



Actual Wellpath Report

OXF-97E-HS AWP Proj: 12724'

Page 1 of 9



REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot E
Area	Doddridge Co., WV	Well	OXF-97E-HS
Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

REPORT SETUP INFORMATION

Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Gotfbral
Scale	0.999964	Report Generated	25/Jun/2015 at 09:21
Convergence at slot	0.83° West	Database/Source file	WANorthEast/OXF-97E-HS_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.04	20.20	1630682.97	269664.24	39°13'58.906"N	80°48'13.724"W
Facility Reference Pt			1630662.77	269664.28	39°13'58.904"N	80°48'13.980"W
Field Reference Pt			609601.22	0.00	38°23'48.753"N	84°21'09.765"W

WELLPATH DATUM

Calculation method	Minimum curvature	Precision 543 (RKB) to Facility Vertical Datum	1351.43ft
Horizontal Reference Pt	Slot	Precision 543 (RKB) to Mean Sea Level	1351.43ft
Vertical Reference Pt	Precision 543 (RKB)	Precision 543 (RKB) to Mud Line at Slot (Slot E)	18.00ft
MD Reference Pt	Precision 543 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	335.49°

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25/Jun/2015



Actual Wellpath Report

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Page 2 of 9



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Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations) † = interpolated/extrapolated station													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
0.00†	0.000	157.810	0.00	0.00	0.00	0.00	1630682.97	269664.24	39°13'58.906"N	80°48'13.724"W	0.00	0.000	0.00
18.00	0.000	157.810	18.00	0.00	0.00	0.00	1630682.97	269664.24	39°13'58.906"N	80°48'13.724"W	0.00	0.000	0.00
118.00	0.010	157.810	118.00	-0.01	-0.01	0.00	1630682.97	269664.23	39°13'58.906"N	80°48'13.724"W	0.01	157.810	0.01
218.00	0.200	83.740	218.00	-0.07	0.00	0.18	1630683.15	269664.24	39°13'58.906"N	80°48'13.721"W	0.18	89.087	0.20
318.00	0.370	74.990	318.00	-0.18	0.11	0.86	1630683.50	269664.35	39°13'58.907"N	80°48'13.711"W	0.35	87.241	0.18
418.00	0.400	59.990	418.00	-0.19	0.37	1.28	1630684.25	269664.61	39°13'58.910"N	80°48'13.708"W	1.33	73.840	0.10
518.00	0.150	67.930	518.00	-0.17	0.59	1.70	1630684.67	269664.83	39°13'58.912"N	80°48'13.702"W	1.80	70.754	0.25
618.00	0.100	52.530	617.99	-0.15	0.70	1.89	1630684.86	269664.94	39°13'58.913"N	80°48'13.700"W	2.02	69.795	0.06
718.00	0.120	8.850	717.99	-0.04	0.85	1.98	1630684.95	269665.09	39°13'58.915"N	80°48'13.699"W	2.15	66.668	0.08
818.00	0.100	288.200	817.99	0.11	0.98	1.91	1630684.88	269665.72	39°13'58.916"N	80°48'13.700"W	2.15	62.750	0.14
918.00	0.090	159.230	917.99	0.08	0.94	1.86	1630684.83	269665.18	39°13'58.916"N	80°48'13.700"W	2.08	63.197	0.17
1018.00	0.320	92.630	1017.99	-0.12	0.85	2.16	1630685.13	269665.09	39°13'58.915"N	80°48'13.696"W	2.32	68.513	0.30
1118.00	0.440	89.130	1117.99	-0.40	0.84	2.83	1630685.80	269665.08	39°13'58.915"N	80°48'13.688"W	2.95	73.364	0.12
1218.00	0.370	101.140	1217.99	-0.75	0.79	3.53	1630686.50	269665.03	39°13'58.915"N	80°48'13.679"W	3.61	77.408	0.11
1318.00	0.500	106.930	1317.99	-1.72	0.60	4.30	1630687.25	269665.84	39°13'58.913"N	80°48'13.670"W	4.38	61.046	0.14
1418.00	0.530	94.280	1417.98	-1.73	0.44	5.14	1630688.11	269664.68	39°13'58.911"N	80°48'13.658"W	5.16	85.142	0.12
1518.00	0.590	88.520	1517.98	-2.16	0.42	6.11	1630689.08	269664.66	39°13'58.911"N	80°48'13.646"W	6.13	86.112	0.08
1618.00	0.900	87.180	1617.97	-2.65	0.47	7.41	1630690.38	269664.71	39°13'58.912"N	80°48'13.630"W	7.43	86.392	0.31
1718.00	0.940	89.620	1717.96	-3.28	0.51	9.02	1630691.99	269664.75	39°13'58.913"N	80°48'13.609"W	9.03	86.754	0.06
1818.00	1.230	92.530	1817.94	-4.10	0.47	10.91	1630693.88	269664.71	39°13'58.912"N	80°48'13.587"W	10.42	87.558	0.04
1918.00	1.560	94.130	1917.91	-5.24	0.32	13.34	1630696.31	269664.56	39°13'58.911"N	80°48'13.554"W	13.34	88.608	0.33
2018.00	1.430	95.630	2017.87	-6.52	0.10	15.94	1630698.91	269664.34	39°13'58.910"N	80°48'13.521"W	15.94	89.627	0.14
2118.00	1.440	93.900	2117.84	-7.74	-0.10	18.44	1630701.40	269664.14	39°13'58.908"N	80°48'13.489"W	18.44	90.324	0.04
2218.00	1.150	104.030	2217.82	-8.97	-0.43	20.66	1630703.63	269663.81	39°13'58.905"N	80°48'13.461"W	20.67	91.200	0.37
2318.00	1.100	106.150	2317.80	-10.22	-0.24	22.56	1630705.53	269663.30	39°13'58.905"N	80°48'13.437"W	22.98	91.200	0.06

