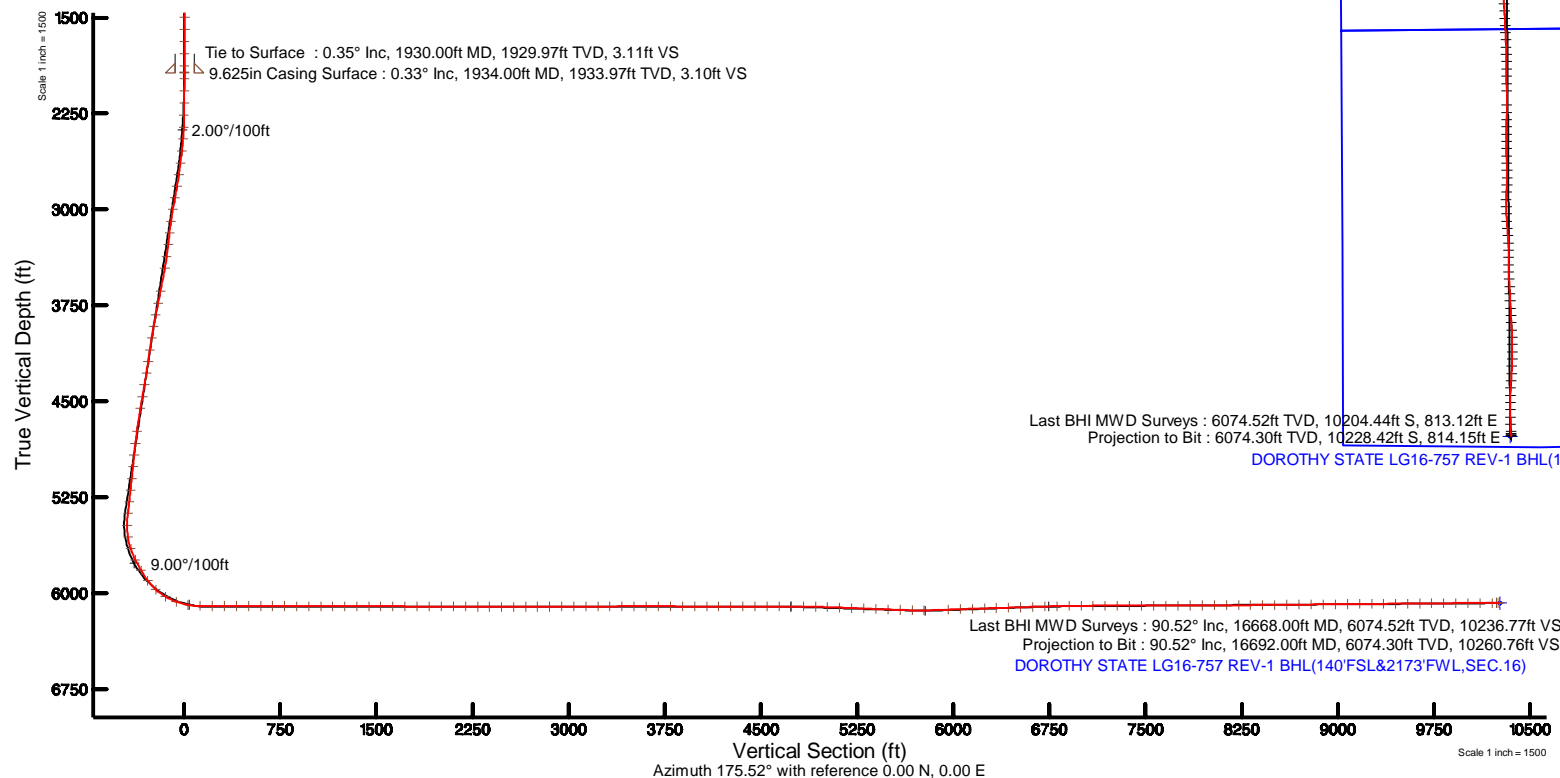


Location:	COLORADO	Slot:	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	DOROTHY STATE LG16-757
Facility:	SEC.09-T08N-R59W	Wellbore:	DOROTHY STATE LG16-757 PWB

