

NOBLE ENERGY, INC



Location: COLORADO Slot: SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: SLW RANCH STATE BB07-627
 Facility: SEC.07-T05N-R63W Wellbore: SLW RANCH STATE BB07-627 PWB

Plot reference wellpath is SLW RANCH STATE BB07-627 (REV-A.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (307) (RKB)	North Reference: Grid north
Measured depths are referenced to RIG (307) (RKB)	Scale: True distance
RIG (307) (RKB) to Mean Sea Level: 4947 feet	Depths are in feet
Mean Sea Level to Ground level (At Slot: SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)): 0 feet	Created by: dooddanna on 2019-09-10
Coordinates are in feet referenced to Slot	Database: WellArchitectDB2

Location Information

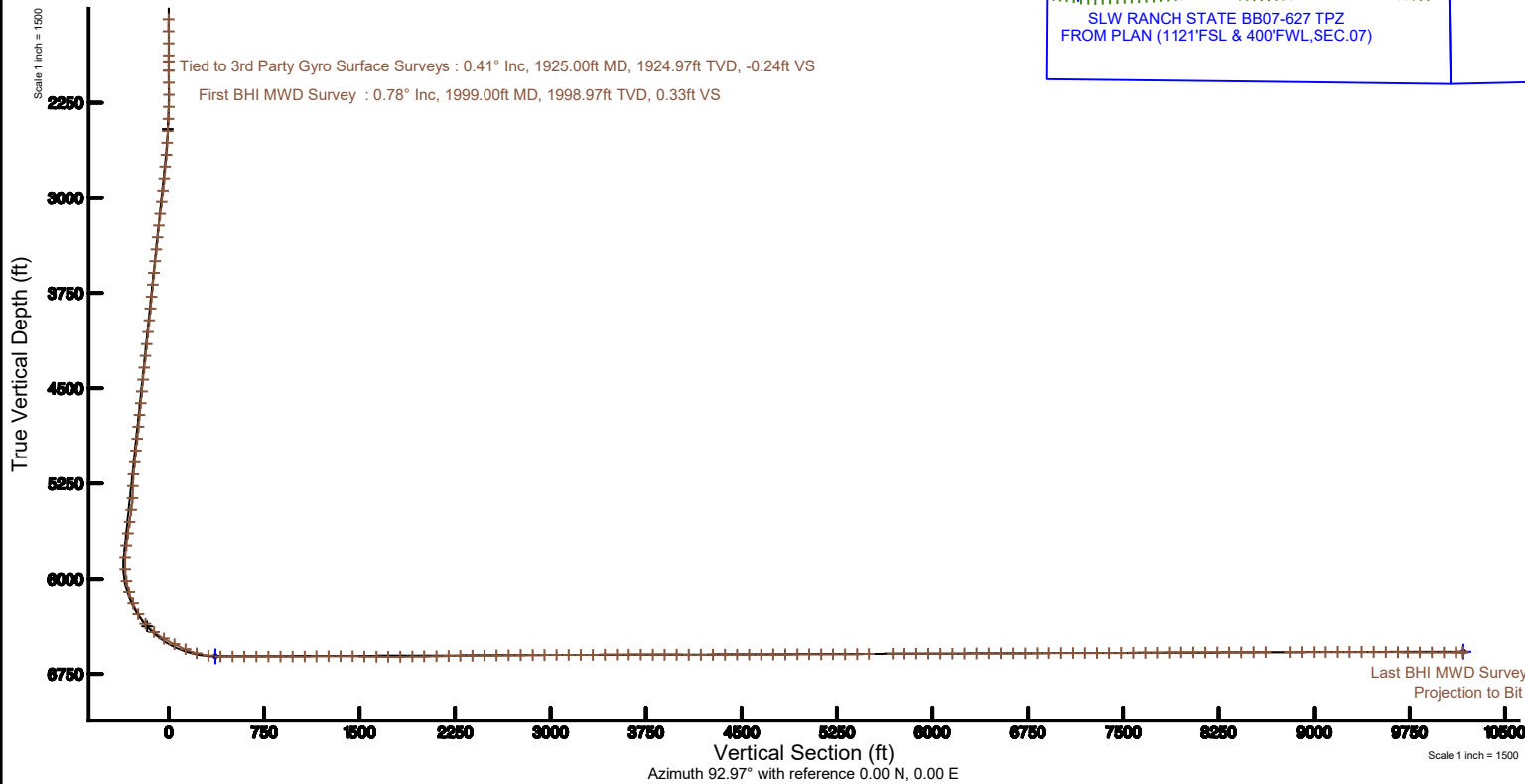
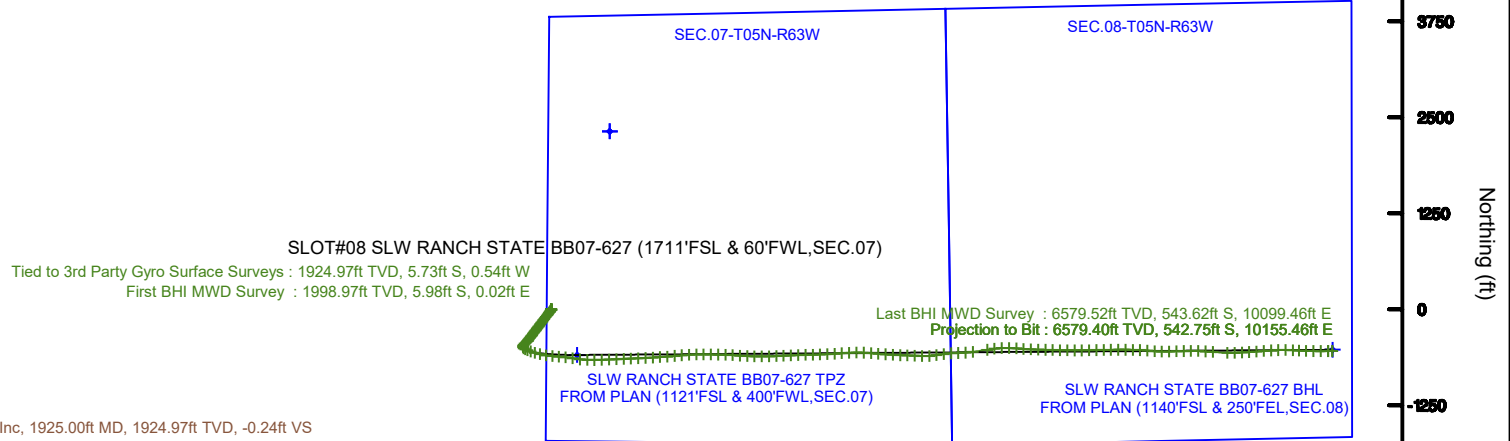
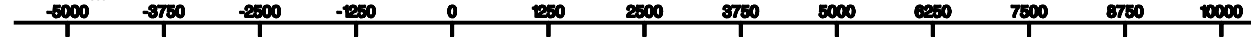
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude		
SEC.07-T05N-R63W	3282240.091	1396437.016	40°23'01.884"N	104°22'09.492"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude
SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)	-238.59	-761.63	3281578.495	1394118.518	40°24'39.060"N	104°29'19.680"W
RIG (307) (RKB) to Ground level (At Slot: SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07))					4947ft	
Mean Sea Level to Ground level (At Slot: SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07))					0ft	
RIG (307) (RKB) to Mean Sea Level					4947ft	

