

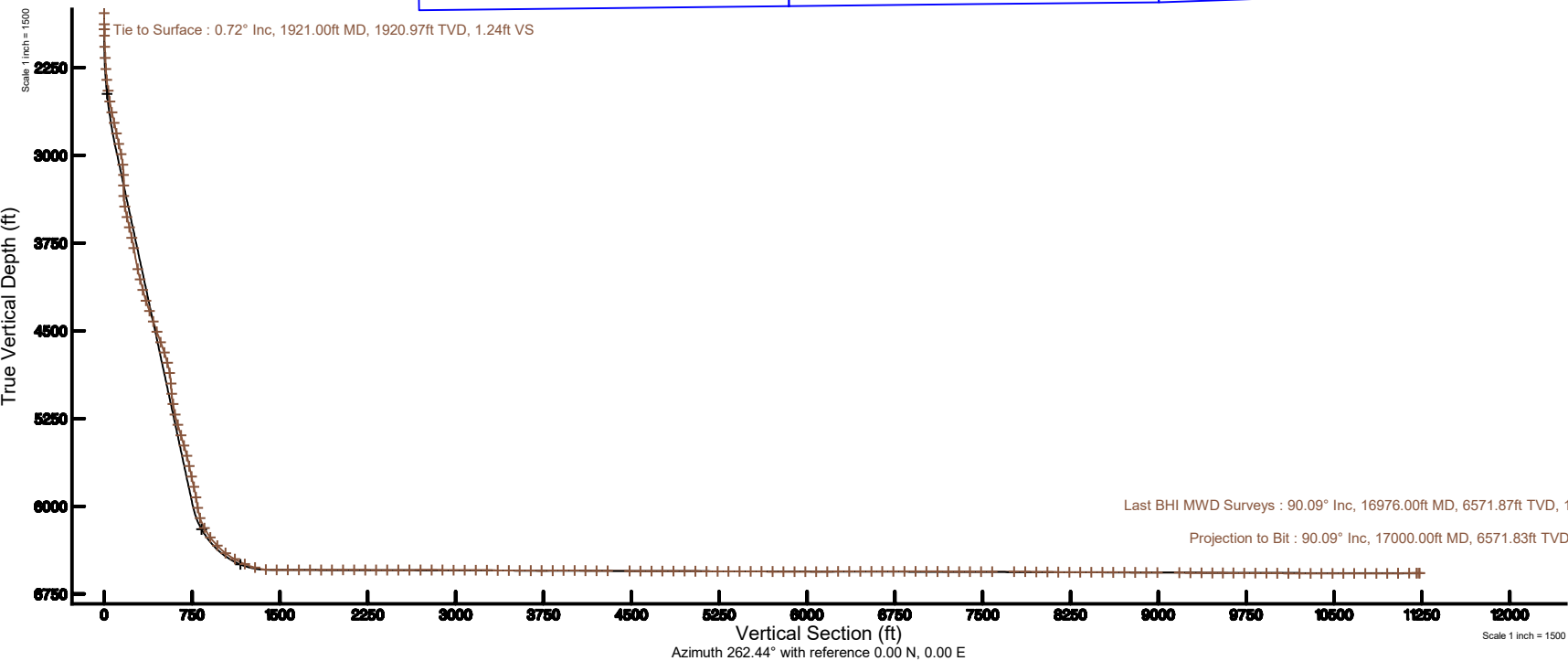
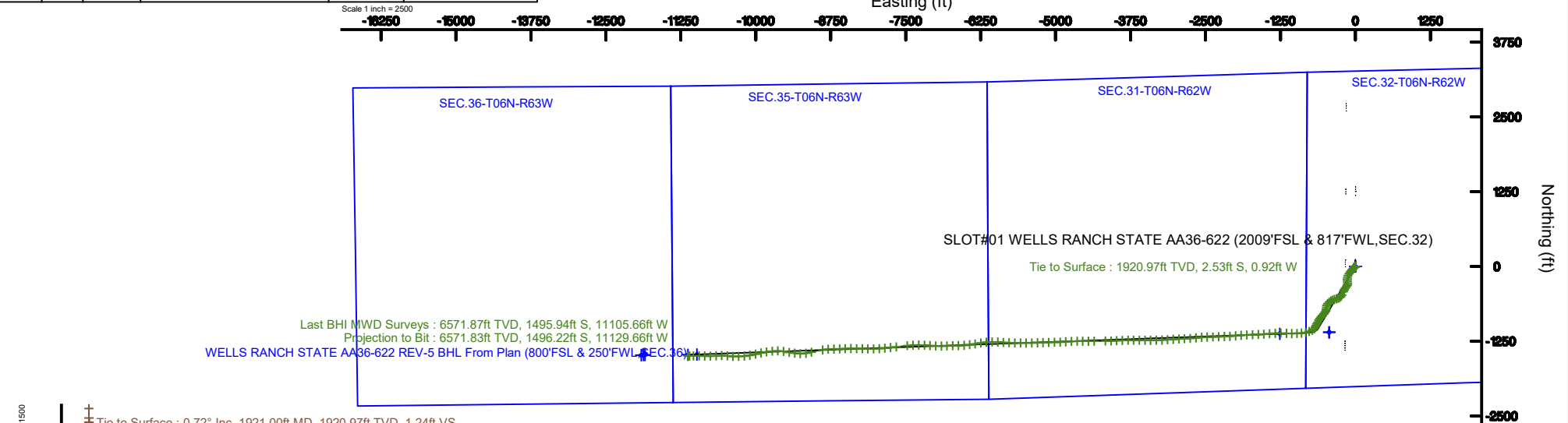
NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL,SEC.32)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: WELLS RANCH STATE AA36-622
Facility: SEC.32-T06N-R62W Wellbore: WELLS RANCH STATE AA36-622 PWB



Location Information					
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude	
SEC.32-T06N-R62W	1482733.028	1482733.028	40°04'28.320"N	104°51'13.880"W	
Site	Local E (ft)	Local N (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude
SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)	0.00	0.00	1482733.028	1482733.028	40°04'28.320"N
PRG.001 (2009) to Mean Sea Level (in Slot: SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32))					47024
Mean Sea Level to Mean Sea Level (in Slot: SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32))					01
PRG.001 (2009) to Mean Sea Level					47024

Plot reference output is WELLS RANCH STATE AA36-622 (REV-E-5)PWB		Grid System: NAD83 / Lambert Colorado SP, Northern Zone (2011) US feet			
True vertical depths are referenced to RIG (207) (R63)		North Reference: Grid north			
Measured depths are referenced to RIG (207) (R63)		Scale: True distance			
RIG (207) (R63) to Mean Sea Level: 4755 feet		Depths are in feet			
Mean Sea Level to Mean Sea Level (in Slot: SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)) 0 feet		Created by: ddbdavis on 2019-07-19			
Coordinates are in feet referenced to Slot		Publisher: WellboreHubDB			
Survey Program					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	18538.76	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		WELLS RANCH STATE AA36-622 PWB



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

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	0.999962	Report Generated	7/19/2019 at 10:57:41 AM
Convergence at slot	0.74° East	Database/Source file	WellArchitectDB/WELLS_RANCH_STATE_AA36-622_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W
Facility Reference Pt			3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"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	4755.00ft
Horizontal Reference Pt	Slot	RIG (30') (RKB) to Mean Sea Level	4755.00ft
Vertical Reference Pt	RIG (30') (RKB)	RIG (30') (RKB) to Mud Line at Slot (SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32))	4755.00ft
MD Reference Pt	RIG (30') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	262.44°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

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	202.470	0.00	0.00	0.00	0.00	40°26'29.328"N	104°21'13.680"W	0.00	
84.00	0.450	202.470	84.00	0.17	-0.30	-0.13	40°26'29.325"N	104°21'13.682"W	0.54	
180.00	0.410	194.380	180.00	0.48	-0.99	-0.36	40°26'29.318"N	104°21'13.685"W	0.08	
