

Submit | Copy To Appropriate District
Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Dr., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-025-41625
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator Devon Energy Production Company, L.P.		6. State Oil & Gas Lease No.
3. Address of Operator 20 North Broadway Oklahoma City, Oklahoma 73102-8260 (405) 552-7848		7. Lease Name or Unit Agreement Name SEA SNAKE 35 STATE
4. Well Location Unit Letter <u>M</u> : <u>200</u> feet from the <u>S</u> line and <u>1295</u> feet from the <u>W</u> line Section <u>35</u> Township <u>23S</u> Range <u>33E</u> NMPM Lea County New Mexico		8. Well Number <u>1H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3664.8'		9. OGRID Number 6137
		10. Pool name or Wildcat TRIPLE X; BONE SPRING

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy Production Co., L.P. respectfully requests approval to change the drilling plans as follows:

- Change Surface casing set point to 1450' due to change in rustler depth from geology
- New directional plan due to new landing point from geology (and thus new TD depth)
- New depth for whipstock to be placed - due to the new landing point"

See attached re-vised Drill Plan & Directional Survey.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Regulatory Specialist DATE 10/14/2014

Type or print name David H. Cook E-mail address: david.cook@devon.com PHONE: (405) 552-7848

For State Use Only

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 10/15/14
Conditions of Approval (if any):

OCT 17 2014

DRILLING PROGRAM

Devon Energy Production Company, L.P. Sea Snake 35 State 1H

1. Geologic Name of Surface Formation: Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated FW, Oil, or Gas:

a. Fresh Water	200'		
b. Rustler	1360'	Barren	
c. Salado	1630'	Barren	
d. Tansil Dolomite	2410'	Barren	
e. Yates	2540'	Barren	
f. Seven Rivers	2780'	Barren	
g. Queen	3415'	Barren	
h. San Andres	4225'	Barren	
i. Delaware	5190'	Oil	
j. Bone Spring	9070'	Oil	
k. 1 st Bone Spring SS	10065'	Oil	
l. 2 nd Bone Spring	10640'	Oil	
Total Depth	11235' TVD	15832' MD	11600' PH

3. Pressure Control Equipment:

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 3M 13-5/8" BOP system (Double Ram and Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

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); **if an H&P rig drills this well. Otherwise no flex line is needed.** The line will be kept as straight as possible with minimal turns.

Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

4. Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17-1/2"	0 – 1,450'	13-3/8"	0 - 1,450'	48	STC	H-40	1.29	2.90	8.35
12-1/4"	1,450-5,200'	9-5/8"	0 – 4,300'	40	BTC	J-55	1.15	3.43	4.69
12-1/4"	1,450-5,200'	9-5/8"	4300 - 5200'	40	BTC	HCK-55	1.57	4.63	6.07
8-3/4"	5,200 – 15,832'	7"	0 – 10,650'	29	BTC	P-110	1.78	1.25	2.16
8-3/4"	5,200- 15,832'	5-1/2"	10,650 – 15,832'	17	BTC	P-110	1.42	1.25	2.07

Pilot Hole Depth: 11,600 FT TVD

Casing Notes:

- Pilot hole planned will be plugged back from within 50' of pilot hole TD to top of whipstock. Whipstock placement will be determined by pilot hole log results.
- All casing is new and API approved

Maximum Lateral TVD: 11,235'

5. Proposed mud Circulations System:

Depth Range	Mud Weight	Viscosity (cp)	Fluid Loss	Type System
0 – 1,450'	8.5 – 8.7	4 - 6	NC	Fresh Water
1,450' – 5,200'	9.8 – 10.0	1 - 5	<100	Brine
5,200' – 15,832'	8.4 – 9.0	1 - 5	<100	Cut Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

6. Cementing Table:

String	Num ber of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
13-3/8" Surface Casing	950	13.5	9.08	1.72	Lead	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water
	350	14.8	6.32	1.33	Tail	Class C Cement + 63.5% Fresh Water
9-5/8" Intermediate Casing	1285	12.9	9.81	1.85	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	395	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water
Pilot Hole Plug Back	365	15.6	5.39	1.19	Tail	Class H Cement + 0.2% Halad-9 + 0.4% HR-601 + 60.5 % Fresh Water
7" X 5-1/2" Production Casing	550	10.4	12.89	2.26	Lead #1	(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 + 76.4% Fresh Water, 11.9 ppg
	1055	14.5	5.37	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

TOC for all Strings:

13-3/8" Surface Casing	0ft
9-5/8" Intermediate Casing	0ft
Pilot Hole Plug Back	Top of Whipstock - ~10,720'
5-1/2" Production Casing	4,700ft

Notes:

- Cement volumes Surface 100%, Intermediate 75% and Production Casing based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data

devon

Sea Snake 35 State 1H
Pilot
Lea Co, NM



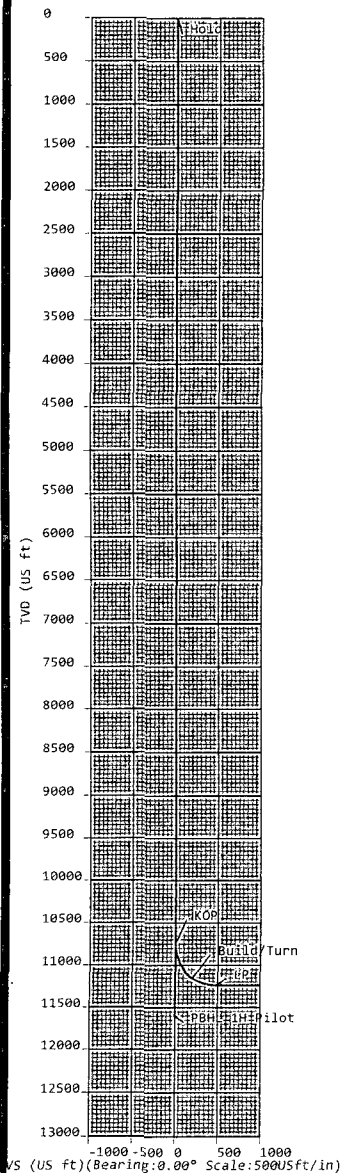
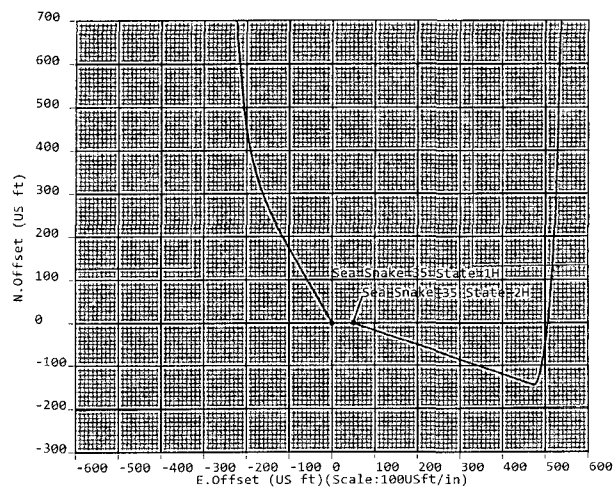
KB-3690
GL-3665

Plan Data for Sea Snake 35 State 1H Pilot

Plan Point Information:
Dogleg Severity Unit: °/100.00ft Position offsets from Slot centre
MD Inc Az TVD +N/-S +E/-W Northing Easting VSec DLS
(USft) (°) (°) (USft)(USft)(USft) (USft) (USft)(USft) (DLSU)
0.00 0.00 0.00 0.00 0.00 0.00 457182.35 784272.71 0.00 0.00
11600.00 0.00 0.00 11600.00 0.00 0.00 457182.35 784272.71 0.00 0.00

Plan Data for Sea Snake 35 State 1H Pilot

Slot: Sea Snake 35 State 1H
Position:
Offset is from Site centre
+N/-S: 0.00USft Northing: 457182.35USft Latitude: 32°15'15.9"
+E/-W: 0.00USft Easting: 784272.71USft Longitude: -103°32'50.9"
Elevation Above VRD: 3665.00USft



Sign Off: Russell Joyner

5D Plan Report**Devon Energy**

Field Name: *Lea Co, NM Nad 83 NMEZ*
Site Name: *Sea Snake 35 State 1,2H Pad*
Well Name: *Sea Snake 35 State 1H Pilot*
Plan: *P1:V2*

04 August 2014



Sea Snake 35 State 1H Pilot

Field Name Lea Co. NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			

Site Name Sea Snake 35 State 1H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.42	
	Position	Northing : 457182.35 US ft	Latitude : 32°15'15.93"	
		Easting : 784272.71 US ft	Longitude : -103°32'50.91"	
	Elevation above Mean Sea Level: 3665.00 US ft			
Comment :				

Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 457182.35 US ft	Latitude : 32°15'15.93"	
	+E / -W : 0.00 US ft	Easting : 784272.71 US ft	Longitude : -103°32'50.91"	
	Elevation above Mean Sea Level : 3665.00 US ft			
Comment :				

Well Name Sea Snake 35 State 1H Pilot	Type : Main well		UWI :	Plan : P1:V2		
	Rig Height <i>Kelly Bushing</i> : 25.00 US ft		Comment :			
	Relative to Mean Sea Level: 3690.00 US ft					
	Closure Distance : 0 US ft		Closure Azimuth : 0°			
	Vertical Section (Position of Origin Relative to Slot)					
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 0.00°		
	Magnetic Parameters					
	Model : BGGM		Field Strength :	Dec : 7.36°	Dip : 60.14°	Date :
			48320.0nT			15/Jul/2014

