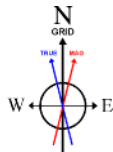


NOBLE ENERGY, INC

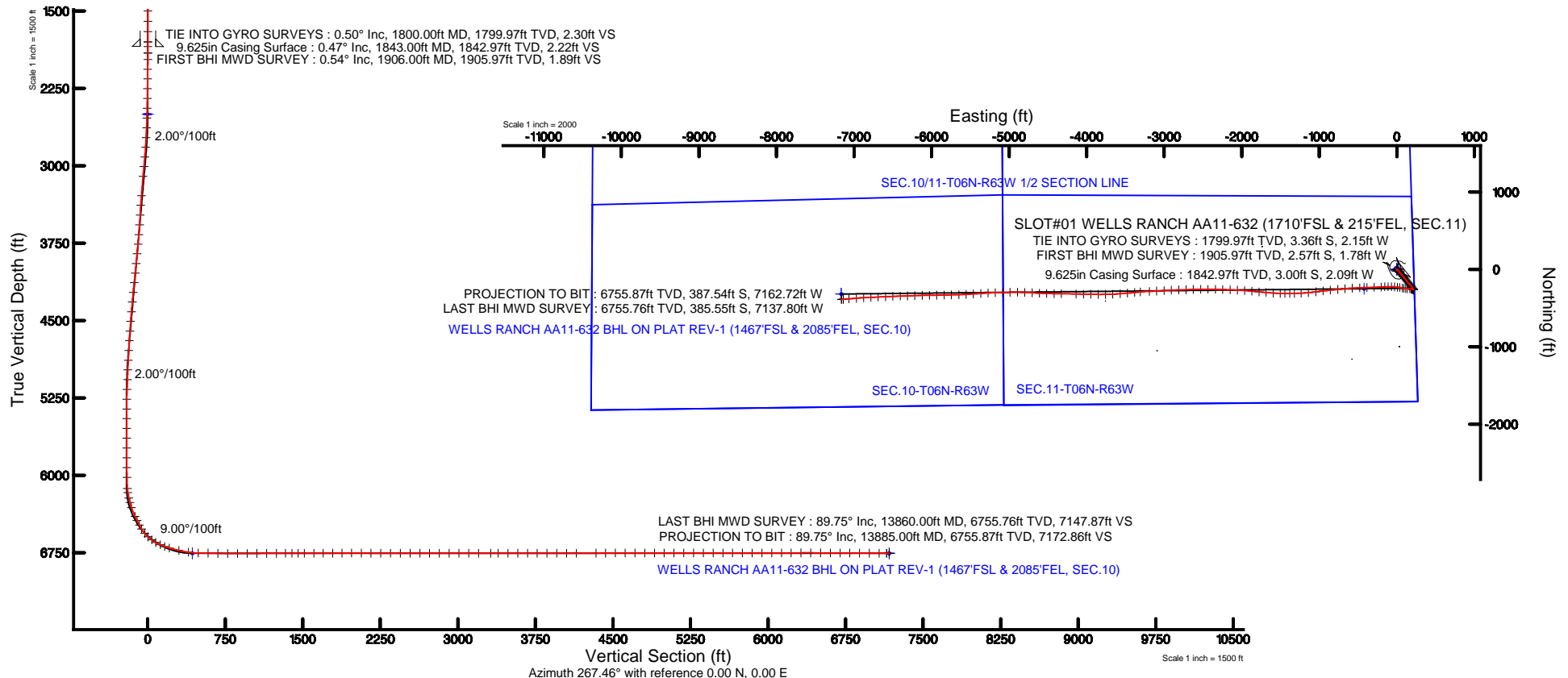
Location: COLORADO Slot: SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: WELLS RANCH AA11-632
 Facility: SEC.11-T06N-R63W Wellbore: WELLS RANCH AA11-632 PWB

Plot reference wellpath is WELLS RANCH AA11-632 (REV-A.1) PWP	
True vertical depths are referenced to H&P 326 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (601), US feet
Measured depths are referenced to H&P 326 (RKB)	North Reference: Grid north
H&P 326 (RKB) to Mean Sea Level: 4884 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: adamkat on 8/11/2015



BGGM (1945.0 to 2017.0) Dip: 67.12° Field: 52729.7 nT
 Magnetic North is 8.36 degrees East of True North (at 6/5/2015)
 Grid North is 0.71 degrees East of True North
 To correct azimuth from True to Grid subtract 0.71 degrees
 To correct azimuth from Magnetic to Grid add 7.65 degrees

05-123-41256



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	Grid	User	Adamkat
Scale	0.999966	Report Generated	8/11/2015 at 2:54:40 PM
Convergence at slot	0.71° East	Database/Source file	WA_Denver/WELLS_RANCH_AA11-632_AWB.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	3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"W
Facility Reference Pt			3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"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 326 (RKB) to Facility Vertical Datum	4884.00ft
Horizontal Reference Pt	Slot	H&P 326 (RKB) to Mean Sea Level	4884.00ft
Vertical Reference Pt	H&P 326 (RKB)	H&P 326 (RKB) to Mud Line at Slot (SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11))	4884.00ft
MD Reference Pt	H&P 326 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	267.46°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1800.00	0.502	358.897	1799.97	2.30	-3.36	-2.15	40°29'54.711"N	104°23'42.352"W	0.59	TIE INTO GYRO SURVEYS
1906.00	0.540	50.040	1905.97	1.89	-2.57	-1.78	40°29'54.719"N	104°23'42.347"W	0.43	FIRST BHI MWD SURVEY
1969.00	0.570	65.340	1968.97	1.36	-2.25	-1.26	40°29'54.722"N	104°23'42.341"W	0.24	
2064.00	0.620	77.120	2063.96	0.42	-1.94	-0.33	40°29'54.725"N	104°23'42.329"W	0.14	
2158.00	0.770	80.970	2157.96	-0.71	-1.73	0.79	40°29'54.727"N	104°23'42.314"W	0.17	
2253.00	0.970	88.130	2252.95	-2.15	-1.60	2.22	40°29'54.728"N	104°23'42.296"W	0.24	
2348.00	0.910	87.830	2347.93	-3.70	-1.55	3.78	40°29'54.728"N	104°23'42.275"W	0.06	
