

EQT Production - Marcellus

Wetzel County, WV

Wetzel County 513835

Well #513835

Main Wellbore

Design: As Drilled Surveys

Standard Survey Report

02 January, 2015

Received
Office of Oil & Gas
MAY 07 2015

06/05/2015

Phoenix Technologies

Survey Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Wetzel County 513835	TV Reference: KB @ 876.0usft
Company: EQT Production - Marcellus	MD Reference: KB @ 876.0usft	North Reference: Grid
Project: Wetzel County, WV	Survey Calculation Method: Minimum Curvature	
Site: Wetzel County 513835		
Well: Well #513835		
Wellbore: Main Wellbore		
Design: 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 513835					
Site Position:	Northing: 388,092.38 usft	Latitude: 39.56			
From: Map	Easting: 1,700,911.84 usft	Longitude: -80.56			
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence: -0.68 °			

Well Well #513835					
Well Position	+N/-S 0.0 usft	Northing: 388,092.38 usft	Latitude: 39° 33' 38.491 N		
	+E/-W 0.0 usft	Easting: 1,700,911.84 usft	Longitude: 80° 33' 39.036 W		
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 860.0 usft		

Wellbore Main Wellbore					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/15/2014	-8.71	66.95	52,348

Design As Drilled Surveys					
Audit Notes:					
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0			
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	196.09	

Survey Program Date 1/2/2015					
From (')	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	3,303.0	513835 Gyrodata (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop	
0.00	11,883.0	513835 PHX MWD (Main Wellbore)	MWD+IGRF	MWD+IGRF v3:standard declination	

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)	
0.0	0.00	0.00	0.0	-876.0	0.0	0.0	0.0	0.00	0.00	0.00	
103.0	0.43	199.52	103.0	-773.0	-0.4	-0.1	0.4	0.42	0.42	0.00	
203.0	0.60	164.28	203.0	-673.0	-1.2	-0.1	1.2	0.35	0.17	-35.24	
303.0	0.86	158.88	303.0	-573.0	-2.4	0.3	2.2	0.27	0.26	-5.40	
403.0	0.80	158.07	403.0	-473.0	-3.8	0.8	3.4	0.06	-0.06	-0.81	
503.0	0.62	175.64	503.0	-373.0	-5.0	1.1	4.5	0.28	-0.18	17.57	
603.0	0.59	184.74	603.0	-273.0	-6.0	1.1	5.5	0.10	-0.03	9.10	
703.0	0.15	184.28	703.0	-173.0	-6.7	1.1	6.1	0.44	-0.44	-0.46	

