



GASTAR EXPLORATION USA, INC.

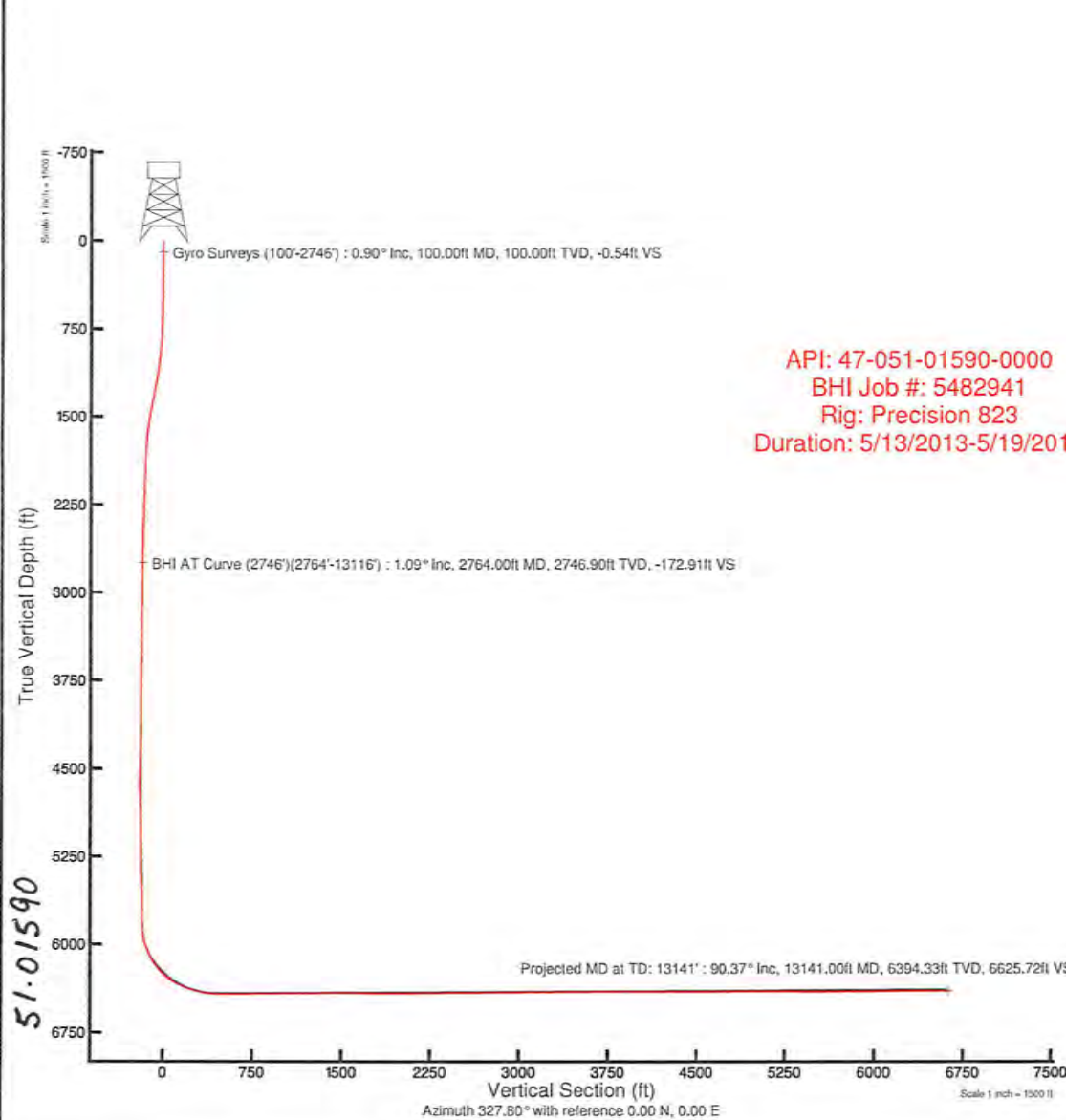
Location: Marshall County, WV
Field: Marshall
Facility: Goudy

Slot: Slot #9
Well: Goudy 9H
Wellbore: Goudy 9H (PWB)

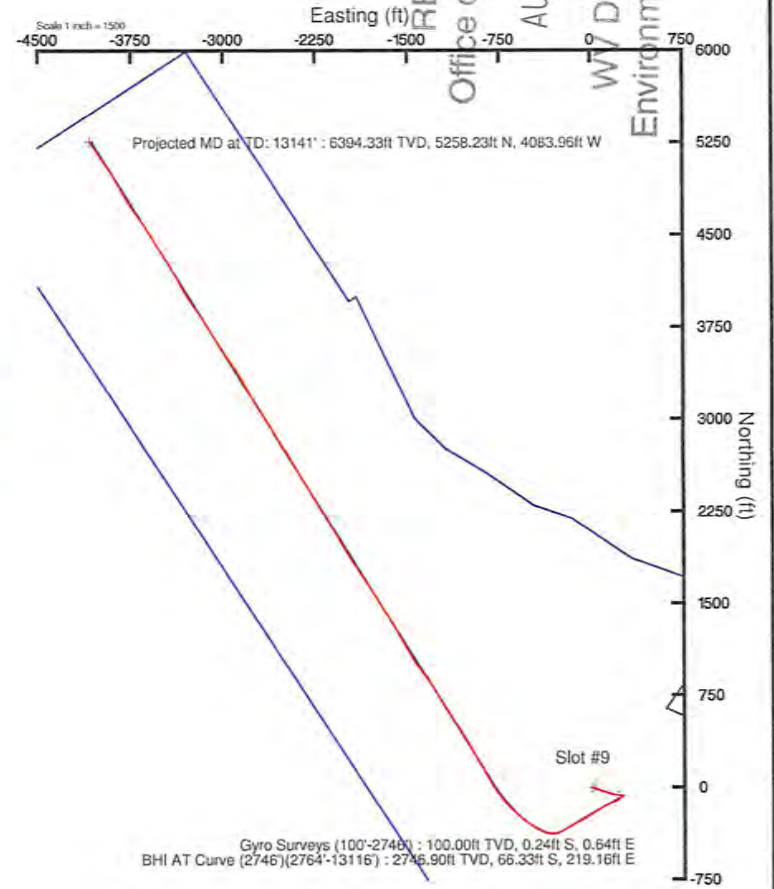


Slot reference azimuth in Goudy 9H (PWB) True-Az	Grid System: NAD83 / UTM Zone 17 North, US feet
True vertical depths are referenced to Precision 823 (RT)	North Reference: Grid north
Measured depths are referenced to Precision 823 (RT)	Scale: True distance
Precision 823 (RT) to Mean Sea Level: 1251 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot #9): -1228 feet	Created by: ebarbar on 7/19/2013
Coordinates are in feet referenced to 2011	

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Office of Oil and Gas
AUG 05 2015
WV Department
Environmental Protection



API: 47-051-01590-0000
BHI Job #: 5482941
Rig: Precision 823
Duration: 5/13/2013-5/19/2013



BGGM (1945.0 to 2014.0) Dip: 67.27° Field: 52633.5 nT
Magnetic North is 8.45 degrees West of True North (at 5/11/2013)
Grid North is 0.11 degrees East of True North
To correct azimuth from True to Grid subtract 0.11 degrees
To correct azimuth from Magnetic to Grid subtract 8.57 degrees

51-01590

REFERENCE WELLPATH IDENTIFICATION

Operator	GASTAR EXPLORATION INC.	Slot	Slot #9H
Area	Marshall County, WV	Well	Goudy 9H
Field	Marshall	Wellbore	Goudy 9H (AWB)
Facility	Goudy	Wellpath	Goudy 9H (AWP) Proj: 13141'
Projection System	NAD83 / UTM ZONE 17 NORTH / METERS	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	0.00	110.60	0.00	0.00	0.00	0.00	514667.0	4398555.4	39°44'12.354"N	80°49'43.786"W	0.00	0.00	0.00
13	0.00	110.60	13.00	0.00	0.00	0.00	514667.0	4398555.4	39°44'12.354"N	80°49'43.786"W	0.00	0.00	0.00
100	0.90	110.60	100.00	-0.54	-0.24	0.64	514667.2	4398555.3	39°44'12.352"N	80°49'43.778"W	0.68	110.60	1.03
200	0.86	105.43	199.98	-1.72	-0.72	2.10	514667.7	4398555.2	39°44'12.347"N	80°49'43.759"W	2.22	108.85	0.09
300	0.49	102.56	299.98	-2.58	-1.01	3.24	514668.0	4398555.1	39°44'12.344"N	80°49'43.745"W	3.39	107.30	0.37
400	0.60	107.25	399.97	-3.28	-1.26	4.16	514668.3	4398555.0	39°44'12.341"N	80°49'43.733"W	4.34	106.83	0.12
500	0.60	108.84	499.97	-4.08	-1.58	5.15	514668.6	4398554.9	39°44'12.338"N	80°49'43.720"W	5.39	107.07	0.02
600	1.54	107.33	599.95	-5.51	-2.15	6.93	514669.1	4398554.7	39°44'12.333"N	80°49'43.698"W	7.26	107.24	0.94
700	2.36	110.35	699.89	-8.17	-3.27	10.14	514670.1	4398554.4	39°44'12.321"N	80°49'43.656"W	10.66	107.85	0.83
800	3.93	107.62	799.74	-12.42	-5.02	15.34	514671.7	4398553.8	39°44'12.304"N	80°49'43.590"W	16.14	108.12	1.58
900	5.65	109.17	899.38	-18.89	-7.67	23.26	514674.1	4398553.0	39°44'12.278"N	80°49'43.489"W	24.49	108.26	1.72
1000	7.75	112.10	998.70	-28.21	-11.83	34.15	514677.4	4398551.8	39°44'12.236"N	80°49'43.349"W	36.14	109.10	2.13
1100	9.89	113.92	1097.51	-40.82	-17.85	48.25	514681.7	4398549.9	39°44'12.177"N	80°49'43.169"W	51.45	110.30	2.16
1200	12.18	109.47	1195.65	-56.22	-24.85	66.05	514687.1	4398547.8	39°44'12.107"N	80°49'42.941"W	70.57	110.62	2.44
1300	14.43	107.18	1292.96	-73.96	-32.04	87.91	514693.8	4398545.6	39°44'12.036"N	80°49'42.662"W	93.56	110.03	2.31
1400	13.87	107.19	1389.93	-92.52	-39.27	111.26	514700.9	4398543.4	39°44'11.964"N	80°49'42.363"W	117.99	109.44	0.56
1500	11.36	109.65	1487.51	-109.36	-46.12	131.99	514707.2	4398541.3	39°44'11.896"N	80°49'42.098"W	139.82	109.26	2.57
1600	9.24	112.70	1585.89	-123.68	-52.53	148.67	514712.3	4398539.4	39°44'11.832"N	80°49'41.884"W	157.68	109.46	2.19
1700	7.24	96.67	1684.87	-134.20	-56.36	162.34	514716.5	4398538.2	39°44'11.794"N	80°49'41.710"W	171.85	109.15	3.03
1800	5.60	97.48	1784.24	-141.27	-57.73	173.44	514719.9	4398537.8	39°44'11.780"N	80°49'41.568"W	182.79	108.41	1.64
1900	4.50	93.36	1883.85	-146.67	-58.60	182.19	514722.5	4398537.5	39°44'11.771"N	80°49'41.456"W	191.38	107.83	1.16
2000	3.74	101.83	1983.59	-151.22	-59.50	189.30	514724.7	4398537.3	39°44'11.762"N	80°49'41.365"W	198.43	107.45	0.97
2100	3.23	105.31	2083.40	-155.56	-60.91	195.21	514726.5	4398536.8	39°44'11.748"N	80°49'41.289"W	204.49	107.33	0.55
2200	2.98	108.41	2183.26	-159.65	-62.47	200.39	514728.1	4398536.3	39°44'11.733"N	80°49'41.223"W	209.91	107.32	0.30
2300	2.71	106.17	2283.13	-163.43	-63.95	205.13	514729.5	4398535.9	39°44'11.718"N	80°49'41.162"W	214.87	107.32	0.29

WV Department of Environmental Protection
 Office of Oil and Gas
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 4/15/2015

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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]
2400	2.27	102.17	2383.04	-166.58	-65.03	209.34	514730.8	4398535.6	39°44'11.707"N	80°49'41.108"W	219.20	107.26	0.47
2500	1.86	103.28	2482.97	-169.12	-65.82	212.85	514731.9	4398535.3	39°44'11.699"N	80°49'41.063"W	222.80	107.18	0.41
2600	1.45	92.97	2582.93	-171.00	-66.26	215.70	514732.7	4398535.2	39°44'11.695"N	80°49'41.027"W	225.64	107.08	0.51
2700	1.13	91.40	2682.91	-172.28	-66.35	217.95	514733.4	4398535.2	39°44'11.694"N	80°49'40.998"W	227.82	106.93	0.32
2746	1.06	89.97	2728.90	-172.76	-66.36	218.82	514733.7	4398535.2	39°44'11.694"N	80°49'40.987"W	228.66	106.87	0.16
2764	1.09	79.52	2746.90	-172.91	-66.33	219.16	514733.8	4398535.2	39°44'11.694"N	80°49'40.983"W	228.98	106.84	1.10
2809	0.90	93.35	2791.89	-173.27	-66.27	219.93	514734.0	4398535.2	39°44'11.695"N	80°49'40.973"W	229.70	106.77	0.68
2854	1.21	98.61	2836.88	-173.79	-66.36	220.76	514734.3	4398535.2	39°44'11.694"N	80°49'40.962"W	230.51	106.73	0.72
2898	0.97	85.09	2880.87	-174.26	-66.40	221.59	514734.5	4398535.1	39°44'11.694"N	80°49'40.951"W	231.32	106.68	0.80
2943	0.92	97.23	2925.87	-174.67	-66.41	222.32	514734.8	4398535.1	39°44'11.693"N	80°49'40.942"W	232.03	106.63	0.46
2988	1.16	94.73	2970.86	-175.17	-66.49	223.14	514735.0	4398535.1	39°44'11.693"N	80°49'40.932"W	232.83	106.59	0.54
3033	1.15	94.70	3015.85	-175.72	-66.57	224.04	514735.3	4398535.1	39°44'11.692"N	80°49'40.920"W	233.72	106.55	0.02
3077	1.11	96.70	3059.84	-176.25	-66.65	224.90	514735.5	4398535.1	39°44'11.691"N	80°49'40.909"W	234.57	106.51	0.13
3122	1.07	94.41	3104.83	-176.77	-66.74	225.76	514735.8	4398535.0	39°44'11.690"N	80°49'40.898"W	235.41	106.47	0.13
3167	0.71	99.16	3149.83	-177.21	-66.81	226.45	514736.0	4398535.0	39°44'11.689"N	80°49'40.889"W	236.10	106.44	0.82
3212	0.90	92.74	3194.82	-177.59	-66.88	227.08	514736.2	4398535.0	39°44'11.689"N	80°49'40.881"W	236.72	106.41	0.47
3256	0.70	105.20	3238.82	-177.99	-66.96	227.68	514736.4	4398535.0	39°44'11.688"N	80°49'40.873"W	237.32	106.39	0.60
3301	0.70	116.16	3283.82	-178.43	-67.16	228.19	514736.5	4398534.9	39°44'11.686"N	80°49'40.867"W	237.87	106.40	0.30
3346	0.66	118.93	3328.81	-178.89	-67.40	228.67	514736.7	4398534.8	39°44'11.683"N	80°49'40.861"W	238.39	106.42	0.12
3391	0.49	113.90	3373.81	-179.27	-67.61	229.07	514736.8	4398534.8	39°44'11.681"N	80°49'40.856"W	238.84	106.44	0.39
3435	0.78	136.37	3417.81	-179.72	-67.90	229.45	514736.9	4398534.7	39°44'11.679"N	80°49'40.851"W	239.28	106.49	0.86
3480	1.18	158.35	3462.80	-180.48	-68.55	229.83	514737.0	4398534.5	39°44'11.672"N	80°49'40.846"W	239.84	106.61	1.20
3525	0.65	129.84	3507.80	-181.18	-69.15	230.20	514737.2	4398534.3	39°44'11.666"N	80°49'40.841"W	240.36	106.72	1.52
3570	0.41	118.84	3552.79	-181.56	-69.39	230.54	514737.3	4398534.2	39°44'11.664"N	80°49'40.837"W	240.75	106.75	0.58
3614	0.55	147.54	3596.79	-181.91	-69.64	230.79	514737.3	4398534.2	39°44'11.661"N	80°49'40.834"W	241.06	106.79	0.62
3659	0.42	197.98	3641.79	-182.23	-69.98	230.85	514737.4	4398534.1	39°44'11.658"N	80°49'40.833"W	241.23	106.86	0.95
3704	0.51	148.19	3686.79	-182.54	-70.31	230.91	514737.4	4398534.0	39°44'11.655"N	80°49'40.832"W	241.37	106.94	0.89
3749	0.37	116.50	3731.79	-182.86	-70.54	231.14	514737.4	4398533.9	39°44'11.652"N	80°49'40.829"W	241.67	106.97	0.61
3793	0.44	142.23	3775.79	-183.15	-70.74	231.37	514737.5	4398533.8	39°44'11.650"N	80°49'40.826"W	241.94	107.00	0.44
3838	0.39	133.37	3820.79	-183.47	-70.98	231.59	514737.6	4398533.8	39°44'11.648"N	80°49'40.824"W	242.22	107.04	0.18
3883	0.80	41.63	3865.78	-183.53	-70.85	231.91	514737.7	4398533.8	39°44'11.649"N	80°49'40.819"W	242.49	106.99	2.00

51-01590

Environmental Protection
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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]
3928	1.37	40.93	3910.78	-183.29	-70.21	232.47	514737.8	4398534.0	39°44'11.656"N	80°49'40.812"W	242.84	106.81	1.27
3972	1.32	40.66	3954.76	-182.99	-69.43	233.15	514738.0	4398534.2	39°44'11.663"N	80°49'40.804"W	243.26	106.58	0.11
4017	1.23	35.49	3999.75	-182.65	-68.64	233.76	514738.2	4398534.5	39°44'11.671"N	80°49'40.796"W	243.63	106.36	0.32
4062	1.39	43.23	4044.74	-182.33	-67.85	234.42	514738.4	4398534.7	39°44'11.679"N	80°49'40.787"W	244.04	106.14	0.53
4106	1.28	45.51	4088.73	-182.09	-67.12	235.13	514738.7	4398534.9	39°44'11.686"N	80°49'40.778"W	244.53	105.93	0.28
4151	2.19	60.25	4133.71	-182.02	-66.34	236.24	514739.0	4398535.2	39°44'11.694"N	80°49'40.764"W	245.38	105.69	2.24
4196	4.37	71.67	4178.63	-182.47	-65.37	238.61	514739.7	4398535.5	39°44'11.703"N	80°49'40.733"W	247.41	105.32	5.03
4241	3.38	86.42	4223.53	-183.52	-64.75	241.56	514740.6	4398535.7	39°44'11.709"N	80°49'40.696"W	250.09	105.01	3.10
4285	1.90	116.81	4267.48	-184.76	-65.00	243.51	514741.2	4398535.6	39°44'11.707"N	80°49'40.671"W	252.04	104.95	4.52
4330	1.64	138.73	4312.46	-186.04	-65.82	244.60	514741.5	4398535.3	39°44'11.699"N	80°49'40.657"W	253.30	105.06	1.60
4375	2.82	203.20	4357.43	-187.30	-67.32	244.59	514741.5	4398534.9	39°44'11.684"N	80°49'40.657"W	253.69	105.39	5.73
4420	5.73	225.82	4402.31	-188.40	-69.90	242.54	514740.9	4398534.1	39°44'11.659"N	80°49'40.683"W	252.41	106.08	7.35
4465	8.74	227.90	4446.94	-189.45	-73.76	238.39	514739.6	4398532.9	39°44'11.620"N	80°49'40.736"W	249.54	107.19	6.71
4509	10.61	227.66	4490.32	-190.74	-78.73	232.92	514738.0	4398531.4	39°44'11.571"N	80°49'40.807"W	245.87	108.68	4.25
4554	12.46	227.52	4534.41	-192.34	-84.80	226.28	514736.0	4398529.5	39°44'11.512"N	80°49'40.892"W	241.64	110.55	4.11
4599	14.54	230.99	4578.16	-193.87	-91.64	218.30	514733.5	4398527.5	39°44'11.444"N	80°49'40.994"W	236.76	112.77	4.96
4644	16.51	236.24	4621.52	-194.72	-98.75	208.60	514730.6	4398525.3	39°44'11.374"N	80°49'41.118"W	230.79	115.33	5.37
4688	18.82	243.29	4663.45	-194.21	-105.41	197.06	514727.1	4398523.3	39°44'11.308"N	80°49'41.266"W	223.48	118.14	7.15
4733	20.86	245.66	4705.77	-192.42	-111.98	183.27	514722.9	4398521.3	39°44'11.244"N	80°49'41.443"W	214.77	121.43	4.87
4778	21.64	244.53	4747.71	-190.35	-118.85	168.48	514718.3	4398519.2	39°44'11.176"N	80°49'41.632"W	206.18	125.20	1.96
4823	21.55	244.30	4789.55	-188.44	-126.00	153.54	514713.8	4398517.0	39°44'11.106"N	80°49'41.824"W	198.62	129.37	0.27
4867	22.42	242.63	4830.36	-186.82	-133.36	138.81	514709.3	4398514.7	39°44'11.033"N	80°49'42.013"W	192.49	133.85	2.43
4912	22.73	241.60	4871.91	-185.52	-141.44	123.54	514704.7	4398512.3	39°44'10.954"N	80°49'42.208"W	187.80	138.87	1.12
4957	22.38	240.47	4913.47	-184.55	-149.80	108.44	514700.1	4398509.7	39°44'10.871"N	80°49'42.402"W	184.93	144.10	1.24
5001	22.11	239.79	4954.19	-183.87	-158.10	94.00	514695.7	4398507.2	39°44'10.790"N	80°49'42.587"W	183.93	149.27	0.85
5046	21.72	238.44	4995.94	-183.48	-166.71	79.58	514691.3	4398504.6	39°44'10.705"N	80°49'42.772"W	184.74	154.48	1.42
5091	21.80	238.14	5037.73	-183.34	-175.48	65.39	514686.9	4398501.9	39°44'10.618"N	80°49'42.954"W	187.27	159.56	0.30
5136	22.88	237.04	5079.35	-183.40	-184.65	50.95	514682.5	4398499.1	39°44'10.528"N	80°49'43.139"W	191.55	164.57	2.57
5180	24.68	237.15	5119.62	-183.62	-194.29	36.06	514678.0	4398496.2	39°44'10.433"N	80°49'43.329"W	197.61	169.49	4.09
5225	26.27	239.48	5160.24	-183.44	-204.45	19.58	514673.0	4398493.1	39°44'10.333"N	80°49'43.541"W	205.38	174.53	4.18
5270	26.63	239.39	5200.53	-182.86	-214.64	2.33	514667.7	4398490.0	39°44'10.233"N	80°49'43.762"W	214.65	179.38	0.80

