

# NOBLE ENERGY, INC



Location: COLORADO Slot: SLOT#02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)  
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: WELLS RANCH BB11-627  
 Facility: SEC.11-T05N-R63W Wellbore: WELLS RANCH BB11-627-PWB

Plot reference wellpath is WELLS RANCH BB11-627 (REV A.0) PWB	Grid System: NAD83   Lambert Colorado SP, Northern Zone (2011), US feet
True vertical depths are referenced to HBP Rig (20762) (FRS)	* - Wellpath was transformed from a different geoidic datum
Measured depths are referenced to HBP Rig (20762) (FRS)	North Reference: Grid north
HBP Rig (20762) (FRS) to Mean Sea Level: 4702 feet	Scale: True distance
Mean Sea Level to Ground level (in Slot: SLOTR02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)) 0 feet	Depth: are in feet
Coordinates are in feet referenced to Slot	Created by: conroy on 2017-10-10
	Drawn by: Chaver

### Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
SEC.11-T05N-R63W	100880.433	100624.455	43°54'51.74"N	104°54'45.38"W		
Site	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOTR02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)	36.43	-0.45	100880.584	100624.882	43°54'52.07"N	104°54'45.38"W
HBP Rig (20762) (FRS) to Ground level (in Slot: SLOTR02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11))					4702	
Mean Sea Level to Ground level (in Slot: SLOTR02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11))					0	
HBP Rig (20762) (FRS) to Mean Sea Level					4702	