Phoenix Technologies
Survey Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513835
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 876.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 876.0usft
Site:	Wetzel County 513835	North Reference:	Grid
Well:	Well #513835	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	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	0.16	190.12	803.0	-73.0	-6.9	1.0	6.4	0.02	0.01	5.84	
903.0	0.32	218.43	903.0	27.0	-7.3	0.8	6.8	0.19	0.16	28.31	
1,003.0	0.49	224.30	1,003.0	127.0	-7.8	0.4	7.4	0.17	0.17	5.87	
1,103.0	0.49	232.14	1,103.0	227.0	-8.4	-0.3	8.1	0.07	0.00	7.84	
1,203.0	0.44	237.07	1,203.0	327.0	-8.8	-0.9	8.8	0.06	-0.05	4.93	
1,303.0	0.47	228.66	1,302.9	426.9	-9.3	-1.6	9.4	0.07	0.03	-8.41	
1,403.0	0.50	212.82	1,402.9	526.9	-10.0	-2.1	10.2	0.14	0.03	-15.84	
1,503.0	0.50	225.40	1,502.9	626.9	-10.6	-2.6	11.0	0.11	0.00	12.58	
1,603.0	0.52	223.29	1,602.9	726.9	-11.3	-3.3	11.7	0.03	0.02	-2.11	
1,703.0	0.80	212.51	1,702.9	826.9	-12.2	-4.0	12.8	0.31	0.28	-10.78	
1,803.0	1.15	204.84	1,802.9	926.9	-13.7	-4.7	14.5	0.37	0.35	-7.67	
1,903.0	1.73	213.74	1,902.9	1,026.9	-15.9	-6.0	16.9	0.62	0.58	8.90	
2,003.0	2.14	219.15	2,002.8	1,126.8	-18.6	-8.0	20.1	0.45	0.41	5.41	
2,103.0	2.22	219.01	2,102.8	1,226.8	-21.5	-10.4	23.6	0.08	0.08	-0.14	
2,203.0	2.29	219.49	2,202.7	1,326.7	-24.6	-12.9	27.2	0.07	0.07	0.48	
2,303.0	2.58	219.27	2,302.6	1,426.6	-27.8	-15.6	31.1	0.29	0.29	-0.22	
2,403.0	3.01	217.74	2,402.5	1,526.5	-31.7	-18.6	35.6	0.44	0.43	-1.53	
2,503.0	2.68	216.90	2,502.3	1,626.3	-35.6	-21.7	40.2	0.33	-0.33	-0.84	
2,603.0	1.70	220.23	2,602.3	1,726.3	-38.6	-24.0	43.8	0.99	-0.98	3.33	
2,703.0	0.97	228.86	2,702.2	1,826.2	-40.3	-25.6	45.8	0.76	-0.73	8.63	
2,803.0	0.56	238.26	2,802.2	1,926.2	-41.1	-26.7	46.9	0.43	-0.41	9.40	
2,903.0	0.35	266.98	2,902.2	2,026.2	-41.4	-27.4	47.4	0.30	-0.21	28.72	
3,003.0	0.54	284.87	3,002.2	2,126.2	-41.3	-28.1	47.5	0.23	0.19	17.89	
3,103.0	0.64	294.28	3,102.2	2,226.2	-40.9	-29.1	47.4	0.14	0.10	9.41	
3,203.0	0.67	301.94	3,202.2	2,326.2	-40.4	-30.1	47.2	0.09	0.03	7.66	
Gyro Tie In=3303' MD											
3,303.0	0.67	304.07	3,302.2	2,426.2	-39.8	-31.1	46.8	0.02	0.00	2.13	
3,351.0	0.70	304.50	3,350.2	2,474.2	-39.4	-31.6	46.6	0.06	0.06	0.90	
3,383.0	0.60	314.10	3,382.2	2,506.2	-39.2	-31.8	46.5	0.46	-0.31	30.00	
3,414.0	0.80	315.90	3,413.2	2,537.2	-38.9	-32.1	46.3	0.65	0.65	5.81	
3,446.0	0.70	336.00	3,445.2	2,569.2	-38.6	-32.4	46.1	0.87	-0.31	62.81	
3,477.0	0.60	322.20	3,476.2	2,600.2	-38.3	-32.5	45.8	0.60	-0.32	-44.52	
3,509.0	0.50	331.30	3,508.2	2,632.2	-38.0	-32.7	45.6	0.41	-0.31	28.44	
3,540.0	0.60	326.70	3,539.2	2,663.2	-37.8	-32.9	45.4	0.35	0.32	-14.84	
3,572.0	0.70	319.30	3,571.2	2,695.2	-37.5	-33.1	45.2	0.41	0.31	-23.13	
3,603.0	3.10	271.80	3,602.2	2,726.2	-37.3	-34.0	45.3	8.64	7.74	-153.23	
3,635.0	6.20	266.50	3,634.1	2,758.1	-37.4	-36.6	46.1	9.77	9.69	-16.56	
3,666.0	9.10	267.90	3,664.8	2,788.8	-37.6	-40.7	47.4	9.37	9.35	4.5	
3,698.0	11.80	270.70	3,696.2	2,820.2	-37.7	-46.5	49.1	8.58	8.44	4.5	
3,729.0	14.50	270.20	3,726.4	2,850.4	-37.6	-53.6	51.0	8.72	8.71	-1.61	
3,761.0	17.20	269.70	3,757.2	2,881.2	-37.6	-62.3	53.4	8.45	8.44	-1.56	
3,792.0	19.80	269.10	3,786.6	2,910.6	-37.7	-72.2	56.2	8.41	8.39	-1.94	
3,824.0	22.30	268.80	3,816.5	2,940.5	-37.9	-83.7	59.6	7.82	7.81	-0.94	

