

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 514377

API: 47 - 103 - 02874

Submission: Initial Amended

Notes: Amended Report w FB Data
Correction to Production Cement Top (MD)
Stimulation Notes:
Reperforated Stage 2 (2.1)
Performed additional injection test prior to stage 1 and 3
Correction to Production Cement Top (MD)
Correction to Surface Casing Set Depth (MD)
Correction to Production Casing Set Depth (MD)
Correction to Surface & Intermediate Basket Depths (MD)

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Office of Oil and Gas
FEB 02 2016
WV Department of
Environmental Protection

AX WS
03/25/2016
03/24/16

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47 - 103 - 02874 County Wetzel District Grant
Quad Pine Grove Pad Name PNG129 Field/Pool Name _____
Farm name Coastal Lumber Company Well Number 514377
Operator (as registered with the OOG) EQT Production Company
Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,378,132 Easting 530,865
Landing Point of Curve Northing 4,378,219 Easting 530,837
Bottom Hole Northing 4,379,368 Easting 530,200

Elevation (ft) 1330 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine

Mud Type(s) and Additive(s)
Water base Mud 14.0 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 05/29/2013 Date drilling commenced 08/27/2013 Date drilling ceased 3/27/2014
Date completion activities began 8/19/2014 Date completion activities ceased 8/25/2014
Verbal plugging (Y/N) n/a Date permission granted n/a Granted by n/a

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 734' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 2016', 2365' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 686', 968', 1038', 1052', 1080' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

03/25/2016

API 47-103 - 02874 Farm name Coastal Lumber Company Well number 514377

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	28"	26"	40'	New	82.6#/ft	n/a	Y
Surface	17-1/2"	13-3/8"	945'	New	54.5#/ft	358', 795'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	3393'	New	40#/ft	1,766', 2,312'	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	12048'	New	20#/ft	N/A	N
Tubing							
Packer type and depth set							

Comment Details N/A

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	49	15.6	1.18	57.82	0	8
Surface	Class A	845	15.6	1.19	1005.55	0	8
Coal							
Intermediate 1	Class A	1265	15.6	1.18	1492.7	0	8
Intermediate 2							
Intermediate 3							
Production	Class A/Class H	565/645	15.2/15.6	1.07/1.86	1804.25	3,694'	72
Tubing							

Drillers TD (ft) 12056' Loggers TD (ft) N/A

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5969'

Check all wireline logs run caliper density deviated/directional induction
 neutron resistivity gamma ray temperature sonic

Well cored Yes No Conventional Sidewall Were cuttings collected Yes No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Conductor-N/A

Surface-bow spring centralizers set at 910', 687'

Intermediate-bow spring centralizers set at 3358', 2893', 2387', 1839', 1334', 829'

Production-composite centralizer ran on every joint from td up to 5356.23'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

514377 Final Formations API#47-10302874

Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
Fresh Water Zone	1	1	734	734
Coal	686	686	688	688
Sand / Shale	688	688	968	968
Coal	968	968	969	969
Sand / Shale	969	969	1038	1038
Coal	1038	1038	1045	1045
Sand / Shale	1045	1045	1052	1052
Coal	1052	1052	1054	1054
Sand / Shale	1054	1054	1080	1080
Coal	1080	1080	1086	1086
Sand / Shale	1086	1086	2183	2183
Maxton	2183	2183	2419	2419
Big Lime	2419	2419	2658	2658
Weir	2658	2658	2856	2856
Gantz	2856	2856	2972	2972
Fifty foot	2972	2972	3045	3045
Thirty foot	3045	3045	3092	3092
Gordon	3092	3092	3212	3212
Forth Sand	3212	3212	3347	3347
Bayard	3347	3347	3763	3763
Warren	3763	3763	3889	3889
Speechley	3889	3889	4763	4763
Riley	4763	4763	5374	5374
Benson	5374	5374	5747	5747
Alexander	5747	5747	7145	7052
Middlesex	7145	7052	7194	7092
Genesee	7194	7092	7307	7173
Genesee	7307	7173	7346	7197
Tully	7346	7197	7383	7218
Hamilton	7383	7218	7559	7286
Marcellus	7559	7286	12056	7329



EQT Production - Marcellus

Wetzel County, WV

Wetzel County 514377

Well 514377

API #47-10302874

Main Wellbore

Design: AS Drilled Surveys

Standard Survey Report

26 March, 2014



Where energy meets innovation.



