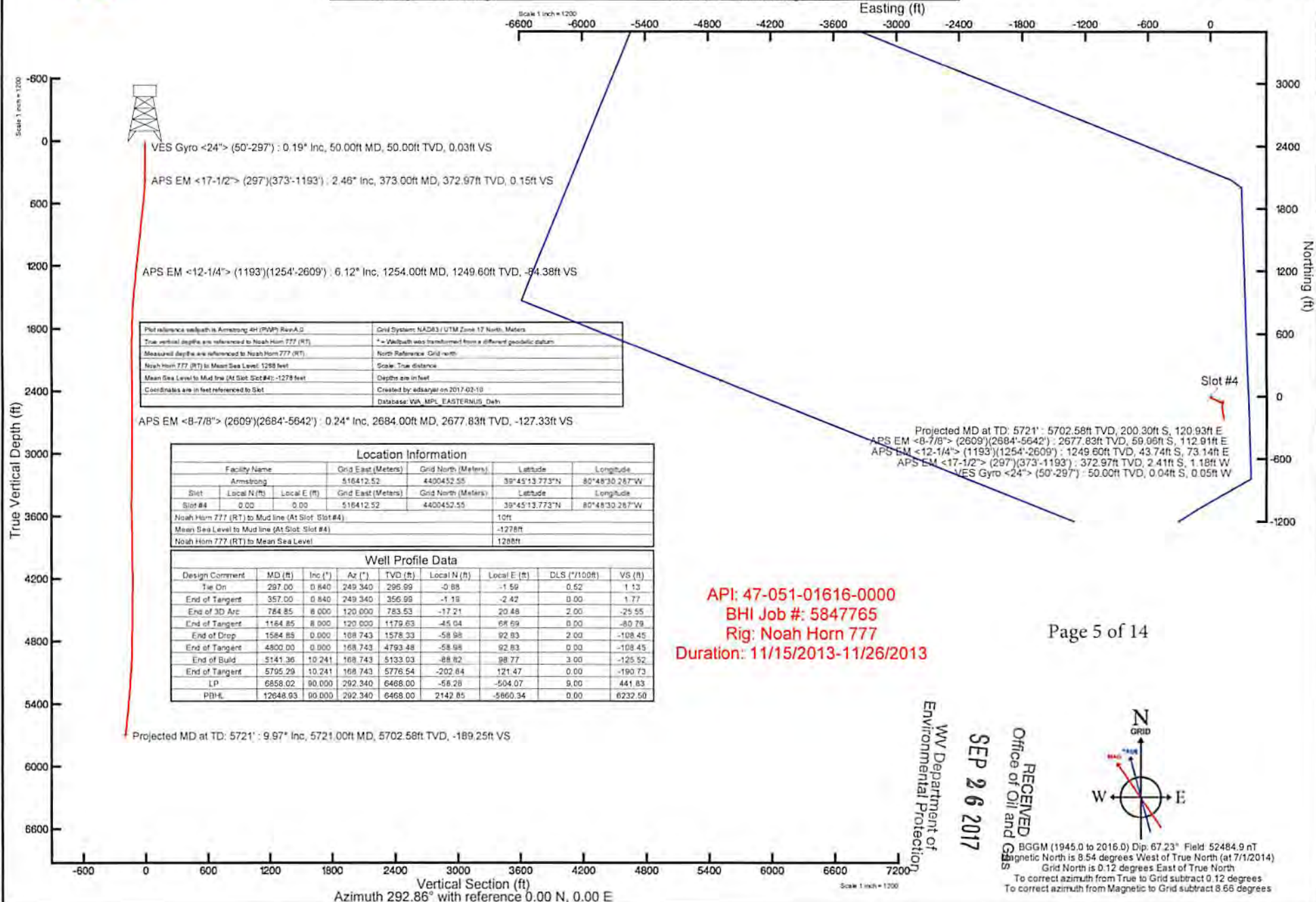




GASTAR EXPLORATION USA, INC.

