

devon

30-015-42895
Belloq 2 State 2H
APD

- C-102
- Drilling Plan
- Directional Survey

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-42895		² Pool Code 39350	³ Pool Name Livingston Ridge ; Bone Spring
⁴ Property Code 314092	⁵ Property Name BELLOQ 2 STATE		⁶ Well Number 2H
⁷ GRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.		⁹ Elevation 3430.2

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
3	2	23 S	31 E		200	NORTH	1720	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	2	23 S	31 E		330	SOUTH	1980	WEST	EDDY

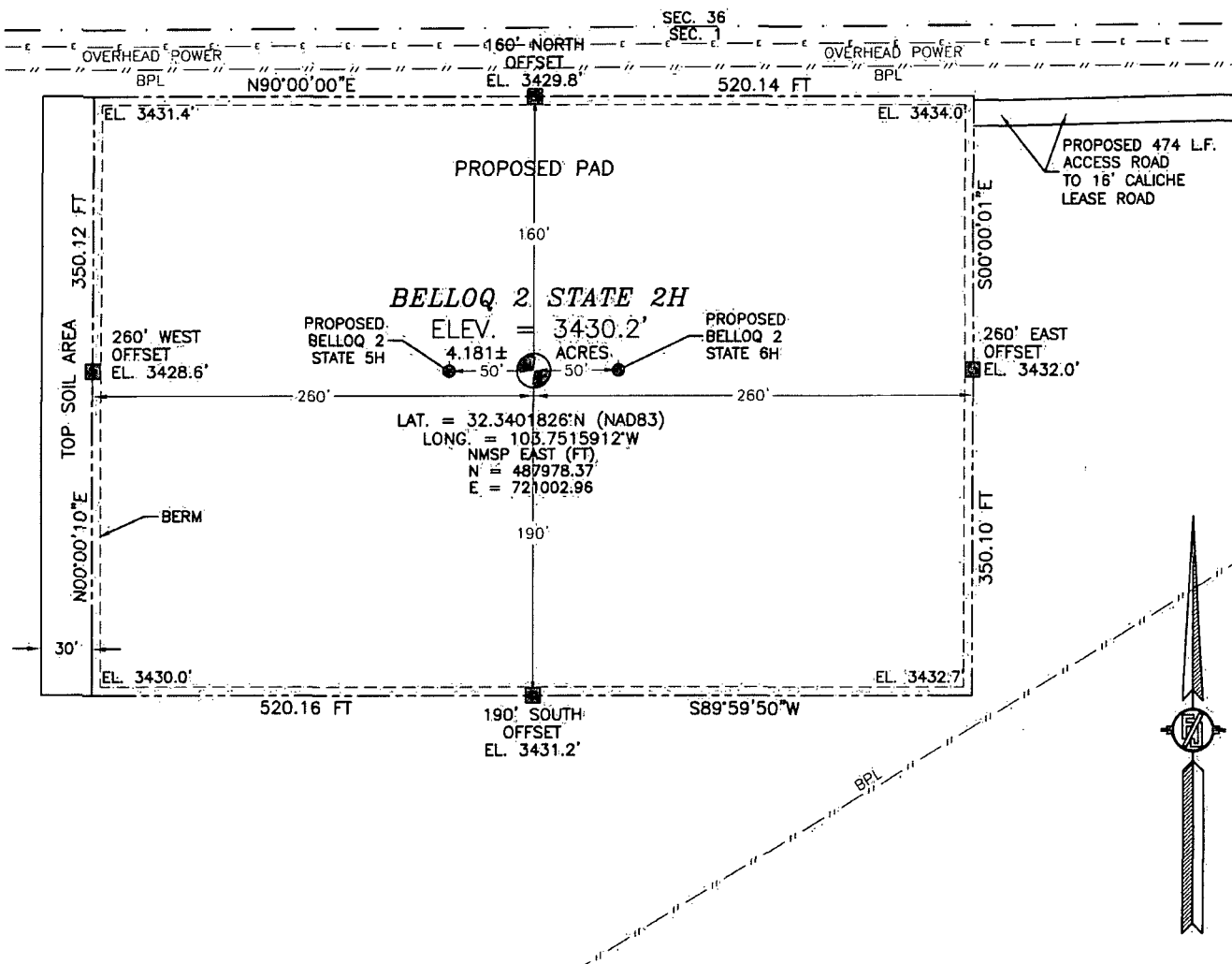
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°43'50"E, 2641.93 FT 1720' NW CORNER SEC. 2 LAT. = 32.3407356°N LONG. = 103.7571603°W NMSP. EAST (FT) N = 488170.26 E = 719281.88 L4 W/4 CORNER SEC. 2 LAT. = 32.335234°N LONG. = 103.7571441°W NMSP. EAST (FT) N = 485546.51 E = 719301.00 N00°25'04"W, 2624.39 FT SW CORNER SEC. 2 LAT. = 32.3262648°N LONG. = 103.7571273°W NMSP. EAST (FT) N = 482905.89 E = 719320.39 N00°25'15"W, 2641.26 FT		200' SURFACE LOCATION L3 39.64 AC. (BLM) BELLOQ 2 STATE 2H ELEV. = 3430.2' LAT. = 32.3401826°N (NAD83) LONG. = 103.7515912°W NMSP. EAST (FT) N = 487978.37 E = 721002.96 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83) BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. BOTTOM OF HOLE LAT. = 32.3271497°N LONG. = 103.7507207°W NMSP. EAST (FT) N = 483238.50 E = 721297.58 330' BOTTOM OF HOLE	N89°43'50"E, 2641.93 FT N/4 CORNER SEC. 2 SCALED L2 NE CORNER SEC. 2 LAT. = 32.3407247°N LONG. = 103.7400558°W NMSP. EAST (FT) N = 488195.11 E = 724564.52 L1 E/4 CORNER SEC. 2 LAT. = 32.3334654°N LONG. = 103.7400347°W NMSP. EAST (FT) N = 485554.27 E = 724585.66 S00°27'31"E, 2641.50 FT S/4 CORNER SEC. 2 LAT. = 32.3262353°N LONG. = 103.7485656°W NMSP. EAST (FT) N = 482909.48 E = 721965.08 SE CORNER SEC. 2 LAT. = 32.3262061°N LONG. = 103.7400123°W NMSP. EAST (FT) N = 482913.39 E = 724607.21 S00°28'02"E, 2641.53 FT	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Trina C. Couch</i> 1/13/15 Signature Date Trina C. Couch, Regulatory Analyst Printed Name trina.couch@dmn.com E-mail Address 18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. DECEMBER 22, 2014 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number F111001-E LARA M.L.O. PLS 12797 SURVEY NO. 3420
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SECTION 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES, MODIFIED TO THE SURFACE.