Well path created using minimum curvature

Salient Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	B.Rate (°/100 US ft)	T.Rate (°/100 US ft)	T.Face (°)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Hold
11600.00	0.00	0.00	11600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	PBHL 1H Pilot
Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)		Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	457182.35	784272.71		Hold
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		

5D Plan Report

Interpolated Points (Relative to Slot Centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6200.00	0.00	0.00	6200.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6300.00	0.00	0.00	6300.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6400.00	0.00	0.00	6400.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6500.00	0.00	0.00	6500.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6600.00	0.00	0.00	6600.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6700.00	0.00	0.00	6700.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6800.00	0.00	0.00	6800.00	0.00	0.00	0.00	0.00	457182.35	784272.71		
6900.00	0.00	0.00	6900.00	0.00	0.00	0.00	0.00	457182.35	784272.71		

5D Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N-Offset (US ft)	E-Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
7000.00	0.00	0.00	7000.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7100.00	0.00	0.00	7100.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7200.00	0.00	0.00	7200.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7300.00	0.00	0.00	7300.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7400.00	0.00	0.00	7400.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7500.00	0.00	0.00	7500.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7600.00	0.00	0.00	7600.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7700.00	0.00	0.00	7700.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7800.00	0.00	0.00	7800.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
7900.00	0.00	0.00	7900.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8000.00	0.00	0.00	8000.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8100.00	0.00	0.00	8100.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8200.00	0.00	0.00	8200.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8300.00	0.00	0.00	8300.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8400.00	0.00	0.00	8400.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8500.00	0.00	0.00	8500.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8600.00	0.00	0.00	8600.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8700.00	0.00	0.00	8700.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8800.00	0.00	0.00	8800.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
8900.00	0.00	0.00	8900.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9000.00	0.00	0.00	9000.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9100.00	0.00	0.00	9100.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9200.00	0.00	0.00	9200.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9300.00	0.00	0.00	9300.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9400.00	0.00	0.00	9400.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9500.00	0.00	0.00	9500.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9600.00	0.00	0.00	9600.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9700.00	0.00	0.00	9700.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9800.00	0.00	0.00	9800.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
9900.00	0.00	0.00	9900.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10000.00	0.00	0.00	10000.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10100.00	0.00	0.00	10100.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10200.00	0.00	0.00	10200.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10300.00	0.00	0.00	10300.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10400.00	0.00	0.00	10400.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10500.00	0.00	0.00	10500.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10600.00	0.00	0.00	10600.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10700.00	0.00	0.00	10700.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10800.00	0.00	0.00	10800.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
10900.00	0.00	0.00	10900.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11000.00	0.00	0.00	11000.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11100.00	0.00	0.00	11100.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11200.00	0.00	0.00	11200.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11300.00	0.00	0.00	11300.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11400.00	0.00	0.00	11400.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11500.00	0.00	0.00	11500.00	0.00	0.00	0.00	0.00	457182.35	784272.71	
11600.00	0.00	0.00	11600.00	0.00	0.00	0.00	0.00	457182.35	784272.71	PBHL 1H Pilot

5D Anti-Collision Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NMEZ***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 1H Pilot*

05 August 2014




Weatherford®

Sea Snake 35 State 1H Pilot

Field Name Lea Co. NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Sea Snake 35 State 1H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.42	
	Position	Northing : 457182.35 US ft	Latitude : 32° 15' 15.93"	
		Easting : 784272.71 US ft	Longitude : -103° 32' 50.91"	
	Elevation above Mean Sea Level :3665.00 US ft			
Comment :				
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 457182.35 US ft	Latitude : 32°15'15.93"	
	+E / -W : 0.00 US ft	Easting : 784272.71 US ft	Longitude : -103°32'50.91"	
	Elevation above Mean Sea Level : 3665.00 US ft			
Comment :				
Well Name Sea Snake 35 State 1H Pilot	Type : Main well		UWI :	Plan : Working Plan
	Rig Height <i>Kelly Bushing</i> : 25.00 US ft		Comment :	
	Relative to Mean Sea Level : 3690.00 US ft			
	Closure Distance : 0 US ft		Closure Azimuth : 0°	
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az :0.00°	
Magnetic Parameters				
Model : BGGM	Field Strength :	Dec : 7.36°	Dip : 60.14°	Date :
	48320.0nT			15/Jul/2014

Collision / Uncertainty Analysis

Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
Sea Snake 35 State 1H Pilot (p)	0.00	11600.00	100.00	2

Secondary Well Names

Sea Snake 35 State 2H (p)

Anti-Collision Report Terminology

S.Minor, S.Major : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.

PHI : Angle between high-side vector and semi-minor axis

TVD Spread : Total TVD range of the ellipsoid of uncertainty at the current location

ES : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr

T.Face to Sec : Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Pedal Curve (Independent Uncertainty). Well path created using minimum curvature.

5D Anti-Collision Report

Anti-Collision Proximity Summary (TVD relative to Kelly Bushing)

Secondary Well Name	Prim MD (US ft)	Sec MD (US ft)	TVD (US ft)	CC (US ft)	ES (US ft)	SF	Risk
Sea Snake 35 State 2H (p)	5400.00	5400.00	5400.00	49.97	25.19	2.02	

Primary Well: Sea Snake 35 State 1H Pilot (p) (TVD Relative to Kelly Bushing; All Azimuth Relative to GRID NORTH)										
MD (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	T. Face to Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk	
0.00	0.00	0.00	0.00	89.61	Sea Snake 35 State 2H (p)	49.97	68.14	49.24		
100.00	100.00	0.11	0.11	89.61	Sea Snake 35 State 2H (p)	49.97	52.38	49.02		
200.00	200.00	0.34	0.34	89.61	Sea Snake 35 State 2H (p)	49.97	35.60	48.57		
300.00	300.00	0.56	0.56	89.61	Sea Snake 35 State 2H (p)	49.97	26.97	48.12		
400.00	400.00	0.79	0.79	89.61	Sea Snake 35 State 2H (p)	49.97	21.70	47.67		
500.00	500.00	1.01	1.01	89.61	Sea Snake 35 State 2H (p)	49.97	18.16	47.22		
600.00	600.00	1.24	1.24	89.61	Sea Snake 35 State 2H (p)	49.97	15.61	46.77		
700.00	700.00	1.46	1.46	89.61	Sea Snake 35 State 2H (p)	49.97	13.69	46.32		
800.00	800.00	1.69	1.69	89.61	Sea Snake 35 State 2H (p)	49.97	12.18	45.87		
900.00	900.00	1.91	1.91	89.61	Sea Snake 35 State 2H (p)	49.97	10.98	45.42		
1000.00	1000.00	2.14	2.14	89.61	Sea Snake 35 State 2H (p)	49.97	9.99	44.97		
1100.00	1100.00	2.36	2.36	89.61	Sea Snake 35 State 2H (p)	49.97	9.17	44.52		
1200.00	1200.00	2.59	2.59	89.61	Sea Snake 35 State 2H (p)	49.97	8.47	44.07		
1300.00	1300.00	2.81	2.81	89.61	Sea Snake 35 State 2H (p)	49.97	7.87	43.62		
1400.00	1400.00	3.03	3.03	89.61	Sea Snake 35 State 2H (p)	49.97	7.35	43.17		
1500.00	1500.00	3.26	3.26	89.61	Sea Snake 35 State 2H (p)	49.97	6.89	42.72		
1600.00	1600.00	3.48	3.48	89.61	Sea Snake 35 State 2H (p)	49.97	6.49	42.27		
1700.00	1700.00	3.71	3.71	89.61	Sea Snake 35 State 2H (p)	49.97	6.13	41.82		
1800.00	1800.00	3.93	3.93	89.61	Sea Snake 35 State 2H (p)	49.97	5.81	41.37		
1900.00	1900.00	4.16	4.16	89.61	Sea Snake 35 State 2H (p)	49.97	5.52	40.92		
2000.00	2000.00	4.38	4.38	89.61	Sea Snake 35 State 2H (p)	49.97	5.26	40.47		
2100.00	2100.00	4.61	4.61	89.61	Sea Snake 35 State 2H (p)	49.97	5.02	40.03		
2200.00	2200.00	4.83	4.83	89.61	Sea Snake 35 State 2H (p)	49.97	4.81	39.58		
2300.00	2300.00	5.06	5.06	89.61	Sea Snake 35 State 2H (p)	49.97	4.61	39.13		
2400.00	2400.00	5.28	5.28	89.61	Sea Snake 35 State 2H (p)	49.97	4.42	38.68		
2500.00	2500.00	5.51	5.51	89.61	Sea Snake 35 State 2H (p)	49.97	4.25	38.23		
2600.00	2600.00	5.73	5.73	89.61	Sea Snake 35 State 2H (p)	49.97	4.10	37.78		
2700.00	2700.00	5.96	5.96	89.61	Sea Snake 35 State 2H (p)	49.97	3.95	37.33		
2800.00	2800.00	6.18	6.18	89.61	Sea Snake 35 State 2H (p)	49.97	3.82	36.88		
2900.00	2900.00	6.41	6.41	89.61	Sea Snake 35 State 2H (p)	49.97	3.69	36.43		
3000.00	3000.00	6.63	6.63	89.61	Sea Snake 35 State 2H (p)	49.97	3.57	35.98		
3100.00	3100.00	6.86	6.86	89.61	Sea Snake 35 State 2H (p)	49.97	3.46	35.53		