Location: Marshall County, WV
 Field: Marshall
 Facility: Armstrong

Slot: Slot #4
 Well: Armstrong 4H
 Wellbore: Armstrong 4H PWB



VES Gyro <24"> (50°-297') : 0.19° Inc, 50.00ft MD, 50.00ft TVD, 0.03ft VS
 APS EM <17-1/2"> (297')(373'-1193') : 2.46° Inc, 373.00ft MD, 372.97ft TVD, 0.15ft VS
 APS EM <12-1/4"> (1193')(1254'-2609') : 6.12° Inc, 1254.00ft MD, 1249.60ft TVD, -94.38ft VS

Plot reference wellpath is Armstrong 4H (PWB) Rev A.D	Grid System: NAD83 UTM Zone 17 North, Meters
True vertical depths are referenced to Noah Horn 777 (RT)	** Wellbore was transformed from a different geoid datum
Measured depths are referenced to Noah Horn 777 (RT)	North Reference: Grid north
Noah Horn 777 (RT) to Mean Sea Level: 1288 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot Slot #4): -1278 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edasanyal on 2017-02-10
	Database: WA_MPL_EASTERNUS_Deht

APS EM <8-7/8"> (2609')(2684'-5642') : 0.24° Inc, 2684.00ft MD, 2677.83ft TVD, -127.33ft VS

Projected MD at TD: 5721' : 5702.58ft TVD, 200.30ft S, 120.93ft E
 APS EM <8-7/8"> (2609')(2684'-5642') : 2677.83ft TVD, 59.96ft S, 112.91ft E
 APS EM <12-1/4"> (1193')(1254'-2609') : 1249.60ft TVD, 43.74ft S, 73.14ft E
 APS EM <17-1/2"> (297')(373'-1193') : 372.97ft TVD, 2.41ft S, 1.18ft W
 VES Gyro <24"> (50°-297') : 50.00ft TVD, 0.04ft S, 0.05ft W

Location Information				
Facility Name	Grid East (Meters)	Grid North (Meters)	Latitude	Longitude
Armstrong	516412.52	4400452.55	39°45'13.773"N	80°48'30.267"W
Slot	Local N (ft)	Local E (ft)	Grid East (Meters)	Grid North (Meters)
Slot #4	0.00	0.00	516412.52	4400452.55
			39°45'13.773"N	80°48'30.267"W
Noah Horn 777 (RT) to Mud line (At Slot Slot #4)	10ft			
Mean Sea Level to Mud line (At Slot Slot #4)	-1278ft			
Noah Horn 777 (RT) to Mean Sea Level	1288ft			

Well Profile Data							
Design Comment	MD (ft)	Inc. (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	297.00	0.840	249.340	296.99	-0.88	-1.59	1.13
End of Tangent	357.00	0.840	249.340	356.99	-1.18	-2.42	1.77
End of 3D Arc	784.85	8.000	120.000	783.53	-17.21	20.48	-29.55
End of Tangent	1184.85	8.000	120.000	1179.63	-45.04	68.59	-80.79
End of Drop	1584.85	0.000	168.743	1578.33	-58.98	92.83	-108.45
End of Tangent	4800.00	0.000	168.743	4793.48	-58.98	92.83	-108.45
End of Build	5141.36	10.241	168.743	5133.03	-88.82	98.77	-125.52
End of Tangent	5795.29	10.241	168.743	5776.54	-202.84	121.47	-190.73
LP	6858.02	90.000	292.340	6468.00	-58.28	-504.07	441.83
PBH	12648.93	90.000	292.340	6468.00	2142.85	-5860.34	0.00

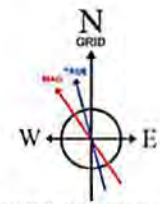
Projected MD at TD: 5721' : 9.97° Inc, 5721.00ft MD, 5702.58ft TVD, -189.25ft VS

API: 47-051-01616-0000
 BHI Job #: 5847765
 Rig: Noah Horn 777
 Duration: 11/15/2013-11/26/2013

WV Department of Environmental Protection

SEP 26 2017

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Office of Oil and Gas



BGGM (1945.0 to 2016.0) Dip: 67.23° Field: 52484.9 nT
 Magnetic North is 8.54 degrees West of True North (at 7/1/2014)
 Grid North is 0.12 degrees East of True North
 To correct azimuth from True to Grid subtract 0.12 degrees
 To correct azimuth from Magnetic to Grid subtract 8.66 degrees

Vertical Section (ft)
 Azimuth 292.86° with reference 0.00 N, 0.00 E

Scale 1 inch = 1200

Actual Wellpath Report (CSV ver.)