2443.00	1.010	92.850	2442.92	-5.29	-1.56	5.37	40°29'54.728"N	104°23'42.255"W	0.14	
2537.00	2.420	134.970	2536.88	-7.46	-3.00	7.60	40°29'54.713"N	104°23'42.226"W	1.92	
2632.00	3.840	138.450	2631.73	-10.82	-6.80	11.13	40°29'54.675"N	104°23'42.181"W	1.51	
2727.00	5.370	146.240	2726.42	-15.12	-12.88	15.71	40°29'54.615"N	104°23'42.123"W	1.74	
2821.00	6.870	138.790	2819.89	-20.92	-20.76	21.86	40°29'54.536"N	104°23'42.044"W	1.80	
2916.00	7.920	140.110	2914.10	-28.44	-30.06	29.80	40°29'54.443"N	104°23'41.943"W	1.12	
3010.00	7.760	138.280	3007.22	-36.37	-39.77	38.17	40°29'54.346"N	104°23'41.836"W	0.32	
3105.00	7.930	139.020	3101.33	-44.50	-49.50	46.74	40°29'54.249"N	104°23'41.727"W	0.21	
3295.00	7.090	137.740	3289.70	-60.14	-68.07	63.22	40°29'54.064"N	104°23'41.517"W	0.45	
3389.00	6.340	139.660	3383.05	-67.03	-76.32	70.48	40°29'53.981"N	104°23'41.424"W	0.83	
3484.00	5.120	139.720	3477.58	-72.84	-83.56	76.62	40°29'53.909"N	104°23'41.346"W	1.28	
3579.00	6.350	134.260	3572.10	-79.03	-90.46	83.12	40°29'53.840"N	104°23'41.263"W	1.41	
3674.00	7.290	143.260	3666.43	-86.02	-98.95	90.49	40°29'53.755"N	104°23'41.169"W	1.50	
3768.00	8.890	142.300	3759.49	-93.55	-109.48	98.50	40°29'53.650"N	104°23'41.067"W	1.71	
3863.00	9.750	142.820	3853.24	-102.35	-121.70	107.85	40°29'53.528"N	104°23'40.948"W	0.91	
3958.00	10.130	143.590	3946.81	-111.58	-134.83	117.67	40°29'53.397"N	104°23'40.823"W	0.42	
4053.00	10.410	143.620	4040.29	-121.02	-148.46	127.72	40°29'53.261"N	104°23'40.695"W	0.29	
4147.00	10.120	143.200	4132.78	-130.39	-161.91	137.70	40°29'53.127"N	104°23'40.568"W	0.32	
4242.00	9.230	139.880	4226.43	-139.74	-174.42	147.61	40°29'53.002"N	104°23'40.442"W	1.11	
4337.00	8.060	137.860	4320.35	-148.63	-185.19	156.99	40°29'52.895"N	104°23'40.322"W	1.27	
4432.00	7.070	135.730	4414.52	-156.77	-194.31	165.54	40°29'52.804"N	104°23'40.213"W	1.08	
4527.00	6.640	135.210	4508.84	-164.35	-202.40	173.49	40°29'52.723"N	104°23'40.111"W	0.46	
4621.00	6.600	139.540	4602.22	-171.33	-210.37	180.83	40°29'52.643"N	104°23'40.017"W	0.53	
4716.00	6.410	145.180	4696.61	-177.51	-218.87	187.40	40°29'52.558"N	104°23'39.934"W	0.70	
4811.00	6.330	147.180	4791.02	-182.99	-227.63	193.26	40°29'52.471"N	104°23'39.859"W	0.25	
4905.00	6.380	148.760	4884.44	-188.11	-236.45	198.78	40°29'52.383"N	104°23'39.789"W	0.19	
5000.00	4.630	150.120	4979.00	-192.40	-244.29	203.43	40°29'52.305"N	104°23'39.730"W	1.85	
