

AUG 22 2016

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

Carlsbad Field Office
OCD Hobbs

Lease Serial No.

If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

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

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other8. Well Name and No.
BLUE KRAIT 23 FED 3H

2. Name of Operator

DEVON ENERGY PRODUCTION CO LP

Contact: DAVID H COOK

Email: david.cook@devn.com

9. API Well No.

30-025-43237-00-X1

3a. Address

333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)

Ph: 405-552-7848

10. Field and Pool, or Exploratory
RED HILLS

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 23 T24S R33E SESE 200FSL 710FEL

11. County or Parish, and State

LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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

Devon Energy Production Co., L.P. respectfully requests approval to change the approved formation target to the Leonard.

The TVD of target will change from 11,174' to 9,456'.
The MD at TD will change from 15,694' to 13,990'.

Surface hole and bottom hole footage calls will remain unchanged.

Please see the attached revised Drill Plan and Directional Survey.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #343989 verified by the BLM Well Information System

For DEVON ENERGY PRODUCTION CO LP, sent to the Hobbs

Committed to AFMSS for processing by PRISCILLA PEREZ on 07/18/2016 (16PP0914SE)

Name (Printed/Typed) DAVID H COOK

Title REGULATORY SPECIALIST

Signature (Electronic Submission)

Date 07/07/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By (BLM Approver Not Specified) Mustafa Hague

Title PETROLEUM ENGINEER

Date 08/12/2016

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

Office Hobbs

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.

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Devon Energy Prod Co
LEASE NO.:	NMLC063798
WELL NAME & NO.:	3H-Blue Krait 23 Fed
SURFACE HOLE FOOTAGE:	200'/S & 710'/E
BOTTOM HOLE FOOTAGE	330'/N & 1284'/E
LOCATION:	Section 23, T. 24 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

All previous COAs still apply. No additional COA is required.

MHH 08122016

Devon Energy, Blue Krait 23 Fed 3H

1. Geologic Formations

TVD of target	9,456'	Pilot hole depth	N/A
MD at TD:	13,990'	Deepest expected fresh water:	95'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1,123		
Top of Salt	1,644		
Base of Salt	5,070		
Delaware	5,273		
Lower Brushy Canyon	9,016		
1 st Bone Spring Lime	9,198		
Leonard A	9,283		
Leonard A Mid Carbonate	9,358		
Leonard A Target Top	9,406		
Leonard A Target Base	9,481		
Leonard B	9,626		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

Devon Energy, Blue Krait 23 Fed 3H

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1,350'	13.375"	54.5	J-55	BTC	1.81	1.92	5.53
12.25"	0	4,300'	9.625"	40	J-55	BTC	1.38	1.24	1.88
12.25"	4,300'	5,190'	9.625"	40	HCK-55	BTC	2.02	1.24	7.46
8.75"	0	13,990'	5.5"	17	P-110RY	DWC/C	1.16	1.06	2.07
BLM Minimum Safety Factor							1.125	1.00	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Devon Energy, Blue Krait 23 Fed 3H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	H ₂ O gal/sk	Yld ft ³ / sack	500# Comp. Strength (hours)	Slurry Description
13-3/8" Surface	680	13.5	9.28	1.74	10	Lead: Class C Cement + 4% Gel + 1% Calcium Chloride + 0.125 lbs/sack Poly-E-Flake
	550	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
13-3/8" Surface Two Stage	200	13.5	9.28	1.74	10	1 st Stage Lead: Class C Cement + 4% Gel + 1% Calcium Chloride + 0.125 lbs/sack Poly-E-Flake
	550	14.8	6.32	1.33	6	1 st Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	DV Tool = 600ft					
	630	14.8	6.32	1.33	6	2 nd Stage Primary: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter.	1090	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	430	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter. Two Stage	510	12.9	9.81	1.85	14	1 st Stage Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	220	14.8	6.32	1.33	6	1 st Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	DV Tool = 3000ft					
	590	12.9	9.81	1.85	14	2 nd Stage Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	210	14.8	6.32	1.33	6	2 nd Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
5-1/2" Prod Single Stage	770	11.9	12.89	2.31	n/a	Lead: (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000
	1350	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
5-1/2" Prod Two Stage	570	11.9	12.89	2.31	n/a	1 st Stage Lead: (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000
	1350	14.5	5.31	1.2	25	1 st Stage Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
	DV Tool = 6500ft					
	160	11	14.81	2.55	22	2 nd Stage Lead: Tuned Light® Cement + 0.125 lb/sk Pol-E-Flake
	50	14.8	6.32	1.33	6	2 nd Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake

Devon Energy, Blue Krait 23 Fed 3H

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
13-3/8" Surface Single Stage Option	0'	100%
13-3/8" Surface Two Stage Option	1 st Stage = 600' / 2 nd Stage = 0'	100%
9-5/8" Intermediate Single Stage Option	0'	75%
9-5/8" Intermediate Casing Two Stage Option	1 st Stage = 3000' / 2 nd Stage = 0'	75%
5-1/2" Production Casing Single Stage Option	5000'	25%
5-1/2" Production Casing Two Stage Option	1 st Stage = 6500' / 2 nd Stage = 5000'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure 3M
			Blind Ram		
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure 3M
			Blind Ram		
			Pipe Ram		
			Double Ram	x	
			Other*		
			Annular	x	
			Blind Ram		
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.

Devon Energy, Blue Krait 23 Fed 3H

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	A multibowl wellhead may be being 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. Devon may use 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 3000 (3M) psi. - Wellhead will be installed by wellhead representatives. - If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. - Wellhead representative will install the test plug for the initial BOP test. - The wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. - If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. - Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. - Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

Devon Energy, Blue Krait 23 Fed 3H

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8" intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP. Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1,350'	FW Gel	8.6-8.8	28-34	N/C
1,350'	5,190'	Saturated Brine	10.0-10.2	28-34	N/C
5,190'	13,990'	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Devon Energy, Blue Krait 23 Fed 3H

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4573 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

8. Other facets of operation

Is this a walking operation? No.

Will be pre-setting casing? No.

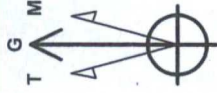
Attachments

☒ Directional Plan

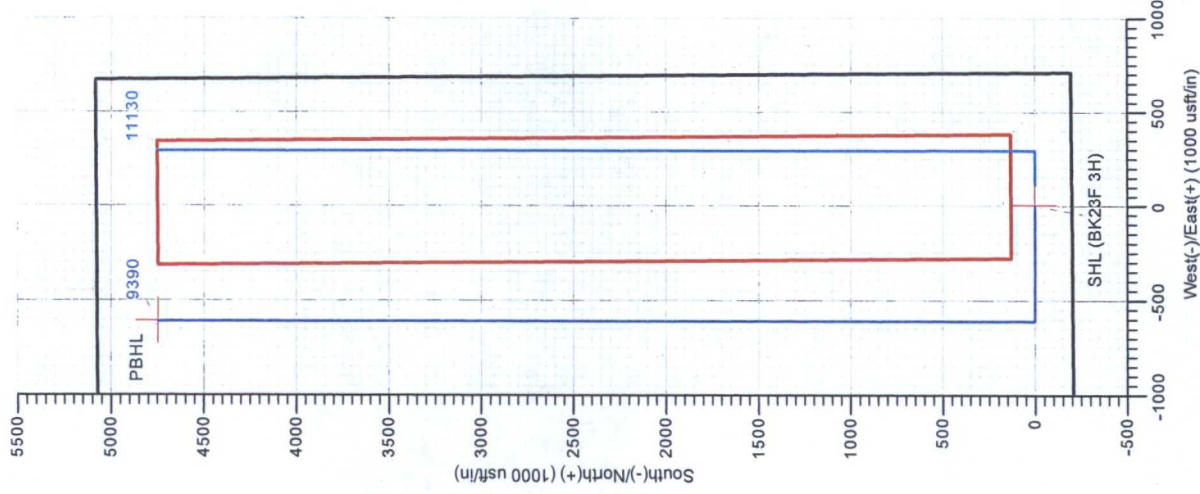
☐ Other, describe



Project: Lea County, NM (NAD-83)
Site: Blue Krait 23 Fed
Well: 3H
Wellbore: OH
Design: Plan #1