51-01590

Environmental Protection
 WV Department of
 Environmental Protection
 1500 Kanawha Blvd
 East
 Charleston, WV 25305

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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]
5315	26.47	238.84	5240.79	-182.40	-224.96	-14.94	514662.5	4398486.8	39°44'10.131"N	80°49'43.983"W	225.46	183.80	0.65
5359	25.99	236.89	5280.26	-182.38	-235.30	-31.40	514657.4	4398483.7	39°44'10.029"N	80°49'44.194"W	237.39	187.60	2.24
5404	25.91	236.03	5320.72	-182.84	-246.18	-47.82	514652.4	4398480.4	39°44'09.922"N	80°49'44.404"W	250.78	190.99	0.85
5449	25.92	238.72	5361.20	-182.98	-256.78	-64.37	514647.4	4398477.1	39°44'09.817"N	80°49'44.617"W	264.73	194.07	2.61
5494	25.90	243.17	5401.68	-181.91	-266.33	-81.55	514642.2	4398474.2	39°44'09.723"N	80°49'44.837"W	278.53	197.03	4.32
5538	25.92	244.98	5441.25	-179.81	-274.73	-98.84	514636.9	4398471.7	39°44'09.641"N	80°49'45.058"W	291.97	199.79	1.80
5583	24.57	243.81	5481.96	-177.60	-283.02	-116.15	514631.6	4398469.1	39°44'09.559"N	80°49'45.280"W	305.93	202.31	3.20
5628	23.71	242.67	5523.02	-175.85	-291.30	-132.58	514626.6	4398466.6	39°44'09.478"N	80°49'45.490"W	320.06	204.47	2.17
5673	23.33	242.37	5564.28	-174.37	-299.59	-148.51	514621.8	4398464.1	39°44'09.396"N	80°49'45.695"W	334.38	206.37	0.89
5717	23.09	240.96	5604.72	-173.20	-307.82	-163.78	514617.1	4398461.6	39°44'09.315"N	80°49'45.890"W	348.68	208.02	1.38
5763	22.93	241.37	5647.06	-172.15	-316.49	-179.53	514612.3	4398459.0	39°44'09.230"N	80°49'46.092"W	363.86	209.56	0.49
5809	22.19	240.39	5689.54	-171.19	-325.08	-194.95	514607.6	4398456.3	39°44'09.145"N	80°49'46.290"W	379.05	210.95	1.80
5854	21.91	239.80	5731.25	-170.52	-333.50	-209.59	514603.2	4398453.8	39°44'09.062"N	80°49'46.477"W	393.89	212.15	0.79
5898	23.22	238.88	5771.88	-170.07	-342.11	-224.11	514598.7	4398451.1	39°44'08.977"N	80°49'46.663"W	408.98	213.23	3.08
5943	24.88	238.46	5812.97	-169.79	-351.65	-239.78	514594.0	4398448.2	39°44'08.883"N	80°49'46.864"W	425.62	214.29	3.71
5988	25.17	241.33	5853.75	-169.09	-361.19	-256.24	514588.9	4398445.3	39°44'08.789"N	80°49'47.075"W	442.85	215.35	2.77
6033	26.01	249.38	5894.35	-166.52	-369.26	-273.88	514583.6	4398442.9	39°44'08.710"N	80°49'47.301"W	459.74	216.56	7.94
6077	27.25	258.46	5933.69	-161.03	-374.67	-292.78	514577.8	4398441.2	39°44'08.657"N	80°49'47.543"W	475.50	218.01	9.66
6122	28.49	266.47	5973.49	-152.24	-377.40	-313.60	514571.5	4398440.4	39°44'08.630"N	80°49'47.810"W	490.69	219.73	8.76
6167	29.88	274.51	6012.79	-140.39	-377.18	-335.50	514564.8	4398440.5	39°44'08.633"N	80°49'48.090"W	504.80	221.65	9.24
6212	31.10	283.24	6051.59	-125.40	-373.63	-357.99	514557.9	4398441.5	39°44'08.668"N	80°49'48.378"W	517.46	223.78	10.20
6256	32.12	289.80	6089.07	-108.08	-367.06	-380.07	514551.2	4398443.5	39°44'08.733"N	80°49'48.660"W	528.38	226.00	8.15
6301	34.22	294.64	6126.74	-88.05	-357.73	-402.83	514544.3	4398446.4	39°44'08.826"N	80°49'48.951"W	538.75	228.39	7.51
6346	38.06	297.45	6163.08	-65.48	-346.06	-426.65	514537.0	4398449.9	39°44'08.942"N	80°49'49.256"W	549.36	230.95	9.29
6391	42.04	297.76	6197.52	-40.46	-332.64	-452.31	514529.2	4398454.0	39°44'09.075"N	80°49'49.584"W	561.46	233.67	8.86
6436	46.56	299.32	6229.72	-13.04	-317.62	-479.90	514520.8	4398458.6	39°44'09.224"N	80°49'49.937"W	575.49	236.50	10.33
6480	51.19	303.01	6258.65	16.59	-300.44	-508.22	514512.2	4398463.8	39°44'09.394"N	80°49'50.299"W	590.39	239.41	12.27
6525	55.68	305.86	6285.46	49.76	-279.99	-538.01	514503.1	4398470.1	39°44'09.597"N	80°49'50.680"W	606.50	242.51	11.20
6570	58.82	308.63	6309.80	85.20	-257.08	-568.12	514493.9	4398477.1	39°44'09.824"N	80°49'51.065"W	623.57	245.65	8.69
6614	62.21	310.62	6331.46	121.58	-232.65	-597.60	514484.9	4398484.5	39°44'10.066"N	80°49'51.442"W	641.29	248.73	8.65
6659	65.27	312.55	6351.37	160.33	-205.86	-627.78	514475.7	4398492.7	39°44'10.331"N	80°49'51.827"W	660.67	251.85	7.81

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6704	68.59	315.21	6369.00	200.51	-177.16	-657.60	514466.7	4398501.4	39°44'10.615"N	80°49'52.208"W	681.05	254.92	9.16
6749	72.27	317.33	6384.07	242.04	-146.53	-686.90	514457.7	4398510.7	39°44'10.919"N	80°49'52.582"W	702.35	257.96	9.30
6793	75.44	319.93	6396.31	283.76	-114.81	-714.82	514449.2	4398520.4	39°44'11.233"N	80°49'52.939"W	723.98	260.88	9.17
6838	78.82	321.54	6406.33	327.29	-80.85	-742.58	514440.8	4398530.7	39°44'11.569"N	80°49'53.294"W	746.97	263.79	8.28
6883	81.48	323.16	6414.03	371.42	-45.75	-769.65	514432.5	4398541.4	39°44'11.916"N	80°49'53.639"W	771.01	266.60	6.89
6928	84.61	326.37	6419.48	416.01	-9.27	-795.41	514424.7	4398552.6	39°44'12.277"N	80°49'53.968"W	795.47	269.33	9.92
6972	87.01	328.88	6422.69	459.89	27.79	-818.91	514417.5	4398563.8	39°44'12.644"N	80°49'54.268"W	819.38	271.94	7.88
7017	90.03	330.06	6423.85	504.85	66.53	-841.76	514410.6	4398575.6	39°44'13.027"N	80°49'54.560"W	844.38	274.52	7.20
7062	90.34	329.51	6423.71	549.82	105.42	-864.40	514403.6	4398587.5	39°44'13.412"N	80°49'54.849"W	870.81	276.95	1.40
7106	90.68	328.35	6423.32	593.81	143.10	-887.11	514396.7	4398599.0	39°44'13.785"N	80°49'55.138"W	898.58	279.16	2.75
7151	90.65	329.82	6422.80	638.80	181.71	-910.23	514389.7	4398610.7	39°44'14.167"N	80°49'55.433"W	928.18	281.29	3.27
7196	90.77	330.15	6422.24	683.76	220.67	-932.73	514382.8	4398622.6	39°44'14.552"N	80°49'55.721"W	958.48	283.31	0.78
7241	90.49	330.24	6421.74	728.72	259.71	-955.10	514376.0	4398634.5	39°44'14.938"N	80°49'56.006"W	989.78	285.21	0.65
7285	90.77	330.27	6421.26	772.67	297.91	-976.93	514369.4	4398646.1	39°44'15.316"N	80°49'56.284"W	1021.34	286.96	0.64
7330	90.83	330.33	6420.63	817.63	337.00	-999.22	514362.6	4398658.1	39°44'15.703"N	80°49'56.569"W	1054.52	288.64	0.19
7375	90.52	329.92	6420.10	862.59	376.01	-1021.64	514355.7	4398669.9	39°44'16.089"N	80°49'56.855"W	1088.63	290.21	1.14
7420	90.55	329.37	6419.68	907.56	414.84	-1044.38	514348.8	4398681.8	39°44'16.473"N	80°49'57.145"W	1123.75	291.66	1.22
7464	90.40	328.27	6419.32	951.55	452.49	-1067.15	514341.9	4398693.2	39°44'16.846"N	80°49'57.436"W	1159.12	292.98	2.52
7509	90.49	326.95	6418.97	996.55	490.48	-1091.26	514334.5	4398704.8	39°44'17.222"N	80°49'57.743"W	1196.42	294.20	2.94
7554	90.49	325.75	6418.58	1041.53	527.94	-1116.19	514326.9	4398716.2	39°44'17.592"N	80°49'58.062"W	1234.75	295.31	2.67
7599	90.71	326.72	6418.11	1086.51	565.35	-1141.20	514319.3	4398727.6	39°44'17.962"N	80°49'58.381"W	1273.56	296.35	2.21
7644	90.18	327.47	6417.76	1131.51	603.13	-1165.65	514311.9	4398739.1	39°44'18.336"N	80°49'58.693"W	1312.44	297.36	2.04
7688	90.31	328.53	6417.57	1175.51	640.44	-1188.96	514304.8	4398750.5	39°44'18.705"N	80°49'58.990"W	1350.48	298.31	2.43
7733	90.43	328.49	6417.28	1220.50	678.81	-1212.47	514297.6	4398762.2	39°44'19.085"N	80°49'59.290"W	1389.56	299.24	0.28
7777	90.52	327.61	6416.92	1264.50	716.15	-1235.75	514290.5	4398773.6	39°44'19.454"N	80°49'59.588"W	1428.27	300.09	2.01
7822	90.65	327.33	6416.46	1309.50	754.08	-1259.95	514283.1	4398785.1	39°44'19.830"N	80°49'59.896"W	1468.37	300.90	0.69
7867	89.94	327.17	6416.23	1354.49	791.93	-1284.29	514275.7	4398796.7	39°44'20.204"N	80°50'00.207"W	1508.83	301.66	1.62
7912	90.00	325.92	6416.25	1399.48	829.47	-1309.10	514268.2	4398808.1	39°44'20.576"N	80°50'00.524"W	1549.76	302.36	2.78
7957	89.97	324.94	6416.26	1444.44	866.53	-1334.63	514260.4	4398819.4	39°44'20.942"N	80°50'00.850"W	1591.26	302.99	2.18
8001	90.06	323.67	6416.25	1488.36	902.26	-1360.30	514252.6	4398830.3	39°44'21.296"N	80°50'01.178"W	1632.33	303.56	2.89
8046	90.12	323.89	6416.18	1533.25	938.56	-1386.89	514244.5	4398841.3	39°44'21.655"N	80°50'01.517"W	1674.63	304.09	0.51

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8091	90.15	324.91	6416.07	1578.17	975.15	-1413.09	514236.5	4398852.5	39°44'22.017"N	80°50'01.851"W	1716.90	304.61	2.27
8136	89.60	327.41	6416.17	1623.15	1012.53	-1438.15	514228.8	4398863.9	39°44'22.387"N	80°50'02.171"W	1758.83	305.15	5.69
8180	89.63	328.94	6416.47	1667.14	1049.91	-1461.35	514221.8	4398875.3	39°44'22.757"N	80°50'02.467"W	1799.40	305.70	3.48
8225	89.72	328.90	6416.72	1712.13	1088.45	-1484.58	514214.7	4398887.0	39°44'23.138"N	80°50'02.764"W	1840.84	306.25	0.22
8270	89.88	329.49	6416.88	1757.12	1127.10	-1507.62	514207.7	4398898.8	39°44'23.521"N	80°50'03.058"W	1882.36	306.78	1.36
8315	89.94	331.33	6416.95	1802.07	1166.23	-1529.84	514200.9	4398910.7	39°44'23.908"N	80°50'03.342"W	1923.67	307.32	4.09
8359	89.69	331.82	6417.09	1845.98	1204.92	-1550.79	514194.5	4398922.5	39°44'24.291"N	80°50'03.609"W	1963.87	307.85	1.25
8404	89.69	330.32	6417.34	1890.90	1244.31	-1572.55	514187.9	4398934.5	39°44'24.680"N	80°50'03.886"W	2005.30	308.35	3.33
8449	89.78	329.78	6417.54	1935.86	1283.30	-1595.02	514181.0	4398946.4	39°44'25.066"N	80°50'04.173"W	2047.18	308.82	1.22
8494	90.15	328.90	6417.57	1980.85	1322.01	-1617.97	514174.1	4398958.2	39°44'25.449"N	80°50'04.466"W	2089.38	309.25	2.12
8538	90.00	328.95	6417.51	2024.84	1359.69	-1640.68	514167.1	4398969.6	39°44'25.822"N	80°50'04.756"W	2130.86	309.65	0.36
8583	90.31	328.51	6417.39	2069.83	1398.15	-1664.03	514160.0	4398981.4	39°44'26.202"N	80°50'05.054"W	2173.44	310.04	1.20
8628	90.71	328.27	6416.99	2114.83	1436.48	-1687.62	514152.8	4398993.0	39°44'26.582"N	80°50'05.355"W	2216.20	310.40	1.04
8673	90.83	328.26	6416.39	2159.82	1474.74	-1711.29	514145.6	4399004.7	39°44'26.960"N	80°50'05.657"W	2259.07	310.75	0.27
8717	90.62	327.78	6415.83	2203.82	1512.06	-1734.59	514138.5	4399016.1	39°44'27.329"N	80°50'05.954"W	2301.12	311.08	1.19
8762	90.55	327.30	6415.37	2248.82	1550.03	-1758.74	514131.2	4399027.6	39°44'27.705"N	80°50'06.263"W	2344.30	311.39	1.08
8807	90.65	327.54	6414.90	2293.81	1587.95	-1782.97	514123.8	4399039.2	39°44'28.080"N	80°50'06.572"W	2387.58	311.69	0.58
8851	90.71	327.23	6414.38	2337.81	1625.01	-1806.68	514116.6	4399050.5	39°44'28.447"N	80°50'06.875"W	2429.97	311.97	0.72
8896	90.52	326.60	6413.89	2382.80	1662.71	-1831.25	514109.1	4399062.0	39°44'28.820"N	80°50'07.188"W	2473.47	312.24	1.46
8941	90.34	326.08	6413.56	2427.78	1700.16	-1856.19	514101.5	4399073.4	39°44'29.191"N	80°50'07.507"W	2517.14	312.49	1.22
8986	90.43	326.17	6413.25	2472.76	1737.52	-1881.27	514093.8	4399084.8	39°44'29.560"N	80°50'07.827"W	2560.89	312.73	0.28
9030	90.43	326.54	6412.92	2516.75	1774.15	-1905.65	514086.4	4399095.9	39°44'29.923"N	80°50'08.138"W	2603.67	312.95	0.84
9075	90.65	326.29	6412.50	2561.73	1811.64	-1930.54	514078.8	4399107.3	39°44'30.294"N	80°50'08.456"W	2647.45	313.18	0.74
9120	90.40	327.14	6412.09	2606.72	1849.25	-1955.23	514071.3	4399118.8	39°44'30.666"N	80°50'08.771"W	2691.22	313.40	1.97
9165	90.40	327.97	6411.77	2651.72	1887.23	-1979.37	514063.9	4399130.4	39°44'31.042"N	80°50'09.079"W	2734.88	313.64	1.84
9209	90.49	328.71	6411.43	2695.72	1924.68	-2002.47	514056.9	4399141.8	39°44'31.412"N	80°50'09.374"W	2777.46	313.87	1.69
9254	90.37	329.05	6411.09	2740.71	1963.20	-2025.73	514049.8	4399153.5	39°44'31.793"N	80°50'09.671"W	2820.94	314.10	0.80
9299	90.46	329.46	6410.77	2785.69	2001.88	-2048.73	514042.8	4399165.3	39°44'32.176"N	80°50'09.964"W	2864.40	314.34	0.93
9343	90.40	329.28	6410.44	2829.67	2039.74	-2071.15	514036.0	4399176.8	39°44'32.550"N	80°50'10.250"W	2906.92	314.56	0.43
9388	90.71	329.43	6410.00	2874.66	2078.45	-2094.08	514029.0	4399188.6	39°44'32.933"N	80°50'10.543"W	2950.45	314.79	0.77
9433	89.94	328.44	6409.75	2919.65	2116.99	-2117.30	514021.9	4399200.4	39°44'33.315"N	80°50'10.839"W	2994.10	315.00	2.79

