

APR 29 2016

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5D Plan Report

Devon Energy

Field Name: *Lea Co, NM Nad 83 NMEZ*

Site Name: *Green Wave 20-29 Fed 76H,77H,78H Pad*

Well Name: *Green Wave 20-29 Fed 78H Lat*

Plan: *P1:V1*

12 May 2015



MAY 03 2016

Green Wave 20-29 Fed 78H Pilot

Field Name	Map Units : US ft			Company Name : Devon Energy		
Lea Co NM Nad 83 NMEZ	Vertical Reference Datum (VRD) : Mean Sea Level					
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)					
	Comment :					
Site Name	Units : US ft	North Reference : Grid	Convergence Angle : 0.45			
Green Wave 20-29 Fed 76H 77H 78H Pad	Position	Northing : 375210.52 US ft	Latitude : 32° 1' 43.35"			
		Easting : 803702.93 US ft	Longitude : -103° 29' 12.16"			
	Elevation above Mean Sea Level: 3349.00 US ft					
Comment :						
Slot Name	Position (Offsets relative to Site Centre)					
Green Wave 20-29 Fed 78H	+N / -S : 0.59 US ft		Northing : 375211.11 US ft		Latitude : 32° 1' 43.35"	
	+E / -W : 99.95 US ft		Easting : 803802.88 US ft		Longitude : -103° 29' 11.00"	
	Slot TVD Reference : Ground Elevation					
Elevation above Mean Sea Level : 3348.00 US ft						
Comment :						
Well Name	Type : Main well		UWI :		Plan : P1:V1	
Green Wave 20-29 Fed 78H Pilot	Rig Height : Kelly Bushing : 30.00 US ft		Comment :			
	Relative to Mean Sea Level: 3378.00 US ft					
	Closure Distance : 586.222 US ft		Closure Azimuth : 85.673°			
	Vertical Section (Position of Origin Relative to Slot)					
	+N / -S : 0.00 US ft		+E / -W : 0.00 US ft		Az : 179.49°	
Magnetic Parameters						
Model : BGGM	Field Strength : 48025.3nT	Dec : 7.18°	Dip : 59.90°	Date : 15/Nov/2015		

Target Set

Name : Green Wave 20-29 **Number of Targets :** 1

Fed 78H Pilot

Comment :

Target Name:	Position (Relative to Slot centre)					
PBHL 78H Pilot	+N / -S : 44.23 US ft		Northing : 375255.34 US ft		Latitude : 32° 1' 43.74"	
	+E / -W : 584.55 US ft		Easting : 804387.43 US ft		Longitude : -103° 29' 4.20"	
Shape:	TVD (Kelly Bushing) : 12974.00 US ft					
Cuboid	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