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

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	
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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

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

03/25/2016



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Wetzel County 514377
Company:	EQT Production - Marcellus	TVD Reference:	KB @ 1348.0usft
Project:	Wetzel County, WV	MD Reference:	KB @ 1346.0usft
Site:	Wetzel County 514377	North Reference:	Grd
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



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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=6466' MD										
5,466.0	0.73	92.25	5,455.9	4,109.9	1.3	22.7	-9.3	0.29	0.11	22.00
KOP=5695' 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	7.03	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	-11.58	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	6,536.8	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:	Gnd
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	



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	7,335.8	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	328.60	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:	Gnd
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

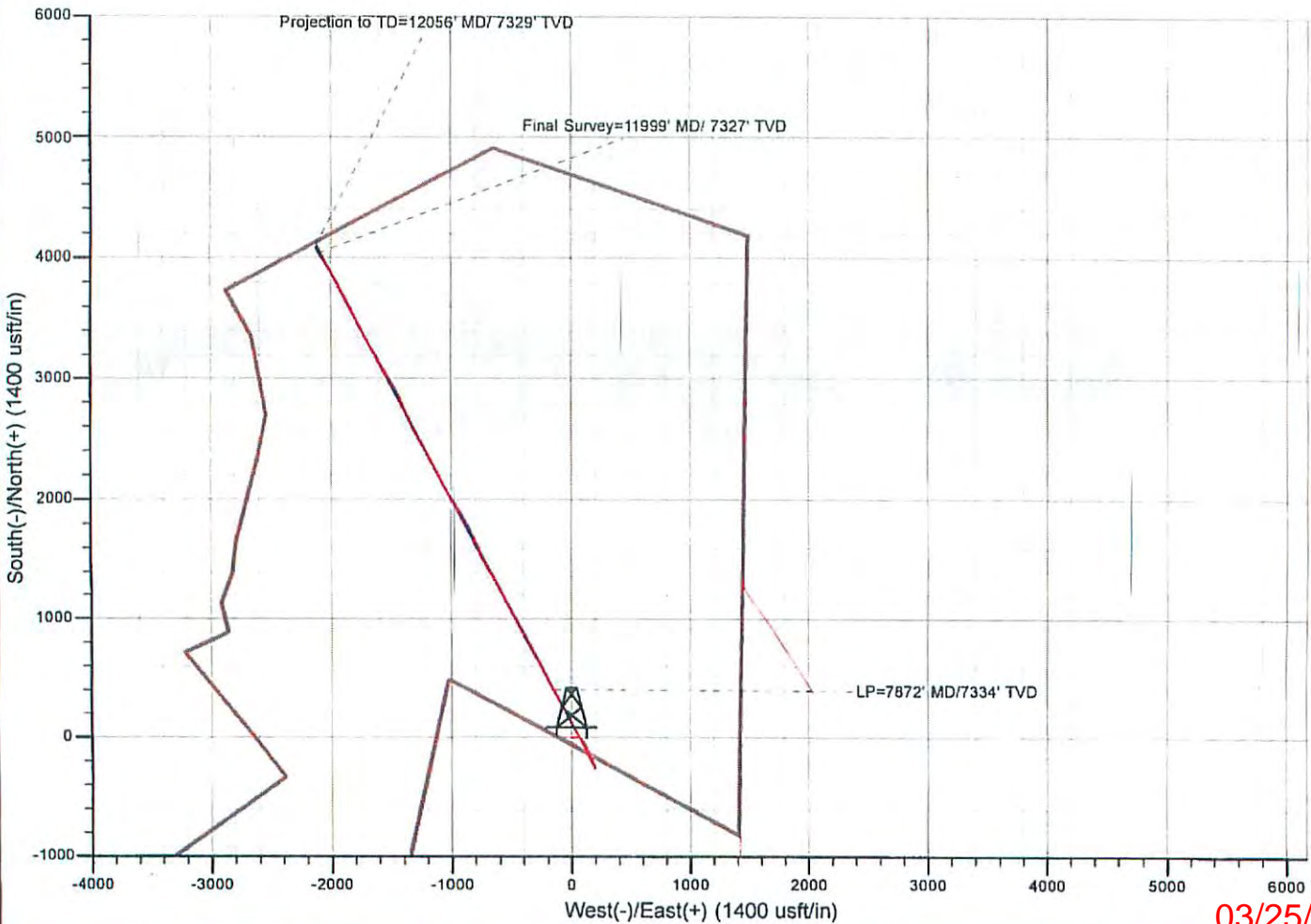
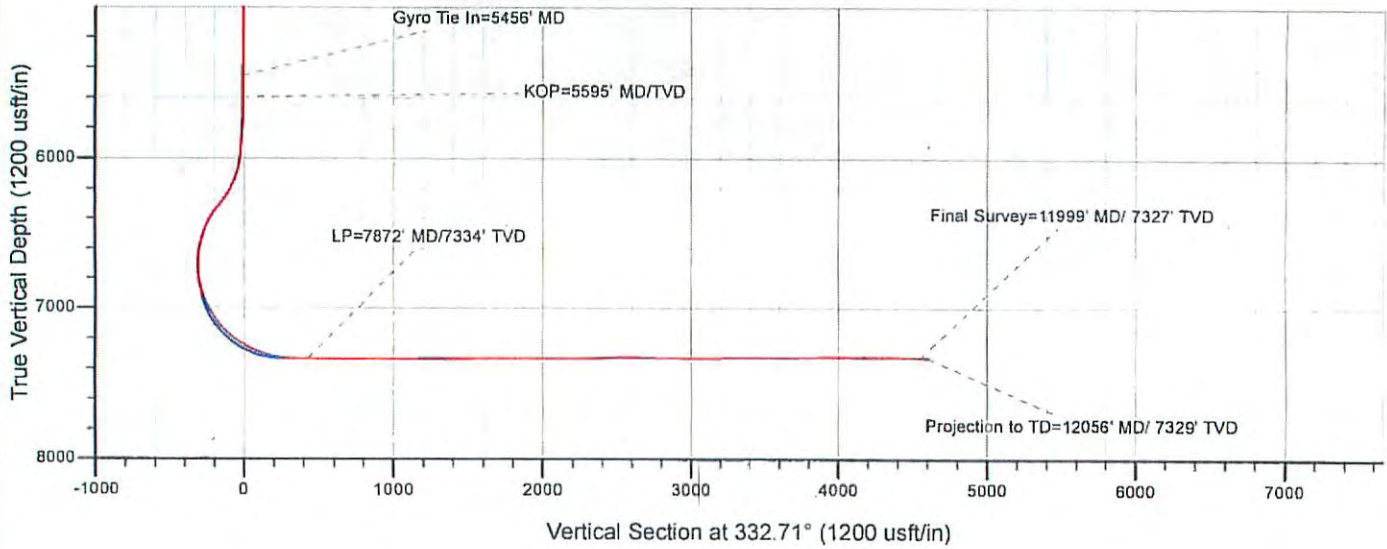
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,456.0	5,455.9	1.3	22.7	Gyro Tie In=5456' MD
5,595.0	5,594.9	1.1	24.6	KOP=5595' MD/TVD
7,872.0	7,333.9	402.9	-148.7	LP=7872' MD/7334' TVD
8,745.0	7,338.2	1,174.9	-555.7	Deepest Point of Well=8745' MD/ 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: _____



EQT Production - Marcellus

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



514377 - 47-103-02874-0000 - Perforations

<i>Stage Number</i>	<i>Perforation Date</i>	<i>Top Perf Depth (ftKB)</i>	<i>Bottom Perf Depth (ftKB)</i>	<i>Number of Shots</i>	<i>Formation</i>
Initiation Sleeve	8/18/2014	11,991.00	11,994.00	10	MARCELLUS
1	8/20/2014	11,810.00	11,947.00	32	MARCELLUS
2	8/20/2014	11,586.00	11,769.00	40	MARCELLUS
2.1 (Re-Perf)	8/20/2014	11,562.00	11,652.50	24	MARCELLUS
3	8/21/2014	11,361.00	11,543.00	40	MARCELLUS
4	8/21/2014	11,136.00	11,318.00	40	MARCELLUS
5	8/21/2014	10,911.00	11,093.00	40	MARCELLUS
6	8/21/2014	10,686.00	10,868.00	40	MARCELLUS
7	8/22/2014	10,462.00	10,643.00	40	MARCELLUS
8	8/22/2014	10,236.00	10,421.00	40	MARCELLUS
9	8/22/2014	10,011.00	10,193.00	40	MARCELLUS
10	8/23/2014	9,786.00	9,968.00	40	MARCELLUS
11	8/23/2014	9,561.00	9,743.00	40	MARCELLUS
12	8/23/2014	9,336.00	9,518.00	40	MARCELLUS
13	8/23/2014	9,111.00	9,293.00	40	MARCELLUS
14	8/24/2014	8,886.00	9,068.00	40	MARCELLUS
15	8/24/2014	8,661.00	8,843.00	40	MARCELLUS
16	8/24/2014	8,436.00	8,618.00	40	MARCELLUS
17	8/25/2014	8,211.00	8,393.00	40	MARCELLUS
18	8/25/2014	7,986.00	8,168.00	40	MARCELLUS
19	8/25/2014	7,761.00	7,943.00	40	MARCELLUS

