

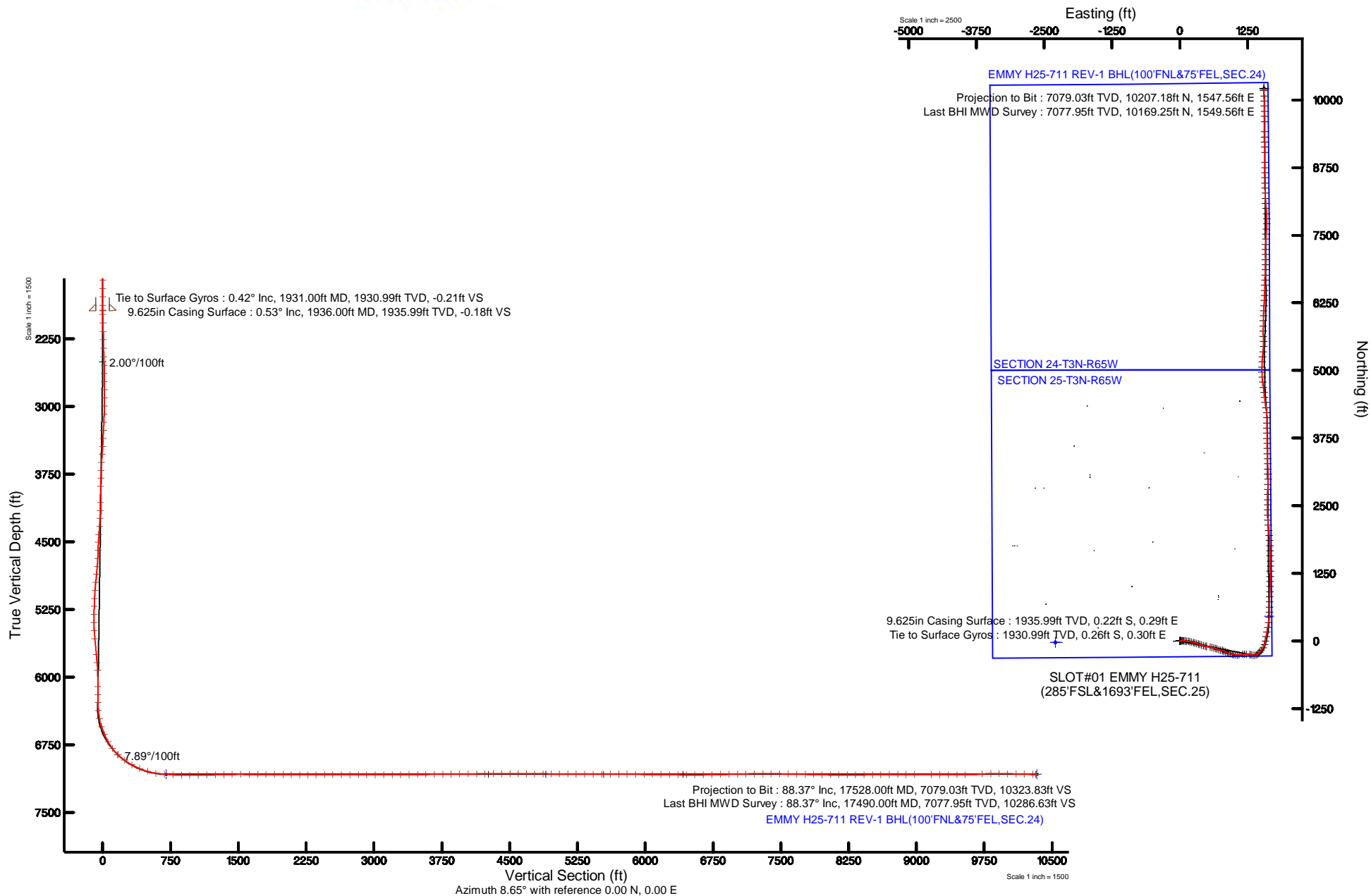
NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EMMY H25-711
Facility: SEC.25-T03N-R65W Wellbore: EMMY H25-711 PWB



