

JK

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 514377

API: 47 - 103 - 02874

Submission: Initial Amended

Notes: Amended Report with FB Data

Stimulation Notes:
Re-perforated stage 2 (2.1)
Performed additional injection tests
prior to stage 1 and 3

Received
Office of Oil & Gas
DEC 18 2014

01/16/2015

103-02874

PHOENIX
TECHNOLOGY SERVICES



EQT Production - Marcellus

Wetzel County, WV
Wetzel County 514377
Well 514377

Main Wellbore

Design: AS Drilled Surveys

Standard Survey Report

26 March, 2014

Received
Office of Oil & Gas
DEC 18 2014

Where energy meets innovation.

01/16/2015

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	Survey Calculation Method:	Minimum Curvature
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 514377

Site Position:		Northing:	385,288.00 usft	Latitude:	39.55
From:	Map	Easting:	1,678,295.00 usft	Longitude:	-80.64
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.73 °

Received
 Office of Oil & Gas
 DEC 18 2014

Well Well 514377

Well Position	+N/-S	0.0 usft	Northing:	385,288.00 usft	Latitude:	39° 33' 8.036 N
	+E/-W	0.0 usft	Easting:	1,678,295.00 usft	Longitude:	80° 38' 27.344 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	1,330.0 usft

Wellbore Main Wellbore

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	3/12/2014	-8.62	67.02	52,442

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	332.71

Survey Program Date 3/25/2014

From (')	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	5,456.0	514377 Gyrodata (Main Wellbore)	GYD_DP_MS	Gyrodata gyro-compassing and drop
0.00	12,056.0	514377 PHX MWD (Main Wellbore)	MWD	MWD - Standard

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	-1,346.0	0.0	0.0	0.0	0.00	0.00	0.00
103.0	0.12	302.22	103.0	-1,243.0	0.1	-0.1	0.1	0.12	0.12	0.00
203.0	0.09	191.20	203.0	-1,143.0	0.0	-0.2	0.1	0.17	-0.03	-111.02
303.0	0.12	217.33	303.0	-1,043.0	-0.1	-0.3	0.0	0.06	0.03	26.13
403.0	0.09	198.99	403.0	-943.0	-0.3	-0.4	-0.1	0.04	-0.03	-18.34
503.0	0.15	190.26	503.0	-843.0	-0.5	-0.4	-0.2	0.06	0.06	-8.73
603.0	0.12	200.93	603.0	-743.0	-0.7	-0.5	-0.4	0.04	-0.03	10.67
703.0	0.05	317.66	703.0	-643.0	-0.8	-0.5	-0.4	0.15	-0.07	116.73

