

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM 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.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM89057
2. Name of Operator DEVON ENERGY PRODUCTION CO., L.P. Contact: TRINA C COUCH E-Mail: TRINA.COUCH@DVN.COM		6. If Indian, Allottee or Tribe Name
3a. Address DEVON ENERGY PRODUCTION CO., LP 333 WEST OKLAHOMA CITY, OK 73102-5015	3b. Phone No. (include area code) 918-249-2200	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 10 T26S R31E 175FSL 160FEL		8. Well Name and No. SNAPPING 10 FEDERAL 5H
10. Field and Pool, or Exploratory WEST JENNINGS; BONE SPRING		9. API Well No. 30-015-40994
11. County or Parish, and State EDDY COUNTY COUNTY, NM		

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

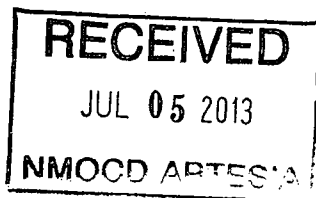
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ 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 Company L.P. respectfully requests to make the following changes to the approved permit for the Snapping 10 Federal 5H: Drilling Plan/Cementing Program, Directional Survey, and BOP Schematics.

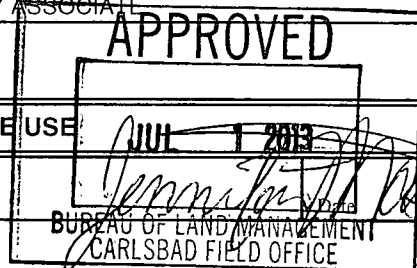
Attached are the following documents:

- Drilling Plan
- Directional Survey
- BOP Schematic

SEE ATTACHED FOR
CONDITIONS OF APPROVALAccepted for record
NMOC D TES

7/8/2013

14. I hereby certify that the foregoing is true and correct. Electronic Submission #207444 verified by the BLM Well Information System For DEVON ENERGY PRODUCTION CO., LP, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 05/15/2013 ()	
Name (Printed/Typed) TRINA C COUCH	Title REGULATORY ASSOCIATE
Signature (Electronic Submission)	Date 05/14/2013
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By	Title
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	



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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

DRILLING PROGRAM
Devon Energy Production Company, LP
Snapping 10 Federal #5H

Surface Location: 175' FSL & 160' FEL, Unit P, Sec 10 T26S R31E, Eddy, NM
Bottom Hole Location: 330' FNL & 400' FEL, Unit A, Sec 10 T26S R31E, Eddy, NM

1. **Geologic Name of Surface Formation**
 - a. Quaternary Alluvium
2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a. Fresh Water	25'	
b. Rustler	1311'	
c. Salado	1785'	
d. Base of Salt	3908'	
e. Delaware	4112'	Oil
f. Bell Canyon	4144'	Oil
g. Cherry Canyon	5096'	Oil
h. Brushy Canyon	6440'	Oil
i. Bone Spring	8132'	Oil & Gas

TVD -10,120'

MVD -14,749'

Devon Energy Production Co. L.P. respectfully requests to change the approved Snapping 10 Federal 5H from the Avalon to the 2nd Bone Spring.

Snapping 10 Fed 5H – APD DRILLING PLAN
JSL 05.14.13

Casing Program

<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17-1/2"	0 – 1,440	13-3/8"	0 – 1,440	54.5#	BTC	J-55
12-1/4"	1,440 – 4,150	9-5/8"	0 – 4,150	40#	LTC	J-55
8-3/4"	4,150 – 9,540	5-1/2"	0 – 9,300	17#	LTC	HCP-110
8-3/4"	9,540 – 14,749	5-1/2"	9,300 – 14,749	17#	BTC	HCP-110

Maximum Lateral TVD = 10,120 ft.

Design Factors

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13-3/8"	1.51	3.65	11.58
9-5/8" 40# J-55 LTC	1.96	1.83	23.8
5-1/2" 17# HCP-110 LTC	1.99	2.84	4.01
5-1/2" 17# HCP-110 BTC	1.54	2.2	2.36

Mud Program

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc.</u>	<u>Fluid Loss</u>	<u>Type System</u>
0 – 1,440	8.4 – 8.6	28 – 32	N/C	FW
1,440 – 4,150	9.9 – 10.1	28 – 29	N/C	Brine
4,150 – 14,749	8.7 – 9.4	28 – 29	N/C	FW

Pressure Control Equipment:

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a **3M system** prior to drilling out the intermediate casing shoe.