0 10 50 100 200

SCALE 1" = 100'
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF SR. 128 (JAL HWY) AND CR. 798 (RED ROAD) GO NORTH ON RED ROAD 6.15 MILES TO CALICHE LEASE ROAD ON LEFT BETWEEN POWER POLES GO WEST ON CALICHE LEASE ROAD 0.5 MILES TO END OF CALICHE LEASE ROAD FOLLOW FLAGS WEST 474 L.F. TO NORTHEAST CORNER OF PROPOSED PAD

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 2 STATE 2H

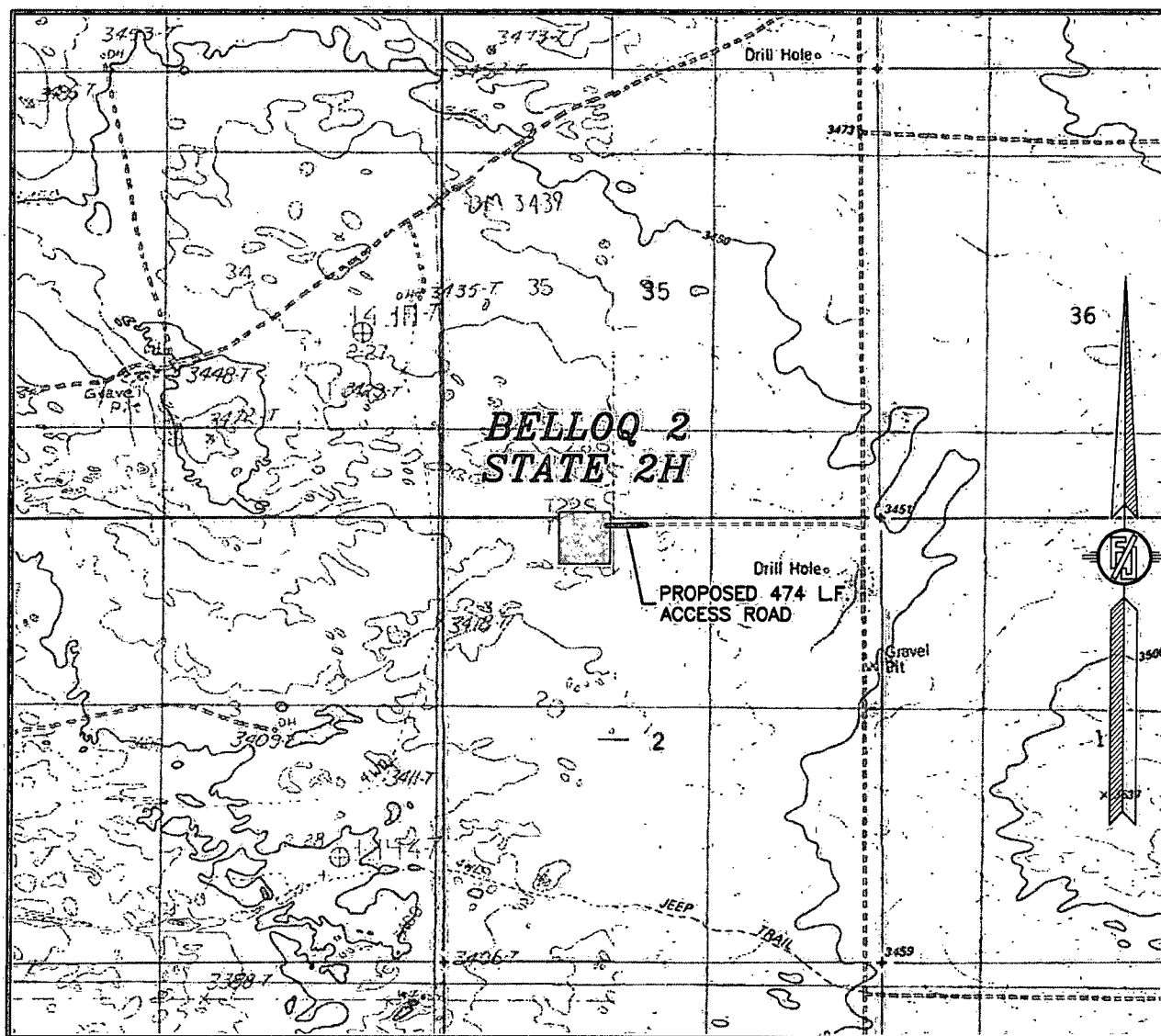
LOCATED 200 FT. FROM THE NORTH LINE
AND 1720 FT. FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 12, 2014