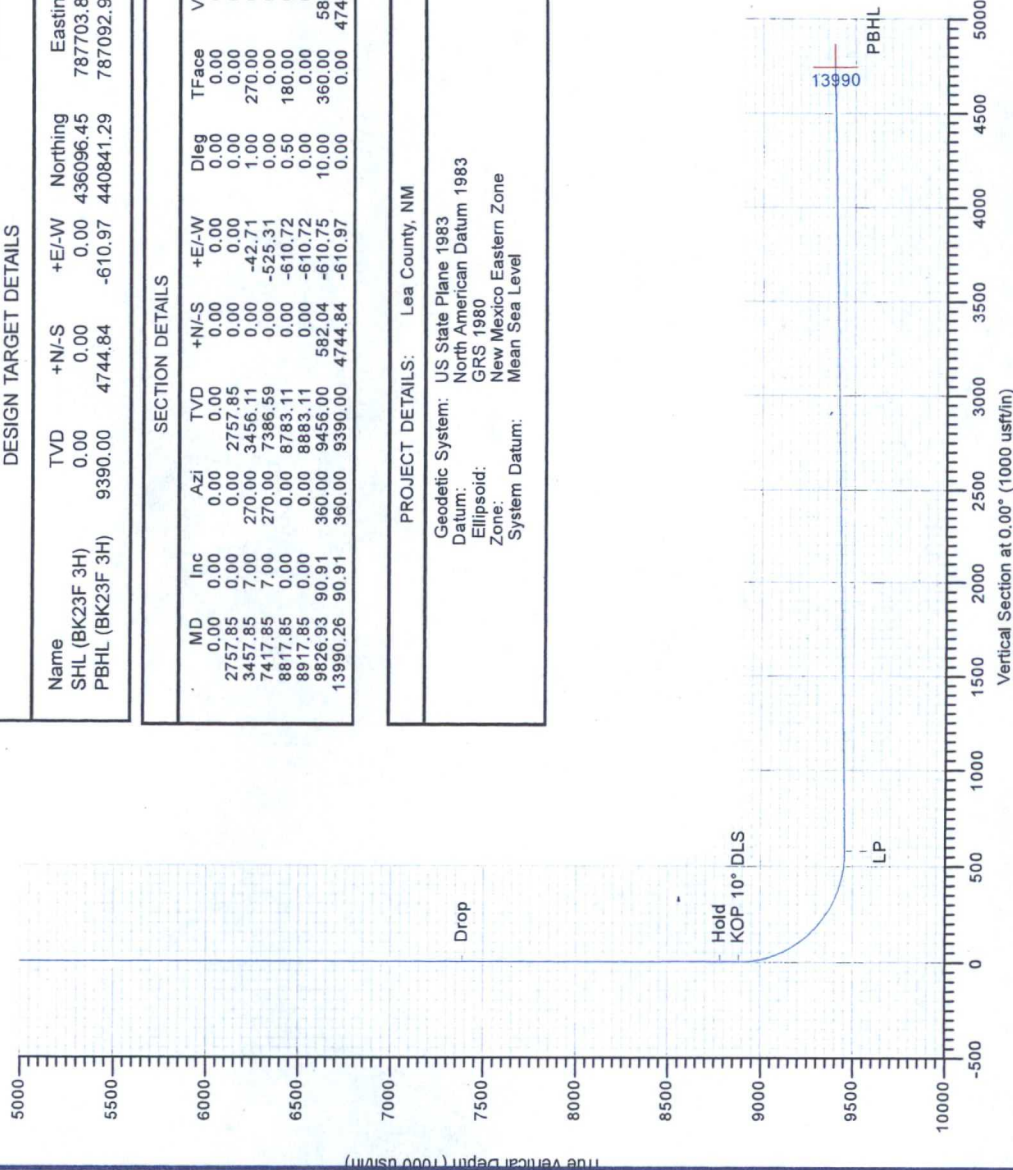
Azimuths to Grid North
True North: -0.42°
Magnetic North: 6.51°
Magnetic Field
Strength: 48200.1snT
Dip Angle: 59.97°
Date: 7/6/2016
Model: HDGM



DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL (BK23F 3H)	0.00	0.00	0.00	436096.45	787703.88
PBHL (BK23F 3H)	9390.00	4744.84	-610.97	440841.29	787092.91