Prepared by Baker Hughes

Software System: WellArchitect 4.0.1

REFERENCE WELLPATH IDENTIFICATION													
Operator	GASTAR EXPLORATION USA, INC.						Slot	Slot #4					
Area	Marshall County, WV						Well	Armstrong 4H					
Field	Marshall						Wellbore	Armstrong 4H (AWB)					
Facility	Armstrong Unit						Wellpath	Armstrong 4H (AWP) Proj: 5721'					
							Sidetrack	(none)					
WELLPATH DATA † = interpolated/extrapolated station													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [M]	Grid North [M]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
0.00	0.00	232.56	0.00	0.00	0.00	0.00	516412.52	4400452.55	39°45'13.773"N	80°48'30.287"W	0.00	0.00	0.00
10.00	0.00	232.56	10.00	0.00	0.00	0.00	516412.52	4400452.55	39°45'13.773"N	80°48'30.287"W	0.00	0.00	0.00
50.00	0.19	232.56	50.00	0.03	-0.04	-0.05	516412.38	4400452.41	39°45'13.773"N	80°48'30.287"W	0.07	232.56	0.47
100.00	0.17	246.04	100.00	0.12	-0.12	-0.19	516412.34	4400452.39	39°45'13.772"N	80°48'30.289"W	0.22	237.03	0.09
150.00	0.28	248.35	150.00	0.26	-0.20	-0.37	516412.28	4400452.37	39°45'13.771"N	80°48'30.291"W	0.42	241.93	0.22
200.00	0.42	240.03	200.00	0.46	-0.33	-0.64	516412.20	4400452.33	39°45'13.770"N	80°48'30.295"W	0.72	242.53	0.30
250.00	0.68	235.07	250.00	0.73	-0.59	-1.04	516412.08	4400452.25	39°45'13.767"N	80°48'30.300"W	1.20	240.31	0.53
297.00	0.84	249.34	296.99	1.13	-0.88	-1.59	516411.91	4400452.16	39°45'13.764"N	80°48'30.307"W	1.82	241.21	0.52
373.00	2.46	145.27	372.97	0.15	-2.41	-1.18	516412.04	4400451.69	39°45'13.749"N	80°48'30.302"W	2.69	206.16	3.67
405.00	3.02	143.82	404.93	-1.15	-3.66	-0.30	516412.30	4400451.31	39°45'13.737"N	80°48'30.290"W	3.67	184.63	1.76
436.00	3.66	140.74	435.88	-2.72	-5.08	0.81	516412.64	4400450.88	39°45'13.723"N	80°48'30.276"W	5.15	170.92	2.14
468.00	4.18	142.57	467.80	-4.64	-6.80	2.17	516413.06	4400450.35	39°45'13.706"N	80°48'30.259"W	7.14	162.32	1.67
500.00	4.67	137.76	499.71	-6.83	-8.69	3.75	516413.54	4400449.78	39°45'13.687"N	80°48'30.239"W	9.47	156.65	1.92
532.00	4.88	132.49	531.60	-9.30	-10.57	5.63	516414.11	4400449.20	39°45'13.668"N	80°48'30.215"W	11.98	151.96	1.52
563.00	5.27	135.26	562.48	-11.86	-12.48	7.61	516414.71	4400448.63	39°45'13.650"N	80°48'30.190"W	14.61	148.63	1.49
594.00	5.41	130.16	593.34	-14.57	-14.43	9.72	516415.36	4400448.03	39°45'13.630"N	80°48'30.162"W	17.40	146.02	1.60
626.00	5.65	125.47	625.19	-17.54	-16.32	12.16	516416.10	4400447.45	39°45'13.612"N	80°48'30.131"W	20.35	143.30	1.60
658.00	5.49	119.72	657.04	-20.60	-17.99	14.77	516416.90	4400446.95	39°45'13.595"N	80°48'30.098"W	23.28	140.61	1.81
689.00	5.52	114.92	687.90	-23.56	-19.35	17.41	516417.70	4400446.53	39°45'13.581"N	80°48'30.064"W	26.03	138.02	1.49
721.00	5.57	117.43	719.75	-26.65	-20.72	20.19	516418.55	4400446.11	39°45'13.568"N	80°48'30.029"W	28.93	135.74	0.77
752.00	5.73	118.32	750.60	-29.69	-22.14	22.88	516419.37	4400445.68	39°45'13.554"N	80°48'29.994"W	31.84	134.06	0.59
783.00	6.06	115.86	781.43	-32.86	-23.59	25.72	516420.23	4400445.24	39°45'13.539"N	80°48'29.958"W	34.90	132.53	1.34
845.00	6.46	109.83	843.07	-39.62	-26.20	31.95	516422.13	4400444.44	39°45'13.513"N	80°48'29.878"W	41.32	129.36	1.24
909.00	6.61	110.88	906.65	-46.89	-28.74	38.77	516424.21	4400443.67	39°45'13.488"N	80°48'29.791"W	48.26	126.54	0.30
971.00	6.38	112.50	968.25	-53.90	-31.33	45.29	516426.19	4400442.88	39°45'13.463"N	80°48'29.708"W	55.07	124.67	0.47