103-02874



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	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	0.09	300.51	803.0	-543.0	-0.7	-0.6	-0.3	0.04	0.04	-17.15
903.0	0.11	343.03	903.0	-443.0	-0.6	-0.7	-0.2	0.07	0.02	42.52
1,003.0	0.21	336.91	1,003.0	-343.0	-0.3	-0.8	0.1	0.10	0.10	-6.12
1,103.0	0.22	341.64	1,103.0	-243.0	0.0	-1.0	0.5	0.02	0.01	4.73
1,203.0	0.21	334.68	1,203.0	-143.0	0.4	-1.1	0.8	0.03	-0.01	-6.96
1,303.0	0.20	349.27	1,303.0	-43.0	0.7	-1.2	1.2	0.05	-0.01	14.59
1,403.0	0.19	40.46	1,403.0	57.0	1.0	-1.1	1.4	0.17	-0.01	51.19
1,503.0	0.25	46.94	1,503.0	157.0	1.3	-0.9	1.6	0.06	0.06	6.48
1,603.0	0.27	54.69	1,603.0	257.0	1.6	-0.5	1.6	0.04	0.02	7.75
1,703.0	0.36	72.47	1,703.0	357.0	1.8	0.0	1.6	0.13	0.09	17.78
1,803.0	0.49	76.73	1,803.0	457.0	2.0	0.7	1.5	0.13	0.13	4.26
1,903.0	0.53	92.91	1,903.0	557.0	2.1	1.6	1.1	0.15	0.04	16.18
2,003.0	0.56	89.11	2,003.0	657.0	2.1	2.5	0.7	0.05	0.03	-3.80
2,103.0	0.53	92.94	2,103.0	757.0	2.0	3.5	0.2	0.05	-0.03	3.83
2,203.0	0.44	94.37	2,203.0	857.0	2.0	4.3	-0.2	0.09	-0.09	1.43
2,303.0	0.40	101.13	2,303.0	957.0	1.9	5.0	-0.6	0.06	-0.04	6.76
2,403.0	0.40	104.30	2,403.0	1,057.0	1.7	5.7	-1.1	0.02	0.00	3.17
2,503.0	0.35	113.33	2,503.0	1,157.0	1.5	6.3	-1.5	0.08	-0.05	9.03
2,603.0	0.33	116.21	2,603.0	1,257.0	1.3	6.9	-2.0	0.03	-0.02	2.88
2,703.0	0.26	132.69	2,703.0	1,357.0	1.0	7.3	-2.5	0.11	-0.07	16.48
2,803.0	0.22	133.54	2,803.0	1,457.0	0.7	7.6	-2.8	0.04	-0.04	0.85
2,903.0	0.20	146.00	2,903.0	1,557.0	0.4	7.8	-3.2	0.05	-0.02	12.46
3,003.0	0.26	131.68	3,003.0	1,657.0	0.1	8.1	-3.6	0.08	0.06	-14.32
3,103.0	0.31	159.63	3,103.0	1,757.0	-0.3	8.4	-4.1	0.15	0.05	27.95
3,203.0	0.31	157.05	3,203.0	1,857.0	-0.8	8.6	-4.6	0.01	0.00	-2.58
3,303.0	0.28	154.18	3,303.0	1,957.0	-1.2	8.8	-5.1	0.03	-0.03	-2.87
3,403.0	0.27	138.07	3,403.0	2,057.0	-1.6	9.0	-5.6	0.08	-0.01	-16.11
3,503.0	0.37	138.83	3,503.0	2,157.0	-2.0	9.4	-6.1	0.10	0.10	0.76
3,603.0	0.24	124.88	3,603.0	2,257.0	-2.4	9.8	-6.6	0.15	-0.13	-13.95
3,703.0	0.26	130.26	3,703.0	2,357.0	-2.7	10.1	-7.0	0.03	0.02	5.38
3,803.0	0.07	134.36	3,803.0	2,457.0	-2.9	10.4	-7.3	0.19	-0.19	4.10
3,903.0	0.08	121.09	3,903.0	2,557.0	-2.9	10.5	-7.4	0.02	0.01	-13.27
4,003.0	0.10	230.35	4,003.0	2,657.0	-3.0	10.5	-7.5	0.15	0.02	109.26
4,103.0	0.06	45.73	4,103.0	2,757.0	-3.0	10.4	-7.5	0.16	-0.04	175.38
4,203.0	0.04	84.47	4,203.0	2,857.0	-3.0	10.5	-7.5	0.04	-0.02	38.74
4,303.0	0.09	58.79	4,303.0	2,957.0	-3.0	10.6	-7.5	0.06	0.05	-25.68
4,403.0	0.14	81.34	4,403.0	3,057.0	-2.9	10.8	-7.5	0.07	0.05	22.55
4,503.0	0.39	60.57	4,502.9	3,156.9	-2.7	11.2	-7.6	0.26	0.25	-20.77
4,603.0	0.68	67.74	4,602.9	3,256.9	-2.3	12.1	-7.6	0.30	0.29	7.17
4,703.0	0.72	61.36	4,702.9	3,356.9	-1.8	13.2	-7.6	0.09	0.04	-6.38
4,803.0	0.74	64.44	4,802.9	3,456.9	-1.2	14.3	-7.6	0.04	0.02	3.08
4,903.0	0.75	64.42	4,902.9	3,556.9	-0.7	15.5	-7.7	0.01	0.01	-0.02