5D Plan Report

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	
5400.00	0.00	0.00	5400.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	Nudge
5950.28	5.50	85.67	5949.44	1.99	26.33	-1.76	1.00	1.00	0.00	85.67	Hold
11650.40	5.50	85.67	11623.29	43.23	571.39	-38.15	0.00	0.00	0.00	0.00	Drop
11925.54	0.00	0.00	11898.01	44.23	584.55	-39.03	2.00	-2.00	0.00	180.00	Hold
13001.54	0.00	0.00	12974.01	44.23	584.55	-39.03	0.00	0.00	0.00	0.00	PBHL 78H 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
5400.00	0.00	0.00	5400.00	0.00	0.00	-0.00	0.00	375211.11	803802.88	Nudge
5500.00	1.00	85.67	5499.99	0.07	0.87	-0.06	1.00	375211.18	803803.75	
5600.00	2.00	85.67	5599.96	0.26	3.48	-0.23	1.00	375211.37	803806.36	
5700.00	3.00	85.67	5699.86	0.59	7.83	-0.52	1.00	375211.70	803810.71	
5800.00	4.00	85.67	5799.68	1.05	13.92	-0.93	1.00	375212.16	803816.80	
5900.00	5.00	85.67	5899.37	1.65	21.74	-1.45	1.00	375212.76	803824.62	
5950.28	5.50	85.67	5949.44	1.99	26.33	-1.76	1.00	375213.10	803829.21	Hold
6000.00	5.50	85.67	5998.93	2.35	31.08	-2.08	0.00	375213.46	803833.96	
6100.00	5.50	85.67	6098.46	3.08	40.65	-2.71	0.00	375214.19	803843.53	
6200.00	5.50	85.67	6198.00	3.80	50.21	-3.35	0.00	375214.91	803853.09	
6300.00	5.50	85.67	6297.54	4.52	59.77	-3.99	0.00	375215.63	803862.65	
6400.00	5.50	85.67	6397.08	5.25	69.33	-4.63	0.00	375216.36	803872.21	
6500.00	5.50	85.67	6496.62	5.97	78.89	-5.27	0.00	375217.08	803881.77	
6600.00	5.50	85.67	6596.16	6.69	88.46	-5.91	0.00	375217.80	803891.34	
6700.00	5.50	85.67	6695.70	7.42	98.02	-6.54	0.00	375218.53	803900.90	
6800.00	5.50	85.67	6795.24	8.14	107.58	-7.18	0.00	375219.25	803910.46	
6900.00	5.50	85.67	6894.78	8.86	117.14	-7.82	0.00	375219.97	803920.02	
7000.00	5.50	85.67	6994.32	9.59	126.71	-8.46	0.00	375220.70	803929.59	
7100.00	5.50	85.67	7093.86	10.31	136.27	-9.10	0.00	375221.42	803939.15	
7200.00	5.50	85.67	7193.40	11.03	145.83	-9.74	0.00	375222.14	803948.71	
7300.00	5.50	85.67	7292.93	11.76	155.39	-10.37	0.00	375222.87	803958.27	
7400.00	5.50	85.67	7392.47	12.48	164.95	-11.01	0.00	375223.59	803967.83	
7500.00	5.50	85.67	7492.01	13.20	174.52	-11.65	0.00	375224.31	803977.40	
7600.00	5.50	85.67	7591.55	13.93	184.08	-12.29	0.00	375225.04	803986.96	
7700.00	5.50	85.67	7691.09	14.65	193.64	-12.93	0.00	375225.76	803996.52	
7800.00	5.50	85.67	7790.63	15.38	203.20	-13.57	0.00	375226.49	804006.08	
7900.00	5.50	85.67	7890.17	16.10	212.77	-14.20	0.00	375227.21	804015.65	
8000.00	5.50	85.67	7989.71	16.82	222.33	-14.84	0.00	375227.93	804025.21	
8100.00	5.50	85.67	8089.25	17.55	231.89	-15.48	0.00	375228.66	804034.77	
8200.00	5.50	85.67	8188.79	18.27	241.45	-16.12	0.00	375229.38	804044.33	
8300.00	5.50	85.67	8288.33	18.99	251.01	-16.76	0.00	375230.10	804053.89	
8400.00	5.50	85.67	8387.86	19.72	260.58	-17.40	0.00	375230.83	804063.46	
8500.00	5.50	85.67	8487.40	20.44	270.14	-18.03	0.00	375231.55	804073.02	
8600.00	5.50	85.67	8586.94	21.16	279.70	-18.67	0.00	375232.27	804082.58	
8700.00	5.50	85.67	8686.48	21.89	289.26	-19.31	0.00	375233.00	804092.14	
8800.00	5.50	85.67	8786.02	22.61	298.82	-19.95	0.00	375233.72	804101.70	
8900.00	5.50	85.67	8885.56	23.33	308.39	-20.59	0.00	375234.44	804111.27	
9000.00	5.50	85.67	8985.10	24.06	317.95	-21.23	0.00	375235.17	804120.83	
9100.00	5.50	85.67	9084.64	24.78	327.51	-21.86	0.00	375235.89	804130.39	
9200.00	5.50	85.67	9184.18	25.50	337.07	-22.50	0.00	375236.61	804139.95	
9300.00	5.50	85.67	9283.72	26.23	346.64	-23.14	0.00	375237.34	804149.52	
9400.00	5.50	85.67	9383.26	26.95	356.20	-23.78	0.00	375238.06	804159.08	
9500.00	5.50	85.67	9482.80	27.68	365.76	-24.42	0.00	375238.79	804168.64	
9600.00	5.50	85.67	9582.33	28.40	375.32	-25.06	0.00	375239.51	804178.20	
9700.00	5.50	85.67	9681.87	29.12	384.88	-25.70	0.00	375240.23	804187.76	
9800.00	5.50	85.67	9781.41	29.85	394.45	-26.33	0.00	375240.96	804197.33	
9900.00	5.50	85.67	9880.95	30.57	404.01	-26.97	0.00	375241.68	804206.89	
10000.00	5.50	85.67	9980.49	31.29	413.57	-27.61	0.00	375242.40	804216.45	