SURVEY NO. 3420

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
LOS MEDANOS
BOOTLEG RIDGE

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 2 STATE 2H

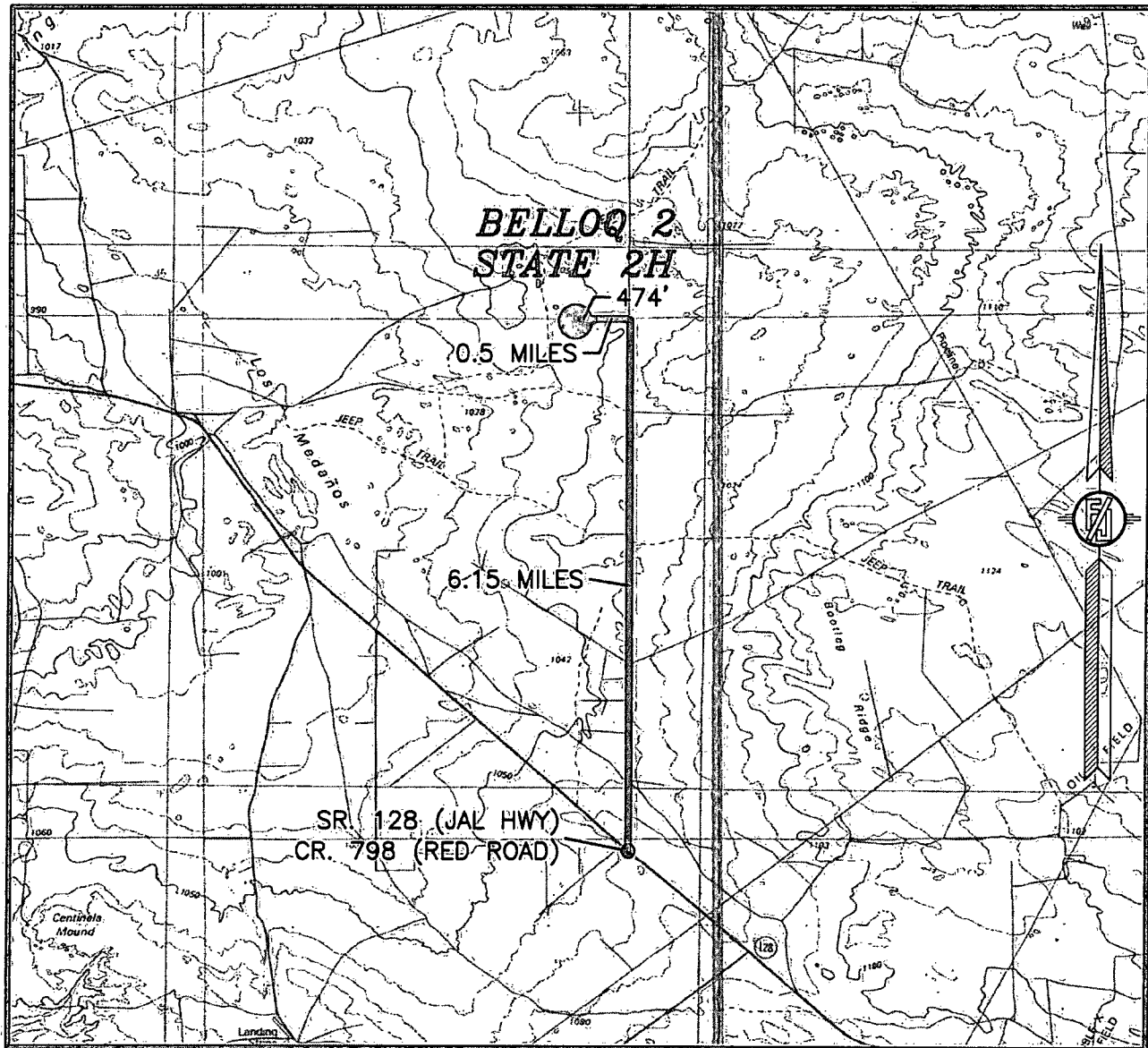
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AND 1720 FT. FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 12, 2014

SURVEY NO. 3420

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF SR. 128 (JAL HWY) AND CR. 798 (RED ROAD) GO NORTH ON RED ROAD 6.15 MILES TO CALICHE LEASE ROAD. ON LEFT BETWEEN POWER POLES GO WEST ON CALICHE LEASE ROAD. 0.5 MILES TO END OF CALICHE LEASE ROAD FOLLOW FLAGS WEST 474 LF. TO NORTHEAST CORNER OF PROPOSED PAD.

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 2 STATE 2H

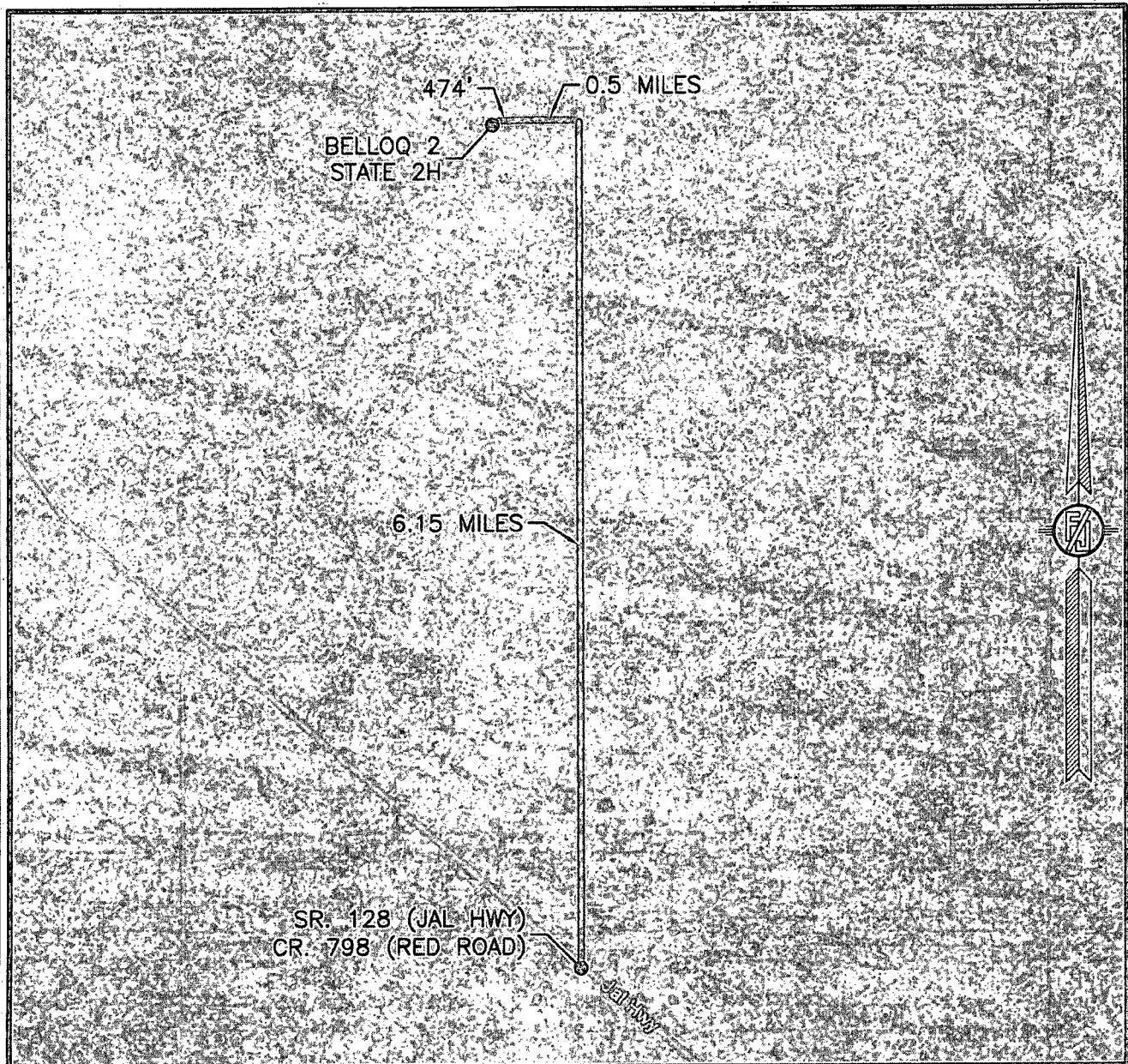
LOCATED 200 FT. FROM THE NORTH LINE
AND 1720 FT. FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 12, 2014