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	16909.07	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		SLW RANCH STATE BB07-627 PWB

Scale 1 inch = 2500

Easting (ft)



Scale 1 inch = 1500

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
Area	COLORADO	Well	SLW RANCH STATE BB07-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Doddanna
Scale	0.999961	Report Generated	9/10/2019 at 12:03:33 PM
Convergence at slot	0.65° East	Database/Source file	WellArchitectDB2/SLW_RANCH_STATE_BB07-627_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2318.59	-761.63	3281578.50	1394118.52	40°24'39.060"N	104°29'19.680"W
Facility Reference Pt			3282340.09	1396437.02	40°25'01.884"N	104°29'09.492"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (30') (RKB) to Facility Vertical Datum	4647.00ft
Horizontal Reference Pt	Slot	RIG (30') (RKB) to Mean Sea Level	4647.00ft
Vertical Reference Pt	RIG (30') (RKB)	RIG (30') (RKB) to Ground Level at Slot (SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07))	4647.00ft
MD Reference Pt	RIG (30') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	92.97°

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Facility	SEC.07-T05N-R63W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	357.730	0.00	0.00	0.00	0.00	40°24'39.060"N	104°29'19.680"W	0.00	
82.00	0.140	357.730	82.00	-0.01	0.10	0.00	40°24'39.061"N	104°29'19.680"W	0.17	
176.00	0.370	354.170	176.00	-0.07	0.52	-0.04	40°24'39.065"N	104°29'19.680"W	0.25	
268.00	0.240	297.910	268.00	-0.29	0.90	-0.24	40°24'39.069"N	104°29'19.683"W	0.34	
362.00	0.130	229.040	362.00	-0.54	0.92	-0.49	40°24'39.069"N	104°29'19.686"W	0.24	
457.00	0.360	225.380	457.00	-0.82	0.64	-0.79	40°24'39.066"N	104°29'19.690"W	0.24	
552.00	0.660	140.320	551.99	-0.65	0.01	-0.65	40°24'39.060"N	104°29'19.688"W	0.76	
646.00	0.340	202.370	645.99	-0.38	-0.66	-0.41	40°24'39.054"N	104°29'19.685"W	0.62	
741.00	0.110	177.780	740.99	-0.46	-1.01	-0.52	40°24'39.050"N	104°29'19.687"W	0.26	
836.00	0.310	159.370	835.99	-0.35	-1.34	-0.42	40°24'39.047"N	104°29'19.686"W	0.22	
931.00	0.350	153.190	930.99	-0.10	-1.84	-0.20	40°24'39.042"N	104°29'19.683"W	0.06	
1025.00	0.420	183.370	1024.99	0.04	-2.44	-0.09	40°24'39.036"N	104°29'19.682"W	0.23	
1120.00	0.180	179.940	1119.98	0.04	-2.94	-0.11	40°24'39.031"N	104°29'19.682"W	0.25	
1215.00	0.730	194.420	1214.98	-0.07	-3.68	-0.26	40°24'39.024"N	104°29'19.684"W	0.59	
1310.00	0.380	248.830	1309.98	-0.48	-4.38	-0.71	40°24'39.017"N	104°29'19.690"W	0.63	
1405.00	0.180	240.690	1404.98	-0.89	-4.56	-1.13	40°24'39.015"N	104°29'19.695"W	0.21	
1499.00	0.140	169.030	1498.98	-0.99	-4.75	-1.24	40°24'39.013"N	104°29'19.697"W	0.20	
1594.00	0.130	270.890	1593.98	-1.07	-4.86	-1.32	40°24'39.012"N	104°29'19.698"W	0.22	
1689.00	0.290	21.780	1688.97	-1.10	-4.64	-1.34	40°24'39.014"N	104°29'19.698"W	0.38	
1784.00	0.440	131.190	1783.97	-0.74	-4.65	-0.98	40°24'39.014"N	104°29'19.693"W	0.63	
1878.00	0.560	169.150	1877.97	-0.34	-5.34	-0.62	40°24'39.007"N	104°29'19.689"W	0.37	
1925.00	0.410	167.370	1924.97	-0.24	-5.73	-0.54	40°24'39.003"N	104°29'19.688"W	0.32	Tied to 3rd Party Gyro Surface Surveys
