

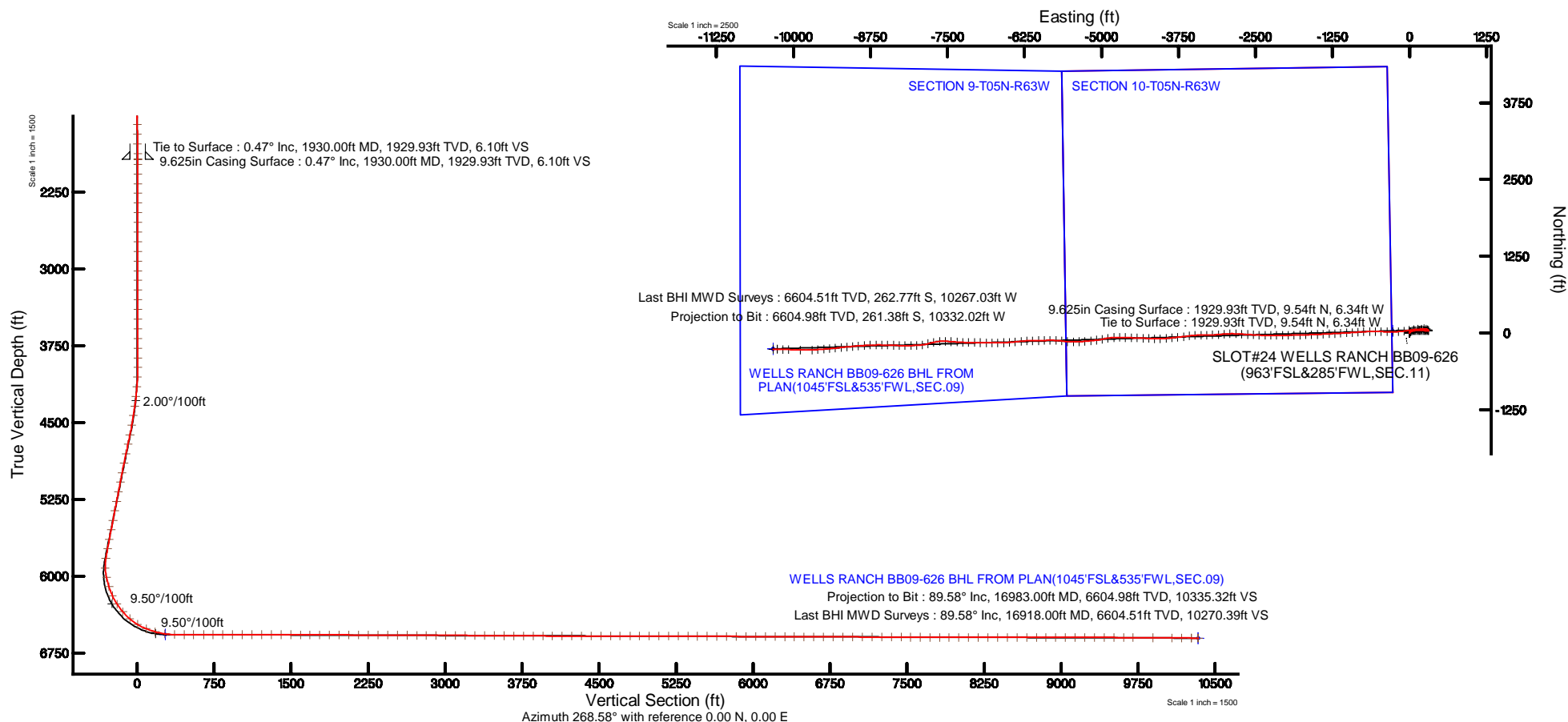
# NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#24 WELLS RANCH BB09-626(963FSL&285FWL,SEC.11)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: WELLS RANCH BB09-626  
Facility: SEC.11-T05N-R63W Wellbore: WELLS RANCH BB09-626 PWB



Plot reference wellbore is WELLS RANCH BB09-626 (REV C-0) PWB	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (2011), US Feet
True vertical depths are referenced to RIG (2078) (RWB)	" = Wellbore was transformed from a different geoidic datum
Measured depths are referenced to RIG (2078) (RWB)	North Reference: Grid north
RIG (2078) (RWB) to Mean Sea Level: 4708 feet	Scale: True distance
Mean Sea Level to Ground level (JA Slot: SLOT#24 WELLS RANCH BB09-626(963FSL&285FWL,SEC.11): 0 feet	Depth: are in feet
Coordinates are in feet referenced to Slot	Created by: gameter on 2018-10-12
	Database: WA_DEN_Denver_Data