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 3420

SECTION 2, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 FEB. 2014

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 2 STATE 2H

LOCATED 200 FT. FROM THE NORTH LINE
 AND 1720 FT. FROM THE WEST LINE OF
 SECTION 2, TOWNSHIP 23 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DECEMBER 12, 2014

SURVEY NO. 3420

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

Devon Energy, Belloq 2 State 2H

1. Geologic Formations

TVD of target	11,577'	Pilot hole depth	N/A
MD at TD:	16,186'	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	623	Water	
Top Salt	899	Salt	
Base of Salt	4166	Salt	
Lamar	4373	Barren	
Bell Canyon	4428	Oil	
Cherry Canyon	5284	Oil	
Brushy Canyon	6516	Oil	
Bone Spring	8232	Oil	
1st Bone Spring Sd.	9287	Oil	
2nd Bone Spring Sd.	10033	Oil	
3rd Bone Spring Lm.	10400	Oil	
3rd Bone Spring Sd.	11026	Oil	
Wolfcamp	11505	Target Zone	
B/ Wolfcamp Sd.	11663	Oil	

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

Devon Energy, Belloq 2 State 2H

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	700	13.375"	48	H40	STC	2.30	5.17	16.10
12.25"	0	4250	9.625"	40	J55	LTC	1.16	1.79	3.06
8.75"	0	11800	7"	29	P110	BTC	1.63	1.99	2.79
6.125"	11000	16186	4.5"	13.5	P110	BTC	1.48	1.72	6.30
BLM Minimum Safety Factor							1.125	1	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, Belloq 2 State 2H

2. 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	770	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
9-5/8" Inter.	900	12.9	9.81	1.85	17	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
7" Int Two Stage Option	400	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
	400	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 = 4500ft					
	30	11	14.81	2.55	14	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
4-1/2" Liner	690	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

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	0'	100%
9-5/8" Intermediate	0'	75%
7" Intermediate Two Stage	1 st Stage= 4500' / 2 nd Stage = 3750'	25%
4-1/2" Production Liner	11000'	25%

Devon Energy, Belloq 2 State 2H

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
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	5M	Annular	x	50% testing pressure
			Blind Ram		5M
			Pipe Ram		
			Double Ram	x	
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

*Specify if additional ram is utilized.

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.
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Devon Energy, Belloq 2 State 2H

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?
N	A multibowl wellhead is 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 proposes using a multi-bowl wellhead assembly (FMC Uni-head). 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 FMC's representatives. • If the welding is performed by a third party, the FMC's representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal. • FMC representative will install the test plug for the initial BOP test. • FMC 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 5M, 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. 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 FMC 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 5M will already be installed on the FMC Uni-head. 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 (Below surface) and 5,000psi WP (Below intermediate).

Devon Energy, Belloq 2 State 2H

	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	700'	FW Gel	8.6-8.8	28-34	N/C
700'	4,250'	Saturated Brine	10.0-10.2	28-34	N/C
4,250'	11,800'	Cut Brine	8.5-10	28-34	N/C
11,800'	16,186	OBM	9-12	30-45	<6

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

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	

Devon Energy, Belloq 2 State 2H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7,224 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

DEVON ENERGY

Project: Eddy County, NM (NAD-83)
Site: Belloq 2 State
Well: 2H
Wellbore: OH
Design: Plan #1

