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HOBBS OGD

APR 25 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 71H*
Well Name: *Green Wave 20-29 Fed 71H*
Plan: *P1:V1*

12 May 2015



Weatherford®

Green Wave 20-29 Fed 71H

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 Green Wave 20- 29 Fed 71H	Units : US ft	North Reference : Grid	Convergence Angle : 0.44	
	Position	Northing : 375557.60 US ft	Latitude : 32° 1' 47.11"	
		Easting : 799456.04 US ft	Longitude : -103° 30' 1.46"	
	Elevation above Mean Sea Level : 3361.00 US ft			
	Comment :			
Slot Name Green Wave 20- 29 Fed 71H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing : 375557.60 US ft	Latitude : 32° 1' 47.11"	
	+E / -W : 0.00 US ft	Easting : 799456.04 US ft	Longitude : -103° 30' 1.46"	
	Slot TVD Reference : Ground Elevation			
	Elevation above Mean Sea Level : 3361.00 US ft			
	Comment :			
Well Name Green Wave 20- 29 Fed 71H	Type : Main well	UWI :	Plan : P1:V1	
	Rig Height <i>Kelly Bushing</i> : 25.00 US ft	Comment :		
	Relative to Mean Sea Level : 3386.00 US ft			
	Closure Distance : 7891.71 US ft	Closure Azimuth : 176.955°		
	Vertical Section (Position of Origin Relative to Slot)			
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az : 179.50°	
	Magnetic Parameters			
	Model : BGGM	Field Strength : 48034.8nT	Dec : 7.19°	Dip : 59.90°

Target Set

Name : Green Wave 20-29 **Number of Targets** : 2
Fed 71H

Comment :

Target Name: LP Tgt	Position (Relative to Slot centre)			
Shape: Cuboid	+N / -S : 334.47 US ft	Northing : 375223.13 US ft	Latitude : 32° 1' 43.77"	
	+E / -W : 352.92 US ft	Easting : 799808.96 US ft	Longitude : -103° 29' 57.39"	
	TVD (Kelly Bushing) : 12576.00 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

SD Plan Report

Target Name: PBHL 71H Shape: Cuboid	Position (Relative to Slot centre)		
	+N / -S : -7880.56 US ft	Northing : 367677.04 US ft	Latitude : 32°0'29.10"
	+E / -W : 419.27 US ft	Easting : 799875.31 US ft	Longitude : -103°29'57.29"
	TVD (Kelly Bushing) : 12552.00 US ft		
Orientation Azimuth : 179.50°		Inclination : 0.18°	
Dimensions Length : 14516.00 US ft		Breadth : 40.00 US ft	Height : 20.00 US ft

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	
12014.00	0.00	0.00	12014.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	KOP
12650.36	70.00	139.25	12503.46	-259.63	223.72	261.58	11.00	11.00	0.00	139.25	Build/Turn
13052.76	90.18	179.50	12575.23	-622.27	355.52	625.35	11.00	5.02	10.00	67.77	LP
20311.37	90.18	179.50	12552.00	-7880.56	419.27	7883.92	0.00	0.00	0.00	0.00	PBHL 71H