Plot reference wellpath is EMMY H25-711 (REV-0.0) PWB	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (2011), US Feet
This vertical depth is referenced to Rig (DTH) (RHS)	* = Wellpath was translated from a different geoid datum
Measured depth is referenced to Rig (DTH) (RHS)	North Reference: Grid north
Rig (DTH) (RHS) to Mean Sea Level: 4000 feet	Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)) : 0 feet	Depth is in Feet
Coordinates are in feet referenced to Slot	Created by: generator on 2019-09-20
	Database: WA_DEN_Driver_Data
Comments	
SURFACE LOCATION: SWSE	
40.18967N	
104.60887W	
API #: 05-123-46972	

Location Information					
Facility Name	Grid East (US Ft)	Grid North (US Ft)	Latitude	Longitude	
SEC 25-T03N-R65W	3048894.759	1313181.352	40°11'22.812"N	104°36'31.832"W	
Site	Local N (ft)	Local E (ft)	Grid East (US Ft)	Grid North (US Ft)	Latitude
SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)	0.00	0.00	3048894.759	1313181.352	40°11'22.812"N
Rig (DTH) (RHS) to Ground level (At Slot: SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25))					4000
Mean Sea Level to Ground level (At Slot: SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25))					0
Rig (DTH) (RHS) to Mean Sea Level					4000
Survey Program					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	17537.03	OWSG MWD rev2	OWSG MWD rev2 + IF1 + Multi-Station Correction		EMMY H25-711 PWB



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

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	0.999957	Report Generated	9/25/2018 at 4:31:10 PM
Convergence at slot	0.58° East	Database/Source file	WA_DEN_Denver_Defn/EMMY_H25-711_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	3248954.74	1313190.35	40°11'22.812"N	104°36'31.932"W
Facility Reference Pt			3248954.74	1313190.35	40°11'22.812"N	104°36'31.932"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	4835.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4835.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#01 EMMY H25-711 (285'FSL&1693'FEL,SEC.25))	4835.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	8.65°



Actual Wellpath Report

EMMY H25-711 AWP



REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	46.440	0.00	0.00	0.00	0.00	40°11'22.812"N	104°36'31.932"W	0.00	
84.00	0.210	46.440	84.00	0.12	0.11	0.11	40°11'22.813"N	104°36'31.931"W	0.25	
179.00	0.450	352.280	179.00	0.62	0.60	0.19	40°11'22.818"N	104°36'31.930"W	0.39	
274.00	0.210	325.050	274.00	1.10	1.11	0.04	40°11'22.823"N	104°36'31.931"W	0.30	
367.00	0.110	197.860	367.00	1.14	1.16	-0.09	40°11'22.823"N	104°36'31.933"W	0.31	
463.00	0.420	344.110	463.00	1.37	1.41	-0.21	40°11'22.826"N	104°36'31.935"W	0.54	
557.00	0.330	205.530	556.99	1.42	1.50	-0.42	40°11'22.827"N	104°36'31.937"W	0.75	
652.00	0.120	232.050	651.99	1.09	1.19	-0.62	40°11'22.824"N	104°36'31.940"W	0.24	
746.00	0.330	235.530	745.99	0.83	0.98	-0.92	40°11'22.822"N	104°36'31.944"W	0.22	
841.00	0.250	156.750	840.99	0.47	0.63	-1.06	40°11'22.818"N	104°36'31.946"W	0.39	
935.00	0.180	95.280	934.99	0.30	0.43	-0.84	40°11'22.816"N	104°36'31.943"W	0.24	
1029.00	0.180	143.580	1028.99	0.21	0.30	-0.60	40°11'22.815"N	104°36'31.940"W	0.16	
1124.00	0.190	85.970	1123.99	0.13	0.19	-0.36	40°11'22.814"N	104°36'31.937"W	0.19	
1218.00	0.160	53.480	1217.99	0.26	0.28	-0.09	40°11'22.815"N	104°36'31.933"W	0.11	
1313.00	0.120	272.380	1312.99	0.35	0.36	-0.09	40°11'22.816"N	104°36'31.933"W	0.28	
1407.00	0.300	175.010	1406.99	0.10	0.12	-0.16	40°11'22.813"N	104°36'31.934"W	0.36	
1502.00	0.250	77.150	1501.99	-0.07	-0.08	0.06	40°11'22.811"N	104°36'31.931"W	0.44	
1596.00	0.120	75.780	1595.99	0.04	-0.01	0.35	40°11'22.812"N	104°36'31.927"W	0.14	
1691.00	0.220	155.670	1690.99	-0.07	-0.15	0.53	40°11'22.810"N	104°36'31.925"W	0.24	
1785.00	0.170	206.320	1784.99	-0.36	-0.44	0.54	40°11'22.808"N	104°36'31.925"W	0.18	
1880.00	0.130	325.310	1879.99	-0.41	-0.48	0.42	40°11'22.807"N	104°36'31.927"W	0.27	
1931.00	0.420	335.090	1930.99	-0.21	-0.26	0.30	40°11'22.809"N	104°36'31.928"W	0.57	Tie to Surface Gyros
1977.00	1.450	343.790	1976.98	0.45	0.45	0.07	40°11'22.816"N	104°36'31.931"W	2.25	
2072.00	2.530	59.500	2071.94	2.87	2.67	1.54	40°11'22.838"N	104°36'31.912"W	2.72	
2166.00	5.000	81.830	2165.73	5.36	4.30	7.38	40°11'22.854"N	104°36'31.836"W	3.01	
2261.00	6.330	88.130	2260.26	7.52	5.06	16.72	40°11'22.860"N	104°36'31.716"W	1.54	
2355.00	7.460	86.440	2353.58	9.75	5.61	27.99	40°11'22.865"N	104°36'31.571"W	1.22	
2450.00	8.260	84.360	2447.69	12.74	6.66	40.93	40°11'22.874"N	104°36'31.404"W	0.89	
2545.00	12.100	90.240	2541.18	15.88	7.29	57.69	40°11'22.878"N	104°36'31.188"W	4.18	
2639.00	14.810	97.870	2632.60	17.49	5.61	79.45	40°11'22.860"N	104°36'30.908"W	3.44	