Plot reference wellpath is DOROTHY STATE LG16-757 (RCP-A-0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (30KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to RIG (30KB) (RKB)	North Reference: Grid north
RIG (30KB) (RKB) to Mean Sea Level: 4885 feet	Scale: True distance
Mean Sea Level to Ground level (A Slot: SLOTH01 DOROTHY STATE LG16-757(335FNL&1433FWLSEC.00)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: guenaler on 2018-11-27
	Database: WA DEN Denver Defn

Facility Name				Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 09-T08N-R59W				3419979.808	149519.089	40°40'59.520"N	103°59'08.340"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude	
SLOT#01 DOROTHY STATE LG16-757/335FNL#1433FWL_SEC.09)	0.00	0.00	3419979.808	149519.089	40°40'59.520"N	103°59'08.340"W	
RIG (30X36) (R08b) to Ground level (A Slot: SLOT#01 DOROTHY STATE LG16-757/335FNL#1433FWL_SEC.09))						4885ft	
Mean Sea Level to Ground level (A Slot: SLOT#01 DOROTHY STATE LG16-757/335FNL#1433FWL_SEC.09))						0ft	
RIG (30X36) (R08b) to Mean Sea Level						4885ft	





Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

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	0.999985	Report Generated	11/27/2018 at 3:45:13 PM
Convergence at slot	0.98° East	Database/Source file	WA_DEN_Denver_Defn/DOROTHY_STATE_LG16-757_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	3419979.81	1495319.09	40°40'59.520"N	103°59'08.340"W
Facility Reference Pt			3419979.81	1495319.09	40°40'59.520"N	103°59'08.340"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	4885.00ft
Horizontal Reference Pt	Slot	RIG (30'KB) (RKB) to Mean Sea Level	4885.00ft
Vertical Reference Pt	RIG (30'KB) (RKB)	RIG (30'KB) (RKB) to Ground Level at Slot (SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09))	4885.00ft
MD Reference Pt	RIG (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	175.52°



Actual Wellpath Report
DOROTHY STATE LG16-757 AWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	198.440	0.00	0.00	0.00	0.00	40°40'59.520"N	103°59'08.340"W	0.00	
82.90	0.220	198.440	82.90	0.15	-0.15	-0.05	40°40'59.519"N	103°59'08.341"W	0.27	
178.40	0.610	203.620	178.40	0.76	-0.79	-0.31	40°40'59.512"N	103°59'08.344"W	0.41	
269.70	0.430	157.110	269.69	1.52	-1.55	-0.37	40°40'59.505"N	103°59'08.345"W	0.48	
364.20	0.420	90.000	364.19	1.88	-1.88	0.11	40°40'59.501"N	103°59'08.339"W	0.50	
458.60	0.340	129.050	458.59	2.10	-2.05	0.67	40°40'59.500"N	103°59'08.332"W	0.28	
553.30	0.430	135.700	553.29	2.57	-2.49	1.14	40°40'59.495"N	103°59'08.326"W	0.11	
647.70	0.150	99.760	647.69	2.87	-2.76	1.51	40°40'59.492"N	103°59'08.321"W	0.34	
742.10	0.080	41.830	742.09	2.85	-2.73	1.68	40°40'59.493"N	103°59'08.319"W	0.13	
836.70	0.110	221.730	836.69	2.87	-2.75	1.66	40°40'59.493"N	103°59'08.319"W	0.20	
930.90	0.160	153.630	930.89	3.06	-2.94	1.66	40°40'59.491"N	103°59'08.319"W	0.17	
1025.70	0.150	174.050	1025.69	3.30	-3.18	1.73	40°40'59.488"N	103°59'08.318"W	0.06	
1120.10	0.200	172.110	1120.09	3.59	-3.46	1.76	40°40'59.485"N	103°59'08.318"W	0.05	
1214.40	0.140	194.710	1214.38	3.86	-3.74	1.76	40°40'59.483"N	103°59'08.318"W	0.09	
1308.60	0.340	221.470	1308.58	4.17	-4.06	1.54	40°40'59.480"N	103°59'08.321"W	0.24	
1403.20	0.460	240.490	1403.18	4.52	-4.46	1.03	40°40'59.476"N	103°59'08.328"W	0.19	
1498.30	0.400	239.380	1498.28	4.83	-4.81	0.41	40°40'59.472"N	103°59'08.336"W	0.06	
1592.70	0.200	273.190	1592.68	4.95	-4.97	-0.04	40°40'59.471"N	103°59'08.342"W	0.27	
1687.60	0.320	351.170	1687.58	4.67	-4.70	-0.24	40°40'59.474"N	103°59'08.344"W	0.36	
1782.30	0.450	333.980	1782.27	4.06	-4.11	-0.45	40°40'59.480"N	103°59'08.347"W	0.18	
1876.60	0.490	319.250	1876.57	3.39	-3.47	-0.87	40°40'59.486"N	103°59'08.352"W	0.13	
1930.00	0.350	299.230	1929.97	3.11	-3.22	-1.17	40°40'59.488"N	103°59'08.356"W	0.38	Tie to Surface
1980.00	0.310	236.680	1979.97	3.09	-3.22	-1.41	40°40'59.488"N	103°59'08.359"W	0.69	
2074.00	2.080	60.860	2073.95	2.51	-2.52	-0.13	40°40'59.495"N	103°59'08.342"W	2.54	
2169.00	4.050	70.610	2168.81	0.92	-0.57	4.54	40°40'59.514"N	103°59'08.281"W	2.14	
2263.00	5.590	79.460	2262.48	-0.41	1.37	12.17	40°40'59.531"N	103°59'08.182"W	1.81	
2358.00	7.720	73.290	2356.83	-2.25	4.05	22.83	40°40'59.556"N	103°59'08.043"W	2.36	
2452.00	9.380	55.680	2449.80	-7.40	10.19	35.21	40°40'59.615"N	103°59'07.881"W	3.28	
2547.00	11.920	52.340	2543.16	-16.63	20.55	49.37	40°40'59.715"N	103°59'07.695"W	2.75	
2642.00	13.670	54.040	2635.80	-27.86	33.13	66.22	40°40'59.836"N	103°59'07.473"W	1.88	



Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2736.00	15.510	54.600	2726.76	-40.12	46.94	85.46	40°40'59.969"N	103°59'07.220"W	1.96	
2831.00	15.700	48.190	2818.27	-54.44	62.87	105.40	40°41'00.123"N	103°59'06.958"W	1.83	
2925.00	15.650	43.110	2908.77	-70.70	80.60	123.54	40°41'00.295"N	103°59'06.719"W	1.46	
3020.00	15.040	44.220	3000.39	-87.48	98.79	140.90	40°41'00.472"N	103°59'06.490"W	0.71	
3114.00	14.600	51.740	3091.27	-102.12	114.87	158.71	40°41'00.628"N	103°59'06.255"W	2.10	
3209.00	13.380	58.620	3183.46	-113.75	128.01	177.49	40°41'00.755"N	103°59'06.008"W	2.17	
3303.00	15.160	59.890	3274.55	-123.99	139.84	197.41	40°41'00.868"N	103°59'05.747"W	1.92	
3398.00	15.220	54.630	3366.24	-135.76	153.29	218.33	40°41'00.998"N	103°59'05.473"W	1.45	
3492.00	15.260	46.990	3456.94	-149.80	168.87	237.44	40°41'01.148"N	103°59'05.221"W	2.14	
3682.00	15.200	37.100	3640.30	-184.02	205.80	270.75	40°41'01.508"N	103°59'04.781"W	1.37	
3776.00	15.050	37.910	3731.04	-202.25	225.26	285.68	40°41'01.697"N	103°59'04.582"W	0.28	
3871.00	15.030	40.250	3822.79	-220.11	244.39	301.22	40°41'01.884"N	103°59'04.377"W	0.64	
3966.00	14.960	42.350	3914.55	-237.25	262.85	317.44	40°41'02.063"N	103°59'04.162"W	0.58	
4060.00	15.000	49.910	4005.37	-252.63	279.66	334.92	40°41'02.226"N	103°59'03.931"W	2.08	
4155.00	15.000	53.120	4097.13	-266.38	294.95	354.16	40°41'02.374"N	103°59'03.678"W	0.87	
4249.00	14.980	51.440	4187.94	-279.70	309.82	373.39	40°41'02.518"N	103°59'03.425"W	0.46	
4343.00	15.020	47.930	4278.73	-293.94	325.56	391.93	40°41'02.670"N	103°59'03.181"W	0.97	
4438.00	15.380	48.060	4370.41	-309.11	342.23	410.44	40°41'02.832"N	103°59'02.937"W	0.38	
4533.00	15.230	47.480	4462.04	-324.46	359.08	429.01	40°41'02.995"N	103°59'02.693"W	0.23	
4628.00	15.490	46.850	4553.65	-340.08	376.19	447.46	40°41'03.161"N	103°59'02.449"W	0.33	
4817.00	15.100	55.330	4735.98	-368.23	407.46	486.13	40°41'03.463"N	103°59'01.941"W	1.20	
4911.00	14.770	60.400	4826.81	-379.47	420.34	506.62	40°41'03.587"N	103°59'01.672"W	1.43	
5006.00	14.700	63.120	4918.68	-389.21	431.77	527.90	40°41'03.697"N	103°59'01.393"W	0.73	
5101.00	15.100	63.120	5010.49	-398.52	442.82	549.68	40°41'03.802"N	103°59'01.108"W	0.42	
5196.00	15.150	64.150	5102.20	-407.75	453.82	571.89	40°41'03.907"N	103°59'00.817"W	0.29	
5290.00	15.270	63.340	5192.90	-416.90	464.73	594.01	40°41'04.011"N	103°59'00.528"W	0.26	
5384.00	15.090	59.070	5283.63	-427.03	476.58	615.57	40°41'04.124"N	103°59'00.245"W	1.20	
5479.00	15.050	56.580	5375.36	-438.50	489.73	636.47	40°41'04.251"N	103°58'59.971"W	0.68	
5574.00	11.200	86.150	5467.96	-444.38	497.15	656.00	40°41'04.321"N	103°58'59.716"W	8.02	
5668.00	12.770	122.170	5560.04	-438.07	492.22	673.93	40°41'04.269"N	103°58'59.484"W	7.99	



Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5763.00	20.130	156.190	5651.29	-416.30	471.61	689.47	40°41'04.063"N	103°58'59.287"W	12.46	
5858.00	25.640	176.750	5738.91	-380.24	436.04	697.25	40°41'03.710"N	103°58'59.194"W	10.14	
5952.00	31.470	187.830	5821.50	-335.86	391.36	695.06	40°41'03.269"N	103°58'59.233"W	8.36	
6047.00	36.400	187.500	5900.30	-284.03	338.82	688.00	40°41'02.751"N	103°58'59.336"W	5.19	
6141.00	48.130	177.050	5969.83	-221.46	275.91	686.15	40°41'02.130"N	103°58'59.374"W	14.51	
6236.00	59.400	174.590	6025.89	-144.97	199.63	691.84	40°41'01.375"N	103°58'59.317"W	12.04	
6330.00	69.850	173.220	6066.12	-60.19	115.31	700.89	40°41'00.541"N	103°58'59.218"W	11.19	
6425.00	80.220	173.180	6090.62	31.38	24.30	711.75	40°40'59.640"N	103°58'59.098"W	10.92	
6519.00	89.780	175.830	6098.81	124.89	-68.80	720.69	40°40'58.719"N	103°58'59.002"W	10.55	
6614.00	89.940	179.250	6099.04	219.82	-163.70	724.76	40°40'57.780"N	103°58'58.970"W	3.60	
6708.00	90.000	180.750	6099.09	313.53	-257.69	724.76	40°40'56.852"N	103°58'58.991"W	1.60	
6803.00	90.030	181.410	6099.06	408.08	-352.68	722.97	40°40'55.914"N	103°58'59.036"W	0.70	
6898.00	89.910	179.290	6099.11	502.74	-447.67	722.39	40°40'54.975"N	103°58'59.064"W	2.24	
6993.00	90.090	177.940	6099.11	597.60	-542.64	724.69	40°40'54.037"N	103°58'59.055"W	1.43	
7087.00	89.880	178.440	6099.14	691.50	-636.59	727.66	40°40'53.108"N	103°58'59.038"W	0.58	
7181.00	89.750	178.590	6099.44	785.37	-730.56	730.09	40°40'52.179"N	103°58'59.027"W	0.21	
7276.00	89.820	176.300	6099.80	880.31	-825.46	734.33	40°40'51.241"N	103°58'58.993"W	2.41	
7371.00	90.180	183.360	6099.80	974.98	-920.40	734.61	40°40'50.303"N	103°58'59.011"W	7.44	
7465.00	89.750	190.570	6099.85	1067.05	-1013.64	723.22	40°40'49.383"N	103°58'59.179"W	7.68	
7560.00	89.690	189.370	6100.32	1159.04	-1107.20	706.77	40°40'48.462"N	103°58'59.413"W	1.26	
7654.00	89.820	181.360	6100.72	1251.58	-1200.72	697.99	40°40'47.539"N	103°58'59.548"W	8.52	
7749.00	89.820	179.630	6101.02	1346.22	-1295.71	697.17	40°40'46.601"N	103°58'59.580"W	1.82	
7844.00	90.000	177.030	6101.17	1441.09	-1390.66	699.94	40°40'45.662"N	103°58'59.565"W	2.74	
7938.00	89.910	175.270	6101.24	1535.08	-1484.44	706.25	40°40'44.735"N	103°58'59.504"W	1.87	
8032.00	89.780	175.640	6101.50	1629.08	-1578.15	713.70	40°40'43.808"N	103°58'59.428"W	0.42	
8127.00	89.820	176.340	6101.83	1724.08	-1672.91	720.34	40°40'42.870"N	103°58'59.363"W	0.74	
8221.00	89.910	177.800	6102.05	1818.04	-1766.79	725.14	40°40'41.942"N	103°58'59.321"W	1.56	
8316.00	89.690	177.780	6102.38	1912.97	-1861.72	728.81	40°40'41.004"N	103°58'59.295"W	0.23	
8410.00	89.910	178.310	6102.71	2006.87	-1955.66	732.01	40°40'40.075"N	103°58'59.274"W	0.61	
8505.00	89.720	178.000	6103.02	2101.77	-2050.61	735.07	40°40'39.136"N	103°58'59.255"W	0.38	



Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8600.00	89.720	180.710	6103.48	2196.55	-2145.59	736.14	40°40'38.198"N	103°58'59.263"W	2.85	
8694.00	89.510	181.430	6104.11	2290.11	-2239.58	734.39	40°40'37.270"N	103°58'59.306"W	0.80	
8788.00	89.910	182.410	6104.59	2383.52	-2333.52	731.24	40°40'36.342"N	103°58'59.368"W	1.13	
8883.00	89.910	182.810	6104.74	2477.79	-2428.42	726.91	40°40'35.405"N	103°58'59.445"W	0.42	
8977.00	89.970	182.360	6104.84	2571.08	-2522.33	722.67	40°40'34.478"N	103°58'59.521"W	0.48	
9072.00	90.280	185.290	6104.63	2665.07	-2617.10	716.34	40°40'33.543"N	103°58'59.624"W	3.10	
9167.00	90.180	188.420	6104.25	2758.20	-2711.41	705.00	40°40'32.613"N	103°58'59.792"W	3.30	
9261.00	90.120	184.680	6104.00	2850.45	-2804.78	694.28	40°40'31.692"N	103°58'59.952"W	3.98	
9355.00	90.030	175.860	6103.88	2944.04	-2898.69	693.84	40°40'30.765"N	103°58'59.979"W	9.38	
9450.00	90.250	177.500	6103.65	3039.01	-2993.52	699.34	40°40'29.827"N	103°58'59.929"W	1.74	
9545.00	90.120	179.590	6103.34	3133.87	-3088.49	701.75	40°40'28.888"N	103°58'59.918"W	2.20	
9639.00	90.250	179.970	6103.04	3227.61	-3182.49	702.11	40°40'27.959"N	103°58'59.935"W	0.43	
9733.00	90.620	179.030	6102.32	3321.38	-3276.48	702.93	40°40'27.031"N	103°58'59.945"W	1.07	
9828.00	90.250	182.230	6101.60	3415.99	-3371.46	701.89	40°40'26.092"N	103°58'59.979"W	3.39	
9923.00	90.250	182.050	6101.19	3510.36	-3466.39	698.34	40°40'25.155"N	103°59'00.046"W	0.19	
10017.00	89.880	181.950	6101.08	3603.75	-3560.33	695.06	40°40'24.228"N	103°59'00.110"W	0.41	
10112.00	89.820	180.080	6101.33	3698.31	-3655.31	693.37	40°40'23.289"N	103°59'00.153"W	1.97	
10207.00	89.750	176.480	6101.68	3793.19	-3750.25	696.23	40°40'22.351"N	103°59'00.137"W	3.79	
10301.00	90.000	174.750	6101.89	3887.18	-3843.98	703.41	40°40'21.424"N	103°59'00.064"W	1.86	
10396.00	89.970	175.490	6101.91	3982.18	-3938.63	711.49	40°40'20.487"N	103°58'59.981"W	0.78	
10490.00	89.820	176.830	6102.09	4076.17	-4032.42	717.79	40°40'19.560"N	103°58'59.920"W	1.43	
10584.00	90.280	181.800	6102.00	4169.94	-4126.38	718.91	40°40'18.631"N	103°58'59.926"W	5.31	
10679.00	89.910	183.190	6101.85	4264.23	-4221.29	714.78	40°40'17.694"N	103°59'00.001"W	1.51	
10774.00	89.750	179.380	6102.13	4358.73	-4316.25	712.65	40°40'16.756"N	103°59'00.049"W	4.01	
10868.00	90.000	178.230	6102.33	4452.57	-4410.22	714.61	40°40'15.828"N	103°59'00.045"W	1.25	
10963.00	89.820	177.790	6102.48	4547.48	-4505.17	717.91	40°40'14.889"N	103°59'00.023"W	0.50	
11057.00	89.880	177.020	6102.73	4641.43	-4599.07	722.16	40°40'13.961"N	103°58'59.989"W	0.82	
11152.00	89.910	176.770	6102.90	4736.41	-4693.93	727.31	40°40'13.022"N	103°58'59.943"W	0.27	
11246.00	89.970	176.670	6103.00	4830.38	-4787.78	732.69	40°40'12.094"N	103°58'59.894"W	0.12	
11341.00	88.490	177.660	6104.28	4925.33	-4882.65	737.38	40°40'11.156"N	103°58'59.854"W	1.87	



Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11435.00	87.690	177.520	6107.41	5019.22	-4976.51	741.33	40°40'10.228"N	103°58'59.824"W	0.86	
11529.00	87.690	177.480	6111.20	5113.09	-5070.34	745.43	40°40'09.300"N	103°58'59.791"W	0.04	
11624.00	87.840	177.710	6114.91	5207.95	-5165.19	749.42	40°40'08.363"N	103°58'59.761"W	0.29	
11718.00	87.660	179.020	6118.60	5301.76	-5259.08	752.10	40°40'07.435"N	103°58'59.747"W	1.41	
11813.00	87.810	179.390	6122.35	5396.49	-5353.99	753.41	40°40'06.497"N	103°58'59.751"W	0.42	
11908.00	87.880	180.110	6125.92	5491.16	-5448.92	753.83	40°40'05.559"N	103°58'59.767"W	0.76	
12002.00	87.810	179.760	6129.46	5584.82	-5542.86	753.93	40°40'04.631"N	103°58'59.786"W	0.38	
12097.00	87.540	178.490	6133.31	5679.55	-5637.77	755.38	40°40'03.693"N	103°58'59.788"W	1.37	
12191.00	91.820	179.870	6133.84	5773.33	-5731.73	756.73	40°40'02.764"N	103°58'59.792"W	4.78	
12380.00	92.220	180.030	6127.17	5961.65	-5920.61	756.89	40°40'00.898"N	103°58'59.831"W	0.23	
12474.00	92.130	180.320	6123.61	6055.27	-6014.54	756.61	40°39'59.970"N	103°58'59.856"W	0.32	
12569.00	91.820	180.700	6120.33	6149.86	-6109.48	755.76	40°39'59.032"N	103°58'59.888"W	0.52	
12663.00	91.760	180.880	6117.40	6243.41	-6203.43	754.46	40°39'58.104"N	103°58'59.926"W	0.20	
12757.00	91.630	180.740	6114.62	6336.97	-6297.38	753.14	40°39'57.176"N	103°58'59.964"W	0.20	
12852.00	91.660	179.930	6111.89	6431.60	-6392.34	752.58	40°39'56.238"N	103°58'59.992"W	0.85	
12947.00	91.880	179.110	6108.95	6526.32	-6487.29	753.38	40°39'55.300"N	103°59'00.003"W	0.89	
13041.00	91.880	178.360	6105.87	6620.12	-6581.21	755.45	40°39'54.372"N	103°58'59.997"W	0.80	
13136.00	91.630	178.720	6102.96	6714.94	-6676.14	757.87	40°39'53.434"N	103°58'59.986"W	0.46	
13230.00	91.850	178.630	6100.11	6808.76	-6770.07	760.04	40°39'52.505"N	103°58'59.979"W	0.25	
13325.00	90.280	179.420	6098.34	6903.56	-6865.03	761.66	40°39'51.567"N	103°58'59.979"W	1.85	
13420.00	90.550	183.170	6097.65	6998.06	-6959.99	759.51	40°39'50.629"N	103°59'00.028"W	3.96	
13514.00	90.520	183.740	6096.78	7091.15	-7053.82	753.85	40°39'49.703"N	103°59'00.122"W	0.61	
13609.00	90.090	180.180	6096.27	7185.54	-7148.74	750.60	40°39'48.766"N	103°59'00.186"W	3.77	
13703.00	90.000	179.290	6096.20	7279.28	-7242.74	751.03	40°39'47.837"N	103°59'00.201"W	0.95	
13798.00	90.180	177.070	6096.05	7374.17	-7337.69	754.05	40°39'46.898"N	103°59'00.183"W	2.34	
13892.00	90.180	177.130	6095.75	7468.14	-7431.57	758.81	40°39'45.970"N	103°59'00.142"W	0.06	
13987.00	90.150	174.810	6095.48	7563.13	-7526.32	765.48	40°39'45.033"N	103°59'00.076"W	2.44	
14082.00	90.180	175.360	6095.20	7658.12	-7620.97	773.62	40°39'44.096"N	103°58'59.992"W	0.58	
14176.00	90.090	176.400	6094.98	7752.12	-7714.73	780.38	40°39'43.169"N	103°58'59.925"W	1.11	