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Page 3 of 9



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Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations)													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
2418.00	1.040	107.920	2417.78	-11.45	-1.49	24.34	1630707.31	269662.75	39°13'58.895"N	80°48'13.414"W	24.39	93.493	0.07
2518.00	0.960	113.510	2517.77	-12.69	-2.10	25.98	1630708.95	269662.14	39°13'58.889"N	80°48'13.393"W	26.06	94.621	0.13
2618.00	0.700	123.160	2617.75	-13.83	-2.77	27.26	1630710.22	269661.47	39°13'58.883"N	80°48'13.377"W	27.40	95.799	0.29
2718.00	0.490	123.550	2717.75	-14.70	-3.34	28.12	1630711.09	269660.90	39°13'58.877"N	80°48'13.366"W	28.32	96.769	0.21
2818.00	0.310	116.990	2817.75	-15.28	-3.70	28.77	1630711.89	269660.51	39°13'58.871"N	80°48'13.358"W	28.97	97.135	0.19
2918.00	0.260	121.090	2917.75	-15.68	-3.94	29.16	1630712.13	269660.30	39°13'58.872"N	80°48'13.352"W	29.42	97.690	0.05
2954.00	0.330	104.890	2953.75	-15.81	-4.01	29.33	1630712.30	269660.23	39°13'58.871"N	80°48'13.350"W	29.60	97.778	0.30
3100.00	0.910	92.980	3099.74	-16.61	-4.17	30.89	1630713.86	269660.07	39°13'58.869"N	80°48'13.330"W	31.17	97.695	0.40
3130.00	2.140	53.220	3129.73	-16.60	-3.85	31.58	1630714.55	269660.39	39°13'58.873"N	80°48'13.322"W	31.81	96.953	5.18
3160.00	3.200	45.300	3159.69	-16.16	-2.99	32.61	1630715.98	269661.15	39°13'58.872"N	80°48'13.319"W	32.74	95.867	1.00
3190.00	4.080	39.000	3189.63	-15.36	-1.44	33.88	1630716.85	269662.80	39°13'58.897"N	80°48'13.293"W	33.91	92.432	2.82
3224.00	5.720	30.490	3223.50	-13.85	0.96	35.50	1630718.47	269665.20	39°13'58.921"N	80°48'13.273"W	35.51	88.448	5.26
3254.00	7.260	26.170	3253.31	-11.79	3.95	37.09	1630720.06	269668.19	39°13'58.951"N	80°48'13.253"W	37.30	83.920	5.38
3284.00	9.200	26.690	3283.00	-9.09	7.80	39.01	1630721.97	269672.04	39°13'58.989"N	80°48'13.229"W	39.78	78.698	6.47
3314.00	10.710	30.160	3312.14	-5.98	12.37	41.97	1630724.47	269676.61	39°13'59.027"N	80°48'13.199"W	42.30	75.400	5.73
3344.00	12.570	32.090	3341.92	-2.53	17.57	44.64	1630727.61	269681.81	39°13'59.086"N	80°48'13.160"W	47.98	68.518	6.01
3375.00	14.300	34.610	3372.07	1.29	23.58	48.61	1630731.58	269687.82	39°13'59.146"N	80°48'13.110"W	54.03	64.124	5.89
3405.00	16.230	34.790	3401.01	5.33	30.07	53.11	1630736.08	269694.31	39°13'59.211"N	80°48'13.054"W	61.03	60.480	6.44
3435.00	17.860	35.290	3429.69	9.78	37.27	58.16	1630741.13	269701.51	39°13'59.283"N	80°48'12.992"W	69.08	57.347	5.46
3466.00	19.510	35.060	3458.06	14.20	45.39	63.98	1630746.87	269709.63	39°13'59.361"N	80°48'12.920"W	78.36	53.609	5.13
3496.00	20.460	35.100	3487.25	19.99	53.78	69.77	1630752.74	269718.02	39°13'59.448"N	80°48'12.847"W	88.09	52.375	3.17
3526.00	21.800	34.500	3515.23	25.51	62.66	75.94	1630758.91	269726.90	39°13'59.536"N	80°48'12.770"W	98.46	50.474	4.52
3556.00	23.370	32.530	3542.93	31.61	72.27	82.30	1630765.26	269736.51	39°13'59.632"N	80°48'12.691"W	109.52	48.712	5.81
3586.00	24.150	31.600	3570.39	38.27	82.51	88.71	1630771.68	269746.75	39°13'59.734"N	80°48'12.612"W	121.15	47.074	2.88
3616.00	24.870	29.890	3597.69	45.17	93.21	95.07	1630778.04	269757.14	39°13'59.831"N	80°48'12.531"W	133.42	45.567	3.37