5095.00	4.560	150.400	5073.69	-195.88	-250.89	207.20	40°29'52.239"N	104°23'39.683"W	0.08	
5189.00	3.270	137.210	5167.48	-199.32	-256.11	210.87	40°29'52.187"N	104°23'39.636"W	1.67	
5284.00	1.700	123.050	5262.38	-202.21	-258.87	213.89	40°29'52.160"N	104°23'39.597"W	1.76	
5379.00	0.130	333.880	5357.37	-203.32	-259.54	215.03	40°29'52.153"N	104°23'39.583"W	1.91	
5473.00	0.330	318.770	5451.37	-203.10	-259.24	214.80	40°29'52.156"N	104°23'39.586"W	0.22	
5568.00	0.090	259.050	5546.37	-202.86	-259.05	214.55	40°29'52.158"N	104°23'39.589"W	0.31	
5663.00	0.130	137.620	5641.37	-202.85	-259.14	214.55	40°29'52.157"N	104°23'39.589"W	0.20	
5758.00	0.310	173.550	5736.37	-202.94	-259.48	214.65	40°29'52.154"N	104°23'39.588"W	0.23	
5852.00	0.330	156.710	5830.37	-203.05	-259.98	214.79	40°29'52.149"N	104°23'39.586"W	0.10	
5947.00	1.090	275.230	5925.36	-202.26	-260.15	213.99	40°29'52.147"N	104°23'39.596"W	1.35	
6042.00	0.720	269.740	6020.35	-200.76	-260.07	212.50	40°29'52.148"N	104°23'39.616"W	0.40	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6149.00	4.000	278.520	6127.24	-196.43	-259.52	208.13	40°29'52.154"N	104°23'39.672"W	3.08	
6190.00	7.900	286.100	6168.02	-192.35	-258.52	204.01	40°29'52.164"N	104°23'39.725"W	9.68	
6244.00	12.660	286.830	6221.13	-183.25	-255.78	194.77	40°29'52.193"N	104°23'39.844"W	8.82	
6289.00	16.090	280.480	6264.72	-172.52	-253.22	183.92	40°29'52.219"N	104°23'39.984"W	8.38	
6339.00	19.400	273.710	6312.34	-157.51	-251.42	168.81	40°29'52.239"N	104°23'40.180"W	7.79	
6433.00	24.430	273.510	6399.52	-122.64	-249.22	133.81	40°29'52.265"N	104°23'40.632"W	5.35	
6477.00	26.280	277.290	6439.28	-103.99	-247.42	115.06	40°29'52.285"N	104°23'40.875"W	5.58	
6528.00	29.730	280.350	6484.31	-80.53	-243.72	91.42	40°29'52.325"N	104°23'41.180"W	7.33	
6570.00	33.100	280.040	6520.15	-59.18	-239.85	69.87	40°29'52.366"N	104°23'41.458"W	8.03	
6623.00	39.600	279.180	6562.81	-28.48	-234.62	38.91	40°29'52.421"N	104°23'41.858"W	12.30	
6670.00	46.660	277.620	6597.09	3.05	-229.96	7.14	40°29'52.471"N	104°23'42.269"W	15.19	
6717.00	54.190	275.480	6627.01	38.80	-225.87	-28.82	40°29'52.516"N	104°23'42.733"W	16.40	
6764.00	60.460	271.940	6652.38	78.10	-223.35	-68.27	40°29'52.546"N	104°23'43.244"W	14.77	
6812.00	65.710	268.750	6674.11	120.83	-223.12	-111.05	40°29'52.553"N	104°23'43.797"W	12.44	
6859.00	70.850	266.790	6691.49	164.47	-224.84	-154.66	40°29'52.542"N	104°23'44.362"W	11.60	