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**.

Cementing Program

13-3/8" Surface

Lead: 380 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg

Yield: 1.75 cf/sk

TOC @ surface

Tail: 310 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg

Yield: 1.35 cf/sk

9-5/8" Intermediate

Lead: 820 sacks (65:35) Class C Cement:Poz (Fly Ash): + 5% bwow Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 6% bwoc Bentonite + 70.9% Fresh Water, 12.9 ppg

Yield: 1.85 cf/sk

TOC @ surface

Tail: 360 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Water, 14.8 ppg

Yield: 1.33 cf/sk

5-1/2" Production

1st Lead: 400 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% bwoc Bentonite + 8 lb/sk Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 0.3% bwoc HR-601 + 0.3% bwoc Econolite + 77.2% Fresh Water, 11.8 ppg

Yield: 2.52 cf/sk

2nd Lead: 325 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% bwoc Bentonite + 0.125 lbs/sack Poly-E-Flake + 0.1% bwoc HR-601 + 74.1% Fresh Water, 12.5 ppg

Yield: 1.95 cf/sk

Tail: 1600 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.1% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg

Yield: 1.22 cf/sk

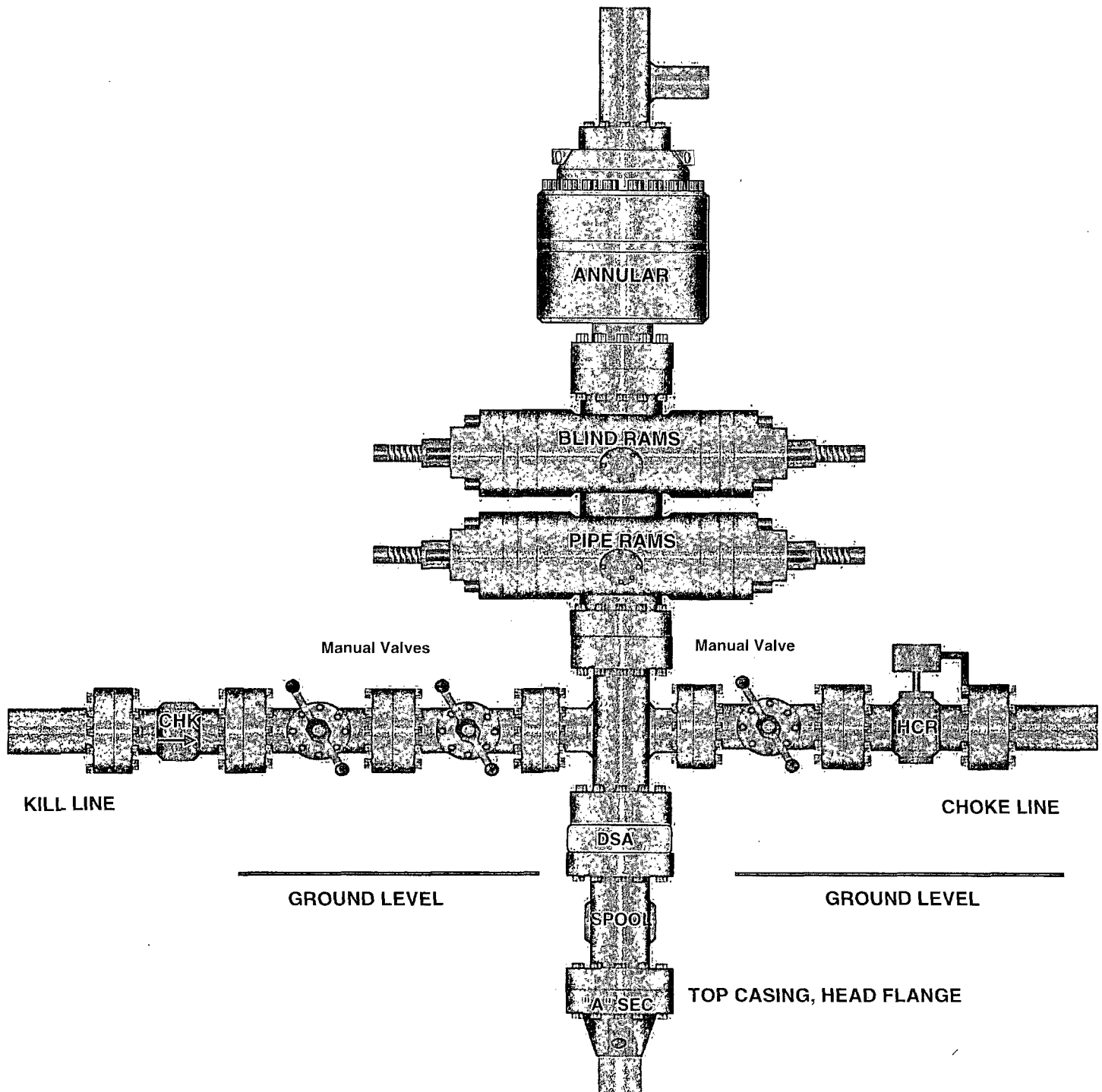
TOC for All Strings:

Surface:	0
Intermediate:	0
Production:	3650 ft

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.

See COA

13-5/8" x 3,000 psi BOP Stack





Weatherford®



Drilling Services

Proposal



devon

SNAPPING 10 FEDERAL 5H

EDDY COUNTY, NM

WELL FILE: PLAN 1

MAY 10, 2013

Weatherford International, Ltd.

P.O. Box 61028
Midland, TX 79711 USA
+1.432.561.8892 Main
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www.weatherford.com



Snapping 10 Federal 5H Eddy Co., New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	9540.08	0.00	0.00	9540.08	0.00	0.00	0.00	0.00	0.00	
3	10401.86	86.19	335.67	10111.69	487.31	-220.34	10.00	335.67	498.92	
4	10647.94	90.00	360.00	10120.00	725.90	-271.71	10.00	81.64	740.01	
5	14749.21	90.00	360.00	10120.00	4827.17	-271.75	0.00	0.00	4834.81	PBHL

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Snapping 10 Federal 5H	0.00	0.00	382631.68	719606.88	32°03'02.255N	103°45'28.588W	N/A

TARGET DETAILS

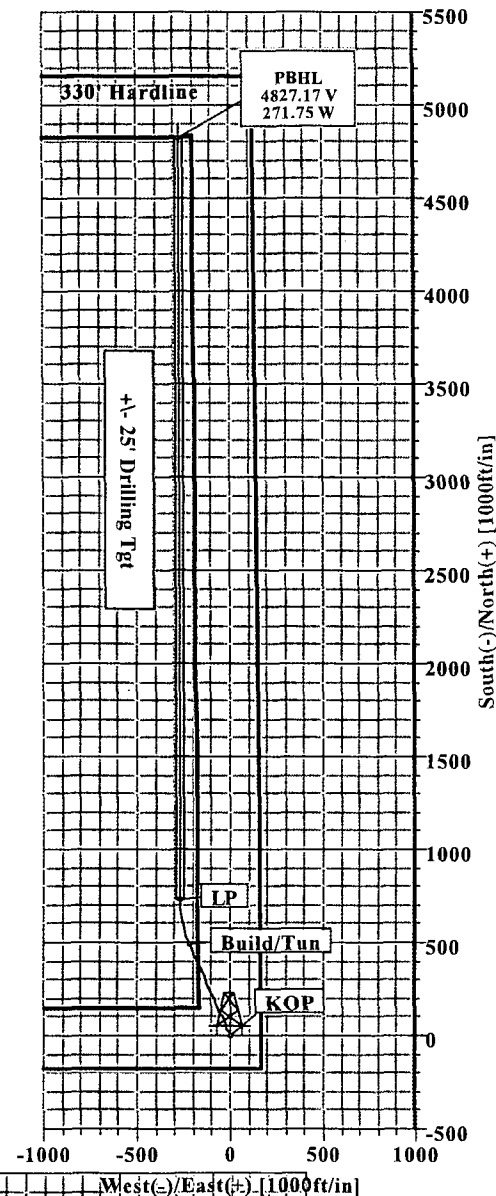
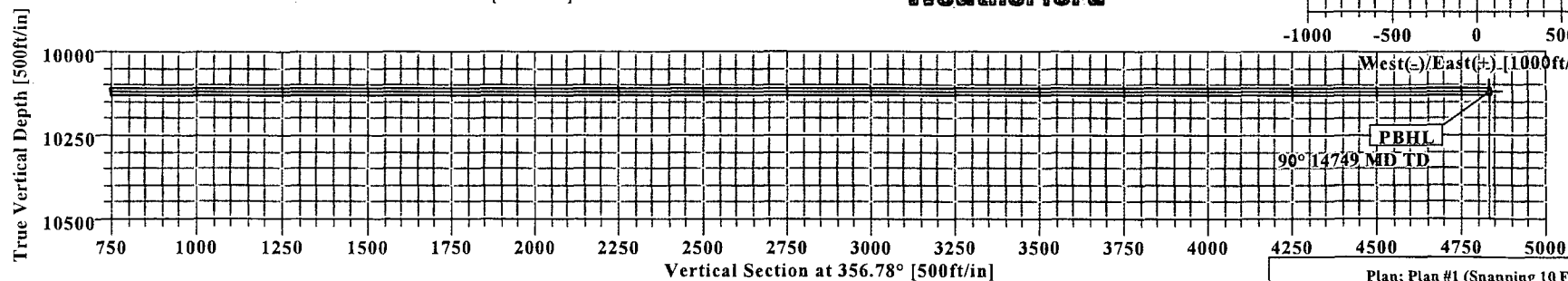
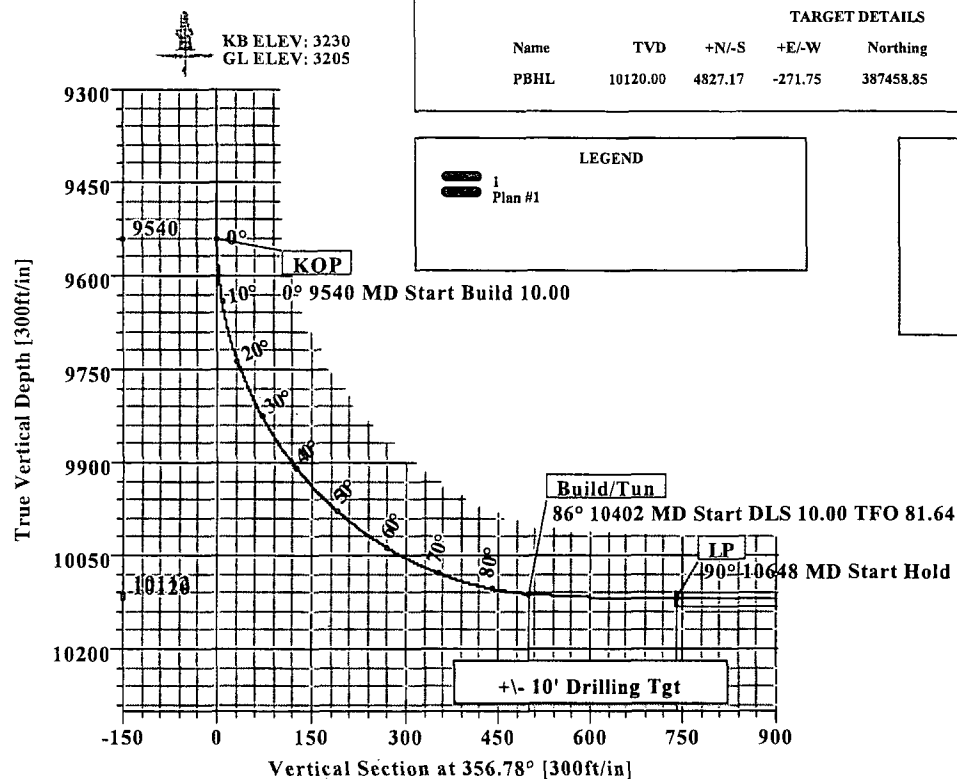
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL	10120.00	4827.17	-271.75	387458.85	719335.13	Rectangle (410x50)

LEGEND

1
Plan #1

SITE DETAILS

Snapping 10 Federal 5H
Site Centre Northing: 382631.68
Easting: 719606.88
Ground Level: 3205.00
Positional Uncertainty: 0.00
Convergence: 0.31



Plan: Plan #1 (Snapping 10 Federal 5H/1)

Created By: Russell W. Joyner

Date: 5/10/2013



Weatherford Wft Plan Report X Y's.



