

3D-025-41625

5D Plan Report**Devon Energy****Field Name:** *Lea Co, NM Nad 83 NM***Site Name:** *Sea Snake 35 State 1,2H Pad***Well Name:** *Sea Snake 35 State 1H***Plan:** *P1:V1*

10 December 2013



JAN 28 2014



Sea Snake 35 State 1H
Lea Co, NM



Plan Data for Sea Snake 35 State 1H

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	462581.44	784236.68	0.00	0.00		
10737.86	0.00	0.00	10737.86	0.00	0.00	462581.44	784236.68	0.00	0.00		
11463.55	87.08	237.29	11214.71	-244.91	-381.28	462336.53	783855.40	244.91	12.00		
11941.33	90.00	180.00	11228.00	-646.85	-600.63	461934.59	783636.05	646.85	12.00		
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	457304.92	783636.05	5276.52	0.00		

Plan Data for Sea Snake 35 State 1H

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)		
LP Tgt 1H	11228.00	-646.85	-600.63	461934.59	783636.05	Cuboid	
PBHL 1H	11228.00	-5276.52	-600.63	457304.92	783636.05	Cuboid	

Plan Data for Sea Snake 35 State 1H

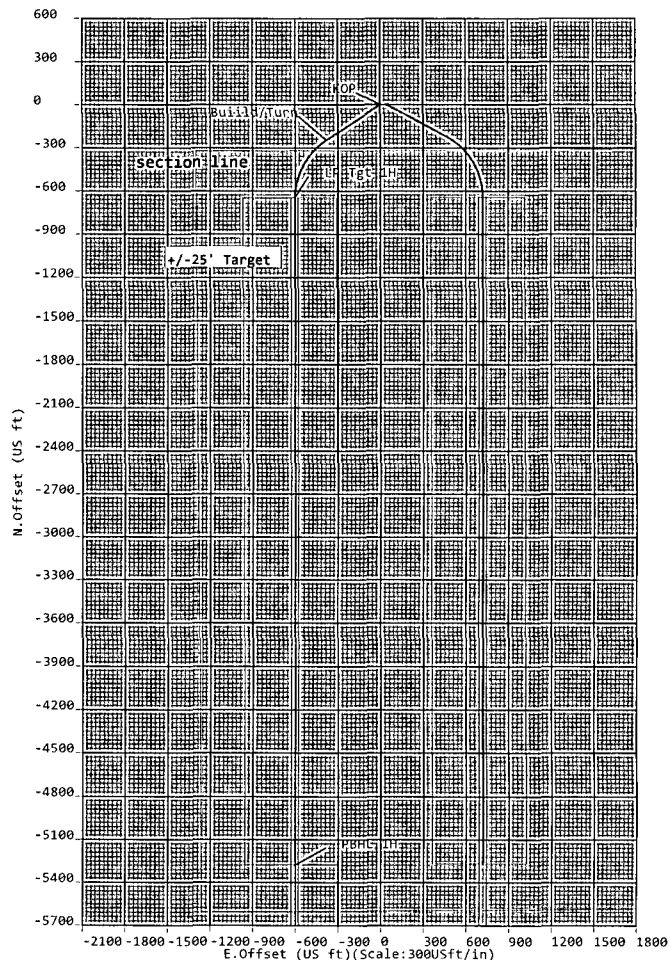
Slot: Sea Snake 35 State 1H

Position:

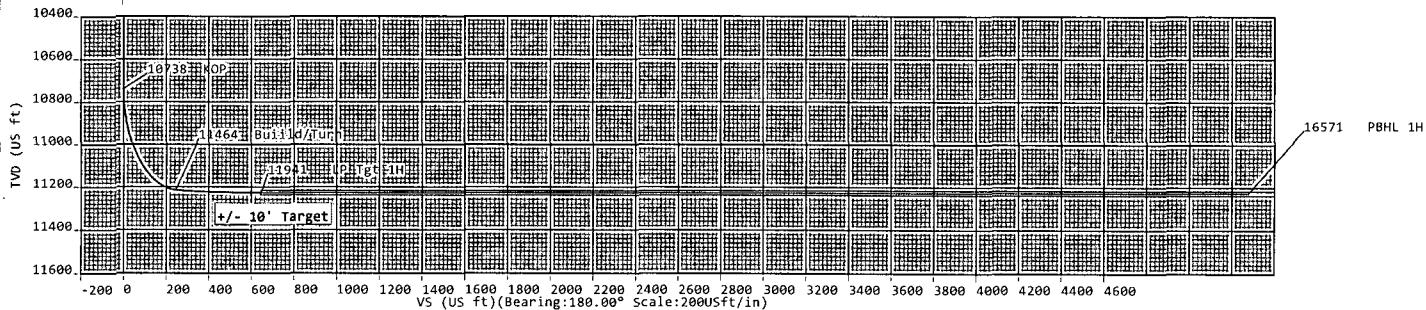
Offset is from Site centre

+N/-S: 0.00USft Northing: 462581.44USft Latitude: 32°16'9.4"
+E/-W: 0.00USft Easting: 784236.68USft Longitude: -103°32'50.9"
Elevation Above VRD: 3659.00USft