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	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)
5,003.0	0.82	64.11	5,002.9	3,656.9	-0.1	16.7	-7.7	0.07	0.07	-0.31
5,103.0	0.86	71.14	5,102.9	3,756.9	0.5	18.1	-7.8	0.11	0.04	7.03
5,203.0	0.87	78.55	5,202.9	3,856.9	0.9	19.5	-8.2	0.11	0.01	7.41
5,303.0	0.69	84.30	5,302.9	3,956.9	1.1	20.8	-8.6	0.20	-0.18	5.75
5,403.0	0.67	80.59	5,402.9	4,056.9	1.2	22.0	-9.0	0.05	-0.02	-3.71
Gyro Tie In=5456' MD										
5,456.0	0.73	92.25	5,455.9	4,109.9	1.3	22.7	-9.3	0.29	0.11	22.00
KOP=5595' MD/TVD										
5,595.0	0.90	99.00	5,594.9	4,248.9	1.1	24.6	-10.3	0.14	0.12	4.86
5,658.0	2.20	85.00	5,657.8	4,311.8	1.1	26.3	-11.1	2.13	2.06	-22.22
5,721.0	4.40	84.80	5,720.7	4,374.7	1.4	29.9	-12.5	3.49	3.49	-0.32
5,784.0	5.10	75.90	5,783.5	4,437.5	2.3	35.1	-14.0	1.61	1.11	-14.13
5,848.0	5.60	86.90	5,847.2	4,501.2	3.2	40.9	-15.9	1.78	0.78	17.19
5,911.0	8.80	93.20	5,909.7	4,563.7	3.1	48.8	-19.6	5.22	5.08	10.00
5,942.0	8.90	92.70	5,940.4	4,594.4	2.8	53.6	-22.0	0.41	0.32	-1.61
5,974.0	9.40	101.40	5,972.0	4,626.0	2.2	58.6	-24.9	4.59	1.56	27.19
6,005.0	11.20	114.70	6,002.5	4,656.5	0.5	63.8	-28.9	9.58	5.81	42.90
6,037.0	13.50	122.60	6,033.7	4,687.7	-2.9	69.8	-34.5	8.90	7.19	24.69
6,069.0	15.30	128.60	6,064.7	4,718.7	-7.5	76.3	-41.6	7.30	5.63	18.75
6,101.0	16.60	136.50	6,095.5	4,749.5	-13.5	82.7	-49.9	7.90	4.06	24.69
6,132.0	19.50	143.60	6,125.0	4,779.0	-20.8	88.8	-59.2	11.73	9.35	22.90
6,164.0	23.00	146.70	6,154.8	4,808.8	-30.4	95.4	-70.7	11.48	10.94	9.69
6,196.0	26.70	147.00	6,183.8	4,837.8	-41.6	102.8	-84.1	11.57	11.56	0.94
6,227.0	29.70	149.60	6,211.1	4,865.1	-54.1	110.5	-98.7	10.46	9.68	8.39
6,259.0	31.70	152.00	6,238.6	4,892.6	-68.3	118.4	-115.0	7.33	6.25	7.50
6,290.0	34.20	155.40	6,264.7	4,918.7	-83.5	125.9	-131.9	10.03	8.06	10.97
6,322.0	37.80	154.60	6,290.5	4,944.5	-100.5	133.8	-150.7	11.35	11.25	-2.50
6,353.0	39.80	155.80	6,314.7	4,968.7	-118.1	142.0	-170.1	6.89	6.45	3.87
6,385.0	37.70	156.50	6,339.7	4,993.7	-136.5	150.1	-190.1	6.70	-6.56	2.19
6,416.0	34.70	156.10	6,364.7	5,018.7	-153.2	157.4	-208.3	9.71	-9.68	-1.29
6,448.0	31.00	156.80	6,391.5	5,045.5	-169.1	164.4	-225.7	11.62	-11.56	2.19
6,480.0	27.50	158.10	6,419.5	5,073.5	-183.6	170.4	-241.2	11.12	-10.94	4.06
6,511.0	24.40	160.10	6,447.3	5,101.3	-196.2	175.2	-254.7	10.39	-10.00	6.45
6,543.0	20.40	161.30	6,476.9	5,130.9	-207.7	179.3	-266.8	12.58	-12.50	3.75
6,574.0	18.30	159.20	6,506.2	5,160.2	-217.4	182.7	-277.0	7.14	-6.77	-6.77
6,606.0	17.10	159.20	6,536.6	5,190.6	-226.5	186.2	-286.6	3.75	-3.75	0.00
6,638.0	14.20	161.00	6,567.5	5,221.5	-234.6	189.1	-295.2	9.19	-9.06	5.63
6,669.0	11.40	161.80	6,597.7	5,251.7	-241.1	191.3	-302.0	9.05	-9.03	2.58
6,701.0	8.60	164.60	6,629.2	5,283.2	-246.4	192.9	-307.5	8.88	-8.75	8.75
6,732.0	5.60	166.80	6,659.9	5,313.9	-250.1	193.9	-311.2	9.72	-9.68	7.10
6,764.0	2.20	136.30	6,691.9	5,345.9	-252.1	194.7	-313.3	12.09	-10.63	-95.31
6,796.0	1.80	37.30	6,723.9	5,377.9	-252.1	195.4	-313.7	9.54	-1.25	-309.38
6,828.0	4.20	7.30	6,755.8	5,409.8	-250.6	195.9	-312.5	8.72	7.50	-93.75