5D Anti-Collision Report

Primary Well : Sea Snake 35 State 1H Pilot (p) (TVD Relative to Kelly Bushing, All Azimuth Relative to GRID/NORTH)									
MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk
3200.00	3200.00	7.08	7.08	89.61	Sea Snake 35 State 2H (p)	49.97	3.36	35.08	
3300.00	3300.00	7.31	7.31	89.61	Sea Snake 35 State 2H (p)	49.97	3.26	34.63	
3400.00	3400.00	7.53	7.53	89.61	Sea Snake 35 State 2H (p)	49.97	3.16	34.18	
3500.00	3500.00	7.76	7.76	89.61	Sea Snake 35 State 2H (p)	49.97	3.08	33.73	
3600.00	3600.00	7.98	7.98	89.61	Sea Snake 35 State 2H (p)	49.97	2.99	33.28	
3700.00	3700.00	8.21	8.21	89.61	Sea Snake 35 State 2H (p)	49.97	2.92	32.83	
3800.00	3800.00	8.43	8.43	89.61	Sea Snake 35 State 2H (p)	49.97	2.84	32.38	
3900.00	3900.00	8.65	8.65	89.61	Sea Snake 35 State 2H (p)	49.97	2.77	31.93	
4000.00	4000.00	8.88	8.88	89.61	Sea Snake 35 State 2H (p)	49.97	2.70	31.48	
4100.00	4100.00	9.10	9.10	89.61	Sea Snake 35 State 2H (p)	49.97	2.64	31.03	
4200.00	4200.00	9.33	9.33	89.61	Sea Snake 35 State 2H (p)	49.97	2.58	30.58	
4300.00	4300.00	9.55	9.55	89.61	Sea Snake 35 State 2H (p)	49.97	2.52	30.13	
4400.00	4400.00	9.78	9.78	89.61	Sea Snake 35 State 2H (p)	49.97	2.46	29.68	
4500.00	4500.00	10.00	10.00	89.61	Sea Snake 35 State 2H (p)	49.97	2.41	29.24	
4600.00	4600.00	10.23	10.23	89.61	Sea Snake 35 State 2H (p)	49.97	2.36	28.79	
4700.00	4700.00	10.45	10.45	89.61	Sea Snake 35 State 2H (p)	49.97	2.31	28.34	
4800.00	4800.00	10.68	10.68	89.61	Sea Snake 35 State 2H (p)	49.97	2.26	27.89	
4900.00	4900.00	10.90	10.90	89.61	Sea Snake 35 State 2H (p)	49.97	2.22	27.44	
5000.00	5000.00	11.13	11.13	89.61	Sea Snake 35 State 2H (p)	49.97	2.17	26.99	
5100.00	5100.00	11.35	11.35	89.61	Sea Snake 35 State 2H (p)	49.97	2.13	26.54	
5200.00	5200.00	11.58	11.58	89.61	Sea Snake 35 State 2H (p)	49.97	2.09	26.09	
5300.00	5300.00	11.80	11.80	89.61	Sea Snake 35 State 2H (p)	49.97	2.05	25.64	
5400.00	5400.00	12.03	12.03	89.61	Sea Snake 35 State 2H (p)	49.97	2.02	25.19	
5500.00	5500.00	12.25	12.25	89.93	Sea Snake 35 State 2H (p)	50.79	2.02	25.60	
5600.00	5600.00	12.48	12.48	90.84	Sea Snake 35 State 2H (p)	53.25	2.08	27.66	
5700.00	5700.00	12.70	12.70	92.17	Sea Snake 35 State 2H (p)	57.37	2.21	31.41	
5800.00	5800.00	12.93	12.93	93.74	Sea Snake 35 State 2H (p)	63.19	2.40	36.86	
5900.00	5900.00	13.15	13.15	95.38	Sea Snake 35 State 2H (p)	70.71	2.65	44.03	
6000.00	6000.00	13.38	13.38	96.86	Sea Snake 35 State 2H (p)	79.21	2.92	52.09	
6100.00	6100.00	13.60	13.60	98.06	Sea Snake 35 State 2H (p)	87.75	3.19	60.21	
6200.00	6200.00	13.83	13.83	99.04	Sea Snake 35 State 2H (p)	96.32	3.44	68.36	
6300.00	6300.00	14.05	14.05	99.87	Sea Snake 35 State 2H (p)	104.91	3.70	76.54	
6400.00	6400.00	14.27	14.27	100.57	Sea Snake 35 State 2H (p)	113.53	3.94	84.73	
6500.00	6500.00	14.50	14.50	101.17	Sea Snake 35 State 2H (p)	122.16	4.18	92.94	
6600.00	6600.00	14.72	14.72	101.69	Sea Snake 35 State 2H (p)	130.80	4.41	101.16	
6700.00	6700.00	14.95	14.95	102.14	Sea Snake 35 State 2H (p)	139.45	4.64	109.39	

5D Anti-Collision Report

Primary Well	Sea Snake 35 State 1H Pilot (p)	(TVD Relative to Kelly Bushing) / (Alt Azimuth Relative to GRID NORTH)							
MD (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	T. Face to Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk
6800.00	6800.00	15.17	15.17	102.54	Sea Snake 35 State 2H (p)	148.10	4.86	117.63	
6900.00	6900.00	15.40	15.40	102.90	Sea Snake 35 State 2H (p)	156.77	5.07	125.87	
7000.00	7000.00	15.62	15.62	103.22	Sea Snake 35 State 2H (p)	165.44	5.28	134.12	
7100.00	7100.00	15.85	15.85	103.51	Sea Snake 35 State 2H (p)	174.11	5.49	142.37	
7200.00	7200.00	16.07	16.07	103.77	Sea Snake 35 State 2H (p)	182.79	5.68	150.63	
7300.00	7300.00	16.30	16.30	104.01	Sea Snake 35 State 2H (p)	191.47	5.88	158.89	
7400.00	7400.00	16.52	16.52	104.23	Sea Snake 35 State 2H (p)	200.15	6.06	167.15	
7500.00	7500.00	16.75	16.75	104.43	Sea Snake 35 State 2H (p)	208.84	6.25	175.41	
7600.00	7600.00	16.97	16.97	104.61	Sea Snake 35 State 2H (p)	217.53	6.43	183.68	
7700.00	7700.00	17.20	17.20	104.78	Sea Snake 35 State 2H (p)	226.22	6.60	191.94	
7800.00	7800.00	17.42	17.42	104.93	Sea Snake 35 State 2H (p)	234.92	6.77	200.21	
7900.00	7900.00	17.65	17.65	105.08	Sea Snake 35 State 2H (p)	243.61	6.93	208.47	
8000.00	8000.00	17.87	17.87	105.22	Sea Snake 35 State 2H (p)	252.31	7.09	216.73	
8100.00	8100.00	18.10	18.10	105.34	Sea Snake 35 State 2H (p)	261.00	7.25	224.99	
8200.00	8200.00	18.32	18.32	105.46	Sea Snake 35 State 2H (p)	269.70	7.40	233.25	
8300.00	8300.00	18.55	18.55	105.57	Sea Snake 35 State 2H (p)	278.40	7.55	241.52	
8400.00	8400.00	18.77	18.77	105.67	Sea Snake 35 State 2H (p)	287.10	7.69	249.78	
8500.00	8500.00	19.00	19.00	105.77	Sea Snake 35 State 2H (p)	295.80	7.83	258.05	
8600.00	8600.00	19.22	19.22	105.86	Sea Snake 35 State 2H (p)	304.51	7.97	266.31	
8700.00	8700.00	19.45	19.45	105.95	Sea Snake 35 State 2H (p)	313.21	8.11	274.57	
8800.00	8800.00	19.67	19.67	106.03	Sea Snake 35 State 2H (p)	321.91	8.24	282.84	
8900.00	8900.00	19.89	19.89	106.11	Sea Snake 35 State 2H (p)	330.62	8.37	291.11	
9000.00	9000.00	20.12	20.12	106.19	Sea Snake 35 State 2H (p)	339.32	8.49	299.37	
9100.00	9100.00	20.34	20.34	106.26	Sea Snake 35 State 2H (p)	348.03	8.62	307.64	
9200.00	9200.00	20.57	20.57	106.32	Sea Snake 35 State 2H (p)	356.73	8.74	315.91	
9300.00	9300.00	20.79	20.79	106.39	Sea Snake 35 State 2H (p)	365.44	8.86	324.17	
9400.00	9400.00	21.02	21.02	106.45	Sea Snake 35 State 2H (p)	374.15	8.97	332.44	
9500.00	9500.00	21.24	21.24	106.51	Sea Snake 35 State 2H (p)	382.85	9.08	340.71	
9600.00	9600.00	21.47	21.47	106.56	Sea Snake 35 State 2H (p)	391.56	9.19	348.97	
9700.00	9700.00	21.69	21.69	106.62	Sea Snake 35 State 2H (p)	400.27	9.30	357.24	
9800.00	9800.00	21.92	21.92	106.67	Sea Snake 35 State 2H (p)	408.98	9.41	365.51	
9900.00	9900.00	22.14	22.14	106.71	Sea Snake 35 State 2H (p)	417.69	9.51	373.77	
10000.00	10000.00	22.37	22.37	106.76	Sea Snake 35 State 2H (p)	426.39	9.61	382.04	
10100.00	10100.00	22.59	22.59	106.81	Sea Snake 35 State 2H (p)	435.10	9.71	390.31	
10200.00	10200.00	22.82	22.82	106.85	Sea Snake 35 State 2H (p)	443.81	9.81	398.58	
10300.00	10300.00	23.04	23.04	106.89	Sea Snake 35 State 2H (p)	452.52	9.91	406.84	