Received
Office of Oil & Gas
07 2015

Phoenix Technologies
Survey Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513835
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 876.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 876.0usft
Site:	Wetzel County 513835	North Reference:	Grid
Well:	Well #513835	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	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)
3,855.0	25.70	269.30	3,844.8	2,968.8	-38.1	-96.3	63.3	10.99	10.97	1.61
3,887.0	29.00	269.70	3,873.2	2,997.2	-38.3	-111.0	67.5	10.33	10.31	1.25
3,919.0	32.00	270.30	3,900.8	3,024.8	-38.3	-127.2	72.0	9.42	9.38	1.88
3,950.0	35.10	270.80	3,926.6	3,050.6	-38.1	-144.3	76.6	10.04	10.00	1.61
3,982.0	38.20	270.10	3,952.3	3,076.3	-37.9	-163.4	81.8	9.77	9.69	-2.19
4,045.0	42.40	268.90	4,000.3	3,124.3	-38.3	-204.2	93.4	6.78	6.67	-1.90
4,109.0	43.60	268.90	4,047.1	3,171.1	-39.2	-247.8	106.3	1.88	1.88	0.00
4,172.0	44.00	268.60	4,092.6	3,216.6	-40.1	-291.4	119.3	0.72	0.63	-0.48
4,235.0	43.40	268.30	4,138.1	3,262.1	-41.3	-334.9	132.5	1.01	-0.95	-0.48
4,298.0	42.70	268.10	4,184.2	3,308.2	-42.6	-377.9	145.7	1.13	-1.11	-0.32
4,361.0	42.20	267.70	4,230.7	3,354.7	-44.2	-420.4	159.0	0.90	-0.79	-0.63
4,424.0	41.70	267.50	4,277.5	3,401.5	-46.0	-462.5	172.3	0.82	-0.79	-0.32
4,487.0	41.00	267.00	4,324.8	3,448.8	-48.0	-504.0	185.8	1.23	-1.11	-0.79
4,550.0	40.10	266.30	4,372.7	3,496.7	-50.3	-544.9	199.4	1.60	-1.43	-1.11
4,613.0	39.30	266.40	4,421.2	3,545.2	-52.9	-585.1	213.0	1.27	-1.27	0.16
4,676.0	39.50	267.90	4,469.8	3,593.8	-54.9	-625.0	226.0	1.54	0.32	2.38
4,739.0	40.00	269.60	4,518.3	3,642.3	-55.8	-665.3	238.0	1.90	0.79	2.70
4,802.0	39.20	269.60	4,566.8	3,690.8	-56.0	-705.4	249.4	1.27	-1.27	0.00
4,866.0	40.00	269.00	4,616.1	3,740.1	-56.5	-746.2	261.2	1.39	1.25	-0.94
December 26th=4929' MD										
4,929.0	40.80	269.40	4,664.1	3,788.1	-57.1	-787.1	273.0	1.33	1.27	0.63
4,992.0	41.20	268.70	4,711.7	3,835.7	-57.8	-828.4	285.2	0.97	0.63	-1.11
5,055.0	41.50	268.10	4,758.9	3,882.9	-59.0	-870.0	297.8	0.79	0.48	-0.95
5,118.0	40.30	267.20	4,806.6	3,930.6	-60.7	-911.2	310.9	2.12	-1.90	-1.43
5,181.0	40.50	267.50	4,854.5	3,978.5	-62.5	-952.0	324.0	0.44	0.32	0.48
5,244.0	41.00	268.30	4,902.3	4,026.3	-64.0	-993.1	336.8	1.15	0.79	1.27
5,307.0	41.50	267.80	4,949.6	4,073.6	-65.5	-1,034.6	349.7	0.95	0.79	-0.79
5,370.0	41.90	268.20	4,996.7	4,120.7	-66.9	-1,076.5	362.7	0.76	0.63	0.63
5,433.0	41.60	269.00	5,043.7	4,167.7	-67.9	-1,118.4	375.3	0.97	-0.48	1.27
5,496.0	41.10	269.90	5,091.0	4,215.0	-68.3	-1,160.0	387.2	1.23	-0.79	1.43
5,559.0	41.60	268.60	5,138.3	4,262.3	-68.9	-1,201.7	399.3	1.58	0.79	-2.06
5,622.0	41.60	268.60	5,185.4	4,309.4	-69.9	-1,243.5	411.9	0.00	0.00	0.00
5,686.0	40.80	268.60	5,233.5	4,357.5	-70.9	-1,285.6	424.5	1.25	-1.25	0.00
5,749.0	41.20	268.10	5,281.1	4,405.1	-72.1	-1,326.9	437.1	0.82	0.63	-0.79
5,812.0	41.50	267.90	5,328.4	4,452.4	-73.6	-1,368.5	450.1	0.52	0.48	-0.32
5,875.0	41.00	268.80	5,375.7	4,499.7	-74.8	-1,410.1	462.7	1.23	-0.79	1.43
5,939.0	40.20	267.90	5,424.3	4,548.3	-76.0	-1,451.7	475.4	1.55	-1.25	-1.41
6,002.0	41.00	267.80	5,472.2	4,596.2	-77.5	-1,492.7	488.2	1.27	1.27	-0.16
6,065.0	41.70	266.70	5,519.5	4,643.5	-79.5	-1,534.2	501.7	1.60	1.11	0.00
6,128.0	40.60	266.70	5,566.9	4,690.9	-81.9	-1,575.6	515.5	1.75	-1.75	0.00
6,191.0	41.10	268.50	5,614.5	4,738.5	-83.6	-1,616.8	528.5	2.03	0.79	2.86
6,254.0	40.70	269.50	5,662.2	4,786.2	-84.4	-1,658.0	540.6	1.22	-0.63	1.59

Received
Office of Oil & Gas
MAY 07 2015

Phoenix Technologies

Survey Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 513835
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 876.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 876.0usft
Site:	Wetzel County 513835	North Reference:	Grid
Well:	Well #513835	Survey Calculation Method:	Minimum Curvature
Wellbore:	Main Wellbore		
Design:	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)	
6,317.0	39.50	269.00	5,710.4	4,834.4	-84.9	-1,698.6	552.4	1.97	-1.90	-0.79	
6,380.0	39.90	268.80	5,758.8	4,882.8	-85.7	-1,738.8	564.3	0.67	0.63	-0.32	
6,443.0	39.90	269.00	5,807.2	4,931.2	-86.4	-1,779.2	576.2	0.20	0.00	0.32	
6,505.0	40.30	268.60	5,854.6	4,978.6	-87.3	-1,819.2	588.1	0.77	0.65	-0.65	
6,568.0	41.30	267.90	5,902.3	5,026.3	-88.5	-1,860.3	600.7	1.75	1.59	-1.11	
6,632.0	41.50	268.00	5,950.3	5,074.3	-90.0	-1,902.6	613.9	0.33	0.31	0.16	
6,695.0	41.60	268.00	5,997.4	5,121.4	-91.5	-1,944.4	626.9	0.16	0.16	0.00	
6,758.0	41.90	268.30	6,044.4	5,168.4	-92.9	-1,986.3	639.8	0.57	0.48	0.48	
6,821.0	42.20	268.60	6,091.2	5,215.2	-94.0	-2,028.5	652.6	0.57	0.48	0.48	
6,884.0	41.20	267.80	6,138.3	5,262.3	-95.3	-2,070.4	665.5	1.80	-1.59	-1.27	
6,947.0	41.00	269.80	6,185.7	5,309.7	-96.2	-2,111.8	677.8	2.11	-0.32	3.17	
7,011.0	41.00	270.80	6,234.0	5,358.0	-96.0	-2,153.7	689.2	1.03	0.00	1.56	
7,074.0	41.10	270.20	6,281.5	5,405.5	-95.6	-2,195.1	700.3	0.65	0.16	-0.95	
7,137.0	41.40	269.90	6,328.9	5,452.9	-95.6	-2,236.7	711.8	0.57	0.48	-0.48	
7,200.0	40.10	269.20	6,376.6	5,500.6	-95.9	-2,277.8	723.5	2.19	-2.06	-1.11	
7,263.0	40.00	267.90	6,424.9	5,548.9	-96.9	-2,318.3	735.7	1.34	-0.16	-2.06	
7,327.0	40.40	264.70	6,473.7	5,597.7	-99.6	-2,359.5	749.7	3.29	0.63	-5.00	
7,358.0	40.30	260.40	6,497.4	5,621.4	-102.2	-2,379.4	757.7	8.99	-0.32	-13.87	
7,390.0	40.20	255.90	6,521.8	5,645.8	-106.4	-2,399.6	767.4	9.09	-0.31	-14.06	
7,421.0	40.40	251.20	6,545.5	5,669.5	-112.1	-2,418.8	778.2	9.83	0.65	-15.16	
7,453.0	39.40	246.50	6,570.0	5,694.0	-119.5	-2,438.0	790.6	9.92	-3.13	-14.69	
7,484.0	38.70	242.20	6,594.1	5,718.1	-127.9	-2,455.6	803.6	9.02	-2.26	-13.87	
7,516.0	38.20	237.60	6,619.2	5,743.2	-137.9	-2,472.8	817.9	9.07	-1.56	-14.38	
7,547.0	37.70	232.50	6,643.6	5,767.6	-148.8	-2,488.4	832.8	10.24	-1.61	-16.45	
7,579.0	38.30	227.80	6,668.8	5,792.8	-161.4	-2,503.5	849.1	9.23	1.88	-14.69	
7,611.0	39.50	223.20	6,693.7	5,817.7	-175.5	-2,517.8	866.6	9.77	3.75	-14.38	
7,642.0	40.90	220.00	6,717.4	5,841.4	-190.5	-2,531.1	884.6	8.05	4.52	-10.32	
7,674.0	42.70	217.10	6,741.3	5,865.3	-207.2	-2,544.4	904.3	8.25	5.63	-9.06	
7,705.0	44.50	212.90	6,763.7	5,887.7	-224.7	-2,556.6	924.6	11.00	5.81	-13.55	
7,737.0	46.30	207.90	6,786.2	5,910.2	-244.3	-2,568.1	946.6	12.46	5.63	-15.63	
7,768.0	48.00	203.30	6,807.3	5,931.3	-264.8	-2,577.9	969.0	12.18	5.48	-14.84	
7,800.0	50.20	199.10	6,828.2	5,952.2	-287.4	-2,586.7	993.1	12.07	6.88	-13.13	
7,832.0	52.40	196.10	6,848.3	5,972.3	-311.2	-2,594.2	1,018.1	10.04	6.88	-9.38	
7,863.0	54.80	193.60	6,866.6	5,990.6	-335.3	-2,600.6	1,043.0	10.10	7.74	-8.06	
7,895.0	55.80	190.50	6,884.9	6,008.9	-361.0	-2,606.1	1,069.2	8.56	3.13	-9.69	
7,926.0	57.80	186.80	6,901.8	6,025.8	-386.6	-2,610.0	1,095.0	11.89	6.45	-11.94	
7,958.0	60.40	183.30	6,918.3	6,042.3	-414.0	-2,612.4	1,121.9	12.41	8.13	-10.92	
7,990.0	63.30	180.30	6,933.4	6,057.4	-442.2	-2,613.3	1,149.2	12.26	9.06	-9.38	
8,021.0	65.80	177.90	6,946.7	6,070.7	-470.2	-2,612.8	1,176.0	10.67	8.06	-7.42	
8,053.0	68.70	175.70	6,959.1	6,083.1	-499.6	-2,611.2	1,203.8	11.06	7.74	-6.88	
8,084.0	71.10	174.00	6,969.7	6,093.7	-528.6	-2,608.5	1,231.0	9.30	7.74	-5.48	
8,116.0	74.80	172.00	6,979.1	6,103.1	-559.0	-2,604.8	1,259.1	13.01	11.56	-6.25	
8,147.0	77.50	169.70	6,986.5	6,110.5	-588.7	-2,600.0	1,286.3	11.30	8.71	-7.42	