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	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)
6,859.0	7.60	344.70	6,786.7	5,440.7	-247.5	195.5	-309.6	13.08	10.97	-72.90
6,891.0	11.80	330.00	6,818.2	5,472.2	-242.6	193.3	-304.2	15.14	13.13	-45.94
6,923.0	15.20	332.00	6,849.3	5,503.3	-236.1	189.7	-296.7	10.72	10.63	6.25
6,954.0	17.50	334.50	6,879.0	5,533.0	-228.3	185.7	-288.0	7.76	7.42	8.06
6,986.0	19.70	333.10	6,909.4	5,563.4	-219.1	181.2	-277.8	7.01	6.88	-4.38
7,018.0	22.40	332.30	6,939.2	5,593.2	-208.9	176.0	-266.3	8.48	8.44	-2.50
7,049.0	25.00	332.30	6,967.6	5,621.6	-197.9	170.2	-253.9	8.39	8.39	0.00
7,081.0	27.90	331.10	6,996.3	5,650.3	-185.3	163.4	-239.6	9.21	9.06	-3.75
7,113.0	30.10	331.90	7,024.3	5,678.3	-171.7	156.0	-224.1	6.98	6.88	2.50
7,144.0	32.60	331.40	7,050.7	5,704.7	-157.5	148.3	-208.0	8.11	8.06	-1.61
7,176.0	35.10	330.40	7,077.3	5,731.3	-141.9	139.7	-190.2	8.00	7.81	-3.13
7,208.0	39.60	331.50	7,102.7	5,756.7	-125.0	130.3	-170.8	14.22	14.06	3.44
7,240.0	42.50	331.60	7,126.9	5,780.9	-106.5	120.2	-149.8	9.06	9.06	0.31
7,271.0	47.30	332.40	7,148.8	5,802.8	-87.2	110.0	-127.9	15.59	15.48	2.58
7,303.0	49.90	333.90	7,170.0	5,824.0	-65.7	99.2	-103.9	8.85	8.13	4.69
514379 LP 100' VS p4										
7,303.8	49.96	333.91	7,170.5	5,824.5	-65.2	98.9	-103.2	7.21	7.09	1.66
7,334.0	52.10	334.40	7,189.5	5,843.5	-44.1	88.6	-79.8	7.21	7.10	1.61
7,366.0	54.60	333.70	7,208.6	5,862.6	-21.0	77.4	-54.1	8.01	7.81	-2.19
7,397.0	57.50	332.60	7,225.9	5,879.9	2.0	65.8	-28.4	9.81	9.35	-3.55
7,429.0	60.30	331.80	7,242.4	5,896.4	26.2	53.0	-1.0	9.01	8.75	-2.50
7,461.0	63.00	332.10	7,257.6	5,911.6	51.0	39.8	27.1	8.48	8.44	0.94
7,493.0	65.80	331.40	7,271.4	5,925.4	76.5	26.1	56.0	8.97	8.75	-2.19
7,524.0	68.00	331.10	7,283.6	5,937.6	101.5	12.4	84.5	7.15	7.10	-0.97
7,556.0	70.40	331.40	7,295.0	5,949.0	127.7	-2.0	114.4	7.55	7.50	0.94
7,587.0	73.80	331.10	7,304.5	5,958.5	153.5	-16.2	143.9	11.01	10.97	-0.97
7,619.0	77.40	331.90	7,312.4	5,966.4	180.8	-31.0	174.8	11.51	11.25	2.50
7,651.0	78.60	331.10	7,319.1	5,973.1	208.3	-45.9	206.1	4.48	3.75	-2.50
7,683.0	81.00	330.90	7,324.8	5,978.8	235.8	-61.2	237.6	7.53	7.50	-0.63
514377 LP 266' VS										
7,712.4	84.32	330.90	7,328.5	5,982.5	261.3	-75.3	266.7	11.29	11.29	0.00
7,714.0	84.50	330.90	7,328.7	5,982.7	262.7	-76.1	268.3	11.29	11.29	0.00
7,746.0	87.80	331.50	7,330.8	5,984.8	290.7	-91.5	300.3	10.48	10.31	1.88
7,809.0	88.80	333.60	7,332.7	5,986.7	346.5	-120.5	363.2	3.69	1.59	3.33
LP=7872' MD/7334' TVD										
7,872.0	89.10	333.20	7,333.9	5,987.9	402.9	-148.7	426.2	0.79	0.48	-0.63
514377 Plat LP										
7,887.5	89.05	333.30	7,334.1	5,988.1	416.7	-155.7	441.7	0.71	-0.32	0.63
7,935.0	88.90	333.60	7,335.0	5,989.0	459.2	-176.9	489.2	0.71	-0.32	0.63
7,999.0	88.30	333.00	7,336.5	5,990.5	516.3	-205.7	553.2	1.33	-0.94	-0.94
8,062.0	88.90	333.00	7,338.1	5,992.1	572.5	-234.3	616.2	0.95	0.95	0.00
8,125.0	91.80	332.30	7,337.7	5,991.7	628.4	-263.2	679.1	4.74	4.60	-1.11
8,189.0	91.70	332.40	7,335.7	5,989.7	685.1	-292.9	743.1	0.22	-0.16	0.16

Received



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	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)
8,252.0	92.00	333.00	7,333.7	5,987.7	741.0	-321.8	806.1	1.06	0.48	0.95
8,316.0	90.10	331.50	7,332.5	5,986.5	797.7	-351.6	870.1	3.78	-2.97	-2.34
8,379.0	87.90	332.20	7,333.6	5,987.6	853.2	-381.3	933.0	3.66	-3.49	1.11
8,442.0	88.50	332.50	7,335.6	5,989.6	909.0	-410.5	996.0	1.06	0.95	0.48
8,505.0	88.50	332.20	7,337.2	5,991.2	964.8	-439.7	1,059.0	0.48	0.00	-0.48
8,568.0	89.90	331.50	7,338.1	5,992.1	1,020.3	-469.5	1,122.0	2.48	2.22	-1.11
8,632.0	90.20	331.20	7,338.1	5,992.1	1,076.5	-500.1	1,186.0	0.66	0.47	-0.47
8,695.0	89.80	330.50	7,338.1	5,992.1	1,131.5	-530.8	1,248.9	1.28	-0.63	-1.11
Deepest Point of Well=8745' MD/ 7338 TVD										
8,745.0	89.88	329.94	7,338.2	5,992.2	1,174.9	-555.7	1,298.9	1.12	0.16	-1.11
8,758.0	89.90	329.80	7,338.2	5,992.2	1,186.1	-562.2	1,311.9	1.12	0.16	-1.11
8,822.0	91.20	332.60	7,337.6	5,991.6	1,242.2	-593.0	1,375.8	4.82	2.03	4.38
8,885.0	91.80	334.00	7,336.0	5,990.0	1,298.5	-621.3	1,438.8	2.42	0.95	2.22
8,948.0	91.70	332.90	7,334.0	5,988.0	1,354.8	-649.4	1,501.8	1.75	-0.16	-1.75
9,011.0	91.70	332.30	7,332.2	5,986.2	1,410.7	-678.4	1,564.7	0.95	0.00	-0.95
9,075.0	90.40	333.00	7,331.0	5,985.0	1,467.5	-707.8	1,628.7	2.31	-2.03	1.09
9,138.0	90.20	333.60	7,330.7	5,984.7	1,523.8	-736.1	1,691.7	1.00	-0.32	0.95
9,201.0	90.10	334.80	7,330.5	5,984.5	1,580.5	-763.6	1,754.7	1.91	-0.16	1.90
9,265.0	89.50	334.30	7,330.7	5,984.7	1,638.3	-791.1	1,818.7	1.22	-0.94	-0.78
9,328.0	89.30	332.50	7,331.4	5,985.4	1,694.6	-819.3	1,881.7	2.87	-0.32	-2.86
9,391.0	89.70	333.00	7,331.9	5,985.9	1,750.7	-848.1	1,944.6	1.02	0.63	0.79
