



# Actual Wellpath Report

SHR-3G-HS AWP Proj: 15916'  
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01/27/2017

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWP
Facility	SHR-3 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	Edsartyar
Scale	0.999948	Report Generated	18/Mar/2015 at 17:11
Convergence at slot	0.85° West	Database/Source file	WellArchitect\asterm\DR\SHR-3G-HS_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-20.19	-1.86	1623296.17	335723.25	39°24'50.700"N	80°50'00.050"W
Facility Reference Pt			1623298.03	335743.44	39°24'50.900"N	80°50'00.030"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 542 (RKB) to Facility Vertical Datum	770.73ft
Horizontal Reference Pt	Slot	Precision 542 (RKB) to Mean Sea Level	770.73ft
Vertical Reference Pt	Precision 542 (RKB)	Precision 542 (RKB) to Mud Line at Slot (Slot G)	18.50ft
MD Reference Pt	Precision 542 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	160.00°



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Facility	SHR-3 Pad		

## WELLPATH DATA (178 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)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00†	0.000	214.950	0.00	0.00	0.00	0.00	1623296.17	335723.25	39°24'50.700"N	80°50'00.050"W	0.00	0.000	0.00	0.00	0.00
18.50	0.000	214.950	18.50	0.00	0.00	0.00	1623296.17	335723.25	39°24'50.700"N	80°50'00.050"W	0.00	0.000	0.00	0.00	0.00
118.50	0.340	214.950	118.50	0.17	-0.24	-0.17	1623296.00	335723.01	39°24'50.698"N	80°50'00.052"W	0.30	214.950	0.34	0.34	0.00
218.50	0.600	191.166	218.50	0.79	-1.00	-0.44	1623295.73	335722.25	39°24'50.690"N	80°50'00.055"W	1.09	203.809	0.32	0.26	-23.79
318.50	0.670	232.830	318.49	1.41	-1.87	-1.01	1623295.16	335721.38	39°24'50.682"N	80°50'00.063"W	2.12	208.377	0.46	0.07	41.67
418.50	0.260	235.160	418.49	1.64	-2.35	-1.66	1623294.51	335720.90	39°24'50.677"N	80°50'00.071"W	2.88	215.248	0.41	-0.41	2.33
518.50	0.500	181.760	518.48	2.10	-2.92	-1.86	1623294.31	335720.33	39°24'50.671"N	80°50'00.073"W	3.46	212.539	0.40	0.24	-53.40
618.50	0.610	178.490	618.48	3.01	-3.88	-1.86	1623294.31	335719.37	39°24'50.661"N	80°50'00.073"W	4.31	205.585	0.11	0.11	-3.27
718.50	0.700	178.720	718.47	4.10	-5.03	-1.83	1623294.34	335718.22	39°24'50.650"N	80°50'00.072"W	5.35	200.024	0.09	0.09	0.23
818.50	0.690	186.240	818.47	5.22	-6.24	-1.88	1623294.29	335717.01	39°24'50.638"N	80°50'00.073"W	6.51	196.809	0.09	-0.01	7.52
918.50	0.530	220.850	918.46	5.98	-7.18	-2.25	1623293.92	335716.07	39°24'50.629"N	80°50'00.077"W	7.53	197.402	0.39	-0.16	34.61
1018.50	0.330	256.820	1018.46	6.17	-7.60	-2.83	1623293.34	335715.65	39°24'50.625"N	80°50'00.085"W	8.11	200.455	0.33	-0.20	35.97
1118.50	0.270	241.350	1118.46	6.17	-7.78	-3.32	1623292.85	335715.47	39°24'50.623"N	80°50'00.091"W	8.46	203.125	0.10	-0.06	-15.47
1218.50	0.370	243.750	1218.46	6.24	-8.03	-3.82	1623292.35	335714.77	39°24'50.620"N	80°50'00.097"W	8.90	205.419	0.10	0.10	2.40
1318.50	0.500	225.360	1318.45	6.46	-8.48	-4.42	1623291.75	335714.26	39°24'50.611"N	80°50'00.105"W	9.57	207.510	0.19	0.13	-18.39
1418.50	0.250	203.600	1418.45	6.80	-8.99	-4.82	1623291.02	335713.80	39°24'50.606"N	80°50'00.114"W	10.20	208.617	0.20	-0.25	-21.76
1518.50	0.410	224.390	1518.45	7.11	-9.45	-5.15	1623290.35	335713.24	39°24'50.600"N	80°50'00.122"W	11.58	210.177	0.20	0.18	20.79
1618.50	0.590	233.660	1618.44	7.41	-10.01	-5.82	1623290.35	335712.64	39°24'50.594"N	80°50'00.132"W	12.48	211.726	0.10	-0.08	9.27
1718.50	0.510	227.430	1718.44	7.73	-10.61	-6.56	1623289.61	335712.00	39°24'50.588"N	80°50'00.141"W	13.40	212.877	0.08	0.08	1.10
1818.50	0.590	228.530	1818.44	8.09	-11.25	-7.27	1623288.03	335711.42	39°24'50.582"N	80°50'00.151"W	14.36	214.515	0.16	0.02	15.03
1918.50	0.610	243.560	1918.43	8.34	-11.83	-8.14	1623287.01	335710.91	39°24'50.577"N	80°50'00.164"W	15.37	216.582	0.09	0.09	-0.09
2018.50	0.700	243.470	2018.42	8.47	-12.34	-9.16	1623286.21	335710.69	39°24'50.574"N	80°50'00.175"W	16.03	218.402	0.48	-0.37	35.61
2112.50	0.350	276.940	2112.42	8.40	-12.56	-9.96	1623285.23	335710.48	39°24'50.572"N	80°50'00.187"W	16.82	220.586	0.38	0.31	-25.00
2225.00	0.700	248.810	2224.91	8.26	-12.77	-10.94	1623284.57	335710.40	39°24'50.571"N	80°50'00.195"W	17.31	222.079	0.83	0.39	53.49
2274.00	0.890	275.020	2273.91	8.10	-12.85	-11.60	1623281.75	335711.10	39°24'50.578"N	80°50'00.231"W	18.86	229.882	2.25	2.22	12.84
2363.00	2.870	286.450	2362.86	6.49	-12.15	-14.42	1623276.46	335712.73	39°24'50.593"N	80°50'00.299"W	22.34	241.911	1.46	1.46	1.38
2453.00	4.180	287.690	2452.69	3.14	-10.52	-19.71	1623269.39	335715.33	39°24'50.618"N	80°50'00.390"W	27.93	253.519	1.58	1.53	4.85
2542.00	5.540	292.010	2541.36	-1.71	-7.92	-26.78	1623260.38	335719.41	39°24'50.657"N	80°50'00.505"W	35.99	263.888	1.79	1.71	4.68
2632.00	7.080	296.220	2630.82	-8.63	-3.85	-35.79	1623250.13	335724.61	39°24'50.707"N	80°50'00.637"W	46.06	271.687	0.61	0.58	1.46
2722.00	7.600	297.530	2720.08	-17.02	1.36	-46.04									