Location Information						
Facility Name	Grid East (U.S. Feet)		Grid North (U.S. Feet)		Latitude	Longitude
SEC.11-T05N-R63W	200800.400		100800.400		40°14'31.718"N	104°34'45.380"W
Site	Local N (Feet)	Local E (Feet)	Grid East (U.S. Feet)		Grid North (U.S. Feet)	Latitude
SLOT#24 WELLS RANCH BB09-626(963FSL&285FWL,SEC.11)	None	48.11	200800.401		100800.401	40°14'31.718"N
RIG (2078) (RWB) to Ground level (JA Slot: SLOT#24 WELLS RANCH BB09-626(963FSL&285FWL,SEC.11)						4708
Mean Sea Level to Ground level (JA Slot: SLOT#24 WELLS RANCH BB09-626(963FSL&285FWL,SEC.11)						0
RIG (2078) (RWB) to Mean Sea Level						4708
Survey Program						
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore	
30.00	17032.73	OWSS MWD rev2	OWSS MWD rev2 + IFR + Multi-Station Correction		WELLS RANCH BB09-626 PWB	



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 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	Guenaler
Scale	0.999961	Report Generated	10/12/2018 at 3:34:09 PM
Convergence at slot	0.71° East	Database/Source file	WA_DEN_Denver_Defn/WELLS_RANCH_BB09-626_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	164.54	48.11	3302850.54	1393790.99	40°24'33.336"N	104°24'44.748"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	RIG (30'KB) (RKB) to Facility Vertical Datum	4706.00ft
Horizontal Reference Pt	Slot	RIG (30'KB) (RKB) to Mean Sea Level	4706.00ft
Vertical Reference Pt	RIG (30'KB) (RKB)	RIG (30'KB) (RKB) to Ground Level at Slot (SLOT#24 WELLS RANCH BB09-626 (963'FSL&285'FWL,SEC.11))	4706.00ft
MD Reference Pt	RIG (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	268.58°



Actual Wellpath Report

WELLS RANCH BB09-626 AWP



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Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	335.610	0.00	0.00	0.00	0.00	40°24'33.336"N	104°24'44.748"W	0.00	
76.00	0.280	335.610	76.00	0.07	0.17	-0.08	40°24'33.338"N	104°24'44.749"W	0.37	
175.00	0.060	355.750	175.00	0.17	0.44	-0.18	40°24'33.340"N	104°24'44.750"W	0.23	
266.00	0.360	4.160	266.00	0.14	0.77	-0.16	40°24'33.344"N	104°24'44.750"W	0.33	
361.00	0.300	11.960	361.00	0.06	1.31	-0.09	40°24'33.349"N	104°24'44.749"W	0.08	
456.00	0.250	31.420	456.00	-0.11	1.73	0.07	40°24'33.353"N	104°24'44.747"W	0.11	
550.00	0.320	297.620	550.00	0.01	2.03	-0.06	40°24'33.356"N	104°24'44.748"W	0.45	
645.00	0.440	321.800	644.99	0.46	2.44	-0.52	40°24'33.360"N	104°24'44.754"W	0.21	
740.00	0.520	303.070	739.99	1.03	2.96	-1.10	40°24'33.365"N	104°24'44.762"W	0.18	
834.00	0.640	355.170	833.99	1.41	3.72	-1.51	40°24'33.373"N	104°24'44.767"W	0.55	
929.00	0.480	353.790	928.98	1.48	4.64	-1.59	40°24'33.382"N	104°24'44.768"W	0.17	
1024.00	0.580	19.400	1023.98	1.34	5.49	-1.48	40°24'33.390"N	104°24'44.766"W	0.27	
1118.00	0.620	1.840	1117.97	1.14	6.45	-1.30	40°24'33.400"N	104°24'44.764"W	0.20	
1213.00	0.240	7.410	1212.97	1.08	7.16	-1.26	40°24'33.407"N	104°24'44.763"W	0.40	
1307.00	0.250	312.010	1306.97	1.20	7.49	-1.39	40°24'33.410"N	104°24'44.765"W	0.24	
1401.00	0.090	291.870	1400.97	1.42	7.66	-1.61	40°24'33.412"N	104°24'44.768"W	0.18	
1496.00	0.260	312.340	1495.97	1.64	7.83	-1.84	40°24'33.414"N	104°24'44.770"W	0.19	
1590.00	0.280	287.790	1589.97	2.01	8.04	-2.21	40°24'33.416"N	104°24'44.775"W	0.12	
1685.00	0.750	267.370	1684.96	2.85	8.09	-3.05	40°24'33.416"N	104°24'44.786"W	0.52	
1779.00	1.190	279.790	1778.95	4.43	8.22	-4.63	40°24'33.418"N	104°24'44.807"W	0.52	
1874.00	0.880	322.810	1873.93	5.82	8.97	-6.04	40°24'33.425"N	104°24'44.825"W	0.85	
1930.00	0.470	351.290	1929.93	6.10	9.54	-6.34	40°24'33.431"N	104°24'44.828"W	0.92	Tie to Surface
1978.00	0.280	134.840	1977.93	6.04	9.66	-6.29	40°24'33.432"N	104°24'44.828"W	1.49	
2073.00	0.070	260.370	2072.93	5.94	9.48	-6.18	40°24'33.430"N	104°24'44.826"W	0.34	
2168.00	0.030	235.190	2167.93	6.02	9.46	-6.26	40°24'33.430"N	104°24'44.827"W	0.05	
2262.00	0.070	104.640	2261.93	5.99	9.43	-6.22	40°24'33.430"N	104°24'44.827"W	0.10	
2357.00	0.100	49.340	2356.93	5.87	9.47	-6.10	40°24'33.430"N	104°24'44.825"W	0.09	
2451.00	0.030	166.520	2450.93	5.80	9.50	-6.03	40°24'33.431"N	104°24'44.824"W	0.12	
2546.00	0.060	355.320	2545.93	5.79	9.52	-6.03	40°24'33.431"N	104°24'44.824"W	0.09	
2640.00	0.060	90.270	2639.93	5.75	9.57	-5.99	40°24'33.431"N	104°24'44.824"W	0.09	