Actual Wellpath Report
EMMY H25-711 AWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2734.00	16.040	98.750	2724.17	17.63	1.95	104.45	40°11'22.821"N	104°36'30.586"W	1.32	
2829.00	15.910	96.810	2815.51	18.02	-1.59	130.35	40°11'22.783"N	104°36'30.253"W	0.58	
2923.00	17.860	98.470	2905.45	18.48	-5.24	157.40	40°11'22.745"N	104°36'29.905"W	2.14	
3018.00	18.960	101.170	2995.59	17.84	-10.38	186.95	40°11'22.691"N	104°36'29.525"W	1.46	
3112.00	19.850	103.350	3084.25	15.86	-17.02	217.46	40°11'22.622"N	104°36'29.132"W	1.22	
3207.00	19.820	105.800	3173.61	12.53	-25.13	248.65	40°11'22.539"N	104°36'28.731"W	0.88	
3302.00	20.060	106.800	3262.92	8.22	-34.23	279.75	40°11'22.446"N	104°36'28.332"W	0.44	
3396.00	19.000	106.270	3351.51	3.90	-43.17	309.87	40°11'22.355"N	104°36'27.945"W	1.14	
3491.00	20.060	107.650	3441.04	-0.70	-52.45	340.24	40°11'22.260"N	104°36'27.555"W	1.22	
3586.00	20.240	109.950	3530.23	-6.47	-62.99	371.22	40°11'22.153"N	104°36'27.157"W	0.86	
3680.00	20.290	109.110	3618.41	-12.62	-73.88	401.90	40°11'22.042"N	104°36'26.763"W	0.31	
3775.00	20.080	104.280	3707.58	-17.21	-83.29	433.27	40°11'21.946"N	104°36'26.360"W	1.77	
3869.00	20.170	103.350	3795.84	-20.13	-91.02	464.68	40°11'21.866"N	104°36'25.957"W	0.35	
3964.00	20.270	102.980	3884.99	-22.71	-98.49	496.65	40°11'21.789"N	104°36'25.546"W	0.17	
4153.00	20.150	98.830	4062.36	-25.29	-110.84	560.72	40°11'21.661"N	104°36'24.722"W	0.76	
4248.00	20.270	103.430	4151.52	-26.72	-117.18	592.90	40°11'21.595"N	104°36'24.308"W	1.68	
4342.00	20.440	105.360	4239.65	-29.99	-125.31	624.56	40°11'21.512"N	104°36'23.901"W	0.74	
4437.00	20.360	110.300	4328.70	-35.27	-135.44	656.06	40°11'21.408"N	104°36'23.496"W	1.81	
4532.00	20.500	111.040	4417.72	-42.18	-147.14	687.09	40°11'21.290"N	104°36'23.098"W	0.31	
4626.00	20.540	106.360	4505.77	-47.93	-157.70	718.28	40°11'21.182"N	104°36'22.698"W	1.75	
4721.00	20.710	102.770	4594.68	-51.37	-166.11	750.65	40°11'21.096"N	104°36'22.282"W	1.34	
4815.00	20.250	105.310	4682.74	-54.46	-174.07	782.55	40°11'21.014"N	104°36'21.872"W	1.06	
4910.00	20.030	111.870	4771.94	-60.09	-184.48	813.51	40°11'20.908"N	104°36'21.474"W	2.39	
5005.00	20.040	115.680	4861.20	-68.58	-197.59	843.28	40°11'20.776"N	104°36'21.092"W	1.37	
5099.00	20.330	113.810	4949.43	-77.57	-211.16	872.73	40°11'20.639"N	104°36'20.715"W	0.75	
5194.00	20.010	109.240	5038.61	-84.87	-223.18	903.18	40°11'20.517"N	104°36'20.324"W	1.69	
5289.00	19.780	105.790	5127.94	-89.86	-232.91	934.00	40°11'20.418"N	104°36'19.928"W	1.26	
5383.00	19.990	103.800	5216.34	-93.28	-241.07	964.90	40°11'20.334"N	104°36'19.531"W	0.75	
5478.00	20.080	102.700	5305.59	-95.89	-248.53	996.58	40°11'20.257"N	104°36'19.124"W	0.41	
5572.00	20.760	97.960	5393.69	-96.84	-254.39	1028.83	40°11'20.196"N	104°36'18.709"W	1.90	