1999.00	0.780	88.720	1998.97	0.33	-5.98	0.02	40°24'39.001"N	104°29'19.681"W	1.09	First BHI MWD Survey
2094.00	0.570	59.840	2093.96	1.37	-5.73	1.08	40°24'39.003"N	104°29'19.667"W	0.41	
2188.00	0.620	36.420	2187.95	2.04	-5.08	1.78	40°24'39.010"N	104°29'19.658"W	0.26	
2283.00	1.810	222.100	2282.94	1.38	-5.78	1.08	40°24'39.003"N	104°29'19.667"W	2.56	
2378.00	4.980	221.790	2377.76	-2.15	-9.97	-2.67	40°24'38.962"N	104°29'19.716"W	3.34	
2473.00	5.740	211.400	2472.35	-7.00	-17.10	-7.90	40°24'38.892"N	104°29'19.785"W	1.29	
2567.00	5.560	214.220	2565.89	-11.60	-24.88	-12.91	40°24'38.816"N	104°29'19.850"W	0.35	
2662.00	7.950	220.640	2660.23	-18.00	-33.67	-19.77	40°24'38.730"N	104°29'19.941"W	2.63	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2757.00	10.380	219.430	2754.01	-27.11	-45.27	-29.49	40°24'38.616"N	104°29'20.068"W	2.57	
2851.00	8.590	208.430	2846.73	-35.16	-57.98	-38.21	40°24'38.491"N	104°29'20.182"W	2.70	
2946.00	10.830	223.200	2940.37	-43.97	-70.73	-47.70	40°24'38.366"N	104°29'20.307"W	3.51	
3041.00	11.730	216.730	3033.54	-55.11	-84.98	-59.59	40°24'38.227"N	104°29'20.463"W	1.63	
3136.00	12.360	218.690	3126.45	-66.41	-100.65	-71.72	40°24'38.074"N	104°29'20.622"W	0.79	
3231.00	11.080	215.710	3219.47	-77.28	-116.00	-83.40	40°24'37.923"N	104°29'20.775"W	1.49	
3325.00	10.260	216.980	3311.84	-86.85	-130.03	-93.71	40°24'37.786"N	104°29'20.911"W	0.91	
3420.00	10.140	217.580	3405.34	-96.33	-143.41	-103.90	40°24'37.655"N	104°29'21.044"W	0.17	
3515.00	10.520	218.500	3498.80	-106.13	-156.83	-114.40	40°24'37.523"N	104°29'21.182"W	0.44	
3610.00	10.330	214.430	3592.23	-115.61	-170.64	-124.61	40°24'37.388"N	104°29'21.316"W	0.80	
3704.00	9.890	218.160	3684.78	-124.66	-183.94	-134.37	40°24'37.258"N	104°29'21.444"W	0.84	
3799.00	10.280	215.590	3778.31	-133.93	-197.25	-144.34	40°24'37.127"N	104°29'21.575"W	0.63	
3894.00	10.570	215.970	3871.74	-143.25	-211.19	-154.39	40°24'36.991"N	104°29'21.707"W	0.31	
3988.00	10.650	218.360	3964.13	-152.98	-224.98	-164.85	40°24'36.856"N	104°29'21.844"W	0.48	
4083.00	10.370	216.870	4057.54	-162.83	-238.70	-175.42	40°24'36.721"N	104°29'21.983"W	0.41	
4178.00	10.670	218.950	4150.94	-172.77	-252.38	-186.08	40°24'36.587"N	104°29'22.123"W	0.51	
4273.00	10.370	214.970	4244.35	-182.46	-266.23	-196.51	40°24'36.452"N	104°29'22.259"W	0.83	
4367.00	10.380	216.290	4336.81	-191.60	-279.99	-206.37	40°24'36.317"N	104°29'22.389"W	0.25	
4462.00	9.870	219.290	4430.33	-201.12	-293.19	-216.60	40°24'36.187"N	104°29'22.523"W	0.77	
4556.00	10.080	217.500	4522.91	-210.56	-305.95	-226.70	40°24'36.062"N	104°29'22.656"W	0.40	
4651.00	10.000	219.010	4616.46	-220.13	-318.95	-236.96	40°24'35.935"N	104°29'22.790"W	0.29	
4746.00	9.730	216.760	4710.05	-229.44	-331.80	-246.95	40°24'35.809"N	104°29'22.921"W	0.50	
4840.00	9.610	215.010	4802.72	-238.02	-344.59	-256.21	40°24'35.684"N	104°29'23.043"W	0.34	
4935.00	10.620	217.230	4896.24	-247.16	-358.05	-266.06	40°24'35.552"N	104°29'23.172"W	1.14	
5030.00	9.810	221.110	4989.73	-257.09	-371.12	-276.67	40°24'35.424"N	104°29'23.311"W	1.12	
5124.00	9.670	217.400	5082.38	-266.50	-383.42	-286.73	40°24'35.304"N	104°29'23.443"W	0.68	