Actual Wellpath Report  
WELLS RANCH BB09-626 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2735.00	0.090	334.450	2734.93	5.73	9.64	-5.97	40°24'33.432"N	104°24'44.824"W	0.13	
2829.00	0.040	90.790	2828.93	5.73	9.71	-5.97	40°24'33.433"N	104°24'44.824"W	0.12	
2924.00	0.060	53.520	2923.93	5.65	9.73	-5.89	40°24'33.433"N	104°24'44.823"W	0.04	
3019.00	0.030	100.800	3018.93	5.59	9.76	-5.83	40°24'33.433"N	104°24'44.822"W	0.05	
3113.00	0.060	177.780	3112.93	5.56	9.71	-5.80	40°24'33.433"N	104°24'44.821"W	0.06	
3207.00	0.040	218.230	3206.93	5.58	9.63	-5.82	40°24'33.432"N	104°24'44.822"W	0.04	
3302.00	0.140	13.230	3301.93	5.57	9.72	-5.82	40°24'33.433"N	104°24'44.822"W	0.19	
3397.00	0.130	343.060	3396.93	5.57	9.93	-5.82	40°24'33.435"N	104°24'44.822"W	0.07	
3491.00	0.210	346.780	3490.93	5.64	10.20	-5.89	40°24'33.438"N	104°24'44.823"W	0.09	
3586.00	0.030	165.770	3585.93	5.67	10.35	-5.93	40°24'33.439"N	104°24'44.823"W	0.25	
3680.00	0.000	97.200	3679.93	5.66	10.33	-5.92	40°24'33.439"N	104°24'44.823"W	0.03	
3775.00	0.030	285.110	3774.93	5.69	10.33	-5.94	40°24'33.439"N	104°24'44.823"W	0.03	
3869.00	0.120	340.430	3868.93	5.74	10.43	-6.00	40°24'33.440"N	104°24'44.824"W	0.11	
3963.00	0.000	97.200	3962.93	5.77	10.52	-6.03	40°24'33.441"N	104°24'44.824"W	0.13	
4058.00	2.690	66.400	4057.89	3.71	11.42	-3.99	40°24'33.449"N	104°24'44.798"W	2.83	
4152.00	5.120	59.390	4151.67	-2.00	14.44	1.64	40°24'33.478"N	104°24'44.724"W	2.63	
4247.00	7.130	56.370	4246.12	-10.69	19.86	10.20	40°24'33.531"N	104°24'44.613"W	2.14	
4342.00	9.350	63.490	4340.14	-22.67	26.57	22.02	40°24'33.596"N	104°24'44.459"W	2.57	
4436.00	9.730	68.790	4432.84	-37.06	32.85	36.26	40°24'33.656"N	104°24'44.274"W	1.02	
4531.00	9.660	78.140	4526.49	-52.45	37.40	51.54	40°24'33.699"N	104°24'44.076"W	1.66	
4625.00	11.640	86.190	4618.87	-69.68	39.65	68.72	40°24'33.719"N	104°24'43.853"W	2.63	
4720.00	11.690	86.900	4711.91	-88.88	40.80	87.90	40°24'33.729"N	104°24'43.605"W	0.16	
4815.00	11.750	86.790	4804.93	-108.17	41.87	107.16	40°24'33.737"N	104°24'43.356"W	0.07	
4909.00	11.720	85.160	4896.96	-127.26	43.21	126.23	40°24'33.748"N	104°24'43.109"W	0.35	
5004.00	11.380	87.850	4990.04	-146.27	44.37	145.21	40°24'33.757"N	104°24'42.864"W	0.67	
5099.00	9.950	93.740	5083.40	-163.81	44.19	162.77	40°24'33.753"N	104°24'42.637"W	1.89	
5193.00	11.420	87.250	5175.77	-181.21	44.11	180.17	40°24'33.750"N	104°24'42.412"W	2.02	
5288.00	11.220	88.280	5268.92	-199.85	44.84	198.80	40°24'33.755"N	104°24'42.171"W	0.30	
5382.00	10.570	95.890	5361.23	-217.55	44.22	216.52	40°24'33.747"N	104°24'41.942"W	1.68	
5477.00	10.720	96.510	5454.60	-234.94	42.33	233.97	40°24'33.726"N	104°24'41.717"W	0.20	



