,997.39	1,200.12	446,113.28	785,377.29	32.223978	-103.544165
22,800.00	90.00	359.57	12,525.00	10,097.39	1,199.37	446,213.28	785,376.53	32.224253	-103.544165
22,900.00	90.00	359.57	12,525.00	10,197.39	1,198.62	446,313.28	785,375.78	32.224528	-103.544165
22,920.24	90.00	359.57	12,525.00	10,217.63	1,198.47	446,333.52	785,375.63	32.224584	-103.544165
LTP @ 22920' MD, 100' FNL, 2317' FWL									
23,000.00	90.00	359.57	12,525.00	10,297.39	1,197.87	446,413.28	785,375.03	32.224803	-103.544165
23,000.24	90.00	359.57	12,525.00	10,297.63	1,197.87	446,413.52	785,375.03	32.224804	-103.544165
PBHL; 20' FNL, 2317' FWL									
23,000.25	90.00	359.57	12,525.00	10,297.64	1,197.87	446,413.53	785,375.03	32.224804	-103.544165

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL - Blue Krait 23-14	0.00	0.00	0.00	10,297.66	1,197.69	446,413.55	785,374.86	32.224804	-103.544165
- plan misses target center by 10367.08ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
11,786.93	11,750.04	-180.00	777.00	KOP @ 11786' MD, 65' FSL, 1840' FWL
12,443.18	12,300.76	-145.00	1,082.81	FTP @ 12443' MD, 100' FSL, 2123' FWL
17,737.00	12,525.00	5,034.53	1,237.37	Cross Section @ 17737' MD, 0' FSL, 2317' FWL
22,920.24	12,525.00	10,217.63	1,198.47	LTP @ 22920' MD, 100' FNL, 2317' FWL
23,000.24	12,525.00	10,297.63	1,197.87	PBHL; 20' FNL, 2317' FWL

Devon Energy

WELL DETAILS: Blue Krait 23-14 Fed 32H

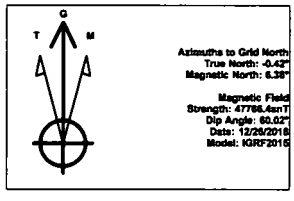
RKB @ 3580.80ft
3555.80

Northing	Easting	Latitude	Longitude
436115.91	784177.17	32.196523	-103.548281

SECTION DETAILS Permit Plan 1

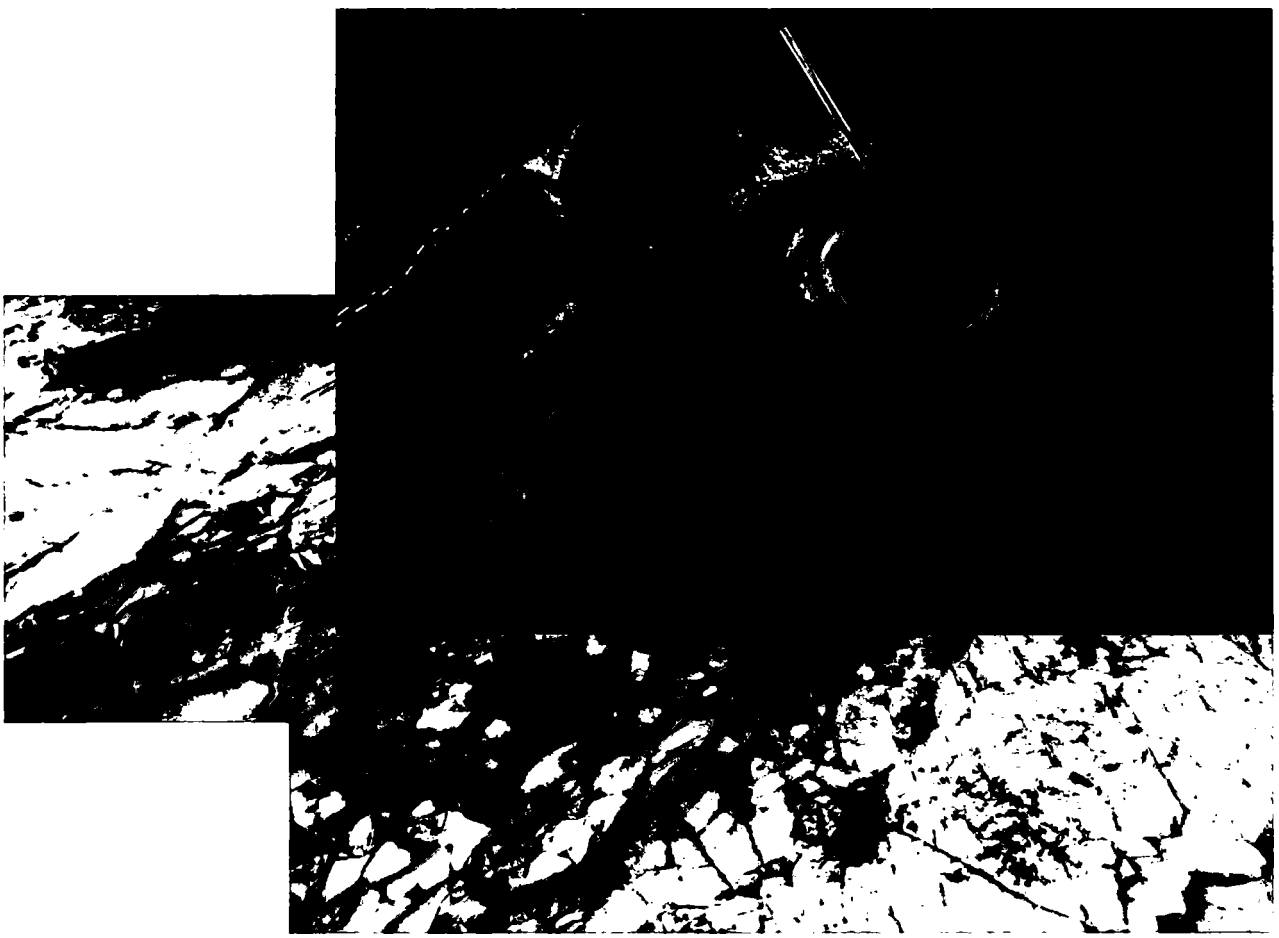
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	
3039.18	5.39	103.04	3038.39	-5.72	24.70	1.00	-2.83	
11077.44	5.39	103.04	11041.07	-176.19	760.54	0.00	-87.13	
11438.89	0.00	0.00	11400.00	-180.00	777.00	1.50	-89.02	
11788.93	0.00	0.00	11750.04	-180.00	777.00	0.00	-89.02	KOP @ 11788' MD, 65' FSL, 1840' FWL
12161.86	41.04	97.27	12093.73	-196.27	904.60	10.95	-90.44	
13030.27	90.00	359.57	12525.00	327.94	1272.69	10.94	472.80	
23000.25	90.00	359.57	12525.00	10297.64	1197.87	0.00	10367.08	PBHL; 20' FNL, 2317' FWL