6907.00	74.700	266.920	6705.71	210.31	-227.35	-200.43	40°29'52.522"N	104°23'44.955"W	8.03	
7002.00	76.990	268.070	6728.94	302.42	-231.37	-292.45	40°29'52.494"N	104°23'46.147"W	2.68	
7096.00	81.290	267.920	6746.64	394.71	-234.60	-384.69	40°29'52.473"N	104°23'47.341"W	4.58	
7191.00	89.480	268.220	6754.28	489.31	-237.79	-479.25	40°29'52.453"N	104°23'48.565"W	8.63	
7286.00	89.350	266.600	6755.25	584.31	-242.08	-574.14	40°29'52.423"N	104°23'49.794"W	1.71	
7380.00	88.340	264.550	6757.15	678.23	-249.33	-667.84	40°29'52.363"N	104°23'51.008"W	2.43	
7475.00	90.120	264.010	6758.42	773.07	-258.80	-762.35	40°29'52.281"N	104°23'52.233"W	1.96	
7570.00	90.120	264.660	6758.22	867.93	-268.17	-856.89	40°29'52.200"N	104°23'53.458"W	0.68	
7665.00	90.150	263.790	6758.00	962.78	-277.73	-951.40	40°29'52.117"N	104°23'54.683"W	0.92	
7759.00	90.280	261.860	6757.65	1056.46	-289.47	-1044.66	40°29'52.012"N	104°23'55.892"W	2.06	
7854.00	90.180	265.060	6757.26	1151.22	-300.29	-1139.03	40°29'51.917"N	104°23'57.115"W	3.37	
7949.00	89.970	267.160	6757.14	1246.19	-306.74	-1233.81	40°29'51.865"N	104°23'58.343"W	2.22	
8035.00	90.150	268.920	6757.05	1332.18	-309.68	-1319.75	40°29'51.846"N	104°23'59.456"W	2.06	
8097.00	90.060	269.270	6756.94	1394.15	-310.66	-1381.74	40°29'51.844"N	104°24'00.258"W	0.58	
8158.00	90.150	270.240	6756.82	1455.10	-310.92	-1442.74	40°29'51.849"N	104°24'01.048"W	1.60	
8218.00	90.000	271.480	6756.75	1515.00	-310.02	-1502.74	40°29'51.865"N	104°24'01.824"W	2.08	
8310.00	90.150	274.020	6756.63	1606.60	-305.60	-1594.62	40°29'51.920"N	104°24'03.013"W	2.77	
8402.00	90.680	275.110	6755.96	1697.89	-298.28	-1686.33	40°29'52.004"N	104°24'04.198"W	1.32	
8494.00	90.430	275.320	6755.07	1789.04	-289.92	-1777.94	40°29'52.098"N	104°24'05.383"W	0.35	
8586.00	90.030	275.740	6754.70	1880.13	-281.05	-1869.51	40°29'52.196"N	104°24'06.567"W	0.63	
8678.00	90.120	274.190	6754.58	1971.34	-273.09	-1961.16	40°29'52.286"N	104°24'07.752"W	1.69	
8773.00	89.690	272.510	6754.74	2065.83	-267.54	-2056.00	40°29'52.353"N	104°24'08.978"W	1.83	
8867.00	89.820	271.920	6755.14	2159.51	-263.91	-2149.93	40°29'52.400"N	104°24'10.193"W	0.64	
8962.00	89.940	272.140	6755.34	2254.21	-260.54	-2244.87	40°29'52.445"N	104°24'11.422"W	0.26	
9057.00	89.940	270.930	6755.44	2348.96	-258.00	-2339.83	40°29'52.482"N	104°24'12.650"W	1.27	
9151.00	89.720	270.740	6755.72	2442.80	-256.63	-2433.82	40°29'52.507"N	104°24'13.867"W	0.31	