271.00	0.300	280.880	271.00	0.83	-1.26	-0.67	40°26'29.316"N	104°21'13.689"W	0.54	
366.00	0.270	318.350	366.00	1.19	-1.04	-1.06	40°26'29.318"N	104°21'13.694"W	0.20	
461.00	0.220	235.100	460.99	1.48	-0.98	-1.36	40°26'29.318"N	104°21'13.698"W	0.34	
555.00	0.020	74.020	554.99	1.62	-1.08	-1.49	40°26'29.318"N	104°21'13.699"W	0.25	
650.00	0.260	116.200	649.99	1.43	-1.17	-1.28	40°26'29.317"N	104°21'13.697"W	0.26	
744.00	0.220	247.360	743.99	1.42	-1.33	-1.26	40°26'29.315"N	104°21'13.697"W	0.47	
839.00	0.070	103.890	838.99	1.55	-1.42	-1.37	40°26'29.314"N	104°21'13.698"W	0.29	
933.00	0.450	126.910	932.99	1.23	-1.65	-1.02	40°26'29.312"N	104°21'13.693"W	0.41	
1028.00	0.330	136.210	1027.99	0.80	-2.07	-0.53	40°26'29.308"N	104°21'13.687"W	0.14	
1122.00	0.050	86.690	1121.99	0.60	-2.27	-0.30	40°26'29.306"N	104°21'13.684"W	0.32	
1217.00	0.520	150.720	1216.99	0.40	-2.64	-0.05	40°26'29.302"N	104°21'13.681"W	0.53	
1311.00	0.640	176.480	1310.98	0.28	-3.54	0.19	40°26'29.293"N	104°21'13.678"W	0.30	
1405.00	0.100	151.850	1404.98	0.29	-4.13	0.26	40°26'29.287"N	104°21'13.677"W	0.59	
1500.00	0.140	64.510	1499.98	0.15	-4.16	0.40	40°26'29.287"N	104°21'13.675"W	0.18	
1594.00	0.180	16.650	1593.98	-0.02	-3.96	0.55	40°26'29.289"N	104°21'13.674"W	0.14	
1688.00	0.220	26.360	1687.98	-0.18	-3.66	0.67	40°26'29.292"N	104°21'13.672"W	0.06	
1783.00	0.580	320.880	1782.98	-0.03	-3.13	0.45	40°26'29.297"N	104°21'13.675"W	0.56	
1878.00	0.680	284.530	1877.97	0.74	-2.61	-0.40	40°26'29.302"N	104°21'13.686"W	0.43	
1921.00	0.720	274.560	1920.97	1.24	-2.53	-0.92	40°26'29.303"N	104°21'13.692"W	0.30	Tie to Surface
1977.00	0.840	275.550	1976.96	1.98	-2.46	-1.68	40°26'29.304"N	104°21'13.702"W	0.22	
2071.00	2.060	259.730	2070.93	4.34	-2.69	-4.02	40°26'29.302"N	104°21'13.732"W	1.35	
2166.00	3.370	250.980	2165.82	8.79	-3.91	-8.34	40°26'29.290"N	104°21'13.789"W	1.44	
2261.00	4.050	217.200	2260.63	13.89	-7.49	-13.01	40°26'29.256"N	104°21'13.850"W	2.37	
2355.00	8.790	221.160	2354.02	21.62	-15.55	-19.75	40°26'29.177"N	104°21'13.938"W	5.06	
2450.00	11.130	219.030	2447.58	33.74	-28.13	-30.30	40°26'29.054"N	104°21'14.077"W	2.49	
2545.00	13.280	218.700	2540.43	48.29	-43.77	-42.90	40°26'28.901"N	104°21'14.242"W	2.26	
2639.00	14.890	225.680	2631.61	65.77	-60.64	-58.29	40°26'28.736"N	104°21'14.444"W	2.49	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2733.00	16.170	221.300	2722.18	85.30	-78.91	-75.58	40°26'28.558"N	104°21'14.671"W	1.85	
2828.00	17.810	214.780	2813.03	105.06	-100.79	-92.60	40°26'28.344"N	104°21'14.894"W	2.64	
2922.00	20.610	211.200	2901.79	125.10	-126.75	-109.37	40°26'28.090"N	104°21'15.116"W	3.23	
3017.00	22.220	201.160	2990.26	144.21	-157.82	-124.52	40°26'27.785"N	104°21'15.317"W	4.21	