devon



devon

Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

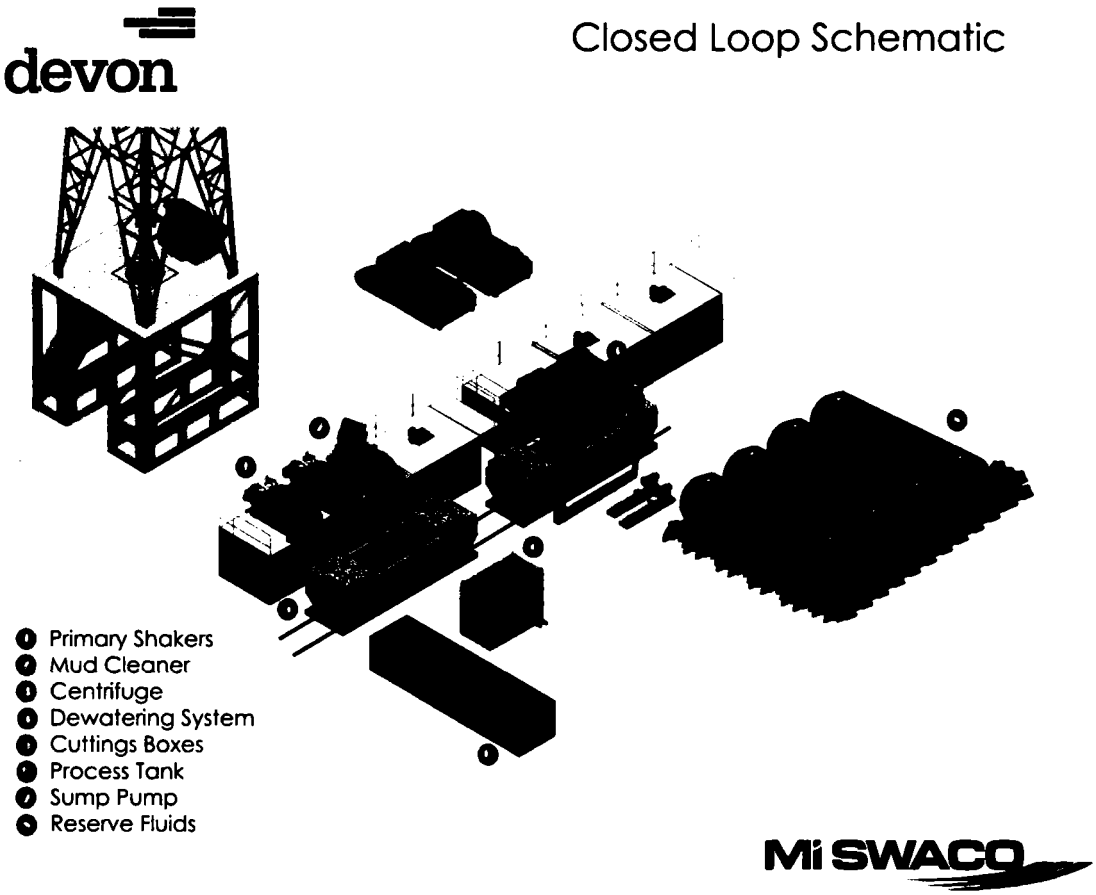
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