5D Anti-Collision Report

Primary Well : Sea Snake 35 State 1H Pilot (p) (TVD Relative to Kelly Bushing ; All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk
10400.00	10400.00	23.27	23.27	106.93	Sea Snake 35 State 2H (p)	461.23	10.00	415.11	
10500.00	10500.00	23.49	23.49	106.97	Sea Snake 35 State 2H (p)	469.94	10.09	423.38	
10600.00	10600.00	23.72	23.72	107.01	Sea Snake 35 State 2H (p)	478.65	10.18	431.64	
10700.00	10700.00	23.94	23.94	107.04	Sea Snake 35 State 2H (p)	487.36	10.27	439.91	
10800.00	10800.00	24.17	24.17	107.07	Sea Snake 35 State 2H (p)	496.06	10.35	448.15	
10900.00	10900.00	24.39	24.39	104.81	Sea Snake 35 State 2H (p)	500.82	10.33	452.34	
11000.00	11000.00	24.62	24.62	99.61	Sea Snake 35 State 2H (p)	501.28	10.23	452.29	
11100.00	11100.00	24.84	24.84	93.57	Sea Snake 35 State 2H (p)	503.59	10.20	454.24	
11200.00	11200.00	25.07	25.07	88.06	Sea Snake 35 State 2H (p)	513.53	10.38	464.07	
11300.00	11300.00	25.29	25.29	83.52	Sea Snake 35 State 2H (p)	534.66	10.84	485.32	
11400.00	11400.00	25.51	25.51	79.91	Sea Snake 35 State 2H (p)	568.12	11.67	519.43	
11500.00	11500.00	25.74	25.74	77.05	Sea Snake 35 State 2H (p)	613.30	12.82	565.48	
11600.00	11600.00	25.96	25.96	74.78	Sea Snake 35 State 2H (p)	668.62	14.27	621.77	

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Kelly Bushing (Primary) ; All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
0.00	0.00	0.00	89.61	0.00	0.00	49.97	49.24	68.14	
100.00	100.00	100.00	89.61	0.11	0.11	49.97	49.02	52.38	
200.00	200.00	200.00	89.61	0.34	0.34	49.97	48.57	35.60	
300.00	300.00	300.00	89.61	0.56	0.56	49.97	48.12	26.97	
400.00	400.00	400.00	89.61	0.79	0.79	49.97	47.67	21.70	
500.00	500.00	500.00	89.61	1.01	1.01	49.97	47.22	18.16	
600.00	600.00	600.00	89.61	1.24	1.24	49.97	46.77	15.61	
700.00	700.00	700.00	89.61	1.46	1.46	49.97	46.32	13.69	
800.00	800.00	800.00	89.61	1.69	1.69	49.97	45.87	12.18	
900.00	900.00	900.00	89.61	1.91	1.91	49.97	45.42	10.98	
1000.00	1000.00	1000.00	89.61	2.14	2.14	49.97	44.97	9.99	
1100.00	1100.00	1100.00	89.61	2.36	2.36	49.97	44.52	9.17	
1200.00	1200.00	1200.00	89.61	2.59	2.59	49.97	44.07	8.47	
1300.00	1300.00	1300.00	89.61	2.81	2.81	49.97	43.62	7.87	
1400.00	1400.00	1400.00	89.61	3.03	3.03	49.97	43.17	7.35	
1500.00	1500.00	1500.00	89.61	3.26	3.26	49.97	42.72	6.89	
1600.00	1600.00	1600.00	89.61	3.48	3.48	49.97	42.27	6.49	
1700.00	1700.00	1700.00	89.61	3.71	3.71	49.97	41.82	6.13	
1800.00	1800.00	1800.00	89.61	3.93	3.93	49.97	41.37	5.81	
1900.00	1900.00	1900.00	89.61	4.16	4.16	49.97	40.92	5.52	
2000.00	2000.00	2000.00	89.61	4.38	4.38	49.97	40.47	5.26	
2100.00	2100.00	2100.00	89.61	4.61	4.61	49.97	40.03	5.02	
2200.00	2200.00	2200.00	89.61	4.83	4.83	49.97	39.58	4.81	
2300.00	2300.00	2300.00	89.61	5.06	5.06	49.97	39.13	4.61	
2400.00	2400.00	2400.00	89.61	5.28	5.28	49.97	38.68	4.42	
2500.00	2500.00	2500.00	89.61	5.51	5.51	49.97	38.23	4.25	
2600.00	2600.00	2600.00	89.61	5.73	5.73	49.97	37.78	4.10	
2700.00	2700.00	2700.00	89.61	5.96	5.96	49.97	37.33	3.95	
2800.00	2800.00	2800.00	89.61	6.18	6.18	49.97	36.88	3.82	
2900.00	2900.00	2900.00	89.61	6.41	6.41	49.97	36.43	3.69	
3000.00	3000.00	3000.00	89.61	6.63	6.63	49.97	35.98	3.57	
3100.00	3100.00	3100.00	89.61	6.86	6.86	49.97	35.53	3.46	
3200.00	3200.00	3200.00	89.61	7.08	7.08	49.97	35.08	3.36	
3300.00	3300.00	3300.00	89.61	7.31	7.31	49.97	34.63	3.26	

5D Anti-Collision Report

Secondary Well : Sea Snake 35 State 2H (P) (TVD Relative to Kelly Bushing (Primary)); All Azimuth Relative to GRID (NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T Face to Sec (°)	S Major (US ft)	S Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
3400.00	3400.00	3400.00	89.61	7.53	7.53	49.97	34.18	3.16	
3500.00	3500.00	3500.00	89.61	7.76	7.76	49.97	33.73	3.08	
3600.00	3600.00	3600.00	89.61	7.98	7.98	49.97	33.28	2.99	
3700.00	3700.00	3700.00	89.61	8.21	8.21	49.97	32.83	2.92	
3800.00	3800.00	3800.00	89.61	8.43	8.43	49.97	32.38	2.84	
3900.00	3900.00	3900.00	89.61	8.65	8.65	49.97	31.93	2.77	
4000.00	4000.00	4000.00	89.61	8.88	8.88	49.97	31.48	2.70	
4100.00	4100.00	4100.00	89.61	9.10	9.10	49.97	31.03	2.64	
4200.00	4200.00	4200.00	89.61	9.33	9.33	49.97	30.58	2.58	
4300.00	4300.00	4300.00	89.61	9.55	9.55	49.97	30.13	2.52	
4400.00	4400.00	4400.00	89.61	9.78	9.78	49.97	29.68	2.46	
4500.00	4500.00	4500.00	89.61	10.00	10.00	49.97	29.24	2.41	
4600.00	4600.00	4600.00	89.61	10.23	10.23	49.97	28.79	2.36	
4700.00	4700.00	4700.00	89.61	10.45	10.45	49.97	28.34	2.31	
4800.00	4800.00	4800.00	89.61	10.68	10.68	49.97	27.89	2.26	
4900.00	4900.00	4900.00	89.61	10.90	10.90	49.97	27.44	2.22	
5000.00	5000.00	5000.00	89.61	11.13	11.13	49.97	26.99	2.17	
5100.00	5100.00	5100.00	89.61	11.35	11.35	49.97	26.54	2.13	
5200.00	5200.00	5200.00	89.61	11.58	11.58	49.97	26.09	2.09	
5300.00	5300.00	5300.00	89.61	11.80	11.80	49.97	25.64	2.05	
5400.00	5400.00	5400.00	89.61	12.03	12.03	49.97	25.19	2.02	
5500.00	5499.17	5499.17	89.93	12.23	12.23	50.79	25.60	2.02	
5600.00	5598.25	5598.29	90.84	12.42	12.41	53.25	27.66	2.08	
5700.00	5697.15	5697.28	92.17	12.61	12.58	57.37	31.41	2.21	
5800.00	5795.79	5796.10	93.74	12.80	12.76	63.19	36.86	2.40	
5900.00	5894.07	5894.69	95.38	12.99	12.93	70.71	44.03	2.65	
6000.00	5993.25	5994.24	96.86	13.19	13.12	79.21	52.09	2.92	
6100.00	6092.49	6093.86	98.06	13.39	13.31	87.75	60.21	3.19	
6200.00	6191.73	6193.48	99.04	13.59	13.50	96.32	68.36	3.44	
6300.00	6290.97	6293.10	99.87	13.80	13.70	104.91	76.54	3.70	
6400.00	6390.21	6392.72	100.57	14.01	13.89	113.53	84.73	3.94	
6500.00	6489.45	6492.34	101.17	14.22	14.09	122.16	92.94	4.18	
6600.00	6588.69	6591.96	101.69	14.43	14.28	130.80	101.16	4.41	
6700.00	6687.93	6691.58	102.14	14.65	14.48	139.45	109.39	4.64	
6800.00	6787.17	6791.20	102.54	14.86	14.68	148.10	117.63	4.86	
6900.00	6886.41	6890.82	102.90	15.08	14.88	156.77	125.87	5.07	
7000.00	6985.65	6990.44	103.22	15.30	15.09	165.44	134.12	5.28	
7100.00	7084.89	7090.06	103.51	15.53	15.29	174.11	142.37	5.49	
7200.00	7184.13	7189.68	103.77	15.75	15.49	182.79	150.63	5.68	
7300.00	7283.37	7289.30	104.01	15.98	15.70	191.47	158.89	5.88	
7400.00	7382.62	7388.92	104.23	16.20	15.90	200.15	167.15	6.06	
7500.00	7481.86	7488.53	104.43	16.43	16.11	208.84	175.41	6.25	
7600.00	7581.10	7588.15	104.61	16.66	16.31	217.53	183.68	6.43	
7700.00	7680.34	7687.77	104.78	16.89	16.52	226.22	191.94	6.60	
7800.00	7779.58	7787.39	104.93	17.13	16.73	234.92	200.21	6.77	
7900.00	7878.82	7887.01	105.08	17.36	16.93	243.61	208.47	6.93	
8000.00	7978.06	7986.63	105.22	17.59	17.14	252.31	216.73	7.09	
8100.00	8077.30	8086.25	105.34	17.83	17.35	261.00	224.99	7.25	
8200.00	8176.54	8185.87	105.46	18.07	17.56	269.70	233.25	7.40	
8300.00	8275.78	8285.49	105.57	18.31	17.77	278.40	241.52	7.55	
8400.00	8375.02	8385.11	105.67	18.54	17.98	287.10	249.78	7.69	
8500.00	8474.26	8484.73	105.77	18.78	18.20	295.80	258.05	7.83	
8600.00	8573.50	8584.35	105.86	19.03	18.41	304.51	266.31	7.97	
8700.00	8672.74	8683.97	105.95	19.27	18.62	313.21	274.57	8.11	
8800.00	8771.98	8783.59	106.03	19.51	18.83	321.91	282.84	8.24	
8900.00	8871.22	8883.21	106.11	19.75	19.05	330.62	291.11	8.37	
9000.00	8970.46	8982.83	106.19	20.00	19.26	339.32	299.37	8.49	
9100.00	9069.70	9082.45	106.26	20.24	19.47	348.03	307.64	8.62	