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2757.85	0.00	0.00	2757.85	0.00	0.00	0.00	0.00	0.00	0.00
3457.85	7.00	270.00	3456.11	0.00	-42.71	1.00	270.00	0.00	0.00
7417.85	7.00	270.00	7386.59	0.00	-525.31	0.00	0.00	0.00	0.00
8817.85	0.00	0.00	8783.11	0.00	-610.72	0.50	180.00	0.00	0.00
8917.85	0.00	0.00	8883.11	0.00	-610.72	0.00	0.00	0.00	0.00
9826.93	90.91	360.00	9456.00	582.04	-610.75	10.00	360.00	582.04	582.04
13990.26	90.91	360.00	9390.00	4744.84	-610.97	0.00	0.00	4744.84	4744.84

PROJECT DETAILS:		Lea County, NM
Geodetic System:	US State Plane 1983	
Datum:	North American Datum 1983	
Ellipsoid:	GRS 1980	
Zone:	New Mexico Eastern Zone	
System Datum:	Mean Sea Level	



DEVON ENERGY

Lea County, NM (NAD-83)

Blue Krait 23 Fed

3H

OH

Plan: Plan #1

Standard Planning Report

06 July, 2016

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Single User Db
 Company: DEVON ENERGY
 Project: Lea County, NM (NAD-83)
 Site: Blue Krait 23 Fed
 Well: 3H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well 3H
 TVD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
 MD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project Lea County, NM (NAD-83)

Map System: US State Plane 1983 System Datum: Mean Sea Level
 Geo Datum: North American Datum 1983
 Map Zone: New Mexico Eastern Zone

Site Blue Krait 23 Fed

Site Position: Northing: 436,068.33 usft Latitude: 32° 11' 47.039 N
 From: Map Easting: 783,797.48 usft Longitude: 103° 32' 58.234 W
 Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.42 °

Well 3H

Well Position +N/-S 28.12 usft Northing: 436,096.45 usft Latitude: 32° 11' 47.034 N
 +E/-W 3,906.40 usft Easting: 787,703.88 usft Longitude: 103° 32' 12.772 W
 Position Uncertainty 0.00 usft Wellhead Elevation: 3,587.20 usft Ground Level: 3,562.20 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/6/2016	6.93	59.97	48,200

Design Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
2,757.85	0.00	0.00	2,757.85	0.00	0.00	0.00	0.00	0.00	0.00	
3,457.85	7.00	270.00	3,456.11	0.00	-42.71	1.00	1.00	0.00	270.00	
7,417.85	7.00	270.00	7,386.59	0.00	-525.31	0.00	0.00	0.00	0.00	
8,817.85	0.00	0.00	8,783.11	0.00	-610.72	0.50	-0.50	0.00	180.00	
8,917.85	0.00	0.00	8,883.11	0.00	-610.72	0.00	0.00	0.00	0.00	
9,826.93	90.91	360.00	9,456.00	582.04	-610.75	10.00	10.00	0.00	360.00	
13,990.26	90.91	360.00	9,390.00	4,744.84	-610.97	0.00	0.00	0.00	0.00	PBHL (BK23F 3H)