Sea Snake 35 State 1H
Sea Snake 35 State 2H



KB-3684
GL-3659



Sign Off: Russell Joyner



Weatherford®

Sea Snake 35 State 1H

Field Name Lea Co, NM Nad 8S NM	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 : 462581.44 US ft	Latitude : 32° 16' 9.36"	
		Easting : 784236.68 US ft	Longitude : -103° 32' 50.87"	
Elevation above Mean Sea Level: 3659.00 US ft				
Comment :				
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 462581.44 US ft	Latitude : 32°16'9.36"	
	+E / -W : 0.00 US ft	Easting : 784236.68 US ft	Longitude : -103°32'50.87"	
	Slot TVD Reference : Ground Elevation			
Elevation above Mean Sea Level : 3659.00 US ft				
Comment :				
Well Name Sea Snake 35 State 1H	Type : Main well		UWI :	Plan : P1:V1
	Rig Height Drill Floor : 25.00 US ft		Comment :	
	Relative to Mean Sea Level: 3684.00 US ft			
	Closure Distance : 5310.6 US ft		Closure Azimuth : 186.494°	
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 180.00°
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48377.3nT	Dec : 7.35°	Dip : 60.15° Date : 17/Mar/2014

Target Set

Name : Sea Snake 35 State **Number of Targets :** 2

1H

Comment :

Target Name: LP Tgt 1H Shape: Cuboid	Position (Relative to Slot centre)			
	+N / -S : -646.85US ft	Northing : 461934.59 US ft	Latitude : 32°16'3.00"	
	+E / -W : -600.63 US ft	Easting : 783636.05US ft	Longitude : -103°32'57.92"	
	TV D (Drill Floor) : 11228.00 US ft			
Orientation Azimuth : 0.00°		Inclination : 0.00°		
Dimensions Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft		

5D Plan Report

Target Name: PBHL 1H Shape: Cuboid	Position (Relative to Slot centre)		
	+ N / -S : -5276.52US ft	Northing : 457304.92 US ft	Latitude : 32°15'17.19"
	+E / -W : -600.63 US ft	Easting : 783636.05US ft	Longitude : -103°32'58.31"
	TVD (Drill Floor) : 11228.00 US ft		
	Orientation Azimuth : 0.00°		
	Inclination : 0.00°		
	Dimensions Length : 20.00 US ft	Breadth : 20.00 US ft	Height : 20.00 US ft

Well path created using minimum curvature

Salient Points (Relative to Slot centre, TVD relative to Drill Floor)										
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	462581.44	784236.68	
10737.86	0.00	0.00	10737.86	0.00	0.00	-0.00	0.00	462581.44	784236.68	KOP
11463.55	87.08	237.29	11214.71	-244.91	-381.28	244.91	12.00	462336.53	783855.40	Build/Turn
11941.33	90.00	180.00	11228.00	-646.85	-600.63	646.85	12.00	461934.59	783636.05	Sea Snake 35 State 1H LP Tgt 1H
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	5276.52	0.00	457304.92	783636.05	Sea Snake 35 State 1H PBHL 1H