SEP 26 2017

Actual Wellpath Report (CSV ver.)
Prepared by Baker Hughes

Software System: WellArchitect 4.0.1

WELLPATH DATA t = interpolated/extra point station

MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure	Dir	DLS
[ft]	[°]	[°]	[ft]	[ft]	[ft]	[ft]	[M]	[M]			[ft]	[°]	[%/100ft]
1035.00	6.39	113.38	1031.85	-61.02	-34.10	51.84	516428.19	4400442.04	39°45'13.435"N	80°48'29.624"W	62.05	123.34	0.15
1098.00	6.05	114.88	1094.48	-67.84	-36.89	58.07	516430.09	4400441.19	39°45'13.407"N	80°48'29.544"W	68.80	122.42	0.60
1130.00	6.10	115.11	1126.30	-71.23	-38.32	61.14	516431.03	4400440.75	39°45'13.393"N	80°48'29.505"W	72.16	122.08	0.17
1162.00	6.02	114.80	1158.13	-74.60	-39.75	64.21	516431.96	4400440.32	39°45'13.379"N	80°48'29.466"W	75.51	121.76	0.27
1193.00	6.12	114.76	1188.95	-77.88	-41.12	67.18	516432.87	4400439.90	39°45'13.365"N	80°48'29.427"W	78.77	121.47	0.32
1254.00	6.12	112.72	1249.60	-84.38	-43.74	73.14	516434.68	4400439.10	39°45'13.339"N	80°48'29.351"W	85.22	120.88	0.36
1286.00	5.83	113.03	1281.43	-87.71	-45.03	76.20	516435.61	4400438.71	39°45'13.326"N	80°48'29.312"W	88.52	120.58	0.91
1318.00	5.74	114.83	1313.27	-90.94	-46.34	79.15	516436.51	4400438.31	39°45'13.313"N	80°48'29.274"W	91.72	120.35	0.63
1350.00	5.54	114.46	1345.11	-94.08	-47.65	82.01	516437.38	4400437.91	39°45'13.300"N	80°48'29.238"W	94.85	120.16	0.64
1382.00	5.62	115.60	1376.96	-97.19	-48.97	84.83	516438.24	4400437.51	39°45'13.287"N	80°48'29.202"W	97.95	120.00	0.43
1414.00	5.51	116.77	1408.81	-100.29	-50.34	87.61	516439.09	4400437.09	39°45'13.274"N	80°48'29.166"W	101.04	119.88	0.49
1445.00	5.88	117.74	1439.66	-103.35	-51.75	90.35	516439.92	4400436.66	39°45'13.260"N	80°48'29.131"W	104.12	119.80	1.23
1477.00	5.83	117.68	1471.49	-106.61	-53.26	93.24	516440.80	4400436.20	39°45'13.245"N	80°48'29.094"W	107.38	119.74	0.16
1508.00	5.15	121.96	1502.35	-109.55	-54.73	95.81	516441.59	4400435.75	39°45'13.230"N	80°48'29.061"W	110.34	119.74	2.56