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Blue Krait 23 Fed
Well: 3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 3H
TVD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
MD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (BK23F 3H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,123.00	0.00	0.00	1,123.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,644.00	0.00	0.00	1,644.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	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
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,757.85	0.00	0.00	2,757.85	0.00	0.00	0.00	0.00	0.00	0.00
Nudge									
2,800.00	0.42	270.00	2,800.00	0.00	-0.16	0.00	1.00	1.00	0.00
2,900.00	1.42	270.00	2,899.99	0.00	-1.76	0.00	1.00	1.00	0.00
3,000.00	2.42	270.00	2,999.93	0.00	-5.12	0.00	1.00	1.00	0.00
3,100.00	3.42	270.00	3,099.80	0.00	-10.21	0.00	1.00	1.00	0.00
3,200.00	4.42	270.00	3,199.56	0.00	-17.05	0.00	1.00	1.00	0.00
3,300.00	5.42	270.00	3,299.19	0.00	-25.63	0.00	1.00	1.00	0.00
3,400.00	6.42	270.00	3,398.66	0.00	-35.95	0.00	1.00	1.00	0.00
3,457.85	7.00	270.00	3,456.11	0.00	-42.71	0.00	1.00	1.00	0.00
Hold									
3,500.00	7.00	270.00	3,497.95	0.00	-47.84	0.00	0.00	0.00	0.00
3,600.00	7.00	270.00	3,597.20	0.00	-60.03	0.00	0.00	0.00	0.00
3,700.00	7.00	270.00	3,696.46	0.00	-72.22	0.00	0.00	0.00	0.00
3,800.00	7.00	270.00	3,795.71	0.00	-84.41	0.00	0.00	0.00	0.00
3,900.00	7.00	270.00	3,894.96	0.00	-96.59	0.00	0.00	0.00	0.00
4,000.00	7.00	270.00	3,994.22	0.00	-108.78	0.00	0.00	0.00	0.00
4,100.00	7.00	270.00	4,093.47	0.00	-120.97	0.00	0.00	0.00	0.00
4,200.00	7.00	270.00	4,192.73	0.00	-133.15	0.00	0.00	0.00	0.00
4,300.00	7.00	270.00	4,291.98	0.00	-145.34	0.00	0.00	0.00	0.00
4,400.00	7.00	270.00	4,391.24	0.00	-157.53	0.00	0.00	0.00	0.00

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Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 3H
TVD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
MD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,500.00	7.00	270.00	4,490.49	0.00	-169.71	0.00	0.00	0.00	0.00
4,600.00	7.00	270.00	4,589.75	0.00	-181.90	0.00	0.00	0.00	0.00
4,700.00	7.00	270.00	4,689.00	0.00	-194.09	0.00	0.00	0.00	0.00
4,800.00	7.00	270.00	4,788.26	0.00	-206.27	0.00	0.00	0.00	0.00
4,900.00	7.00	270.00	4,887.51	0.00	-218.46	0.00	0.00	0.00	0.00
5,000.00	7.00	270.00	4,986.77	0.00	-230.65	0.00	0.00	0.00	0.00
5,083.86	7.00	270.00	5,070.00	0.00	-240.87	0.00	0.00	0.00	0.00
Base of Salt									
5,100.00	7.00	270.00	5,086.02	0.00	-242.84	0.00	0.00	0.00	0.00
5,200.00	7.00	270.00	5,185.27	0.00	-255.02	0.00	0.00	0.00	0.00
5,288.38	7.00	270.00	5,273.00	0.00	-265.79	0.00	0.00	0.00	0.00
Delaware									
5,300.00	7.00	270.00	5,284.53	0.00	-267.21	0.00	0.00	0.00	0.00
5,400.00	7.00	270.00	5,383.78	0.00	-279.40	0.00	0.00	0.00	0.00
5,500.00	7.00	270.00	5,483.04	0.00	-291.58	0.00	0.00	0.00	0.00
5,600.00	7.00	270.00	5,582.29	0.00	-303.77	0.00	0.00	0.00	0.00
5,700.00	7.00	270.00	5,681.55	0.00	-315.96	0.00	0.00	0.00	0.00
5,800.00	7.00	270.00	5,780.80	0.00	-328.14	0.00	0.00	0.00	0.00
5,900.00	7.00	270.00	5,880.06	0.00	-340.33	0.00	0.00	0.00	0.00
6,000.00	7.00	270.00	5,979.31	0.00	-352.52	0.00	0.00	0.00	0.00
6,100.00	7.00	270.00	6,078.57	0.00	-364.70	0.00	0.00	0.00	0.00
6,200.00	7.00	270.00	6,177.82	0.00	-376.89	0.00	0.00	0.00	0.00
6,300.00	7.00	270.00	6,277.08	0.00	-389.08	0.00	0.00	0.00	0.00
6,400.00	7.00	270.00	6,376.33	0.00	-401.27	0.00	0.00	0.00	0.00
6,500.00	7.00	270.00	6,475.58	0.00	-413.45	0.00	0.00	0.00	0.00
6,600.00	7.00	270.00	6,574.84	0.00	-425.64	0.00	0.00	0.00	0.00
6,700.00	7.00	270.00	6,674.09	0.00	-437.83	0.00	0.00	0.00	0.00
6,800.00	7.00	270.00	6,773.35	0.00	-450.01	0.00	0.00	0.00	0.00
6,900.00	7.00	270.00	6,872.60	0.00	-462.20	0.00	0.00	0.00	0.00
7,000.00	7.00	270.00	6,971.86	0.00	-474.39	0.00	0.00	0.00	0.00
7,100.00	7.00	270.00	7,071.11	0.00	-486.57	0.00	0.00	0.00	0.00
7,200.00	7.00	270.00	7,170.37	0.00	-498.76	0.00	0.00	0.00	0.00
7,300.00	7.00	270.00	7,269.62	0.00	-510.95	0.00	0.00	0.00	0.00
7,400.00	7.00	270.00	7,368.88	0.00	-523.13	0.00	0.00	0.00	0.00
7,417.85	7.00	270.00	7,386.59	0.00	-525.31	0.00	0.00	0.00	0.00
Drop									
7,500.00	6.59	270.00	7,468.17	0.00	-535.03	0.00	0.50	-0.50	0.00
7,600.00	6.09	270.00	7,567.55	0.00	-546.07	0.00	0.50	-0.50	0.00
7,700.00	5.59	270.00	7,667.03	0.00	-556.24	0.00	0.50	-0.50	0.00
7,800.00	5.09	270.00	7,766.60	0.00	-565.55	0.00	0.50	-0.50	0.00
7,900.00	4.59	270.00	7,866.24	0.00	-573.99	0.00	0.50	-0.50	0.00
8,000.00	4.09	270.00	7,965.96	0.00	-581.55	0.00	0.50	-0.50	0.00
8,100.00	3.59	270.00	8,065.73	0.00	-588.25	0.00	0.50	-0.50	0.00
8,200.00	3.09	270.00	8,165.56	0.00	-594.07	0.00	0.50	-0.50	0.00
8,300.00	2.59	270.00	8,265.44	0.00	-599.03	0.00	0.50	-0.50	0.00
8,400.00	2.09	270.00	8,365.36	0.00	-603.11	0.00	0.50	-0.50	0.00
8,500.00	1.59	270.00	8,465.30	0.00	-606.32	0.00	0.50	-0.50	0.00
8,600.00	1.09	270.00	8,565.28	0.00	-608.65	0.00	0.50	-0.50	0.00
8,700.00	0.59	270.00	8,665.26	0.00	-610.12	0.00	0.50	-0.50	0.00
8,800.00	0.09	270.00	8,765.26	0.00	-610.71	0.00	0.50	-0.50	0.00
8,817.85	0.00	0.00	8,783.11	0.00	-610.72	0.00	0.50	-0.50	504.20
Hold									
8,900.00	0.00	0.00	8,865.26	0.00	-610.72	0.00	0.00	0.00	0.00