Actual Wellpath Report

EMMY H25-711 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5667.00	19.800	89.080	5482.82	-93.96	-256.46	1061.60	40°11'20.172"N	104°36'18.287"W	3.39	
5762.00	20.200	83.130	5572.10	-86.90	-254.24	1093.97	40°11'20.191"N	104°36'17.870"W	2.18	
5951.00	19.990	85.600	5749.59	-70.87	-247.86	1158.58	40°11'20.247"N	104°36'17.036"W	0.46	
6045.00	20.940	83.890	5837.66	-62.97	-244.84	1191.30	40°11'20.274"N	104°36'16.614"W	1.19	
6140.00	19.450	91.150	5926.83	-56.58	-243.35	1224.00	40°11'20.286"N	104°36'16.193"W	3.07	
6329.00	20.770	98.720	6104.34	-52.52	-249.06	1288.60	40°11'20.223"N	104°36'15.361"W	1.54	
6424.00	20.250	97.270	6193.31	-52.15	-253.70	1321.56	40°11'20.174"N	104°36'14.937"W	0.77	
6518.00	19.440	96.810	6281.73	-51.25	-257.61	1353.23	40°11'20.132"N	104°36'14.530"W	0.88	
6613.00	20.170	88.520	6371.13	-47.87	-259.06	1385.31	40°11'20.114"N	104°36'14.116"W	3.05	
6707.00	20.370	67.120	6459.43	-36.45	-252.27	1416.62	40°11'20.178"N	104°36'13.712"W	7.85	
6802.00	22.400	45.440	6548.02	-13.27	-233.11	1444.80	40°11'20.365"N	104°36'13.347"W	8.54	
6896.00	26.430	38.550	6633.62	19.23	-204.17	1470.62	40°11'20.648"N	104°36'13.010"W	5.24	
6991.00	33.630	43.130	6715.82	59.30	-168.38	1501.82	40°11'20.999"N	104°36'12.603"W	7.95	
7085.00	39.320	32.190	6791.46	108.15	-124.10	1535.55	40°11'21.433"N	104°36'12.163"W	9.17	
7180.00	46.170	15.630	6861.41	170.02	-65.37	1560.92	40°11'22.011"N	104°36'11.828"W	13.81	
7275.00	54.440	11.050	6922.05	242.79	5.70	1577.60	40°11'22.711"N	104°36'11.604"W	9.46	
7369.00	61.330	9.650	6971.99	322.32	83.98	1591.85	40°11'23.483"N	104°36'11.410"W	7.44	
7464.00	67.670	10.260	7012.87	408.00	168.39	1606.68	40°11'24.316"N	104°36'11.208"W	6.70	
7558.00	73.420	9.780	7044.17	496.57	255.63	1622.09	40°11'25.176"N	104°36'10.999"W	6.14	
7653.00	80.130	8.140	7065.89	589.00	346.93	1636.47	40°11'26.077"N	104°36'10.801"W	7.26	
7748.00	87.880	4.980	7075.81	683.33	440.71	1647.23	40°11'27.003"N	104°36'10.650"W	8.80	
7842.00	84.390	1.490	7082.14	776.67	534.32	1652.53	40°11'27.927"N	104°36'10.570"W	5.24	
7937.00	89.380	359.130	7087.30	870.49	629.14	1653.04	40°11'28.864"N	104°36'10.551"W	5.81	
8031.00	91.260	0.120	7086.78	963.32	723.13	1652.42	40°11'29.793"N	104°36'10.547"W	2.26	
8126.00	90.800	2.610	7085.07	1057.53	818.08	1654.69	40°11'30.731"N	104°36'10.505"W	2.66	
8220.00	90.650	2.820	7083.88	1151.02	911.97	1659.14	40°11'31.658"N	104°36'10.436"W	0.27	
8315.00	91.260	1.690	7082.30	1245.42	1006.88	1662.88	40°11'32.596"N	104°36'10.375"W	1.35	
8410.00	91.290	0.620	7080.19	1339.58	1101.84	1664.79	40°11'33.534"N	104°36'10.338"W	1.13	
8504.00	91.140	1.190	7078.19	1432.70	1195.80	1666.27	40°11'34.462"N	104°36'10.307"W	0.63	
8599.00	89.780	0.200	7077.43	1526.78	1290.79	1667.43	40°11'35.401"N	104°36'10.279"W	1.77	