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)										
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
10700.00	0.00	0.00	10700.00	0.00	0.00	-0.00	0.00	462581.44	784236.68	
10737.86	0.00	0.00	10737.86	0.00	0.00	-0.00	0.00	462581.44	784236.68	KOP
10800.00	7.46	237.29	10799.82	-2.18	-3.40	2.18	12.00	462579.26	784233.28	
10900.00	19.46	237.29	10896.90	-14.74	-22.94	14.74	12.00	462566.70	784213.74	
11000.00	31.46	237.29	10987.03	-37.92	-59.04	37.92	12.00	462543.52	784177.64	
11100.00	43.46	237.29	11066.26	-70.73	-110.11	70.73	12.00	462510.71	784126.57	
11200.00	55.46	237.29	11131.15	-111.72	-173.93	111.72	12.00	462469.72	784062.75	
11300.00	67.46	237.29	11178.84	-159.11	-247.71	159.11	12.00	462422.33	783988.97	
11400.00	79.46	237.29	11207.27	-210.82	-328.22	210.82	12.00	462370.62	783908.46	
11463.55	87.08	237.29	11214.71	-244.91	-381.28	244.91	12.00	462336.53	783855.40	Build/Turn
11500.00	87.23	232.91	11216.52	-265.73	-411.13	265.73	12.00	462315.71	783825.55	
11600.00	87.73	220.91	11220.93	-333.86	-483.95	333.86	12.00	462247.58	783752.73	
11700.00	88.32	208.91	11224.39	-415.67	-541.04	415.67	12.00	462165.77	783695.64	
11800.00	88.99	196.93	11226.74	-507.58	-579.90	507.58	12.00	462073.86	783656.78	
11900.00	89.70	184.95	11227.89	-605.57	-598.85	605.57	12.00	461975.87	783637.83	
11941.33	90.00	180.00	11228.00	-646.85	-600.63	646.85	12.00	461934.59	783636.05	Sea Snake 35 State 1H LP Tgt 1H
12000.00	90.00	180.00	11228.00	-705.52	-600.63	705.52	0.00	461875.92	783636.05	
12100.00	90.00	180.00	11228.00	-805.52	-600.63	805.52	0.00	461775.92	783636.05	
12200.00	90.00	180.00	11228.00	-905.52	-600.63	905.52	0.00	461675.92	783636.05	
12300.00	90.00	180.00	11228.00	-1005.52	-600.63	1005.52	0.00	461575.92	783636.05	
12400.00	90.00	180.00	11228.00	-1105.52	-600.63	1105.52	0.00	461475.92	783636.05	
12500.00	90.00	180.00	11228.00	-1205.52	-600.63	1205.52	0.00	461375.92	783636.05	
12600.00	90.00	180.00	11228.00	-1305.52	-600.63	1305.52	0.00	461275.92	783636.05	
12700.00	90.00	180.00	11228.00	-1405.52	-600.63	1405.52	0.00	461175.92	783636.05	
12800.00	90.00	180.00	11228.00	-1505.52	-600.63	1505.52	0.00	461075.92	783636.05	
12900.00	90.00	180.00	11228.00	-1605.52	-600.63	1605.52	0.00	460975.92	783636.05	
13000.00	90.00	180.00	11228.00	-1705.52	-600.63	1705.52	0.00	460875.92	783636.05	
13100.00	90.00	180.00	11228.00	-1805.52	-600.63	1805.52	0.00	460775.92	783636.05	
13200.00	90.00	180.00	11228.00	-1905.52	-600.63	1905.52	0.00	460675.92	783636.05	
13299.99	90.00	180.00	11228.00	-2005.52	-600.63	2005.52	0.00	460575.92	783636.05	
13399.99	90.00	180.00	11228.00	-2105.52	-600.63	2105.52	0.00	460475.92	783636.05	
13499.99	90.00	180.00	11228.00	-2205.52	-600.63	2205.52	0.00	460375.92	783636.05	

5D Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Drill Floor)										
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
13599.99	90.00	180.00	11228.00	-2305.52	-600.63	2305.52	0.00	460275.92	783636.05	
13699.99	90.00	180.00	11228.00	-2405.52	-600.63	2405.52	0.00	460175.92	783636.05	
13799.99	90.00	180.00	11228.00	-2505.52	-600.63	2505.52	0.00	460075.92	783636.05	
13899.99	90.00	180.00	11228.00	-2605.52	-600.63	2605.52	0.00	459975.92	783636.05	
13999.99	90.00	180.00	11228.00	-2705.52	-600.63	2705.52	0.00	459875.92	783636.05	
14099.99	90.00	180.00	11228.00	-2805.52	-600.63	2805.52	0.00	459775.92	783636.05	
14199.99	90.00	180.00	11228.00	-2905.52	-600.63	2905.52	0.00	459675.92	783636.05	
14299.99	90.00	180.00	11228.00	-3005.52	-600.63	3005.52	0.00	459575.92	783636.05	
14399.99	90.00	180.00	11228.00	-3105.52	-600.63	3105.52	0.00	459475.92	783636.05	
14499.99	90.00	180.00	11228.00	-3205.52	-600.63	3205.52	0.00	459375.92	783636.05	
14599.99	90.00	180.00	11228.00	-3305.52	-600.63	3305.52	0.00	459275.92	783636.05	
14699.99	90.00	180.00	11228.00	-3405.52	-600.63	3405.52	0.00	459175.92	783636.05	
14799.99	90.00	180.00	11228.00	-3505.52	-600.63	3505.52	0.00	459075.92	783636.05	
14899.99	90.00	180.00	11228.00	-3605.51	-600.63	3605.51	0.00	458975.93	783636.05	
14999.99	90.00	180.00	11228.00	-3705.51	-600.63	3705.51	0.00	458875.93	783636.05	
15099.99	90.00	180.00	11228.00	-3805.51	-600.63	3805.51	0.00	458775.93	783636.05	
15199.99	90.00	180.00	11228.00	-3905.51	-600.63	3905.51	0.00	458675.93	783636.05	
15299.99	90.00	180.00	11228.00	-4005.51	-600.63	4005.51	0.00	458575.93	783636.05	
15399.99	90.00	180.00	11228.00	-4105.51	-600.63	4105.51	0.00	458475.93	783636.05	
15499.99	90.00	180.00	11228.00	-4205.51	-600.63	4205.51	0.00	458375.93	783636.05	
15599.99	90.00	180.00	11228.00	-4305.51	-600.63	4305.51	0.00	458275.93	783636.05	
15699.99	90.00	180.00	11228.00	-4405.51	-600.63	4405.51	0.00	458175.93	783636.05	
15799.99	90.00	180.00	11228.00	-4505.51	-600.63	4505.51	0.00	458075.93	783636.05	
15899.99	90.00	180.00	11228.00	-4605.51	-600.63	4605.51	0.00	457975.93	783636.05	
15999.99	90.00	180.00	11228.00	-4705.51	-600.63	4705.51	0.00	457875.93	783636.05	
16099.99	90.00	180.00	11228.00	-4805.51	-600.63	4805.51	0.00	457775.93	783636.05	
16199.99	90.00	180.00	11228.00	-4905.51	-600.63	4905.51	0.00	457675.93	783636.05	
16299.99	90.00	180.00	11228.00	-5005.51	-600.63	5005.51	0.00	457575.93	783636.05	
16399.99	90.00	180.00	11228.00	-5105.51	-600.63	5105.51	0.00	457475.93	783636.05	
16499.99	90.00	180.00	11228.00	-5205.51	-600.63	5205.51	0.00	457375.93	783636.05	
16571.00	90.00	180.00	11228.00	-5276.52	-600.63	5276.52	0.00	457304.92	783636.05	Sea Snake 35 State 1H PBHL 1H