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,917.85	0.00	0.00	8,883.11	0.00	-610.72	0.00	0.00	0.00	0.00
KOP 10° DLS									
8,950.00	3.21	360.00	8,915.25	0.90	-610.72	0.90	10.00	10.00	0.00
9,000.00	8.21	360.00	8,964.98	5.88	-610.73	5.88	10.00	10.00	0.00
9,050.00	13.21	360.00	9,014.09	15.17	-610.73	15.17	10.00	10.00	0.00
9,051.96	13.41	360.00	9,016.00	15.62	-610.73	15.62	10.00	10.00	0.00
Lower Brushy Canyon									
9,100.00	18.21	360.00	9,062.21	28.71	-610.73	28.71	10.00	10.00	0.00
9,150.00	23.21	360.00	9,108.96	46.39	-610.73	46.39	10.00	10.00	0.00
9,200.00	28.21	360.00	9,154.00	68.08	-610.73	68.08	10.00	10.00	0.00
9,250.00	33.21	360.00	9,196.97	93.61	-610.73	93.61	10.00	10.00	0.00
9,251.23	33.34	360.00	9,198.00	94.29	-610.73	94.29	10.00	10.00	0.00
1st BSPG Lime									
9,300.00	38.21	360.00	9,237.55	122.79	-610.73	122.79	10.00	10.00	0.00
9,350.00	43.21	360.00	9,275.44	155.39	-610.73	155.39	10.00	10.00	0.00
9,360.47	44.26	360.00	9,283.00	162.63	-610.73	162.63	10.00	10.00	0.00
Leonard A									
9,400.00	48.21	360.00	9,310.34	191.17	-610.73	191.17	10.00	10.00	0.00
9,450.00	53.21	360.00	9,341.99	229.86	-610.74	229.86	10.00	10.00	0.00
9,477.64	55.98	360.00	9,358.00	252.39	-610.74	252.39	10.00	10.00	0.00
Leonard A Mid Carbonate									
9,500.00	58.21	360.00	9,370.14	271.16	-610.74	271.16	10.00	10.00	0.00
9,550.00	63.21	360.00	9,394.59	314.76	-610.74	314.76	10.00	10.00	0.00
9,576.54	65.87	360.00	9,406.00	338.72	-610.74	338.72	10.00	10.00	0.00
Leonard A Target Top									
9,600.00	68.21	360.00	9,415.15	360.32	-610.74	360.32	10.00	10.00	0.00
9,650.00	73.21	360.00	9,431.66	407.50	-610.75	407.50	10.00	10.00	0.00
9,700.00	78.21	360.00	9,443.99	455.94	-610.75	455.94	10.00	10.00	0.00
9,750.00	83.22	360.00	9,452.06	505.27	-610.75	505.27	10.00	10.00	0.00
9,800.00	88.22	360.00	9,455.79	555.11	-610.75	555.11	10.00	10.00	0.00
9,826.93	90.91	360.00	9,456.00	582.04	-610.75	582.04	10.00	10.00	0.00
LP									
9,900.00	90.91	360.00	9,454.84	655.10	-610.76	655.10	0.00	0.00	0.00
10,000.00	90.91	360.00	9,453.25	755.09	-610.76	755.09	0.00	0.00	0.00
10,100.00	90.91	360.00	9,451.67	855.07	-610.77	855.07	0.00	0.00	0.00
10,200.00	90.91	360.00	9,450.08	955.06	-610.77	955.06	0.00	0.00	0.00
10,300.00	90.91	360.00	9,448.50	1,055.05	-610.78	1,055.05	0.00	0.00	0.00
10,400.00	90.91	360.00	9,446.91	1,155.04	-610.78	1,155.04	0.00	0.00	0.00
10,500.00	90.91	360.00	9,445.33	1,255.02	-610.79	1,255.02	0.00	0.00	0.00
10,600.00	90.91	360.00	9,443.74	1,355.01	-610.79	1,355.01	0.00	0.00	0.00
10,700.00	90.91	360.00	9,442.16	1,455.00	-610.80	1,455.00	0.00	0.00	0.00
10,800.00	90.91	360.00	9,440.57	1,554.99	-610.81	1,554.99	0.00	0.00	0.00
10,900.00	90.91	360.00	9,438.99	1,654.97	-610.81	1,654.97	0.00	0.00	0.00
11,000.00	90.91	360.00	9,437.40	1,754.96	-610.82	1,754.96	0.00	0.00	0.00
11,100.00	90.91	360.00	9,435.82	1,854.95	-610.82	1,854.95	0.00	0.00	0.00
11,200.00	90.91	360.00	9,434.23	1,954.93	-610.83	1,954.93	0.00	0.00	0.00
11,300.00	90.91	360.00	9,432.65	2,054.92	-610.83	2,054.92	0.00	0.00	0.00
11,400.00	90.91	360.00	9,431.06	2,154.91	-610.84	2,154.91	0.00	0.00	0.00
11,500.00	90.91	360.00	9,429.48	2,254.90	-610.84	2,254.90	0.00	0.00	0.00
11,600.00	90.91	360.00	9,427.89	2,354.88	-610.85	2,354.88	0.00	0.00	0.00
11,700.00	90.91	360.00	9,426.31	2,454.87	-610.85	2,454.87	0.00	0.00	0.00
11,800.00	90.91	360.00	9,424.72	2,554.86	-610.86	2,554.86	0.00	0.00	0.00
11,900.00	90.91	360.00	9,423.14	2,654.85	-610.86	2,654.85	0.00	0.00	0.00