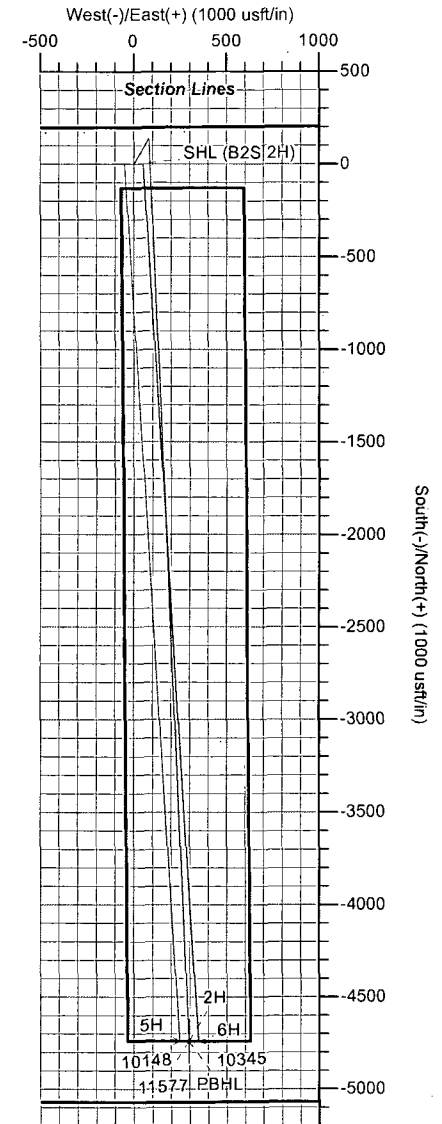
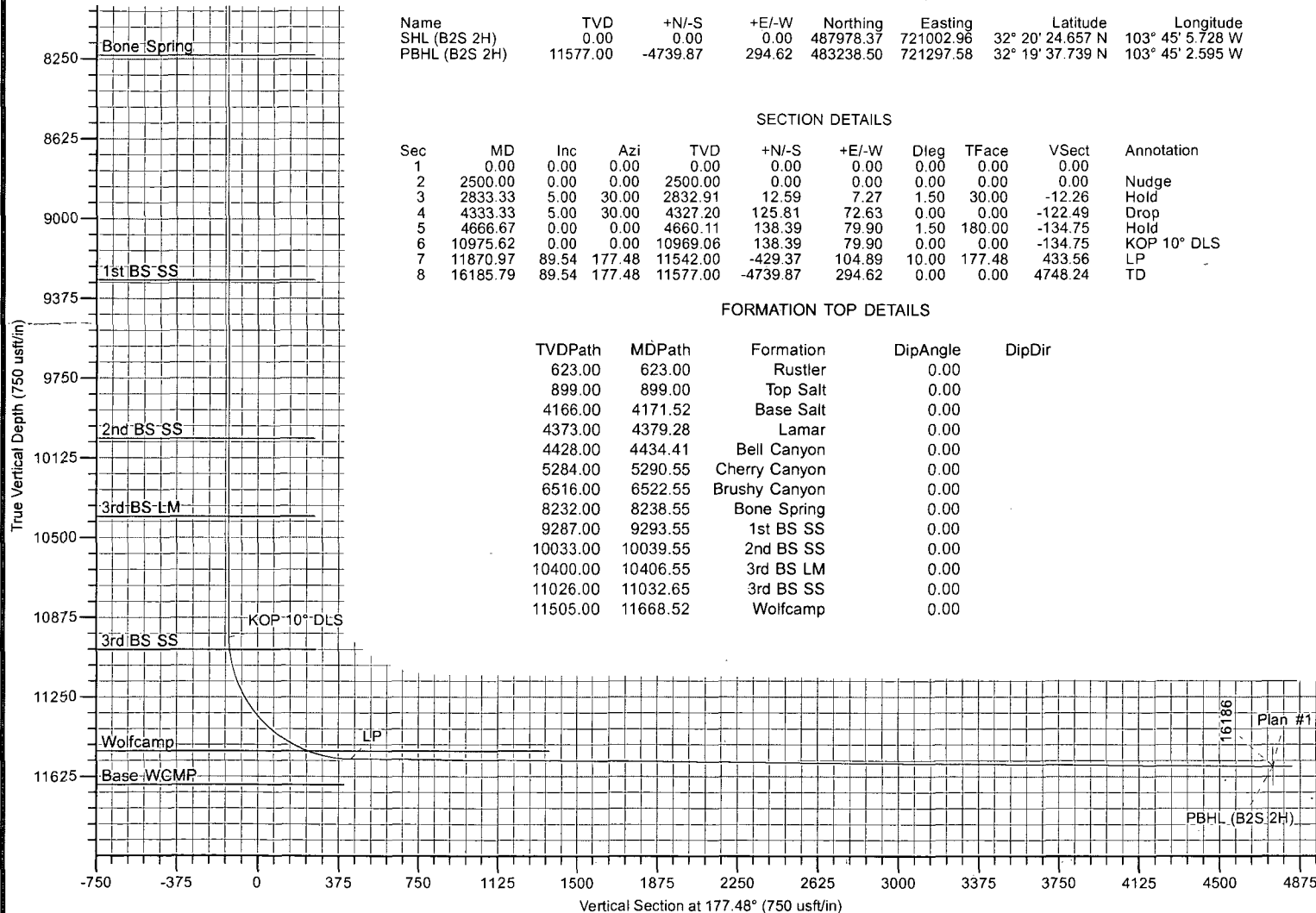


Azimuths to Grid North
True North: -0.31°
Magnetic North: 7.10°

Magnetic Field
Strength: 48261.5snT
Dip Angle: 60.17°
Date: 1/8/2015
Model: BGGM2014

PROJECT DETAILS: Eddy County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

devon



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #1 (2H/OH)
Belloq 2 State
Created By: Brady Deaver
Date: _____
Approved: _____
Date: 16/37, January 08 2015



LEAM
Drilling Systems, Inc.

DEVON ENERGY

Eddy County, NM (NAD-83)

Belloq 2 State

2H

OH

Plan: Plan #1

Standard Planning Report

08 January, 2015


devon

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Belloq 2 State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project: Eddy 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		Belloq 2 State			
Site Position:		Northing:	487,978.37 usft	Latitude:	32° 20' 24.657 N
From:	Map	Easting:	721,002.96 usft	Longitude:	103° 45' 5.728 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.31 °

Well	2H, 3rd BS SS					
Well Position	+N/-S	0.00 usft	Northing:	487,978.37 usft	Latitude:	32° 20' 24.657 N
	+E/-W	0.00 usft	Easting:	721,002.96 usft	Longitude:	103° 45' 5.728 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	3,455.20 usft	Ground Level:	3,430.20 usft

Wellbore	OH
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	BGGM2014	1/8/2015	7.41	60.17	48,262

Design		Plan #1		
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	177.48

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
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	
2,833.33	5.00	30.00	2,832.91	125.81	72.63	1.50	1.50	0.00	30.00	
4,333.33	5.00	30.00	4,327.20	125.81	72.63	0.00	0.00	0.00	0.00	
4,666.67	0.00	0.00	4,660.11	138.39	79.90	1.50	-1.50	0.00	180.00	
10,975.62	0.00	0.00	10,969.06	138.39	79.90	0.00	0.00	0.00	0.00	
11,870.97	89.54	177.48	11,542.00	-429.37	104.89	10.00	10.00	19.82	177.48	
16,185.79	89.54	177.48	11,577.00	-4,739.87	294.62	0.00	0.00	0.00	0.00	PBHL (B2S 2H)