5219.00	10.340	220.230	5175.93	-276.17	-396.27	-297.09	40°24'35.178"N	104°29'23.579"W	0.87	
5314.00	5.350	188.920	5270.05	-281.80	-407.17	-303.29	40°24'35.071"N	104°29'23.660"W	6.73	
5409.00	4.880	219.970	5364.69	-284.69	-414.64	-306.57	40°24'34.997"N	104°29'23.704"W	2.92	
5503.00	9.960	236.060	5457.88	-293.60	-422.25	-315.89	40°24'34.923"N	104°29'23.826"W	5.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5598.00	11.620	228.940	5551.21	-307.05	-433.12	-329.92	40°24'34.817"N	104°29'24.009"W	2.24	
5692.00	12.280	224.430	5643.17	-320.48	-446.48	-344.06	40°24'34.687"N	104°29'24.193"W	1.22	
5787.00	12.270	218.730	5736.00	-333.07	-461.57	-357.45	40°24'34.539"N	104°29'24.369"W	1.28	
5882.00	10.150	202.750	5829.21	-341.80	-477.17	-367.00	40°24'34.386"N	104°29'24.494"W	3.94	
5977.00	9.260	162.000	5922.95	-341.90	-492.18	-367.88	40°24'34.238"N	104°29'24.508"W	7.14	
6071.00	13.180	136.610	6015.19	-331.43	-507.17	-358.17	40°24'34.089"N	104°29'24.385"W	6.62	
6166.00	17.160	118.370	6106.92	-310.91	-521.71	-338.38	40°24'33.943"N	104°29'24.131"W	6.49	
6261.00	23.280	109.860	6196.04	-280.25	-534.77	-308.36	40°24'33.811"N	104°29'23.745"W	7.13	
6355.00	31.910	107.660	6279.27	-238.37	-548.64	-267.13	40°24'33.669"N	104°29'23.214"W	9.24	
6450.00	42.170	107.210	6355.00	-183.02	-565.74	-212.60	40°24'33.494"N	104°29'22.512"W	10.80	
6544.00	52.410	104.100	6418.68	-115.71	-584.20	-146.16	40°24'33.304"N	104°29'21.655"W	11.16	
6639.00	60.770	98.870	6470.97	-37.37	-599.79	-68.52	40°24'33.141"N	104°29'20.654"W	9.92	
6733.00	62.800	94.820	6515.42	45.24	-609.64	13.69	40°24'33.035"N	104°29'19.593"W	4.37	
6828.00	66.910	93.290	6555.78	131.20	-615.70	99.46	40°24'32.965"N	104°29'18.485"W	4.57	
6922.00	74.330	97.890	6586.97	219.69	-624.41	187.61	40°24'32.869"N	104°29'17.347"W	9.14	
7017.00	82.620	99.300	6605.93	312.24	-638.32	279.56	40°24'32.721"N	104°29'16.160"W	8.85	
7112.00	90.090	97.930	6611.97	406.52	-652.51	373.23	40°24'32.571"N	104°29'14.952"W	7.99	
7207.00	89.940	91.320	6611.94	501.43	-660.16	467.87	40°24'32.484"N	104°29'13.729"W	6.96	
7301.00	90.030	89.090	6611.97	595.31	-660.50	561.87	40°24'32.470"N	104°29'12.515"W	2.37	
7396.00	90.000	87.610	6611.94	690.00	-657.76	656.82	40°24'32.487"N	104°29'11.287"W	1.56	
7491.00	90.090	87.470	6611.87	784.57	-653.69	751.74	40°24'32.516"N	104°29'10.059"W	0.18	
7586.00	89.540	87.810	6612.18	879.16	-649.78	846.65	40°24'32.544"N	104°29'08.832"W	0.68	
7681.00	90.280	87.580	6612.32	973.76	-645.95	941.58	40°24'32.571"N	104°29'07.604"W	0.82	
7775.00	90.460	88.020	6611.72	1067.38	-642.35	1035.51	40°24'32.596"N	104°29'06.389"W	0.51	
7870.00	90.250	87.660	6611.13	1161.99	-638.77	1130.44	40°24'32.621"N	104°29'05.162"W	0.44	
7965.00	90.340	86.760	6610.64	1256.51	-634.14	1225.32	40°24'32.656"N	104°29'03.935"W	0.95	
8060.00	90.060	86.290	6610.31	1350.91	-628.38	1320.15	40°24'32.702"N	104°29'02.708"W	0.58	
8154.00	89.600	86.400	6610.59	1444.28	-622.39	1413.95	40°24'32.750"N	104°29'01.495"W	0.50	
8249.00	89.010	85.530	6611.74	1538.57	-615.71	1508.71	40°24'32.806"N	104°29'00.269"W	1.11	
8344.00	88.860	84.160	6613.51	1632.59	-607.17	1603.31	40°24'32.879"N	104°28'59.045"W	1.45	