Actual Wellpath Report

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Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8693.00	89.780	359.890	7077.79	1619.72	1384.79	1667.50	40°11'36.330"N	104°36'10.266"W	0.33	
8788.00	89.630	0.060	7078.28	1713.64	1479.79	1667.46	40°11'37.268"N	104°36'10.254"W	0.24	
8882.00	89.570	358.470	7078.94	1806.37	1573.77	1666.25	40°11'38.197"N	104°36'10.258"W	1.69	
8977.00	89.690	357.690	7079.55	1899.76	1668.72	1663.07	40°11'39.136"N	104°36'10.286"W	0.83	
9072.00	89.690	357.670	7080.06	1993.03	1763.64	1659.22	40°11'40.074"N	104°36'10.323"W	0.02	
9166.00	89.780	356.500	7080.50	2085.12	1857.51	1654.44	40°11'41.002"N	104°36'10.373"W	1.25	
9261.00	89.660	354.970	7080.96	2177.71	1952.25	1647.38	40°11'41.939"N	104°36'10.452"W	1.62	
9356.00	89.850	353.970	7081.37	2269.82	2046.80	1638.22	40°11'42.874"N	104°36'10.557"W	1.07	
9450.00	90.000	355.200	7081.49	2361.00	2140.38	1629.35	40°11'43.800"N	104°36'10.659"W	1.32	
9544.00	90.060	357.270	7081.44	2452.80	2234.17	1623.18	40°11'44.727"N	104°36'10.727"W	2.20	
9639.00	89.940	359.080	7081.44	2546.21	2329.12	1620.16	40°11'45.666"N	104°36'10.753"W	1.91	
9734.00	90.090	359.080	7081.42	2639.89	2424.11	1618.63	40°11'46.605"N	104°36'10.760"W	0.16	
9828.00	89.910	359.880	7081.42	2732.69	2518.10	1617.78	40°11'47.533"N	104°36'10.759"W	0.87	
9923.00	90.000	0.790	7081.49	2826.69	2613.10	1618.33	40°11'48.472"N	104°36'10.740"W	0.96	
10018.00	89.970	1.050	7081.52	2920.83	2708.09	1619.86	40°11'49.411"N	104°36'10.708"W	0.28	
10112.00	90.090	1.010	7081.47	3014.00	2802.07	1621.55	40°11'50.339"N	104°36'10.674"W	0.13	
10207.00	89.970	1.610	7081.42	3108.22	2897.05	1623.72	40°11'51.277"N	104°36'10.633"W	0.64	
10301.00	90.030	1.020	7081.42	3201.45	2991.02	1625.88	40°11'52.206"N	104°36'10.593"W	0.63	
10396.00	90.710	358.420	7080.80	3295.29	3086.01	1625.41	40°11'53.144"N	104°36'10.587"W	2.83	
10491.00	90.620	357.740	7079.70	3388.67	3180.95	1622.23	40°11'54.083"N	104°36'10.615"W	0.72	
10585.00	90.590	359.170	7078.71	3481.18	3274.91	1619.70	40°11'55.012"N	104°36'10.636"W	1.52	
10680.00	90.550	359.240	7077.76	3574.89	3369.90	1618.38	40°11'55.950"N	104°36'10.640"W	0.08	
10775.00	90.490	357.970	7076.90	3668.43	3464.86	1616.07	40°11'56.889"N	104°36'10.658"W	1.34	
10869.00	90.620	357.860	7075.99	3760.78	3558.80	1612.65	40°11'57.818"N	104°36'10.690"W	0.18	
10964.00	90.550	358.450	7075.02	3854.19	3653.74	1609.59	40°11'58.756"N	104°36'10.717"W	0.63	
11058.00	90.340	359.650	7074.29	3946.87	3747.72	1608.03	40°11'59.685"N	104°36'10.725"W	1.30	
11153.00	90.650	358.840	7073.47	4040.59	3842.71	1606.78	40°12'00.624"N	104°36'10.728"W	0.91	
11248.00	90.580	0.510	7072.45	4134.42	3937.70	1606.24	40°12'01.562"N	104°36'10.723"W	1.76	
11342.00	90.620	0.370	7071.47	4227.45	4031.69	1606.96	40°12'02.491"N	104°36'10.701"W	0.15	
11436.00	90.800	358.580	7070.30	4320.24	4125.68	1606.10	40°12'03.420"N	104°36'10.700"W	1.91	