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Belloq 2 State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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 (B2S 2H)									
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
623.00	0.00	0.00	623.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
899.00	0.00	0.00	899.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt									
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
1,200.00	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
1,700.00	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
Nudge									
2,600.00	1.50	30.00	2,599.99	1.13	0.65	-1.10	1.50	1.50	0.00
2,700.00	3.00	30.00	2,699.91	4.53	2.62	-4.41	1.50	1.50	0.00
2,800.00	4.50	30.00	2,799.69	10.20	5.89	-9.93	1.50	1.50	0.00
2,833.33	5.00	30.00	2,832.91	12.59	7.27	-12.26	1.50	1.50	0.00
Hold									
2,900.00	5.00	30.00	2,899.32	17.62	10.17	-17.16	0.00	0.00	0.00
3,000.00	5.00	30.00	2,998.94	25.17	14.53	-24.50	0.00	0.00	0.00
3,100.00	5.00	30.00	3,098.56	32.72	18.89	-31.85	0.00	0.00	0.00
3,200.00	5.00	30.00	3,198.18	40.26	23.25	-39.20	0.00	0.00	0.00
3,300.00	5.00	30.00	3,297.80	47.81	27.60	-46.55	0.00	0.00	0.00
3,400.00	5.00	30.00	3,397.42	55.36	31.96	-53.90	0.00	0.00	0.00
3,500.00	5.00	30.00	3,497.04	62.91	36.32	-61.25	0.00	0.00	0.00
3,600.00	5.00	30.00	3,596.66	70.46	40.68	-68.60	0.00	0.00	0.00
3,700.00	5.00	30.00	3,696.28	78.00	45.04	-75.95	0.00	0.00	0.00
3,800.00	5.00	30.00	3,795.90	85.55	49.39	-83.30	0.00	0.00	0.00
3,900.00	5.00	30.00	3,895.52	93.10	53.75	-90.65	0.00	0.00	0.00
4,000.00	5.00	30.00	3,995.14	100.65	58.11	-97.99	0.00	0.00	0.00
4,100.00	5.00	30.00	4,094.76	108.19	62.47	-105.34	0.00	0.00	0.00
4,171.52	5.00	30.00	4,166.00	113.59	65.58	-110.60	0.00	0.00	0.00
Base Salt									
4,200.00	5.00	30.00	4,194.38	115.74	66.82	-112.69	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db.	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Belloq 2 State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
4,300.00	5.00	30.00	4,294.00	123.29	71.18	-120.04	0.00	0.00	0.00
4,333.33	5.00	30.00	4,327.20	125.81	72.63	-122.49	0.00	0.00	0.00
Drop									
4,379.28	4.31	30.00	4,373.00	129.04	74.50	-125.64	1.50	-1.50	0.00
Lamar									
4,400.00	4.00	30.00	4,393.66	130.34	75.25	-126.90	1.50	-1.50	0.00
4,434.41	3.48	30.00	4,428.00	132.28	76.37	-128.80	1.50	-1.50	0.00
Bell Canyon									
4,500.00	2.50	30.00	4,493.50	135.25	78.08	-131.68	1.50	-1.50	0.00
4,600.00	1.00	30.00	4,593.45	137.89	79.61	-134.26	1.50	-1.50	0.00
4,666.67	0.00	0.00	4,660.11	138.39	79.90	-134.75	1.50	-1.50	0.00
Hold									
4,700.00	0.00	0.00	4,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
4,800.00	0.00	0.00	4,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
4,900.00	0.00	0.00	4,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,000.00	0.00	0.00	4,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,100.00	0.00	0.00	5,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,200.00	0.00	0.00	5,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,290.55	0.00	0.00	5,284.00	138.39	79.90	-134.75	0.00	0.00	0.00
Cherry Canyon									
5,300.00	0.00	0.00	5,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,400.00	0.00	0.00	5,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,500.00	0.00	0.00	5,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,600.00	0.00	0.00	5,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,700.00	0.00	0.00	5,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,800.00	0.00	0.00	5,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
5,900.00	0.00	0.00	5,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,000.00	0.00	0.00	5,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,100.00	0.00	0.00	6,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,200.00	0.00	0.00	6,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,300.00	0.00	0.00	6,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,400.00	0.00	0.00	6,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,500.00	0.00	0.00	6,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,522.55	0.00	0.00	6,516.00	138.39	79.90	-134.75	0.00	0.00	0.00
Brushy Canyon									
6,600.00	0.00	0.00	6,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,700.00	0.00	0.00	6,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,800.00	0.00	0.00	6,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
6,900.00	0.00	0.00	6,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,000.00	0.00	0.00	6,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,100.00	0.00	0.00	7,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,200.00	0.00	0.00	7,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,300.00	0.00	0.00	7,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,400.00	0.00	0.00	7,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,500.00	0.00	0.00	7,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,600.00	0.00	0.00	7,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,700.00	0.00	0.00	7,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,800.00	0.00	0.00	7,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
7,900.00	0.00	0.00	7,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,000.00	0.00	0.00	7,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,100.00	0.00	0.00	8,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,200.00	0.00	0.00	8,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,238.55	0.00	0.00	8,232.00	138.39	79.90	-134.75	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Bellco 2, State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
Bone Spring									
8,300.00	0.00	0.00	8,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,400.00	0.00	0.00	8,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,500.00	0.00	0.00	8,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,600.00	0.00	0.00	8,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,700.00	0.00	0.00	8,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,800.00	0.00	0.00	8,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
8,900.00	0.00	0.00	8,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,000.00	0.00	0.00	8,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,100.00	0.00	0.00	9,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,200.00	0.00	0.00	9,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,293.55	0.00	0.00	9,287.00	138.39	79.90	-134.75	0.00	0.00	0.00
1st BS SS									
9,300.00	0.00	0.00	9,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,400.00	0.00	0.00	9,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,500.00	0.00	0.00	9,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,600.00	0.00	0.00	9,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,700.00	0.00	0.00	9,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,800.00	0.00	0.00	9,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
9,900.00	0.00	0.00	9,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,000.00	0.00	0.00	9,993.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,039.55	0.00	0.00	10,033.00	138.39	79.90	-134.75	0.00	0.00	0.00
2nd BS SS									
10,100.00	0.00	0.00	10,093.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,200.00	0.00	0.00	10,193.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,300.00	0.00	0.00	10,293.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,400.00	0.00	0.00	10,393.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,406.55	0.00	0.00	10,400.00	138.39	79.90	-134.75	0.00	0.00	0.00
3rd BS LM									
10,500.00	0.00	0.00	10,493.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,600.00	0.00	0.00	10,593.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,700.00	0.00	0.00	10,693.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,800.00	0.00	0.00	10,793.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,900.00	0.00	0.00	10,893.45	138.39	79.90	-134.75	0.00	0.00	0.00
10,975.62	0.00	0.00	10,969.06	138.39	79.90	-134.75	0.00	0.00	0.00
KOP 10° DLS									
11,000.00	2.44	177.48	10,993.44	137.88	79.92	-134.23	10.00	10.00	0.00
11,032.65	5.70	177.48	11,026.00	135.56	80.03	-131.91	10.00	10.00	0.00
3rd BS SS									
11,050.00	7.44	177.48	11,043.24	133.58	80.11	-129.93	10.00	10.00	0.00
11,100.00	12.44	177.48	11,092.47	124.96	80.49	-121.30	10.00	10.00	0.00
11,150.00	17.44	177.48	11,140.77	112.09	81.06	-108.41	10.00	10.00	0.00
11,200.00	22.44	177.48	11,187.75	95.06	81.81	-91.37	10.00	10.00	0.00
11,250.00	27.44	177.48	11,233.08	74.00	82.74	-70.29	10.00	10.00	0.00
11,300.00	32.44	177.48	11,276.39	49.08	83.83	-45.35	10.00	10.00	0.00
11,350.00	37.44	177.48	11,317.37	20.48	85.09	-16.72	10.00	10.00	0.00
11,400.00	42.44	177.48	11,355.69	-11.57	86.50	15.37	10.00	10.00	0.00
11,450.00	47.44	177.48	11,391.08	-46.85	88.06	50.67	10.00	10.00	0.00
11,500.00	52.44	177.48	11,423.25	-85.06	89.74	88.93	10.00	10.00	0.00
11,550.00	57.44	177.48	11,451.96	-125.94	91.54	129.84	10.00	10.00	0.00
11,600.00	62.44	177.48	11,477.00	-169.16	93.44	173.10	10.00	10.00	0.00
11,650.00	67.44	177.48	11,498.17	-214.39	95.43	218.38	10.00	10.00	0.00
11,668.52	69.29	177.48	11,505.00	-231.59	96.19	235.60	10.00	10.00	0.00