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Page 4 of 9



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Field	Doddridge	Wellbore	OXF-97E-HS AWP
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations)													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
3647.00	25.660	29.950	3625.72	53.06	104.68	101.67	1630784.64	269768.91	39°13'59.955"N	80°48'12.451"W	145.93	44.166	2.55
3677.00	26.990	30.650	3652.61	60.73	116.16	108.39	1630791.35	269780.40	39°14'00.070"N	80°48'12.368"W	158.87	43.017	4.55
3707.00	28.210	31.030	3679.20	68.63	128.09	115.51	1630798.48	269792.33	39°14'00.189"N	80°48'12.280"W	172.48	42.043	4.11
3738.00	28.860	31.100	3706.43	77.00	140.78	123.15	1630806.12	269805.01	39°14'00.315"N	80°48'12.185"W	187.04	41.179	2.10
3769.00	29.040	30.890	3733.88	85.58	153.78	130.93	1630813.92	269818.01	39°14'00.445"N	80°48'12.088"W	201.97	40.119	2.55
3859.00	32.500	29.590	3810.56	112.40	193.89	154.32	1630837.29	269858.13	39°14'00.845"N	80°48'11.798"W	247.81	38.516	3.26
3950.00	31.080	26.200	3887.91	141.62	236.23	176.77	1630859.73	269900.47	39°14'01.266"N	80°48'11.521"W	295.05	36.806	2.51
4041.00	29.590	27.700	3966.45	170.26	277.21	197.58	1630880.55	269941.43	39°14'01.674"N	80°48'11.264"W	340.41	35.480	1.84
4132.00	28.950	32.360	4045.84	196.07	315.71	219.82	1630902.78	269979.94	39°14'02.058"N	80°48'10.989"W	384.70	34.848	2.60
4223.00	28.770	30.000	4123.67	220.52	353.87	242.33	1630925.20	270019.08	39°14'02.428"N	80°48'10.700"W	428.05	34.181	1.24
4313.00	29.230	29.340	4204.26	246.32	391.17	264.20	1630947.16	270055.39	39°14'02.810"N	80°48'10.439"W	472.03	34.035	0.64
4404.00	29.490	32.550	4283.57	271.60	429.42	287.13	1630970.09	270093.64	39°14'03.191"N	80°48'10.154"W	516.57	33.769	1.75
4494.00	31.150	39.100	4361.28	294.00	466.17	313.74	1630996.70	270130.39	39°14'03.558"N	80°48'09.823"W	561.91	33.942	4.11
4585.00	30.810	39.540	4439.30	314.66	502.41	343.42	1631026.38	270166.63	39°14'03.921"N	80°48'09.452"W	608.57	34.355	0.45
4675.00	27.820	34.010	4517.78	335.53	537.48	370.07	1631052.99	270201.70	39°14'04.271"N	80°48'09.121"W	652.53	34.546	1.27
4766.00	26.880	30.830	4598.61	358.14	572.62	392.64	1631075.60	270236.84	39°14'04.622"N	80°48'08.840"W	694.31	34.438	2.17
4857.00	30.750	34.870	4678.34	381.70	609.39	416.50	1631099.45	270273.61	39°14'04.988"N	80°48'08.544"W	738.12	34.351	4.76
4948.00	32.760	35.380	4755.71	405.90	648.56	444.05	1631127.01	270312.77	39°14'05.379"N	80°48'08.201"W	786.01	34.399	2.23
5038.00	33.070	33.500	4831.26	431.12	688.89	471.71	1631154.66	270353.10	39°14'05.782"N	80°48'07.857"W	834.91	34.401	1.19
5129.00	31.370	31.060	4908.25	457.47	729.80	491.62	1631180.98	270394.18	39°14'06.191"N	80°48'07.532"W	883.39	34.280	2.35
5220.00	31.320	28.090	4985.98	485.43	771.04	520.99	1631203.94	270435.26	39°14'06.601"N	80°48'07.245"W	930.56	34.047	1.70
5310.00	31.200	27.680	5062.91	513.93	812.32	542.83	1631225.78	270476.53	39°14'07.012"N	80°48'06.976"W	977.01	33.753	0.27
5404.00	29.580	28.780	5143.99	542.73	854.22	565.32	1631248.26	270518.43	39°14'07.429"N	80°48'06.698"W	1024.34	33.496	1.82
5496.00	28.050	29.750	5224.60	568.94	892.91	586.98	1631269.93	270557.11	39°14'07.815"N	80°48'06.429"W	1068.57	33.320	1.74
5586.00	27.880	28.820	5304.09	593.57	929.34	607.95	1631290.90	270597.70	39°14'08.180"N	80°48'06.160"W	1119.99	33.186	0.16

