

PHOENIX
TECHNOLOGY SERVICES



EQT Production - Marcellus

Wetzel County, WV
Wetzel County 513917
Well #513917

Main Wellbore

Design: 513917 As Drilled Surveys

Standard Survey Report

25 May, 2015



10/16/2015

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513917
Company:	EQT Production - Marcellus	TVD Reference:	KB@16 ft @ 1468.0usft
Project:	Wetzel County, WV	MD Reference:	KB@16 ft @ 1468.0usft
Site:	Wetzel County 513917	North Reference:	Grid
Well:	Well #513917	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513917 As Drilled Surveys		

Project	Wetzel County, WV		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		Using geodetic scale factor

Site	Wetzel County 513917				
Site Position:		Northing:	376,081.50 usft	Latitude:	39.53
From:	Map	Easting:	1,694,739.10 usft	Longitude:	-80.58
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.69 °

Well	Well #513917					
Well Position	+N/-S	0.0 usft	Northing:	376,081.50 usft	Latitude:	39° 31' 39.058 N
	+E/-W	0.0 usft	Easting:	1,694,739.10 usft	Longitude:	80° 34' 56.000 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,452.0 usft

Wellbore	Main Wellbore				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/21/2015	-8.32	67.07	52,542

Design	513917 As Drilled Surveys				
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Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	324.09

Survey Program		Date			
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	5,723.0	513917 Gyrodata Gyros (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	11,832.0	513917 PHX MWD Curve and Lateral (Ma	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	-1,468.0	0.0	0.0	0.0	0.00	0.00	0.00
103.0	0.21	94.17	103.0	-1,365.0	0.0	0.2	-0.1	0.20	0.20	0.00
203.0	0.25	102.83	203.0	-1,265.0	-0.1	0.6	-0.4	0.05	0.04	8.66
303.0	0.06	121.73	303.0	-1,165.0	-0.2	0.8	-0.6	0.19	-0.19	18.90
403.0	0.04	43.14	403.0	-1,065.0	-0.2	0.9	-0.7	0.07	-0.02	-78.59
503.0	0.07	93.08	503.0	-965.0	-0.1	1.0	-0.7	0.05	0.03	49.94
603.0	0.07	168.60	603.0	-865.0	-0.2	1.1	-0.8	0.09	0.00	75.52
703.0	0.10	111.05	703.0	-765.0	-0.3	1.2	-0.9	0.09	0.03	57.55

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Wellbore:	Main Wellbore		
Design:	513917 As Drilled Surveys		