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Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB
Facility	SHR-3 Pad		

## WELLPATH DATA (178 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)	Build Rate (°/100ft)	Turb Rate (°/100ft)
2811.00	8.440	307.430	2808.21	-26.87	8.05	-56.45	1623339.72	335731.30	39°24'50.771"N	80°50'00.771"W	57.02	278.113	1.81	0.94	11.12
2901.00	11.160	318.980	2896.90	-40.57	18.64	-67.41	1623328.76	335741.88	39°24'50.874"N	80°50'00.912"W	69.94	285.453	3.71	3.02	12.83
2991.00	9.200	319.480	2965.48	-55.44	30.68	-77.80	1623218.37	335753.93	39°24'50.992"N	80°50'01.047"W	83.63	291.519	2.18	2.18	0.56
3080.00	8.610	312.400	3073.41	-68.01	40.58	-87.35	1623208.83	335763.83	39°24'51.088"N	80°50'01.170"W	96.31	294.918	1.40	-0.66	-7.96
3170.00	11.630	311.930	3162.00	-81.98	51.19	-99.07	1623197.10	335774.43	39°24'51.191"N	80°50'01.322"W	111.51	297.323	3.36	3.36	-0.52
3260.00	12.050	308.720	3250.08	-98.02	63.12	-113.15	1623183.02	335786.37	39°24'51.307"N	80°50'01.503"W	129.57	299.156	0.87	0.47	-3.57
3349.00	8.120	316.640	3337.69	-111.73	73.51	-124.72	1623171.46	335796.76	39°24'51.408"N	80°50'01.653"W	144.77	300.515	4.67	-4.42	8.90
3439.00	5.190	336.350	3427.09	-121.63	81.86	-130.72	1623165.46	335805.11	39°24'51.490"N	80°50'01.731"W	154.24	302.056	4.08	-3.26	21.90
3529.00	3.460	341.090	3516.83	-128.41	88.16	-133.23	1623162.94	335811.41	39°24'51.552"N	80°50'01.764"W	159.76	303.493	1.96	-1.92	5.27
3618.00	2.880	337.560	3605.69	-133.33	92.77	-134.96	1623161.22	335816.01	39°24'51.597"N	80°50'01.787"W	163.77	304.504	0.69	-0.65	-3.97
3708.00	1.700	330.430	3695.62	-136.91	96.02	-136.48	1623159.70	335819.26	39°24'51.629"N	80°50'01.807"W	166.87	305.128	1.35	-1.31	-7.92
3798.00	1.770	337.630	3785.58	-139.61	98.47	-137.67	1623158.51	335821.71	39°24'51.653"N	80°50'01.822"W	169.26	305.574	0.25	0.08	8.00
3887.00	1.190	355.490	3874.55	-141.88	100.66	-138.26	1623157.91	335823.90	39°24'51.675"N	80°50'01.830"W	171.02	306.055	0.83	-0.65	20.07
3976.00	0.690	334.980	3963.54	-143.30	102.06	-138.56	1623157.62	335825.31	39°24'51.688"N	80°50'01.835"W	172.09	306.375	0.67	-0.56	-23.04
4066.00	0.680	339.340	4053.53	-144.37	103.06	-138.98	1623157.20	335826.30	39°24'51.698"N	80°50'01.840"W	173.02	306.557	0.06	-0.01	4.84
4155.00	1.230	294.350	4142.52	-145.57	103.94	-140.04	1623156.14	335827.19	39°24'51.707"N	80°50'01.854"W	174.40	306.585	1.00	0.62	-50.55
4245.00	0.800	290.130	4232.51	-146.65	104.56	-141.51	1623154.67	335827.80	39°24'51.713"N	80°50'01.873"W	175.94	306.460	0.48	-0.48	4.69
4335.00	0.440	286.380	4322.50	-147.26	104.87	-142.43	1623153.75	335828.12	39°24'51.716"N	80°50'01.884"W	176.87	306.365	0.40	-0.40	-4.17
4424.00	0.610	254.500	4411.50	-147.50	104.84	-143.21	1623152.97	335828.09	39°24'51.715"N	80°50'01.894"W	177.49	306.207	0.37	0.19	-35.82
4514.00	0.540	240.650	4501.49	-147.47	104.51	-144.04	1623152.13	335827.75	39°24'51.712"N	80°50'01.905"W	177.96	305.961	0.17	-0.08	-15.39
4603.00	0.220	267.440	4590.49	-147.45	104.29	-144.58	1623151.60	335827.54	39°24'51.710"N	80°50'01.912"W	178.27	305.805	0.40	-0.36	30.10
4693.00	0.250	254.850	4680.49	-147.52	104.23	-144.94	1623151.24	335827.48	39°24'51.709"N	80°50'01.916"W	178.53	305.721	0.07	0.03	-13.99
4783.00	0.440	252.700	4770.49	-147.55	104.08	-145.46	1623150.72	335827.32	39°24'51.707"N	80°50'01.923"W	178.86	305.584	0.21	0.21	-2.39
4872.00	0.340	266.370	4859.49	-147.64	103.96	-146.05	1623150.13	335827.21	39°24'51.706"N	80°50'01.930"W	179.27	305.444	0.15	-0.11	15.36
4962.00	0.470	279.870	4949.48	-147.90	104.01	-146.68	1623149.50	335827.25	39°24'51.706"N	80°50'01.938"W	179.81	305.339	0.18	0.14	15.00
5051.00	0.250	249.290	5038.48	-148.08	104.00	-147.22	1623148.96	335827.25	39°24'51.706"N	80°50'01.944"W	180.25	305.238	0.32	-0.25	-34.36
5141.00	0.620	270.190	5128.48	-148.25	103.93	-147.89	1623148.29	335827.18	39°24'51.706"N	80°50'01.954"W	180.76	305.098	0.44	0.41	23.22
5231.00	6.170	269.210	5218.29	-150.01	103.87	-153.22	1623142.96	335827.11	39°24'51.704"N	80°50'02.022"W	185.11	304.133	6.17	6.17	-1.09
5321.00	10.240	265.730	5307.35	-153.77	103.21	-166.04	1623130.14	335826.45	39°24'51.696"N	80°50'02.185"W	195.50	301.864	4.55	4.52	-3.87
5410.00	14.480	256.710	5394.27	-157.22	100.06	-184.77	1623111.41	335823.30	39°24'51.662"N	80°50'02.423"W	210.12	298.437	5.22	4.76	-10.13