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Page 5 of 9



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Facility	OXF-97 Pad		

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5677.00	28.130	30.940	5384.43	618.14	966.40	629.56	1631312.50	270630.60	39°14'08.547"N	80°48'05.902"W	1153.37	33.082	0.64
5757.00	27.430	29.570	5455.21	639.65	998.60	648.35	1631331.29	270662.80	39°14'08.868"N	80°48'05.669"W	1190.61	32.994	1.18
5847.00	30.960	29.650	5533.77	665.37	1036.76	670.04	1631352.98	270700.96	39°14'09.248"N	80°48'05.400"W	1234.43	32.874	3.92
5936.00	31.020	27.490	5610.07	692.89	1077.00	691.95	1631374.89	270741.20	39°14'09.649"N	80°48'05.129"W	1280.13	32.720	1.25
6026.00	31.020	29.570	5687.46	720.87	1117.77	713.04	1631396.98	270781.97	39°14'10.050"N	80°48'04.856"W	1326.38	32.577	1.38
6115.00	30.900	33.110	5763.52	746.57	1156.90	737.79	1631420.73	270821.09	39°14'10.445"N	80°48'04.562"W	1372.13	32.527	2.14
6205.00	31.280	31.350	5840.60	772.06	1196.21	762.57	1631445.51	270860.40	39°14'10.837"N	80°48'04.254"W	1418.60	32.517	1.09
6294.00	31.340	32.590	5916.64	797.60	1235.44	787.06	1631470.00	270899.63	39°14'11.229"N	80°48'03.950"W	1464.85	32.500	0.73
6384.00	31.050	32.600	5993.62	822.92	1274.72	812.17	1631495.11	270938.91	39°14'11.620"N	80°48'03.638"W	1511.46	32.503	0.32
6474.00	31.700	32.650	6070.61	848.17	1313.02	837.75	1631520.22	270978.11	39°14'12.011"N	80°48'03.330"W	1557.32	32.507	0.24
6564.00	31.710	29.370	6147.40	874.77	1354.19	861.50	1631544.44	271018.38	39°14'12.413"N	80°48'03.026"W	1605.00	32.463	1.99
6653.00	31.450	24.830	6223.23	903.69	1395.65	882.72	1631565.66	271059.84	39°14'12.826"N	80°48'02.764"W	1651.38	32.313	2.69
6743.00	31.580	21.770	6299.96	935.28	1438.85	901.32	1631584.26	271103.03	39°14'13.255"N	80°48'02.535"W	1697.84	32.064	1.78
6832.00	36.070	21.700	6373.88	969.53	1484.86	919.66	1631602.60	271149.04	39°14'13.713"N	80°48'02.311"W	1746.59	31.772	5.05
6922.00	40.120	23.440	6444.71	1007.32	1536.11	941.95	1631623.89	271200.29	39°14'14.222"N	80°48'02.094"W	1801.39	31.491	6.07
7011.00	45.670	23.650	6509.90	1047.83	1591.62	965.09	1631648.03	271255.80	39°14'14.774"N	80°48'01.753"W	1861.36	31.231	6.27
7101.00	54.170	25.920	6567.80	1092.63	1654.04	994.01	1631676.94	271318.22	39°14'15.395"N	80°48'01.397"W	1929.74	31.004	9.64
7190.00	58.300	22.960	6617.26	1141.23	1721.39	1024.57	1631707.50	271385.57	39°14'16.065"N	80°48'01.021"W	2003.23	30.761	5.40
7280.00	61.310	12.030	6662.62	1198.97	1795.44	1047.79	1631730.72	271459.61	39°14'16.800"N	80°48'00.740"W	2078.81	30.267	11.01
7370.00	65.780	3.120	6702.75	1260.46	1875.44	1074.49	1631752.62	271530.21	39°14'17.580"N	80°48'00.600"W	2153.77	29.473	18.48
7459.00	71.040	358.540	6735.51	1340.58	1957.67	1062.25	1631745.18	271621.83	39°14'18.406"N	80°48'00.586"W	2227.29	28.485	9.06
7548.00	77.190	351.950	6759.89	1421.08	2042.87	1055.09	1631738.02	271707.04	39°14'19.247"N	80°48'00.693"W	2299.25	27.315	9.92
7638.00	80.130	345.730	6777.60	1506.89	2129.39	1037.99	1631720.92	271793.55	39°14'20.099"N	80°48'00.926"W	2368.91	25.987	7.52
7727.00	84.980	339.650	6789.14	1594.38	2213.57	1011.73	1631694.66	271877.72	39°14'20.927"N	80°48'01.275"W	2433.82	24.563	8.69
7817.00	85.750	332.370	6796.81	1683.99	2295.34	975.30	1631658.22	271954.59	39°14'21.731"N	80°48'01.751"W	2494.44	23.072	9.07