Survey											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
803.0	0.18	127.75	803.0	-665.0	-0.4	1.4	-1.1	0.09	0.08	16.70	
903.0	0.15	142.32	903.0	-565.0	-0.6	1.6	-1.4	0.05	-0.03	14.57	
1,003.0	0.13	127.76	1,003.0	-465.0	-0.8	1.7	-1.7	0.04	-0.02	-14.56	
1,103.0	0.37	92.75	1,103.0	-365.0	-0.9	2.2	-2.0	0.27	0.24	-35.01	
1,203.0	0.39	97.45	1,203.0	-265.0	-0.9	2.8	-2.4	0.04	0.02	4.70	
1,303.0	0.40	89.51	1,303.0	-165.0	-1.0	3.5	-2.8	0.06	0.01	-7.94	
1,403.0	0.46	97.42	1,403.0	-65.0	-1.0	4.2	-3.3	0.08	0.06	7.91	
1,503.0	0.60	131.45	1,503.0	35.0	-1.4	5.0	-4.1	0.34	0.14	34.03	
1,603.0	9.34	187.31	1,602.5	134.5	-9.8	4.4	-10.5	9.02	8.74	55.86	
1,703.0	14.44	192.37	1,700.3	232.3	-30.1	0.7	-24.8	5.20	5.10	5.06	
1,803.0	10.05	195.62	1,798.1	330.1	-50.7	-4.3	-38.5	4.44	-4.39	3.25	
1,903.0	6.07	202.40	1,897.0	429.0	-64.0	-8.7	-46.7	4.09	-3.98	6.78	
2,003.0	3.02	194.07	1,996.7	528.7	-71.4	-11.4	-51.2	3.11	-3.05	-8.33	
2,103.0	1.37	104.38	2,096.7	628.7	-74.3	-10.8	-53.8	3.31	-1.65	-89.69	
2,203.0	1.65	85.09	2,196.6	728.6	-74.4	-8.2	-55.5	0.58	0.28	-19.29	
2,303.0	2.23	62.09	2,296.6	828.6	-73.4	-5.1	-56.5	0.96	0.58	-23.00	
2,403.0	3.01	51.23	2,396.5	928.5	-70.8	-1.3	-56.6	0.92	0.78	-10.86	
2,503.0	3.78	45.56	2,496.3	1,028.3	-66.9	3.1	-56.0	0.84	0.77	-5.67	
2,603.0	4.03	46.23	2,596.1	1,128.1	-62.2	8.0	-55.0	0.25	0.25	0.67	
2,703.0	4.26	47.03	2,695.8	1,227.8	-57.2	13.2	-54.1	0.24	0.23	0.80	
2,803.0	4.34	46.71	2,795.5	1,327.5	-52.1	18.7	-53.1	0.08	0.08	-0.32	
2,903.0	3.28	42.93	2,895.3	1,427.3	-47.4	23.4	-52.1	1.09	-1.06	-3.78	
3,003.0	2.10	38.09	2,995.2	1,527.2	-43.8	26.5	-51.0	1.20	-1.18	-4.84	
3,103.0	1.23	32.44	3,095.1	1,627.1	-41.5	28.2	-50.1	0.88	-0.87	-5.65	
3,203.0	0.65	21.59	3,195.1	1,727.1	-40.1	29.0	-49.4	0.60	-0.58	-10.85	
3,303.0	0.09	342.26	3,295.1	1,827.1	-39.5	29.2	-49.1	0.58	-0.56	-39.33	
3,403.0	0.15	47.36	3,395.1	1,927.1	-39.3	29.2	-49.0	0.14	0.06	65.10	
3,503.0	0.41	18.33	3,495.1	2,027.1	-38.9	29.4	-48.7	0.29	0.26	-29.03	
3,603.0	0.59	324.12	3,595.1	2,127.1	-38.1	29.2	-48.0	0.48	0.18	-54.21	
3,703.0	0.53	319.36	3,695.1	2,227.1	-37.3	28.6	-47.0	0.08	-0.06	-4.76	
3,803.0	0.37	326.89	3,795.1	2,327.1	-36.7	28.2	-46.3	0.17	-0.16	7.53	
3,903.0	0.39	313.13	3,895.1	2,427.1	-36.2	27.7	-45.6	0.09	0.02	-13.76	
4,003.0	0.39	316.09	3,995.1	2,527.1	-35.7	27.3	-44.9	0.02	0.00	2.96	
4,103.0	0.31	305.19	4,095.1	2,627.1	-35.3	26.8	-44.3	0.10	-0.08	-10.90	
4,203.0	0.31	300.33	4,195.1	2,727.1	-35.0	26.3	-43.8	0.03	0.00	-4.86	
4,303.0	0.45	286.20	4,295.1	2,827.1	-34.8	25.7	-43.3	0.17	0.14	-14.13	
4,403.0	0.44	289.81	4,395.1	2,927.1	-34.6	25.0	-42.6	0.03	-0.01	3.61	
4,503.0	0.49	295.64	4,495.1	3,027.1	-34.2	24.2	-42.0	0.07	0.05	5.83	
4,603.0	0.53	295.41	4,595.1	3,127.1	-33.9	23.4	-41.2	0.04	0.04	-0.23	
4,703.0	0.51	294.39	4,695.1	3,227.1	-33.5	22.6	-40.4	0.02	-0.02	-1.02	
4,803.0	0.49	288.81	4,795.1	3,327.1	-33.2	21.8	-39.6	0.05	-0.02	5.58	
4,903.0	0.56	287.11	4,895.1	3,427.1	-32.9	20.9	-38.9	0.07	0.07	-1.70	