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

10 December 2013





Weatherford

Sea Snake 35 State 1H

Field Name Lea Co, NM Nad 88 NM	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 : 462581.44 US ft	Latitude : 32° 16' 9.36"	
		Easting : 784236.68 US ft	Longitude : -103° 32' 50.87"	
Elevation above Mean Sea Level: 3659.00 US ft				
Comment :				
Slot Name Sea Snake 35 State 1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 462581.44 US ft	Latitude : 32°16'9.36"	
	+E / -W : 0.00 US ft	Easting : 784236.68 US ft	Longitude : -103°32'50.87"	
Slot TVD Reference : Ground Elevation				
Elevation above Mean Sea Level : 3659.00 US ft				
Comment :				
Well Name Sea Snake 35 State 1H	Type : Main well	UWI :	Plan : Working Plan	
	Rig Height	Drill Floor : 25.00 US ft	Comment :	
	Relative to Mean Sea Level: 3684.00 US ft			
Closure Distance : 5310.6 US ft		Closure Azimuth : 186.494°		
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 180.00°	
Magnetic Parameters				
Model : BGGM	Field Strength : 48377.3nT	Dec : 7.35°	Dip : 60.15°	Date : 17/Mar/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 (p)	0.00	16571.00	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)

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)	10737.50	10737.50	10737.50	49.99	1.21	1.02	SF (Med)

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH)

Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
0.00	0.00	0.00	0.00	0.00	0.00	49.99	68.17	49.26	89.79	MWD	
100.00	100.00	100.00	0.12	0.12	4.60	49.99	51.85	49.03	89.79	MWD	
200.00	200.00	200.00	0.34	0.34	4.62	49.99	35.42	48.58	89.79	MWD	
300.00	300.00	300.00	0.57	0.57	4.65	49.99	26.87	48.13	89.79	MWD	
400.00	400.00	400.00	0.79	0.79	4.70	49.99	21.64	47.68	89.79	MWD	
500.00	500.00	500.00	1.02	1.02	4.75	49.99	18.12	47.23	89.79	MWD	
600.00	600.00	600.00	1.24	1.24	4.82	49.99	15.58	46.78	89.79	MWD	
700.00	700.00	700.00	1.46	1.46	4.90	49.99	13.67	46.33	89.79	MWD	
800.00	800.00	800.00	1.69	1.69	4.98	49.99	12.17	45.88	89.79	MWD	
900.00	900.00	900.00	1.91	1.91	5.07	49.99	10.97	45.43	89.79	MWD	
1000.00	1000.00	1000.00	2.14	2.14	5.18	49.99	9.98	44.98	89.79	MWD	
1100.00	1100.00	1100.00	2.36	2.36	5.28	49.99	9.16	44.53	89.79	MWD	
1200.00	1200.00	1200.00	2.59	2.59	5.40	49.99	8.46	44.08	89.79	MWD	
1300.00	1300.00	1300.00	2.81	2.81	5.52	49.99	7.87	43.64	89.79	MWD	
1400.00	1400.00	1400.00	3.04	3.04	5.65	49.99	7.35	43.19	89.79	MWD	
1500.00	1500.00	1500.00	3.26	3.26	5.78	49.99	6.89	42.74	89.79	MWD	
1600.00	1600.00	1600.00	3.49	3.49	5.91	49.99	6.49	42.29	89.79	MWD	
1700.00	1700.00	1700.00	3.71	3.71	6.06	49.99	6.13	41.84	89.79	MWD	
1800.00	1800.00	1800.00	3.94	3.94	6.20	49.99	5.81	41.39	89.79	MWD	
1900.00	1900.00	1900.00	4.16	4.16	6.35	49.99	5.52	40.94	89.79	MWD	
2000.00	2000.00	2000.00	4.39	4.39	6.50	49.99	5.26	40.49	89.79	MWD	
2100.00	2100.00	2100.00	4.61	4.61	6.65	49.99	5.02	40.04	89.79	MWD	
2200.00	2200.00	2200.00	4.84	4.84	6.81	49.99	4.81	39.59	89.79	MWD	
2300.00	2300.00	2300.00	5.06	5.06	6.97	49.99	4.61	39.14	89.79	MWD	
2400.00	2400.00	2400.00	5.29	5.29	7.13	49.99	4.42	38.69	89.79	MWD	
2500.00	2500.00	2500.00	5.51	5.51	7.30	49.99	4.25	38.24	89.79	MWD	
2600.00	2600.00	2600.00	5.73	5.73	7.47	49.99	4.10	37.79	89.79	MWD	
2700.00	2700.00	2700.00	5.96	5.96	7.64	49.99	3.95	37.34	89.79	MWD	
2800.00	2800.00	2800.00	6.18	6.18	7.81	49.99	3.82	36.89	89.79	MWD	
2900.00	2900.00	2900.00	6.41	6.41	7.99	49.99	3.69	36.44	89.79	MWD	
3000.00	3000.00	3000.00	6.63	6.63	8.16	49.99	3.57	35.99	89.79	MWD	
3100.00	3100.00	3100.00	6.86	6.86	8.34	49.99	3.46	35.54	89.79	MWD	
3200.00	3200.00	3200.00	7.08	7.08	8.53	49.99	3.36	35.09	89.79	MWD	
3300.00	3300.00	3300.00	7.31	7.31	8.71	49.99	3.26	34.64	89.79	MWD	
3400.00	3400.00	3400.00	7.53	7.53	8.90	49.99	3.16	34.20	89.79	MWD	
3500.00	3500.00	3500.00	7.76	7.76	9.09	49.99	3.08	33.75	89.79	MWD	
3600.00	3600.00	3600.00	7.98	7.98	9.28	49.99	2.99	33.30	89.79	MWD	
3700.00	3700.00	3700.00	8.21	8.21	9.48	49.99	2.92	32.85	89.79	MWD	
3800.00	3800.00	3800.00	8.43	8.43	9.67	49.99	2.84	32.40	89.79	MWD	
3900.00	3900.00	3900.00	8.66	8.66	9.87	49.99	2.77	31.95	89.79	MWD	
4000.00	4000.00	4000.00	8.88	8.88	10.08	49.99	2.70	31.50	89.79	MWD	
4100.00	4100.00	4100.00	9.11	9.11	10.28	49.99	2.64	31.05	89.79	MWD	
4200.00	4200.00	4200.00	9.33	9.33	10.49	49.99	2.58	30.60	89.79	MWD	
4300.00	4300.00	4300.00	9.56	9.56	10.70	49.99	2.52	30.15	89.79	MWD	
4400.00	4400.00	4400.00	9.78	9.78	10.92	49.99	2.46	29.70	89.79	MWD	
4500.00	4500.00	4500.00	10.01	10.01	11.13	49.99	2.41	29.25	89.79	MWD	
4600.00	4600.00	4600.00	10.23	10.23	11.35	49.99	2.36	28.80	89.79	MWD	
4700.00	4700.00	4700.00	10.45	10.45	11.58	49.99	2.31	28.35	89.79	MWD	
4800.00	4800.00	4800.00	10.68	10.68	11.81	49.99	2.26	27.90	89.79	MWD	
4900.00	4900.00	4900.00	10.90	10.90	12.04	49.99	2.22	27.45	89.79	MWD	
5000.00	5000.00	5000.00	11.13	11.13	12.27	49.99	2.17	27.00	89.79	MWD	
5100.00	5100.00	5100.00	11.35	11.35	12.51	49.99	2.13	26.55	89.79	MWD	