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
12000.00	0.00	0.00	12000.00	0.00	0.00	-0.00	0.00	375557.60	799456.04		
12014.00	0.00	0.00	12014.00	0.00	0.00	-0.00	0.00	375557.60	799456.04		KOP
12100.00	9.46	139.25	12099.61	-5.37	4.62	5.41	11.00	375552.23	799460.66		
12200.00	20.46	139.25	12196.07	-24.89	21.45	25.08	11.00	375532.71	799477.49		
12300.00	31.46	139.25	12285.84	-58.00	49.98	58.44	11.00	375499.60	799506.02		
12400.00	42.46	139.25	12365.63	-103.48	89.17	104.26	11.00	375454.12	799545.21		
12500.00	53.46	139.25	12432.49	-159.66	137.57	160.85	11.00	375397.94	799593.61		
12600.00	64.46	139.25	12483.97	-224.47	193.41	226.15	11.00	375333.13	799649.45		
12650.36	70.00	139.25	12503.46	-259.63	223.72	261.58	11.00	375297.97	799679.76		Build/Turn
12700.00	72.14	144.56	12519.57	-296.58	252.66	298.77	11.00	375261.02	799708.70		
12800.00	76.86	154.87	12546.35	-379.69	301.08	382.30	11.00	375177.91	799757.12		
12900.00	81.98	164.79	12564.74	-471.83	334.85	474.74	11.00	375085.77	799790.89		
13000.00	87.32	174.45	12574.09	-569.62	352.73	572.68	11.00	374987.98	799808.77		
13052.76	90.18	179.50	12575.23	-622.27	355.52	625.35	11.00	374935.33	799811.56		LP
13100.00	90.18	179.50	12575.08	-669.51	355.93	672.59	0.00	374888.09	799811.97		
13200.00	90.18	179.50	12574.76	-769.50	356.81	772.59	0.00	374788.10	799812.85		
13300.00	90.18	179.50	12574.44	-869.50	357.69	872.59	0.00	374688.10	799813.73		
13400.00	90.18	179.50	12574.12	-969.50	358.57	972.59	0.00	374588.10	799814.61		
13500.00	90.18	179.50	12573.80	-1069.49	359.44	1072.59	0.00	374488.11	799815.48		
13600.00	90.18	179.50	12573.48	-1169.49	360.32	1172.59	0.00	374388.11	799816.36		
13700.00	90.18	179.50	12573.16	-1269.48	361.20	1272.59	0.00	374288.12	799817.24		
13800.00	90.18	179.50	12572.84	-1369.48	362.08	1372.59	0.00	374188.12	799818.12		
13900.00	90.18	179.50	12572.52	-1469.47	362.96	1472.58	0.00	374088.13	799819.00		
14000.00	90.18	179.50	12572.20	-1569.47	363.84	1572.58	0.00	373988.13	799819.88		
14100.00	90.18	179.50	12571.88	-1669.46	364.71	1672.58	0.00	373888.14	799820.75		
14200.00	90.18	179.50	12571.56	-1769.46	365.59	1772.58	0.00	373788.14	799821.63		
14300.00	90.18	179.50	12571.24	-1869.46	366.47	1872.58	0.00	373688.14	799822.51		
14400.00	90.18	179.50	12570.92	-1969.45	367.35	1972.58	0.00	373588.15	799823.39		
14500.00	90.18	179.50	12570.60	-2069.45	368.23	2072.58	0.00	373488.15	799824.27		
14600.00	90.18	179.50	12570.28	-2169.44	369.11	2172.58	0.00	373388.16	799825.15		
14700.00	90.18	179.50	12569.96	-2269.44	369.98	2272.58	0.00	373288.16	799826.02		
14800.00	90.18	179.50	12569.64	-2369.43	370.86	2372.58	0.00	373188.17	799826.90		
14900.00	90.18	179.50	12569.32	-2469.43	371.74	2472.58	0.00	373088.17	799827.78		
15000.00	90.18	179.50	12569.00	-2569.43	372.62	2572.58	0.00	372988.17	799828.66		
15100.00	90.18	179.50	12568.68	-2669.42	373.50	2672.58	0.00	372888.18	799829.54		