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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

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8438.00	90.310	85.180	6614.19	1725.60	-598.44	1696.89	40°24'32.955"N	104°28'57.834"W	1.89	
8533.00	90.180	86.710	6613.78	1819.89	-591.72	1791.65	40°24'33.011"N	104°28'56.608"W	1.62	
8628.00	90.860	88.740	6612.92	1914.48	-587.95	1886.57	40°24'33.037"N	104°28'55.380"W	2.25	
8722.00	90.830	90.690	6611.53	2008.31	-587.49	1980.55	40°24'33.031"N	104°28'54.165"W	2.07	
8817.00	91.020	91.210	6610.00	2103.24	-589.06	2075.53	40°24'33.005"N	104°28'52.938"W	0.58	
8912.00	90.680	90.410	6608.59	2198.16	-590.40	2170.51	40°24'32.981"N	104°28'51.710"W	0.91	
9006.00	90.770	90.840	6607.40	2292.08	-591.43	2264.49	40°24'32.960"N	104°28'50.496"W	0.47	
9101.00	90.520	94.870	6606.33	2387.05	-596.16	2359.35	40°24'32.902"N	104°28'49.270"W	4.25	
9195.00	90.860	94.310	6605.20	2481.01	-603.68	2453.04	40°24'32.817"N	104°28'48.060"W	0.70	
9290.00	90.800	92.620	6603.82	2575.99	-609.42	2547.85	40°24'32.750"N	104°28'46.836"W	1.78	
9385.00	90.800	90.760	6602.49	2670.95	-612.22	2642.80	40°24'32.711"N	104°28'45.609"W	1.96	
9480.00	90.490	91.090	6601.42	2765.89	-613.76	2737.78	40°24'32.685"N	104°28'44.381"W	0.48	
9574.00	89.970	88.390	6601.05	2859.73	-613.33	2831.77	40°24'32.679"N	104°28'43.166"W	2.93	
9669.00	90.180	87.460	6600.92	2954.36	-609.89	2926.71	40°24'32.702"N	104°28'41.939"W	1.00	
9764.00	90.030	86.760	6600.75	3048.86	-605.10	3021.58	40°24'32.739"N	104°28'40.711"W	0.75	
9859.00	90.340	87.560	6600.44	3143.37	-600.39	3116.47	40°24'32.774"N	104°28'39.484"W	0.90	
9953.00	90.490	87.910	6599.76	3236.98	-596.68	3210.39	40°24'32.800"N	104°28'38.270"W	0.41	
10048.00	90.340	88.360	6599.07	3331.64	-593.59	3305.34	40°24'32.820"N	104°28'37.042"W	0.50	
10143.00	90.430	89.190	6598.43	3426.38	-591.56	3400.31	40°24'32.829"N	104°28'35.814"W	0.88	
10238.00	89.820	88.160	6598.23	3521.11	-589.36	3495.28	40°24'32.840"N	104°28'34.586"W	1.26	
10332.00	90.220	86.520	6598.19	3614.66	-585.00	3589.18	40°24'32.873"N	104°28'33.371"W	1.80	
10427.00	89.690	85.980	6598.27	3709.00	-578.78	3683.98	40°24'32.923"N	104°28'32.145"W	0.80	
10522.00	90.000	86.230	6598.53	3803.32	-572.33	3778.76	40°24'32.976"N	104°28'30.919"W	0.42	
10617.00	90.030	87.150	6598.50	3897.75	-566.85	3873.60	40°24'33.020"N	104°28'29.692"W	0.97	
10712.00	89.850	89.270	6598.60	3992.42	-563.88	3968.54	40°24'33.038"N	104°28'28.465"W	2.24	
10807.00	89.820	92.430	6598.87	4087.34	-565.29	4063.52	40°24'33.013"N	104°28'27.237"W	3.33	
10902.00	90.180	94.930	6598.87	4182.33	-571.38	4158.32	40°24'32.942"N	104°28'26.013"W	2.66	
10996.00	90.090	94.580	6598.65	4276.28	-579.18	4251.99	40°24'32.854"N	104°28'24.803"W	0.38	
11091.00	90.000	93.590	6598.58	4371.26	-585.94	4346.75	40°24'32.777"N	104°28'23.579"W	1.05	
11186.00	90.310	94.070	6598.32	4466.25	-592.29	4441.54	40°24'32.703"N	104°28'22.355"W	0.60	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