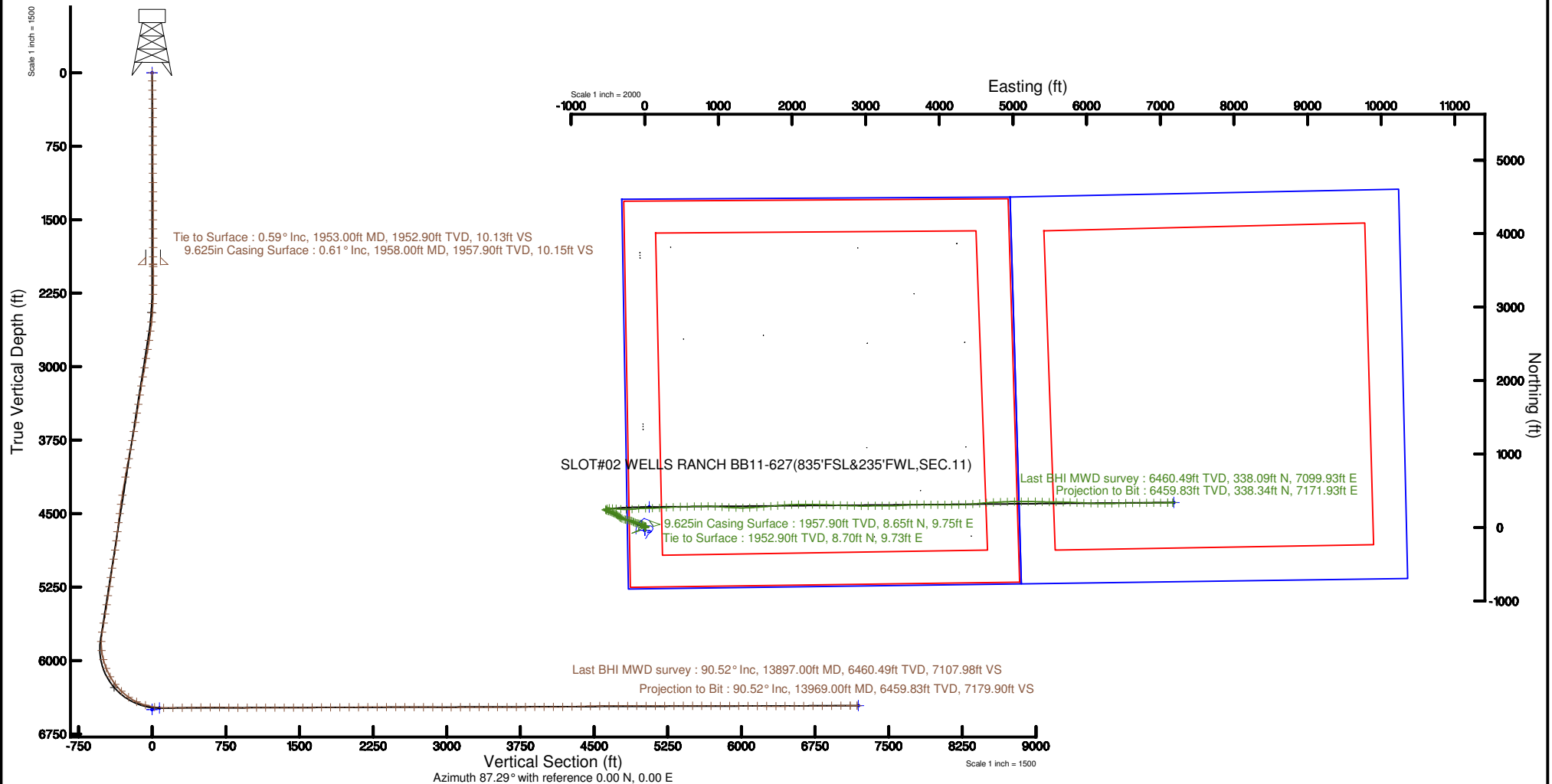
### Comments

SURFACE LOCATION: SWSW

40.40891N

104.41261W

API #: 05-123-44949



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB11-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Cantryat
Scale	0.999961	Report Generated	10/19/2017 at 4:36:33 PM
Convergence at slot	0.71° East	Database/Source file	Denver/WELLS_RANCH_BB11-627_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	36.43	-0.45	3302801.98	1393662.88	40°24'32.076"N	104°24'45.396"W
Facility Reference Pt			3302802.43	1393626.46	40°24'31.716"N	104°24'45.396"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P Rig (30'KB) (RKB) to Facility Vertical Datum	4705.00ft
Horizontal Reference Pt	Slot	H&P Rig (30'KB) (RKB) to Mean Sea Level	4705.00ft
Vertical Reference Pt	H&P Rig (30'KB) (RKB)	H&P Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#02 WELLS RANCH BB11-627 (835'FSL&235'FWL,SEC.11))	4705.00ft
MD Reference Pt	H&P Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	87.29°

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (149 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	58.580	0.00	0.00	0.00	0.00	40°24'32.076"N	104°24'45.396"W	0.00	
84.00	1.160	58.580	83.99	0.75	0.44	0.73	40°24'32.080"N	104°24'45.387"W	1.38	
178.00	1.150	57.240	177.98	2.40	1.45	2.33	40°24'32.090"N	104°24'45.366"W	0.03	
269.00	1.250	49.720	268.96	3.97	2.59	3.86	40°24'32.101"N	104°24'45.346"W	0.20	
364.00	0.920	49.080	363.94	5.39	3.76	5.22	40°24'32.112"N	104°24'45.328"W	0.35	
458.00	0.930	49.090	457.93	6.59	4.75	6.37	40°24'32.122"N	104°24'45.313"W	0.01	
553.00	0.180	357.530	552.92	7.19	5.40	6.95	40°24'32.129"N	104°24'45.305"W	0.87	
648.00	0.450	5.540	647.92	7.25	5.92	6.98	40°24'32.134"N	104°24'45.305"W	0.29	
742.00	0.280	118.390	741.92	7.50	6.18	7.21	40°24'32.136"N	104°24'45.302"W	0.65	