RECEIVED
 Office of Oil & Gas
 06/05/2015

Phoenix Technologies
Survey Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Wetzel County 513835
Company: EQT Production - Marcellus	TVD Reference: KB @ 876.0usft
Project: Wetzel County, WV	MD Reference: KB @ 876.0usft
Site: Wetzel County 513835	North Reference: Grid
Well: Well #513835	Survey Calculation Method: Minimum Curvature
Wellbore: Main Wellbore	
Design: 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)
8,179.0	79.20	167.10	6,993.0	6,117.0	-619.4	-2,593.7	1,314.1	9.57	5.31	-8.13
8,211.0	81.20	166.00	6,998.4	6,122.4	-650.0	-2,586.4	1,341.5	7.11	6.25	-3.44
8,242.0	83.10	164.10	7,002.7	6,126.7	-679.7	-2,578.5	1,367.8	8.63	6.13	-6.13
8,274.0	85.40	162.30	7,005.9	6,129.9	-710.2	-2,569.3	1,394.5	9.11	7.19	-5.63
8,305.0	87.20	160.30	7,007.9	6,131.9	-739.5	-2,559.3	1,419.9	8.67	5.81	-6.45
LP= 8337' MD/7009' TVD										
8,337.0	89.70	158.30	7,008.7	6,132.7	-769.4	-2,548.0	1,445.5	10.00	7.81	-6.25
8,400.0	90.30	157.90	7,008.7	6,132.7	-827.8	-2,524.5	1,495.2	1.14	0.95	-0.63
8,464.0	90.20	156.70	7,008.5	6,132.5	-886.9	-2,499.8	1,545.1	1.88	-0.16	-1.88
8,527.0	89.10	155.80	7,008.9	6,132.9	-944.5	-2,474.5	1,593.4	2.26	-1.75	-1.43
8,590.0	88.80	156.00	7,010.0	6,134.0	-1,002.0	-2,448.7	1,641.6	0.57	-0.48	0.32
8,653.0	88.90	156.10	7,011.3	6,135.3	-1,059.6	-2,423.2	1,689.8	0.22	0.16	0.16
8,716.0	89.20	156.20	7,012.3	6,136.3	-1,117.2	-2,397.7	1,738.1	0.50	0.48	0.16
8,780.0	88.00	156.70	7,013.9	6,137.9	-1,175.9	-2,372.1	1,787.3	2.03	-1.88	0.78
8,843.0	87.60	156.80	7,016.3	6,140.3	-1,233.7	-2,347.3	1,836.0	0.65	-0.63	0.16
8,906.0	89.40	157.00	7,017.9	6,141.9	-1,291.6	-2,322.6	1,884.8	2.87	2.86	0.32
8,969.0	89.30	156.30	7,018.7	6,142.7	-1,349.5	-2,297.6	1,933.5	1.12	-0.16	-1.11
9,032.0	88.90	155.70	7,019.7	6,143.7	-1,407.0	-2,272.0	1,981.7	1.14	-0.63	-0.95
9,096.0	89.70	157.30	7,020.4	6,144.4	-1,465.7	-2,246.5	2,031.0	2.79	1.25	2.50
9,159.0	90.20	158.10	7,020.5	6,144.5	-1,524.0	-2,222.6	2,080.4	1.50	0.79	1.27
9,222.0	89.70	157.60	7,020.5	6,144.5	-1,582.3	-2,198.8	2,129.8	1.12	-0.79	-0.79
9,285.0	89.90	157.40	7,020.8	6,144.8	-1,640.6	-2,174.7	2,179.1	0.45	0.32	-0.32
9,348.0	89.20	156.90	7,021.3	6,145.3	-1,698.6	-2,150.2	2,228.1	1.37	-1.11	-0.79
9,412.0	89.20	156.70	7,022.2	6,146.2	-1,757.4	-2,125.0	2,277.6	0.31	0.00	-0.31
9,474.0	89.00	156.10	7,023.1	6,147.1	-1,814.2	-2,100.2	2,325.3	1.02	-0.32	-0.97
9,538.0	88.90	155.70	7,024.3	6,148.3	-1,872.6	-2,074.1	2,374.2	0.64	-0.16	-0.63
9,601.0	89.00	155.20	7,025.5	6,149.5	-1,929.9	-2,047.9	2,422.0	0.81	0.16	-0.79
9,664.0	89.30	154.70	7,026.4	6,150.4	-1,987.0	-2,021.2	2,469.4	0.93	0.48	-0.79
9,727.0	90.20	155.70	7,026.7	6,150.7	-2,044.2	-1,994.8	2,517.0	2.14	1.43	1.59
9,790.0	90.50	156.60	7,026.3	6,150.3	-2,101.8	-1,969.4	2,565.3	1.51	0.48	1.43
9,853.0	91.20	157.60	7,025.3	6,149.3	-2,159.8	-1,944.8	2,614.3	1.94	1.11	1.59
9,917.0	89.80	158.10	7,024.8	6,148.8	-2,219.1	-1,920.7	2,664.6	2.32	-2.19	0.78
9,980.0	88.80	158.20	7,025.6	6,149.6	-2,277.6	-1,897.3	2,714.2	1.60	-1.59	0.16
10,043.0	87.60	158.30	7,027.5	6,151.5	-2,336.1	-1,873.9	2,764.0	1.91	-1.90	0.16
10,106.0	87.60	158.70	7,030.2	6,154.2	-2,394.6	-1,850.9	2,813.8	0.63	0.00	0.63
10,170.0	87.60	157.40	7,032.9	6,156.9	-2,453.9	-1,827.0	2,864.2	2.03	0.00	-2.03
10,233.0	88.60	157.50	7,034.9	6,158.9	-2,512.1	-1,802.8	2,913.4	1.60	1.59	0.16
10,296.0	89.30	157.40	7,036.1	6,160.1	-2,570.3	-1,778.7	2,962.6	1.12	1.11	-0.16
10,359.0	89.00	157.40	7,037.0	6,161.0	-2,628.4	-1,754.5	3,011.7	0.48	-0.48	0.00
10,422.0	88.70	157.00	7,038.3	6,162.3	-2,686.5	-1,730.0	3,060.8	0.79	-0.48	-0.63
10,485.0	90.10	157.50	7,039.0	6,163.0	-2,744.6	-1,705.7	3,109.8	2.36	2.22	0.79
10,548.0	90.50	157.10	7,038.6	6,162.6	-2,802.7	-1,681.4	3,158.9	0.90	0.63	-0.63