3112.00	21.490	189.660	3078.48	158.00	-191.74	-133.93	40°26'27.451"N	104°21'15.444"W	4.56	
3206.00	21.160	179.160	3166.07	165.09	-225.69	-136.57	40°26'27.115"N	104°21'15.484"W	4.07	
3301.00	16.540	167.560	3255.98	165.95	-256.07	-133.41	40°26'26.815"N	104°21'15.448"W	6.24	
3396.00	17.440	181.480	3346.87	167.04	-283.52	-130.86	40°26'26.543"N	104°21'15.420"W	4.37	
3490.00	18.290	199.760	3436.41	176.03	-311.50	-136.21	40°26'26.268"N	104°21'15.494"W	6.01	
3585.00	19.880	215.610	3526.25	193.94	-338.68	-150.67	40°26'26.001"N	104°21'15.685"W	5.69	
3679.00	20.140	213.890	3614.57	215.59	-365.11	-169.00	40°26'25.742"N	104°21'15.927"W	0.68	
3774.00	20.010	206.750	3703.82	235.58	-393.21	-185.44	40°26'25.467"N	104°21'16.144"W	2.58	
3869.00	20.080	200.760	3793.07	252.48	-422.97	-198.53	40°26'25.174"N	104°21'16.318"W	2.16	
4058.00	18.550	209.540	3971.47	286.02	-479.48	-224.86	40°26'24.619"N	104°21'16.668"W	1.73	
4152.00	18.380	222.540	4060.67	306.42	-503.42	-242.26	40°26'24.385"N	104°21'16.897"W	4.38	
4247.00	16.430	235.720	4151.35	329.92	-522.03	-263.50	40°26'24.204"N	104°21'17.175"W	4.62	
4342.00	18.510	251.800	4242.01	356.76	-534.32	-288.95	40°26'24.085"N	104°21'17.506"W	5.51	
4436.00	19.730	254.170	4330.83	387.13	-543.31	-318.39	40°26'24.000"N	104°21'17.888"W	1.54	
4531.00	19.890	250.860	4420.21	418.83	-552.98	-349.08	40°26'23.909"N	104°21'18.287"W	1.19	
4625.00	19.910	248.260	4508.60	450.01	-564.15	-379.06	40°26'23.802"N	104°21'18.676"W	0.94	
4720.00	21.310	244.110	4597.52	482.09	-577.68	-409.61	40°26'23.672"N	104°21'19.074"W	2.13	
4814.00	21.370	231.840	4685.12	513.06	-595.73	-438.46	40°26'23.498"N	104°21'19.450"W	4.74	
4909.00	21.230	216.200	4773.70	539.88	-620.32	-462.25	40°26'23.258"N	104°21'19.761"W	5.97	
5003.00	21.850	199.050	4861.22	559.50	-650.62	-478.03	40°26'22.960"N	104°21'19.971"W	6.71	
5098.00	21.150	180.620	4949.71	569.88	-684.51	-483.99	40°26'22.626"N	104°21'20.053"W	7.12	
5192.00	19.620	187.770	5037.84	576.46	-717.11	-486.31	40°26'22.304"N	104°21'20.089"W	3.11	
5286.00	18.300	201.690	5126.78	587.86	-746.48	-493.90	40°26'22.015"N	104°21'20.192"W	5.00	
5380.00	18.910	212.860	5215.90	604.95	-772.99	-507.62	40°26'21.755"N	104°21'20.374"W	3.84	
5474.00	21.190	223.980	5304.23	628.14	-798.03	-527.69	40°26'21.510"N	104°21'20.637"W	4.72	
5569.00	21.040	224.990	5392.85	655.13	-822.44	-551.67	40°26'21.272"N	104°21'20.952"W	0.41	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5663.00	21.040	221.260	5480.59	681.22	-847.06	-574.73	40°26'21.032"N	104°21'21.254"W	1.42	
5758.00	21.050	216.500	5569.26	705.93	-873.60	-596.13	40°26'20.772"N	104°21'21.535"W	1.80	
5852.00	21.050	205.450	5657.02	726.87	-902.42	-613.43	40°26'20.490"N	104°21'21.764"W	4.22	
5947.00	20.390	207.120	5745.87	745.59	-932.56	-628.31	40°26'20.194"N	104°21'21.961"W	0.93	
6041.00	20.240	213.030	5834.04	765.49	-960.77	-644.63	40°26'19.917"N	104°21'22.177"W	2.19	
6136.00	19.140	202.570	5923.51	784.01	-988.94	-659.57	40°26'19.641"N	104°21'22.375"W	3.88	
6230.00	19.030	198.030	6012.35	798.36	-1017.74	-670.23	40°26'19.357"N	104°21'22.517"W	1.58	
6325.00	22.600	224.220	6101.32	819.45	-1045.62	-687.80	40°26'19.084"N	104°21'22.749"W	10.39	
6419.00	28.930	242.230	6186.07	855.07	-1069.22	-720.60	40°26'18.855"N	104°21'23.177"W	10.64	
6514.00	38.150	251.850	6265.22	905.62	-1089.12	-768.95	40°26'18.665"N	104°21'23.806"W	11.18	
6608.00	43.400	258.490	6336.41	966.44	-1104.62	-828.25	40°26'18.519"N	104°21'24.575"W	7.24	
6703.00	52.520	262.570	6399.98	1036.86	-1116.04	-897.77	40°26'18.415"N	104°21'25.476"W	10.11	
6797.00	60.480	267.300	6451.84	1115.07	-1122.80	-975.77	40°26'18.358"N	104°21'26.486"W	9.45	
6892.00	67.450	271.200	6493.52	1199.74	-1123.83	-1061.05	40°26'18.359"N	104°21'27.589"W	8.21	
6987.00	74.710	273.730	6524.31	1288.16	-1119.93	-1150.76	40°26'18.409"N	104°21'28.748"W	8.05	
7081.00	85.530	269.750	6540.42	1379.40	-1117.17	-1243.17	40°26'18.448"N	104°21'29.943"W	12.24	
7176.00	90.120	267.520	6544.03	1473.74	-1119.44	-1338.04	40°26'18.438"N	104°21'31.170"W	5.37	
7271.00	89.780	264.850	6544.11	1568.53	-1125.76	-1432.82	40°26'18.387"N	104°21'32.397"W	2.83	
7365.00	89.880	266.360	6544.39	1662.39	-1132.96	-1526.54	40°26'18.328"N	104°21'33.610"W	1.61	
7460.00	89.940	266.910	6544.54	1757.13	-1138.53	-1621.38	40°26'18.285"N	104°21'34.837"W	0.58	
7555.00	89.910	267.740	6544.66	1851.78	-1142.97	-1716.27	40°26'18.253"N	104°21'36.065"W	0.87	
7649.00	90.030	267.820	6544.71	1945.37	-1146.61	-1810.20	40°26'18.229"N	104°21'37.281"W	0.15	
7744.00	90.180	264.810	6544.54	2040.15	-1152.71	-1904.99	40°26'18.181"N	104°21'38.507"W	3.17	
7838.00	89.910	264.490	6544.46	2134.08	-1161.48	-1998.58	40°26'18.106"N	104°21'39.719"W	0.45	
7933.00	89.600	265.870	6544.87	2228.96	-1169.46	-2093.24	40°26'18.039"N	104°21'40.945"W	1.49	
8027.00	89.940	269.060	6545.25	2322.59	-1173.62	-2187.14	40°26'18.010"N	104°21'42.159"W	3.41	
8122.00	90.180	268.340	6545.15	2417.02	-1175.77	-2282.11	40°26'18.001"N	104°21'43.388"W	0.80	
8217.00	89.880	267.600	6545.10	2511.58	-1179.14	-2377.05	40°26'17.980"N	104°21'44.616"W	0.84	
8312.00	90.120	268.350	6545.10	2606.13	-1182.50	-2471.99	40°26'17.959"N	104°21'45.845"W	0.83	
8406.00	90.250	266.120	6544.79	2699.80	-1187.03	-2565.88	40°26'17.926"N	104°21'47.059"W	2.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8501.00	89.940	263.820	6544.64	2794.70	-1195.36	-2660.51	40°26'17.855"N	104°21'48.284"W	2.44	
8595.00	89.660	264.960	6544.96	2888.64	-1204.55	-2754.05	40°26'17.776"N	104°21'49.496"W	1.25	
8690.00	89.750	268.290	6545.45	2983.37	-1210.14	-2848.87	40°26'17.733"N	104°21'50.723"W	3.51	
8784.00	90.000	267.160	6545.66	3076.97	-1213.87	-2942.80	40°26'17.708"N	104°21'51.938"W	1.23	
8879.00	89.480	265.010	6546.09	3171.77	-1220.36	-3037.57	40°26'17.656"N	104°21'53.165"W	2.33	
8974.00	89.570	266.380	6546.88	3266.61	-1227.49	-3132.30	40°26'17.598"N	104°21'54.391"W	1.45	
9068.00	89.480	267.710	6547.66	3360.30	-1232.33	-3226.17	40°26'17.562"N	104°21'55.606"W	1.42	
9162.00	89.540	268.580	6548.46	3453.83	-1235.38	-3320.11	40°26'17.543"N	104°21'56.821"W	0.93	
9257.00	89.720	270.660	6549.07	3548.08	-1236.01	-3415.10	40°26'17.549"N	104°21'58.049"W	2.20	
9351.00	89.630	270.750	6549.61	3641.10	-1234.85	-3509.09	40°26'17.572"N	104°21'59.265"W	0.14	
9445.00	89.820	270.710	6550.06	3734.12	-1233.65	-3603.09	40°26'17.596"N	104°22'00.480"W	0.21	
9540.00	90.680	269.840	6549.64	3828.23	-1233.20	-3698.08	40°26'17.613"N	104°22'01.708"W	1.29	
9634.00	89.850	267.920	6549.21	3921.63	-1235.03	-3792.06	40°26'17.606"N	104°22'02.924"W	2.23	
9729.00	89.750	267.240	6549.54	4016.24	-1239.04	-3886.97	40°26'17.579"N	104°22'04.152"W	0.72	
9823.00	89.750	267.890	6549.95	4109.87	-1243.04	-3980.89	40°26'17.551"N	104°22'05.367"W	0.69	
9918.00	89.690	268.310	6550.41	4204.40	-1246.19	-4075.83	40°26'17.532"N	104°22'06.595"W	0.45	
10012.00	89.600	269.150	6551.00	4297.83	-1248.27	-4169.81	40°26'17.523"N	104°22'07.811"W	0.90	
10201.00	89.510	268.920	6552.46	4485.57	-1251.45	-4358.77	40°26'17.516"N	104°22'10.255"W	0.13	
10295.00	89.880	269.470	6552.97	4578.92	-1252.77	-4452.76	40°26'17.514"N	104°22'11.471"W	0.71	
10389.00	89.690	270.650	6553.32	4672.08	-1252.68	-4546.76	40°26'17.527"N	104°22'12.686"W	1.27	
10484.00	89.910	269.460	6553.65	4766.24	-1252.58	-4641.76	40°26'17.540"N	104°22'13.915"W	1.27	
10578.00	89.780	266.910	6553.90	4859.76	-1255.56	-4735.70	40°26'17.522"N	104°22'15.130"W	2.72	
10673.00	89.780	266.080	6554.27	4954.52	-1261.37	-4830.52	40°26'17.477"N	104°22'16.357"W	0.87	
10767.00	89.540	267.860	6554.83	5048.22	-1266.34	-4924.39	40°26'17.440"N	104°22'17.572"W	1.91	
10862.00	89.450	269.020	6555.66	5142.70	-1268.92	-5019.35	40°26'17.426"N	104°22'18.800"W	1.22	
10956.00	89.780	268.450	6556.30	5236.13	-1271.00	-5113.32	40°26'17.417"N	104°22'20.016"W	0.70	
11051.00	90.120	267.710	6556.38	5330.67	-1274.18	-5208.27	40°26'17.398"N	104°22'21.244"W	0.86	
11145.00	89.720	267.660	6556.51	5424.27	-1277.98	-5302.19	40°26'17.372"N	104°22'22.459"W	0.43	
11240.00	89.780	268.360	6556.92	5518.82	-1281.28	-5397.13	40°26'17.352"N	104°22'23.688"W	0.74	
11334.00	89.750	270.410	6557.31	5612.13	-1282.29	-5491.12	40°26'17.353"N	104°22'24.903"W	2.18	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11429.00	89.880	271.110	6557.62	5706.12	-1281.03	-5586.11	40°26'17.378"N	104°22'26.131"W	0.75	