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MD [ft]	Inclination [°]	Azimuth [°]	TYD [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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5499.00	20.010	255.900	5479.24	-160.08	93.78	-210.38	1623085.80	335817.03	39°24'51.596"N	80°50'02.748"W	230.34	294.026	6.22	6.21	-0.91
5589.00	26.280	261.780	5561.96	-165.74	87.18	-245.08	1623051.11	335810.42	39°24'51.526"N	80°50'03.189"W	260.12	289.581	7.42	6.97	6.53
5679.00	31.980	261.960	5640.55	-174.76	80.99	-288.43	1623007.75	335804.24	39°24'51.458"N	80°50'03.740"W	299.59	285.684	6.33	6.33	0.20
5768.00	37.700	262.030	5713.56	-185.32	73.91	-338.76	1622957.43	335797.16	39°24'51.381"N	80°50'04.380"W	346.73	282.309	6.43	6.43	0.08
5858.00	43.010	262.010	5782.12	-197.45	65.83	-396.45	1622899.74	335789.07	39°24'51.292"N	80°50'05.113"W	401.88	279.427	5.90	5.90	-0.02
5948.00	47.690	261.890	5845.36	-210.70	56.86	-459.83	1622836.36	335780.11	39°24'51.195"N	80°50'05.919"W	463.33	277.049	5.20	5.20	-0.13
6037.00	51.380	258.020	5903.12	-222.34	44.99	-526.46	1622769.74	335768.24	39°24'51.067"N	80°50'06.765"W	528.38	274.885	5.30	4.15	-4.35
6127.00	51.480	245.320	5959.37	-224.38	22.94	-593.01	1622703.19	335746.19	39°24'50.840"N	80°50'07.609"W	593.45	272.215	11.02	0.11	-14.11
6217.00	52.790	232.000	6014.77	-210.39	-13.93	-653.41	1622642.79	335709.32	39°24'50.467"N	80°50'08.372"W	653.56	268.779	11.76	1.46	-14.80
6307.00	61.590	223.290	6063.55	-181.43	-64.97	-708.98	1622587.23	335658.28	39°24'49.944"N	80°50'09.070"W	711.95	264.764	12.71	9.78	-9.68
6396.00	60.010	221.030	6106.98	-145.16	-122.55	-761.13	1622535.08	335600.71	39°24'49.377"N	80°50'09.723"W	770.93	260.853	2.84	-1.78	-2.54
6486.00	59.920	212.300	6152.09	-102.41	-184.96	-807.59	1622488.63	335538.30	39°24'48.754"N	80°50'10.303"W	828.50	257.100	8.40	-0.10	-9.70
6575.00	60.880	200.850	6196.16	-49.32	-254.01	-842.09	1622454.13	335469.25	39°24'48.066"N	80°50'10.730"W	879.56	253.215	11.23	1.08	-12.87
6665.00	65.170	192.270	6237.03	15.07	-330.80	-864.80	1622431.41	335392.46	39°24'47.304"N	80°50'11.005"W	925.91	249.067	9.74	4.77	-9.53
6755.00	69.930	186.040	6271.42	87.68	-412.86	-877.95	1622418.27	335310.41	39°24'46.491"N	80°50'11.157"W	970.18	244.815	8.30	5.29	-6.92
6844.00	75.000	176.500	6298.29	166.67	-497.56	-879.73	1622416.49	335225.72	39°24'45.654"N	80°50'11.163"W	1010.69	240.508	11.70	5.70	-10.72
6934.00	80.220	169.930	6317.61	252.18	-584.76	-869.30	1622426.91	335138.52	39°24'44.794"N	80°50'11.014"W	1047.68	236.072	9.19	5.80	-7.30
7023.00	85.970	162.000	6328.32	339.95	-670.36	-847.87	1622448.35	335052.92	39°24'43.951"N	80°50'10.725"W	1080.86	231.668	10.95	6.46	-8.91
7113.00	89.140	159.750	6332.16	429.84	-755.30	-818.41	1622477.80	334967.99	39°24'43.116"N	80°50'10.333"W	1113.68	227.296	4.32	3.52	-2.50
7202.00	89.020	158.750	6333.59	518.82	-838.52	-786.88	1622509.35	334884.78	39°24'42.298"N	80°50'09.916"W	1149.91	223.180	1.13	-0.13	-1.12
7292.00	89.110	158.350	6335.06	608.78	-922.27	-753.97	1622542.24	334801.03	39°24'41.475"N	80°50'09.481"W	1191.24	219.267	0.46	0.10	-0.44
7381.00	89.170	155.720	6336.39	697.64	-1004.20	-719.26	1622576.95	334719.10	39°24'40.671"N	80°50'09.023"W	1235.21	215.612	2.96	0.07	-2.96
7471.00	89.020	156.620	6337.82	787.43	-1086.52	-682.90	1622613.31	334636.79	39°24'39.862"N	80°50'08.544"W	1283.31	212.150	1.01	-0.17	1.00
7561.00	88.980	158.030	6339.39	877.31	-1169.55	-648.21	1622647.99	334553.77	39°24'39.047"N	80°50'08.086"W	1337.17	208.997	1.57	-0.04	1.57
7650.00	89.510	159.580	6340.56	966.28	-1252.52	-616.04	1622680.17	334470.80	39°24'38.232"N	80°50'07.661"W	1395.81	206.190	1.84	0.60	1.74
7740.00	89.690	161.140	6341.19	1056.28	-1337.28	-585.79	1622710.41	334386.05	39°24'37.399"N	80°50'07.260"W	1459.95	203.656	1.74	0.20	1.73
7830.00	90.250	163.200	6341.24	1146.21	-1422.95	-558.23	1622737.97	334300.38	39°24'36.556"N	80°50'06.892"W	1528.53	201.420	2.37	0.62	2.29
7919.00	90.740	164.580	6340.47	1235.00	-1508.45	-533.54	1622762.66	334214.88	39°24'35.715"N	80°50'06.561"W	1600.02	199.479	1.65	0.51	1.55
8009.00	90.620	163.450	6339.40	1324.77	-1594.96	-508.76	1622787.44	334128.38	39°24'34.863"N	80°50'06.229"W	1674.14	197.692	1.26	-0.13	-1.26
8099.00	90.490	161.080	6338.54	1413.69	-1679.72	-481.65	1622814.55	334043.62	39°24'34.030"N	80°50'05.868"W	1747.41	196.000	2.67	-0.15	-2.66