837.00	0.310	355.730	836.92	7.69	6.33	7.40	40°24'32.138"N	104°24'45.299"W	0.55	
931.00	0.170	287.470	930.92	7.55	6.62	7.25	40°24'32.141"N	104°24'45.301"W	0.31	
1026.00	0.320	47.990	1025.92	7.62	6.84	7.31	40°24'32.143"N	104°24'45.300"W	0.45	
1121.00	0.480	67.230	1120.91	8.20	7.17	7.87	40°24'32.146"N	104°24'45.293"W	0.22	
1215.00	0.190	38.620	1214.91	8.68	7.45	8.33	40°24'32.149"N	104°24'45.287"W	0.35	
1310.00	0.250	347.850	1309.91	8.75	7.77	8.39	40°24'32.152"N	104°24'45.286"W	0.21	
1405.00	0.380	57.550	1404.91	8.99	8.15	8.61	40°24'32.155"N	104°24'45.283"W	0.40	
1500.00	0.210	82.600	1499.91	9.43	8.34	9.05	40°24'32.157"N	104°24'45.278"W	0.22	
1594.00	0.490	30.220	1593.91	9.82	8.71	9.42	40°24'32.161"N	104°24'45.273"W	0.42	
1689.00	0.290	55.200	1688.91	10.25	9.20	9.82	40°24'32.166"N	104°24'45.268"W	0.27	
1783.00	0.140	226.730	1782.91	10.36	9.25	9.94	40°24'32.166"N	104°24'45.266"W	0.46	
1878.00	0.170	245.470	1877.91	10.14	9.11	9.72	40°24'32.165"N	104°24'45.269"W	0.06	
1953.00	0.590	163.220	1952.90	10.13	8.70	9.73	40°24'32.161"N	104°24'45.269"W	0.79	Tie to Surface
1979.00	0.790	133.230	1978.90	10.29	8.45	9.90	40°24'32.158"N	104°24'45.267"W	1.56	
2073.00	0.110	279.050	2072.90	10.65	8.02	10.29	40°24'32.154"N	104°24'45.262"W	0.94	
2168.00	0.060	127.500	2167.90	10.60	8.00	10.23	40°24'32.154"N	104°24'45.262"W	0.17	
2262.00	1.330	321.450	2261.89	10.00	8.82	9.59	40°24'32.162"N	104°24'45.271"W	1.48	
2356.00	3.750	316.650	2355.79	7.36	11.91	6.80	40°24'32.193"N	104°24'45.306"W	2.58	
2451.00	5.580	304.830	2450.48	1.67	16.81	0.88	40°24'32.242"N	104°24'45.382"W	2.17	
2546.00	7.450	305.220	2544.86	-6.85	23.00	-7.94	40°24'32.304"N	104°24'45.495"W	1.97	
2640.00	9.570	302.710	2637.82	-18.02	30.74	-19.50	40°24'32.382"N	104°24'45.643"W	2.29	