Actual Wellpath Report

EMMY H25-711 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11531.00	89.850	355.180	7069.76	4413.22	4220.52	1600.93	40°12'04.358"N	104°36'10.754"W	3.72	
11626.00	90.090	350.920	7069.81	4504.70	4314.80	1589.44	40°12'05.290"N	104°36'10.890"W	4.49	
11720.00	90.150	352.110	7069.62	4594.53	4407.77	1575.57	40°12'06.210"N	104°36'11.057"W	1.27	
11815.00	89.480	354.540	7069.92	4686.15	4502.12	1564.53	40°12'07.144"N	104°36'11.187"W	2.65	
11909.00	89.260	352.660	7070.96	4776.92	4595.52	1554.05	40°12'08.068"N	104°36'11.310"W	2.01	
12004.00	89.540	351.810	7071.95	4868.04	4689.64	1541.21	40°12'08.999"N	104°36'11.463"W	0.94	
12099.00	89.540	352.770	7072.71	4959.19	4783.78	1528.47	40°12'09.931"N	104°36'11.615"W	1.01	
12193.00	89.570	354.830	7073.44	5050.05	4877.22	1518.32	40°12'10.855"N	104°36'11.733"W	2.19	
12288.00	89.480	358.720	7074.23	5142.99	4972.05	1512.98	40°12'11.793"N	104°36'11.790"W	4.10	
12382.00	89.410	1.720	7075.14	5235.96	5066.04	1513.34	40°12'12.721"N	104°36'11.773"W	3.19	
12477.00	89.510	3.610	7076.04	5330.44	5160.92	1517.75	40°12'13.658"N	104°36'11.704"W	1.99	
12571.00	90.090	5.820	7076.37	5424.21	5254.60	1525.48	40°12'14.583"N	104°36'11.592"W	2.43	
12666.00	90.590	6.550	7075.80	5519.12	5349.04	1535.71	40°12'15.516"N	104°36'11.448"W	0.93	
12761.00	89.970	2.550	7075.34	5613.86	5443.72	1543.25	40°12'16.450"N	104°36'11.338"W	4.26	
12855.00	90.370	357.520	7075.06	5706.77	5537.69	1543.31	40°12'17.379"N	104°36'11.325"W	5.37	
12950.00	89.510	357.290	7075.16	5799.94	5632.60	1539.01	40°12'18.317"N	104°36'11.368"W	0.94	
13044.00	89.140	0.440	7076.27	5892.56	5726.56	1537.14	40°12'19.246"N	104°36'11.380"W	3.37	
13139.00	89.200	0.790	7077.64	5986.62	5821.54	1538.16	40°12'20.184"N	104°36'11.355"W	0.37	
13234.00	89.410	1.240	7078.79	6080.77	5916.52	1539.85	40°12'21.123"N	104°36'11.321"W	0.52	
13328.00	89.230	2.450	7079.91	6174.10	6010.46	1542.87	40°12'22.051"N	104°36'11.269"W	1.30	
13423.00	89.230	3.920	7081.19	6268.66	6105.31	1548.15	40°12'22.987"N	104°36'11.189"W	1.55	
13517.00	89.320	2.920	7082.38	6362.26	6199.13	1553.76	40°12'23.914"N	104°36'11.104"W	1.07	
13612.00	89.600	1.670	7083.27	6456.67	6294.05	1557.56	40°12'24.851"N	104°36'11.043"W	1.35	
13706.00	89.820	2.730	7083.75	6550.07	6387.97	1561.17	40°12'25.779"N	104°36'10.984"W	1.15	
13801.00	91.230	1.460	7082.88	6644.44	6482.90	1564.64	40°12'26.717"N	104°36'10.927"W	2.00	
13895.00	91.200	0.920	7080.88	6737.63	6576.86	1566.59	40°12'27.645"N	104°36'10.890"W	0.58	
13990.00	91.050	2.180	7079.02	6831.88	6671.81	1569.16	40°12'28.583"N	104°36'10.844"W	1.34	
14084.00	91.290	1.790	7077.10	6925.22	6765.73	1572.42	40°12'29.511"N	104°36'10.790"W	0.49	
14179.00	90.990	2.510	7075.21	7019.59	6860.64	1575.98	40°12'30.448"N	104°36'10.732"W	0.82	
14273.00	91.510	1.300	7073.16	7112.92	6954.57	1579.11	40°12'31.376"N	104°36'10.679"W	1.40	