Company: Devon Energy	Date: 5/10/2013	Time: 11:19:41	Page: 1
Field: Eddy Co. NM (NAD 83)	Co-ordinate (NE) Reference:	Well: Snapping 10 Federal 5H	Grid: North
Site: Snapping 10 Federal 5H	Vertical (TVD) Reference:	SITE 3230.0	
Well: Snapping 10 Federal 5H	Section (VS) Reference:	Well (0.00N 0.00E; 356.78Az)	
Wellpath: 1	Survey Calculation Method:	Minimum Curvature	Db: Sybase

Plan: Plan #1	Date Composed: 5/10/2013
Principal: Yes	Version: 1
	Tied-to: From Surface

Site: Snapping 10 Federal 5H

Site Position:	Northing: 382631.68 ft	Latitude: 32 3 2.255 N
From: Map	Easting: 719606.88 ft	Longitude: 103 45 28.588 W
Position Uncertainty: 0.00 ft	North Reference: Grid	
Ground Level: 3205.00 ft	Grid Convergence: 0.31 deg	

Well: Snapping 10 Federal 5H

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 382631.68 ft	Latitude: 32 3 2.255 N
+E/-W 0.00 ft	Easting: 719606.88 ft	Longitude: 103 45 28.588 W
Position Uncertainty: 0.00 ft		

Wellpath: 1

Drilled From: Surface

Current Datum: SITE	Height 3230.00 ft	Tie-on Depth: 0.00 ft
Magnetic Data: 10/15/2013		Above System Datum: Mean Sea Level
Field Strength: 48283 nT		Declination: 7.37 deg
Vertical Section: Depth From (TVD)	+N/-S	Mag Dip Angle: 59.94 deg
ft	ft	Direction
		deg
0.00	0.00	0.00 356.78

Plan Section Information

MD	Incl	Azim	TVD	N/S	E/W	DLS	Build	Turn	TFO	Target
ft	deg	deg	ft	ft	ft	deg/100ft	deg/100ft	deg/100ft	deg	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9540.08	0.00	0.00	9540.08	0.00	0.00	0.00	0.00	0.00	0.00	
10401.86	86.19	335.67	10111.69	487.31	-220.34	10.00	10.00	0.00	335.67	
10647.94	90.00	360.00	10120.00	725.90	-271.71	10.00	1.55	9.89	81.64	
14749.21	90.00	360.00	10120.00	4827.17	-271.75	0.00	0.00	0.00	0.00	PBHL

Survey

MD	Incl	Azim	TVD	N/S	E/W	VS	DLS	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
9500.00	0.00	0.00	9500.00	0.00	0.00	0.00	0.00	382631.68	719606.88	
9540.08	0.00	0.00	9540.08	0.00	0.00	0.00	0.00	382631.68	719606.88	KOP
9600.00	5.99	335.67	9599.89	2.85	-1.29	2.92	10.00	382634.53	719605.59	
9700.00	15.99	335.67	9697.93	20.21	-9.14	20.69	10.00	382651.89	719597.74	
9800.00	26.00	335.67	9791.17	52.81	-23.88	54.07	10.00	382684.49	719583.00	
9900.00	36.00	335.67	9876.79	99.68	-45.07	102.05	10.00	382731.36	719561.81	
10000.00	46.00	335.67	9952.16	159.38	-72.06	163.17	10.00	382791.06	719534.82	
10100.00	56.00	335.67	10015.02	230.10	-104.04	235.58	10.00	382861.78	719502.84	
10200.00	66.00	335.67	10063.43	309.69	-140.03	317.07	10.00	382941.37	719466.85	
10300.00	76.00	335.67	10095.95	395.74	-178.93	405.16	10.00	383027.42	719427.95	
10400.00	86.00	335.67	10111.57	485.62	-219.57	497.19	10.00	383117.30	719387.31	
10401.86	86.19	335.67	10111.69	487.31	-220.34	498.92	10.00	383118.99	719386.54	Build/Tun
10500.00	87.66	345.39	10116.96	579.60	-252.96	592.89	10.00	383211.28	719353.92	
10600.00	89.24	355.27	10119.68	678.01	-269.73	692.09	10.00	383309.69	719337.15	
10647.94	90.00	360.00	10120.00	725.90	-271.71	740.01	10.00	383357.58	719335.17	LP
10700.00	90.00	360.00	10120.00	777.96	-271.71	791.99	0.00	383409.64	719335.17	
10800.00	90.00	360.00	10120.00	877.96	-271.71	891.83	0.00	383509.64	719335.17	
10900.00	90.00	360.00	10120.00	977.96	-271.71	991.68	0.00	383609.64	719335.17	
11000.00	90.00	360.00	10120.00	1077.96	-271.71	1091.52	0.00	383709.64	719335.17	
11100.00	90.00	360.00	10120.00	1177.96	-271.71	1191.36	0.00	383809.64	719335.17	
11200.00	90.00	360.00	10120.00	1277.96	-271.72	1291.20	0.00	383909.64	719335.16	
11300.00	90.00	360.00	10120.00	1377.96	-271.72	1391.04	0.00	384009.64	719335.16	