9246.00	89.880	269.320	6756.05	2537.70	-256.58	-2528.82	40°29'52.519"N	104°24'15.096"W	1.50	
9341.00	90.000	267.610	6756.15	2632.68	-259.12	-2623.78	40°29'52.505"N	104°24'16.326"W	1.80	
9435.00	89.970	268.030	6756.17	2726.68	-262.70	-2717.71	40°29'52.481"N	104°24'17.542"W	0.45	
9530.00	89.940	269.160	6756.25	2821.66	-265.03	-2812.68	40°29'52.470"N	104°24'18.772"W	1.19	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

WELLPATH DATA (136 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9625.00	89.970	267.260	6756.32	2916.65	-267.99	-2907.63	40°29'52.452"N	104°24'20.001"W	2.00	
9719.00	90.030	266.510	6756.32	3010.64	-273.10	-3001.49	40°29'52.413"N	104°24'21.217"W	0.80	
9814.00	89.970	265.650	6756.32	3105.62	-279.60	-3096.27	40°29'52.361"N	104°24'22.444"W	0.91	
9909.00	90.060	269.030	6756.30	3200.60	-284.01	-3191.15	40°29'52.329"N	104°24'23.673"W	3.56	
10027.00	90.030	264.740	6756.20	3318.57	-290.42	-3308.95	40°29'52.280"N	104°24'25.199"W	3.64	
10098.00	90.120	264.420	6756.11	3389.48	-297.12	-3379.63	40°29'52.222"N	104°24'26.115"W	0.47	
10193.00	90.000	264.880	6756.01	3484.36	-305.98	-3474.22	40°29'52.146"N	104°24'27.341"W	0.50	
10287.00	90.000	264.870	6756.01	3578.27	-314.38	-3567.84	40°29'52.074"N	104°24'28.554"W	0.01	
10382.00	89.940	268.330	6756.06	3673.24	-320.01	-3662.66	40°29'52.030"N	104°24'29.782"W	3.64	
10476.00	90.090	269.110	6756.04	3767.22	-322.11	-3756.64	40°29'52.021"N	104°24'30.999"W	0.84	
10571.00	90.060	270.410	6755.91	3862.14	-322.51	-3851.63	40°29'52.029"N	104°24'32.228"W	1.37	
10666.00	90.090	270.490	6755.79	3957.01	-321.76	-3946.63	40°29'52.048"N	104°24'33.458"W	0.09	
10760.00	89.780	271.610	6755.89	4050.82	-320.04	-4040.61	40°29'52.076"N	104°24'34.674"W	1.24	
10855.00	90.280	271.490	6755.84	4145.58	-317.47	-4135.58	40°29'52.113"N	104°24'35.902"W	0.54	
11045.00	90.180	269.980	6755.08	4335.27	-315.03	-4325.55	40°29'52.160"N	104°24'38.361"W	0.80	
11139.00	90.250	271.930	6754.73	4429.09	-313.47	-4419.54	40°29'52.187"N	104°24'39.577"W	2.08	
11234.00	90.250	271.180	6754.31	4523.84	-310.89	-4514.50	40°29'52.224"N	104°24'40.806"W	0.79	
11329.00	90.250	272.790	6753.90	4618.54	-307.60	-4609.44	40°29'52.268"N	104°24'42.034"W	1.69	
11423.00	90.250	273.830	6753.49	4712.05	-302.17	-4703.28	40°29'52.333"N	104°24'43.248"W	1.11	
11518.00	90.000	272.360	6753.28	4806.59	-297.04	-4798.14	40°29'52.395"N	104°24'44.475"W	1.57	
11613.00	90.090	270.080	6753.21	4901.38	-295.02	-4893.11	40°29'52.427"N	104°24'45.704"W	2.40	