Actual Wellpath Report  
WELLS RANCH BB09-626 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5571.00	11.340	94.920	5546.86	-252.79	40.55	251.86	40°24'33.706"N	104°24'41.486"W	0.73	
5666.00	10.560	93.540	5640.13	-270.74	39.21	269.86	40°24'33.691"N	104°24'41.254"W	0.87	
5760.00	10.260	92.460	5732.58	-287.68	38.32	286.82	40°24'33.680"N	104°24'41.034"W	0.38	
5855.00	10.350	85.430	5826.05	-304.64	38.63	303.78	40°24'33.681"N	104°24'40.815"W	1.33	
5949.00	5.410	333.770	5919.50	-311.24	43.30	310.26	40°24'33.726"N	104°24'40.731"W	14.17	
6044.00	16.560	307.210	6012.66	-298.74	55.55	297.46	40°24'33.849"N	104°24'40.894"W	12.59	
6139.00	18.140	289.100	6103.40	-274.29	68.59	272.68	40°24'33.981"N	104°24'41.212"W	5.90	
6233.00	24.610	267.360	6191.02	-240.93	72.48	239.21	40°24'34.023"N	104°24'41.644"W	10.78	
6328.00	33.210	262.820	6274.12	-195.18	68.31	193.55	40°24'33.988"N	104°24'42.235"W	9.34	
6422.00	41.060	266.910	6349.01	-138.61	63.42	137.09	40°24'33.946"N	104°24'42.966"W	8.75	
6517.00	49.390	264.160	6415.86	-71.35	58.06	69.93	40°24'33.901"N	104°24'43.835"W	9.00	
6611.00	58.000	259.340	6471.49	3.74	47.03	-4.90	40°24'33.801"N	104°24'44.804"W	10.04	
6706.00	68.600	262.240	6514.12	87.70	33.57	-88.56	40°24'33.678"N	104°24'45.887"W	11.48	
6800.00	73.880	266.350	6544.35	176.41	24.78	-177.08	40°24'33.602"N	104°24'47.033"W	6.98	
6895.00	81.990	268.900	6564.20	269.21	20.96	-269.82	40°24'33.576"N	104°24'48.232"W	8.93	
6989.00	89.660	272.020	6571.04	362.83	21.73	-363.48	40°24'33.595"N	104°24'49.443"W	8.80	
7084.00	89.660	271.770	6571.60	457.67	24.87	-458.43	40°24'33.637"N	104°24'50.670"W	0.26	
7178.00	90.000	270.250	6571.88	551.58	26.52	-552.41	40°24'33.665"N	104°24'51.884"W	1.66	
7273.00	89.910	268.650	6571.95	646.57	25.61	-647.40	40°24'33.667"N	104°24'53.112"W	1.69	
7367.00	89.940	266.560	6572.08	740.55	21.68	-741.31	40°24'33.640"N	104°24'54.327"W	2.22	
7462.00	90.030	265.930	6572.10	835.47	15.46	-836.11	40°24'33.590"N	104°24'55.553"W	0.67	
7556.00	90.090	266.680	6572.00	929.40	9.41	-929.91	40°24'33.541"N	104°24'56.767"W	0.80	
7650.00	90.060	266.780	6571.88	1023.35	4.04	-1023.76	40°24'33.500"N	104°24'57.981"W	0.11	
7745.00	90.060	266.670	6571.78	1118.30	-1.38	-1118.61	40°24'33.458"N	104°24'59.208"W	0.12	
7839.00	89.970	266.880	6571.76	1212.25	-6.67	-1212.46	40°24'33.417"N	104°25'00.421"W	0.24	
7933.00	89.970	267.210	6571.81	1306.22	-11.52	-1306.33	40°24'33.380"N	104°25'01.636"W	0.35	
8028.00	89.910	266.570	6571.91	1401.17	-16.67	-1401.19	40°24'33.341"N	104°25'02.863"W	0.68	
8123.00	89.850	267.140	6572.10	1496.13	-21.88	-1496.05	40°24'33.301"N	104°25'04.090"W	0.60	
8217.00	89.940	268.670	6572.28	1590.12	-25.32	-1589.98	40°24'33.278"N	104°25'05.304"W	1.63	
8311.00	89.910	267.730	6572.40	1684.12	-28.27	-1683.93	40°24'33.260"N	104°25'06.519"W	1.00	