5D Anti-Collision Report

Secondary Well : Sea Snake 35 State 2H (p) (TVD Relative to Drill Floor (Primary)) ; All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S.Major (US ft)	S.Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T.Face to Sec (°)	Survey Tool	Risk
5200.00	5200.00	5200.00	11.58	11.58	12.75	49.99	2.09	26.10	89.79	MWD	
5300.00	5300.00	5300.00	11.80	11.80	13.00	49.99	2.05	25.65	89.79	MWD	
5400.00	5400.00	5400.00	12.03	12.03	13.24	49.99	2.02	25.21	89.79	MWD	
5500.00	5500.00	5500.00	12.25	12.25	13.50	49.99	1.98	24.76	89.79	MWD	SF (Lo)
5600.00	5600.00	5600.00	12.48	12.48	13.75	49.99	1.95	24.31	89.79	MWD	SF (Lo)
5700.00	5700.00	5700.00	12.70	12.70	14.01	49.99	1.91	23.86	89.79	MWD	SF (Lo)
5800.00	5800.00	5800.00	12.93	12.93	14.28	49.99	1.88	23.41	89.79	MWD	SF (Lo)
5900.00	5900.00	5900.00	13.15	13.15	14.55	49.99	1.85	22.96	89.79	MWD	SF (Lo)
6000.00	6000.00	6000.00	13.38	13.38	14.82	49.99	1.82	22.51	89.79	MWD	SF (Lo)
6100.00	6100.00	6100.00	13.60	13.60	15.10	49.99	1.79	22.06	89.79	MWD	SF (Lo)
6200.00	6200.00	6200.00	13.83	13.83	15.38	49.99	1.76	21.61	89.79	MWD	SF (Lo)
6300.00	6300.00	6300.00	14.05	14.05	15.67	49.99	1.73	21.16	89.79	MWD	SF (Lo)
6400.00	6400.00	6400.00	14.28	14.28	15.96	49.99	1.71	20.71	89.79	MWD	SF (Lo)
6500.00	6500.00	6500.00	14.50	14.50	16.25	49.99	1.68	20.26	89.79	MWD	SF (Lo)
6600.00	6600.00	6600.00	14.73	14.73	16.56	49.99	1.66	19.81	89.79	MWD	SF (Lo)
6700.00	6700.00	6700.00	14.95	14.95	16.86	49.99	1.63	19.36	89.79	MWD	SF (Lo)
6800.00	6800.00	6800.00	15.17	15.17	17.17	49.99	1.61	18.91	89.79	MWD	SF (Lo)
6900.00	6900.00	6900.00	15.40	15.40	17.49	49.99	1.59	18.46	89.79	MWD	SF (Lo)
7000.00	7000.00	7000.00	15.62	15.62	17.81	49.99	1.56	18.01	89.79	MWD	SF (Lo)
7100.00	7100.00	7100.00	15.85	15.85	18.13	49.99	1.54	17.56	89.79	MWD	SF (Lo)
7200.00	7200.00	7200.00	16.07	16.07	18.46	49.99	1.52	17.11	89.79	MWD	SF (Lo)
7300.00	7300.00	7300.00	16.30	16.30	18.79	49.99	1.50	16.66	89.79	MWD	SF (Med)
7400.00	7400.00	7400.00	16.52	16.52	19.13	49.99	1.48	16.21	89.79	MWD	SF (Med)
7500.00	7500.00	7500.00	16.75	16.75	19.48	49.99	1.46	15.76	89.79	MWD	SF (Med)
7600.00	7600.00	7600.00	16.97	16.97	19.83	49.99	1.44	15.31	89.79	MWD	SF (Med)
7700.00	7700.00	7700.00	17.20	17.20	20.19	49.99	1.42	14.87	89.79	MWD	SF (Med)
7800.00	7800.00	7800.00	17.42	17.42	20.55	49.99	1.41	14.42	89.79	MWD	SF (Med)
7900.00	7900.00	7900.00	17.65	17.65	20.91	49.99	1.39	13.97	89.79	MWD	SF (Med)
8000.00	8000.00	8000.00	17.87	17.87	21.28	49.99	1.37	13.52	89.79	MWD	SF (Med)
8100.00	8100.00	8100.00	18.10	18.10	21.66	49.99	1.35	13.07	89.79	MWD	SF (Med)
8200.00	8200.00	8200.00	18.32	18.32	22.04	49.99	1.34	12.62	89.79	MWD	SF (Med)
8300.00	8300.00	8300.00	18.55	18.55	22.43	49.99	1.32	12.17	89.79	MWD	SF (Med)
8400.00	8400.00	8400.00	18.77	18.77	22.83	49.99	1.31	11.72	89.79	MWD	SF (Med)
8500.00	8500.00	8500.00	19.00	19.00	23.22	49.99	1.29	11.27	89.79	MWD	SF (Med)
8600.00	8600.00	8600.00	19.22	19.22	23.63	49.99	1.28	10.82	89.79	MWD	SF (Med)
8700.00	8700.00	8700.00	19.45	19.45	24.04	49.99	1.26	10.37	89.79	MWD	SF (Med)
8800.00	8800.00	8800.00	19.67	19.67	24.45	49.99	1.25	9.92	89.79	MWD	SF (Med)
8900.00	8900.00	8900.00	19.90	19.90	24.88	49.99	1.23	9.47	89.79	MWD	SF (Med)
9000.00	9000.00	9000.00	20.12	20.12	25.30	49.99	1.22	9.02	89.79	MWD	SF (Med)
9100.00	9100.00	9100.00	20.35	20.35	25.74	49.99	1.21	8.57	89.79	MWD	SF (Med)
9200.00	9200.00	9200.00	20.57	20.57	26.17	49.99	1.19	8.12	89.79	MWD	SF (Med)
9300.00	9300.00	9300.00	20.79	20.79	26.62	49.99	1.18	7.67	89.79	MWD	SF (Med)
9400.00	9400.00	9400.00	21.02	21.02	27.07	49.99	1.17	7.22	89.79	MWD	SF (Med)
9500.00	9500.00	9500.00	21.24	21.24	27.53	49.99	1.16	6.77	89.79	MWD	SF (Med)
9600.00	9600.00	9600.00	21.47	21.47	27.99	49.99	1.14	6.32	89.79	MWD	SF (Med)
9700.00	9700.00	9700.00	21.69	21.69	28.45	49.99	1.13	5.87	89.79	MWD	SF (Med)
9800.00	9800.00	9800.00	21.92	21.92	28.93	49.99	1.12	5.42	89.79	MWD	SF (Med)
9900.00	9900.00	9900.00	22.14	22.14	29.41	49.99	1.11	4.97	89.79	MWD	SF (Med)
10000.00	10000.00	10000.00	22.37	22.37	29.89	49.99	1.10	4.52	89.79	MWD	SF (Med)
10100.00	10100.00	10100.00	22.59	22.59	30.38	49.99	1.09	4.08	89.79	MWD	SF (Med)
10200.00	10200.00	10200.00	22.82	22.82	30.88	49.99	1.08	3.63	89.79	MWD	SF (Med)
10300.00	10300.00	10300.00	23.04	23.04	31.38	49.99	1.07	3.18	89.79	MWD	SF (Med)
10400.00	10400.00	10400.00	23.27	23.27	31.89	49.99	1.06	2.73	89.79	MWD	SF (Med)
10500.00	10500.00	10500.00	23.49	23.49	32.41	49.99	1.05	2.28	89.79	MWD	SF (Med)
10600.00	10600.00	10600.00	23.72	23.72	32.93	49.99	1.04	1.83	89.79	MWD	SF (Med)
10700.00	10700.00	10700.00	23.94	23.94	33.45	49.99	1.03	1.38	89.79	MWD	SF (Med)
10800.00	10795.00	10794.92	24.15	24.02	33.96	55.76	1.14	6.99	212.02	MWD	SF (Med)
10900.00	10877.44	10875.82	24.30	23.84	34.37	91.31	1.88	42.68	212.44	MWD	SF (Lo)