APD ID: 10400038433 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well Type: OIL WELL **Well Work Type:** Drill

[redacted]

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BLUE_KRAIT_23_14_FED_32H_ACCESS_RD_20190124124426.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BLUE_KRAIT_23_CTB_2_20190124103724.PDF
BLUE_KRAIT_23_WP_5_20190124103726.PDF

New road type: LOCAL

Length: 2450 Feet **Width (ft.):** 30

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water Drainage Ditch

New road access plan or profile prepared? YES

New road access plan attachment:

New_Access_Rd_Doc_20190124104028.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Access road engineering design? YES

Access road engineering design attachment:

New_Access_Rd_Doc_20190124104041.pdf

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached Interim reclamation diagram.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Water Drainage Ditch

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

OneMileBuffer_20190124124454.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 5 ATTACHMENTS - WELLPAD PLAT, CTB PLAT, FLOWLINE PLAT, WELLPAD ELECTRIC PLAT, GAS CONNECT PLAT. REMAINING CONNECTS HANDLED BY THIRD PARTY

Production Facilities map:

BLUE_KRAIT_23_CTB_2_20190124104239.PDF

BLUE_KRAIT_23_WP_5_20190124104240.PDF

BLUE_KRAIT_23_CTB_2_ELE_20190124104237.pdf

BLUE_KRAIT_23_WP_5_TO_CTB_2_FL_20190124104241.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

BLUE_KRAIT_23_CTB_2_BATCON_20190128081409.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: RECYCLED

Water source use type: STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: OTHER

Water source transport method: PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 500000 **Source volume (acre-feet):** 64.44655

Source volume (gal): 21000000

Water source and transportation map:

BLUE_KRAIT_23_14_FED_WP_5_WATER_MAP_20190124104407.PDF

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.
New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Dirt fill and caliche will be used to construct well pad. See attached map.

Construction Materials source location attachment:

Blue_Krait_23_CTB_2_Caliche_Map_20190128081425.pdf
Blue_Krait_23_WP_5_Caliche_Map_20190128081425.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water Based and Oil Based Cuttings

Amount of waste: 1769 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will disposed of at R360, Sundance, or equivalent.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Waste type: FLOWBACK

Waste content description: Average produced BWPD over the flowback period (first 30 days of production).

Amount of waste: 6900 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Produced water will primarily be disposed of at commercial disposals connected to the Devon water system.

Waste type: PRODUCED WATER

Waste content description: Average produced BWPD over the first year of production.

Amount of waste: 2500 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Produced water will primarily be disposed of at commercial disposals connected to the Devon water system.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Blue_Krait_23_14_Fed_32H_Well_Layout_20190124124521.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** BLUE KRAIT 23 FED WELLPAD

Multiple Well Pad Number: 5

Recontouring attachment:

BLUE_KRAIT_23_14_FED_32H_INTERIM_RECL_20190124124535.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well pad proposed disturbance (acres): 6.887
Road proposed disturbance (acres): 1.687
Powerline proposed disturbance (acres): 0.899
Pipeline proposed disturbance (acres): 0.481
Other proposed disturbance (acres): 0

Total proposed disturbance: 9.954

Well pad interim reclamation (acres): 5.459
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0

Total interim reclamation: 5.459

Well pad long term disturbance (acres): 1.428
Road long term disturbance (acres): 1.687
Powerline long term disturbance (acres): 0.899
Pipeline long term disturbance (acres): 0.481
Other long term disturbance (acres): 0

Total long term disturbance: 4.495

Disturbance Comments:

Reconstruction method: Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.
Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.
Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: (405)552-6556 **Email:** blake.richardson@dvn.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Maintain weeds on an as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,FLPMA (Powerline),Other

ROW Applications

SUPO Additional Information: See Section 4 for 14 Facility & Infrastructure Plats. See C-102 for grading plats.

Use a previously conducted onsite? YES

Previous Onsite information: 8/14/2018

Other SUPO Attachment

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

01/30/2020

APD ID: 10400038433 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

01/30/2020

APD ID: 10400038433 **Submission Date:** 01/28/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BLUE KRAIT 23-14 FED **Well Number:** 32H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: