

Submit 1 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 Rd., 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

Form C-103
Revised August 1, 2011

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

WELL API NO. 30-025-41599
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name SEA SNAKE 35 STATE
8. Well Number 2H
9. OGRID Number 6137
10. Pool name or Wildcat TRIPLE X; BONE SPRING

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator Devon Energy Production Company, L.P.	
3. Address of Operator 20 North Broadway Oklahoma City, Oklahoma 73102-8260 (405) 552-7848	
4. Well Location Unit Letter <u>N</u> : <u>315</u> feet from the <u>S</u> line and <u>1350</u> feet from the <u>W</u> line Section <u>26</u> Township <u>23S</u> Range <u>33E</u> NMPM Lea County New Mexico	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3659'	

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 approved APD as a result of a revised geoprogram.

See attached Drill Plan & Directional Survey.

HOBBS OCD

NOV 18 2014

RECEIVED

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 11/18/2014

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 11/18/14
Conditions of Approval (if any):

NOV 19 2014

DRILLING PROGRAM

Devon Energy Production Company, L.P.
Sea Snake 35 State 2H

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	1361'	Barren
c. Top of Salt	1631'	Barren
d. Base of Salt	5091'	Barren
e. Delaware	5286'	Barren
f. Cherry Canyon	6251'	Barren
g. Brushy Canyon	7591'	Barren
h. Bone Spring	9151'	Oil
i. 1 st Bone Spring SS	10251'	Oil
j. 2 nd Bone Spring	10648'	Oil
Total Depth	11260' TVD	15969' MD

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 – 1,350'	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 – 10,700'	29	BTC	P-110	1.78	1.25	2.16
8-3/4"	5,200- 15,969'	5-1/2"	10,700 – 15,969'	17	BTC	P-110	1.42	1.25	2.07

Casing Notes:

- All casing is new and API approved

Maximum Lateral TVD: 11,260'

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' – 15,969'	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	Number 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
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

5-1/2" Production Casing 5000ft

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

KB-3690
GL-3665

devon

Sea Snake 35 State 2H
Lea Co, NM

Weatherford

Plan Data for Sea Snake 35 State 2H

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) (DLSU)
0.00 0.00 0.00 0.00 0.00 0.00 457182.69 784322.68 0.00 0.00
4672.00 0.00 0.00 4672.00 0.00 0.00 457182.69 784322.68 0.00 0.00
5172.00 5.00 109.00 5171.37 -7.10 20.61 457175.59 784343.29 -6.67 1.00
9000.00 5.00 109.00 8984.80 -115.72 336.07 457066.97 784658.75 -108.65 0.00
10000.00 0.00 0.00 9983.53 -129.91 377.30 457052.78 784699.98 -121.98 0.50
10787.86 0.00 0.00 10771.39 -129.91 377.30 457052.78 784699.98 -121.98 0.00
11287.86 60.00 20.00 11184.89 94.42 458.95 457277.11 784781.63 104.01 12.00
11578.96 90.00 1.20 11260.00 366.88 506.60 457549.57 784829.28 377.41 12.00
15969.09 90.00 1.20 11260.00 4756.04 598.67 461938.73 784921.35 4767.53 0.00

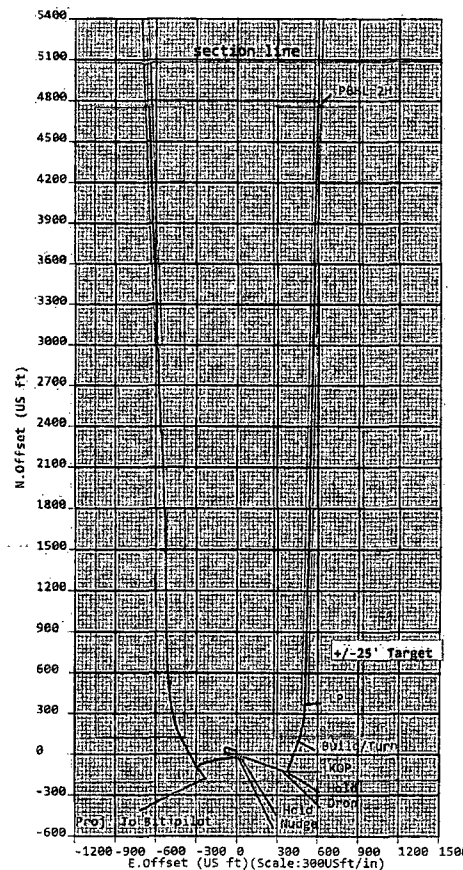
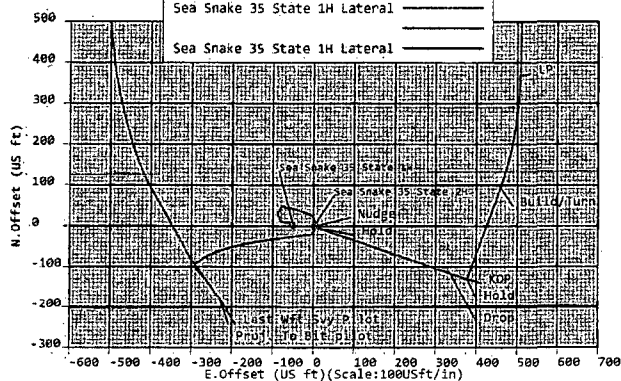
Plan Data for Sea Snake 35 State 2H

Slot: Sea Snake 35 State 2H
Position:
Offset is from Site centre
+N/-S: 0.34USft Northing: 457182.69USft Latitude: 32°15'15.9"
+E/-W: 49.97USft Easting: 784322.68USft Longitude: -103°32'50.3"
Elevation Above VRD: 3665.00USft

Plan Data for Sea Snake 35 State 2H

Target Set Information:
Name: Sea Snake 35 State 2H
Position offsets from Slot centre
Name TVD +N/-S +E/-W Northing Easting Shape Comment
(USft) (USft) (USft) (USft) (USft)
PBHL 2H 11260.00 4756.04 598.67 461938.73 784921.35 Cuboid

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



Plan Data for Sea Snake 35 State 2H

Well: Sea Snake 35 State 2H
Type: Main-Well
File Number:
Plan Folder: P1 Plan: P1:V6
Vertical Section: Position offset of origin from Slot centre:
+N/-S: 0.00USft Azimuth: 1.20°
+E/-W: 0.00USft
Magnetic Parameters:
Model: Field Strength: Declination: Dip: Date:
BGM 48276(n) 7.32° 00.13° 2014-11-20

VS (US ft)(Bearing:1.20° Scale:200USft/in)

SD 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 2H*
Plan: *P1:V6*

13 November 2014



Sea Snake 35 State 2H

Field Name Sea Snake 35 State 2H	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 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 2H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.34 US ft	Northing : 457182.69 US ft	Latitude : 32° 15' 15.93"	
	+E / -W : 49.97 US ft	Easting : 784322.68 US ft	Longitude : -103° 32' 50.32"	
Elevation above Mean Sea Level : 3665.00 US ft				
Comment :				
Well Name Sea Snake 35 State 2H	Type : Main well	UWI :	Plan : P1:V6	
	Rig Height Well TVD Reference : 25.00 US ft	Comment :		
Relative to Mean Sea Level: 3690.00 US ft				
Closure Distance : 4793.57 US ft		Closure Azimuth : 7.17441°		
Vertical Section (Position of Origin Relative to Slot)				
+N / -S : 0.00 US ft		+E / -W : 0.00 US ft	Az : 1.20°	
Magnetic Parameters				
Model : BGGM	Field Strength : 48276.7nT	Dec : 7.32°	Dip : 60.13°	Date : 20/Nov/2014

Target Set

Name : Sea Snake 35 State 2H **Number of Targets :** 1

Comment :

Target Name PBRL 2H	Position (Relative to Slot centre)			
	+N / -S : 4756.04 US ft	Northing : 461938.73 US ft	Latitude : 32° 16' 2.95"	
	+E / -W : 598.67 US ft	Easting : 784921.35 US ft	Longitude : -103° 32' 42.95"	
Shape: cuboid	TVD (Well TVD Reference) : 11260.00 US ft			
Orientation Azimuth : 1.20°		Inclination : 0.00°		
Dimensions	Length : 8780.00 US ft	Breadth : 50.00 US ft	Height : 30.00 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)	Incl (°)	Age (°)	TVD (US.ft)	N. Offset (US.ft)	E. Offset (US.ft)	VS (US.ft)	DLS (%/100 US.ft)	R. Rate (%/100 US.ft)	IR. Rate (%/100 US.ft)	Space (°)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4672.00	0.00	0.00	4672.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Nudge
5172.00	5.00	109.00	5171.37	-7.10	20.61	-6.67	1.00	1.00	0.00	109.00	Hold
9000.00	5.00	109.00	8984.80	-115.72	336.07	-108.65	0.00	0.00	0.00	0.00	Drop
10000.00	0.00	0.00	9983.53	-129.91	377.30	-121.98	0.50	-0.50	0.00	180.00	Hold
10787.86	0.00	0.00	10771.39	-129.91	377.30	-121.98	0.00	0.00	0.00	0.00	KOP
11287.86	60.00	20.00	11184.89	94.42	458.95	104.01	12.00	12.00	0.00	20.00	Build/Turn
11578.96	90.00	1.20	11260.00	366.88	506.60	377.41	12.00	10.31	-6.46	325.75	LP
15969.09	90.00	1.20	11260.00	4756.04	598.67	4767.53	0.00	0.00	0.00	0.00	PBHL 2H

Interpolated Points (Relative to Slot centre, TVD relative to Well TVD Reference)											
MD (US.ft)	Incl (°)	Age (°)	TVD (US.ft)	N. Offset (US.ft)	E. Offset (US.ft)	VS (US.ft)	DLS (%/100 US.ft)	R. Rate (%/100 US.ft)	IR. Rate (%/100 US.ft)	Space (°)	Comment
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	457182.69	784322.68		
4672.00	0.00	0.00	4672.00	0.00	0.00	0.00	0.00	457182.69	784322.68		Nudge
4700.00	0.28	109.00	4700.00	-0.02	0.06	-0.02	1.00	457182.67	784322.74		
4800.00	1.28	109.00	4799.99	-0.47	1.35	-0.44	1.00	457182.22	784324.03		
4900.00	2.28	109.00	4899.94	-1.48	4.29	-1.39	1.00	457181.21	784326.97		
5000.00	3.28	109.00	4999.82	-3.06	8.87	-2.87	1.00	457179.63	784331.55		
5100.00	4.28	109.00	5099.60	-5.20	15.11	-4.88	1.00	457177.49	784337.79		
5172.00	5.00	109.00	5171.37	-7.10	20.61	-6.67	1.00	457175.59	784343.29		Hold
5200.00	5.00	109.00	5199.26	-7.89	22.92	-7.41	0.00	457174.80	784345.60		
5300.00	5.00	109.00	5298.88	-10.73	31.16	-10.08	0.00	457171.96	784353.84		
5400.00	5.00	109.00	5398.50	-13.57	39.40	-12.74	0.00	457169.12	784362.08		
5500.00	5.00	109.00	5498.12	-16.41	47.64	-15.40	0.00	457166.28	784370.32		
5600.00	5.00	109.00	5597.74	-19.24	55.89	-18.07	0.00	457163.45	784378.57		
5700.00	5.00	109.00	5697.36	-22.08	64.13	-20.73	0.00	457160.61	784386.81		
5800.00	5.00	109.00	5796.98	-24.92	72.37	-23.40	0.00	457157.77	784395.05		
5900.00	5.00	109.00	5896.60	-27.76	80.61	-26.06	0.00	457154.93	784403.29		
6000.00	5.00	109.00	5996.21	-30.59	88.85	-28.73	0.00	457152.10	784411.53		
6100.00	5.00	109.00	6095.83	-33.43	97.09	-31.39	0.00	457149.26	784419.77		
6200.00	5.00	109.00	6195.45	-36.27	105.33	-34.05	0.00	457146.42	784428.01		
6300.00	5.00	109.00	6295.07	-39.11	113.57	-36.72	0.00	457143.58	784436.25		
6400.00	5.00	109.00	6394.69	-41.94	121.81	-39.38	0.00	457140.75	784444.49		
6500.00	5.00	109.00	6494.31	-44.78	130.05	-42.05	0.00	457137.91	784452.73		
6600.00	5.00	109.00	6593.93	-47.62	138.29	-44.71	0.00	457135.07	784460.97		
6700.00	5.00	109.00	6693.55	-50.46	146.53	-47.38	0.00	457132.23	784469.21		
6800.00	5.00	109.00	6793.17	-53.29	154.77	-50.04	0.00	457129.40	784477.45		
6900.00	5.00	109.00	6892.79	-56.13	163.01	-52.70	0.00	457126.56	784485.69		
7000.00	5.00	109.00	6992.41	-58.97	171.26	-55.37	0.00	457123.72	784493.94		
7100.00	5.00	109.00	7092.03	-61.81	179.50	-58.03	0.00	457120.88	784502.18		
7200.00	5.00	109.00	7191.65	-64.64	187.74	-60.70	0.00	457118.05	784510.42		
7300.00	5.00	109.00	7291.27	-67.48	195.98	-63.36	0.00	457115.21	784518.66		
7400.00	5.00	109.00	7390.89	-70.32	204.22	-66.03	0.00	457112.37	784526.90		
7500.00	5.00	109.00	7490.51	-73.16	212.46	-68.69	0.00	457109.53	784535.14		
7600.00	5.00	109.00	7590.13	-75.99	220.70	-71.35	0.00	457106.70	784543.38		
7700.00	5.00	109.00	7689.75	-78.83	228.94	-74.02	0.00	457103.86	784551.62		
7800.00	5.00	109.00	7789.37	-81.67	237.18	-76.68	0.00	457101.02	784559.86		
7900.00	5.00	109.00	7888.98	-84.51	245.42	-79.35	0.00	457098.18	784568.10		
8000.00	5.00	109.00	7988.60	-87.34	253.66	-82.01	0.00	457095.35	784576.34		
8100.00	5.00	109.00	8088.22	-90.18	261.90	-84.68	0.00	457092.51	784584.58		
8200.00	5.00	109.00	8187.84	-93.02	270.14	-87.34	0.00	457089.67	784592.82		
8300.00	5.00	109.00	8287.46	-95.86	278.39	-90.00	0.00	457086.83	784601.07		
8400.00	5.00	109.00	8387.08	-98.69	286.63	-92.67	0.00	457084.00	784609.31		
8500.00	5.00	109.00	8486.70	-101.53	294.87	-95.33	0.00	457081.16	784617.55		
8600.00	5.00	109.00	8586.32	-104.37	303.11	-98.00	0.00	457078.32	784625.79		
8700.00	5.00	109.00	8685.94	-107.21	311.35	-100.66	0.00	457075.48	784634.03		
8800.00	5.00	109.00	8785.56	-110.04	319.59	-103.33	0.00	457072.65	784642.27		
8900.00	5.00	109.00	8885.18	-112.88	327.83	-105.99	0.00	457069.81	784650.51		

SD Plan Report

Interpolated Points (Relative to Slot centre TVD (relative to Well TVD Reference))										
MD (US.ft)	Interval (ft)	Age (yr)	TVD (US.ft)	N. Offset (US.ft)	E. Offset (US.ft)	AVS (US.ft)	CLS (ft/100 US.ft)	Northing (US.ft)	Easting (US.ft)	Comments
9000.00	5.00	109.00	8984.80	-115.72	336.07	-108.65	0.00	457066.97	784658.75	Drop
9100.00	4.50	109.00	9084.46	-118.41	343.90	-111.19	0.50	457064.28	784666.58	
9200.00	4.00	109.00	9184.18	-120.83	350.91	-113.45	0.50	457061.86	784673.59	
9300.00	3.50	109.00	9283.97	-122.96	357.09	-115.45	0.50	457059.73	784679.77	
9400.00	3.00	109.00	9383.80	-124.80	362.45	-117.18	0.50	457057.89	784685.13	
9500.00	2.50	109.00	9483.69	-126.36	366.99	-118.65	0.50	457056.33	784689.67	
9600.00	2.00	109.00	9583.61	-127.64	370.70	-119.85	0.50	457055.05	784693.38	
9700.00	1.50	109.00	9683.56	-128.64	373.59	-120.78	0.50	457054.05	784696.27	
9800.00	1.00	109.00	9783.54	-129.35	375.65	-121.45	0.50	457053.34	784698.33	
9900.00	0.50	109.00	9883.53	-129.77	376.89	-121.85	0.50	457052.92	784699.57	
10000.00	0.00	0.00	9983.53	-129.91	377.30	-121.98	0.50	457052.78	784699.98	Hold
10100.00	0.00	0.00	10083.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10200.00	0.00	0.00	10183.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10300.00	0.00	0.00	10283.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10400.00	0.00	0.00	10383.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10500.00	0.00	0.00	10483.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10600.00	0.00	0.00	10583.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10700.00	0.00	0.00	10683.53	-129.91	377.30	-121.98	0.00	457052.78	784699.98	
10787.86	0.00	0.00	10771.39	-129.91	377.30	-121.98	0.00	457052.78	784699.98	KOP
10800.00	1.46	20.00	10783.53	-129.77	377.35	-121.84	12.00	457052.92	784700.03	
10900.00	13.46	20.00	10882.50	-117.60	381.78	-109.58	12.00	457065.09	784704.46	
11000.00	25.46	20.00	10976.62	-86.35	393.16	-78.10	12.00	457096.34	784715.84	
11100.00	37.46	20.00	11061.77	-37.40	410.97	-28.79	12.00	457145.29	784733.65	
11200.00	49.46	20.00	11134.22	27.11	434.45	36.20	12.00	457209.80	784757.13	
11287.86	60.00	20.00	11184.89	94.42	458.95	104.01	12.00	457277.11	784781.63	Build/Turn
11300.00	61.21	19.06	11190.85	104.39	462.49	114.05	12.00	457287.08	784785.17	
11400.00	71.36	12.06	11231.06	192.46	486.78	202.61	12.00	457375.15	784809.46	
11500.00	81.74	5.85	11254.31	288.36	501.78	298.81	12.00	457471.05	784824.46	
11578.96	90.00	1.20	11260.00	366.88	506.60	377.41	12.00	457549.57	784829.28	LP
11600.00	90.00	1.20	11260.00	387.92	507.04	398.45	0.00	457570.61	784829.72	
11700.00	90.00	1.20	11260.00	487.89	509.14	498.45	0.00	457670.58	784831.82	
11800.00	90.00	1.20	11260.00	587.87	511.24	598.45	0.00	457770.56	784833.92	
11900.00	90.00	1.20	11260.00	687.85	513.33	698.45	0.00	457870.54	784836.01	
12000.00	90.00	1.20	11260.00	787.83	515.43	798.45	0.00	457970.52	784838.11	
12100.00	90.00	1.20	11260.00	887.81	517.53	898.45	0.00	458070.50	784840.21	
12200.00	90.00	1.20	11260.00	987.78	519.62	998.45	0.00	458170.47	784842.30	
12300.00	90.00	1.20	11260.00	1087.76	521.72	1098.45	0.00	458270.45	784844.40	
12400.00	90.00	1.20	11260.00	1187.74	523.82	1198.45	0.00	458370.43	784846.50	
12500.00	90.00	1.20	11260.00	1287.72	525.92	1298.45	0.00	458470.41	784848.60	
12600.00	90.00	1.20	11260.00	1387.70	528.01	1398.45	0.00	458570.39	784850.69	
12700.00	90.00	1.20	11260.00	1487.67	530.11	1498.45	0.00	458670.36	784852.79	
12800.00	90.00	1.20	11260.00	1587.65	532.21	1598.45	0.00	458770.34	784854.89	
12900.00	90.00	1.20	11260.00	1687.63	534.31	1698.45	0.00	458870.32	784856.99	
13000.00	90.00	1.20	11260.00	1787.61	536.40	1798.45	0.00	458970.30	784859.08	
13100.00	90.00	1.20	11260.00	1887.59	538.50	1898.45	0.00	459070.28	784861.18	
13200.00	90.00	1.20	11260.00	1987.56	540.60	1998.45	0.00	459170.25	784863.28	
13300.00	90.00	1.20	11260.00	2087.54	542.69	2098.45	0.00	459270.23	784865.37	
13400.00	90.00	1.20	11260.00	2187.52	544.79	2198.45	0.00	459370.21	784867.47	
13500.00	90.00	1.20	11260.00	2287.50	546.89	2298.45	0.00	459470.19	784869.57	
13600.00	90.00	1.20	11260.00	2387.48	548.99	2398.45	0.00	459570.17	784871.67	
13700.00	90.00	1.20	11260.00	2487.45	551.08	2498.45	0.00	459670.14	784873.76	
13800.00	90.00	1.20	11260.00	2587.43	553.18	2598.45	0.00	459770.12	784875.86	
13900.00	90.00	1.20	11260.00	2687.41	555.28	2698.45	0.00	459870.10	784877.96	
14000.00	90.00	1.20	11260.00	2787.39	557.37	2798.45	0.00	459970.08	784880.05	
14100.00	90.00	1.20	11260.00	2887.37	559.47	2898.45	0.00	460070.06	784882.15	
14200.00	90.00	1.20	11260.00	2987.34	561.57	2998.45	0.00	460170.03	784884.25	
14300.00	90.00	1.20	11260.00	3087.32	563.67	3098.45	0.00	460270.01	784886.35	
14400.00	90.00	1.20	11260.00	3187.30	565.76	3198.45	0.00	460369.99	784888.44	
14500.00	90.00	1.20	11260.00	3287.28	567.86	3298.45	0.00	460469.97	784890.54	

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)	N. US (US ft)	N. US (°/100 US ft)	Minimum (US ft)	Maximum (US ft)	Comments
14600.00	90.00	1.20	11260.00	3387.26	569.96	3398.45	0.00	460569.95	784892.64	
14700.00	90.00	1.20	11260.00	3487.23	572.05	3498.45	0.00	460669.92	784894.73	
14800.00	90.00	1.20	11260.00	3587.21	574.15	3598.45	0.00	460769.90	784896.83	
14900.00	90.00	1.20	11260.00	3687.19	576.25	3698.45	0.00	460869.88	784898.93	
15000.00	90.00	1.20	11260.00	3787.17	578.35	3798.45	0.00	460969.86	784901.03	
15100.00	90.00	1.20	11260.00	3887.15	580.44	3898.45	0.00	461069.84	784903.12	
15200.00	90.00	1.20	11260.00	3987.12	582.54	3998.45	0.00	461169.81	784905.22	
15300.00	90.00	1.20	11260.00	4087.10	584.64	4098.45	0.00	461269.79	784907.32	
15400.00	90.00	1.20	11260.00	4187.08	586.74	4198.45	0.00	461369.77	784909.42	
15500.00	90.00	1.20	11260.00	4287.06	588.83	4298.45	0.00	461469.75	784911.51	
15600.00	90.00	1.20	11260.00	4387.04	590.93	4398.45	0.00	461569.73	784913.61	
15700.00	90.00	1.20	11260.00	4487.01	593.03	4498.45	0.00	461669.70	784915.71	
15800.00	90.00	1.20	11260.00	4586.99	595.12	4598.45	0.00	461769.68	784917.80	
15900.00	90.00	1.20	11260.00	4686.97	597.22	4698.45	0.00	461869.66	784919.90	
15969.09	90.00	1.20	11260.00	4756.04	598.67	4767.53	0.00	461938.73	784921.35	PBHL 2H

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 2H*

13 November 2014





Weatherford®

Sea Snake 35 State 2H

Field Name
Sea Snake 35 NM Nod
33 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 2H

Position (Offsets relative to Site Centre)

+N / -S : 0.34 US ft

Northing : 457182.69 US ft

Latitude : 32° 15' 15.93"

+E / -W : 49.97 US ft

Easting : 784322.68 US ft

Longitude : -103° 32' 50.32"

Elevation above Mean Sea Level : 3665.00 US ft

Comment :

Well Name
Sea Snake 35
State 2H

Type : Main well

UWI :

Plan : Working Plan

Rig Height Well TVD Reference : 25.00

Comment :

US ft

Relative to Mean Sea Level: 3690.00 US ft

Closure Distance : 4793.57 US ft

Closure Azimuth : 7.17441°

Vertical Section (Position of Origin Relative to Slot)

+N / -S : 0.00 US ft

+E / -W : 0.00 US ft

Az : 0.31°

Magnetic Parameters

Model : BGGM

Field Strength :
48276.7nT

Dec : 7.32°

Dip : 60.13°

Date :
20/Nov/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 2H (p)	0.00	15969.09	100.00	2

Secondary Well Names

Sea Snake 35 State 1H Pilot (s)

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

AC Filter Info: The following filter(s) have been applied: Separation Factor

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)

Secondary Well Name	P MD (US.ft)	Sec MD (US.ft)	TVD (US.ft)	CC (US.ft)	ES (US.ft)	SF	Risk
Sea Snake 35 State 1H Pilot (s)	5141.21	5148.01	5140.69	56.43	33.86	2.50	

Primary Well: Sea Snake 35 State 2H (p) (TVD Relative to Well, TVD Reference, All Azimuth Relative to GRID NORTH)									
MD (US.ft)	TVD (US.ft)	T Face to Sea (°)	S Major (US.ft)	S Minor (US.ft)	Nearest Well	CC (US.ft)	ES (US.ft)	SF	Risk
2000.00	2000.00	278.62	4.38	4.38	Sea Snake 35 State 1H Pilot (s)	62.63	53.45	6.82	
2100.00	2100.00	278.38	4.61	4.61	Sea Snake 35 State 1H Pilot (s)	64.05	54.44	6.66	
2200.00	2200.00	278.29	4.83	4.83	Sea Snake 35 State 1H Pilot (s)	65.76	55.73	6.56	
2300.00	2300.00	278.43	5.06	5.06	Sea Snake 35 State 1H Pilot (s)	67.67	57.20	6.46	
2400.00	2400.00	278.41	5.28	5.28	Sea Snake 35 State 1H Pilot (s)	69.47	58.56	6.37	
2500.00	2500.00	278.25	5.51	5.51	Sea Snake 35 State 1H Pilot (s)	71.07	59.72	6.26	
2600.00	2600.00	278.17	5.73	5.73	Sea Snake 35 State 1H Pilot (s)	72.77	60.99	6.18	
2700.00	2700.00	278.27	5.96	5.96	Sea Snake 35 State 1H Pilot (s)	74.65	62.44	6.12	
2800.00	2800.00	278.58	6.18	6.18	Sea Snake 35 State 1H Pilot (s)	76.64	64.01	6.07	
2900.00	2900.00	279.12	6.41	6.41	Sea Snake 35 State 1H Pilot (s)	78.56	65.50	6.01	
3000.00	3000.00	279.66	6.63	6.63	Sea Snake 35 State 1H Pilot (s)	80.37	66.86	5.95	
3100.00	3100.00	280.36	6.86	6.86	Sea Snake 35 State 1H Pilot (s)	82.10	68.16	5.89	
3200.00	3200.00	281.32	7.08	7.08	Sea Snake 35 State 1H Pilot (s)	83.76	69.38	5.83	
3300.00	3300.00	282.52	7.31	7.31	Sea Snake 35 State 1H Pilot (s)	85.22	70.41	5.75	
3400.00	3400.00	283.85	7.53	7.53	Sea Snake 35 State 1H Pilot (s)	86.66	71.42	5.69	
3500.00	3500.00	285.20	7.76	7.76	Sea Snake 35 State 1H Pilot (s)	88.13	72.46	5.62	
3600.00	3600.00	286.61	7.98	7.98	Sea Snake 35 State 1H Pilot (s)	89.86	73.74	5.57	
3700.00	3700.00	288.25	8.21	8.21	Sea Snake 35 State 1H Pilot (s)	91.27	74.70	5.51	
3800.00	3800.00	289.70	8.43	8.43	Sea Snake 35 State 1H Pilot (s)	92.38	75.38	5.43	
3900.00	3900.00	291.08	8.65	8.65	Sea Snake 35 State 1H Pilot (s)	93.21	75.77	5.34	
4000.00	4000.00	292.74	8.88	8.88	Sea Snake 35 State 1H Pilot (s)	93.66	75.79	5.24	
4100.00	4100.00	293.93	9.10	9.10	Sea Snake 35 State 1H Pilot (s)	93.18	74.90	5.10	
4200.00	4200.00	295.42	9.33	9.33	Sea Snake 35 State 1H Pilot (s)	92.41	73.71	4.94	

SD Anti-Collision Report

Primary Well: Sea Snake 35 State 2H (p) (TVD Relative to Well TVD Reference: All Azimuth Relative to GRID NORTH)									
MD (US ft)	TVD (US ft)	Inclination (°)	S. Major (US ft)	S. Minor (US ft)	Nearest Well	CE (US ft)	RES (US ft)	SR	Risk
4300.00	4300.00	297.51	9.55	9.55	Sea Snake 35 State 1H Pilot (s)	91.78	72.62	4.79	
4400.00	4400.00	299.69	9.78	9.78	Sea Snake 35 State 1H Pilot (s)	91.64	72.02	4.67	
4500.00	4500.00	301.88	10.00	10.00	Sea Snake 35 State 1H Pilot (s)	90.84	70.80	4.53	
4600.00	4600.00	303.88	10.23	10.23	Sea Snake 35 State 1H Pilot (s)	84.96	64.54	4.16	
4700.00	4700.00	197.28	10.45	10.45	Sea Snake 35 State 1H Pilot (s)	78.33	57.48	3.76	
4800.00	4799.99	200.08	10.63	10.63	Sea Snake 35 State 1H Pilot (s)	71.71	50.52	3.38	
4900.00	4899.94	202.98	10.82	10.81	Sea Snake 35 State 1H Pilot (s)	64.61	43.03	2.99	
5000.00	4999.82	205.60	11.02	10.99	Sea Snake 35 State 1H Pilot (s)	58.88	36.87	2.67	
5100.00	5099.60	206.85	11.21	11.17	Sea Snake 35 State 1H Pilot (s)	56.39	33.94	2.51	
5200.00	5199.26	206.56	11.41	11.35	Sea Snake 35 State 1H Pilot (s)	57.33	34.58	2.52	
5300.00	5298.88	205.37	11.61	11.54	Sea Snake 35 State 1H Pilot (s)	60.05	37.00	2.61	
5400.00	5398.50	203.46	11.82	11.74	Sea Snake 35 State 1H Pilot (s)	62.98	39.74	2.71	
5500.00	5498.12	200.74	12.03	11.93	Sea Snake 35 State 1H Pilot (s)	65.55	42.17	2.80	
5600.00	5597.74	196.97	12.24	12.13	Sea Snake 35 State 1H Pilot (s)	68.21	44.56	2.88	
5700.00	5697.36	192.14	12.45	12.33	Sea Snake 35 State 1H Pilot (s)	71.53	47.70	3.00	
5800.00	5796.98	186.75	12.67	12.53	Sea Snake 35 State 1H Pilot (s)	75.92	51.83	3.15	
5900.00	5896.60	181.71	12.88	12.73	Sea Snake 35 State 1H Pilot (s)	81.95	57.64	3.37	
6000.00	5996.21	177.44	13.10	12.93	Sea Snake 35 State 1H Pilot (s)	89.34	64.74	3.63	
6100.00	6095.83	174.21	13.33	13.14	Sea Snake 35 State 1H Pilot (s)	98.22	73.41	3.96	
6200.00	6195.45	171.98	13.55	13.34	Sea Snake 35 State 1H Pilot (s)	108.55	83.47	4.33	
6300.00	6295.07	170.73	13.78	13.54	Sea Snake 35 State 1H Pilot (s)	119.82	94.51	4.73	
6400.00	6394.69	170.27	14.01	13.75	Sea Snake 35 State 1H Pilot (s)	132.23	106.64	5.17	
6500.00	6494.31	170.21	14.23	13.96	Sea Snake 35 State 1H Pilot (s)	145.89	120.06	5.65	
6600.00	6593.93	170.04	14.47	14.16	Sea Snake 35 State 1H Pilot (s)	161.17	135.11	6.18	
6700.00	6693.55	169.78	14.70	14.37	Sea Snake 35 State 1H Pilot (s)	178.45	152.17	6.79	

5D Anti-Collision Report

Secondary Well: Sea Snake 35 State 1H P101 (S) (TVD Relative to Well TVD Reference (Primary)) All Azimuth Relative to GRID NORTH								
TH ID (US.ft)	TVD (US.ft)	Sec ID (US.ft)	Face to Sec (ft)	S Major (US.ft)	S Minor (US.ft)	CG (US.ft)	ES (US.ft)	NS
2000.00	1999.15	1999.32	278.62	4.07	4.07	62.63	53.45	6.82
2100.00	2099.04	2099.22	278.38	4.29	4.28	64.05	54.44	6.66
2200.00	2198.74	2198.93	278.29	4.49	4.49	65.76	55.73	6.56
2300.00	2298.72	2298.93	278.43	4.70	4.69	67.67	57.20	6.46
2400.00	2398.82	2399.05	278.41	4.91	4.90	69.47	58.56	6.37
2500.00	2498.88	2499.12	278.25	5.13	5.11	71.07	59.72	6.26
2600.00	2598.69	2598.95	278.17	5.34	5.32	72.77	60.99	6.18
2700.00	2698.55	2698.82	278.27	5.54	5.53	74.65	62.44	6.12
2800.00	2798.48	2798.77	278.58	5.75	5.74	76.64	64.01	6.07
2900.00	2898.54	2898.86	279.12	5.97	5.95	78.56	65.50	6.01
3000.00	2998.58	2998.92	279.66	6.18	6.16	80.37	66.86	5.95
3100.00	3098.60	3098.95	280.36	6.39	6.37	82.10	68.16	5.89
3200.00	3198.67	3199.05	281.32	6.60	6.58	83.76	69.38	5.83
3300.00	3298.85	3299.26	282.52	6.82	6.79	85.22	70.41	5.75
3400.00	3398.69	3399.12	283.85	7.03	7.00	86.66	71.42	5.69
3500.00	3498.68	3499.14	285.20	7.24	7.21	88.13	72.46	5.62
3600.00	3598.42	3598.93	286.61	7.45	7.42	89.86	73.74	5.57
3700.00	3698.92	3699.47	288.25	7.67	7.64	91.27	74.70	5.51
3800.00	3799.08	3799.66	289.70	7.88	7.85	92.38	75.38	5.43
3900.00	3899.38	3900.00	291.08	8.09	8.06	93.21	75.77	5.34
4000.00	3999.98	4000.63	292.74	8.31	8.27	93.66	75.79	5.24
4100.00	4100.67	4101.34	293.93	8.52	8.48	93.18	74.90	5.10
4200.00	4200.68	4201.38	295.42	8.73	8.69	92.41	73.71	4.94
4300.00	4300.47	4301.23	297.51	8.94	8.91	91.78	72.62	4.79
4400.00	4399.55	4400.38	299.69	9.15	9.11	91.64	72.02	4.67
4500.00	4503.61	4504.51	301.88	9.36	9.32	90.84	70.80	4.53
4600.00	4605.56	4606.68	303.88	9.56	9.52	84.96	64.54	4.16
4700.00	4705.28	4706.69	197.28	9.77	9.73	78.33	57.48	3.76
4800.00	4806.65	4808.47	200.08	9.98	9.92	71.71	50.52	3.38
4900.00	4906.74	4909.16	202.98	10.18	10.12	64.61	43.03	2.99
5000.00	5005.49	5008.54	205.60	10.39	10.33	58.88	36.87	2.67
5100.00	5103.67	5107.15	206.85	10.59	10.56	56.39	33.94	2.51
5200.00	5202.52	5206.28	206.56	10.70	10.67	57.33	34.58	2.52
5300.00	5301.84	5305.76	205.37	10.76	10.74	60.05	37.00	2.61
5400.00	5401.76	5405.82	203.46	10.77	10.75	62.98	39.74	2.71
5500.00	5501.84	5506.06	200.74	10.78	10.76	65.55	42.17	2.80
5600.00	5601.44	5605.82	196.97	10.79	10.78	68.21	44.56	2.88
5700.00	5700.75	5705.34	192.14	10.82	10.79	71.53	47.70	3.00
5800.00	5799.62	5804.44	186.75	10.85	10.81	75.92	51.83	3.15
5900.00	5898.22	5903.28	181.71	10.88	10.85	81.95	57.64	3.37
6000.00	5996.74	6002.02	177.44	10.92	10.88	89.34	64.74	3.63
6100.00	6094.85	6100.31	174.21	10.95	10.93	98.22	73.41	3.96
6200.00	6193.08	6198.68	171.98	11.00	10.98	108.55	83.47	4.33
6300.00	6291.19	6296.90	170.73	11.04	11.03	119.82	94.51	4.73
6400.00	6388.84	6394.65	170.27	11.09	11.08	132.23	106.64	5.17
6500.00	6485.78	6491.73	170.21	11.14	11.12	145.89	120.06	5.65
6600.00	6581.50	6587.69	170.04	11.20	11.17	161.17	135.11	6.18
6700.00	6675.93	6682.51	169.78	11.26	11.21	178.45	152.17	6.79

**Weatherford**

Weatherford Drilling Services

GeoDec4 v2.1.0.0

Report Date: November 13, 2014
Job Number: _____
Customer: Devon Energy
Well Name: Sea Snake 35 State 2H
API Number: _____
Rig Name: _____
Location: Lea Co, NM Nad83 NME
Block: _____
Engineer: RWJ

NAD83 / New Mexico East (ftUS)	NAD83 (1986)
Projected Coordinate System	Geodetic Coordinate System
Datum: North American Datum 1983 (1986)	Datum: North American Datum 1983 (1986)
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
EPSG: 2257	EPSG: 4269
North: 457182.690 US Survey Foot	Latitude: 32.254425 Degree
East: 784322.680 US Survey Foot	Longitude: -103.547312 Degree
Convergence: 0.42°	
Declination: 7.32°	
Total Correction: 6.90°	
Datum Transformation: none	

Geodetic Location WGS84

MSL Elevation = 0 m
Latitude = 32° 15' 15.93" N
Longitude = 103° 32' 50.32" W

Magnetic Declination = 7.32 deg	[True North Offset]
Local Gravity = .9988 g	Checksum = 6559
Local Field Strength = 48277 nT	Magnetic Vector X = 23850 nT
Magnetic Dip = 60.13 deg	Magnetic Vector Y = 3064 nT
Magnetic Model = bggm2014.dat	Magnetic Vector Z = 41862 nT
Run Date = November 20, 2014	Magnetic Vector H = 24046 nT

Signed: _____ Date: _____

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