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8406.00	89.690	268.970	6572.73	1779.12	-31.01	-1778.89	40°24'33.245"N	104°25'07.747"W	1.33	
8501.00	89.480	268.630	6573.42	1874.11	-33.00	-1873.87	40°24'33.236"N	104°25'08.975"W	0.42	
8595.00	89.850	269.110	6573.97	1968.11	-34.85	-1967.85	40°24'33.229"N	104°25'10.190"W	0.64	
8690.00	89.690	269.300	6574.35	2063.10	-36.17	-2062.84	40°24'33.228"N	104°25'11.418"W	0.26	
8785.00	89.480	269.520	6575.04	2158.09	-37.15	-2157.83	40°24'33.230"N	104°25'12.646"W	0.32	
8879.00	89.600	269.820	6575.79	2252.07	-37.69	-2251.83	40°24'33.235"N	104°25'13.861"W	0.34	
8974.00	89.880	270.640	6576.22	2347.03	-37.31	-2346.82	40°24'33.251"N	104°25'15.089"W	0.91	
9068.00	89.880	273.360	6576.42	2440.85	-34.03	-2440.76	40°24'33.294"N	104°25'16.303"W	2.89	
9163.00	89.780	273.470	6576.70	2535.51	-28.37	-2535.59	40°24'33.362"N	104°25'17.528"W	0.16	
9257.00	89.630	273.670	6577.19	2629.16	-22.52	-2629.40	40°24'33.431"N	104°25'18.740"W	0.27	
9352.00	89.940	273.910	6577.54	2723.76	-16.24	-2724.20	40°24'33.504"N	104°25'19.964"W	0.41	
9446.00	89.690	272.610	6577.85	2817.45	-10.89	-2818.04	40°24'33.568"N	104°25'21.176"W	1.41	
9541.00	89.970	268.540	6578.13	2912.37	-9.94	-2913.02	40°24'33.589"N	104°25'22.404"W	4.29	
9635.00	89.780	265.310	6578.33	3006.32	-14.98	-3006.87	40°24'33.551"N	104°25'23.618"W	3.44	
9730.00	89.660	265.120	6578.80	3101.15	-22.90	-3101.54	40°24'33.484"N	104°25'24.843"W	0.24	
9825.00	89.750	266.900	6579.29	3196.05	-29.51	-3196.30	40°24'33.430"N	104°25'26.069"W	1.88	
9919.00	89.690	270.780	6579.75	3290.03	-31.42	-3290.26	40°24'33.422"N	104°25'27.283"W	4.13	
10014.00	89.570	269.450	6580.36	3384.99	-31.23	-3385.26	40°24'33.435"N	104°25'28.511"W	1.41	
10108.00	89.450	265.660	6581.16	3478.96	-35.23	-3479.15	40°24'33.407"N	104°25'29.726"W	4.03	
10203.00	89.420	263.130	6582.10	3573.69	-44.51	-3573.68	40°24'33.327"N	104°25'30.949"W	2.66	
10298.00	89.910	262.460	6582.66	3668.21	-56.43	-3667.93	40°24'33.220"N	104°25'32.169"W	0.87	
10392.00	89.600	265.230	6583.06	3761.87	-66.50	-3761.38	40°24'33.132"N	104°25'33.379"W	2.97	
10487.00	89.660	262.450	6583.67	3856.54	-76.70	-3855.82	40°24'33.042"N	104°25'34.601"W	2.93	
10582.00	89.690	266.260	6584.21	3951.26	-86.04	-3950.34	40°24'32.961"N	104°25'35.824"W	4.01	
10676.00	89.510	268.740	6584.87	4045.23	-90.14	-4044.24	40°24'32.932"N	104°25'37.039"W	2.65	
10771.00	90.000	270.470	6585.27	4140.21	-90.79	-4139.23	40°24'32.937"N	104°25'38.267"W	1.89	
10865.00	89.660	273.040	6585.55	4234.06	-87.92	-4233.18	40°24'32.977"N	104°25'39.481"W	2.76	
10959.00	90.050	274.500	6585.79	4327.67	-81.74	-4326.98	40°24'33.049"N	104°25'40.692"W	1.61	
11054.00	90.080	270.560	6585.68	4422.43	-77.54	-4421.86	40°24'33.102"N	104°25'41.918"W	4.15	
11148.00	90.170	271.100	6585.48	4516.36	-76.18	-4515.85	40°24'33.126"N	104°25'43.133"W	0.58	