5D Anti-Collision Report

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Kelly Bushing (Primary)) (All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T Face to Sec (°)	S Major (US ft)	S Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
9200.00	9168.94	9182.07	106.32	20.49	19.69	356.73	315.91	8.74	
9300.00	9268.18	9281.69	106.39	20.74	19.90	365.44	324.17	8.86	
9400.00	9367.42	9381.30	106.45	20.98	20.12	374.15	332.44	8.97	
9500.00	9466.66	9480.92	106.51	21.23	20.34	382.85	340.71	9.08	
9600.00	9565.90	9580.54	106.56	21.48	20.55	391.56	348.97	9.19	
9700.00	9665.14	9680.16	106.62	21.73	20.77	400.27	357.24	9.30	
9800.00	9764.38	9779.78	106.67	21.98	20.98	408.98	365.51	9.41	
9900.00	9863.63	9879.40	106.71	22.23	21.20	417.69	373.77	9.51	
10000.00	9962.87	9979.02	106.76	22.48	21.42	426.39	382.04	9.61	
10100.00	10062.11	10078.64	106.81	22.73	21.64	435.10	390.31	9.71	
10200.00	10161.35	10178.26	106.85	22.98	21.85	443.81	398.58	9.81	
10300.00	10260.59	10277.88	106.89	23.24	22.07	452.52	406.84	9.91	
10400.00	10359.83	10377.50	106.93	23.49	22.29	461.23	415.11	10.00	
10500.00	10459.07	10477.12	106.97	23.74	22.51	469.94	423.38	10.09	
10600.00	10558.31	10576.74	107.01	24.00	22.73	478.65	431.64	10.18	
10700.00	10657.55	10676.36	107.04	24.25	22.95	487.36	439.91	10.27	
10800.00	10758.80	10778.00	107.07	24.51	23.18	496.06	448.15	10.35	
10900.00	10891.34	10912.58	104.81	24.30	23.49	500.82	452.34	10.33	
11000.00	10998.51	11029.29	99.61	23.79	23.25	501.28	452.29	10.23	
11100.00	11073.23	11121.00	93.57	23.90	22.21	503.59	454.24	10.20	
11200.00	11122.20	11190.19	88.06	24.04	21.25	513.53	464.07	10.38	
11300.00	11154.14	11242.22	83.52	24.13	20.47	534.66	485.32	10.84	
11400.00	11175.40	11281.90	79.91	24.22	19.97	568.12	519.43	11.67	
11500.00	11189.98	11312.77	77.05	24.32	19.52	613.30	565.48	12.82	
11600.00	11200.29	11337.27	74.78	24.37	19.29	668.62	621.77	14.27	
11600.00	11200.29	11337.27	74.78	24.37	19.29	668.62	621.77	14.27	

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

GeoDec v5.03

Report Date: August 05, 2014
Job Number: _____
Customer: Devon Energy
Well Name: Sea Snake 35 State1H
API Number: _____
Rig Name: _____
Location: Lea County, 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 457182.350 USFT	Latitude 32.2544253 DEG
East/West 784272.710 USFT	Longitude -103.5474740 DEG
Grid Convergence: .42°	
Total Correction: +6.93°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.25443° N	32° 15 min 15.931 sec
Longitude =	103.54747° W	103° 32 min 50.907 sec

Magnetic Declination =	7.35°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6559
Local Field Strength =	48306 nT	Magnetic Vector X = 23859 nT
Magnetic Dip =	60.13°	Magnetic Vector Y = 3076 nT
Magnetic Model =	boggm2014	Magnetic Vector Z = 41890 nT
Spud Date =	Aug 25, 2014	Magnetic Vector H = 24056 nT

Signed: _____

Date: _____

devon

Sea Snake 35 State 1H
Lea Co, NM



Plan Data for Sea Snake 35 State 1H Lateral

Plan Point Information:									
Dogleg Severity Unit: °/100.00ft Position offsets from Slot centre									
MD	Inc	Az	TVD	+N/-S	+E/-W	Northing	Easting	VSec	DLS
(USft)	(°)	(°)	(USft)	(USft)	(USft)	(USft)	(USft)	(USft)	(DLSU)
10739.03	0.00	0.00	10739.03	0.00	0.00	457182.35	784272.71	0.00	0.00
11239.03	60.00	330.00	11152.53	206.75	-119.37	457389.10	784153.34	206.75	12.00
11556.66	90.00	354.70	11235.00	494.70	-206.01	457677.05	784066.70	494.70	12.00
15832.39	90.00	354.70	11235.00	4752.18	-600.63	461934.53	783672.08	4752.18	0.00

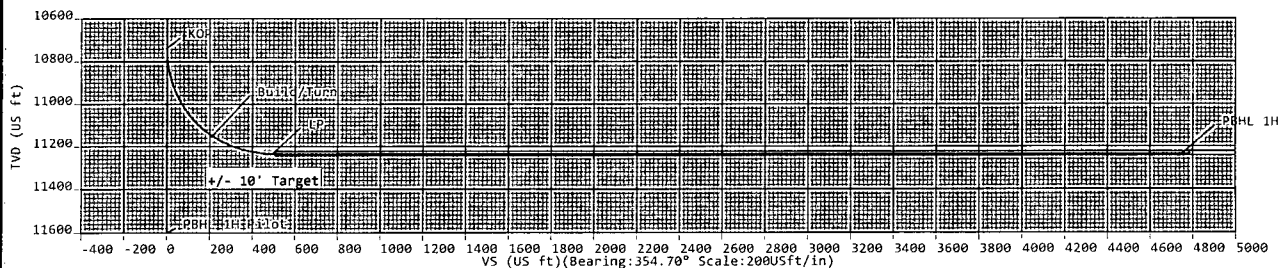
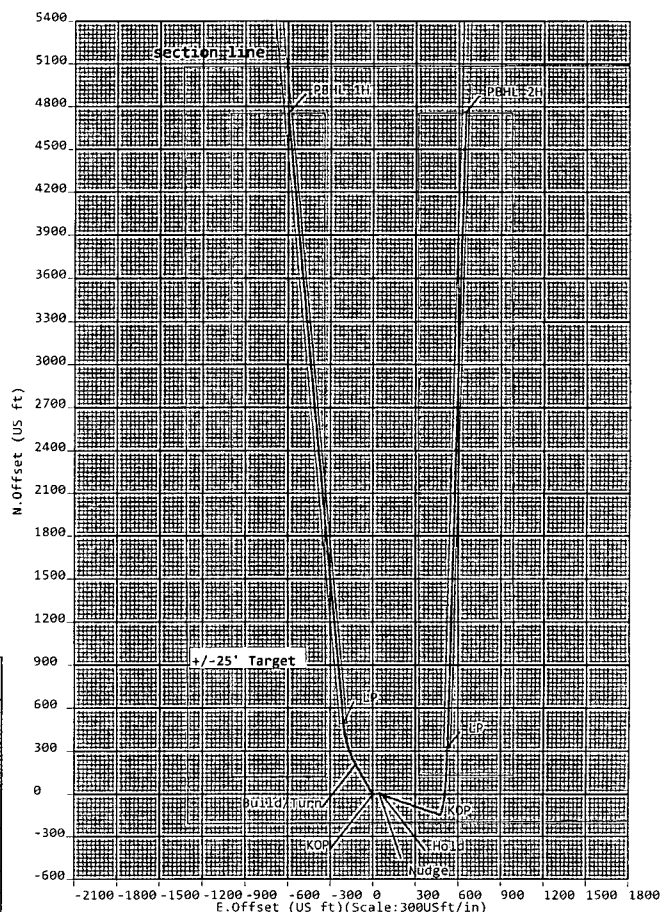
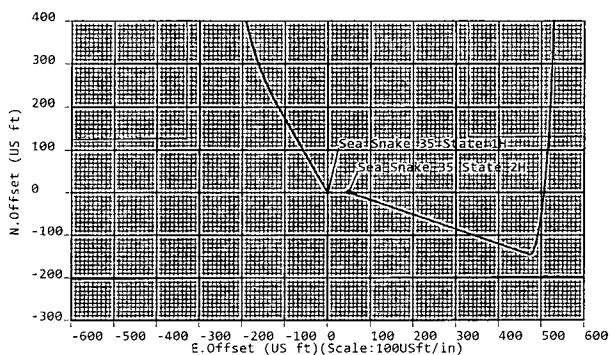
Plan Data for Sea Snake 35 State 1H Lateral