1540.00	4.40	124.51	1534.24	-112.17	-56.19	98.04	516442.27	4400435.31	39°45'13.216"N	80°48'29.033"W	113.00	119.82	2.44
1571.00	3.76	128.40	1565.16	-114.31	-57.49	99.82	516442.81	4400434.91	39°45'13.203"N	80°48'29.010"W	115.19	119.94	2.25
1603.00	3.16	131.26	1597.10	-116.16	-58.73	101.31	516443.26	4400434.53	39°45'13.191"N	80°48'28.991"W	117.10	120.10	1.95
1632.00	2.97	134.35	1626.06	-117.62	-59.78	102.44	516443.61	4400434.21	39°45'13.180"N	80°48'28.977"W	118.61	120.27	0.87
1664.00	2.86	138.16	1658.02	-119.11	-60.95	103.57	516443.95	4400433.85	39°45'13.169"N	80°48'28.962"W	120.17	120.48	0.70
1694.00	2.90	135.17	1687.98	-120.49	-62.05	104.60	516444.27	4400433.52	39°45'13.158"N	80°48'28.949"W	121.62	120.68	0.52
1726.00	2.52	132.74	1719.94	-121.90	-63.10	105.69	516444.60	4400433.20	39°45'13.147"N	80°48'28.935"W	123.09	120.84	1.24
1758.00	1.67	131.29	1751.92	-123.01	-63.89	106.56	516444.86	4400432.96	39°45'13.139"N	80°48'28.924"W	124.24	120.94	2.66
1790.00	1.24	127.60	1783.91	-123.78	-64.40	107.18	516445.05	4400432.80	39°45'13.134"N	80°48'28.916"W	125.04	121.00	1.37
1821.00	0.88	125.12	1814.90	-124.34	-64.75	107.64	516445.19	4400432.70	39°45'13.131"N	80°48'28.910"W	125.61	121.03	1.17
1853.00	0.84	121.12	1846.90	-124.81	-65.01	108.04	516445.31	4400432.62	39°45'13.128"N	80°48'28.905"W	126.09	121.04	0.23
1885.00	0.83	130.81	1878.90	-125.27	-65.28	108.42	516445.43	4400432.54	39°45'13.126"N	80°48'28.900"W	126.56	121.05	0.44
1917.00	0.91	118.40	1910.89	-125.74	-65.55	108.82	516445.55	4400432.45	39°45'13.123"N	80°48'28.895"W	127.04	121.07	0.64
1948.00	0.81	117.05	1941.89	-126.20	-65.77	109.23	516445.68	4400432.39	39°45'13.121"N	80°48'28.890"W	127.50	121.05	0.33
1979.00	0.90	118.51	1972.89	-126.66	-65.99	109.64	516445.80	4400432.32	39°45'13.119"N	80°48'28.885"W	127.97	121.04	0.30
2010.00	0.83	117.35	2003.88	-127.13	-66.21	110.05	516445.93	4400432.25	39°45'13.116"N	80°48'28.879"W	128.43	121.03	0.23
2042.00	0.51	86.32	2035.88	-127.49	-66.30	110.40	516446.03	4400432.22	39°45'13.115"N	80°48'28.875"W	128.78	120.99	1.48