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# Actual Wellpath Report

SHR-3G-HS AWP Proj: 15916'  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWP
Facility	SHR-3 Pad		

## WELLPATH DATA (178 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 [P/100ft]	Buid Rate [°/100ft]	Turn Rate [°/100ft]
8188.00	90.550	158.110	6337.72	1503.67	-1764.06	-450.27	1622845.92	333959.29	39°24'33.201"N	80°50'05.452"W	1820.62	194.319	3.30	0.07	-3.30
8277.00	90.580	156.910	6336.84	1592.58	-1846.29	-416.23	1622879.96	333877.06	39°24'32.399"N	80°50'05.003"W	1892.62	192.705	1.35	0.03	-1.35
8367.00	90.520	157.970	6335.98	1682.49	-1929.39	-381.71	1622914.48	333793.96	39°24'31.577"N	80°50'04.548"W	1966.79	191.191	1.18	-0.07	1.18
8456.00	90.920	158.500	6334.86	1771.44	-2012.04	-348.71	1622947.48	333711.32	39°24'30.765"N	80°50'04.112"W	2042.04	189.832	0.75	0.45	0.60
8546.00	90.950	158.780	6333.39	1861.40	-2095.85	-315.93	1622980.26	333627.52	39°24'29.942"N	80°50'03.678"W	2119.53	188.572	0.31	0.03	0.31
8635.00	91.450	157.510	6331.53	1950.33	-2178.43	-282.81	1623013.38	333544.94	39°24'29.130"N	80°50'03.241"W	2196.71	187.397	1.53	0.56	-1.43
8724.00	91.720	155.100	6329.06	2039.10	-2259.89	-247.06	1623049.12	333463.48	39°24'28.331"N	80°50'02.770"W	2273.36	186.239	2.72	0.30	-2.71
8814.00	92.120	152.860	6326.05	2128.55	-2340.72	-207.60	1623088.58	333382.66	39°24'27.538"N	80°50'02.252"W	2349.91	185.068	2.53	0.44	-2.49
8904.00	90.920	155.280	6323.66	2218.03	-2421.62	-168.27	1623127.91	333301.76	39°24'26.744"N	80°50'01.736"W	2427.46	183.975	3.00	-1.33	2.69
8993.00	90.740	159.110	6322.37	2306.90	-2503.64	-133.78	1623162.40	333219.74	39°24'25.938"N	80°50'01.281"W	2507.21	183.059	4.31	-0.20	4.30
9082.00	90.860	160.740	6321.13	2395.89	-2587.22	-103.23	1623192.94	333136.17	39°24'25.117"N	80°50'00.876"W	2589.28	182.285	1.84	0.13	1.83
9172.00	90.430	159.970	6320.12	2485.88	-2671.98	-72.98	1623223.19	333051.42	39°24'24.284"N	80°50'00.474"W	2672.98	181.565	0.98	-0.48	-0.86
9261.00	90.400	159.990	6319.47	2574.88	-2755.60	-42.51	1623253.66	332967.80	39°24'23.462"N	80°50'00.071"W	2755.93	180.884	0.04	-0.03	0.02
9351.00	90.310	160.640	6318.91	2664.87	-2840.34	-12.20	1623283.98	332883.07	39°24'22.629"N	80°49'59.668"W	2840.36	180.246	0.73	-0.10	0.72
9441.00	89.940	162.420	6318.72	2754.84	-2925.70	16.32	1623312.49	332797.71	39°24'21.790"N	80°49'59.289"W	2925.74	179.680	2.02	-0.41	1.98
9530.00	89.750	164.240	6318.96	2843.68	-3010.95	41.85	1623338.01	332712.46	39°24'20.951"N	80°49'58.948"W	3011.24	179.204	2.06	-0.21	2.04
9620.00	89.750	163.180	6319.35	2933.49	-3097.34	67.09	1623363.26	332626.08	39°24'20.101"N	80°49'58.610"W	3098.06	178.759	1.18	0.00	-1.18
9709.00	89.850	160.650	6319.66	3022.43	-3181.93	94.72	1623390.88	332541.49	39°24'19.269"N	80°49'58.242"W	3183.34	178.295	2.84	0.11	-2.84
9798.00	89.480	158.680	6320.18	3111.43	-3265.38	125.64	1623421.80	332458.05	39°24'18.449"N	80°49'57.832"W	3267.80	177.797	2.25	-0.42	-2.21
9888.00	89.230	159.150	6321.19	3201.40	-3349.35	158.02	1623454.18	332374.08	39°24'17.624"N	80°49'57.404"W	3353.08	177.299	0.99	-0.28	0.52
9978.00	89.320	160.550	6322.33	3291.39	-3433.83	189.02	1623485.18	332289.60	39°24'16.793"N	80°49'56.993"W	3439.03	176.849	1.56	0.10	1.56
10067.00	89.570	162.080	6323.20	3380.36	-3518.13	217.53	1623513.69	332205.31	39°24'15.964"N	80°49'56.614"W	3524.85	176.462	1.74	0.28	1.72
10157.00	89.380	162.360	6324.02	3470.29	-3603.83	245.01	1623541.17	332119.61	39°24'15.121"N	80°49'56.248"W	3612.15	176.111	0.38	-0.21	0.31
10247.00	89.540	162.110	6324.87	3560.22	-3689.54	272.47	1623568.62	332033.91	39°24'14.278"N	80°49'55.882"W	3699.58	175.776	0.33	0.18	-0.28
10336.00	88.950	161.680	6326.04	3649.16	-3774.12	300.12	1623596.28	331949.33	39°24'13.447"N	80°49'55.514"W	3786.04	175.453	0.82	-0.66	-0.48
10426.00	89.170	161.820	6327.52	3739.11	-3859.58	328.30	1623624.46	331863.88	39°24'12.606"N	80°49'55.138"W	3873.52	175.138	0.29	0.24	0.16
10515.00	89.020	161.940	6328.92	3828.05	-3944.16	355.98	1623652.13	331779.31	39°24'11.774"N	80°49'54.770"W	3960.19	174.843	0.22	-0.17	0.13
10605.00	89.020	162.110	6330.46	3917.98	-4029.75	383.75	1623679.90	331693.72	39°24'10.933"N	80°49'54.400"W	4047.98	174.560	0.19	0.00	0.19
10694.00	88.800	161.350	6332.16	4006.92	-4114.25	411.65	1623707.79	331609.22	39°24'10.102"N	80°49'54.029"W	4134.79	174.286	0.89	-0.25	-0.85
10784.00	89.200	160.490	6333.73	4096.90	-4199.29	441.06	1623737.21	331524.19	39°24'09.266"N	80°49'53.638"W	4222.39	174.004	1.05	0.44	-0.96