Database:	EDM 5000.1 Single-User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Belloq 2 State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
Wolfcamp									
11,700.00	72.44	177.48	11,515.32	-261.30	97.49	265.33	10.00	10.00	0.00
11,750.00	77.44	177.48	11,528.31	-309.52	99.62	313.60	10.00	10.00	0.00
11,800.00	82.44	177.48	11,537.04	-358.68	101.78	362.81	10.00	10.00	0.00
11,850.00	87.44	177.48	11,541.45	-408.43	103.97	412.60	10.00	10.00	0.00
11,870.97	89.54	177.48	11,542.00	-429.37	104.89	433.56	10.00	10.00	0.00
LP									
11,900.00	89.54	177.48	11,542.24	-458.37	106.17	462.59	0.00	0.00	0.00
12,000.00	89.54	177.48	11,543.05	-558.27	110.57	562.59	0.00	0.00	0.00
12,100.00	89.54	177.48	11,543.86	-658.17	114.96	662.59	0.00	0.00	0.00
12,200.00	89.54	177.48	11,544.67	-758.07	119.36	762.58	0.00	0.00	0.00
12,300.00	89.54	177.48	11,545.48	-857.97	123.76	862.58	0.00	0.00	0.00
12,400.00	89.54	177.48	11,546.29	-957.87	128.15	962.58	0.00	0.00	0.00
12,500.00	89.54	177.48	11,547.10	-1,057.77	132.55	1,062.57	0.00	0.00	0.00
12,600.00	89.54	177.48	11,547.92	-1,157.67	136.95	1,162.57	0.00	0.00	0.00
12,700.00	89.54	177.48	11,548.73	-1,257.57	141.35	1,262.57	0.00	0.00	0.00
12,800.00	89.54	177.48	11,549.54	-1,357.47	145.74	1,362.56	0.00	0.00	0.00
12,900.00	89.54	177.48	11,550.35	-1,457.37	150.14	1,462.56	0.00	0.00	0.00
13,000.00	89.54	177.48	11,551.16	-1,557.27	154.54	1,562.56	0.00	0.00	0.00
13,100.00	89.54	177.48	11,551.97	-1,657.17	158.93	1,662.55	0.00	0.00	0.00
13,200.00	89.54	177.48	11,552.78	-1,757.07	163.33	1,762.55	0.00	0.00	0.00
13,300.00	89.54	177.48	11,553.59	-1,856.97	167.73	1,862.55	0.00	0.00	0.00
13,400.00	89.54	177.48	11,554.40	-1,956.87	172.13	1,962.54	0.00	0.00	0.00
13,500.00	89.54	177.48	11,555.22	-2,056.77	176.52	2,062.54	0.00	0.00	0.00
13,600.00	89.54	177.48	11,556.03	-2,156.67	180.92	2,162.54	0.00	0.00	0.00
13,700.00	89.54	177.48	11,556.84	-2,256.57	185.32	2,262.53	0.00	0.00	0.00
13,800.00	89.54	177.48	11,557.65	-2,356.47	189.71	2,362.53	0.00	0.00	0.00
13,900.00	89.54	177.48	11,558.46	-2,456.37	194.11	2,462.53	0.00	0.00	0.00
14,000.00	89.54	177.48	11,559.27	-2,556.27	198.51	2,562.52	0.00	0.00	0.00
14,100.00	89.54	177.48	11,560.08	-2,656.17	202.91	2,662.52	0.00	0.00	0.00
14,200.00	89.54	177.48	11,560.89	-2,756.07	207.30	2,762.52	0.00	0.00	0.00
14,300.00	89.54	177.48	11,561.70	-2,855.97	211.70	2,862.51	0.00	0.00	0.00
14,400.00	89.54	177.48	11,562.52	-2,955.87	216.10	2,962.51	0.00	0.00	0.00
14,500.00	89.54	177.48	11,563.33	-3,055.77	220.49	3,062.51	0.00	0.00	0.00
14,600.00	89.54	177.48	11,564.14	-3,155.67	224.89	3,162.50	0.00	0.00	0.00
14,700.00	89.54	177.48	11,564.95	-3,255.57	229.29	3,262.50	0.00	0.00	0.00
14,800.00	89.54	177.48	11,565.76	-3,355.47	233.69	3,362.50	0.00	0.00	0.00
14,900.00	89.54	177.48	11,566.57	-3,455.37	238.08	3,462.49	0.00	0.00	0.00
15,000.00	89.54	177.48	11,567.38	-3,555.27	242.48	3,562.49	0.00	0.00	0.00
15,100.00	89.54	177.48	11,568.19	-3,655.17	246.88	3,662.49	0.00	0.00	0.00
15,200.00	89.54	177.48	11,569.00	-3,755.07	251.27	3,762.48	0.00	0.00	0.00
15,300.00	89.54	177.48	11,569.82	-3,854.97	255.67	3,862.48	0.00	0.00	0.00
15,400.00	89.54	177.48	11,570.63	-3,954.87	260.07	3,962.48	0.00	0.00	0.00
15,500.00	89.54	177.48	11,571.44	-4,054.77	264.47	4,062.47	0.00	0.00	0.00
15,600.00	89.54	177.48	11,572.25	-4,154.67	268.86	4,162.47	0.00	0.00	0.00
15,700.00	89.54	177.48	11,573.06	-4,254.57	273.26	4,262.47	0.00	0.00	0.00
15,800.00	89.54	177.48	11,573.87	-4,354.47	277.66	4,362.46	0.00	0.00	0.00
15,900.00	89.54	177.48	11,574.68	-4,454.37	282.05	4,462.46	0.00	0.00	0.00
16,000.00	89.54	177.48	11,575.49	-4,554.27	286.45	4,562.46	0.00	0.00	0.00
16,100.00	89.54	177.48	11,576.30	-4,654.17	290.85	4,662.45	0.00	0.00	0.00
16,185.79	89.54	177.48	11,577.00	-4,739.87	294.62	4,748.24	0.00	0.00	0.00