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Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB11-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (149 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2735.00	10.210	300.040	2731.41	-31.54	39.22	-33.43	40°24'32.468"N	104°24'45.822"W	0.83	
2829.00	10.210	287.900	2823.93	-46.34	45.95	-48.57	40°24'32.536"N	104°24'46.017"W	2.29	
2924.00	10.120	280.080	2917.44	-62.36	50.00	-64.80	40°24'32.578"N	104°24'46.226"W	1.45	
3019.00	10.220	280.560	3010.95	-78.71	53.01	-81.31	40°24'32.610"N	104°24'46.439"W	0.14	
3113.00	10.030	280.840	3103.48	-94.78	56.08	-97.54	40°24'32.642"N	104°24'46.648"W	0.21	
3207.00	9.980	285.650	3196.06	-110.47	59.81	-113.43	40°24'32.681"N	104°24'46.853"W	0.89	
3302.00	10.050	291.060	3289.61	-125.87	65.01	-129.09	40°24'32.734"N	104°24'47.054"W	0.99	
3397.00	10.090	297.010	3383.15	-140.68	71.77	-144.24	40°24'32.803"N	104°24'47.249"W	1.10	
3491.00	10.720	298.410	3475.60	-155.32	79.67	-159.27	40°24'32.882"N	104°24'47.442"W	0.72	
3586.00	10.770	295.760	3568.94	-170.68	87.73	-175.03	40°24'32.964"N	104°24'47.645"W	0.52	
3680.00	10.670	285.280	3661.31	-186.68	93.84	-191.34	40°24'33.026"N	104°24'47.854"W	2.07	
3775.00	10.740	277.710	3754.66	-203.75	97.35	-208.59	40°24'33.063"N	104°24'48.077"W	1.48	
3869.00	10.750	275.380	3847.01	-221.04	99.34	-226.00	40°24'33.085"N	104°24'48.302"W	0.46	
3964.00	10.720	280.840	3940.35	-238.41	101.84	-243.50	40°24'33.112"N	104°24'48.527"W	1.07	
4058.00	10.680	282.850	4032.72	-255.30	105.42	-260.58	40°24'33.149"N	104°24'48.748"W	0.40	
4153.00	10.660	283.910	4126.07	-272.20	109.49	-277.69	40°24'33.191"N	104°24'48.968"W	0.21	
4342.00	9.880	297.470	4312.07	-302.97	121.17	-309.05	40°24'33.311"N	104°24'49.372"W	1.34	
4437.00	9.910	302.260	4405.66	-316.71	129.29	-323.20	40°24'33.393"N	104°24'49.553"W	0.87	
4532.00	9.910	306.150	4499.24	-329.77	138.48	-336.71	40°24'33.485"N	104°24'49.726"W	0.70	
4626.00	10.100	310.470	4591.82	-342.08	148.60	-349.51	40°24'33.587"N	104°24'49.890"W	0.82	
4721.00	9.850	312.420	4685.38	-353.89	159.49	-361.85	40°24'33.696"N	104°24'50.048"W	0.44	
4815.00	9.880	310.560	4777.99	-365.43	170.16	-373.91	40°24'33.803"N	104°24'50.202"W	0.34	
4910.00	10.210	300.950	4871.54	-378.38	179.79	-387.32	40°24'33.899"N	104°24'50.374"W	1.80	
5005.00	10.160	292.620	4965.05	-392.96	187.34	-402.28	40°24'33.976"N	104°24'50.566"W	1.55	
5099.00	9.360	292.480	5057.69	-407.37	193.45	-417.00	40°24'34.038"N	104°24'50.755"W	0.85	
5194.00	9.070	293.870	5151.46	-421.05	199.44	-430.98	40°24'34.099"N	104°24'50.935"W	0.38	
5289.00	9.780	293.780	5245.18	-434.97	205.72	-445.21	40°24'34.163"N	104°24'51.118"W	0.75	
5383.00	9.830	295.280	5337.81	-449.20	212.37	-459.77	40°24'34.230"N	104°24'51.305"W	0.28	
5478.00	9.730	291.370	5431.43	-463.69	218.75	-474.58	40°24'34.295"N	104°24'51.496"W	0.71	
5573.00	9.690	285.410	5525.07	-478.62	223.80	-489.77	40°24'34.347"N	104°24'51.691"W	1.06	