# Actual Wellpath Report

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB
Facility	SHR-3 Pad		

## WELLPATH DATA (178 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]	Build Rate [°/100ft]	Turn Rate [°/100ft]
10873.00	89.940	159.880	6334.39	4185.89	-4283.02	471.23	1623767.37	331440.46	39°24'08.443"N	80°49'53.238"W	4308.87	173.721	1.08	0.83	-0.69
10963.00	90.120	158.350	6334.35	4275.88	-4367.10	503.31	1623799.46	331356.38	39°24'07.616"N	80°49'52.813"W	4396.01	173.426	1.71	0.20	-1.70
11033.00	88.980	156.760	6335.05	4365.79	-4450.28	537.67	1623833.81	331273.21	39°24'06.799"N	80°49'52.360"W	4482.64	173.111	2.17	-1.27	-1.77
11142.00	89.420	156.990	6336.30	4454.65	-4532.12	572.62	1623868.76	331191.38	39°24'05.996"N	80°49'51.899"W	4568.15	172.799	0.56	0.49	0.26
11232.00	89.540	157.370	6337.11	4544.54	-4615.07	607.53	1623903.66	331108.43	39°24'05.181"N	80°49'51.439"W	4654.89	172.501	0.44	0.13	0.42
11321.00	89.970	157.510	6337.49	4633.45	-4697.26	641.67	1623937.81	331026.24	39°24'04.374"N	80°49'50.989"W	4740.89	172.221	0.51	0.48	0.16
11411.00	90.620	156.860	6337.03	4723.34	-4780.22	676.57	1623972.70	330943.29	39°24'03.559"N	80°49'50.529"W	4827.86	171.944	1.02	0.72	-0.72
11501.00	90.460	157.220	6336.18	4813.21	-4863.08	711.67	1624007.80	330860.43	39°24'02.745"N	80°49'50.066"W	4914.88	171.674	0.44	0.18	0.40
11590.00	90.000	158.150	6335.83	4902.14	-4945.42	745.47	1624041.60	330778.10	39°24'01.937"N	80°49'49.620"W	5001.29	171.428	1.17	-0.52	1.04
11680.00	89.940	158.320	6335.87	4992.09	-5029.00	778.84	1624074.97	330694.52	39°24'01.115"N	80°49'49.179"W	5088.95	171.197	0.20	-0.07	0.19
11769.00	89.910	159.180	6335.99	5081.07	-5111.95	811.09	1624107.22	330611.58	39°24'00.300"N	80°49'48.753"W	5175.90	170.984	0.97	-0.03	0.97
11859.00	89.970	160.250	6336.08	5171.07	-5196.37	842.30	1624138.42	330527.17	39°23'59.471"N	80°49'48.339"W	5264.19	170.793	1.19	0.07	1.19
11949.00	90.150	162.280	6335.99	5261.04	-5281.59	871.20	1624167.32	330441.94	39°23'58.633"N	80°49'47.955"W	5352.96	170.633	2.26	0.20	2.26
12038.00	90.340	162.830	6335.61	5349.95	-5366.50	897.88	1624194.00	330357.04	39°23'57.798"N	80°49'47.599"W	5441.09	170.502	0.65	0.21	0.62
12128.00	90.680	163.900	6334.81	5439.79	-5452.73	923.65	1624219.77	330270.82	39°23'56.949"N	80°49'47.255"W	5530.40	170.386	1.25	0.38	1.19
12217.00	91.110	165.200	6333.42	5528.50	-5538.50	947.35	1624243.47	330185.05	39°23'56.105"N	80°49'46.937"W	5618.94	170.294	1.54	0.48	1.46
12307.00	91.080	161.710	6331.70	5618.31	-5624.74	972.97	1624269.09	330098.81	39°23'55.256"N	80°49'46.594"W	5708.28	170.186	3.88	-0.03	3.88
12396.00	91.420	158.010	6329.75	5707.27	-5708.27	1003.60	1624299.72	330015.29	39°23'54.436"N	80°49'46.188"W	5795.82	170.028	4.17	0.38	4.16
12486.00	91.420	157.280	6327.52	5797.16	-5791.48	1037.82	1624333.94	329932.09	39°23'53.618"N	80°49'45.733"W	5883.73	169.841	0.81	0.00	-0.81
12576.00	91.820	157.410	6324.98	5887.03	-5874.50	1072.48	1624368.59	329849.07	39°23'52.803"N	80°49'45.280"W	5971.59	169.654	0.47	0.44	0.14
12666.00	91.720	159.330	6322.20	5976.95	-5958.12	1105.63	1624401.74	329765.46	39°23'51.981"N	80°49'44.842"W	6059.83	169.487	2.14	-0.11	2.13
12755.00	91.570	158.790	6319.64	6065.90	-6041.20	1137.43	1624433.54	329682.37	39°23'51.165"N	80°49'44.421"W	6147.35	169.337	0.63	-0.17	-0.61
12845.00	91.230	157.250	6317.45	6155.82	-6124.64	1171.10	1624467.21	329598.95	39°23'50.345"N	80°49'43.976"W	6235.59	169.175	1.75	-0.38	-1.71
12934.00	91.230	157.670	6315.54	6244.71	-6206.82	1205.21	1624501.32	329516.77	39°23'49.538"N	80°49'43.526"W	6322.75	169.011	0.47	0.00	0.47
13024.00	91.570	159.620	6313.34	6334.65	-6290.61	1237.97	1624534.08	329432.98	39°23'48.715"N	80°49'43.093"W	6411.27	168.867	2.20	0.38	2.17
13113.00	91.350	161.690	6311.07	6423.61	-6374.55	1267.44	1624563.54	329349.04	39°23'47.890"N	80°49'42.702"W	6499.33	168.755	2.34	-0.25	2.33
13203.00	92.090	157.730	6308.37	6513.55	-6458.91	1298.63	1624594.73	329264.69	39°23'47.060"N	80°49'42.289"W	6588.17	168.652	4.47	0.82	-4.40
13292.00	90.860	157.990	6306.07	6602.46	-6541.32	1332.16	1624628.26	329182.28	39°23'46.251"N	80°49'41.846"W	6675.59	168.489	1.41	-1.38	0.29
13382.00	90.000	157.900	6305.40	6692.40	-6624.73	1365.96	1624662.05	329098.88	39°23'45.432"N	80°49'41.400"W	6764.09	168.349	0.96	-0.96	-0.10
13471.00	88.920	160.050	6306.24	6781.37	-6707.80	1397.88	1624693.98	329015.82	39°23'44.615"N	80°49'40.978"W	6851.91	168.228	2.70	-1.21	2.42





# Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB
Facility	SHR-3 Pad		

WELLPATH DATA (178 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)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13561.00	89.050	161.800	6307.83	6871.34	-6792.84	1427.29	1624723.38	328930.78	39°23'43.779"N	80°49'40.588"W	6941.17	168.134	1.95	0.14	1.94
13651.00	88.770	161.750	6309.54	6961.28	-6878.31	1455.43	1624751.52	328845.32	39°23'42.939"N	80°49'40.213"W	7030.61	168.053	0.32	-0.31	-0.06
13740.00	89.720	163.720	6310.72	7050.17	-6963.29	1481.84	1624777.93	328760.34	39°23'42.103"N	80°49'39.861"W	7119.21	167.986	2.46	1.07	2.21
13830.00	90.060	167.290	6310.89	7139.74	-7050.41	1504.36	1624800.45	328673.23	39°23'41.245"N	80°49'39.557"W	7209.12	167.955	3.98	0.38	3.97
13919.00	89.080	165.480	6311.56	7228.18	-7136.90	1525.31	1624821.40	328586.74	39°23'40.393"N	80°49'39.274"W	7298.08	167.936	2.31	-1.10	-2.03
14009.00	88.060	163.520	6313.80	7317.87	-7223.59	1549.36	1624845.44	328500.05	39°23'39.540"N	80°49'38.952"W	7387.88	167.894	2.45	-1.13	-2.18
14099.00	88.030	162.550	6316.88	7407.69	-7309.63	1575.60	1624871.68	328414.02	39°23'38.694"N	80°49'38.601"W	7477.51	167.836	1.08	-0.03	-1.08
14188.00	88.770	160.530	6319.36	7496.62	-7394.01	1603.77	1624899.85	328329.64	39°23'37.864"N	80°49'38.227"W	7565.94	167.762	2.42	0.83	-2.27
14278.00	88.520	158.210	6321.49	7586.58	-7478.21	1635.47	1624931.55	328245.45	39°23'37.037"N	80°49'37.807"W	7654.96	167.664	2.59	-0.28	-2.58
14367.00	88.550	158.050	6323.76	7675.50	-7560.78	1668.61	1624964.69	328162.89	39°23'36.225"N	80°49'37.370"W	7742.71	167.555	0.18	0.03	-0.18
14457.00	88.770	158.970	6325.87	7765.45	-7644.49	1701.57	1624997.65	328079.17	39°23'35.403"N	80°49'36.934"W	7831.58	167.451	1.05	0.24	1.02
14547.00	89.630	157.960	6327.13	7855.40	-7728.20	1734.60	1625030.68	327995.47	39°23'34.580"N	80°49'36.498"W	7920.48	167.350	1.47	0.96	-1.12
14636.00	89.510	155.890	6327.79	7944.27	-7810.07	1769.48	1625065.56	327913.60	39°23'33.776"N	80°49'36.038"W	8008.02	167.234	2.23	-0.13	-2.33
14726.00	89.510	157.900	6328.56	8034.13	-7892.85	1804.80	1625100.87	327830.83	39°23'32.964"N	80°49'35.573"W	8096.56	167.120	2.23	0.00	2.23
14815.00	90.000	161.350	6328.94	8123.11	-7976.27	1835.78	1625131.85	327747.42	39°23'32.144"N	80°49'35.162"W	8184.86	167.039	3.92	0.55	3.88
14905.00	90.000	161.130	6328.94	8213.09	-8061.48	1864.72	1625160.79	327662.20	39°23'31.306"N	80°49'34.778"W	8274.34	166.976	0.24	0.00	-0.24
14995.00	89.880	159.600	6329.04	8303.09	-8146.25	1894.96	1625191.03	327577.44	39°23'30.473"N	80°49'34.377"W	8363.75	166.905	1.71	-0.13	-1.70
15084.00	89.720	158.560	6329.35	8392.07	-8229.38	1926.74	1625222.81	327494.32	39°23'29.656"N	80°49'33.956"W	8451.93	166.823	1.18	-0.18	-1.17