9,454.0	89.50	330.30	7,332.4	5,986.4	1,806.1	-878.0	2,007.6	4.30	-0.32	-4.29
9,518.0	90.10	329.00	7,332.6	5,986.6	1,861.3	-910.4	2,071.5	2.24	0.94	-2.03
9,581.0	91.30	328.80	7,331.8	5,985.8	1,915.3	-942.9	2,134.4	1.93	1.90	-0.32
9,644.0	91.30	327.20	7,330.4	5,984.4	1,968.7	-976.3	2,197.2	2.54	0.00	-2.54
9,708.0	91.70	329.80	7,328.7	5,982.7	2,023.2	-1,009.7	2,261.0	4.11	0.63	4.06
9,771.0	91.60	330.00	7,326.9	5,980.9	2,077.7	-1,041.3	2,323.9	0.35	-0.16	0.32
9,835.0	91.40	331.10	7,325.2	5,979.2	2,133.4	-1,072.7	2,387.8	1.75	-0.31	1.72
9,898.0	91.80	332.30	7,323.5	5,977.5	2,188.9	-1,102.6	2,450.8	2.01	0.63	1.90
9,961.0	91.80	331.30	7,321.5	5,975.5	2,244.3	-1,132.3	2,513.7	1.59	0.00	-1.59
10,025.0	90.70	332.40	7,320.1	5,974.1	2,300.8	-1,162.5	2,577.7	2.43	-1.72	1.72
10,088.0	87.20	330.00	7,321.3	5,975.3	2,355.9	-1,192.9	2,640.6	6.74	-5.56	-3.81
10,151.0	88.20	330.90	7,323.8	5,977.8	2,410.7	-1,223.9	2,703.5	2.13	1.59	1.43
10,215.0	88.20	331.50	7,325.8	5,979.8	2,466.8	-1,254.7	2,767.5	0.94	0.00	0.94
10,278.0	88.20	330.90	7,327.8	5,981.8	2,521.9	-1,285.1	2,830.4	0.95	0.00	-0.95
10,341.0	89.10	331.00	7,329.3	5,983.3	2,577.0	-1,315.6	2,893.4	1.44	1.43	0.16
10,404.0	89.90	335.20	7,329.8	5,983.8	2,633.2	-1,344.1	2,956.4	6.79	1.27	6.67
10,468.0	90.30	337.40	7,329.7	5,983.7	2,691.8	-1,369.9	3,020.2	3.49	0.63	3.44
10,531.0	90.80	339.40	7,329.1	5,983.1	2,750.3	-1,393.1	3,082.9	3.27	0.79	3.17
10,594.0	91.00	337.10	7,328.1	5,982.1	2,808.8	-1,416.4	3,145.6	3.66	0.32	-3.65
10,657.0	90.30	334.00	7,327.4	5,981.4	2,866.2	-1,442.5	3,208.5	5.04	-1.11	-4.92
10,720.0	90.10	330.40	7,327.2	5,981.2	2,921.9	-1,471.8	3,271.5	5.72	-0.32	-5.71
10,783.0	90.40	330.00	7,326.9	5,980.9	2,976.6	-1,503.1	3,334.5	0.79	0.48	-0.63