Area	COLORADO	Well	SLW RANCH STATE BB07-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11281.00	90.000	92.870	6598.06	4561.24	-598.04	4536.36	40°24'32.636"N	104°28'21.130"W	1.30	
11376.00	90.800	91.620	6597.40	4656.23	-601.76	4631.28	40°24'32.588"N	104°28'19.904"W	1.56	
11471.00	90.220	92.030	6596.56	4751.21	-604.79	4726.23	40°24'32.547"N	104°28'18.677"W	0.75	
11566.00	90.180	92.350	6596.22	4846.20	-608.42	4821.16	40°24'32.500"N	104°28'17.450"W	0.34	
11660.00	91.260	86.710	6595.04	4939.98	-607.65	4915.11	40°24'32.497"N	104°28'16.236"W	6.11	
11755.00	89.720	80.930	6594.23	5033.73	-597.42	5009.51	40°24'32.587"N	104°28'15.014"W	6.30	
11850.00	89.820	81.530	6594.61	5126.74	-582.94	5103.40	40°24'32.720"N	104°28'13.798"W	0.64	
11945.00	90.030	86.790	6594.73	5220.59	-573.28	5197.88	40°24'32.804"N	104°28'12.575"W	5.54	
12039.00	89.970	88.080	6594.73	5314.15	-569.07	5291.78	40°24'32.835"N	104°28'11.361"W	1.37	
12134.00	91.110	86.390	6593.84	5408.66	-564.49	5386.66	40°24'32.870"N	104°28'10.134"W	2.15	
12229.00	90.520	81.870	6592.49	5502.50	-554.78	5481.13	40°24'32.955"N	104°28'08.911"W	4.80	
12418.00	90.650	81.730	6590.56	5687.91	-527.82	5668.18	40°24'33.200"N	104°28'06.489"W	0.10	
12513.00	89.660	81.400	6590.30	5781.03	-513.88	5762.16	40°24'33.326"N	104°28'05.272"W	1.10	
12608.00	90.340	87.030	6590.30	5874.89	-504.31	5856.63	40°24'33.410"N	104°28'04.050"W	5.97	
12703.00	90.280	92.740	6589.79	5969.71	-504.12	5951.59	40°24'33.401"N	104°28'02.822"W	6.01	
12798.00	90.120	93.190	6589.45	6064.71	-509.04	6046.46	40°24'33.342"N	104°28'01.597"W	0.50	
12892.00	90.090	94.940	6589.28	6158.69	-515.70	6140.22	40°24'33.265"N	104°28'00.386"W	1.86	
12987.00	90.430	92.380	6588.85	6253.67	-521.76	6235.02	40°24'33.194"N	104°27'59.161"W	2.72	
13082.00	89.910	91.600	6588.57	6348.66	-525.06	6329.96	40°24'33.151"N	104°27'57.934"W	0.99	
13177.00	90.550	91.690	6588.19	6443.63	-527.79	6424.92	40°24'33.113"N	104°27'56.707"W	0.68	
13271.00	90.250	91.680	6587.53	6537.61	-530.55	6518.88	40°24'33.075"N	104°27'55.493"W	0.32	
13366.00	90.250	91.120	6587.12	6632.57	-532.87	6613.85	40°24'33.041"N	104°27'54.266"W	0.59	
13461.00	90.340	90.570	6586.63	6727.50	-534.28	6708.84	40°24'33.016"N	104°27'53.038"W	0.59	
13556.00	90.280	90.640	6586.11	6822.42	-535.28	6803.83	40°24'32.995"N	104°27'51.811"W	0.10	
13650.00	90.150	89.780	6585.76	6916.31	-535.62	6897.83	40°24'32.981"N	104°27'50.596"W	0.93	
13745.00	90.370	88.700	6585.33	7011.11	-534.36	6992.82	40°24'32.982"N	104°27'49.368"W	1.16	
13840.00	89.970	87.700	6585.05	7105.77	-531.38	7087.77	40°24'33.001"N	104°27'48.140"W	1.13	
13935.00	90.090	89.370	6585.00	7200.49	-528.95	7182.73	40°24'33.014"N	104°27'46.912"W	1.76	
14029.00	90.090	89.290	6584.85	7294.30	-527.85	7276.73	40°24'33.014"N	104°27'45.697"W	0.09	