Actual Wellpath Report

OXF-97E-HS AWP Proj: 12724'

Page 6 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot E
Area	Doddridge Co., WV	Well	OXF-97E-HS
Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
7907.00	87.880	335.040	6802.19	1773.77	2375.97	935.51	1631618.44	272040.12	39°14'22.521"N	80°48'02.273"W	2553.51	21.491	4.15
7996.00	88.000	336.400	6805.39	1862.71	2457.04	898.93	1631581.87	272121.19	39°14'23.317"N	80°48'02.753"W	2616.32	20.096	1.53
8086.00	87.540	336.760	6808.89	1952.62	2539.56	863.19	1631546.13	272203.71	39°14'24.128"N	80°48'03.223"W	2682.25	18.773	0.65
8175.00	87.410	337.740	6812.81	2041.49	2621.56	828.81	1631511.75	272285.70	39°14'24.933"N	80°48'03.675"W	2749.45	17.544	1.11
8265.00	87.380	336.810	6816.91	2131.30	2701.19	794.09	1631477.02	272368.00	39°14'25.748"N	80°48'04.131"W	2818.00	16.363	1.03
8354.00	87.010	334.380	6821.26	2220.24	2785.43	757.35	1631440.29	272449.56	39°14'26.543"N	80°48'04.613"W	2886.55	15.211	2.76
8444.00	86.920	334.420	6826.02	2310.10	2866.48	718.52	1631401.46	272530.61	39°14'27.338"N	80°48'05.121"W	2955.16	14.072	0.11
8533.00	86.860	334.230	6830.85	2398.95	2946.58	680.01	1631362.96	272610.70	39°14'28.124"N	80°48'05.625"W	3024.02	12.995	0.22
8623.00	87.880	332.660	6834.98	2488.80	3026.99	639.82	1631322.77	272691.12	39°14'28.913"N	80°48'06.151"W	3093.87	11.935	2.08
8713.00	87.070	332.340	6838.24	2578.61	3106.77	598.29	1631281.00	272770.89	39°14'29.696"N	80°48'06.697"W	3163.40	10.906	0.37
8802.00	89.420	334.980	6840.27	2667.54	3186.50	558.82	1631241.77	272850.62	39°14'30.478"N	80°48'07.210"W	3235.13	9.947	3.38
8892.00	89.880	339.410	6840.82	2757.47	3269.44	523.94	1631206.89	272933.56	39°14'31.293"N	80°48'07.668"W	3311.16	9.104	4.95
8982.00	88.770	335.900	6841.88	2847.39	3352.66	489.73	1631172.69	273016.78	39°14'32.110"N	80°48'08.118"W	3388.24	8.311	4.09
9071.00	89.380	335.280	6843.32	2936.37	3433.70	452.96	1631135.91	273097.81	39°14'32.906"N	80°48'08.601"W	3463.45	7.515	0.98
9161.00	89.420	336.380	6844.20	3026.36	3515.87	416.20	1631099.21	273179.97	39°14'33.711"N	80°48'09.057"W	3544.32	6.752	1.45
9250.00	88.830	333.140	6845.62	3115.33	3596.41	378.46	1631061.41	273260.52	39°14'34.503"N	80°48'09.577"W	3616.27	6.007	3.92
9340.00	88.920	333.840	6847.39	3205.26	3676.93	338.29	1631021.25	273341.04	39°14'35.293"N	80°48'10.103"W	3692.46	5.257	0.78
9429.00	89.110	336.620	6848.92	3294.24	3757.73	301.01	1630983.97	273421.82	39°14'36.086"N	80°48'10.591"W	3769.76	4.580	3.13
9519.00	89.660	335.070	6849.88	3384.23	3839.84	264.19	1630947.15	273503.93	39°14'36.892"N	80°48'11.074"W	3848.92	3.936	1.83
9608.00	89.720	332.740	6850.36	3473.19	3918.76	225.07	1630910.00	273583.85	39°14'37.677"N	80°48'11.587"W	3927.21	3.286	2.02
9698.00	89.780	338.130	6850.76	3563.15	4001.58	187.64	1630870.60	273665.67	39°14'38.480"N	80°48'12.077"W	4005.98	2.685	5.99
9787.00	90.090	336.570	6850.86	3652.10	4083.72	153.37	1630836.33	273747.80	39°14'39.287"N	80°48'12.528"W	4086.60	2.151	1.79
9876.00	90.830	333.820	6850.14	3741.09	4164.49	116.04	1630799.00	273828.58	39°14'40.080"N	80°48'13.017"W	4166.11	1.596	3.20
9966.00	90.980	335.620	6848.72	3831.07	4245.86	77.61	1630760.58	273909.94	39°14'40.878"N	80°48'13.521"W	4246.57	1.047	2.01
10056.00	90.950	332.440	6847.20	3921.01	4326.76	38.22	1630721.19	273990.80	39°14'41.672"N	80°48'14.036"W	4326.90	0.490	1.31