14271.00	90.310	179.400	6094.65	7847.02	-7809.65	783.86	40°39'42.230"N	103°58'59.901"W	3.17	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH DATA (177 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14366.00	90.280	180.830	6094.16	7941.72	-7904.65	783.67	40°39'41.292"N	103°58'59.924"W	1.51	
14460.00	90.280	180.120	6093.70	8035.36	-7998.65	782.89	40°39'40.363"N	103°58'59.955"W	0.76	
14555.00	90.400	179.310	6093.14	8130.11	-8093.64	783.36	40°39'39.425"N	103°58'59.970"W	0.86	
14650.00	90.310	175.560	6092.55	8225.03	-8188.53	787.61	40°39'38.486"N	103°58'59.936"W	3.95	
14744.00	90.590	176.500	6091.81	8319.03	-8282.30	794.12	40°39'37.559"N	103°58'59.873"W	1.04	
14839.00	90.520	177.840	6090.89	8413.98	-8377.18	798.81	40°39'36.621"N	103°58'59.833"W	1.41	
14933.00	90.590	178.140	6089.98	8507.89	-8471.11	802.10	40°39'35.692"N	103°58'59.811"W	0.33	
15028.00	90.620	176.980	6088.98	8602.82	-8566.02	806.15	40°39'34.754"N	103°58'59.779"W	1.22	
15122.00	90.580	176.550	6087.99	8696.79	-8659.87	811.45	40°39'33.826"N	103°58'59.731"W	0.46	
15217.00	90.680	176.530	6086.95	8791.77	-8754.69	817.19	40°39'32.888"N	103°58'59.678"W	0.11	
15311.00	90.460	176.560	6086.01	8885.75	-8848.51	822.85	40°39'31.960"N	103°58'59.625"W	0.24	
15406.00	90.650	177.780	6085.09	8980.71	-8943.39	827.54	40°39'31.022"N	103°58'59.586"W	1.30	
15500.00	90.580	179.100	6084.08	9074.58	-9037.35	830.10	40°39'30.093"N	103°58'59.573"W	1.41	
15595.00	90.460	181.100	6083.22	9169.26	-9132.34	829.93	40°39'29.155"N	103°58'59.597"W	2.11	
15690.00	90.220	181.300	6082.66	9263.80	-9227.32	827.94	40°39'28.217"N	103°58'59.643"W	0.33	
15784.00	90.460	182.210	6082.10	9357.24	-9321.27	825.06	40°39'27.289"N	103°58'59.702"W	1.00	
15879.00	90.650	182.940	6081.18	9451.51	-9416.17	820.80	40°39'26.352"N	103°58'59.778"W	0.79	
15973.00	90.280	184.940	6080.42	9544.49	-9509.94	814.34	40°39'25.427"N	103°58'59.883"W	2.16	
16068.00	90.740	182.930	6079.57	9638.46	-9604.70	807.82	40°39'24.492"N	103°58'59.988"W	2.17	
16162.00	90.430	181.730	6078.61	9731.79	-9698.62	804.00	40°39'23.564"N	103°59'00.059"W	1.32	
16256.00	90.680	179.630	6077.70	9825.40	-9792.60	802.88	40°39'22.636"N	103°59'00.094"W	2.25	
16351.00	90.710	179.080	6076.55	9920.18	-9887.59	803.95	40°39'21.697"N	103°59'00.101"W	0.58	
16446.00	90.280	178.870	6075.73	10015.00	-9982.57	805.65	40°39'20.759"N	103°59'00.100"W	0.50	
16540.00	90.250	177.800	6075.29	10108.89	-10076.53	808.38	40°39'19.830"N	103°59'00.086"W	1.14	
16634.00	90.370	178.030	6074.78	10202.80	-10170.47	811.80	40°39'18.901"N	103°59'00.062"W	0.28	
16668.00	90.520	177.530	6074.52	10236.77	-10204.44	813.12	40°39'18.565"N	103°59'00.053"W	1.54	Last BHI MWD Surveys
16692.00	90.520	177.530	6074.30	10260.76	-10228.42	814.15	40°39'18.328"N	103°59'00.045"W	0.00	Projection to Bit