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1346.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grid
Well:	Well 514377	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)
10,847.0	90.60	331.20	7,326.3	5,980.3	3,032.3	-1,534.6	3,398.4	1.90	0.31	1.88
10,910.0	90.40	329.20	7,325.8	5,979.8	3,087.0	-1,565.9	3,461.3	3.19	-0.32	-3.17
10,974.0	90.60	330.70	7,325.2	5,979.2	3,142.4	-1,597.9	3,525.3	2.36	0.31	2.34
11,037.0	90.30	330.40	7,324.7	5,978.7	3,197.2	-1,628.9	3,588.2	0.67	-0.48	-0.48
11,100.0	89.80	328.00	7,324.7	5,978.7	3,251.4	-1,661.1	3,651.1	3.89	-0.79	-3.81
11,164.0	90.60	330.80	7,324.4	5,978.4	3,306.4	-1,693.7	3,715.0	4.55	1.25	4.38
11,227.0	91.60	333.50	7,323.2	5,977.2	3,362.1	-1,723.1	3,778.0	4.57	1.59	4.29
11,290.0	90.90	332.50	7,321.9	5,975.9	3,418.2	-1,751.7	3,840.9	1.94	-1.11	-1.59
11,354.0	90.90	332.90	7,320.9	5,974.9	3,475.1	-1,781.1	3,904.9	0.62	0.00	0.63
11,417.0	90.90	332.90	7,319.9	5,973.9	3,531.2	-1,809.8	3,967.9	0.00	0.00	0.00
11,480.0	90.50	333.60	7,319.1	5,973.1	3,587.4	-1,838.1	4,030.9	1.28	-0.63	1.11
11,544.0	90.70	332.80	7,318.4	5,972.4	3,644.6	-1,867.0	4,094.9	1.29	0.31	-1.25
11,607.0	90.20	332.30	7,317.9	5,971.9	3,700.5	-1,896.0	4,157.9	1.12	-0.79	-0.79
11,670.0	89.30	331.80	7,318.2	5,972.2	3,756.1	-1,925.6	4,220.9	1.63	-1.43	-0.79
11,734.0	89.80	328.50	7,318.7	5,972.7	3,811.6	-1,957.4	4,284.8	5.21	0.78	-5.16
11,797.0	88.40	327.70	7,319.7	5,973.7	3,865.1	-1,990.7	4,347.6	2.56	-2.22	-1.27
11,860.0	88.40	328.30	7,321.5	5,975.5	3,918.5	-2,024.1	4,410.4	0.95	0.00	0.95
11,924.0	87.60	328.20	7,323.7	5,977.7	3,972.9	-2,057.7	4,474.1	1.26	-1.25	-0.16
11,987.0	87.70	328.30	7,326.3	5,980.3	4,026.4	-2,090.8	4,536.9	0.22	0.16	0.16
Final Survey=11999' MD/ 7327' TVD										
11,999.0	87.60	328.00	7,326.8	5,980.8	4,036.6	-2,097.2	4,548.9	2.63	-0.83	-2.50
514377 TD1										
12,054.7	87.60	328.00	7,329.1	5,983.1	4,083.8	-2,126.7	4,604.3	0.00	0.00	0.00
Projection to TD=12056' MD/ 7329' TVD										
12,056.0	87.60	328.00	7,329.2	5,983.2	4,084.9	-2,127.4	4,605.6	0.00	0.00	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,456.0	5,455.9	1.3	22.7	Gyro Tie In=5456' MD
5,595.0	5,594.9	1.1	24.6	KOP=5595' MD/TVD
7,872.0	7,333.9	402.9	-148.7	LP=7872' MD/7334' TVD
8,745.0	7,338.2	1,174.9	-555.7	Deepest Point of Well=8745' MD/ 7338 TVD
11,999.0	7,326.8	4,036.6	-2,097.2	Final Survey=11999' MD/ 7327' TVD
12,056.0	7,329.2	4,084.9	-2,127.4	Projection to TD=12056' MD/ 7329' TVD

Checked By: _____ Approved By: _____ Date: _____

Received
 Office of Oil & Gas
 DEC 18 2014



EQT Production - Marcellus

Project: Wetzel County, WV
 Site: Wetzel County 514377
 Well: Well 514377
 Wellbore: Main Wellbore
 Design: AS Drilled Surveys