SEP 26 2017

Prepared by Baker Hughes

Software System: WellArchitect 4.0.1

WELLPATH DATA † = interpolated/extrapolated station													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [M]	Grid North [M]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
2074.00	0.34	47.05	2067.88	-127.65	-66.23	110.61	516446.10	4400432.25	39°45'13.116"N	80°48'28.872"W	128.92	120.91	1.02
2136.00	0.41	39.67	2129.88	-127.79	-65.93	110.89	516446.18	4400432.34	39°45'13.119"N	80°48'28.869"W	129.01	120.74	0.14
2199.00	0.64	29.14	2192.88	-127.90	-65.45	111.20	516446.28	4400432.48	39°45'13.124"N	80°48'28.865"W	129.04	120.48	0.39
2262.00	0.57	27.37	2255.87	-127.96	-64.87	111.52	516446.37	4400432.66	39°45'13.130"N	80°48'28.860"W	129.01	120.19	0.11
2325.00	0.85	22.27	2318.87	-127.98	-64.16	111.84	516446.47	4400432.88	39°45'13.137"N	80°48'28.856"W	128.94	119.84	0.46
2388.00	0.98	16.59	2381.86	-127.92	-63.21	112.17	516446.57	4400433.17	39°45'13.146"N	80°48'28.852"W	128.75	119.40	0.25
2452.00	1.10	19.97	2445.85	-127.83	-62.10	112.54	516446.68	4400433.50	39°45'13.157"N	80°48'28.847"W	128.54	118.89	0.21
2515.00	0.90	20.02	2508.84	-127.77	-61.07	112.91	516446.80	4400433.82	39°45'13.167"N	80°48'28.843"W	128.37	118.41	0.32
2578.00	0.42	17.56	2571.84	-127.72	-60.39	113.15	516446.87	4400434.03	39°45'13.174"N	80°48'28.839"W	128.26	118.09	0.76
2609.00	0.36	338.17	2602.84	-127.65	-60.19	113.15	516446.87	4400434.09	39°45'13.176"N	80°48'28.839"W	128.16	118.01	0.87
2684.00	0.24	274.98	2677.83	-127.33	-59.96	112.91	516446.80	4400434.16	39°45'13.178"N	80°48'28.843"W	127.84	117.97	0.44
2745.00	0.56	295.51	2738.83	-126.91	-59.82	112.51	516446.68	4400434.20	39°45'13.180"N	80°48'28.848"W	127.42	118.00	0.57
2808.00	0.58	298.40	2801.83	-126.29	-59.53	111.95	516446.51	4400434.29	39°45'13.182"N	80°48'28.855"W	126.80	118.00	0.06
2871.00	0.51	289.00	2864.83	-125.69	-59.29	111.41	516446.34	4400434.36	39°45'13.185"N	80°48'28.862"W	126.20	118.02	0.18
2934.00	0.47	84.20	2927.83	-125.64	-59.17	111.40	516446.34	4400434.40	39°45'13.186"N	80°48'28.862"W	126.14	117.98	1.52
2998.00	0.30	52.76	2991.82	-125.95	-59.04	111.79	516446.46	4400434.44	39°45'13.187"N	80°48'28.857"W	126.43	117.84	0.41
3061.00	0.39	70.14	3054.82	-126.19	-58.87	112.13	516446.56	4400434.49	39°45'13.189"N	80°48'28.853"W	126.64	117.70	0.22
3125.00	0.44	87.10	3118.82	-126.57	-58.78	112.58	516446.69	4400434.52	39°45'13.190"N	80°48'28.847"W	127.00	117.57	0.21
3188.00	0.56	82.01	3181.82	-127.05	-58.73	113.12	516446.86	4400434.53	39°45'13.190"N	80°48'28.840"W	127.46	117.44	0.20
3252.00	0.60	83.47	3245.82	-127.61	-58.65	113.77	516447.06	4400434.56	39°45'13.191"N	80°48'28.832"W	127.99	117.27	0.07
3315.00	0.60	62.00	3308.81	-128.11	-58.46	114.38	516447.25	4400434.62	39°45'13.193"N	80°48'28.824"W	128.46	117.07	0.35
3378.00	0.77	64.89	3371.81	-128.60	-58.12	115.06	516447.45	4400434.72	39°45'13.196"N	80°48'28.815"W	128.91	116.80	0.28
3441.00	0.84	54.46	3434.80	-129.13	-57.67	115.82	516447.68	4400434.85	39°45'13.201"N	80°48'28.805"W	129.38	116.47	0.26
3504.00	0.38	58.28	3497.80	-129.49	-57.29	116.37	516447.85	4400434.97	39°45'13.204"N	80°48'28.798"W	129.71	116.21	0.73
3567.00	1.24	264.96	3560.79	-129.01	-57.24	115.87	516447.70	4400434.99	39°45'13.205"N	80°48'28.805"W	129.24	116.29	2.52
3631.00	1.39	274.86	3624.78	-127.66	-57.24	114.41	516447.25	4400434.99	39°45'13.205"N	80°48'28.823"W	127.93	116.58	0.42
3694.00	1.03	286.23	3687.76	-126.37	-57.02	113.10	516446.86	4400435.06	39°45'13.207"N	80°48'28.840"W	126.66	116.75	0.68
3757.00	0.96	295.41	3750.75	-125.28	-56.63	112.08	516446.55	4400435.17	39°45'13.211"N	80°48'28.853"W	125.58	116.81	0.28
3820.00	0.78	300.94	3813.75	-124.33	-56.18	111.24	516446.29	4400435.31	39°45'13.215"N	80°48'28.864"W	124.62	116.80	0.31
3883.00	0.74	313.36	3876.74	-123.52	-55.69	110.57	516446.09	4400435.46	39°45'13.220"N	80°48'28.872"W	123.80	116.73	0.27
3946.00	0.77	323.12	3939.74	-122.77	-55.07	110.02	516445.92	4400435.65	39°45'13.227"N	80°48'28.879"W	123.04	116.59	0.21