11524.00	89.850	270.470	6557.84	5800.11	-1279.72	-5681.10	40°26'17.403"N	104°22'27.360"W	0.67	
11618.00	89.820	272.170	6558.11	5892.98	-1277.55	-5775.07	40°26'17.436"N	104°22'28.574"W	1.81	
11713.00	89.880	274.820	6558.36	5986.21	-1271.76	-5869.89	40°26'17.505"N	104°22'29.800"W	2.79	
11807.00	89.780	272.660	6558.64	6078.38	-1265.63	-5963.68	40°26'17.577"N	104°22'31.012"W	2.30	
11902.00	90.400	269.590	6558.49	6172.28	-1263.76	-6058.65	40°26'17.608"N	104°22'32.239"W	3.30	
11996.00	91.380	265.320	6557.03	6265.88	-1267.94	-6152.52	40°26'17.578"N	104°22'33.454"W	4.66	
12091.00	89.970	260.480	6555.91	6360.84	-1279.67	-6246.76	40°26'17.474"N	104°22'34.674"W	5.31	
12186.00	89.940	259.750	6555.98	6455.77	-1295.98	-6340.35	40°26'17.324"N	104°22'35.887"W	0.77	
12280.00	89.780	262.110	6556.21	6549.73	-1310.80	-6433.16	40°26'17.190"N	104°22'37.090"W	2.52	
12374.00	89.880	266.040	6556.49	6643.67	-1320.50	-6526.64	40°26'17.106"N	104°22'38.301"W	4.18	
12469.00	89.970	269.610	6556.62	6738.23	-1324.11	-6621.56	40°26'17.082"N	104°22'39.529"W	3.76	
12564.00	89.880	267.840	6556.74	6832.66	-1326.22	-6716.53	40°26'17.073"N	104°22'40.757"W	1.87	
12658.00	89.970	267.230	6556.86	6926.29	-1330.26	-6810.44	40°26'17.045"N	104°22'41.972"W	0.66	
12753.00	89.910	270.100	6556.96	7020.72	-1332.48	-6905.41	40°26'17.035"N	104°22'43.201"W	3.02	
12847.00	89.750	273.230	6557.24	7113.49	-1329.75	-6999.36	40°26'17.073"N	104°22'44.415"W	3.33	
12942.00	89.750	273.310	6557.66	7206.79	-1324.33	-7094.20	40°26'17.139"N	104°22'45.641"W	0.08	
13036.00	89.910	273.270	6557.94	7299.11	-1318.93	-7188.04	40°26'17.204"N	104°22'46.853"W	0.18	
13130.00	89.910	270.110	6558.08	7391.88	-1316.16	-7281.99	40°26'17.243"N	104°22'48.068"W	3.36	
13225.00	89.970	266.200	6558.18	7486.38	-1319.22	-7376.92	40°26'17.224"N	104°22'49.296"W	4.12	
13320.00	89.880	264.990	6558.31	7581.24	-1326.51	-7471.64	40°26'17.164"N	104°22'50.522"W	1.28	
13508.00	89.850	262.690	6558.75	7769.17	-1346.69	-7658.54	40°26'16.988"N	104°22'52.942"W	1.22	
13603.00	89.320	263.750	6559.44	7864.16	-1357.90	-7752.87	40°26'16.889"N	104°22'54.164"W	1.25	
13697.00	89.200	264.620	6560.65	7958.10	-1367.42	-7846.38	40°26'16.807"N	104°22'55.375"W	0.93	
13792.00	89.450	266.100	6561.77	8052.97	-1375.11	-7941.06	40°26'16.742"N	104°22'56.600"W	1.58	
13886.00	89.420	268.540	6562.70	8146.62	-1379.50	-8034.95	40°26'16.711"N	104°22'57.815"W	2.60	
13981.00	89.850	271.190	6563.30	8240.81	-1379.73	-8129.94	40°26'16.720"N	104°22'59.043"W	2.83	
14075.00	89.780	271.780	6563.61	8333.64	-1377.29	-8223.90	40°26'16.756"N	104°23'00.258"W	0.63	
14170.00	89.850	271.120	6563.91	8427.46	-1374.89	-8318.87	40°26'16.792"N	104°23'01.486"W	0.70	
14265.00	89.690	270.500	6564.30	8521.45	-1373.54	-8413.86	40°26'16.817"N	104°23'02.714"W	0.67	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (179 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14359.00	89.940	267.760	6564.60	8614.80	-1374.97	-8507.84	40°26'16.814"N	104°23'03.930"W	2.93	
14454.00	89.850	266.960	6564.77	8709.45	-1379.35	-8602.74	40°26'16.783"N	104°23'05.157"W	0.85	
14548.00	89.750	269.910	6565.10	8802.92	-1381.91	-8696.69	40°26'16.769"N	104°23'06.373"W	3.14	
14643.00	89.660	265.140	6565.59	8897.52	-1386.02	-8791.58	40°26'16.741"N	104°23'07.601"W	5.02	
14737.00	89.660	261.100	6566.15	8991.49	-1397.27	-8884.88	40°26'16.641"N	104°23'08.809"W	4.30	
14926.00	89.720	256.610	6567.17	9180.07	-1433.80	-9070.26	40°26'16.303"N	104°23'11.212"W	2.38	
15020.00	89.010	259.740	6568.21	9273.79	-1453.05	-9162.25	40°26'16.124"N	104°23'12.405"W	3.41	
15115.00	89.690	271.890	6569.30	9368.44	-1459.97	-9256.81	40°26'16.067"N	104°23'13.629"W	12.81	
15209.00	89.780	277.830	6569.73	9460.20	-1452.01	-9350.43	40°26'16.158"N	104°23'14.838"W	6.32	
15303.00	89.970	279.960	6569.94	9550.34	-1437.48	-9443.30	40°26'16.313"N	104°23'16.037"W	2.27	
15398.00	89.850	279.020	6570.09	9641.17	-1421.82	-9537.00	40°26'16.479"N	104°23'17.246"W	1.00	
15493.00	89.780	270.490	6570.39	9733.89	-1413.95	-9631.58	40°26'16.569"N	104°23'18.468"W	8.98	
15587.00	89.690	263.810	6570.83	9827.52	-1418.62	-9725.41	40°26'16.534"N	104°23'19.682"W	7.11	
15682.00	89.600	260.460	6571.42	9922.50	-1431.62	-9819.50	40°26'16.417"N	104°23'20.901"W	3.53	
15776.00	89.540	258.110	6572.12	10016.35	-1449.09	-9911.85	40°26'16.256"N	104°23'22.098"W	2.50	
15871.00	89.720	258.000	6572.74	10111.07	-1468.75	-10004.79	40°26'16.073"N	104°23'23.303"W	0.22	
15966.00	89.720	259.770	6573.20	10205.89	-1487.07	-10098.01	40°26'15.904"N	104°23'24.511"W	1.86	
16060.00	90.030	264.790	6573.41	10299.86	-1499.69	-10191.13	40°26'15.791"N	104°23'25.717"W	5.35	
16154.00	90.030	267.750	6573.36	10393.63	-1505.81	-10284.92	40°26'15.742"N	104°23'26.931"W	3.15	
16249.00	90.150	271.530	6573.21	10487.87	-1506.40	-10379.90	40°26'15.748"N	104°23'28.160"W	3.98	
16343.00	89.880	278.050	6573.18	10579.64	-1498.56	-10473.52	40°26'15.837"N	104°23'29.369"W	6.94	
16438.00	90.150	271.030	6573.16	10672.47	-1491.04	-10568.16	40°26'15.923"N	104°23'30.592"W	7.39	
16532.00	89.910	263.540	6573.11	10766.07	-1495.49	-10661.99	40°26'15.890"N	104°23'31.806"W	7.97	
16627.00	90.150	269.340	6573.06	10860.80	-1501.39	-10756.76	40°26'15.844"N	104°23'33.032"W	6.11	
16721.00	89.940	272.960	6572.98	10953.70	-1499.50	-10850.73	40°26'15.874"N	104°23'34.247"W	3.86	
16816.00	90.490	270.790	6572.63	11047.40	-1496.39	-10945.67	40°26'15.916"N	104°23'35.474"W	2.36	
16910.00	90.220	270.130	6572.05	11140.48	-1495.64	-11039.67	40°26'15.936"N	104°23'36.690"W	0.76	
16976.00	90.090	269.340	6571.87	11205.94	-1495.94	-11105.66	40°26'15.941"N	104°23'37.543"W	1.21	Last BHI MWD Surveys