Target Set Information:									
Name: Sea Snake 35 State 1H									
Position offsets from Slot centre									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape	Comment		
(USft)	(USft)	(USft)	(USft)	(USft)	(USft)				
PBHL 1H	11235.00	4752.18	-600.63	461934.53	783672.08	Cuboid			

Plan Data for Sea Snake 35 State 1H Lateral

Slot: Sea Snake 35 State 1H									
Position:									
Offset is from Site centre									
+N/-S: 0.00USft	Northing: 457182.35USft	Latitude: 32°15'15.9"							
+E/-W: 0.00USft	Easting: 784272.71USft	Longitude: -103°32'50.9"							
			Elevation Above VRD: 3665.00USft						

Sea Snake 35 State 1H Lateral
Sea Snake 35 State 2H
Sea Snake 35 State 1H Pilot



Sign Off: Russell Joyner

5D Plan Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NMEZ***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 1H Lateral***Plan:** *P1:V5*

05 August 2014



Sea Snake 35 State 1H Lateral

Field Name Lea Co. NM-Nad 83.NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Sea Snake 35 State 1, 2H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.42	
	Position	Northing : 457182.35 US ft	Latitude : 32° 15' 15.93"	
		Easting : 784272.71 US ft	Longitude : -103° 32' 50.91"	
	Elevation above Mean Sea Level: 3665.00 US ft			
	Comment :			
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 457182.35 US ft	Latitude : 32° 15' 15.93"	
	+E / -W : 0.00 US ft	Easting : 784272.71 US ft	Longitude : -103° 32' 50.91"	
	Elevation above Mean Sea Level : 3665.00 US ft			
	Comment :			
Well Name Sea Snake 35 State 1H Lateral	Type : Sidetrack	UWI :	Plan : P1:V5	
	Parent : Sea Snake 35 State 1H Pilot	Tie Point Method : MD	Tie Point : 10739.03 US ft	
	Rig Height Well TVD Reference : 25.00 US ft	Comment :		
	Relative to Mean Sea Level: 3690.00 US ft			
	Closure Distance : 4789.99 US ft		Closure Azimuth : 352.797°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 354.70°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48306.1nT	Dec : 7.35°	Dip : 60.13°
			Date : 25/Aug/2014	

Target Set

Name : Sea Snake 35 State **Number of Targets :** 1
1H

Comment :

Target Name: PBHL 1H	Position (Relative to Slot centre)		
Shape: Cuboid	+N / -S : 4752.18 US ft	Northing : 461934.53 US ft	Latitude : 32° 16' 3.00"
	+E / -W : -600.63 US ft	Easting : 783672.08 US ft	Longitude : -103° 32' 57.50"
	TVD (Well TVD Reference) : 11235.00 US ft		
Orientation	Azimuth : 354.70°	Inclination : 0.00°	
Dimensions	Length : 8550.00 US ft	Breadth : 50.00 US ft	Height : 20.00 US ft

Well path created using minimum curvature

5D Plan Report

Salient Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	B. Rate (°/100 US ft)	T. Rate (°/100 US ft)	T. Face (°)	Comment
10739.03	0.00	0.00	10739.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP
11239.03	60.00	330.00	11152.53	206.75	-119.37	216.89	12.00	12.00	0.00	330.00	Build/Turn
11556.66	90.00	354.70	11235.00	494.70	-206.01	511.61	12.00	9.44	7.78	42.62	LP
15832.39	90.00	354.70	11235.00	4752.18	-600.63	4787.34	0.00	0.00	0.00	0.00	PBHL 1H

Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)		Comment
10739.03	0.00	0.00	10739.03	0.00	0.00	0.00	0.00	457182.35	784272.71		KOP
10839.03	12.00	330.00	10838.30	9.04	-5.22	9.48	12.00	457191.39	784267.49		
10939.03	24.00	330.00	10933.23	35.75	-20.64	37.50	12.00	457218.10	784252.07		
11039.03	36.00	330.00	11019.68	78.97	-45.59	82.84	12.00	457261.32	784227.12		
11139.03	48.00	330.00	11093.86	136.81	-78.99	143.52	12.00	457319.16	784193.72		
11239.03	60.00	330.00	11152.53	206.75	-119.37	216.89	12.00	457389.10	784153.34		Build/Turn
11339.03	69.11	338.67	11195.51	288.06	-158.15	301.44	12.00	457470.41	784114.56		
11439.03	78.61	346.32	11223.32	379.53	-186.85	395.17	12.00	457561.88	784085.86		
11539.03	88.29	353.46	11234.74	477.16	-204.20	493.98	12.00	457659.51	784068.51		
11556.66	90.00	354.70	11235.00	494.70	-206.01	511.61	12.00	457677.05	784066.70		LP
11639.03	90.00	354.70	11235.00	576.71	-213.61	593.98	0.00	457759.06	784059.10		
11739.03	90.00	354.70	11235.00	676.29	-222.84	693.98	0.00	457858.64	784049.87		
11839.03	90.00	354.70	11235.00	775.86	-232.07	793.98	0.00	457958.21	784040.64		
11939.03	90.00	354.70	11235.00	875.43	-241.30	893.98	0.00	458057.78	784031.41		
12039.03	90.00	354.70	11235.00	975.01	-250.53	993.98	0.00	458157.36	784022.18		
12139.03	90.00	354.70	11235.00	1074.58	-259.76	1093.98	0.00	458256.93	784012.95		
12239.03	90.00	354.70	11235.00	1174.15	-268.99	1193.98	0.00	458356.50	784003.72		
12339.03	90.00	354.70	11235.00	1273.73	-278.22	1293.98	0.00	458456.08	783994.49		
12439.03	90.00	354.70	11235.00	1373.30	-287.45	1393.98	0.00	458555.65	783985.26		
12539.03	90.00	354.70	11235.00	1472.87	-296.68	1493.98	0.00	458655.22	783976.03		
12639.03	90.00	354.70	11235.00	1572.45	-305.91	1593.98	0.00	458754.80	783966.80		
12739.03	90.00	354.70	11235.00	1672.02	-315.14	1693.98	0.00	458854.37	783957.57		
12839.03	90.00	354.70	11235.00	1771.59	-324.37	1793.98	0.00	458953.94	783948.34		
12939.03	90.00	354.70	11235.00	1871.17	-333.60	1893.98	0.00	459053.52	783939.11		
13039.03	90.00	354.70	11235.00	1970.74	-342.82	1993.98	0.00	459153.09	783929.89		
13139.03	90.00	354.70	11235.00	2070.31	-352.05	2093.98	0.00	459252.66	783920.66		
13239.03	90.00	354.70	11235.00	2169.88	-361.28	2193.98	0.00	459352.23	783911.43		
13339.03	90.00	354.70	11235.00	2269.46	-370.51	2293.98	0.00	459451.81	783902.20		
13439.03	90.00	354.70	11235.00	2369.03	-379.74	2393.98	0.00	459551.38	783892.97		
13539.03	90.00	354.70	11235.00	2468.60	-388.97	2493.98	0.00	459650.95	783883.74		
13639.03	90.00	354.70	11235.00	2568.18	-398.20	2593.98	0.00	459750.53	783874.51		
13739.03	90.00	354.70	11235.00	2667.75	-407.43	2693.98	0.00	459850.10	783865.28		
13839.03	90.00	354.70	11235.00	2767.32	-416.66	2793.98	0.00	459949.67	783856.05		
13939.03	90.00	354.70	11235.00	2866.90	-425.89	2893.98	0.00	460049.25	783846.82		
14039.03	90.00	354.70	11235.00	2966.47	-435.12	2993.98	0.00	460148.82	783837.59		
14139.03	90.00	354.70	11235.00	3066.04	-444.35	3093.98	0.00	460248.39	783828.36		
14239.03	90.00	354.70	11235.00	3165.62	-453.58	3193.98	0.00	460347.97	783819.13		
14339.03	90.00	354.70	11235.00	3265.19	-462.81	3293.98	0.00	460447.54	783809.90		
14439.03	90.00	354.70	11235.00	3364.76	-472.03	3393.98	0.00	460547.11	783800.68		
14539.03	90.00	354.70	11235.00	3464.34	-481.26	3493.98	0.00	460646.69	783791.45		
14639.03	90.00	354.70	11235.00	3563.91	-490.49	3593.98	0.00	460746.26	783782.22		
14739.03	90.00	354.70	11235.00	3663.48	-499.72	3693.98	0.00	460845.83	783772.99		
14839.03	90.00	354.70	11235.00	3763.06	-508.95	3793.98	0.00	460945.41	783763.76		
14939.03	90.00	354.70	11235.00	3862.63	-518.18	3893.98	0.00	461044.98	783754.53		
15039.03	90.00	354.70	11235.00	3962.20	-527.41	3993.98	0.00	461144.55	783745.30		
15139.03	90.00	354.70	11235.00	4061.78	-536.64	4093.98	0.00	461244.13	783736.07		
15239.03	90.00	354.70	11235.00	4161.35	-545.87	4193.98	0.00	461343.70	783726.84		
15339.03	90.00	354.70	11235.00	4260.92	-555.10	4293.98	0.00	461443.27	783717.61		
15439.03	90.00	354.70	11235.00	4360.49	-564.33	4393.98	0.00	461542.84	783708.38		
15539.03	90.00	354.70	11235.00	4460.07	-573.56	4493.98	0.00	461642.42	783699.15		
15639.03	90.00	354.70	11235.00	4559.64	-582.79	4593.98	0.00	461741.99	783689.92		