Actual Wellpath Report  
WELLS RANCH BB09-626 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11243.00	89.980	274.030	6585.35	4611.12	-71.93	-4610.75	40°24'33.180"N	104°25'44.359"W	3.09	
11337.00	89.830	269.730	6585.51	4704.94	-68.85	-4704.68	40°24'33.221"N	104°25'45.572"W	4.58	
11432.00	89.950	267.040	6585.69	4799.93	-71.52	-4799.63	40°24'33.206"N	104°25'46.800"W	2.83	
11526.00	89.680	261.130	6586.00	4893.60	-81.21	-4893.09	40°24'33.122"N	104°25'48.010"W	6.29	
11621.00	89.950	257.080	6586.30	4987.28	-99.16	-4986.35	40°24'32.956"N	104°25'49.218"W	4.27	
11716.00	90.010	264.860	6586.34	5081.37	-114.06	-5080.10	40°24'32.820"N	104°25'50.432"W	8.19	
11810.00	89.890	263.620	6586.42	5175.10	-123.49	-5173.63	40°24'32.737"N	104°25'51.643"W	1.33	
11905.00	90.200	265.600	6586.34	5269.87	-132.41	-5268.20	40°24'32.661"N	104°25'52.866"W	2.11	
12000.00	89.890	266.470	6586.27	5364.77	-138.98	-5362.97	40°24'32.607"N	104°25'54.093"W	0.97	
12094.00	89.710	268.960	6586.60	5458.75	-142.73	-5456.89	40°24'32.581"N	104°25'55.307"W	2.66	
12189.00	89.640	275.560	6587.14	5553.50	-138.99	-5551.76	40°24'32.629"N	104°25'56.533"W	6.95	
12283.00	89.640	277.720	6587.73	5646.57	-128.12	-5645.13	40°24'32.748"N	104°25'57.738"W	2.30	
12378.00	89.490	272.950	6588.45	5740.88	-119.29	-5739.68	40°24'32.846"N	104°25'58.959"W	5.02	
12473.00	89.490	270.000	6589.29	5835.74	-116.84	-5834.64	40°24'32.882"N	104°26'00.186"W	3.11	
12568.00	89.740	267.210	6589.93	5930.73	-119.16	-5929.60	40°24'32.870"N	104°26'01.414"W	2.95	
12662.00	90.010	268.970	6590.14	6024.72	-122.29	-6023.54	40°24'32.850"N	104°26'02.629"W	1.89	
12757.00	89.520	270.380	6590.53	6119.70	-122.83	-6118.54	40°24'32.856"N	104°26'03.857"W	1.57	
12851.00	89.640	266.270	6591.22	6213.68	-125.57	-6212.48	40°24'32.840"N	104°26'05.071"W	4.37	
12945.00	89.770	264.860	6591.70	6307.55	-132.84	-6306.19	40°24'32.780"N	104°26'06.284"W	1.51	
13040.00	89.770	264.170	6592.08	6402.31	-141.92	-6400.75	40°24'32.701"N	104°26'07.508"W	0.73	
13135.00	89.830	265.980	6592.41	6497.12	-150.08	-6495.40	40°24'32.632"N	104°26'08.732"W	1.91	
13229.00	89.770	268.070	6592.74	6591.08	-154.96	-6589.27	40°24'32.595"N	104°26'09.946"W	2.22	
13324.00	89.830	269.590	6593.07	6686.08	-156.90	-6684.24	40°24'32.587"N	104°26'11.174"W	1.60	
13418.00	89.800	270.410	6593.38	6780.05	-156.90	-6778.24	40°24'32.598"N	104°26'12.389"W	0.87	
13512.00	89.800	270.410	6593.71	6874.00	-156.22	-6872.24	40°24'32.616"N	104°26'13.604"W	0.00	
13607.00	89.740	270.350	6594.09	6968.95	-155.59	-6967.24	40°24'32.633"N	104°26'14.832"W	0.09	
13701.00	89.740	270.830	6594.51	7062.89	-154.63	-7061.23	40°24'32.654"N	104°26'16.047"W	0.51	
13796.00	89.580	270.940	6595.08	7157.82	-153.16	-7156.22	40°24'32.680"N	104°26'17.275"W	0.20	
13891.00	89.770	272.090	6595.62	7252.69	-150.65	-7251.18	40°24'32.716"N	104°26'18.502"W	1.23	
13985.00	89.800	274.250	6595.97	7346.38	-145.45	-7345.03	40°24'32.778"N	104°26'19.714"W	2.30	