5D Anti-Collision Report

Secondary Well: Sea Snake 33 State 2H (p) (TVD Relative to Drill Floor (Primary)); All Azimuth Relative to GRID NORTH											
Pri MD (US ft)	Sec MD (US ft)	TVD (US ft)	S. Major (US ft)	S. Minor (US ft)	TVD Spread (US ft)	CC (US ft)	SF	ES (US ft)	T. Face to Sec (°)	Survey Tool	Risk
11000.00	10941.59	10936.24	24.43	23.39	34.67	153.60	3.19	105.48	215.47	MWD	
11100.00	10985.29	10975.50	24.51	23.02	34.86	234.31	4.89	186.44	222.82	MWD	
11200.00	11010.88	10997.63	24.57	22.71	34.96	325.91	6.80	277.95	240.23	MWD	
11300.00	11021.75	11006.81	24.59	22.57	35.01	422.46	8.79	374.40	279.31	MWD	
11400.00	11020.82	11006.03	24.59	22.57	35.01	519.45	10.76	471.18	320.10	MWD	
11500.00	11011.22	10997.91	24.57	22.70	34.97	613.59	12.65	565.09	325.68	MWD	
11600.00	11004.37	10992.06	24.55	22.79	34.94	704.48	14.42	655.63	309.15	MWD	
11700.00	11002.74	10990.66	24.55	22.81	34.93	790.62	16.11	741.55	299.24	MWD	
11800.00	11006.10	10993.55	24.56	22.77	34.94	870.24	17.60	820.81	293.00	MWD	
11900.00	11014.61	11000.79	24.58	22.66	34.98	941.83	18.96	892.16	288.69	MWD	
12000.00	11027.95	11011.99	24.61	22.51	35.03	1006.74	20.16	956.81	286.66	MWD	
12100.00	11043.00	11024.37	24.66	22.37	35.09	1075.51	21.47	1025.43	285.60	MWD	
12200.00	11059.49	11037.62	24.71	22.20	35.14	1148.51	22.84	1098.23	284.47	MWD	
12300.00	11077.62	11051.79	24.76	21.97	35.20	1224.91	24.26	1174.43	283.26	MWD	
12400.00	11097.57	11066.87	24.81	21.69	35.27	1304.08	25.76	1253.46	281.98	MWD	
12500.00	12570.15	11228.00	33.74	20.79	41.58	1319.97	19.71	1253.01	270.00	MWD	
12600.00	12670.15	11228.00	35.00	21.19	42.38	1319.97	19.02	1250.59	270.00	MWD	
12700.00	12770.15	11228.00	36.26	21.61	43.21	1319.97	18.38	1248.15	270.00	MWD	
12800.00	12870.15	11228.00	37.53	22.04	44.07	1319.97	17.77	1245.69	270.00	MWD	
12900.00	12970.15	11228.00	38.81	22.48	44.94	1319.97	17.20	1243.21	270.00	MWD	
13000.00	13070.15	11228.00	40.10	22.92	45.79	1319.97	16.63	1240.62	270.00	MWD	
13100.00	13170.15	11228.00	41.48	23.30	46.59	1319.97	16.07	1237.82	270.00	MWD	
13200.00	13270.15	11228.00	42.95	23.86	47.69	1319.97	15.52	1234.93	270.00	MWD	
13300.00	13370.15	11228.00	44.43	24.36	48.66	1319.97	15.01	1232.02	270.00	MWD	
13400.00	13470.15	11228.00	45.90	24.85	49.62	1319.97	14.53	1229.12	270.00	MWD	
13500.00	13570.15	11228.00	47.37	25.38	50.60	1319.97	14.08	1226.22	270.00	MWD	
13600.00	13670.15	11228.00	48.89	25.88	51.73	1319.97	13.65	1223.25	270.00	MWD	
13700.00	13770.15	11228.00	50.41	26.42	52.83	1319.97	13.24	1220.29	270.00	MWD	
13800.00	13870.15	11228.00	51.95	27.03	53.86	1319.97	12.86	1217.32	270.00	MWD	
13900.00	13970.15	11228.00	53.58	27.45	54.93	1319.97	12.47	1214.13	270.00	MWD	
14000.00	14070.15	11228.00	55.20	28.07	56.10	1319.97	12.10	1210.87	270.00	MWD	
14100.00	14170.15	11228.00	56.81	28.64	57.27	1319.97	11.75	1207.64	270.00	MWD	