15174.00	89.750	158.870	6329.77	8482.05	-8313.24	1959.41	1625255.48	327410.46	39°23'28.832"N	80°49'33.524"W	8541.03	166.738	0.35	0.03	0.34
15263.00	89.850	159.990	6330.08	8571.04	-8396.56	1990.68	1625286.74	327327.14	39°23'28.013"N	80°49'33.111"W	8629.32	166.662	1.26	0.11	1.26
15353.00	89.940	161.760	6330.24	8661.03	-8481.59	2020.17	1625316.23	327242.12	39°23'27.177"N	80°49'32.719"W	8718.86	166.603	1.97	0.10	1.97
15443.00	89.970	162.360	6330.31	8750.97	-8567.22	2047.89	1625343.95	327156.50	39°23'26.335"N	80°49'32.330"W	8808.58	166.556	0.67	0.03	0.67
15532.00	90.060	161.560	6330.29	8839.92	-8651.84	2075.45	1625371.51	327071.88	39°23'25.502"N	80°49'31.983"W	8897.29	166.510	0.90	0.10	-0.90
15622.00	90.000	160.540	6330.24	8929.90	-8736.96	2104.68	1625400.73	326986.76	39°23'24.665"N	80°49'31.595"W	8986.89	166.456	1.14	-0.07	-1.13
15712.00	89.880	159.820	6330.34	9019.90	-8821.63	2135.19	1625431.25	326902.10	39°23'23.833"N	80°49'31.190"W	9076.35	166.394	0.81	-0.13	-0.80
15801.00	90.280	158.800	6330.21	9108.89	-8904.89	2166.64	1625462.69	326818.85	39°23'23.015"N	80°49'30.774"W	9164.68	166.325	1.23	0.45	-1.15
15891.00	90.120	158.360	6329.90	9198.86	-8988.67	2199.51	1625495.56	326735.07	39°23'22.192"N	80°49'30.340"W	9253.87	166.250	0.52	-0.18	-0.49
15916.00	90.120	158.360	6329.84	9223.85	-9011.91	2208.72	1625504.77	326711.83	39°23'21.963"N	80°49'30.218"W	9278.63	166.229	0.00	0.00	0.00

**REFERENCE WELLPATH IDENTIFICATION**

Operator	NOBLE ENERGY	Slot	Slot G
Area	Tyler County, WV	Well	SHR-3G-HS
Field	Tyler	Wellbore	SHR-3G-HS AWB
Facility	SHR-3 Pad		

**TARGETS**

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SHR-3G-HS BHL Rev-2		6331.00	-9009.34	2215.78	1625511.83	326714.40	39°23'21.990"N	80°49'30.129"W	point
SHR-3G-HS LP Rev-2		6331.00	-693.06	-811.10	1622485.11	335030.23	39°24'43.732"N	80°50'10.252"W	point
SHR-3G-HS LP Plat		6339.00	-512.01	-877.00	1622419.22	335211.27	39°24'45.511"N	80°50'11.126"W	point
SHR-3 Pad LL		6500.24	20.19	1.86	1623298.03	335743.44	39°24'50.900"N	80°50'00.030"W	polygon

**WELLPATH COMPOSITION - Ref Wellbore: SHR-3G-HS AWB**

Ref Wellpath: SHR-3G-HS AWP Proj: 15916'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.50	2112.50	Generic Gyro - northseeking (Standard)	01 MS Gyro <12-1/4"> (100'-2094')	SHR-3G-HS AWB
2112.50	3051.00	NavTrak (MagCorr)	02 BHI MWD <8-3/4"> (2112.5')(2225'-5051')	SHR-3G-HS AWB
3051.00	15891.00	NavTrak (AT Curve Short Spaced)	03 BHI AT Curve <8-3/4"> (5051')(5141'-15891')	SHR-3G-HS AWB
15891.00	15916.00	Blind Drilling (std)	Projection to bit	SHR-3G-HS AWB





**Actual Wellpath Report**  
 SHR-3G-HS AWP Proj: 15916'  
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**REFERENCE WELLPATH IDENTIFICATION**