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Area	COLORADO	Well	WELLS RANCH BB11-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

### WELLPATH DATA (149 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5667.00	10.040	285.300	5617.68	-493.93	228.07	-505.30	40°24'34.391"N	104°24'51.891"W	0.37	
5762.00	10.020	287.990	5711.23	-509.54	232.81	-521.14	40°24'34.439"N	104°24'52.096"W	0.49	
5856.00	5.180	338.320	5804.46	-518.58	239.29	-530.50	40°24'34.505"N	104°24'52.215"W	8.30	
5951.00	8.350	47.730	5898.92	-514.65	247.92	-526.98	40°24'34.590"N	104°24'52.169"W	8.55	
6045.00	16.000	70.110	5990.79	-496.97	256.94	-509.71	40°24'34.677"N	104°24'51.944"W	9.42	
6139.00	21.540	89.420	6079.84	-467.30	261.53	-480.22	40°24'34.718"N	104°24'51.562"W	8.78	
6234.00	29.400	94.960	6165.55	-426.69	259.69	-439.48	40°24'34.695"N	104°24'51.036"W	8.64	
6328.00	37.880	94.220	6243.74	-375.09	255.56	-387.62	40°24'34.648"N	104°24'50.366"W	9.03	
6423.00	46.130	95.810	6314.27	-312.16	249.94	-324.36	40°24'34.585"N	104°24'49.549"W	8.76	
6518.00	55.270	90.800	6374.40	-239.15	245.92	-251.07	40°24'34.536"N	104°24'48.602"W	10.45	
6612.00	64.130	84.050	6421.82	-158.14	249.77	-170.16	40°24'34.565"N	104°24'47.556"W	11.27	
6707.00	75.120	85.820	6454.85	-69.30	257.58	-81.58	40°24'34.631"N	104°24'46.410"W	11.70	
6802.00	80.380	89.000	6475.00	23.49	261.74	11.11	40°24'34.661"N	104°24'45.211"W	6.43	
6896.00	89.750	88.680	6483.08	117.01	263.64	104.64	40°24'34.668"N	104°24'44.002"W	9.97	
6991.00	90.220	86.560	6483.10	212.00	267.58	199.55	40°24'34.696"N	104°24'42.774"W	2.29	
7086.00	90.800	87.470	6482.26	306.99	272.53	294.42	40°24'34.733"N	104°24'41.547"W	1.14	
7180.00	91.200	86.960	6480.62	400.98	277.10	388.29	40°24'34.767"N	104°24'40.333"W	0.69	
7275.00	90.370	87.700	6479.32	495.97	281.52	483.18	40°24'34.799"N	104°24'39.106"W	1.17	
7369.00	90.150	89.440	6478.89	589.94	283.87	577.15	40°24'34.811"N	104°24'37.891"W	1.87	
7464.00	89.660	88.620	6479.05	684.89	285.48	672.13	40°24'34.815"N	104°24'36.663"W	1.01	
7559.00	89.170	88.990	6480.02	779.86	287.46	767.11	40°24'34.823"N	104°24'35.435"W	0.65	
7653.00	88.800	89.640	6481.68	873.78	288.58	861.08	40°24'34.823"N	104°24'34.220"W	0.80	
7748.00	90.710	92.720	6482.09	968.55	286.62	956.05	40°24'34.792"N	104°24'32.992"W	3.81	
7842.00	90.060	94.340	6481.46	1061.98	280.84	1049.86	40°24'34.723"N	104°24'31.781"W	1.86	
7937.00	90.090	94.100	6481.33	1156.29	273.85	1144.60	40°24'34.643"N	104°24'30.557"W	0.25	
8031.00	90.150	91.700	6481.14	1249.83	269.09	1238.48	40°24'34.584"N	104°24'29.344"W	2.55	
8126.00	90.340	89.720	6480.73	1344.65	267.91	1333.46	40°24'34.561"N	104°24'28.117"W	2.09	
8220.00	90.340	87.420	6480.17	1438.62	270.26	1427.43	40°24'34.573"N	104°24'26.902"W	2.45	
8315.00	89.970	85.850	6479.91	1533.61	275.83	1522.26	40°24'34.617"N	104°24'25.675"W	1.70	
8410.00	90.520	85.520	6479.51	1628.57	282.98	1616.99	40°24'34.676"N	104°24'24.450"W	0.68	