11707.00	90.030	269.110	6753.11	4995.31	-295.68	-4987.11	40°29'52.431"N	104°24'46.920"W	1.03	
11802.00	90.030	269.030	6753.06	5090.27	-297.22	-5082.09	40°29'52.428"N	104°24'48.150"W	0.08	
11897.00	89.970	267.750	6753.06	5185.26	-299.89	-5177.05	40°29'52.413"N	104°24'49.380"W	1.35	
11991.00	89.970	266.920	6753.11	5279.26	-304.26	-5270.95	40°29'52.381"N	104°24'50.596"W	0.88	
12086.00	89.880	265.880	6753.23	5374.24	-310.23	-5365.76	40°29'52.334"N	104°24'51.824"W	1.10	
12180.00	89.940	266.110	6753.38	5468.21	-316.79	-5459.53	40°29'52.280"N	104°24'53.039"W	0.25	
12275.00	89.970	267.170	6753.45	5563.20	-322.36	-5554.37	40°29'52.237"N	104°24'54.267"W	1.12	
12369.00	90.000	267.750	6753.48	5657.20	-326.53	-5648.28	40°29'52.207"N	104°24'55.483"W	0.62	
12464.00	90.060	269.200	6753.43	5752.18	-329.06	-5743.24	40°29'52.193"N	104°24'56.713"W	1.53	
12558.00	89.940	268.910	6753.43	5846.14	-330.61	-5837.23	40°29'52.189"N	104°24'57.929"W	0.33	
12653.00	90.060	268.790	6753.43	5941.11	-332.51	-5932.21	40°29'52.182"N	104°24'59.159"W	0.18	
12747.00	90.090	269.660	6753.31	6035.07	-333.79	-6026.20	40°29'52.181"N	104°25'00.376"W	0.93	
12842.00	90.120	268.060	6753.13	6130.04	-335.68	-6121.18	40°29'52.173"N	104°25'01.605"W	1.68	
12936.00	90.180	267.960	6752.89	6224.03	-338.94	-6215.12	40°29'52.153"N	104°25'02.822"W	0.12	
13031.00	90.280	268.080	6752.50	6319.03	-342.22	-6310.06	40°29'52.132"N	104°25'04.051"W	0.16	
13125.00	89.850	268.270	6752.40	6413.02	-345.22	-6404.01	40°29'52.113"N	104°25'05.268"W	0.50	
13220.00	89.720	267.630	6752.75	6508.02	-348.61	-6498.95	40°29'52.091"N	104°25'06.497"W	0.69	
13314.00	89.720	267.410	6753.21	6602.01	-352.68	-6592.86	40°29'52.062"N	104°25'07.713"W	0.23	
13409.00	89.720	267.480	6753.68	6697.01	-356.92	-6687.77	40°29'52.032"N	104°25'08.942"W	0.07	
13503.00	89.660	267.340	6754.19	6791.01	-361.16	-6781.67	40°29'52.001"N	104°25'10.158"W	0.16	
13597.00	89.780	266.980	6754.65	6885.01	-365.82	-6875.55	40°29'51.966"N	104°25'11.374"W	0.40	
13692.00	89.780	265.440	6755.01	6979.98	-372.10	-6970.34	40°29'51.916"N	104°25'12.602"W	1.62	
13787.00	89.720	265.380	6755.43	7074.92	-379.70	-7065.04	40°29'51.852"N	104°25'13.829"W	0.09	
13860.00	89.750	265.430	6755.76	7147.87	-385.55	-7137.80	40°29'51.803"N	104°25'14.771"W	0.08	LAST BHI MWD SURVEY

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