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12,000.00	90.91	360.00	9,421.55	2,754.83	-610.87	2,754.83	0.00	0.00	0.00
12,100.00	90.91	360.00	9,419.97	2,854.82	-610.87	2,854.82	0.00	0.00	0.00
12,200.00	90.91	360.00	9,418.38	2,954.81	-610.88	2,954.81	0.00	0.00	0.00
12,300.00	90.91	360.00	9,416.79	3,054.80	-610.88	3,054.80	0.00	0.00	0.00
12,400.00	90.91	360.00	9,415.21	3,154.78	-610.89	3,154.78	0.00	0.00	0.00
12,500.00	90.91	360.00	9,413.62	3,254.77	-610.89	3,254.77	0.00	0.00	0.00
12,600.00	90.91	360.00	9,412.04	3,354.76	-610.90	3,354.76	0.00	0.00	0.00
12,700.00	90.91	360.00	9,410.45	3,454.75	-610.90	3,454.75	0.00	0.00	0.00
12,800.00	90.91	360.00	9,408.87	3,554.73	-610.91	3,554.73	0.00	0.00	0.00
12,900.00	90.91	360.00	9,407.28	3,654.72	-610.91	3,654.72	0.00	0.00	0.00
13,000.00	90.91	360.00	9,405.70	3,754.71	-610.92	3,754.71	0.00	0.00	0.00
13,100.00	90.91	360.00	9,404.11	3,854.70	-610.92	3,854.70	0.00	0.00	0.00
13,200.00	90.91	360.00	9,402.53	3,954.68	-610.93	3,954.68	0.00	0.00	0.00
13,300.00	90.91	360.00	9,400.94	4,054.67	-610.93	4,054.67	0.00	0.00	0.00
13,400.00	90.91	360.00	9,399.36	4,154.66	-610.94	4,154.66	0.00	0.00	0.00
13,500.00	90.91	360.00	9,397.77	4,254.65	-610.94	4,254.65	0.00	0.00	0.00
13,600.00	90.91	360.00	9,396.19	4,354.63	-610.95	4,354.63	0.00	0.00	0.00
13,700.00	90.91	360.00	9,394.60	4,454.62	-610.96	4,454.62	0.00	0.00	0.00
13,800.00	90.91	360.00	9,393.02	4,554.61	-610.96	4,554.61	0.00	0.00	0.00
13,900.00	90.91	360.00	9,391.43	4,654.60	-610.97	4,654.60	0.00	0.00	0.00
13,990.26	90.91	360.00	9,390.00	4,744.84	-610.97	4,744.84	0.00	0.00	0.00