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9477	90.28	328.63	6409.66	2963.64	2154.52	-2140.27	514014.9	4399211.8	39°44'33.686"N	80°50'11.133"W	3036.89	315.19	0.89
9522	90.55	328.49	6409.34	3008.64	2192.92	-2163.74	514007.8	4399223.5	39°44'34.066"N	80°50'11.432"W	3080.69	315.38	0.68
9567	90.65	329.06	6408.86	3053.63	2231.40	-2187.07	514000.7	4399235.2	39°44'34.447"N	80°50'11.730"W	3124.48	315.58	1.29
9612	90.46	327.49	6408.43	3098.62	2269.67	-2210.73	513993.5	4399246.9	39°44'34.825"N	80°50'12.032"W	3168.39	315.75	3.51
9656	90.65	329.19	6408.00	3142.62	2307.12	-2233.82	513986.4	4399258.3	39°44'35.196"N	80°50'12.327"W	3211.35	315.93	3.89
9701	90.55	329.35	6407.53	3187.60	2345.80	-2256.81	513979.4	4399270.1	39°44'35.578"N	80°50'12.620"W	3255.15	316.11	0.42
9746	90.62	329.47	6407.07	3232.58	2384.53	-2279.71	513972.4	4399281.9	39°44'35.962"N	80°50'12.912"W	3298.95	316.29	0.31
9790	90.34	329.00	6406.70	3276.56	2422.34	-2302.22	513965.6	4399293.4	39°44'36.336"N	80°50'13.200"W	3341.85	316.46	1.24
9835	90.43	328.47	6406.40	3321.56	2460.80	-2325.57	513958.5	4399305.1	39°44'36.716"N	80°50'13.498"W	3385.83	316.62	1.19
9880	90.52	328.88	6406.03	3366.55	2499.24	-2348.97	513951.3	4399316.8	39°44'37.097"N	80°50'13.796"W	3429.85	316.78	0.93
9925	90.34	328.91	6405.69	3411.54	2537.77	-2372.21	513944.3	4399328.6	39°44'37.478"N	80°50'14.093"W	3473.86	316.93	0.41
9970	90.34	329.24	6405.42	3456.53	2576.37	-2395.34	513937.2	4399340.3	39°44'37.860"N	80°50'14.388"W	3517.86	317.09	0.73
10014	90.37	329.01	6405.15	3500.52	2614.14	-2417.92	513930.3	4399351.8	39°44'38.233"N	80°50'14.676"W	3560.90	317.23	0.53
10059	90.40	328.81	6404.85	3545.51	2652.67	-2441.16	513923.2	4399363.6	39°44'38.615"N	80°50'14.973"W	3604.98	317.38	0.45
10104	90.62	328.16	6404.45	3590.50	2691.03	-2464.68	513916.1	4399375.3	39°44'38.994"N	80°50'15.273"W	3649.15	317.51	1.52
10149	90.86	328.24	6403.87	3635.50	2729.27	-2488.39	513908.9	4399386.9	39°44'39.372"N	80°50'15.576"W	3693.37	317.64	0.56
10193	90.65	328.55	6403.29	3679.49	2766.74	-2511.44	513901.8	4399398.3	39°44'39.743"N	80°50'15.870"W	3736.61	317.77	0.85
10238	90.40	327.82	6402.87	3724.49	2804.98	-2535.17	513894.6	4399410.0	39°44'40.121"N	80°50'16.173"W	3780.87	317.89	1.71
10283	90.49	327.17	6402.52	3769.48	2842.93	-2559.35	513887.2	4399421.6	39°44'40.497"N	80°50'16.482"W	3825.25	318.01	1.46
10328	90.03	326.66	6402.32	3814.48	2880.63	-2583.91	513879.8	4399433.0	39°44'40.870"N	80°50'16.795"W	3869.71	318.11	1.53
10373	89.94	326.64	6402.33	3859.47	2918.22	-2608.65	513872.2	4399444.5	39°44'41.242"N	80°50'17.111"W	3914.22	318.21	0.20
10417	90.03	326.50	6402.34	3903.46	2954.94	-2632.89	513864.8	4399455.7	39°44'41.605"N	80°50'17.421"W	3957.75	318.30	0.38
10462	89.88	326.98	6402.38	3948.45	2992.57	-2657.57	513857.3	4399467.2	39°44'41.978"N	80°50'17.736"W	4002.27	318.39	1.12
10507	89.91	327.55	6402.46	3993.45	3030.43	-2681.90	513849.9	4399478.7	39°44'42.352"N	80°50'18.046"W	4046.74	318.49	1.27
10551	89.94	327.39	6402.52	4037.45	3067.52	-2705.57	513842.7	4399490.0	39°44'42.719"N	80°50'18.348"W	4090.21	318.59	0.37
10596	90.09	328.08	6402.51	4082.45	3105.57	-2729.59	513835.4	4399501.6	39°44'43.096"N	80°50'18.655"W	4134.64	318.69	1.57
10641	90.00	329.26	6402.47	4127.44	3144.01	-2752.99	513828.2	4399513.3	39°44'43.476"N	80°50'18.954"W	4178.96	318.79	2.63
10685	89.88	330.74	6402.52	4171.41	3182.12	-2774.99	513821.5	4399524.9	39°44'43.853"N	80°50'19.234"W	4222.13	318.91	3.37
10730	89.94	331.53	6402.59	4216.33	3221.52	-2796.71	513814.9	4399536.9	39°44'44.243"N	80°50'19.512"W	4266.12	319.04	1.76
10775	89.88	331.80	6402.66	4261.23	3261.13	-2818.07	513808.4	4399549.0	39°44'44.635"N	80°50'19.784"W	4310.04	319.17	0.61
10820	89.82	332.09	6402.78	4306.11	3300.84	-2839.23	513802.0	4399561.1	39°44'45.027"N	80°50'20.054"W	4353.94	319.30	0.66

51-01590

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WELL PATH 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]
10864	89.88	330.34	6402.89	4350.03	3339.41	-2860.42	513795.5	4399572.8	39°44'45.409"N	80°50'20.324"W	4397.00	319.42	3.98
10909	89.97	327.97	6402.95	4395.02	3378.04	-2883.49	513788.5	4399584.6	39°44'45.791"N	80°50'20.619"W	4441.36	319.52	5.27
10954	90.12	325.24	6402.92	4440.00	3415.61	-2908.25	513780.9	4399596.0	39°44'46.163"N	80°50'20.935"W	4486.01	319.59	6.08
10999	90.18	324.90	6402.80	4484.95	3452.50	-2934.02	513773.1	4399607.3	39°44'46.528"N	80°50'21.264"W	4530.81	319.64	0.77
11044	90.37	325.17	6402.58	4529.90	3489.38	-2959.81	513765.2	4399618.5	39°44'46.893"N	80°50'21.593"W	4575.61	319.69	0.73
11088	90.18	327.35	6402.37	4573.88	3525.96	-2984.24	513757.8	4399629.7	39°44'47.255"N	80°50'21.905"W	4619.32	319.76	4.97
11133	90.12	326.74	6402.25	4618.87	3563.72	-3008.72	513750.3	4399641.2	39°44'47.628"N	80°50'22.218"W	4663.96	319.83	1.36
11178	90.25	326.43	6402.11	4663.86	3601.28	-3033.50	513742.8	4399652.6	39°44'48.000"N	80°50'22.534"W	4708.65	319.89	0.75
11222	90.22	326.59	6401.93	4707.85	3637.98	-3057.78	513735.4	4399663.8	39°44'48.363"N	80°50'22.844"W	4752.36	319.95	0.37
11267	90.37	327.49	6401.70	4752.85	3675.73	-3082.27	513727.9	4399675.3	39°44'48.737"N	80°50'23.157"W	4797.02	320.02	2.03
11312	90.28	327.81	6401.44	4797.85	3713.75	-3106.34	513720.6	4399686.9	39°44'49.113"N	80°50'23.464"W	4841.62	320.09	0.74
11356	90.40	327.60	6401.18	4841.84	3750.94	-3129.85	513713.4	4399698.2	39°44'49.481"N	80°50'23.764"W	4885.24	320.16	0.55
11401	90.43	327.63	6400.85	4886.84	3788.94	-3153.95	513706.1	4399709.8	39°44'49.857"N	80°50'24.072"W	4929.86	320.23	0.09
11446	90.18	326.95	6400.61	4931.84	3826.80	-3178.27	513698.7	4399721.3	39°44'50.231"N	80°50'24.383"W	4974.52	320.29	1.61
11491	90.43	325.61	6400.37	4976.82	3864.23	-3203.25	513691.1	4399732.7	39°44'50.602"N	80°50'24.702"W	5019.27	320.34	3.03
11536	90.15	325.29	6400.15	5021.78	3901.30	-3228.77	513683.3	4399744.0	39°44'50.968"N	80°50'25.027"W	5064.10	320.39	0.94
11580	89.72	325.06	6400.20	5065.74	3937.41	-3253.90	513675.6	4399755.0	39°44'51.326"N	80°50'25.348"W	5107.94	320.43	1.11
11625	89.78	326.38	6400.39	5110.71	3974.60	-3279.24	513667.9	4399766.4	39°44'51.694"N	80°50'25.672"W	5152.75	320.48	2.94
11670	89.72	328.12	6400.59	5155.70	4012.44	-3303.59	513660.5	4399777.9	39°44'52.068"N	80°50'25.983"W	5197.44	320.53	3.87
11714	89.91	330.19	6400.73	5199.69	4050.22	-3326.14	513653.6	4399789.4	39°44'52.442"N	80°50'26.271"W	5240.94	320.61	4.72
11759	89.85	331.66	6400.83	5244.62	4089.54	-3348.01	513646.9	4399801.4	39°44'52.831"N	80°50'26.550"W	5285.22	320.69	3.27
11804	89.72	330.81	6400.99	5289.54	4128.99	-3369.67	513640.4	4399813.4	39°44'53.221"N	80°50'26.826"W	5329.47	320.78	1.91
11849	89.60	329.14	6401.26	5334.50	4167.95	-3392.18	513633.5	4399825.3	39°44'53.607"N	80°50'27.113"W	5373.89	320.86	3.72
11893	89.75	328.46	6401.51	5378.50	4205.59	-3414.97	513626.5	4399836.7	39°44'53.979"N	80°50'27.404"W	5417.47	320.92	1.58
11938	89.60	327.99	6401.77	5423.49	4243.84	-3438.67	513619.3	4399848.4	39°44'54.357"N	80°50'27.707"W	5462.11	320.98	1.10
11983	89.82	327.75	6401.99	5468.49	4281.95	-3462.60	513612.0	4399860.0	39°44'54.734"N	80°50'28.012"W	5506.79	321.04	0.72
12028	89.78	328.61	6402.15	5513.49	4320.18	-3486.33	513604.8	4399871.6	39°44'55.113"N	80°50'28.315"W	5551.44	321.10	1.91
12072	89.75	328.84	6402.33	5557.49	4357.79	-3509.17	513597.8	4399883.1	39°44'55.485"N	80°50'28.607"W	5595.05	321.16	0.53
12117	90.49	329.54	6402.24	5602.47	4396.44	-3532.22	513590.8	4399894.9	39°44'55.867"N	80°50'28.901"W	5639.61	321.22	2.26
12162	90.49	329.20	6401.85	5647.45	4435.16	-3555.14	513583.8	4399906.7	39°44'56.250"N	80°50'29.194"W	5684.16	321.29	0.76
12206	90.68	329.21	6401.40	5691.44	4472.95	-3577.67	513577.0	4399918.2	39°44'56.624"N	80°50'29.481"W	5727.74	321.35	0.43