Actual Wellpath Report

OXF-97E-HS AWP Proj: 12724'

Page 7 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot E
Area	Doddridge Co., WV	Well	OXF-97E-HS
Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations)													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
10145.00	90.580	333.710	6846.02	4009.92	4406.11	-2.06	1630680.91	274070.18	39°14'42.451"N	80°48'14.563"W	4406.11	359.973	1.46
10234.00	90.620	333.270	6845.08	4098.87	4485.75	-41.78	1630641.19	274149.82	39°14'43.232"N	80°48'15.082"W	4485.94	359.466	0.50
10324.00	90.220	329.900	6844.42	4188.64	4564.89	-84.60	1630598.37	274228.96	39°14'44.008"N	80°48'15.641"W	4565.67	358.938	3.77
10413.00	90.030	329.600	6844.23	4277.19	4641.77	-129.44	1630553.54	274305.84	39°14'44.761"N	80°48'16.225"W	4643.58	358.403	0.40
10502.00	90.060	341.700	6844.02	4367.01	4723.32	-177.47	1630511.51	274385.48	39°14'45.511"N	80°48'16.774"W	4723.45	357.920	1.67
10592.00	90.060	341.850	6844.02	4455.85	4803.95	-204.39	1630478.59	274468.00	39°14'46.353"N	80°48'17.208"W	4808.29	357.564	8.03
10682.00	89.750	349.140	6844.17	4544.42	4891.02	-226.92	1630456.06	274555.07	39°14'47.211"N	80°48'17.510"W	4896.28	357.344	8.11
10771.00	89.720	340.750	6844.58	4632.13	4976.89	-250.02	1630432.96	274640.94	39°14'48.056"N	80°48'17.819"W	4983.16	357.124	9.43
10864.00	89.750	333.890	6845.01	4725.03	5062.64	-285.85	1630397.13	274726.69	39°14'48.898"N	80°48'18.291"W	5070.71	356.768	7.38
10954.00	89.780	325.800	6845.54	4816.30	5134.25	-326.82	1630356.17	274802.28	39°14'49.620"N	80°48'18.825"W	5164.11	356.461	4.13
11040.00	89.780	325.060	6845.76	4899.82	5213.80	-375.65	1630307.33	274877.85	39°14'50.379"N	80°48'19.460"W	5227.32	355.879	4.60
11129.00	89.750	327.500	6846.12	4987.67	5287.83	-425.06	1630257.93	274951.86	39°14'51.104"N	80°48'20.101"W	5304.88	355.404	2.74
11219.00	89.720	329.870	6846.54	5077.03	5364.71	-471.83	1630211.16	275028.74	39°14'51.857"N	80°48'20.710"W	5385.42	354.974	2.63
11308.00	89.780	333.800	6846.93	5165.83	5443.15	-513.83	1630169.16	275107.19	39°14'52.626"N	80°48'21.258"W	5467.35	354.607	4.42
11397.00	89.820	339.380	6847.21	5254.78	5524.79	-549.17	1630133.82	275180.85	39°14'53.428"N	80°48'21.771"W	5552.01	354.221	6.27
11487.00	89.820	338.500	6847.52	5344.61	5608.78	-581.52	1630101.48	275272.81	39°14'54.253"N	80°48'22.149"W	5638.85	354.081	0.98
11577.00	89.880	336.840	6847.76	5434.54	5692.03	-615.71	1630067.28	275356.05	39°14'55.071"N	80°48'22.599"W	5725.23	353.826	1.85
11666.00	89.780	338.830	6848.02	5523.46	5774.45	-649.28	1630033.71	275438.47	39°14'55.881"N	80°48'23.041"W	5810.84	353.585	2.24
11756.00	89.780	338.120	6848.37	5613.34	5858.17	-682.31	1630000.69	275522.19	39°14'56.703"N	80°48'23.476"W	5897.77	353.357	0.79
11845.00	89.680	344.520	6848.89	5701.51	5939.66	-718.07	1629964.95	275603.68	39°14'57.503"N	80°48'23.920"W	5984.91	353.107	1.89
11935.00	89.380	332.810	6849.65	5792.26	6020.32	-757.97	1629925.03	275684.33	39°14'58.295"N	80°48'24.468"W	6067.84	352.824	1.92
12024.00	89.350	334.380	6850.63	5881.20	6100.02	-797.54	1629885.46	275764.03	39°14'59.077"N	80°48'24.986"W	6151.94	352.551	1.76
12114.00	89.510	335.610	6851.53	5971.20	6181.58	-835.58	1629847.42	275845.59	39°14'59.877"N	80°48'25.484"W	6237.80	352.302	1.38
12204.00	89.450	336.700	6852.35	6061.18	6263.89	-871.96	1629811.04	275927.90	39°15'00.686"N	80°48'25.962"W	6324.29	352.075	1.21
12294.00	89.430	345.120	6853.20	6150.17	6345.11	-908.29	1629771.72	276009.13	39°15'01.483"N	80°48'26.430"W	6409.82	351.811	1.18