Company: Devon Energy Date: 5/10/2013 Time: 11:19:41 Page: 2
 Field: Eddy Co NM (NAD83) Co-ordinate(NE) Reference: Well: Snapping 10 Federal 5H Grid: North
 Site: Snapping 10 Federal 5H Vertical (TVD) Reference: SITE 3230.0
 Well: Snapping 10 Federal 5H Section (VS) Reference: Well: (0.00N 0.00E 356.78Azi)
 Wellpath: 1 Survey/Calculation Method: Minimum Curvature Db: Sybase

Survey

MD	Incl	Azin	TVD	N/S	E/W	VS	DES	MapN	MapE	Comment
ft	deg	deg	ft	ft	ft	ft	deg/100ft	ft	ft	
11400.00	90.00	360.00	10120.00	1477.96	-271.72	1490.89	0.00	384109.64	719335.16	
11500.00	90.00	360.00	10120.00	1577.96	-271.72	1590.73	0.00	384209.64	719335.16	
11600.00	90.00	360.00	10120.00	1677.96	-271.72	1690.57	0.00	384309.64	719335.16	
11700.00	90.00	360.00	10120.00	1777.96	-271.72	1790.41	0.00	384409.64	719335.16	
11800.00	90.00	360.00	10120.00	1877.96	-271.72	1890.25	0.00	384509.64	719335.16	
11900.00	90.00	360.00	10120.00	1977.96	-271.72	1990.10	0.00	384609.64	719335.16	
12000.00	90.00	360.00	10120.00	2077.96	-271.72	2089.94	0.00	384709.64	719335.16	
12100.00	90.00	360.00	10120.00	2177.96	-271.72	2189.78	0.00	384809.64	719335.16	
12200.00	90.00	360.00	10120.00	2277.96	-271.73	2289.62	0.00	384909.64	719335.15	
12300.00	90.00	360.00	10120.00	2377.96	-271.73	2389.47	0.00	385009.64	719335.15	
12400.00	90.00	360.00	10120.00	2477.96	-271.73	2489.31	0.00	385109.64	719335.15	
12500.00	90.00	360.00	10120.00	2577.96	-271.73	2589.15	0.00	385209.64	719335.15	
12600.00	90.00	360.00	10120.00	2677.96	-271.73	2688.99	0.00	385309.64	719335.15	
12700.00	90.00	360.00	10120.00	2777.96	-271.73	2788.83	0.00	385409.64	719335.15	
12800.00	90.00	360.00	10120.00	2877.96	-271.73	2888.68	0.00	385509.64	719335.15	
12900.00	90.00	360.00	10120.00	2977.96	-271.73	2988.52	0.00	385609.64	719335.15	
13000.00	90.00	360.00	10120.00	3077.96	-271.73	3088.36	0.00	385709.64	719335.15	
13100.00	90.00	360.00	10120.00	3177.96	-271.73	3188.20	0.00	385809.64	719335.15	
13200.00	90.00	360.00	10120.00	3277.96	-271.74	3288.05	0.00	385909.64	719335.14	
13300.00	90.00	360.00	10120.00	3377.96	-271.74	3387.89	0.00	386009.64	719335.14	
13400.00	90.00	360.00	10120.00	3477.96	-271.74	3487.73	0.00	386109.64	719335.14	
13500.00	90.00	360.00	10120.00	3577.96	-271.74	3587.57	0.00	386209.64	719335.14	
13600.00	90.00	360.00	10120.00	3677.96	-271.74	3687.41	0.00	386309.64	719335.14	
13700.00	90.00	360.00	10120.00	3777.96	-271.74	3787.26	0.00	386409.64	719335.14	
13800.00	90.00	360.00	10120.00	3877.96	-271.74	3887.10	0.00	386509.64	719335.14	
13900.00	90.00	360.00	10120.00	3977.96	-271.74	3986.94	0.00	386609.64	719335.14	
14000.00	90.00	360.00	10120.00	4077.96	-271.74	4086.78	0.00	386709.64	719335.14	
14100.00	90.00	360.00	10120.00	4177.96	-271.74	4186.62	0.00	386809.64	719335.14	
14200.00	90.00	360.00	10120.00	4277.96	-271.74	4286.47	0.00	386909.64	719335.14	
14300.00	90.00	360.00	10120.00	4377.96	-271.75	4386.31	0.00	387009.64	719335.13	
14400.00	90.00	360.00	10120.00	4477.96	-271.75	4486.15	0.00	387109.64	719335.13	
14500.00	90.00	360.00	10120.00	4577.96	-271.75	4585.99	0.00	387209.64	719335.13	
14600.00	90.00	360.00	10120.00	4677.96	-271.75	4685.84	0.00	387309.64	719335.13	
14700.00	90.00	360.00	10120.00	4777.96	-271.75	4785.68	0.00	387409.64	719335.13	
14749.21	90.00	360.00	10120.00	4827.17	-271.75	4834.81	0.00	387458.85	719335.13	PBHL