Actual Wellpath Report

WELLS RANCH BB09-626 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14080.00	89.800	274.260	6596.30	7440.91	-138.40	-7439.77	40°24'32.859"N	104°26'20.937"W	0.01	
14174.00	89.770	272.670	6596.65	7534.57	-132.72	-7533.59	40°24'32.926"N	104°26'22.149"W	1.69	
14269.00	89.770	265.340	6597.04	7629.50	-134.37	-7628.51	40°24'32.921"N	104°26'23.377"W	7.72	
14364.00	89.580	256.970	6597.57	7723.62	-148.96	-7722.30	40°24'32.788"N	104°26'24.591"W	8.81	
14458.00	89.820	254.260	6598.07	7815.21	-172.31	-7813.34	40°24'32.568"N	104°26'25.772"W	2.89	
14553.00	90.110	262.290	6598.13	7908.60	-191.60	-7906.28	40°24'32.388"N	104°26'26.976"W	8.46	
14647.00	89.860	268.130	6598.15	8002.40	-199.45	-7999.91	40°24'32.322"N	104°26'28.187"W	6.22	
14742.00	90.070	268.430	6598.21	8097.40	-202.30	-8094.87	40°24'32.305"N	104°26'29.415"W	0.39	
14837.00	89.950	269.510	6598.19	8192.39	-204.01	-8189.85	40°24'32.299"N	104°26'30.643"W	1.14	
14931.00	90.070	272.600	6598.17	8286.29	-202.28	-8283.83	40°24'32.328"N	104°26'31.858"W	3.29	
15026.00	89.920	272.880	6598.18	8381.04	-197.74	-8378.72	40°24'32.384"N	104°26'33.084"W	0.33	
15120.00	90.010	270.930	6598.24	8474.88	-194.61	-8472.66	40°24'32.426"N	104°26'34.298"W	2.08	
15215.00	90.040	270.780	6598.20	8569.81	-193.19	-8567.65	40°24'32.451"N	104°26'35.525"W	0.16	
15309.00	90.040	269.400	6598.13	8663.77	-193.05	-8661.65	40°24'32.463"N	104°26'36.740"W	1.47	
15404.00	90.110	266.980	6598.01	8758.76	-196.05	-8756.59	40°24'32.445"N	104°26'37.968"W	2.55	
15498.00	90.040	266.720	6597.89	8852.72	-201.21	-8850.45	40°24'32.405"N	104°26'39.182"W	0.29	
15593.00	90.070	266.080	6597.79	8947.65	-207.18	-8945.26	40°24'32.357"N	104°26'40.408"W	0.67	
15687.00	89.950	264.250	6597.78	9041.48	-215.10	-9038.92	40°24'32.290"N	104°26'41.620"W	1.95	
15782.00	89.980	264.690	6597.84	9136.23	-224.25	-9133.48	40°24'32.210"N	104°26'42.844"W	0.46	
15876.00	89.860	263.230	6597.97	9229.93	-234.15	-9226.96	40°24'32.124"N	104°26'44.054"W	1.56	
15971.00	89.770	264.250	6598.27	9324.59	-244.50	-9321.39	40°24'32.032"N	104°26'45.276"W	1.08	
16066.00	89.770	265.360	6598.66	9419.38	-253.11	-9416.00	40°24'31.958"N	104°26'46.500"W	1.17	
16160.00	89.520	265.360	6599.24	9513.23	-260.71	-9509.69	40°24'31.894"N	104°26'47.712"W	0.27	
16255.00	89.710	266.050	6599.88	9608.10	-267.82	-9604.42	40°24'31.835"N	104°26'48.938"W	0.75	
16349.00	89.400	267.480	6600.61	9702.05	-273.13	-9698.26	40°24'31.794"N	104°26'50.152"W	1.56	
16539.00	89.670	272.160	6602.15	9891.95	-273.72	-9888.20	40°24'31.810"N	104°26'52.607"W	2.47	
16728.00	89.670	271.440	6603.24	10080.65	-267.79	-10077.10	40°24'31.891"N	104°26'55.048"W	0.38	
16823.00	89.610	271.700	6603.84	10175.51	-265.19	-10172.07	40°24'31.928"N	104°26'56.275"W	0.28	
16918.00	89.580	271.220	6604.51	10270.39	-262.77	-10267.03	40°24'31.963"N	104°26'57.502"W	0.51	Last BHI MWD Surveys
16983.00	89.580	271.220	6604.98	10335.32	-261.38	-10332.02	40°24'31.984"N	104°26'58.342"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: WELLS RANCH BB09-626 AWB      Ref Wellpath: WELLS RANCH BB09-626 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	1930.00	1900.00	30.00	1929.93	0.03	-0.01	9.54	-6.34
9.625in Casing Surface	30.00	1930.00	1900.00	30.00	1929.93	0.03	-0.01	9.54	-6.34
8.5in Open Hole	1930.00	16983.00	15053.00	1929.93	6604.98	9.54	-6.34	-261.38	-10332.02