Actual Wellpath Report

OXF-97E-HS AWP Proj: 12724'

Page 8 of 9



REFERENCE WELL PATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot E
Area	Doddridge Co., WV	Well	OXF-97E-HS
Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

WELLPATH DATA (156 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
12383.00	90.890	333.830	6852.93	6240.16	6426.35	-947.07	1629735.94	276090.35	39°15'02.280"N	80°48'26.947"W	6495.76	351.617	2.15
12472.00	90.890	336.240	6851.55	6329.14	6507.02	-984.62	1629698.38	276171.01	39°15'03.072"N	80°48'27.439"W	6581.09	351.395	2.71
12562.00	91.020	337.490	6850.05	6419.10	6589.77	-1019.98	1629663.03	276253.76	39°15'03.885"N	80°48'27.904"W	6668.24	351.201	1.40
12651.00	90.890	337.120	6848.57	6508.04	6671.86	-1054.31	1629628.70	276335.85	39°15'04.691"N	80°48'28.355"W	6754.65	351.020	0.44
12695.00	90.950	337.310	6847.38	6580.99	6739.18	-1082.54	1629600.47	276403.16	39°15'05.352"N	80°48'28.726"W	6825.57	350.874	0.00

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
OXF-97E-HS LP Rev-2		6790.00	2205.16	987.94	1631670.87	271869.32	39°14'20.841"N	80°48'01.576"W	point
OXF-97E-HS BHL Rev-2		6855.00	6718.21	-1069.73	1629613.28	276382.20	39°15'05.147"N	80°48'28.560"W	point
OXF-97 LL		7198.43	0.04	-20.20	1630662.77	269664.28	39°13'58.904"N	80°48'13.980"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: OXF-97E-HS AWB Ref Wellpath: OXF-97E-HS AWP Proj: 12724'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	2954.00	Generic gyro - northseeking (Standard)	01_MS Gyro <12-1/4"> (100'-2900')	OXF-97E-HS AWB
2954.00	5677.00	ISCWSA MWD, Rev. 2 (Standard)	02_Scientific EM <8-3/4"> (2946')(3092'-5669')	OXF-97E-HS AWB
5677.00	12695.00	NaviTrak (AT Curve Short Spaced)	03_BHI AT Curve <8-1/2"> (5677')(5757'-12695')	OXF-97E-HS AWB
12695.00	12724.00	Blind Drilling (std)	Projection to bit	OXF-97E-HS AWB

01/27/2017

25/Jun/2015



Actual Wellpath Report

OXF-97E-HS AWP Proj: 12724'
Page 9 of 9



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY	Slot	Slot E
Area	Doddridge Co., WV	Well	OXF-97E-HS
Field	Doddridge	Wellbore	OXF-97E-HS AWB
Facility	OXF-97 Pad		

COMMENTS
<p>Wellpath general comments API: 47-017-06583-0000 Rig: Precision 543 BHI Job #: 7255545 Duration: 06.20.2015 - 06.23.2015 MS Gyro <12-1/4"> (100'-2900') Scientific EM <8-3/4"> (2946')(3092'-5669') BHI AT Curve <8-1/2"> (5677')(5757'- 12695') Projected MD at TD: 12724'</p>