SD 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
15200.00	90.18	179.50	12568.36	-2769.42	374.38	2772.58	0.00	372788.18	799830.42	
15300.00	90.18	179.50	12568.04	-2869.41	375.25	2872.58	0.00	372688.19	799831.29	
15400.00	90.18	179.50	12567.72	-2969.41	376.13	2972.58	0.00	372588.19	799832.17	
15500.00	90.18	179.50	12567.40	-3069.40	377.01	3072.58	0.00	372488.20	799833.05	
15600.00	90.18	179.50	12567.08	-3169.40	377.89	3172.58	0.00	372388.20	799833.93	
15700.00	90.18	179.50	12566.76	-3269.39	378.77	3272.58	0.00	372288.21	799834.81	
15800.00	90.18	179.50	12566.44	-3369.39	379.65	3372.58	0.00	372188.21	799835.69	
15900.00	90.18	179.50	12566.12	-3469.39	380.52	3472.57	0.00	372088.21	799836.56	
16000.00	90.18	179.50	12565.80	-3569.38	381.40	3572.57	0.00	371988.22	799837.44	
16100.00	90.18	179.50	12565.48	-3669.38	382.28	3672.57	0.00	371888.22	799838.32	
16200.00	90.18	179.50	12565.16	-3769.37	383.16	3772.57	0.00	371788.23	799839.20	
16300.00	90.18	179.50	12564.84	-3869.37	384.04	3872.57	0.00	371688.23	799840.08	
16400.00	90.18	179.50	12564.52	-3969.36	384.92	3972.57	0.00	371588.24	799840.96	
16500.00	90.18	179.50	12564.20	-4069.36	385.79	4072.57	0.00	371488.24	799841.83	
16600.00	90.18	179.50	12563.88	-4169.36	386.67	4172.57	0.00	371388.24	799842.71	
16700.00	90.18	179.50	12563.56	-4269.35	387.55	4272.57	0.00	371288.25	799843.59	
16800.00	90.18	179.50	12563.24	-4369.35	388.43	4372.57	0.00	371188.25	799844.47	
16900.00	90.18	179.50	12562.92	-4469.34	389.31	4472.57	0.00	371088.26	799845.35	
17000.00	90.18	179.50	12562.60	-4569.34	390.19	4572.57	0.00	370988.26	799846.23	
17100.00	90.18	179.50	12562.28	-4669.33	391.06	4672.57	0.00	370888.27	799847.10	
17200.00	90.18	179.50	12561.96	-4769.33	391.94	4772.57	0.00	370788.27	799847.98	
17300.00	90.18	179.50	12561.64	-4869.32	392.82	4872.57	0.00	370688.28	799848.86	
17400.00	90.18	179.50	12561.32	-4969.32	393.70	4972.57	0.00	370588.28	799849.74	
17500.00	90.18	179.50	12561.00	-5069.32	394.58	5072.57	0.00	370488.28	799850.62	
17600.00	90.18	179.50	12560.68	-5169.31	395.46	5172.57	0.00	370388.29	799851.50	
17700.00	90.18	179.50	12560.36	-5269.31	396.33	5272.57	0.00	370288.29	799852.37	
17800.00	90.18	179.50	12560.04	-5369.30	397.21	5372.56	0.00	370188.30	799853.25	
17900.00	90.18	179.50	12559.72	-5469.30	398.09	5472.56	0.00	370088.30	799854.13	
18000.00	90.18	179.50	12559.40	-5569.29	398.97	5572.56	0.00	369988.31	799855.01	
18100.00	90.18	179.50	12559.08	-5669.29	399.85	5672.56	0.00	369888.31	799855.89	
18200.00	90.18	179.50	12558.76	-5769.29	400.73	5772.56	0.00	369788.31	799856.77	
18300.00	90.18	179.50	12558.44	-5869.28	401.60	5872.56	0.00	369688.32	799857.64	
18400.00	90.18	179.50	12558.12	-5969.28	402.48	5972.56	0.00	369588.32	799858.52	
18500.00	90.18	179.50	12557.80	-6069.27	403.36	6072.56	0.00	369488.33	799859.40	
18600.00	90.18	179.50	12557.48	-6169.27	404.24	6172.56	0.00	369388.33	799860.28	
18700.00	90.18	179.50	12557.16	-6269.26	405.12	6272.56	0.00	369288.34	799861.16	
18800.00	90.18	179.50	12556.84	-6369.26	406.00	6372.56	0.00	369188.34	799862.04	
18900.00	90.18	179.50	12556.52	-6469.25	406.87	6472.56	0.00	369088.35	799862.91	
19000.00	90.18	179.50	12556.20	-6569.25	407.75	6572.56	0.00	368988.35	799863.79	
19100.00	90.18	179.50	12555.88	-6669.25	408.63	6672.56	0.00	368888.35	799864.67	
19200.00	90.18	179.50	12555.56	-6769.24	409.51	6772.56	0.00	368788.36	799865.55	
19300.00	90.18	179.50	12555.24	-6869.24	410.39	6872.56	0.00	368688.36	799866.43	
19400.00	90.18	179.50	12554.92	-6969.23	411.27	6972.56	0.00	368588.37	799867.31	
19500.00	90.18	179.50	12554.60	-7069.23	412.14	7072.56	0.00	368488.37	799868.18	
19600.00	90.18	179.50	12554.28	-7169.22	413.02	7172.56	0.00	368388.38	799869.06	
19700.00	90.18	179.50	12553.96	-7269.22	413.90	7272.56	0.00	368288.38	799869.94	
19800.00	90.18	179.50	12553.64	-7369.22	414.78	7372.55	0.00	368188.38	799870.82	
19900.00	90.18	179.50	12553.32	-7469.21	415.66	7472.55	0.00	368088.39	799871.70	
20000.00	90.18	179.50	12553.00	-7569.21	416.54	7572.55	0.00	367988.39	799872.58	
20100.00	90.18	179.50	12552.68	-7669.20	417.41	7672.55	0.00	367888.40	799873.45	
20200.00	90.18	179.50	12552.36	-7769.20	418.29	7772.55	0.00	367788.40	799874.33	
20300.00	90.18	179.50	12552.04	-7869.19	419.17	7872.55	0.00	367688.41	799875.21	
20311.37	90.18	179.50	12552.00	-7880.56	419.27	7883.92	0.00	367677.04	799875.31	PBHL 71H

**Weatherford**

Weatherford Drilling Services

GeoDec4 v2.1.0.0

Report Date: May 12, 2015
Job Number: _____
Customer: Devon Energy
Well Name: Green Wave 20-29 Fed 71H
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: 375557.60 US Survey Foot	Latitude: 32.029752 Degree
East: 799456.04 US Survey Foot	Longitude: -103.500405 Degree
Convergence: 0.44°	
Declination: 7.19°	
Total Correction: 6.75°	
Datum Transformation: none	

Geodetic Location WGS84

MSL Elevation = 0 m
Latitude = 32° 01' 47.11" N
Longitude = 103° 30' 01.46" W

Magnetic Declination = 7.19 deg	[True North Offset]
Local Gravity = .9988 g	Checksum = 6736
Local Field Strength = 48035 nT	Magnetic Vector X = 23901 nT
Magnetic Dip = 59.90 deg	Magnetic Vector Y = 3016 nT
Magnetic Model = bggm2014.dat	Magnetic Vector Z = 41557 nT
Run Date = October 15, 2015	Magnetic Vector H = 24090 nT

Signed: _____ Date: _____

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