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
10100.00	5.50	85.67	10080.03	32.02	423.13	-28.25	0.00	375243.13	804226.01	
10200.00	5.50	85.67	10179.57	32.74	432.70	-28.89	0.00	375243.85	804235.58	
10300.00	5.50	85.67	10279.11	33.46	442.26	-29.53	0.00	375244.57	804245.14	
10400.00	5.50	85.67	10378.65	34.19	451.82	-30.16	0.00	375245.30	804254.70	
10500.00	5.50	85.67	10478.19	34.91	461.38	-30.80	0.00	375246.02	804264.26	
10600.00	5.50	85.67	10577.73	35.63	470.94	-31.44	0.00	375246.74	804273.82	
10700.00	5.50	85.67	10677.27	36.36	480.51	-32.08	0.00	375247.47	804283.39	
10800.00	5.50	85.67	10776.80	37.08	490.07	-32.72	0.00	375248.19	804292.95	
10900.00	5.50	85.67	10876.34	37.80	499.63	-33.36	0.00	375248.91	804302.51	
11000.00	5.50	85.67	10975.88	38.53	509.19	-33.99	0.00	375249.64	804312.07	
11100.00	5.50	85.67	11075.42	39.25	518.76	-34.63	0.00	375250.36	804321.64	
11200.00	5.50	85.67	11174.96	39.98	528.32	-35.27	0.00	375251.09	804331.20	
11300.00	5.50	85.67	11274.50	40.70	537.88	-35.91	0.00	375251.81	804340.76	
11400.00	5.50	85.67	11374.04	41.42	547.44	-36.55	0.00	375252.53	804350.32	
11500.00	5.50	85.67	11473.58	42.15	557.00	-37.19	0.00	375253.26	804359.88	
11600.00	5.50	85.67	11573.12	42.87	566.57	-37.82	0.00	375253.98	804369.45	
11650.40	5.50	85.67	11623.29	43.23	571.39	-38.15	0.00	375254.34	804374.27	Drop
11700.00	4.51	85.67	11672.70	43.56	575.70	-38.43	2.00	375254.67	804378.58	
11800.00	2.51	85.67	11772.50	44.02	581.81	-38.84	2.00	375255.13	804384.69	
11900.00	0.51	85.67	11872.46	44.22	584.44	-39.02	2.00	375255.33	804387.32	
11925.54	0.00	0.00	11898.01	44.23	584.55	-39.03	2.00	375255.34	804387.43	Hold
12000.00	0.00	0.00	11972.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12100.00	0.00	0.00	12072.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12200.00	0.00	0.00	12172.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12300.00	0.00	0.00	12272.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12400.00	0.00	0.00	12372.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12500.00	0.00	0.00	12472.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12600.00	0.00	0.00	12572.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12700.00	0.00	0.00	12672.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12800.00	0.00	0.00	12772.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
12900.00	0.00	0.00	12872.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
13000.00	0.00	0.00	12972.46	44.23	584.55	-39.03	0.00	375255.34	804387.43	
13001.54	0.00	0.00	12974.01	44.23	584.55	-39.03	0.00	375255.34	804387.43	PBHL 78H Pilot