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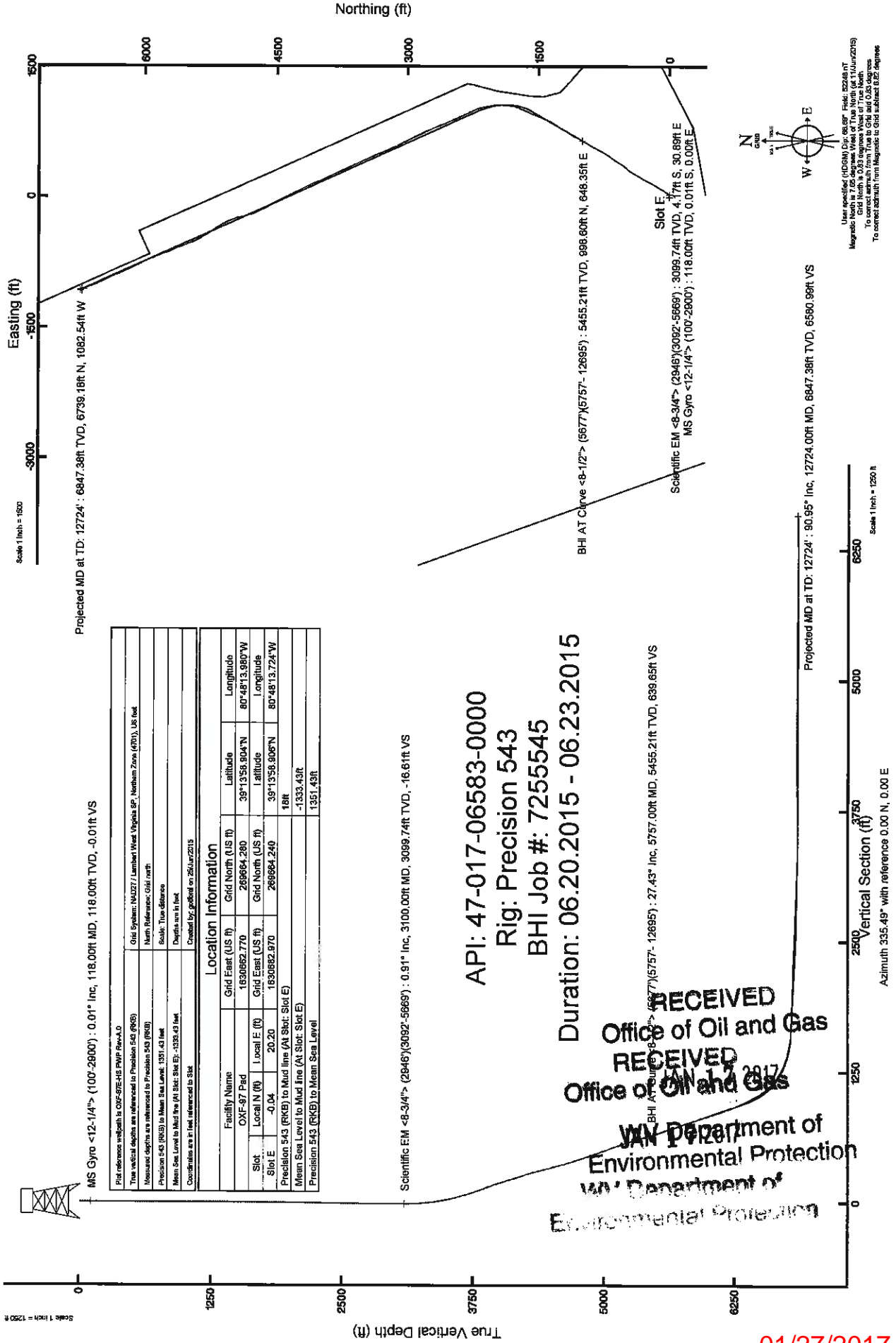


NOBLE ENERGY



Location: Doddridge Co., WV
 Field: Doddridge
 Facility: OXF-97 Pad

Slot: Slot E
 Well: OXF-97E-HS
 Wellbore: OXF-97E-HS PWB



MS Gyro <12-1/4"> (100-28000) : 0.01' Inc, 118.00ft MD, 118.00ft TVD, -0.01ft VS

Location Information			
Facility Name	Grid East (US ft)	Grid North (US ft)	Longitude
OXF-97 Pad	1830662.770	269064.280	80°48'13.960"W
Slot	Local N (ft)	Grid North (US ft)	Latitude
Slot E	-0.04	269064.240	80°48'13.724"W
Precision 543 (RKB) to Mud line (At Slot Slot E)			18ft
Mean Sea Level to Mud line (At Slot Slot E)			-1333.43ft
Precision 543 (RKB) to Mean Sea Level			1351.43ft

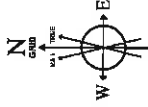
Scientific EM <8-3/4"> (2846)(3092-5669) : 0.91' Inc, 3100.00ft MD, 3099.74ft TVD, -16.61ft VS

API: 47-017-06583-0000
 Rig: Precision 543
 BHI Job #: 7255545
 Duration: 06.20.2015 - 06.23.2015

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User specified (HDGM) Dip: 0.00° Rise: 0.0046 ft
 Magnetic North (MAGN) Dip: 0.00° Rise: 0.0046 ft
 Grid North & 0.03 degrees West of True North
 To correct azimuth from True to Grid, add 0.03 degrees
 To correct azimuth from Magnetic to Grid, subtract 6.02 degrees



Scale 1 inch = 1250 ft

Vertical Section (ft)
 0 2500 3750 5000 6250

Projected MD at TD: 12724' : 90.95' Inc, 12724.00ft MD, 6847.38ft TVD, 6580.98ft VS

BHI AT Curve <8-1/2"> (6577)(5757-12695) : 5455.21ft TVD, 986.60ft N, 648.35ft E

Slot E
 Scientific EM <8-3/4"> (2846)(3092-5669) : 3099.74ft TVD, 4.17ft S, 30.89ft E
 MS Gyro <12-1/4"> (100-28000) : 118.00ft TVD, 0.01ft S, 0.00ft E

Scale 1 inch = 1250 ft