	Slot	Slot G
Operator	NOBLE ENERGY	
Area	Tyler County, WV	SHR-3G-HS
Field	Tyler	SHR-3G-HS AWP
Facility	SHR-3 Pad	

**COMMENTS**

Wellpath general comments  
 API: 47-095-02198-0000  
 BHI Job #: 7024800  
 Rig: Precision 542  
 Duration: 3/6/2015-3/17/2015  
 MS Gyro <12-1/4"> (100-2094)  
 BHI MWD <8-3/4"> (2112.5')(2225-5051)  
 BHI AT Curve <8-3/4"> (5051')(5141'-15891')  
 Projected MD at TD: 15916'

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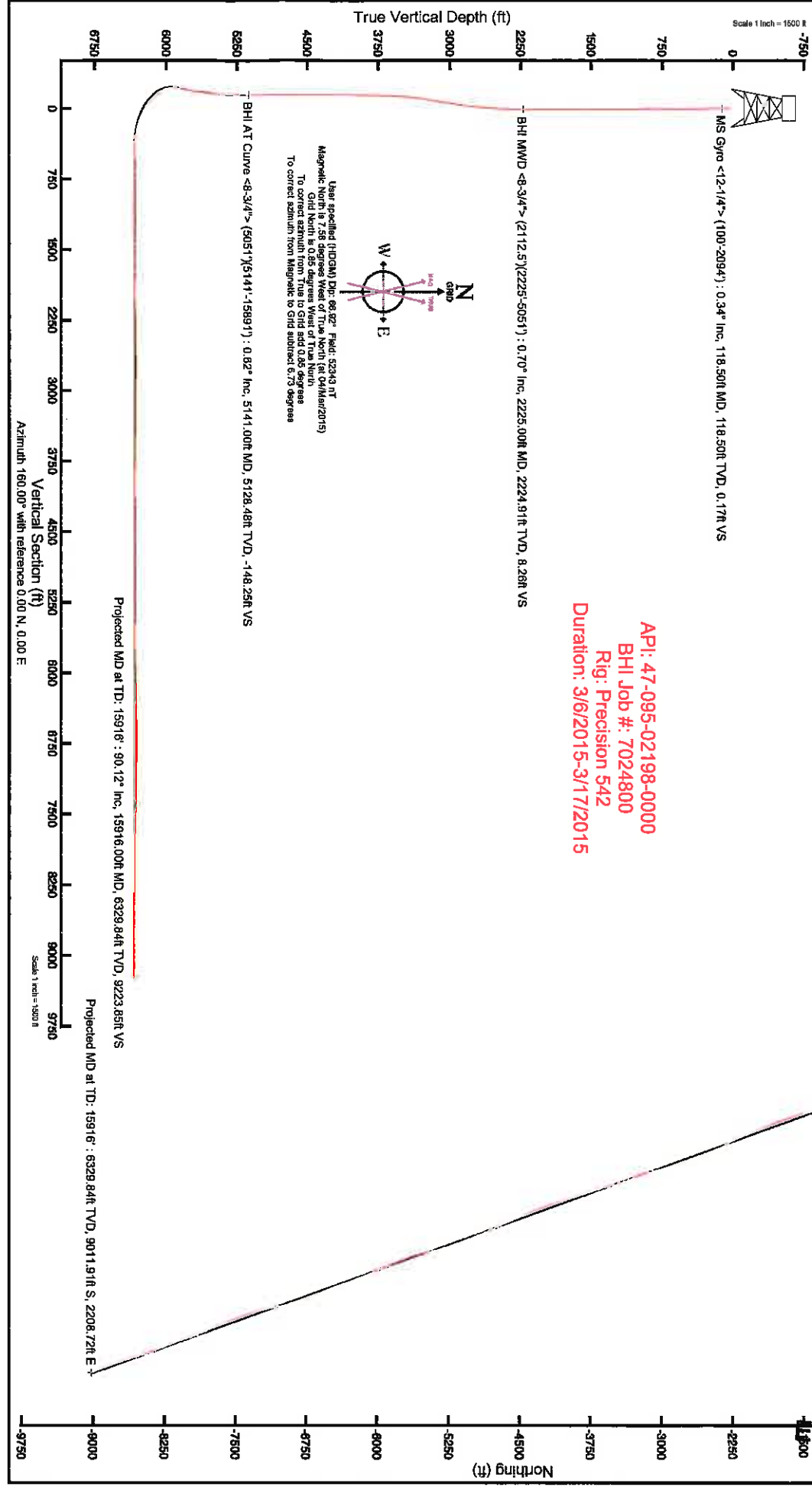
Location: Tyler County, WV  
 Field: Tyler  
 Facility: SHR-3 Pad

Slot: Slot G  
 Well: SHR-3G-HS  
 Wellbore: SHR-3G-HS PWB

**NOBLE ENERGY**



True Vertical Depth (ft) Scale 1 inch = 1600 ft	
MS Gyo <12-1/4" (100'-2094') : 0.34° Inc, 118.50ft M.D., 118.50ft TVD, 0.17ft VS	BHI AT Curve <8-3/4" (5051') (5141'-15891') : 0.82° Inc, 5128.48ft TVD, 103.93ft N, 147.89ft W
BHI MWD <8-3/4" (2112.5)(2225-5051') : 0.70° Inc, 2225.00ft M.D., 2224.91ft TVD, 8.28ft VS	User specified (D/G/M) Dip: 88.82° P/Alt: 6329.84ft NT Magnetic North is 7.28 degrees West of True North (at 04/16/2015) To correct North to True North add 7.28 degrees To correct azimuth from Magnetic to Grid add/subtract 6.73 degrees
Projected M.D. at TD: 15916' : 90.12° Inc, 15916.00ft M.D., 6328.84ft TVD, 8223.85ft VS	
Projected M.D. at TD: 15916' : 6328.84ft TVD, 9011.91ft S, 2206.72ft E	



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