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5,003.0	0.56	287.29	4,995.1	3,527.1	-32.6	20.0	-38.1	0.00	0.00	0.18	
5,103.0	0.59	291.51	5,095.1	3,627.1	-32.3	19.1	-37.3	0.05	0.03	4.22	
5,203.0	0.62	291.71	5,195.1	3,727.1	-31.9	18.1	-36.4	0.03	0.03	0.20	
5,303.0	0.65	290.25	5,295.1	3,827.1	-31.5	17.0	-35.5	0.03	0.03	-1.46	
5,403.0	0.74	292.21	5,395.1	3,927.1	-31.0	15.9	-34.5	0.09	0.09	1.96	
5,503.0	0.68	302.52	5,495.0	4,027.0	-30.5	14.8	-33.4	0.14	-0.06	10.31	
5,603.0	0.67	300.22	5,595.0	4,127.0	-29.8	13.8	-32.3	0.03	-0.01	-2.30	
5,703.0	0.90	297.68	5,695.0	4,227.0	-29.2	12.6	-31.0	0.23	0.23	-2.54	
Gyro Tie In=5723' MD											
5,723.0	1.03	298.91	5,715.0	4,247.0	-29.0	12.3	-30.7	0.66	0.65	6.15	
5,740.0	1.00	301.30	5,732.0	4,264.0	-28.9	12.0	-30.5	0.31	-0.18	14.06	
5,771.0	1.10	301.20	5,763.0	4,295.0	-28.6	11.6	-29.9	0.32	0.32	-0.32	
KOP=5803' MD											
5,803.0	2.00	221.30	5,795.0	4,327.0	-28.8	10.9	-29.8	6.58	2.81	-249.69	
5,834.0	5.50	201.50	5,825.9	4,357.9	-30.6	10.0	-30.7	11.87	11.29	-63.87	
5,866.0	7.90	199.10	5,857.7	4,389.7	-34.1	8.7	-32.8	7.55	7.50	-7.50	
5,897.0	9.70	205.20	5,888.4	4,420.4	-38.5	6.9	-35.3	6.53	5.81	19.68	
5,928.0	11.80	214.40	5,918.8	4,450.8	-43.5	4.0	-37.6	8.73	6.77	29.68	
5,960.0	14.70	223.10	5,950.0	4,482.0	-49.2	-0.6	-39.5	10.97	9.06	27.19	
5,991.0	17.00	228.20	5,979.8	4,511.8	-55.1	-6.7	-40.7	8.67	7.42	16.45	
6,023.0	18.30	234.20	6,010.3	4,542.3	-61.1	-14.2	-41.2	6.98	4.06	18.75	
6,054.0	20.40	238.40	6,039.5	4,571.5	-66.8	-22.8	-40.7	8.12	6.77	13.55	
6,086.0	21.90	242.70	6,069.4	4,601.4	-72.5	-32.8	-39.4	6.74	4.69	13.44	
6,117.0	20.90	249.10	6,098.2	4,630.2	-77.1	-43.1	-37.1	8.19	-3.23	20.65	
6,149.0	20.10	256.30	6,128.2	4,660.2	-80.4	-53.8	-33.6	8.26	-2.50	22.50	
6,180.0	21.80	257.80	6,157.2	4,689.2	-82.9	-64.6	-29.2	5.75	5.48	4.84	
6,212.0	24.30	256.30	6,186.6	4,718.6	-85.7	-76.8	-24.4	8.02	7.81	-4.69	
6,244.0	27.00	255.30	6,215.4	4,747.4	-89.1	-90.2	-19.2	8.54	8.44	-3.13	
6,275.0	30.40	253.10	6,242.6	4,774.6	-93.2	-104.6	-14.1	11.48	10.97	-7.10	
6,307.0	33.40	253.10	6,269.8	4,801.8	-98.1	-120.7	-8.6	9.38	9.38	0.00	
6,338.0	36.70	254.60	6,295.2	4,827.2	-103.0	-137.8	-2.6	11.00	10.65	4.84	
6,370.0	40.00	255.50	6,320.3	4,852.3	-108.2	-157.0	4.5	10.46	10.31	2.81	
6,401.0	41.20	256.20	6,343.8	4,875.8	-113.1	-176.6	12.0	4.14	3.87	2.26	
6,464.0	41.30	256.60	6,391.2	4,923.2	-122.8	-216.9	27.7	0.45	0.16	0.63	
6,528.0	41.50	257.80	6,439.2	4,971.2	-132.2	-258.2	44.4	1.28	0.31	1.88	
6,591.0	41.30	257.90	6,486.4	5,018.4	-141.0	-298.9	61.1	0.33	-0.32	0.16	
6,654.0	41.10	257.40	6,533.8	5,065.8	-149.9	-339.5	77.7	0.61	-0.32	-0.79	
6,717.0	40.90	256.70	6,581.4	5,113.4	-159.1	-379.8	93.9	0.80	-0.32	-1.11	
6,780.0	40.90	258.40	6,629.0	5,161.0	-168.0	-420.0	110.3	1.77	0.00	2.70	
6,843.0	40.40	258.40	6,676.8	5,208.8	-176.3	-460.2	127.2	0.79	-0.79	0.00	
6,906.0	42.20	257.20	6,724.1	5,256.1	-185.1	-500.9	143.9	3.12	2.86	-1.90	
6,969.0	41.90	256.50	6,770.9	5,302.9	-194.7	-542.0	160.2	0.88	-0.48	-1.11	
7,032.0	41.50	258.50	6,818.0	5,350.0	-203.7	-582.9	176.9	2.21	-0.63	3.17	