WELLPATH DATA (136 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13885.00	89.750	265.430	6755.87	7172.86	-387.54	-7162.72	40°29'51.786"N	104°25'15.094"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: WELLS RANCH AA11-632 AWB Ref Wellpath: WELLS RANCH AA11-632 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]	
9.625in Casing Surface	30.00	1843.00	1813.00	30.00	1842.97	0.01	-0.03	-3.00	-2.09	
8.75in Open Hole	1853.00	13885.00	12032.00	1852.97	6755.87	-2.93	-2.06	-387.54	-7162.72	

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.10-T06N-R63W	0.00	0.00	0.00	3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"W	polygon
SEC.10/11-T06N-R63W 1/2 SECTION LINE	0.00	0.00	0.00	3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"W	polygon
SEC.11-T06N-R63W	0.00	0.00	0.00	3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"W	polygon
WELLS RANCH AA11-632 KOP TARGET: 35' RADIUS	2500.00	0.00	0.00	3307273.63	1426372.99	40°29'54.744"N	104°23'42.324"W	circle
WELLS RANCH AA11-632 BHL ON PLAT REV-1 (1467'FSL & 2085'FEL, SEC.10)	6757.00	-317.76	-7163.70	3300110.18	1426055.24	40°29'52.476"N	104°25'15.096"W	point
WELLS RANCH AA11-632 DRILLING CORRIDOR	6757.00	-317.76	-7163.70	3300110.18	1426055.24	40°29'52.476"N	104°25'15.096"W	polygon
WELLS RANCH AA11-632 LANDING POINT (1460'FSL & 636'FEL, SEC.11)	6757.00	-249.45	-421.59	3306852.05	1426123.55	40°29'52.331"N	104°23'47.821"W	point

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH AA11-632 AWB Ref Wellpath: WELLS RANCH AA11-632 AWP										
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment				Wellbore			
0.00	1800.00	Generic gyro - continuous (Standard)	GYRO SURVEYS 13 1/2" HOLE <100 - 1800>				WELLS RANCH AA11-632 AWB			
1800.00	13860.00	NaviTrak (Magcorr, IFR)	BHI MWD NAVI (MAGCORR, IFR) CORRECTED SURVEYS <1800 - 13860>				WELLS RANCH AA11-632 AWB			
13860.00	13885.00	Blind Drilling (std)	Projection to bit				WELLS RANCH AA11-632 AWB			

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 WELLS RANCH AA11-632 (1710'FSL & 215'FEL, SEC.11)
Area	COLORADO	Well	WELLS RANCH AA11-632
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH AA11-632 AWB
Facility	SEC.11-T06N-R63W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1800.00	0.502	358.897	1799.97	TIE INTO GYRO SURVEYS
1906.00	0.540	50.040	1905.97	FIRST BHI MWD SURVEY
13860.00	89.750	265.430	6755.76	LAST BHI MWD SURVEY
13885.00	89.750	265.430	6755.87	PROJECTION TO BIT