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (149 stations)										
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8505.00	90.310	85.240	6478.82	1723.52	290.63	1711.68	40°24'34.740"N	104°24'23.224"W	0.37	
8599.00	90.520	85.790	6478.14	1817.47	297.98	1805.39	40°24'34.801"N	104°24'22.012"W	0.63	
8694.00	90.180	86.160	6477.56	1912.44	304.65	1900.15	40°24'34.855"N	104°24'20.786"W	0.53	
8789.00	90.250	87.910	6477.20	2007.44	309.57	1995.02	40°24'34.892"N	104°24'19.559"W	1.84	
8883.00	90.180	89.120	6476.85	2101.42	312.00	2088.99	40°24'34.905"N	104°24'18.344"W	1.29	
8978.00	90.180	89.920	6476.55	2196.34	312.80	2183.98	40°24'34.901"N	104°24'17.116"W	0.84	
9072.00	90.030	90.680	6476.38	2290.21	312.31	2277.98	40°24'34.885"N	104°24'15.901"W	0.82	
9167.00	90.030	90.760	6476.33	2385.04	311.11	2372.97	40°24'34.861"N	104°24'14.673"W	0.08	
9262.00	89.940	91.840	6476.35	2479.81	308.96	2467.95	40°24'34.828"N	104°24'13.446"W	1.14	
9356.00	89.940	92.840	6476.45	2573.44	305.12	2561.87	40°24'34.779"N	104°24'12.232"W	1.06	
9451.00	89.940	91.740	6476.55	2668.08	301.32	2656.79	40°24'34.730"N	104°24'11.006"W	1.16	
9545.00	89.970	92.090	6476.63	2761.77	298.18	2750.74	40°24'34.687"N	104°24'09.792"W	0.37	
9640.00	89.780	91.190	6476.83	2856.49	295.46	2845.70	40°24'34.649"N	104°24'08.565"W	0.97	
9735.00	90.000	90.220	6477.02	2951.32	294.29	2940.69	40°24'34.626"N	104°24'07.337"W	1.05	
9829.00	90.030	89.480	6476.99	3045.23	294.54	3034.69	40°24'34.617"N	104°24'06.122"W	0.79	
9924.00	90.090	89.520	6476.89	3140.16	295.37	3129.68	40°24'34.613"N	104°24'04.894"W	0.08	
10019.00	90.220	90.020	6476.63	3235.07	295.75	3224.68	40°24'34.605"N	104°24'03.666"W	0.54	
10113.00	90.090	90.120	6476.38	3328.96	295.64	3318.68	40°24'34.593"N	104°24'02.451"W	0.17	
10208.00	89.970	87.490	6476.33	3423.91	297.62	3413.65	40°24'34.601"N	104°24'01.223"W	2.77	
10302.00	90.740	84.310	6475.75	3517.87	304.34	3507.40	40°24'34.656"N	104°24'00.010"W	3.48	
10397.00	90.120	86.600	6475.04	3612.81	311.86	3602.09	40°24'34.718"N	104°23'58.785"W	2.50	
10492.00	90.400	90.220	6474.60	3707.78	314.50	3697.03	40°24'34.733"N	104°23'57.557"W	3.82	
10586.00	89.910	92.770	6474.35	3801.52	312.05	3790.99	40°24'34.697"N	104°23'56.343"W	2.76	
10681.00	90.520	90.490	6473.99	3896.24	309.34	3885.95	40°24'34.659"N	104°23'55.116"W	2.48	
10775.00	89.970	89.500	6473.59	3990.13	309.35	3979.95	40°24'34.647"N	104°23'53.901"W	1.20	
10870.00	90.520	90.170	6473.18	4085.03	309.63	4074.94	40°24'34.638"N	104°23'52.673"W	0.91	
10965.00	90.550	89.660	6472.30	4179.93	309.77	4169.94	40°24'34.628"N	104°23'51.445"W	0.54	
11060.00	91.260	88.730	6470.80	4274.86	311.10	4264.92	40°24'34.630"N	104°23'50.217"W	1.23	
11154.00	91.480	87.340	6468.55	4368.83	314.32	4358.83	40°24'34.650"N	104°23'49.003"W	1.50	
11249.00	91.570	85.800	6466.02	4463.78	320.01	4453.63	40°24'34.694"N	104°23'47.777"W	1.62	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB11-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (149 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11343.00	90.370	84.730	6464.43	4557.71	327.76	4547.29	40°24'34.759"N	104°23'46.565"W	1.71	
11438.00	90.460	85.780	6463.74	4652.64	335.62	4641.96	40°24'34.825"N	104°23'45.340"W	1.11	
11532.00	89.910	86.540	6463.44	4746.62	341.92	4735.75	40°24'34.876"N	104°23'44.126"W	1.00	
11627.00	90.340	87.240	6463.23	4841.62	347.07	4830.60	40°24'34.915"N	104°23'42.899"W	0.86	
11721.00	90.000	88.480	6462.95	4935.61	350.58	4924.54	40°24'34.938"N	104°23'41.685"W	1.37	
11816.00	90.030	89.030	6462.93	5030.58	352.65	5019.51	40°24'34.947"N	104°23'40.457"W	0.58	
11910.00	90.030	90.120	6462.88	5124.51	353.34	5113.51	40°24'34.942"N	104°23'39.241"W	1.16	
12005.00	90.150	90.610	6462.73	5219.37	352.74	5208.51	40°24'34.925"N	104°23'38.014"W	0.53	
12099.00	90.220	91.060	6462.43	5313.19	351.37	5302.50	40°24'34.900"N	104°23'36.799"W	0.48	
12194.00	90.090	91.560	6462.17	5407.95	349.20	5397.47	40°24'34.867"N	104°23'35.572"W	0.54	
12289.00	89.970	90.890	6462.12	5502.73	347.16	5492.45	40°24'34.835"N	104°23'34.344"W	0.72	
12383.00	89.850	90.350	6462.27	5596.57	346.15	5586.44	40°24'34.813"N	104°23'33.129"W	0.59	
12478.00	89.970	90.890	6462.42	5691.41	345.12	5681.44	40°24'34.791"N	104°23'31.902"W	0.58	
12572.00	89.660	92.280	6462.72	5785.14	342.52	5775.40	40°24'34.754"N	104°23'30.687"W	1.52	
12667.00	89.820	92.700	6463.15	5879.75	338.39	5870.31	40°24'34.701"N	104°23'29.461"W	0.47	
12761.00	89.750	92.750	6463.50	5973.32	333.92	5964.20	40°24'34.646"N	104°23'28.248"W	0.09	
12856.00	89.720	91.990	6463.94	6067.95	330.00	6059.12	40°24'34.595"N	104°23'27.022"W	0.80	
12950.00	89.880	91.250	6464.27	6161.68	327.34	6153.08	40°24'34.557"N	104°23'25.808"W	0.81	
13045.00	89.780	90.400	6464.55	6256.49	325.97	6248.07	40°24'34.532"N	104°23'24.580"W	0.90	
13140.00	89.880	88.600	6464.83	6351.42	326.80	6343.06	40°24'34.528"N	104°23'23.352"W	1.90	
13234.00	90.460	88.400	6464.56	6445.40	329.26	6437.03	40°24'34.541"N	104°23'22.137"W	0.65	
13329.00	90.060	88.490	6464.12	6540.38	331.84	6531.99	40°24'34.555"N	104°23'20.909"W	0.43	
13423.00	90.250	89.050	6463.87	6634.34	333.86	6625.97	40°24'34.563"N	104°23'19.694"W	0.63	
13518.00	90.310	90.070	6463.41	6729.27	334.58	6720.96	40°24'34.559"N	104°23'18.466"W	1.08	
13613.00	90.430	89.060	6462.79	6824.19	335.31	6815.96	40°24'34.554"N	104°23'17.238"W	1.07	
13707.00	90.400	89.230	6462.11	6918.14	336.71	6909.94	40°24'34.556"N	104°23'16.023"W	0.18	
13802.00	90.520	89.650	6461.35	7013.07	337.64	7004.94	40°24'34.554"N	104°23'14.795"W	0.46	
13897.00	90.520	89.800	6460.49	7107.98	338.09	7099.93	40°24'34.546"N	104°23'13.567"W	0.16	Last BHI MWD survey
13969.00	90.520	89.800	6459.83	7179.90	338.34	7171.93	40°24'34.540"N	104°23'12.636"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: WELLS RANCH BB11-627 AWB Ref Wellpath: WELLS RANCH BB11-627 AWP										
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	
13.5in Open Hole	30.00	1958.00	1928.00	30.00	1957.90	0.06	0.09	8.65	9.75	
9.625in Casing Surface	30.00	1958.00	1928.00	30.00	1957.90	0.06	0.09	8.65	9.75	
8.5in Open Hole	1958.00	13969.00	12011.00	1957.90	6459.83	8.65	9.75	338.34	7171.93	