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7,095.0	42.80	259.10	6,864.7	5,396.7	-211.9	-624.4	194.5	2.16	2.06	0.95
7,158.0	42.90	258.90	6,910.8	5,442.8	-220.1	-666.4	212.6	0.27	0.16	-0.32
7,221.0	42.70	258.20	6,957.1	5,489.1	-228.6	-708.4	230.3	0.82	-0.32	-1.11
7,284.0	42.40	257.70	7,003.5	5,535.5	-237.5	-750.0	247.5	0.72	-0.48	-0.79
7,347.0	43.00	257.40	7,049.8	5,581.8	-246.7	-791.7	264.6	1.01	0.95	-0.48
7,410.0	43.30	257.40	7,095.7	5,627.7	-256.1	-833.8	281.6	0.48	0.48	0.00
7,474.0	43.30	260.10	7,142.3	5,674.3	-264.7	-876.8	299.9	2.89	0.00	4.22
7,505.0	43.40	260.40	7,164.9	5,696.9	-268.3	-897.8	309.3	0.74	0.32	0.97
7,537.0	43.20	262.60	7,188.2	5,720.2	-271.5	-919.5	319.4	4.76	-0.63	6.88
7,568.0	42.80	268.70	7,210.8	5,742.8	-273.1	-940.6	330.5	13.48	-1.29	19.68
7,600.0	43.20	273.30	7,234.3	5,766.3	-272.8	-962.4	343.6	9.88	1.25	14.38
7,631.0	43.90	276.90	7,256.7	5,788.7	-270.9	-983.6	357.6	8.31	2.26	11.61
7,663.0	43.80	279.30	7,279.8	5,811.8	-267.7	-1,005.6	373.0	5.20	-0.31	7.50
7,694.0	43.90	282.80	7,302.2	5,834.2	-263.6	-1,026.7	388.7	7.83	0.32	11.29
7,726.0	45.20	287.20	7,325.0	5,857.0	-257.8	-1,048.3	406.1	10.46	4.06	13.75
7,757.0	46.20	290.40	7,346.6	5,878.6	-250.6	-1,069.3	424.2	8.06	3.23	10.32
513919 Top of Perf										
7,778.4	47.20	292.22	7,361.3	5,893.3	-245.0	-1,083.9	437.3	7.74	4.65	8.51
7,789.0	47.70	293.10	7,368.5	5,900.5	-242.0	-1,091.0	443.9	7.74	4.75	8.30
7,820.0	48.70	295.30	7,389.1	5,921.1	-232.5	-1,112.1	464.0	6.20	3.23	7.10
7,852.0	50.10	297.80	7,410.0	5,942.0	-221.6	-1,133.8	485.5	7.37	4.38	7.81
7,884.0	51.50	300.30	7,430.2	5,962.2	-209.6	-1,155.5	508.0	7.47	4.38	7.81
7,915.0	52.80	302.00	7,449.2	5,981.2	-196.9	-1,176.5	530.5	6.03	4.19	5.48
7,946.0	55.00	302.90	7,467.5	5,999.5	-183.5	-1,197.6	553.8	7.47	7.10	2.90
7,978.0	57.50	304.70	7,485.2	6,017.2	-168.7	-1,219.7	578.8	9.10	7.81	5.63
8,010.0	60.00	307.60	7,501.9	6,033.9	-152.5	-1,241.8	604.8	11.00	7.81	9.06
8,041.0	61.20	310.40	7,517.1	6,049.1	-135.5	-1,262.8	630.9	8.77	3.87	9.03
513538 Top of Perf										
8,073.0	61.80	313.20	7,532.3	6,064.3	-116.8	-1,283.7	658.3	7.91	1.88	8.75
8,104.0	63.00	315.30	7,546.7	6,078.7	-97.6	-1,303.4	685.4	7.14	3.87	6.77
8,136.0	64.90	316.80	7,560.8	6,092.8	-76.9	-1,323.3	713.9	7.28	5.94	4.69
8,167.0	66.90	318.40	7,573.4	6,105.4	-56.0	-1,342.4	742.0	7.99	6.45	5.16
8,199.0	69.40	320.10	7,585.3	6,117.3	-33.5	-1,361.8	771.6	9.24	7.81	5.31
8,230.0	71.60	322.70	7,595.7	6,127.7	-10.7	-1,380.0	800.8	10.62	7.10	8.39
8,262.0	72.90	326.30	7,605.4	6,137.4	14.1	-1,397.7	831.2	11.46	4.06	11.25
8,293.0	75.50	329.30	7,613.9	6,145.9	39.3	-1,413.6	861.0	12.53	8.39	9.68
513917 Plat LP 2										
8,320.0	77.44	330.65	7,620.2	6,152.2	62.1	-1,426.7	887.1	8.68	7.19	5.01
8,325.0	77.80	330.90	7,621.3	6,153.3	66.3	-1,429.1	892.0	8.68	7.20	4.96
8,357.0	78.90	332.90	7,627.7	6,159.7	94.0	-1,443.9	923.0	7.02	3.44	6.25
8,388.0	80.60	334.00	7,633.2	6,165.2	121.3	-1,457.5	953.1	6.50	5.48	3.55
8,419.0	82.90	335.90	7,637.7	6,169.7	149.1	-1,470.5	983.2	9.58	7.42	6.13
8,451.0	85.50	338.70	7,640.9	6,172.9	178.4	-1,482.8	1,014.2	11.91	8.13	8.75

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Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513917
Company:	EQT Production - Marcellus	TVD Reference:	KB@16 ft @ 1468.0usft
Project:	Wetzel County, WV	MD Reference:	KB@16 ft @ 1468.0usft
Site:	Wetzel County 513917	North Reference:	Grid
Well:	Well #513917	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513917 As Drilled Surveys		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,482.0	88.30	339.70	7,642.6	6,174.6	207.4	-1,493.8	1,044.1	9.59	9.03	3.23
513917 LP1051' VS										
8,490.7	88.84	339.94	7,642.8	6,174.8	215.5	-1,496.8	1,052.5	6.85	6.25	2.81
LP/Deepest Point of Well=8514' MD/ 7643' TVD										
8,514.0	90.30	340.60	7,643.0	6,175.0	237.5	-1,504.6	1,074.8	6.85	6.25	2.81
8,546.0	90.80	340.40	7,642.7	6,174.7	267.6	-1,515.3	1,105.5	1.68	1.56	-0.63
8,609.0	91.80	342.40	7,641.3	6,173.3	327.3	-1,535.4	1,165.7	3.55	1.59	3.17
8,672.0	90.60	342.80	7,639.9	6,171.9	387.4	-1,554.2	1,225.4	2.01	-1.90	0.63
8,735.0	89.70	341.80	7,639.8	6,171.8	447.4	-1,573.4	1,285.2	2.14	-1.43	-1.59
8,798.0	89.50	343.30	7,640.2	6,172.2	507.5	-1,592.3	1,345.0	2.40	-0.32	2.38
8,862.0	89.70	343.50	7,640.7	6,172.7	568.9	-1,610.6	1,405.4	0.44	0.31	0.31
8,924.0	90.30	344.60	7,640.7	6,172.7	628.5	-1,627.6	1,463.7	2.02	0.97	1.77
8,987.0	91.30	344.50	7,639.8	6,171.8	689.2	-1,644.4	1,522.7	1.60	1.59	-0.16
9,050.0	91.40	344.00	7,638.3	6,170.3	749.8	-1,661.5	1,581.8	0.81	0.16	-0.79
9,113.0	91.30	343.60	7,636.8	6,168.8	810.3	-1,679.1	1,641.1	0.65	-0.16	-0.63
9,176.0	89.10	343.80	7,636.6	6,168.6	870.7	-1,696.7	1,700.4	3.51	-3.49	0.32
9,239.0	88.50	342.60	7,637.9	6,169.9	931.0	-1,714.9	1,759.9	2.13	-0.95	-1.90
9,302.0	89.60	343.30	7,639.0	6,171.0	991.3	-1,733.4	1,819.6	2.07	1.75	1.11
9,365.0	90.50	342.50	7,638.9	6,170.9	1,051.5	-1,751.9	1,879.2	1.91	1.43	-1.27
9,428.0	91.30	342.90	7,637.9	6,169.9	1,111.6	-1,770.7	1,938.9	1.42	1.27	0.63
9,491.0	91.50	343.30	7,636.4	6,168.4	1,171.9	-1,789.0	1,998.4	0.71	0.32	0.63
9,554.0	91.30	343.20	7,634.8	6,166.8	1,232.2	-1,807.1	2,057.9	0.35	-0.32	-0.16
9,617.0	91.00	342.60	7,633.6	6,165.6	1,292.4	-1,825.6	2,117.5	1.06	-0.48	-0.95
9,680.0	90.80	341.50	7,632.6	6,164.6	1,352.3	-1,845.1	2,177.5	1.77	-0.32	-1.75
9,743.0	90.40	340.90	7,631.9	6,163.9	1,411.9	-1,865.4	2,237.7	1.14	-0.63	-0.95
9,806.0	90.50	342.60	7,631.4	6,163.4	1,471.8	-1,885.1	2,297.7	2.70	0.16	2.70
9,869.0	90.10	342.50	7,631.1	6,163.1	1,531.9	-1,904.0	2,357.5	0.65	-0.63	-0.16
9,932.0	89.70	342.60	7,631.2	6,163.2	1,592.0	-1,922.9	2,417.2	0.65	-0.63	0.16
9,995.0	90.70	343.00	7,631.0	6,163.0	1,652.2	-1,941.5	2,476.9	1.71	1.59	0.63
10,059.0	90.80	343.00	7,630.1	6,162.1	1,713.4	-1,960.2	2,537.4	0.16	0.16	0.00
10,122.0	90.40	343.00	7,629.5	6,161.5	1,773.6	-1,978.6	2,597.0	0.63	-0.63	0.00
10,185.0	91.10	343.80	7,628.7	6,160.7	1,834.0	-1,996.6	2,656.5	1.69	1.11	1.27
10,248.0	91.30	344.30	7,627.3	6,159.3	1,894.5	-2,013.9	2,715.7	0.85	0.32	0.79
10,311.0	91.20	343.90	7,626.0	6,158.0	1,955.1	-2,031.2	2,774.8	0.65	-0.16	-0.63
10,374.0	91.00	343.80	7,624.8	6,156.8	2,015.6	-2,048.7	2,834.1	0.35	-0.32	-0.16
10,437.0	90.80	343.10	7,623.8	6,155.8	2,076.0	-2,066.7	2,893.6	1.16	-0.32	-1.11
10,500.0	91.30	343.40	7,622.6	6,154.6	2,136.3	-2,084.8	2,953.1	0.93	0.79	0.48
10,563.0	90.90	343.00	7,621.4	6,153.4	2,196.6	-2,103.0	3,012.6	0.90	-0.63	-0.63
10,626.0	91.30	344.40	7,620.2	6,152.2	2,257.1	-2,120.7	3,071.9	2.31	0.63	2.22
10,690.0	90.60	344.70	7,619.1	6,151.1	2,318.7	-2,137.7	3,131.9	1.19	-1.09	0.47
10,753.0	89.80	344.50	7,618.9	6,150.9	2,379.5	-2,154.5	3,190.9	1.31	-1.27	-0.32
10,816.0	89.60	343.80	7,619.2	6,151.2	2,440.1	-2,171.7	3,250.0	1.16	-0.32	-1.11
10,879.0	89.30	345.40	7,619.8	6,151.8	2,500.8	-2,188.4	3,309.0	2.58	-0.48	2.54