14124.00	90.550	90.140	6584.32	7389.14	-527.38	7371.72	40°24'33.007"N	104°27'44.469"W	1.02	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
Area	COLORADO	Well	SLW RANCH STATE BB07-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14218.00	89.850	89.720	6583.99	7483.01	-527.26	7465.72	40°24'32.998"N	104°27'43.254"W	0.87	
14313.00	90.520	91.420	6583.69	7577.92	-528.21	7560.71	40°24'32.977"N	104°27'42.026"W	1.92	
14408.00	89.880	92.060	6583.35	7672.90	-531.09	7655.67	40°24'32.938"N	104°27'40.799"W	0.95	
14502.00	91.170	95.190	6582.49	7766.87	-537.03	7749.46	40°24'32.868"N	104°27'39.587"W	3.60	
14597.00	90.680	95.390	6580.96	7861.78	-545.79	7844.04	40°24'32.771"N	104°27'38.366"W	0.56	
14692.00	90.220	89.810	6580.21	7956.74	-550.10	7938.91	40°24'32.717"N	104°27'37.141"W	5.89	
14786.00	90.150	88.890	6579.91	8050.55	-549.03	8032.90	40°24'32.717"N	104°27'35.926"W	0.98	
14881.00	90.280	89.000	6579.55	8145.32	-547.28	8127.88	40°24'32.723"N	104°27'34.697"W	0.18	
14976.00	90.220	87.930	6579.14	8240.02	-544.74	8222.85	40°24'32.737"N	104°27'33.470"W	1.13	
15070.00	89.850	88.650	6579.08	8333.71	-541.93	8316.80	40°24'32.754"N	104°27'32.255"W	0.86	
15165.00	90.120	92.440	6579.11	8428.60	-542.84	8411.78	40°24'32.734"N	104°27'31.027"W	4.00	
15260.00	90.280	94.410	6578.77	8523.60	-548.51	8506.61	40°24'32.667"N	104°27'29.802"W	2.08	
15355.00	90.280	94.090	6578.31	8618.57	-555.55	8601.34	40°24'32.587"N	104°27'28.579"W	0.34	
15545.00	90.310	91.990	6577.33	8808.56	-565.63	8791.06	40°24'32.465"N	104°27'26.128"W	1.11	
15639.00	89.880	88.180	6577.17	8902.42	-565.77	8885.05	40°24'32.453"N	104°27'24.913"W	4.08	
15734.00	90.220	87.030	6577.09	8997.00	-561.80	8979.96	40°24'32.481"N	104°27'23.686"W	1.26	
15829.00	90.280	86.570	6576.68	9091.45	-556.50	9074.81	40°24'32.522"N	104°27'22.459"W	0.49	
15924.00	90.000	85.810	6576.45	9185.79	-550.18	9169.60	40°24'32.574"N	104°27'21.232"W	0.85	
16018.00	90.000	85.580	6576.45	9279.03	-543.13	9263.34	40°24'32.632"N	104°27'20.020"W	0.24	
16113.00	89.970	86.320	6576.47	9373.32	-536.42	9358.10	40°24'32.688"N	104°27'18.794"W	0.78	
16208.00	89.970	87.300	6576.52	9467.77	-531.13	9452.95	40°24'32.729"N	104°27'17.567"W	1.03	
16303.00	89.750	90.240	6576.75	9562.50	-529.09	9547.92	40°24'32.738"N	104°27'16.339"W	3.10	
16398.00	88.060	93.850	6578.57	9657.46	-532.48	9642.82	40°24'32.693"N	104°27'15.113"W	4.20	
16477.00	89.350	94.110	6580.35	9736.42	-537.96	9721.61	40°24'32.630"N	104°27'14.095"W	1.67	
16571.00	90.120	91.480	6580.79	9830.41	-542.54	9815.49	40°24'32.574"N	104°27'12.882"W	2.92	
16666.00	90.030	90.310	6580.66	9925.35	-544.03	9910.47	40°24'32.548"N	104°27'11.655"W	1.24	
16761.00	90.620	90.040	6580.13	10020.23	-544.32	10005.47	40°24'32.534"N	104°27'10.427"W	0.68	
16855.00	90.120	89.110	6579.52	10114.06	-543.62	10099.46	40°24'32.530"N	104°27'09.212"W	1.12	Last BHI MWD Survey
16911.00	90.120	89.110	6579.40	10169.94	-542.75	10155.46	40°24'32.532"N	104°27'08.488"W	0.00	Projection to Bit