SEP 26 2017

Actual Wellpath Report (CSV ver.)
Prepared by Baker Hughes
Software System: WellArchitect 4.0.1

WELLPATH DATA + = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vertical Section [ft]	North [ft]	East [ft]	Grid East [M]	Grid North [M]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
4009.00	0.74	335.98	4002.73	-122.11	-54.36	109.60	516445.79	4400435.86	39°45'13.234"N	80°48'28.885"W	122.34	116.38	0.27
4072.00	0.68	353.27	4065.73	-121.63	-53.61	109.39	516445.73	4400436.09	39°45'13.241"N	80°48'28.887"W	121.83	116.11	0.35
4135.00	0.71	359.97	4128.72	-121.29	-52.85	109.35	516445.71	4400436.32	39°45'13.248"N	80°48'28.888"W	121.45	115.80	0.14
4197.00	0.80	15.73	4190.72	-121.09	-52.05	109.47	516445.75	4400436.57	39°45'13.256"N	80°48'28.886"W	121.21	115.43	0.36
4261.00	0.90	23.55	4254.71	-121.04	-51.16	109.79	516445.85	4400436.84	39°45'13.265"N	80°48'28.882"W	121.13	114.99	0.24
4324.00	0.94	38.14	4317.70	-121.18	-50.30	110.31	516446.00	4400437.10	39°45'13.274"N	80°48'28.876"W	121.23	114.51	0.38
4387.00	1.15	46.80	4380.69	-121.58	-49.46	111.09	516446.24	4400437.36	39°45'13.282"N	80°48'28.866"W	121.60	114.00	0.42
4450.00	0.86	50.97	4443.68	-122.06	-48.73	111.91	516446.49	4400437.58	39°45'13.289"N	80°48'28.855"W	122.06	113.53	0.47
4512.00	1.04	180.33	4505.68	-122.49	-49.00	112.27	516446.60	4400437.50	39°45'13.286"N	80°48'28.850"W	122.50	113.58	2.77
4575.00	1.06	162.24	4568.67	-123.09	-50.13	112.45	516446.66	4400437.15	39°45'13.275"N	80°48'28.848"W	123.11	114.03	0.52
4636.00	0.98	149.64	4629.66	-123.87	-51.12	112.88	516446.79	4400436.85	39°45'13.266"N	80°48'28.843"W	123.92	114.36	0.39
4667.00	0.92	141.16	4660.65	-124.31	-51.54	113.17	516446.88	4400436.72	39°45'13.261"N	80°48'28.839"W	124.36	114.48	0.49
4699.00	1.04	139.85	4692.65	-124.79	-51.96	113.52	516446.98	4400436.59	39°45'13.257"N	80°48'28.834"W	124.85	114.59	0.38
4730.00	1.62	164.53	4723.64	-125.31	-52.60	113.82	516447.07	4400436.40	39°45'13.251"N	80°48'28.831"W	125.39	114.80	2.59
4761.00	2.64	181.82	4754.62	-125.84	-53.73	113.91	516447.10	4400436.06	39°45'13.240"N	80°48'28.830"W	125.95	115.25	3.85
4793.00	3.93	191.88	4786.56	-126.31	-55.54	113.67	516447.03	4400435.50	39°45'13.222"N	80°48'28.833"W	126.51	116.04	4.40
4824.00	5.28	195.30	4817.46	-126.70	-57.96	113.07	516446.84	4400434.77	39°45'13.198"N	80°48'28.840"W	127.06	117.14	4.44
4855.00	6.54	199.61	4848.30	-126.99	-61.00	112.10	516446.55	4400433.84	39°45'13.168"N	80°48'28.853"W	127.62	118.55	4.31
4887.00	7.15	201.00	4880.07	-127.16	-64.57	110.78	516446.15	4400432.75	39°45'13.133"N	80°48'28.870"W	128.22	120.24	1.98
4919.00	7.88	201.51	4911.80	-127.28	-68.47	109.26	516445.68	4400431.56	39°45'13.094"N	80°48'28.890"W	128.94	122.08	2.29
4950	8.38	196.55	4942.48	-127.58	-72.62	107.84	516445.25	4400430.30	39°45'13.053"N	80°48'28.908"W	130.01	123.956	2.78
4982	8.86	189.22	4974.12	-128.41	-77.28	106.78	516444.93	4400428.88	39°45'13.007"N	80°48'28.922"W	131.81	125.897	3.74
5013	9.7	184.49	5004.72	-129.8	-82.24	106.19	516444.75	4400427.37	39°45'12.958"N	80°48'28.929"W	134.31	127.758	3.66
5044	9.95	182.7	5035.26	-131.54	-87.52	105.86	516444.65	4400425.76	39°45'12.906"N	80°48'28.934"W	137.35	129.584	1.27
5076	10.06	181.81	5066.78	-133.5	-93.08	105.64	516444.58	4400424.07	39°45'12.851"N	80°48'28.937"W	140.8	131.383	0.59
5106	10	177.48	5096.32	-135.56	-98.3	105.67	516444.59	4400422.48	39°45'12.799"N	80°48'28.936"W	144.32	132.93	2.52
5138	9.77	175.35	5127.84	-138	-103.78	106.01	516444.70	4400420.81	39°45'12.745"N	80°48'28.932"W	148.36	134.39	1.35
5169	9.04	174.32	5158.43	-140.38	-108.83	106.47	516444.84	4400419.27	39°45'12.695"N	80°48'28.926"W	152.25	135.627	2.42
5231	9	174.29	5219.66	-145.03	-118.5	107.43	516445.13	4400416.32	39°45'12.600"N	80°48'28.914"W	159.95	137.804	0.06
5294	9.49	173.23	5281.84	-149.95	-128.56	108.54	516445.46	4400413.26	39°45'12.500"N	80°48'28.900"W	168.25	139.827	0.82
5358	9.65	172.56	5344.95	-155.27	-139.12	109.85	516445.87	4400410.04	39°45'12.396"N	80°48'28.884"W	177.26	141.704	0.3