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WELLS RANCH BB09-665 SECTION 10-T05N-R63W	-9.00	3667.50	-114.60	3302735.95	1397458.34	40°25'09.588"N	104°24'45.648"W	polygon
WELLS RANCH BB09-665 SECTION 9-T05N-R63W	-9.00	3667.50	-114.60	3302735.95	1397458.34	40°25'09.588"N	104°24'45.648"W	polygon
WELLS RANCH BB09-626 Landing Point	6570.10	38.55	-274.67	3302575.88	1393829.54	40°24'33.750"N	104°24'48.292"W	point
WELLS RANCH BB09-626 REV-1 BHL (1045'FSL&535'FWL,SEC.09)	6605.22	-255.73	-10332.23	3292518.74	1393535.27	40°24'32.040"N	104°26'58.344"W	point



TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WELLS RANCH BB09-626 BHL FROM PLAN (1045'FSL&535'FWL,SEC.09)	6606.00	-255.70	-10331.82	3292519.15	1393535.30	40°24'32.040"N	104°26'58.339"W	point

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH BB09-626 AWB      Ref Wellpath: WELLS RANCH BB09-626 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1930.00	Gyrodata standard - Drop gyro or Multi-shot	3rd Party Surface Gyros <76'-1930'>	WELLS RANCH BB09-626 AWB
1930.00	16918.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC OWSG MWD rev2+IFR1+MSA 8.5" Hole <1978'-16918'>	WELLS RANCH BB09-626 AWB
16918.00	16983.00	Blind Drilling (std)	Projection to bit	WELLS RANCH BB09-626 AWB



Actual Wellpath Report

WELLS RANCH BB09-626 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#24 WELLS RANCH BB09-626(963'FSL&285'FWL,SEC.11)
Area	COLORADO	Well	WELLS RANCH BB09-626
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB09-626 AWB
Facility	SEC.11-T05N-R63W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1930.00	0.470	351.290	1929.93	Tie to Surface
16918.00	89.580	271.220	6604.51	Last BHI MWD Surveys
16983.00	89.580	271.220	6604.98	Projection to Bit