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.07-T05N-R63W	-15.00	2318.59	761.63	3282340.09	1396437.02	40°25'01.884"N	104°29'09.492"W	polygon
SEC.08-T05N-R63W	-15.00	2318.59	761.63	3282340.09	1396437.02	40°25'01.884"N	104°29'09.492"W	polygon
SLW RANCH STATE BB07-627 BHL FROM PLAN (1140'FSL & 250'FEL,SEC.08)	6574.00	-526.74	10159.52	3291737.60	1393591.80	40°24'32.690"N	104°27'08.433"W	point
SLW RANCH STATE BB07-627 TPZ FROM PLAN (1121'FSL & 400'FWL,SEC.07)	6611.00	-595.33	336.24	3281914.72	1393523.21	40°24'33.140"N	104°29'15.421"W	point

WELLPATH COMPOSITION - Ref Wellbore: SLW RANCH STATE BB07-627 AWP Ref Wellpath: SLW RANCH STATE BB07-627 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1925.00	Gyrodata standard - Drop gyro or Multi-shot	3rd Party Gyrodata Surveys <82'-1925">	SLW RANCH STATE BB07-627 AWP
1925.00	16855.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC OWSG MWD rev2+IFR+MSA <1999'-16855">	SLW RANCH STATE BB07-627 AWP
16855.00	16911.00	Blind Drilling (std)	Projection to bit	SLW RANCH STATE BB07-627 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 SLW RANCH STATE BB07-627 (1711'FSL & 60'FWL,SEC.07)
Area	COLORADO	Well	SLW RANCH STATE BB07-627
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	SLW RANCH STATE BB07-627 AWP
Facility	SEC.07-T05N-R63W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1925.00	0.410	167.370	1924.97	Tied to 3rd Party Gyro Surface Surveys
1999.00	0.780	88.720	1998.97	First BHI MWD Survey
16855.00	90.120	89.110	6579.52	Last BHI MWD Survey
16911.00	90.120	89.110	6579.40	Projection to Bit