5D Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference)										
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N. Offset (US ft)	E. Offset (US ft)	VS (US ft)	DLS (°/100 US ft)	Northing (US ft)	Easting (US ft)	Comment
15739.03	90.00	354.70	11235.00	4659.21	-592.02	4693.98	0.00	461841.56	783680.69	
15832.39	90.00	354.70	11235.00	4752.18	-600.63	4787.34	0.00	461934.53	783672.08	PBHL 1H

5D Anti-Collision Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NMEZ***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 1H Lateral*

05 August 2014




Weatherford

Sea Snake 35 State 1H Lateral

Field Name Lea Co. NM Nad 83 NMEZ	Map Units : US ft		Company Name : Devon Energy	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name Sea Snake 35 State 1H Pad	Units : US ft	North Reference : Grid	Convergence Angle : 0.42	
	Position	Northing : 457182.35 US ft	Latitude : 32° 15' 15.93"	
		Easting : 784272.71 US ft	Longitude : -103° 32' 50.91"	
	Elevation above Mean Sea Level : 3665.00 US ft			
Comment :				
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 457182.35 US ft	Latitude : 32° 15' 15.93"	
	+E / -W : 0.00 US ft	Easting : 784272.71 US ft	Longitude : -103° 32' 50.91"	
	Elevation above Mean Sea Level : 3665.00 US ft			
Comment :				
Well Name Sea Snake 35 State 1H Lateral	Type : Sidetrack	UWI :	Plan : Working Plan	
	Parent : Sea Snake 35 State 1H Pilot	Tie Point Method : MD	Tie Point : 10739.03 US ft	
	Rig Height : 25.00 US ft	Comment :		
	Relative to Mean Sea Level : 3690.00 US ft			
	Closure Distance : 4789.99 US ft		Closure Azimuth : 352.797°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 0.00°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48329.9nT	Dec : 7.31°	Dip : 60.13°
	Date : 15/Jul/2014			

Collision // Uncertainty Analysis				
Primary Well	Start MD (US ft)	End MD (US ft)	Collision Risk Interval	No. of Std Deviations in Error Computation
Sea Snake 35 State 1H Lateral (p)	0.00	15832.39	100.00	2

Secondary Well Names
Sea Snake 35 State 2H (p)

Anti-Collision Report Terminology
S.Minor, S.Major : Radii of the ellipse of uncertainty at the current location as seen in the along hole direction.
PHI : Angle between high-side vector and semi-minor axis
TVD Spread : Total TVD range of the ellipsoid of uncertainty at the current location
ES : Distance between the extremities of the primary and secondary uncertainty ellipsoids in the direction Cr-Cr
T.Face to Sec : Angle between the Hi-Side vector of the primary well at the current location and line of closest approach between the two wells

Separation factors calculated using Pedal Curve (Independent Uncertainty). Well path created using minimum curvature.

5D Anti-Collision Report

Anti-Collision Proximity Summary (TVD Relative to Well TVD Reference)

SF	Secondary Well Name	Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	CC (US ft)	ES (US ft)	SF	Risk
	Sea Snake 35 State 2H (p)	15832.39	15921.12	11235.00	1249.34	1068.02	6.89	

Primary Well: Sea Snake 35 State 1H Lateral (p) (TVD Relative to Well TVD Reference: All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to, Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk
10739.03	10739.03	24.03	24.03	107.06	Sea Snake 35 State 2H (p)	490.76	10.31	443.14	
10839.03	10838.30	24.25	23.97	136.41	Sea Snake 35 State 2H (p)	506.32	10.50	458.09	
10939.03	10933.23	24.46	23.39	133.73	Sea Snake 35 State 2H (p)	530.19	10.89	481.50	
11039.03	11019.68	24.69	22.39	128.66	Sea Snake 35 State 2H (p)	560.83	11.44	511.81	
11139.03	11093.86	24.97	21.13	121.80	Sea Snake 35 State 2H (p)	598.21	12.10	548.76	
11239.03	11152.53	25.27	19.81	113.70	Sea Snake 35 State 2H (p)	641.72	12.83	591.69	
11339.03	11195.51	25.78	18.96	102.26	Sea Snake 35 State 2H (p)	683.09	13.43	632.24	
11439.03	11223.32	26.22	18.32	94.45	Sea Snake 35 State 2H (p)	713.75	13.75	661.85	
11539.03	11234.74	26.74	18.17	90.73	Sea Snake 35 State 2H (p)	733.64	13.85	680.69	
11639.03	11235.00	27.34	18.32	90.51	Sea Snake 35 State 2H (p)	745.82	13.72	691.48	
11739.03	11235.00	28.20	18.49	90.57	Sea Snake 35 State 2H (p)	757.82	13.58	702.01	
11839.03	11235.00	29.10	18.68	90.62	Sea Snake 35 State 2H (p)	769.82	13.39	712.34	
11939.03	11235.00	30.06	18.89	90.67	Sea Snake 35 State 2H (p)	781.82	13.18	722.49	
12039.03	11235.00	31.10	19.13	90.72	Sea Snake 35 State 2H (p)	793.83	12.93	732.42	
12139.03	11235.00	32.19	19.40	90.77	Sea Snake 35 State 2H (p)	805.83	12.68	742.27	
12239.03	11235.00	33.35	19.68	90.81	Sea Snake 35 State 2H (p)	817.83	12.41	751.91	
12339.03	11235.00	34.56	19.98	90.86	Sea Snake 35 State 2H (p)	829.83	12.13	761.43	
12439.03	11235.00	35.85	20.30	90.90	Sea Snake 35 State 2H (p)	841.83	11.86	770.86	
12539.03	11235.00	37.23	20.65	90.94	Sea Snake 35 State 2H (p)	853.84	11.60	780.23	
12639.03	11235.00	38.63	21.05	90.98	Sea Snake 35 State 2H (p)	865.84	11.34	789.52	
12739.03	11235.00	40.08	21.47	91.02	Sea Snake 35 State 2H (p)	877.85	11.10	798.75	
12839.03	11235.00	41.55	21.90	91.06	Sea Snake 35 State 2H (p)	889.85	10.86	807.92	
12939.03	11235.00	43.06	22.34	91.10	Sea Snake 35 State 2H (p)	901.86	10.63	817.04	
13039.03	11235.00	44.59	22.78	91.14	Sea Snake 35 State 2H (p)	913.86	10.41	826.11	
13139.03	11235.00	46.14	23.18	91.17	Sea Snake 35 State 2H (p)	925.87	10.20	835.14	
13239.03	11235.00	47.72	23.71	91.21	Sea Snake 35 State 2H (p)	937.88	10.01	844.15	
13339.03	11235.00	49.31	24.17	91.24	Sea Snake 35 State 2H (p)	949.88	9.82	853.16	
13439.03	11235.00	50.93	24.71	91.28	Sea Snake 35 State 2H (p)	961.89	9.63	862.01	
13539.03	11235.00	52.56	25.21	91.31	Sea Snake 35 State 2H (p)	973.90	9.45	870.80	
13639.03	11235.00	54.20	25.73	91.34	Sea Snake 35 State 2H (p)	985.91	9.27	879.57	
13739.03	11235.00	55.86	26.27	91.37	Sea Snake 35 State 2H (p)	997.91	9.10	888.31	
13839.03	11235.00	57.53	26.79	91.40	Sea Snake 35 State 2H (p)	1009.92	8.95	897.03	