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WELL PATH DATA † = interpolated/extrapolated station

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12251	90.37	328.54	6400.99	5736.43	4511.47	-3600.93	513569.9	4399929.9	39°44'57.005"N	80°50'29.778"W	5772.35	321.40	1.64
12296	90.40	327.72	6400.69	5781.42	4549.69	-3624.69	513562.7	4399941.6	39°44'57.383"N	80°50'30.082"W	5817.05	321.46	1.82
12341	90.28	325.99	6400.42	5826.42	4587.36	-3649.29	513555.2	4399953.1	39°44'57.756"N	80°50'30.396"W	5861.85	321.50	3.85
12386	90.46	324.67	6400.13	5871.37	4624.37	-3674.89	513547.4	4399964.3	39°44'58.122"N	80°50'30.723"W	5906.74	321.53	2.96
12430	90.40	324.36	6399.80	5915.30	4660.20	-3700.43	513539.6	4399975.2	39°44'58.477"N	80°50'31.049"W	5950.68	321.55	0.72
12475	90.34	324.42	6399.51	5960.22	4696.78	-3726.63	513531.6	4399986.4	39°44'58.839"N	80°50'31.383"W	5995.63	321.57	0.19
12520	90.62	325.96	6399.13	6005.17	4733.73	-3752.32	513523.8	4399997.6	39°44'59.204"N	80°50'31.711"W	6040.53	321.60	3.48
12564	90.68	328.00	6398.63	6049.16	4770.62	-3776.29	513516.5	4400008.9	39°44'59.569"N	80°50'32.018"W	6084.34	321.64	4.64
12609	90.55	329.46	6398.15	6094.15	4809.08	-3799.65	513509.3	4400020.6	39°44'59.950"N	80°50'32.316"W	6128.99	321.69	3.26
12654	90.89	330.73	6397.59	6139.11	4848.08	-3822.08	513502.5	4400032.5	39°45'00.336"N	80°50'32.602"W	6173.51	321.75	2.92
12698	90.89	330.90	6396.90	6183.04	4886.49	-3843.53	513496.0	4400044.2	39°45'00.716"N	80°50'32.876"W	6216.96	321.81	0.39
12743	90.68	330.65	6396.29	6227.98	4925.76	-3865.50	513489.3	4400056.2	39°45'01.104"N	80°50'33.156"W	6261.41	321.88	0.73
12788	90.58	329.55	6395.79	6272.94	4964.77	-3887.93	513482.4	4400068.0	39°45'01.490"N	80°50'33.443"W	6305.94	321.94	2.45
12833	90.34	327.91	6395.43	6317.93	5003.23	-3911.29	513475.3	4400079.8	39°45'01.870"N	80°50'33.741"W	6350.63	321.98	3.68
12877	90.12	327.02	6395.25	6361.93	5040.32	-3934.95	513468.1	4400091.1	39°45'02.237"N	80°50'34.043"W	6394.43	322.02	2.08
12922	90.06	326.24	6395.18	6406.92	5077.90	-3959.71	513460.6	4400102.5	39°45'02.609"N	80°50'34.359"W	6439.28	322.05	1.74
12967	90.12	325.96	6395.11	6451.90	5115.25	-3984.80	513452.9	4400113.9	39°45'02.979"N	80°50'34.679"W	6484.17	322.08	0.64
13012	90.28	325.52	6394.95	6496.87	5152.44	-4010.14	513445.2	4400125.2	39°45'03.347"N	80°50'35.003"W	6529.08	322.11	1.04
13056	90.31	325.19	6394.73	6540.83	5188.64	-4035.15	513437.6	4400136.2	39°45'03.705"N	80°50'35.322"W	6573.01	322.13	0.75
13101	90.12	324.44	6394.56	6585.77	5225.42	-4061.08	513429.7	4400147.5	39°45'04.069"N	80°50'35.653"W	6617.96	322.15	1.72
13116	90.37	325.27	6394.49	6600.75	5237.68	-4069.71	513427.1	4400151.2	39°45'04.190"N	80°50'35.764"W	6632.94	322.15	5.78
13141	90.37	325.27	6394.33	6625.72	5258.23	-4083.96	513422.7	4400157.4	39°45'04.394"N	80°50'35.946"W	6657.90	322.16	0.00

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