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COMPASS 4080 / Build 13
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Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513917
Company:	EQT Production - Marcellus	TVD Reference:	KB@16 ft @ 1468.0usft
Project:	Wetzel County, WV	MD Reference:	KB@16 ft @ 1468.0usft
Site:	Wetzel County 513917	North Reference:	Grid
Well:	Well #513917	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	513917 As Drilled Surveys		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,942.0	89.50	342.50	7,620.5	6,152.5	2,561.3	-2,205.8	3,368.3	4.61	0.32	-4.60
11,005.0	89.80	341.70	7,620.9	6,152.9	2,621.3	-2,225.2	3,428.2	1.36	0.48	-1.27
11,068.0	90.20	342.40	7,620.9	6,152.9	2,681.2	-2,244.6	3,488.1	1.28	0.63	1.11
11,131.0	89.90	342.40	7,620.8	6,152.8	2,741.3	-2,263.6	3,547.9	0.48	-0.48	0.00
11,194.0	90.20	343.10	7,620.8	6,152.8	2,801.4	-2,282.3	3,607.6	1.21	0.48	1.11
11,257.0	90.80	344.10	7,620.2	6,152.2	2,861.9	-2,300.1	3,667.0	1.85	0.95	1.59
11,320.0	90.60	343.60	7,619.5	6,151.5	2,922.4	-2,317.6	3,726.3	0.85	-0.32	-0.79
11,383.0	90.90	343.60	7,618.6	6,150.6	2,982.8	-2,335.4	3,785.7	0.48	0.48	0.00
11,446.0	89.90	342.70	7,618.2	6,150.2	3,043.1	-2,353.7	3,845.2	2.14	-1.59	-1.43
11,509.0	89.20	342.80	7,618.7	6,150.7	3,103.3	-2,372.4	3,904.9	1.12	-1.11	0.16
11,572.0	88.80	342.00	7,619.8	6,151.8	3,163.3	-2,391.4	3,964.7	1.42	-0.63	-1.27
11,635.0	88.20	341.10	7,621.4	6,153.4	3,223.1	-2,411.3	4,024.8	1.72	-0.95	-1.43
11,698.0	92.00	343.10	7,621.3	6,153.3	3,283.0	-2,430.7	4,084.7	6.82	6.03	3.17
11,761.0	92.40	343.60	7,618.9	6,150.9	3,343.3	-2,448.7	4,144.1	1.02	0.63	0.79
Final Survey=11774' MD/ 7618' TVD										
11,774.0	92.50	343.70	7,618.4	6,150.4	3,355.8	-2,452.4	4,156.3	1.09	0.77	0.77
513917 Plat TD 2										
11,831.4	92.50	343.70	7,615.9	6,147.9	3,410.8	-2,468.5	4,210.4	0.00	0.00	0.00
Projection to TD=11832' MD/ 7616' TVD										
11,832.0	92.50	343.70	7,615.8	6,147.8	3,411.4	-2,468.7	4,210.9	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,723.0	5,715.0	-29.0	12.3	Gyro Tie In=5723' MD
5,803.0	5,795.0	-28.8	10.9	KOP=5803' MD
8,514.0	7,643.0	237.5	-1,504.6	LP/Deepest Point of Well=8514' MD/ 7643' TVD
11,774.0	7,618.4	3,355.8	-2,452.4	Final Survey=11774' MD/ 7618' TVD
11,832.0	7,615.8	3,411.4	-2,468.7	Projection to TD=11832' MD/ 7616' TVD

Checked By: _____ Approved By: _____ Date: _____

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Project: Wetzel County, WV
 Site: Wetzel County 513917
 Well: Well #513917
 Wellbore: Main Wellbore
 Design: 513917 As Drilled Surveys