14200.00	14270.15	11228.00	58.43	29.15	58.30	1319.97	11.42	1204.40	270.00	MWD	
14300.00	14370.15	11228.00	60.05	29.75	59.43	1319.97	11.11	1201.15	270.00	MWD	
14400.00	14470.15	11228.00	61.67	30.38	60.71	1319.97	10.81	1197.86	270.00	MWD	
14500.00	14570.15	11228.00	63.30	30.99	61.95	1319.97	10.52	1194.56	270.00	MWD	
14600.00	14670.15	11228.00	64.94	31.59	63.17	1319.97	10.25	1191.22	270.00	MWD	
14700.00	14770.15	11228.00	66.64	32.20	64.38	1319.97	9.99	1187.84	270.00	MWD	
14800.00	14870.15	11228.00	68.34	32.80	65.59	1319.97	9.74	1184.45	270.00	MWD	
14900.00	14970.15	11228.00	70.05	33.41	66.80	1319.97	9.50	1181.05	270.00	MWD	
15000.00	15070.15	11228.00	71.76	34.01	68.01	1319.97	9.27	1177.64	270.00	MWD	
15100.00	15170.15	11228.00	73.48	34.62	69.24	1319.97	9.06	1174.21	270.00	MWD	
15200.00	15270.15	11228.00	75.20	35.23	70.46	1319.97	8.85	1170.78	270.00	MWD	
15300.00	15370.15	11228.00	76.93	35.85	71.70	1319.97	8.65	1167.34	270.00	MWD	
15400.00	15470.15	11228.00	78.65	36.47	72.94	1319.97	8.46	1163.89	270.00	MWD	
15500.00	15570.15	11228.00	80.39	37.09	74.18	1319.97	8.27	1160.43	270.00	MWD	
15600.00	15670.15	11228.00	82.12	37.72	75.44	1319.97	8.10	1156.96	270.00	MWD	
15700.00	15770.15	11228.00	83.86	38.38	76.74	1319.97	7.93	1153.49	270.00	MWD	
15800.00	15870.15	11228.00	85.61	39.04	78.06	1319.97	7.77	1150.01	270.00	MWD	
15900.00	15970.15	11228.00	87.35	39.70	79.39	1319.97	7.61	1146.52	270.00	MWD	
16000.00	16070.15	11228.00	89.10	40.37	80.72	1319.97	7.46	1143.03	270.00	MWD	
16100.00	16170.15	11228.00	90.86	41.03	82.05	1319.97	7.32	1139.53	270.00	MWD	
16200.00	16270.15	11228.00	92.61	41.70	83.39	1319.97	7.18	1136.03	270.00	MWD	
16300.00	16370.15	11228.00	94.37	42.37	84.73	1319.97	7.04	1132.52	270.00	MWD	
16400.00	16470.15	11228.00	96.13	43.04	86.07	1319.97	6.91	1129.00	270.00	MWD	
16500.00	16570.15	11228.00	97.89	43.72	87.42	1319.97	6.79	1125.48	270.00	MWD	
16571.00	16632.55	11228.00	98.99	44.14	88.26	1320.00	6.71	1123.16	270.00	MWD	

5D Anti-Collision Report

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

GeoDec v5.03

Report Date: December 10, 2013
Job Number: _____
Customer: Devon Energy
Well Name: Sea Snake 35 State 1H
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 462581.440 USFT	Latitude 32.2692661 DEG
East/West 784236.680 USFT	Longitude -103.5474627 DEG
Grid Convergence: .42°	
Total Correction: +6.93°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.26927° N	32° 16 min 9.358 sec
Longitude =	103.54746° W	103° 32 min 50.866 sec

Magnetic Declination =	7.35°	[True North Offset]
Local Gravity =	.9988 g	Checksum = 6629
Local Field Strength =	48378 nT	Magnetic Vector X = 23881 nT
Magnetic Dip =	60.15°	Magnetic Vector Y = 3081 nT
Magnetic Model =	bggm2013	Magnetic Vector Z = 41959 nT
Spud Date =	Mar 17, 2014	Magnetic Vector H = 24079 nT

Signed: _____

Date: _____