



GASTAR EXPLORATION USA, INC.

Location: Marshall County, WV
 Field: Marshall
 Facility: Hansen Unit

Slot: Slot #9
 Well: Hansen Unit 9H
 Wellbore: Hansen Unit 9H (PWB)

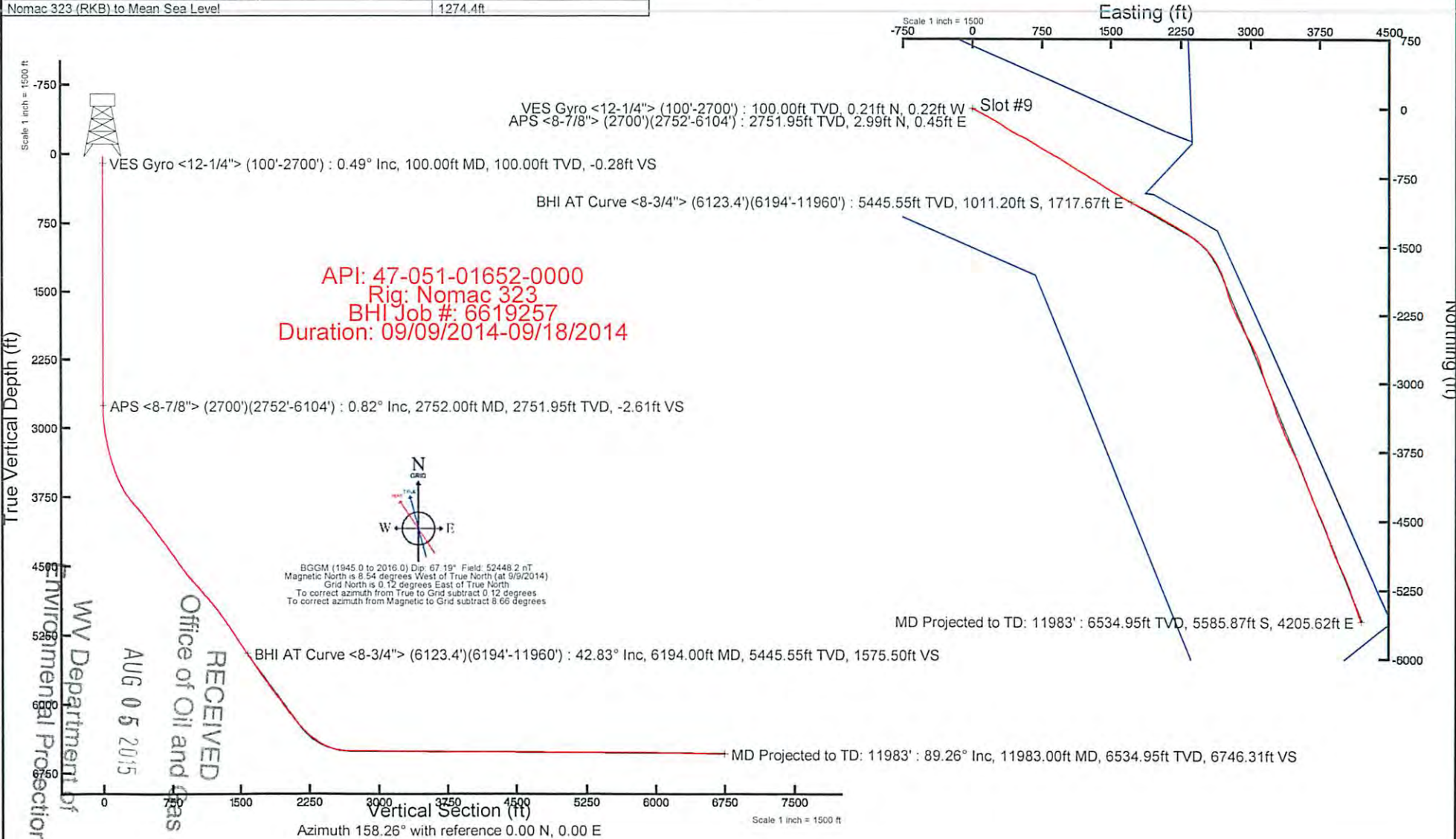


Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude		
Hansen Unit	1692627.590	14427215.002	39°43'35.573"N	80°48'51.498"W		
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Slot #9	158.54	21.81	1692649.390	14427373.480	39°43'37.139"N	80°48'51.215"W
Nomac 323 (RKB) to Mud line (At Slot: Slot #9)			29.4ft			
Mean Sea Level to Mud line (At Slot: Slot #9)			-1245ft			
Nomac 323 (RKB) to Mean Sea Level			1274.4ft			

Plot reference wellpath is Hansen Unit 9H Rev-B.0

True vertical depths are referenced to Nomac 323 (RKB)	Grid System: NAD83 / UTM Zone 17 North, US feet
Measured depths are referenced to Nomac 323 (RKB)	North Reference: Grid north
Nomac 323 (RKB) to Mean Sea Level: 1274.4 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: Slot #9): -1245 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: kroschr on 9/17/2014



51-01652

Northing (ft)

51-01652

REFERENCE WELLPATH IDENTIFICATION			
Operator	GASTAR EXPLORATION INC.	Slot	Slot #9
Area	Marshall County, WV	Well	Hansen 9H
Field	Marshall	Wellbore	Hansen 9H (AWB)
Facility	Hansen Unit	Wellpath	Hansen 9H (AWP) Proj: 11,983'
		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	313.71	0.00	0.00	0.00	0.00	515920.6	4397472.2	39°43'37.139"N	80°48'51.215"W	0.00	0.00	0.00
29.40	0.00	313.71	29.40	0.00	0.00	0.00	515920.6	4397472.2	39°43'37.139"N	80°48'51.215"W	0.00	0.00	0.00
119.40	0.63	313.71	119.40	-0.45	0.34	-0.36	515920.5	4397472.3	39°43'37.143"N	80°48'51.219"W	0.49	313.71	0.70
219.40	0.52	298.45	219.39	-1.30	0.94	-1.15	515920.2	4397472.5	39°43'37.149"N	80°48'51.229"W	1.49	309.10	0.19
319.40	0.60	288.81	319.39	-1.99	1.32	-2.05	515919.9	4397472.6	39°43'37.153"N	80°48'51.241"W	2.44	302.85	0.12
419.40	0.31	269.59	419.39	-2.43	1.49	-2.81	515919.7	4397472.7	39°43'37.154"N	80°48'51.251"W	3.18	297.89	0.32
519.40	0.22	257.60	519.38	-2.56	1.45	-3.27	515919.6	4397472.7	39°43'37.154"N	80°48'51.257"W	3.58	293.85	0.11
619.40	0.20	232.68	619.38	-2.54	1.30	-3.60	515919.5	4397472.6	39°43'37.152"N	80°48'51.261"W	3.83	289.86	0.09
719.40	0.45	215.02	719.38	-2.28	0.87	-3.96	515919.4	4397472.5	39°43'37.148"N	80°48'51.265"W	4.06	282.41	0.27
819.40	0.19	205.54	819.38	-1.95	0.40	-4.26	515919.3	4397472.4	39°43'37.143"N	80°48'51.269"W	4.28	275.38	0.26
919.40	0.55	186.94	919.38	-1.42	-0.23	-4.39	515919.2	4397472.2	39°43'37.137"N	80°48'51.271"W	4.40	267.07	0.37
1019.40	0.33	161.41	1019.38	-0.71	-0.97	-4.36	515919.2	4397471.9	39°43'37.130"N	80°48'51.270"W	4.46	257.39	0.29
1119.40	0.12	148.52	1119.37	-0.32	-1.34	-4.21	515919.3	4397471.8	39°43'37.126"N	80°48'51.269"W	4.42	252.38	0.21
1219.40	0.18	125.77	1219.37	-0.08	-1.52	-4.03	515919.3	4397471.8	39°43'37.124"N	80°48'51.266"W	4.30	249.35	0.08
1319.40	0.26	115.44	1319.37	0.22	-1.71	-3.69	515919.4	4397471.7	39°43'37.123"N	80°48'51.262"W	4.07	245.20	0.09
1419.40	0.36	106.75	1419.37	0.58	-1.90	-3.19	515919.6	4397471.7	39°43'37.121"N	80°48'51.256"W	3.71	239.28	0.11
1519.40	0.32	100.60	1519.37	0.92	-2.04	-2.61	515919.8	4397471.6	39°43'37.119"N	80°48'51.248"W	3.31	232.07	0.05
1619.40	0.25	81.43	1619.37	1.12	-2.06	-2.12	515919.9	4397471.6	39°43'37.119"N	80°48'51.242"W	2.96	225.93	0.12
1719.40	0.22	65.82	1719.37	1.16	-1.94	-1.73	515920.0	4397471.6	39°43'37.120"N	80°48'51.237"W	2.60	221.70	0.07
1819.40	0.54	51.38	1819.37	1.02	-1.57	-1.19	515920.2	4397471.8	39°43'37.124"N	80°48'51.230"W	1.97	217.11	0.33
1919.40	0.30	46.16	1919.36	0.78	-1.10	-0.63	515920.4	4397471.9	39°43'37.129"N	80°48'51.223"W	1.27	209.97	0.24
2019.40	0.26	25.14	2019.36	0.53	-0.71	-0.35	515920.5	4397472.0	39°43'37.132"N	80°48'51.219"W	0.79	206.06	0.11
2119.40	0.36	16.86	2119.36	0.13	-0.20	-0.16	515920.5	4397472.2	39°43'37.137"N	80°48'51.217"W	0.26	218.09	0.11
2219.40	0.22	9.21	2219.36	-0.28	0.29	-0.04	515920.6	4397472.3	39°43'37.142"N	80°48'51.215"W	0.29	352.48	0.14
2319.40	0.24	5.61	2319.36	-0.63	0.68	0.01	515920.6	4397472.4	39°43'37.146"N	80°48'51.214"W	0.68	1.12	0.02

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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]
2419.40	0.09	7.35	2419.36	-0.89	0.97	0.04	515920.6	4397472.5	39°43'37.149"N	80°48'51.214"W	0.97	2.59	0.15
2519.40	0.16	4.96	2519.36	-1.08	1.19	0.07	515920.6	4397472.6	39°43'37.151"N	80°48'51.214"W	1.19	3.18	0.07
2619.40	0.47	7.35	2619.36	-1.56	1.73	0.13	515920.6	4397472.8	39°43'37.157"N	80°48'51.213"W	1.74	4.31	0.31
2719.40	0.75	2.62	2719.35	-2.52	2.79	0.21	515920.6	4397473.1	39°43'37.167"N	80°48'51.212"W	2.80	4.36	0.28
2771.40	1.39	112.90	2771.34	-2.38	2.89	0.81	515920.8	4397473.1	39°43'37.168"N	80°48'51.204"W	3.00	15.66	3.45
2803.40	2.28	119.54	2803.33	-1.61	2.42	1.72	515921.1	4397473.0	39°43'37.163"N	80°48'51.193"W	2.97	35.37	2.85
2834.40	3.49	119.16	2834.29	-0.40	1.66	3.08	515921.5	4397472.7	39°43'37.156"N	80°48'51.175"W	3.50	61.69	3.90
2866.40	4.58	121.13	2866.21	1.37	0.52	5.03	515922.1	4397472.4	39°43'37.144"N	80°48'51.150"W	5.05	84.04	3.43
2897.40	5.72	122.40	2897.08	3.61	-0.94	7.39	515922.8	4397471.9	39°43'37.130"N	80°48'51.120"W	7.45	97.27	3.70
2929.40	6.91	122.57	2928.89	6.47	-2.83	10.36	515923.7	4397471.4	39°43'37.111"N	80°48'51.082"W	10.74	105.30	3.72
2960.40	8.20	121.41	2959.62	9.75	-4.99	13.82	515924.8	4397470.7	39°43'37.090"N	80°48'51.038"W	14.69	109.86	4.19
2992.40	9.44	119.42	2991.24	13.62	-7.47	18.05	515926.1	4397470.0	39°43'37.065"N	80°48'50.984"W	19.53	112.48	3.99
3023.40	10.47	119.65	3021.77	17.80	-10.11	22.71	515927.5	4397469.2	39°43'37.039"N	80°48'50.924"W	24.86	114.00	3.33
3054.40	11.32	118.03	3052.21	22.33	-12.93	27.85	515929.1	4397468.3	39°43'37.011"N	80°48'50.859"W	30.70	114.91	2.91
3086.40	12.44	117.37	3083.53	27.33	-15.99	33.68	515930.8	4397467.4	39°43'36.981"N	80°48'50.784"W	37.28	115.40	3.53
3117.40	13.56	117.88	3113.73	32.62	-19.23	39.86	515932.7	4397466.4	39°43'36.949"N	80°48'50.705"W	44.25	115.75	3.63
3149.40	14.78	118.56	3144.76	38.62	-22.93	46.76	515934.8	4397465.2	39°43'36.912"N	80°48'50.617"W	52.08	116.13	3.85
3181.40	15.77	119.38	3175.63	45.15	-27.02	54.13	515937.1	4397464.0	39°43'36.871"N	80°48'50.523"W	60.50	116.53	3.17
3212.40	16.29	119.61	3205.42	51.82	-31.23	61.58	515939.3	4397462.7	39°43'36.829"N	80°48'50.427"W	69.05	116.89	1.69
3244.40	16.96	119.30	3236.08	58.96	-35.74	69.56	515941.8	4397461.3	39°43'36.785"N	80°48'50.325"W	78.20	117.19	2.11
3275.40	17.77	119.36	3265.67	66.15	-40.27	77.62	515944.2	4397460.0	39°43'36.740"N	80°48'50.222"W	87.45	117.42	2.61
3307.40	18.84	118.72	3296.05	73.94	-45.15	86.41	515946.9	4397458.5	39°43'36.691"N	80°48'50.110"W	97.49	117.59	3.40
3339.40	20.08	118.67	3326.22	82.16	-50.26	95.76	515949.7	4397456.9	39°43'36.641"N	80°48'49.990"W	108.15	117.69	3.88
3370.40	21.03	118.61	3355.25	90.54	-55.48	105.31	515952.7	4397455.3	39°43'36.589"N	80°48'49.868"W	119.03	117.78	3.07
3402.40	22.06	116.66	3385.01	99.46	-60.93	115.72	515955.8	4397453.7	39°43'36.535"N	80°48'49.735"W	130.78	117.77	3.92
3434.40	23.45	116.97	3414.52	108.73	-66.51	126.77	515959.2	4397452.0	39°43'36.479"N	80°48'49.594"W	143.16	117.68	4.36
3466.40	24.97	116.84	3443.71	118.58	-72.45	138.47	515962.8	4397450.2	39°43'36.421"N	80°48'49.444"W	156.28	117.62	4.75
3497.40	26.02	117.57	3471.69	128.65	-78.55	150.34	515966.4	4397448.3	39°43'36.360"N	80°48'49.293"W	169.62	117.59	3.54
3529.40	27.46	117.46	3500.26	139.56	-85.20	163.11	515970.3	4397446.3	39°43'36.294"N	80°48'49.129"W	184.02	117.58	4.50
3560.40	28.48	118.65	3527.64	150.66	-92.04	175.94	515974.2	4397444.2	39°43'36.226"N	80°48'48.965"W	198.56	117.62	3.75
3591.40	30.22	118.32	3554.66	162.34	-99.29	189.29	515978.2	4397442.0	39°43'36.154"N	80°48'48.795"W	213.75	117.68	5.64

51-01652

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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]
3623.40	31.41	118.99	3582.14	174.97	-107.15	203.68	515982.6	4397439.6	39°43'36.076"N	80°48'48.611"W	230.14	117.75	3.87
3653.40	32.99	119.39	3607.53	187.38	-114.95	217.63	515986.9	4397437.2	39°43'35.999"N	80°48'48.432"W	246.12	117.84	5.31
3685.40	34.30	120.50	3634.17	201.29	-123.80	232.99	515991.6	4397434.5	39°43'35.911"N	80°48'48.236"W	263.84	117.98	4.52
3716.40	35.94	120.64	3659.52	215.40	-132.87	248.35	515996.2	4397431.8	39°43'35.821"N	80°48'48.040"W	281.65	118.15	5.30
3766.40	38.09	121.91	3699.45	239.45	-148.50	274.07	516004.1	4397427.0	39°43'35.666"N	80°48'47.711"W	311.71	118.45	4.56
3797.40	39.66	123.41	3723.58	255.27	-159.00	290.44	516009.1	4397423.8	39°43'35.562"N	80°48'47.502"W	331.12	118.70	5.90
3829.40	41.23	124.13	3747.93	272.38	-170.54	307.70	516014.3	4397420.3	39°43'35.448"N	80°48'47.281"W	351.80	119.00	5.12
3861.40	42.19	125.06	3771.82	290.10	-182.63	325.22	516019.7	4397416.6	39°43'35.328"N	80°48'47.057"W	372.99	119.32	3.57
3893.40	44.32	124.23	3795.13	308.36	-195.09	343.26	516025.1	4397412.8	39°43'35.204"N	80°48'46.827"W	394.83	119.61	6.89
3924.40	46.05	123.88	3816.97	326.55	-207.41	361.48	516030.7	4397409.0	39°43'35.082"N	80°48'46.594"W	416.76	119.85	5.64
3987.40	47.84	121.11	3859.99	363.88	-232.12	400.31	516042.5	4397401.5	39°43'34.837"N	80°48'46.097"W	462.74	120.11	4.29
4049.40	47.59	118.98	3901.70	399.92	-255.08	440.01	516054.6	4397394.5	39°43'34.609"N	80°48'45.590"W	508.60	120.10	2.57
4113.40	46.72	116.87	3945.23	435.69	-277.06	481.46	516067.3	4397387.8	39°43'34.391"N	80°48'45.060"W	555.49	119.92	2.77
4175.40	46.02	114.43	3988.01	468.71	-296.49	521.91	516079.6	4397381.9	39°43'34.199"N	80°48'44.543"W	600.24	119.60	3.06
4238.40	44.54	117.38	4032.34	501.78	-316.03	562.17	516091.8	4397375.9	39°43'34.005"N	80°48'44.028"W	644.91	119.34	4.07
4300.40	43.58	120.62	4076.90	535.14	-336.92	599.87	516103.3	4397369.6	39°43'33.797"N	80°48'43.546"W	688.01	119.32	3.95
4362.40	42.25	122.79	4122.31	569.04	-359.09	635.79	516114.3	4397362.8	39°43'33.577"N	80°48'43.087"W	730.19	119.46	3.21
4426.40	42.69	123.04	4169.52	604.29	-382.57	672.07	516125.3	4397355.7	39°43'33.345"N	80°48'42.623"W	773.33	119.65	0.74
4489.40	41.73	122.62	4216.18	638.78	-405.52	707.63	516136.2	4397348.7	39°43'33.117"N	80°48'42.169"W	815.59	119.82	1.59
4551.40	41.70	122.13	4262.46	672.21	-427.61	742.47	516146.8	4397341.9	39°43'32.898"N	80°48'41.723"W	856.81	119.94	0.53
4614.40	42.52	120.85	4309.20	706.04	-449.67	778.50	516157.8	4397335.2	39°43'32.679"N	80°48'41.263"W	899.04	120.01	1.88
4676.40	42.98	119.65	4354.73	739.20	-470.87	814.85	516168.8	4397328.8	39°43'32.469"N	80°48'40.798"W	941.12	120.02	1.51
4739.40	43.60	118.41	4400.59	772.66	-491.83	852.62	516180.3	4397322.4	39°43'32.261"N	80°48'40.315"W	984.31	119.98	1.67
4802.40	42.56	116.81	4446.60	805.31	-511.78	890.75	516192.0	4397316.3	39°43'32.063"N	80°48'39.828"W	1027.30	119.88	2.39
4865.40	42.05	118.84	4493.20	837.58	-531.57	928.25	516203.4	4397310.3	39°43'31.867"N	80°48'39.349"W	1069.67	119.80	2.31
4927.40	41.35	121.62	4539.49	870.05	-552.32	963.88	516214.2	4397304.0	39°43'31.661"N	80°48'38.893"W	1110.91	119.81	3.19
4988.40	43.86	123.42	4584.39	903.57	-574.53	998.68	516224.8	4397297.2	39°43'31.441"N	80°48'38.448"W	1152.15	119.91	4.57
5050.40	47.10	123.29	4627.86	939.82	-598.83	1035.60	516236.1	4397289.8	39°43'31.200"N	80°48'37.976"W	1196.27	120.04	5.23
5113.40	48.70	123.00	4670.09	978.06	-624.39	1074.74	516248.0	4397282.0	39°43'30.946"N	80°48'37.476"W	1242.95	120.16	2.56
5176.40	47.98	122.10	4711.97	1016.27	-649.71	1114.41	516260.1	4397274.3	39°43'30.695"N	80°48'36.969"W	1289.98	120.24	1.56
5239.40	47.61	119.35	4754.30	1053.28	-673.55	1154.52	516272.3	4397267.0	39°43'30.459"N	80°48'36.456"W	1336.63	120.26	3.29

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5303.40	48.70	118.60	4796.99	1090.17	-696.65	1196.23	516285.0	4397260.0	39°43'30.230"N	80°48'35.923"W	1384.30	120.22	1.91
5366.40	47.70	123.37	4839.00	1127.52	-720.80	1236.48	516297.3	4397252.6	39°43'29.990"N	80°48'35.409"W	1431.23	120.24	5.86
5429.40	46.89	122.25	4881.72	1165.23	-745.89	1275.38	516309.2	4397245.0	39°43'29.742"N	80°48'34.912"W	1477.48	120.32	1.83
5492.40	45.74	121.45	4925.24	1201.90	-769.93	1314.08	516320.9	4397237.7	39°43'29.503"N	80°48'34.417"W	1523.02	120.37	2.04
5555.40	44.25	122.21	4969.79	1237.73	-793.42	1351.93	516332.5	4397230.5	39°43'29.270"N	80°48'33.933"W	1567.55	120.41	2.51
5619.40	42.33	123.46	5016.37	1273.48	-817.20	1388.80	516343.7	4397223.2	39°43'29.034"N	80°48'33.462"W	1611.39	120.47	3.29
5683.40	41.42	123.46	5064.03	1308.56	-840.76	1424.44	516354.6	4397216.1	39°43'28.801"N	80°48'33.006"W	1654.06	120.55	1.42
5746.40	42.00	121.60	5111.06	1342.59	-863.29	1459.78	516365.3	4397209.2	39°43'28.577"N	80°48'32.555"W	1695.95	120.60	2.17
5809.40	40.76	121.00	5158.33	1375.86	-884.93	1495.36	516376.2	4397202.6	39°43'28.363"N	80°48'32.100"W	1737.59	120.62	2.07
5871.40	40.70	120.13	5205.31	1407.87	-905.50	1530.20	516386.8	4397196.3	39°43'28.159"N	80°48'31.655"W	1778.04	120.62	0.92
5935.40	40.67	119.47	5253.84	1440.54	-926.23	1566.40	516397.8	4397190.0	39°43'27.953"N	80°48'31.192"W	1819.76	120.60	0.67
5998.40	41.22	119.71	5301.43	1472.78	-946.62	1602.30	516408.8	4397183.8	39°43'27.751"N	80°48'30.733"W	1861.04	120.57	0.91
6061.40	41.94	119.54	5348.56	1505.44	-967.29	1638.65	516419.8	4397177.5	39°43'27.546"N	80°48'30.268"W	1902.84	120.55	1.16
6123.40	43.56	118.74	5394.08	1538.08	-987.78	1675.41	516431.0	4397171.3	39°43'27.343"N	80°48'29.799"W	1944.91	120.52	2.76
6194.00	42.83	119.25	5445.55	1575.50	-1011.20	1717.67	516443.9	4397164.1	39°43'27.110"N	80°48'29.258"W	1993.22	120.49	1.15
6276.00	42.52	117.04	5505.84	1618.00	-1037.42	1766.68	516458.8	4397156.2	39°43'26.850"N	80°48'28.632"W	2048.75	120.42	1.87
6371.00	42.83	116.06	5575.69	1666.07	-1066.20	1824.28	516476.4	4397147.4	39°43'26.564"N	80°48'27.895"W	2113.00	120.30	0.77
6466.00	42.80	117.51	5645.38	1714.44	-1095.29	1881.91	516493.9	4397138.5	39°43'26.276"N	80°48'27.159"W	2177.45	120.20	1.04
6560.00	42.84	119.36	5714.33	1763.51	-1125.71	1938.09	516511.1	4397129.2	39°43'25.974"N	80°48'26.440"W	2241.30	120.15	1.34
6655.00	42.82	120.45	5784.00	1814.15	-1157.91	1994.07	516528.1	4397119.4	39°43'25.654"N	80°48'25.725"W	2305.88	120.14	0.78
6750.00	42.78	122.38	5853.71	1865.80	-1191.55	2049.16	516544.9	4397109.2	39°43'25.321"N	80°48'25.021"W	2370.41	120.18	1.38
6845.00	42.75	120.75	5923.45	1917.52	-1225.32	2104.11	516561.6	4397098.9	39°43'24.986"N	80°48'24.318"W	2434.89	120.21	1.17
6940.00	43.02	119.33	5993.06	1968.31	-1257.68	2160.08	516578.7	4397089.0	39°43'24.665"N	80°48'23.603"W	2499.54	120.21	1.06
7034.00	43.11	121.28	6061.74	2018.91	-1290.06	2215.48	516595.6	4397079.2	39°43'24.344"N	80°48'22.895"W	2563.71	120.21	1.42
7130.00	43.06	122.80	6131.86	2071.81	-1324.85	2271.07	516612.5	4397068.6	39°43'23.999"N	80°48'22.184"W	2629.25	120.26	1.08
7224.00	43.82	125.15	6200.11	2125.21	-1360.97	2324.66	516628.8	4397057.6	39°43'23.641"N	80°48'21.500"W	2693.75	120.35	1.90
7318.00	46.90	126.65	6266.16	2181.71	-1400.20	2378.81	516645.3	4397045.6	39°43'23.252"N	80°48'20.808"W	2760.31	120.48	3.47
7413.00	52.63	129.05	6327.50	2244.26	-1444.73	2436.01	516662.8	4397032.1	39°43'22.810"N	80°48'20.077"W	2832.20	120.67	6.33
7508.00	48.29	133.50	6381.36	2313.98	-1496.39	2494.70	516680.7	4397016.3	39°43'22.299"N	80°48'19.327"W	2909.07	120.96	7.10
7603.00	59.82	142.51	6430.28	2390.31	-1556.88	2549.09	516697.2	4396997.9	39°43'21.700"N	80°48'18.633"W	2986.93	121.42	8.29
7698.00	70.42	145.73	6470.20	2473.78	-1626.66	2599.44	516712.6	4396976.6	39°43'21.009"N	80°48'17.990"W	3066.44	122.04	11.57

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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]
7793.00	80.44	151.32	6494.09	2564.26	-1704.99	2647.27	516727.1	4396952.8	39°43'20.234"N	80°48'17.380"W	3148.82	122.78	11.98
7888.00	87.88	157.90	6503.76	2658.46	-1790.28	2687.71	516739.5	4396926.8	39°43'19.390"N	80°48'16.865"W	3229.38	123.67	10.43
7983.00	89.69	163.72	6505.77	2753.30	-1879.94	2718.92	516749.0	4396899.5	39°43'18.503"N	80°48'16.468"W	3305.55	124.66	6.41
8078.00	89.63	165.99	6506.34	2847.66	-1971.63	2743.73	516756.5	4396871.5	39°43'17.597"N	80°48'16.153"W	3378.67	125.70	2.39
8174.00	89.66	160.98	6506.93	2943.23	-2063.64	2771.01	516764.8	4396843.5	39°43'16.687"N	80°48'15.807"W	3455.01	126.68	5.22
8267.00	89.63	158.28	6507.51	3036.19	-2150.81	2803.38	516774.7	4396816.9	39°43'15.824"N	80°48'15.395"W	3533.40	127.50	2.90
8361.00	89.14	154.90	6508.52	3130.13	-2237.06	2840.72	516786.1	4396790.6	39°43'14.971"N	80°48'14.919"W	3615.81	128.22	3.63
8454.00	89.11	154.06	6509.94	3222.92	-2320.97	2880.78	516798.3	4396765.1	39°43'14.141"N	80°48'14.409"W	3699.44	128.86	0.90
8549.00	90.06	152.76	6510.63	3317.57	-2405.92	2923.30	516811.2	4396739.2	39°43'13.301"N	80°48'13.867"W	3786.05	129.46	1.69
8644.00	90.00	151.04	6510.58	3411.99	-2489.72	2968.05	516824.9	4396713.7	39°43'12.472"N	80°48'13.297"W	3874.02	129.99	1.81
8739.00	90.00	152.52	6510.58	3506.38	-2573.42	3012.97	516838.6	4396688.2	39°43'11.643"N	80°48'12.725"W	3962.38	130.50	1.56
8835.00	89.54	155.81	6510.96	3602.12	-2659.82	3054.80	516851.3	4396661.8	39°43'10.789"N	80°48'12.192"W	4050.48	131.05	3.46
8929.00	89.23	159.60	6511.97	3696.09	-2746.77	3090.45	516862.2	4396635.4	39°43'09.929"N	80°48'11.738"W	4134.68	131.63	4.05
9023.00	89.26	164.41	6513.21	3789.85	-2836.14	3119.48	516871.0	4396608.1	39°43'09.045"N	80°48'11.369"W	4216.02	132.28	5.12
9118.00	89.23	163.64	6514.46	3884.36	-2927.46	3145.62	516879.0	4396580.3	39°43'08.142"N	80°48'11.037"W	4297.09	132.94	0.81
9212.00	89.42	159.58	6515.57	3978.18	-3016.63	3175.27	516888.0	4396553.1	39°43'07.260"N	80°48'10.660"W	4379.77	133.53	4.32
9305.00	89.54	157.54	6516.41	4071.17	-3103.19	3209.26	516898.4	4396526.8	39°43'06.404"N	80°48'10.227"W	4464.21	134.04	2.20
9400.00	89.91	161.14	6516.87	4166.13	-3192.06	3242.77	516908.6	4396499.7	39°43'05.524"N	80°48'09.801"W	4550.26	134.55	3.81
9495.00	89.88	164.21	6517.04	4260.84	-3282.74	3271.06	516917.2	4396472.1	39°43'04.628"N	80°48'09.442"W	4634.24	135.10	3.23
9590.00	90.12	158.65	6517.04	4355.66	-3372.76	3301.30	516926.4	4396444.6	39°43'03.737"N	80°48'09.057"W	4719.54	135.61	5.86
9685.00	90.15	157.30	6516.82	4450.65	-3460.83	3336.92	516937.3	4396417.8	39°43'02.866"N	80°48'08.604"W	4807.53	136.04	1.42
9780.00	90.09	158.18	6516.62	4545.65	-3548.75	3372.91	516948.2	4396391.0	39°43'01.997"N	80°48'08.146"W	4895.93	136.46	0.93
9875.00	90.18	154.57	6516.40	4640.58	-3635.77	3410.98	516959.8	4396364.5	39°43'01.136"N	80°48'07.661"W	4985.34	136.83	3.80
9969.00	89.48	152.98	6516.68	4734.29	-3720.09	3452.51	516972.5	4396338.8	39°43'00.302"N	80°48'07.132"W	5075.32	137.14	1.85
10064.00	89.41	153.86	6517.60	4828.95	-3805.04	3495.02	516985.4	4396312.9	39°42'59.461"N	80°48'06.590"W	5166.58	137.43	0.93
10159.00	89.32	157.53	6518.65	4923.83	-3891.60	3534.11	516997.3	4396286.5	39°42'58.605"N	80°48'06.093"W	5256.85	137.76	3.86
10254.00	90.15	158.95	6519.09	5018.82	-3979.83	3569.33	517008.1	4396259.7	39°42'57.732"N	80°48'05.644"W	5345.95	138.11	1.73
10349.00	90.12	159.40	6518.87	5113.81	-4068.62	3603.10	517018.4	4396232.6	39°42'56.854"N	80°48'05.215"W	5434.71	138.47	0.47
10444.00	90.15	159.37	6518.64	5208.79	-4157.54	3636.55	517028.5	4396205.5	39°42'55.974"N	80°48'04.789"W	5523.55	138.82	0.04
10539.00	90.15	157.58	6518.39	5303.79	-4245.91	3671.40	517039.2	4396178.6	39°42'55.100"N	80°48'04.346"W	5613.11	139.15	1.88
10634.00	90.09	155.87	6518.19	5398.75	-4333.18	3708.94	517050.6	4396152.0	39°42'54.237"N	80°48'03.868"W	5703.74	139.44	1.80

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WELL PATH DATA † = interpolated/extrapolated station

MD [ft]	Inclinat ion [°]	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]
10730.00	89.60	154.71	6518.45	5494.62	-4420.38	3749.07	517062.8	4396125.4	39°42'53.374"N	80°48'03.357"W	5796.15	139.70	1.31
10825.00	89.63	157.30	6519.09	5589.54	-4507.17	3787.70	517074.6	4396099.0	39°42'52.516"N	80°48'02.865"W	5887.38	139.96	2.73
10920.00	89.66	159.45	6519.68	5684.53	-4595.47	3822.71	517085.3	4396072.1	39°42'51.642"N	80°48'02.419"W	5977.58	140.25	2.26
11015.00	89.66	162.63	6520.24	5779.40	-4685.30	3853.57	517094.7	4396044.7	39°42'50.754"N	80°48'02.027"W	6066.47	140.56	3.35
11109.00	89.60	160.25	6520.85	5873.25	-4774.41	3883.48	517103.8	4396017.6	39°42'49.873"N	80°48'01.647"W	6154.38	140.88	2.53
11204.00	89.32	155.89	6521.75	5968.22	-4862.51	3918.95	517114.6	4395990.7	39°42'49.001"N	80°48'01.195"W	6245.17	141.13	4.60
11299.00	89.08	154.71	6523.07	6063.08	-4948.81	3958.65	517126.7	4395964.4	39°42'48.147"N	80°48'00.690"W	6337.32	141.34	1.27
11392.00	89.14	154.87	6524.52	6155.90	-5032.94	3998.25	517138.8	4395938.8	39°42'47.315"N	80°48'00.186"W	6427.79	141.54	0.18
11487.00	88.86	156.23	6526.18	6250.78	-5119.40	4037.57	517150.7	4395912.5	39°42'46.460"N	80°47'59.685"W	6519.99	141.74	1.46
11582.00	88.89	159.94	6528.04	6345.74	-5207.51	4073.01	517161.5	4395885.6	39°42'45.588"N	80°47'59.234"W	6611.17	141.97	3.90
11676.00	88.83	161.85	6529.91	6439.62	-5296.31	4103.77	517170.9	4395858.6	39°42'44.710"N	80°47'58.843"W	6700.13	142.23	2.03
11771.00	88.83	160.09	6531.85	6534.49	-5386.09	4134.74	517180.3	4395831.2	39°42'43.822"N	80°47'58.449"W	6790.14	142.49	1.85
11866.00	89.26	160.39	6533.44	6629.42	-5475.49	4166.85	517190.1	4395804.0	39°42'42.938"N	80°47'58.041"W	6880.67	142.73	0.55
11960.00	89.26	160.82	6534.65	6723.33	-5564.14	4198.06	517199.6	4395777.0	39°42'42.061"N	80°47'57.644"W	6970.18	142.97	0.46
11983.00	89.26	160.82	6534.95	6746.31	-5585.87	4205.62	517201.9	4395770.3	39°42'41.846"N	80°47'57.548"W	6992.08	143.02	0.00

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DATE	DESCRIPTION	AMOUNT	CHECK NO.	ACCOUNT	BALANCE
10/15/15
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