Actual Wellpath Report (CSV ver.)

Prepared by Baker Hughes

Software System: WellArchitect 4.0.1

WELLPATH DATA † = interpolated/extrapolated station													
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [M]	Grid North [M]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]
5421	9.88	172.71	5407.04	-160.65	-149.71	111.22	516446.28	4400406.81	39°45'12.291"N	80°48'28.867"W	186.51	143.392	0.37
5483	9.88	171.46	5468.12	-166.09	-160.25	112.69	516446.73	4400403.60	39°45'12.187"N	80°48'28.848"W	195.9	144.886	0.35
5547	9.94	169.56	5531.16	-171.98	-171.11	114.5	516447.28	4400400.29	39°45'12.080"N	80°48'28.825"W	205.89	146.211	0.52
5610	9.71	168.14	5593.24	-177.99	-181.66	116.58	516447.91	4400397.08	39°45'11.975"N	80°48'28.799"W	215.85	147.31	0.53
5642	9.97	166.66	5624.77	-181.17	-187	117.77	516448.28	4400395.45	39°45'11.923"N	80°48'28.784"W	220.99	147.796	1.13
5721	9.97	166.66	5702.58	-189.25	-200.3	120.93	516449.24	4400391.40	39°45'11.791"N	80°48'28.744"W	233.98	148.879	0

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