Phoenix Technologies
Survey Report

Database: EDM 5000.1 Single User Db	Local Co-ordinate Reference: Site Wetzel County 513835
Company: EQT Production - Marcellus	TVD Reference: KB @ 876.0usft
Project: Wetzel County, WV	MD Reference: KB @ 876.0usft
Site: Wetzel County 513835	North Reference: Grid
Well: Well #513835	Survey Calculation Method: Minimum Curvature
Wellbore: Main Wellbore	
Design: 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)
10,612.0	90.60	156.60	7,038.0	6,162.0	-2,861.5	-1,656.2	3,208.5	0.80	0.16	-0.78
10,675.0	90.50	156.40	7,037.4	6,161.4	-2,919.3	-1,631.1	3,257.0	0.35	-0.16	-0.32
10,738.0	88.90	156.70	7,037.7	6,161.7	-2,977.1	-1,606.0	3,305.6	2.58	-2.54	0.48
10,800.0	87.80	156.70	7,039.5	6,163.5	-3,034.0	-1,581.5	3,353.5	1.77	-1.77	0.00
10,864.0	87.60	157.00	7,042.1	6,166.1	-3,092.8	-1,556.4	3,403.0	0.56	-0.31	0.47
10,927.0	86.80	157.10	7,045.2	6,169.2	-3,150.8	-1,531.8	3,451.9	1.28	-1.27	0.16
10,990.0	88.00	156.90	7,048.0	6,172.0	-3,208.7	-1,507.2	3,500.8	1.93	1.90	-0.32
11,054.0	88.60	157.40	7,049.9	6,173.9	-3,267.7	-1,482.4	3,550.5	1.22	0.94	0.78
11,117.0	90.90	157.30	7,050.2	6,174.2	-3,325.8	-1,458.1	3,599.7	3.65	3.65	-0.16
11,180.0	90.50	157.60	7,049.4	6,173.4	-3,384.0	-1,434.0	3,648.9	0.79	-0.63	0.48
11,243.0	90.50	157.40	7,048.9	6,172.9	-3,442.2	-1,409.9	3,698.1	0.32	0.00	-0.32
11,307.0	90.60	157.60	7,048.3	6,172.3	-3,501.3	-1,385.4	3,748.1	0.35	0.16	0.31
11,370.0	90.30	157.60	7,047.8	6,171.8	-3,559.5	-1,361.4	3,797.4	0.48	-0.48	0.00
11,433.0	90.60	157.90	7,047.3	6,171.3	-3,617.8	-1,337.5	3,846.8	0.67	0.48	0.48
11,496.0	90.40	157.50	7,046.7	6,170.7	-3,676.1	-1,313.6	3,896.2	0.71	-0.32	-0.63
11,559.0	90.20	157.50	7,046.4	6,170.4	-3,734.3	-1,289.5	3,945.4	0.32	-0.32	0.00
11,622.0	89.00	156.10	7,046.8	6,170.8	-3,792.2	-1,264.7	3,994.2	2.93	-1.90	-2.22
11,685.0	88.70	156.10	7,048.1	6,172.1	-3,849.8	-1,239.2	4,042.5	0.48	-0.48	0.00
11,748.0	88.60	156.10	7,049.6	6,173.6	-3,907.4	-1,213.7	4,090.7	0.16	-0.16	0.00
11,811.0	89.10	156.90	7,050.8	6,174.8	-3,965.2	-1,188.5	4,139.2	1.50	0.79	1.27
Final Survey= 11828' MD/7051' TVD										
11,828.0	89.40	157.30	7,051.1	6,175.1	-3,980.8	-1,181.9	4,152.5	2.94	1.76	2.35
Projection to TD/ Deepest Point of Well= 11883' MD/7052' TVD										
11,883.0	89.40	157.30	7,051.6	6,175.6	-4,031.6	-1,160.7	4,195.3	0.00	0.00	0.00