17000.00	90.090	269.340	6571.83	11229.77	-1496.22	-11129.66	40°26'15.941"N	104°23'37.854"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	
WELLS RANCH STATE AA36-622 SEC.31-T06N-R62W	0.00	0.00	0.00	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon	
WELLS RANCH STATE AA36-622 SEC.32-T06N-R62W	0.00	0.00	0.00	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon	
WELLS RANCH STATE AA36-622 SEC.35-T06N-R63W	0.00	0.00	0.00	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon	
WELLS RANCH STATE AA36-622 SEC.36-T06N-R63W	0.00	0.00	0.00	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon	
WELLS RANCH STATE AA36-622 REV-2 Landing	6542.00	-1102.45	-439.90	3318584.48	1404630.95	40°26'18.491"N	104°21'19.553"W	point	
WELLS RANCH STATE AA36-622 TPZ	6542.00	-1102.24	-433.72	3318590.66	1404631.16	40°26'18.492"N	104°21'19.473"W	point	
WELLS RANCH STATE AA36-622 REV-3 Landing	6543.67	-1127.85	-1262.09	3317762.32	1404605.55	40°26'18.345"N	104°21'30.189"W	point	
WELLS RANCH STATE AA36-622 REV-4 BHL From Plan (800'FSL & 400'FWL, SEC.36)	6572.53	-1472.64	-10981.12	3308043.68	1404260.78	40°26'16.156"N	104°23'35.929"W	point	
WELLS RANCH STATE AA36-622 REV-5 BHL From Plan (800'FSL & 250'FWL, SEC.36)	6572.97	-1478.00	-11131.12	3307893.68	1404255.42	40°26'16.121"N	104°23'37.869"W	point	
WELLS RANCH STATE AA36-622 REV-2 BHL ON PLAT (800'FSL & 491'FEL, SEC.35)	6574.89	-1483.28	-11871.05	3307153.78	1404250.14	40°26'16.160"N	104°23'47.439"W	point	
WELLS RANCH STATE AA36-622 REV-3 BHL ON PLAT (802'FSL & 468'FEL, SEC.35)	6574.89	-1481.50	-11848.00	3307176.83	1404251.92	40°26'16.175"N	104°23'47.140"W	point	
WELLS RANCH STATE AA36-622 BHL ON PLAT (800'FSL & 530'FEL, SEC.35)	6575.00	-1484.57	-11909.79	3307115.04	1404248.84	40°26'16.152"N	104°23'47.940"W	point	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH STATE AA36-622 AWB Ref Wellpath: WELLS RANCH STATE AA36-622 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1921.00	Gyrodata standard - Drop gyro or Multi-shot	3rd Party Surface Gyros Gyrodata standard <84'-1921'>	WELLS RANCH STATE AA36-622 AWB
1921.00	16976.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2 +IFR+MSA <1977'-16976'>	WELLS RANCH STATE AA36-622 AWB
16976.00	17000.00	Blind Drilling (std)	Projection to bit	WELLS RANCH STATE AA36-622 AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH STATE AA36-622 (2009'FSL & 817'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-622
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-622 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1921.00	0.720	274.560	1920.97	Tie to Surface
16976.00	90.090	269.340	6571.87	Last BHI MWD Surveys
17000.00	90.090	269.340	6571.83	Projection to Bit