Actual Wellpath Report

EMMY H25-711 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude		Longitude		DLS [°/100ft]	Comments
14368.00	91.020	359.660	7071.06	7206.93	7049.54	1579.90	40°12'32.314"N		104°36'10.657"W		1.80	
14462.00	89.630	359.230	7070.53	7299.72	7143.53	1578.99	40°12'33.243"N		104°36'10.656"W		1.55	
14557.00	89.510	359.720	7071.24	7393.50	7238.52	1578.12	40°12'34.182"N		104°36'10.655"W		0.53	
14651.00	89.290	2.630	7072.22	7486.69	7332.49	1580.05	40°12'35.110"N		104°36'10.618"W		3.10	
14746.00	88.830	3.970	7073.78	7581.26	7427.31	1585.51	40°12'36.047"N		104°36'10.535"W		1.49	
14840.00	89.010	3.820	7075.56	7674.92	7521.08	1591.90	40°12'36.973"N		104°36'10.440"W		0.25	
14935.00	88.800	3.380	7077.37	7769.53	7615.88	1597.86	40°12'37.909"N		104°36'10.351"W		0.51	
15029.00	88.920	0.940	7079.24	7862.91	7709.78	1601.40	40°12'38.836"N		104°36'10.293"W		2.60	
15124.00	88.860	358.780	7081.08	7956.77	7804.76	1601.17	40°12'39.775"N		104°36'10.284"W		2.27	
15219.00	88.800	356.660	7083.02	8050.02	7899.66	1597.39	40°12'40.713"N		104°36'10.320"W		2.23	
15313.00	89.630	354.840	7084.31	8141.64	7993.39	1590.43	40°12'41.640"N		104°36'10.398"W		2.13	
15408.00	90.060	356.330	7084.57	8234.18	8088.10	1583.12	40°12'42.577"N		104°36'10.480"W		1.63	
15503.00	90.710	358.350	7083.93	8327.33	8182.99	1578.71	40°12'43.515"N		104°36'10.524"W		2.23	
15597.00	90.770	358.280	7082.71	8419.79	8276.94	1575.94	40°12'44.443"N		104°36'10.548"W		0.10	
15692.00	90.770	358.780	7081.44	8513.31	8371.90	1573.51	40°12'45.382"N		104°36'10.567"W		0.53	
15786.00	90.460	359.480	7080.43	8606.01	8465.89	1572.08	40°12'46.311"N		104°36'10.573"W		0.81	
15881.00	90.370	359.670	7079.74	8699.82	8560.88	1571.37	40°12'47.250"N		104°36'10.569"W		0.22	
15975.00	89.850	359.600	7079.56	8792.66	8654.88	1570.78	40°12'48.178"N		104°36'10.565"W		0.56	
16069.00	89.750	0.110	7079.89	8885.55	8748.88	1570.54	40°12'49.107"N		104°36'10.556"W		0.55	
16164.00	90.000	359.150	7080.10	8979.38	8843.87	1569.92	40°12'50.046"N		104°36'10.551"W		1.04	
16353.00	89.970	359.560	7080.14	9165.90	9032.86	1567.80	40°12'51.914"N		104°36'10.554"W		0.22	
16448.00	89.940	359.640	7080.22	9259.72	9127.86	1567.13	40°12'52.853"N		104°36'10.550"W		0.09	
16542.00	89.820	359.900	7080.42	9352.59	9221.86	1566.76	40°12'53.781"N		104°36'10.543"W		0.30	
16637.00	89.970	0.060	7080.59	9446.50	9316.86	1566.72	40°12'54.720"N		104°36'10.531"W		0.23	
16731.00	89.940	359.800	7080.66	9539.42	9410.86	1566.61	40°12'55.649"N		104°36'10.520"W		0.28	
16921.00	93.980	359.500	7074.17	9726.93	9600.70	1565.45	40°12'57.525"N		104°36'10.510"W		2.13	
17017.00	91.230	358.300	7069.80	9821.44	9696.58	1563.61	40°12'58.473"N		104°36'10.521"W		3.12	
17112.00	88.980	357.980	7069.63	9914.84	9791.52	1560.52	40°12'59.411"N		104°36'10.549"W		2.39	
17206.00	88.920	358.280	7071.35	10007.25	9885.45	1557.46	40°13'00.340"N		104°36'10.576"W		0.33	
17301.00	89.080	359.070	7073.01	10100.80	9980.41	1555.26	40°13'01.278"N		104°36'10.592"W		0.85	