TD - PBHL (B2S 2H)

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well 2H
Company:	DEVON ENERGY	TVD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Project:	Eddy County, NM (NAD-83)	MD Reference:	3430.2' GL + 25' RKB @ 3455.20usft
Site:	Belloq 2 State	North Reference:	Grid
Well:	2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL (B2S 2H)	0.00	0.00	0.00	0.00	0.00	487,978.37	721,002.96	32° 20' 24.657 N	103° 45' 5.728 W
- plan hits target center									
- Point									
PBHL (B2S 2H)	0.00	0.00	11,577.00	-4,739.87	294.62	483,238.50	721,297.58	32° 19' 37.739 N	103° 45' 2.595 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
623.00	623.00	Rustler		0.00		
899.00	899.00	Top Salt		0.00		
4,171.52	4,166.00	Base Salt		0.00		
4,379.28	4,373.00	Lamar		0.00		
4,434.41	4,428.00	Bell Canyon		0.00		
5,290.55	5,284.00	Cherry Canyon		0.00		
6,522.55	6,516.00	Brushy Canyon		0.00		
8,238.55	8,232.00	Bone Spring		0.00		
9,293.55	9,287.00	1st BS SS		0.00		
10,039.55	10,033.00	2nd BS SS		0.00		
10,406.55	10,400.00	3rd BS LM		0.00		
11,032.65	11,026.00	3rd BS SS		0.00		
11,668.52	11,505.00	Wolfcamp		0.00		

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	
2,500.00	2,500.00	0.00	0.00	Nudge
2,833.33	2,832.91	12.59	7.27	Hold
4,333.33	4,327.20	125.81	72.63	Drop
4,666.67	4,660.11	138.39	79.90	Hold
10,975.62	10,969.06	138.39	79.90	KOP 10° DLS
11,870.97	11,542.00	-429.37	104.89	LP
16,185.79	11,577.00	-4,739.87	294.62	TD

Wells Operator Data OCD Review OCD Only Administration

OCD Permitting

Home Pending Permits Application for Permit to Drill

Application for Permit to Drill, C-101 & C-102 (198158)

1	2	3	4	5	6	7	8	9
Surface	Bottom Hole	Casing	Miscellaneous	Comments	Conditions	Forms	Approval	Close

Permit Details

Operator: [6137] DEVON ENERGY PRODUCTION COMPANY, LP

Well: Belloq 2 State #002H

Surface Location: C-2-23S-31E

API:

015 - 42895

General Information

Operator Entry

OCD Entry

API County:		
API Well ID:		
Property ID:	0	0 314092
Well Name:	Belloq 2 State	Belloq 2 State
Well Number:	002H	002H
Well Type:	OIL	Oil ▼
Direction:	Horizontal	Horizontal ▼
Deepest Formation:	Wolfcamp	Wolfcamp ▼
Total Depth:	16186	16186 feet
Ground Elevation:	3430	3430 feet

Please address the following errors:

1. FATAL: You must enter an API Number

Non-fatal Warnings:

1. API County Number is not valid

Please address the following errors:

1. FATAL: You must enter a property number for the APD

Non-fatal Warnings:



Check for sensitive areas



If spacing violation, check if planned plugging will remedy

PIT Information

Validation was successful

Closed Loop System:

Yes

Depth to Groundwater (ft):

Distance Surface Water (ft):

Distance Fresh Water Well (ft):

Pit Liner:

Mils Thick if Synthetic

Drilling Method:

Pit Volume (bbls):

Plan Information:

☒ According to OCD Guidelines☐ General Plan on File☐ Specific Well Plan

Diagram:

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Application for Permit to Drill, C-101 & C-102 (198158)

1

Surface

2

Bottom
Hole

3

Casing

4

Miscellaneous

5

Comments

6

Conditions

7

Forms

8

Approval

9

Close

Permit Details

Operator: [6137] DEVON ENERGY PRODUCTION COMPANY, LP

Well: Bellog 2 State #002H

Surface Location: C-2-23S-31E

API:

Bottom Hole Location

Operator Entry

OCD Entry

County: Eddy

Eddy ▼

Unit: N

N ▼

Lot: N

N

Section: 2

2 ▼

Township: 23S

23S ▼

Range: 31E

31E ▼

NS Footage: 330 feet from S line

330 feet from the south ▼ boundary

EW Footage: 1980 feet from line

1980 feet from the west ▼ boundary

Latitude

Longitude

LIVINGSTON RIDGE;BONE SPRING [39350] Completion #1 Located at N-2-23S-31E

Operator Entry

OCD Entry

Pool: [39350] LIVINGSTON RIDGE;BONE SPRING

[39350] LIVINGSTON RIDGE;BONE SPRING

County: EDDY

Eddy ▼

Unit: N

N ▼

Permit Completion Checklist



Check correct pool



Check mineral ownership



Check dedicated acreage

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Permit Conditions of Approval

API: 30-015-42895

OCD Reviewer	Condition
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string