Actual Wellpath Report

DOROTHY STATE LG16-757 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

HOLE & CASING SECTIONS - Ref Wellbore: DOROTHY STATE LG16-757 AWB Ref Wellpath: DOROTHY STATE LG16-757 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	1934.00	1904.00	30.00	1933.97	-0.02	-0.01	-3.20	-1.19
9.625in Casing Surface	30.00	1934.00	1904.00	30.00	1933.97	-0.02	-0.01	-3.20	-1.19
8.5in Open Hole	1934.00	16692.00	14758.00	1933.97	6074.30	-3.20	-1.19	-10228.42	814.15

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
DOROTHY STATE LG16-729 SECTION 16	11.00	718.16	2359.37	3422339.14	1496037.24	40°41'06.216"N	103°58'37.560"W	polygon
DOROTHY STATE LG16-729 SECTION 9	11.00	718.16	2359.37	3422339.14	1496037.24	40°41'06.216"N	103°58'37.560"W	polygon
DOROTHY STATE LG16-757 Landing Point	6076.00	-49.53	732.18	3420711.98	1495269.56	40°40'58.907"N	103°58'58.849"W	point
DOROTHY STATE LG16-757 REV-1 BHL (140'FSL&2173'FWL,SEC.16)	6076.00	-10232.71	801.93	3420781.73	1485086.55	40°39'18.288"N	103°59'00.204"W	point

WELLPATH COMPOSITION - Ref Wellbore: DOROTHY STATE LG16-757 AWP Ref Wellpath: DOROTHY STATE LG16-757 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 Gyrodata standard - Drop gyro or Multi-shot <82.9-1930'>	DOROTHY STATE LG16-757 AWB
1930.00	16668.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHGE/ATC 8.5" OWSG MWD rev2+IFR1+MSA <1980'-16668'>	DOROTHY STATE LG16-757 AWB
16668.00	16692.00	Blind Drilling (std)	Projection to bit	DOROTHY STATE LG16-757 AWB



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 DOROTHY STATE LG16-757(335'FNL&1433'FWL,SEC.09)
Area	COLORADO	Well	DOROTHY STATE LG16-757
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	DOROTHY STATE LG16-757 AWB
Facility	SEC.09-T08N-R59W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1930.00	0.350	299.230	1929.97	Tie to Surface
16668.00	90.520	177.530	6074.52	Last BHI MWD Surveys
16692.00	90.520	177.530	6074.30	Projection to Bit