TD - PBHL (BK23F 3H)

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (BK23F 3H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	436,096.45	787,703.88	32° 11' 47.034 N	103° 32' 12.772 W
PBHL (BK23F 3H) - plan hits target center - Point	0.00	0.00	9,390.00	4,744.84	-610.97	440,841.29	787,092.91	32° 12' 34.029 N	103° 32' 19.474 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,123.00	1,123.00	Rustler		0.00	
1,644.00	1,644.00	Top of Salt		0.00	
5,083.86	5,070.00	Base of Salt		0.00	
5,288.38	5,273.00	Delaware		0.00	
9,051.96	9,016.00	Lower Brushy Canyon		0.00	
9,251.23	9,198.00	1st BSPG Lime		0.00	
9,360.47	9,283.00	Leonard A		0.00	
9,477.64	9,358.00	Leonard A Mid Carbonate		0.00	
9,576.54	9,406.00	Leonard A Target Top		0.00	

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Single User Db
Company: DEVON ENERGY
Project: Lea County, NM (NAD-83)
Site: Blue Krait 23 Fed
Well: 3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 3H
TVD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
MD Reference: 3562.2' GL + 25' RKB @ 3587.20usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,757.85	2,757.85	0.00	0.00	Nudge
3,457.85	3,456.11	0.00	-42.71	Hold
7,417.85	7,386.59	0.00	-525.31	Drop
8,817.85	8,783.11	0.00	-610.72	Hold
8,917.85	8,883.11	0.00	-610.72	KOP 10° DLS
9,826.93	9,456.00	582.04	-610.75	LP
13,990.26	9,390.00	4,744.84	-610.97	TD