Targets

Name	Description	TVD	+N/-S	+E/-W	Map Northing	Map Easting	Latitude	Longitude
Dip.	Dir.	ft	ft	ft	ft	ft	Deg Min Sec	Deg Min Sec
PBHL		10120.00	4827.17	-271.75	387458.85	719335.13	32 3 50.038 N	103 45 31.447 W
-Rectangle (4101x50)								

Casing Points

MD	TVD	Diameter	Hole Size	Name



Weatherford

Wft Plan Report X Y's.



Weatherford

Company: Devon Energy	Date: 5/10/2013	Time: 11:19:41	Page: 3
Field: Eddy Co. NM (NAD83)	Co-ordinate (NE) Reference: Well: Snapping 10 Federal 5H	Grid: North	
Site: Snapping 10 Federal 5H	Vertical (TVD) Reference: SITE 3230.0		
Well: Snapping 10 Federal 5H	Section (VS) Reference: Well (0.00N 0.00E 356.78Azi)		
Wellpath:	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Formations

MD	TVD	Formations	Lithology	Dip Angle	Dip Direction

Annotation

MD	TVD	
ft	ft	
9540.08	9540.08	KOP
10401.86	10111.69	Build/Tun
10647.94	10120.00	LP
14749.21	10120.00	PBHL

**Weatherford****Weatherford Drilling Services**

GeoDec v5.03

Report Date: May 10, 2013
Job Number: _____
Customer: Devon
Well Name: Snapping 10 Federal 5H
API Number: _____
Rig Name: _____
Location: Eddy Co., NM
Block: _____
Engineer: RWJ

US State Plane 1983	Geodetic Latitude / Longitude
System: New Mexico Eastern Zone	System: Latitude / Longitude
Projection: Transverse Mercator/Gauss Kruger	Projection: Geodetic Latitude and Longitude
Datum: North American Datum 1983	Datum: North American Datum 1983
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
North/South 382631.680 USFT	Latitude 32.0506285 DEG
East/West 719606.880 USFT	Longitude -103.7579365 DEG
Grid Convergence: .31°	
Total Correction: +7.17°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.05063° N	32° 3 min 2.263 sec
Longitude =	103.75794° W	103° 45 min 28.572 sec

Magnetic Declination =	7.48°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6774
Local Field Strength =	48268 nT	Magnetic Vector X = 23985 nT
Magnetic Dip =	59.92°	Magnetic Vector Y = 3150 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41768 nT
Spud Date =	Oct 15, 2013	Magnetic Vector H = 24191 nT

Signed: _____

Date: _____

Snapping 10 Federal 5H
30-015-40994
Devon Energy Production Co., LP
July 01, 2013

The original COAs still stand with the following drilling modifications:

I. DRILLING

1. The **13-3/8** inch surface casing shall be set at approximately **1440** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt. Excess calculates to 3% - Additional cement may be required.**
 - 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 is to include the lead cement slurry.**
 - 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.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

A. 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. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. 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.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. 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. 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 (18 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).
- c. 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.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. 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.**
- f. 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.

JAM 070113