TARGETS									
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	
WELLS RANCH BB11-618 SECTION 11-T05N-R63W	0.00	-36.43	0.45	3302802.43	1393626.45	40°24'31.716"N	104°24'45.396"W	polygon	
WELLS RANCH BB11-618 SECTION 12-T05N-R63W	0.00	-36.43	0.45	3302802.43	1393626.45	40°24'31.716"N	104°24'45.396"W	polygon	
WELLS RANCH BB11-627 REV-1 BHL (1080'FSL&2100'FWL,SEC.12)	6460.13	340.54	7184.00	3309985.68	1394003.41	40°24'34.560"N	104°23'12.480"W	point	
WELLS RANCH BB11-627 LANDING POINT(1115'FSL&300'FWL,SEC.11)	6485.00	280.00	60.00	3302861.98	1393942.87	40°24'34.835"N	104°24'44.576"W	point	
WELLS RANCH BB11-618 SECTION 11 HARDLINES (460'SETBACK)	6500.00	-36.43	0.45	3302802.43	1393626.45	40°24'31.716"N	104°24'45.396"W	polygon	
WELLS RANCH BB11-618 SECTION 12 HARDLINES (460'SETBACK)	6500.00	-36.43	0.45	3302802.43	1393626.45	40°24'31.716"N	104°24'45.396"W	polygon	

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH BB11-627 AWB Ref Wellpath: WELLS RANCH BB11-627 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore

<b>WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH BB11-627 AWB    Ref Wellpath: WELLS RANCH BB11-627 AWP</b>				
<b>Start MD [ft]</b>	<b>End MD [ft]</b>	<b>Positional Uncertainty Model</b>	<b>Log Name/Comment</b>	<b>Wellbore</b>
0.00	1953.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	Surface Gyros <84'-1953'>	WELLS RANCH BB11-627 AWB
1953.00	13897.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATC OWSG MWD+IFR+MSA 8.5" Hole <1979'-13897'>	WELLS RANCH BB11-627 AWB
13897.00	13969.00	Blind Drilling (std)	Projection to bit	WELLS RANCH BB11-627 AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB11-627(835'FSL&235'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB11-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB11-627 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1953.00	0.590	163.220	1952.90	Tie to Surface
13897.00	90.520	89.800	6460.49	Last BHI MWD survey
13969.00	90.520	89.800	6459.83	Projection to Bit

COMMENTS
<p><b>Wellpath general comments</b>            SURFACE LOCATION: SWSW            40.40891N            104.41261W            API #: 05-123-44949</p>