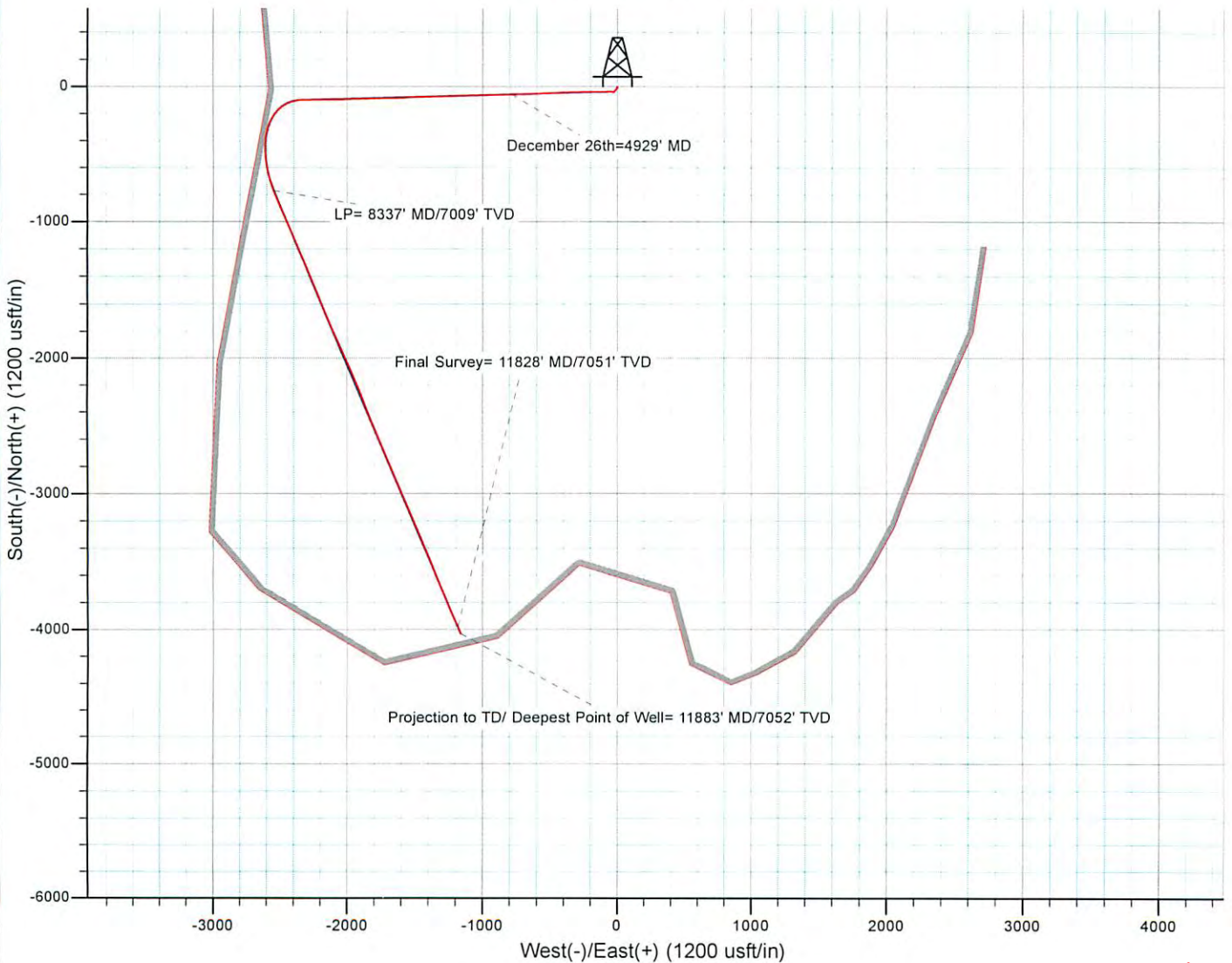
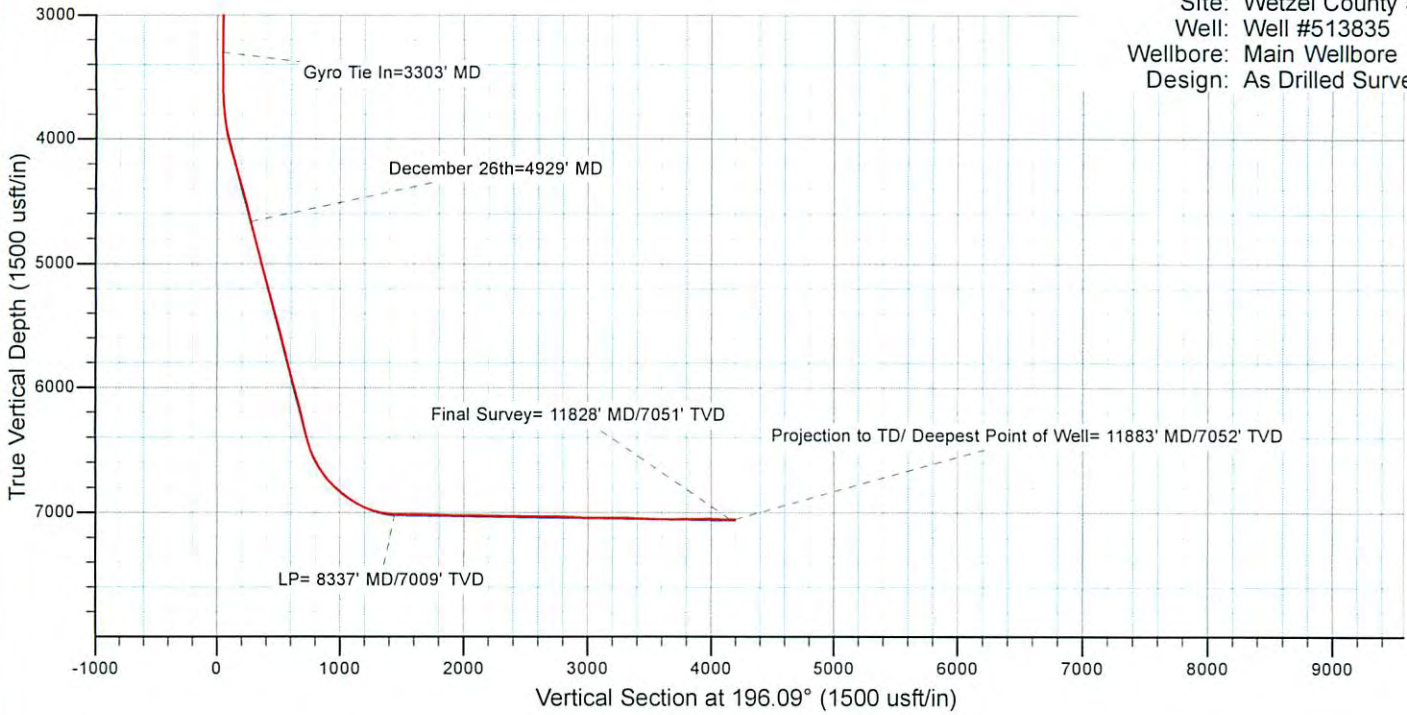
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,303.0	3,302.2	-39.8	-31.1	Gyro Tie In=3303' MD
4,929.0	4,664.1	-57.1	-787.1	December 26th=4929' MD
8,337.0	7,008.7	-769.4	-2,548.0	LP= 8337' MD/7009' TVD
11,828.0	7,051.1	-3,980.8	-1,181.9	Final Survey= 11828' MD/7051' TVD
11,883.0	7,051.6	-4,031.6	-1,160.7	Projection to TD/ Deepest Point of Well= 11883' MD/7052' TVD

Checked By: _____ Approved By: _____ Date: _____

Received
Office of Oil & Gas
MAY 07 2015

EQT Production - Marcellus

Project: Wetzel County, WV
Site: Wetzel County 513835
Well: Well #513835
Wellbore: Main Wellbore
Design: As Drilled Surveys



06/05/2015