Actual Wellpath Report

EMMY H25-711 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (183 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17395.00	88.280	358.520	7075.18	10193.38	10074.37	1553.28	40°13'02.207"N	104°36'10.605"W	1.03	
17490.00	88.370	356.980	7077.95	10286.63	10169.25	1549.56	40°13'03.145"N	104°36'10.641"W	1.62	Last BHI MWD Survey
17528.00	88.370	356.980	7079.03	10323.83	10207.18	1547.56	40°13'03.520"N	104°36'10.662"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: EMMY H25-711 AWB Ref Wellpath: EMMY H25-711 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	1936.00	1906.00	30.00	1935.99	0.01	0.01	-0.22	0.29
9.625in Casing Surface	30.00	1936.00	1906.00	30.00	1935.99	0.01	0.01	-0.22	0.29
8.5in Open Hole	1936.00	17528.00	15592.00	1935.99	7079.03	-0.22	0.29	10207.18	1547.56

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
EMMY STATE H25-785 SECTION 24-T3N-R65W	-12.00	-22.94	-2293.65	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-785 SECTION 25-T3N-R65W	-12.00	-22.94	-2293.65	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY H25-711 Landing Point	7076.00	460.00	1645.00	3250599.67	1313650.33	40°11'27.194"N	104°36'10.677"W	point
EMMY H25-711 REV-1 BHL(100'FNL&75'FEL,SEC.24)	7076.00	10216.57	1553.49	3250508.16	1323406.47	40°13'03.612"N	104°36'10.584"W	point



Actual Wellpath Report

EMMY H25-711 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: EMMY H25-711 AWB Ref Wellpath: EMMY H25-711 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1931.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	3rd Party Surface Gyros <84'-1931'>	EMMY H25-711 AWB
1931.00	17490.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2+IFR1+MSA <1977'-17490'>	EMMY H25-711 AWB
17490.00	17528.00	Blind Drilling (std)	Projection to bit	EMMY H25-711 AWB



Actual Wellpath Report

EMMY H25-711 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EMMY H25-711(285'FSL&1693'FEL,SEC.25)
Area	COLORADO	Well	EMMY H25-711
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY H25-711 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1931.00	0.420	335.090	1930.99	Tie to Surface Gyros
17490.00	88.370	356.980	7077.95	Last BHI MWD Survey
17528.00	88.370	356.980	7079.03	Projection to Bit