SD Anti-Collision Report

Primary Well: Sea Snake 35 State 1H Lateral (p) (TVD Relative to Well TVD Reference (All Azimuth Relative to GRID NORTH))									
MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	T.Face to Sec (°)	Nearest Well	CC (US ft)	SF	ES (US ft)	Risk
13939.03	11235.00	59.21	27.34	91.43	Sea Snake 35 State 2H (p)	1021.93	8.79	905.72	
14039.03	11235.00	60.90	27.82	91.46	Sea Snake 35 State 2H (p)	1033.94	8.65	914.40	
14139.03	11235.00	62.60	28.46	91.49	Sea Snake 35 State 2H (p)	1045.95	8.51	923.06	
14239.03	11235.00	64.31	29.06	91.51	Sea Snake 35 State 2H (p)	1057.96	8.38	931.71	
14339.03	11235.00	66.03	29.64	91.54	Sea Snake 35 State 2H (p)	1069.97	8.25	940.34	
14439.03	11235.00	67.76	30.22	91.57	Sea Snake 35 State 2H (p)	1081.98	8.13	948.96	
14539.03	11235.00	69.49	30.80	91.59	Sea Snake 35 State 2H (p)	1093.99	8.02	957.56	
14639.03	11235.00	71.23	31.38	91.62	Sea Snake 35 State 2H (p)	1106.00	7.91	966.15	
14739.03	11235.00	72.98	31.96	91.64	Sea Snake 35 State 2H (p)	1118.01	7.80	974.74	
14839.03	11235.00	74.73	32.55	91.67	Sea Snake 35 State 2H (p)	1130.02	7.70	983.31	
14939.03	11235.00	76.49	33.15	91.69	Sea Snake 35 State 2H (p)	1142.03	7.61	991.87	
15039.03	11235.00	78.25	33.75	91.71	Sea Snake 35 State 2H (p)	1154.04	7.51	1000.42	
15139.03	11235.00	80.01	34.38	91.74	Sea Snake 35 State 2H (p)	1166.05	7.42	1008.96	
15239.03	11235.00	81.79	35.02	91.76	Sea Snake 35 State 2H (p)	1178.06	7.34	1017.50	
15339.03	11235.00	83.56	35.66	91.78	Sea Snake 35 State 2H (p)	1190.07	7.25	1026.03	
15439.03	11235.00	85.34	36.31	91.80	Sea Snake 35 State 2H (p)	1202.08	7.18	1034.55	
15539.03	11235.00	87.12	36.96	91.82	Sea Snake 35 State 2H (p)	1214.10	7.10	1043.07	
15639.03	11235.00	88.91	37.61	91.84	Sea Snake 35 State 2H (p)	1226.11	7.03	1051.58	
15739.03	11235.00	90.69	38.26	91.86	Sea Snake 35 State 2H (p)	1238.12	6.95	1060.08	
15832.39	11235.00	92.36	38.87	91.88	Sea Snake 35 State 2H (p)	1249.34	6.89	1068.02	

Secondary Well: Sea Snake 35 State 2H (p) (TVD Relative to Well TVD Reference (Primary)) (All Azimuth Relative to GRID NORTH)									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	SF (US ft)	ES (US ft)	Risk
10739.03	10696.28	10715.24	107.06	24.35	23.03	490.76	443.14	10.31	
10839.03	10811.78	10831.24	136.41	24.46	23.32	506.32	458.09	10.50	
10939.03	10944.62	10969.12	133.73	23.93	23.57	530.19	481.50	10.89	
11039.03	11058.83	11102.30	128.66	23.88	22.46	560.83	511.81	11.44	
11139.03	11145.33	11227.13	121.80	24.12	20.68	598.21	548.76	12.10	
11239.03	11202.60	11343.17	113.70	24.37	19.23	641.72	591.69	12.83	
11339.03	11233.56	11455.88	102.26	24.79	18.30	683.09	632.24	13.43	
11439.03	11240.03	11561.71	94.45	25.23	18.23	713.75	661.85	13.75	
11539.03	11240.83	11658.91	90.73	25.78	18.37	733.64	680.69	13.85	
11639.03	11241.64	11758.16	90.51	26.43	18.54	745.82	691.48	13.72	
11739.03	11242.45	11857.44	90.57	27.16	18.73	757.82	702.01	13.58	
11839.03	11243.26	11956.71	90.62	28.02	18.94	769.82	712.34	13.39	
11939.03	11244.07	12055.99	90.67	28.99	19.18	781.82	722.49	13.18	
12039.03	11244.89	12155.26	90.72	29.98	19.45	793.83	732.42	12.93	
12139.03	11245.70	12254.54	90.77	31.00	19.73	805.83	742.27	12.68	
12239.03	11246.51	12353.81	90.81	32.19	20.03	817.83	751.91	12.41	
12339.03	11247.32	12453.09	90.86	33.44	20.34	829.83	761.43	12.13	
12439.03	11248.13	12552.36	90.90	34.73	20.72	841.83	770.86	11.86	
12539.03	11248.95	12651.64	90.94	36.04	21.13	853.84	780.23	11.60	
12639.03	11249.76	12750.91	90.98	37.39	21.55	865.84	789.52	11.34	
12739.03	11250.57	12850.19	91.02	38.76	21.97	877.85	798.75	11.10	
12839.03	11251.38	12949.46	91.06	40.16	22.37	889.85	807.92	10.86	

5D Anti-Collision Report

Secondary Well: Sea Snake 35/State 2H(p) (TVD Relative to Well TVD Reference (Primary)) / All Azimuth Relative to GRID NORTH									
Pri MD (US ft)	TVD (US ft)	Sec MD (US ft)	T.Face to Sec (°)	S.Major (US ft)	S.Minor (US ft)	CC (US ft)	ES (US ft)	SF	Risk
12939.03	11252.19	13048.74	91.10	41.59	22.79	901.86	817.04	10.63	
13039.03	11253.00	13148.01	91.14	43.03	23.32	913.86	826.11	10.41	
13139.03	11253.82	13247.29	91.17	44.49	23.76	925.87	835.14	10.20	
13239.03	11254.63	13346.56	91.21	45.96	24.26	937.88	844.15	10.01	
13339.03	11255.44	13445.84	91.24	47.51	24.69	949.88	853.16	9.82	
13439.03	11256.25	13545.11	91.28	49.09	25.21	961.89	862.01	9.63	
13539.03	11257.06	13644.39	91.31	50.69	25.77	973.90	870.80	9.45	
13639.03	11257.87	13743.66	91.34	52.29	26.26	985.91	879.57	9.27	
13739.03	11258.69	13842.94	91.37	53.91	26.84	997.91	888.31	9.10	
13839.03	11259.50	13942.21	91.40	55.54	27.33	1009.92	897.03	8.95	
13939.03	11260.31	14041.49	91.43	57.18	27.87	1021.93	905.72	8.79	
14039.03	11261.12	14140.76	91.46	58.82	28.48	1033.94	914.40	8.65	
14139.03	11261.93	14240.04	91.49	60.48	29.07	1045.95	923.06	8.51	
14239.03	11262.75	14339.31	91.51	62.14	29.65	1057.96	931.71	8.38	
14339.03	11263.56	14438.59	91.54	63.81	30.23	1069.97	940.34	8.25	
14439.03	11264.37	14537.86	91.57	65.49	30.82	1081.98	948.96	8.13	
14539.03	11265.18	14637.14	91.59	67.18	31.40	1093.99	957.56	8.02	
14639.03	11265.99	14736.41	91.62	68.87	31.99	1106.00	966.15	7.91	
14739.03	11266.80	14835.69	91.64	70.56	32.58	1118.01	974.74	7.80	
14839.03	11267.62	14934.96	91.67	72.26	33.17	1130.02	983.31	7.70	
14939.03	11268.43	15034.24	91.69	73.97	33.77	1142.03	991.87	7.61	
15039.03	11269.24	15133.51	91.71	75.68	34.37	1154.04	1000.42	7.51	
15139.03	11270.05	15232.79	91.74	77.39	34.98	1166.05	1008.96	7.42	
15239.03	11270.86	15332.06	91.76	79.11	35.60	1178.06	1017.50	7.34	
15339.03	11271.67	15431.34	91.78	80.83	36.24	1190.07	1026.03	7.25	
15439.03	11272.49	15530.61	91.80	82.56	36.88	1202.08	1034.55	7.18	
15539.03	11273.30	15629.89	91.82	84.29	37.53	1214.10	1043.07	7.10	
15639.03	11274.11	15729.16	91.84	86.02	38.18	1226.11	1051.58	7.03	
15739.03	11274.92	15828.44	91.86	87.75	38.83	1238.12	1060.08	6.95	
15832.39	11275.68	15921.12	91.88	89.37	39.44	1249.34	1068.02	6.89	

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

GeoDec v5.03

Report Date: August 05, 2014
Job Number: _____
Customer: Devon Energy
Well Name: Sea Snake 35 State1H
API Number: _____
Rig Name: _____
Location: Lea County, 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 457182.350 USFT	Latitude 32.2544253 DEG
East/West 784272.710 USFT	Longitude -103.5474740 DEG
Grid Convergence: .42°	
Total Correction: +6.93°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.25443° N	32° 15 min 15.931 sec
Longitude =	103.54747° W	103° 32 min 50.907 sec

Magnetic Declination =	7.35°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6559
Local Field Strength =	48306 nT	Magnetic Vector X = 23859 nT
Magnetic Dip =	60.13°	Magnetic Vector Y = 3076 nT
Magnetic Model =	bggm2014	Magnetic Vector Z = 41890 nT
Spud Date =	Aug 25, 2014	Magnetic Vector H = 24056 nT

Signed: _____

Date: _____