514377 - 47-103-02874-0000 - Stimulated Stages

Stage Number	Stimulation Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
Initiation Sleeve	8/19/2014	11.20	8,565.00	10,108.00	5,518	NA	1,076	0
Injection Test	8/19/2014	15.40	8,296.00	9,324.00	4,868	NA	1,021	0
1	8/20/2014	94.70	8,647.00	9,164.00	4,590	378,904	9,400	0
2	8/20/2014	45.50	8,243.00	9,300.00	5,479	8,001	4,568	0
2.1 (Re-Perf)	8/20/2014	79.40	8,535.00	9,783.00	5,479	246,594	6,726	0
Injection Test	8/20/2014	20.00	6,700.00	NA	5,165	NA	1,935	0
3	8/21/2014	101.00	8,316.00	8,837.00	5,400	376,787	9,496	0
4	8/21/2014	100.40	8,029.00	8,980.00	5,564	376,485	10,910	0
5	8/21/2014	101.50	8,509.00	8,905.00	4,996	376,607	10,195	0
6	8/21/2014	98.30	8,785.00	9,094.00	4,767	377,283	9,384	0
7	8/22/2014	100.40	8,107.00	9,046.00	5,056	376,382	9,838	0
8	8/22/2014	100.60	8,432.00	8,778.00	5,472	375,769	9,735	0
9	8/22/2014	99.50	7,939.00	8,784.00	5,606	378,200	9,535	0
10	8/23/2014	100.20	7,729.00	8,315.00	5,516	377,128	9,485	0
11	8/23/2014	99.90	8,492.00	9,147.00	5,580	374,390	9,939	0
12	8/23/2014	98.50	8,486.00	9,112.00	4,711	374,736	9,711	0
13	8/23/2014	98.50	7,991.00	8,851.00	4,956	377,574	9,301	0
14	8/24/2014	100.20	7,867.00	8,202.00	5,067	375,866	9,015	0
15	8/24/2014	100.20	7,897.00	8,939.00	5,124	374,333	9,340	0
16	8/24/2014	98.07	8,054.00	8,592.00	5,373	378,673	9,577	0
17	8/25/2014	97.60	7,830.00	8,510.00	5,581	377,040	9,529	0
18	8/25/2014	98.60	8,034.00	8,947.00	5,204	388,900	9,589	0
19	8/25/2014	101.90	7,410.00	8,321.00	4,899	384,617	9,526	0

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/18/2014
Job End Date:	8/25/2014
State:	West Virginia
County:	Wetzel
API Number:	47-103-02874-00-00
Operator Name:	EQT Production
Well Name and Number:	PNG129 - 514377
Longitude:	-80.64074600
Latitude:	39.55231500
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	7,338
Total Base Water Volume (gal):	7,906,454
Total Base Non Water Volume:	342,965



Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	FTSI	Carrier	Water	7732-18-5	100.00000	90.05309	
Sand	FTSI	Proppant	Crystalline Silica	14808-60-7	100.00000	9.64548	
FRW-600	FTSI	Friction Reducer	Hydrotreated light distillate	54742-47-8	30.00000	0.02366	
			Ammonium acetate	631-61-8	6.00000	0.00473	
Hydrochloric Acid 15%	FTSI	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.02477	
B-10	FTSI	Buffer Agent	Potassium carbonate	584-08-7	48.00000	0.00603	
			Potassium hydroxide	1310-58-3	20.00000	0.00251	
CS-500-SI	FTSI	Scale Inhibitor	Ethylene Glycol	107-21-1	10.00000	0.00398	
HVG-1	FTSI	Gel	Petroleum Distillate	54742-47-8	55.00000	0.00190	
			Guar Gum	9000-30-0	50.00000	0.00173	
			Surfactant	58439-51-0	2.00000	0.00007	
			Clay	14808-60-7	2.00000	0.00007	

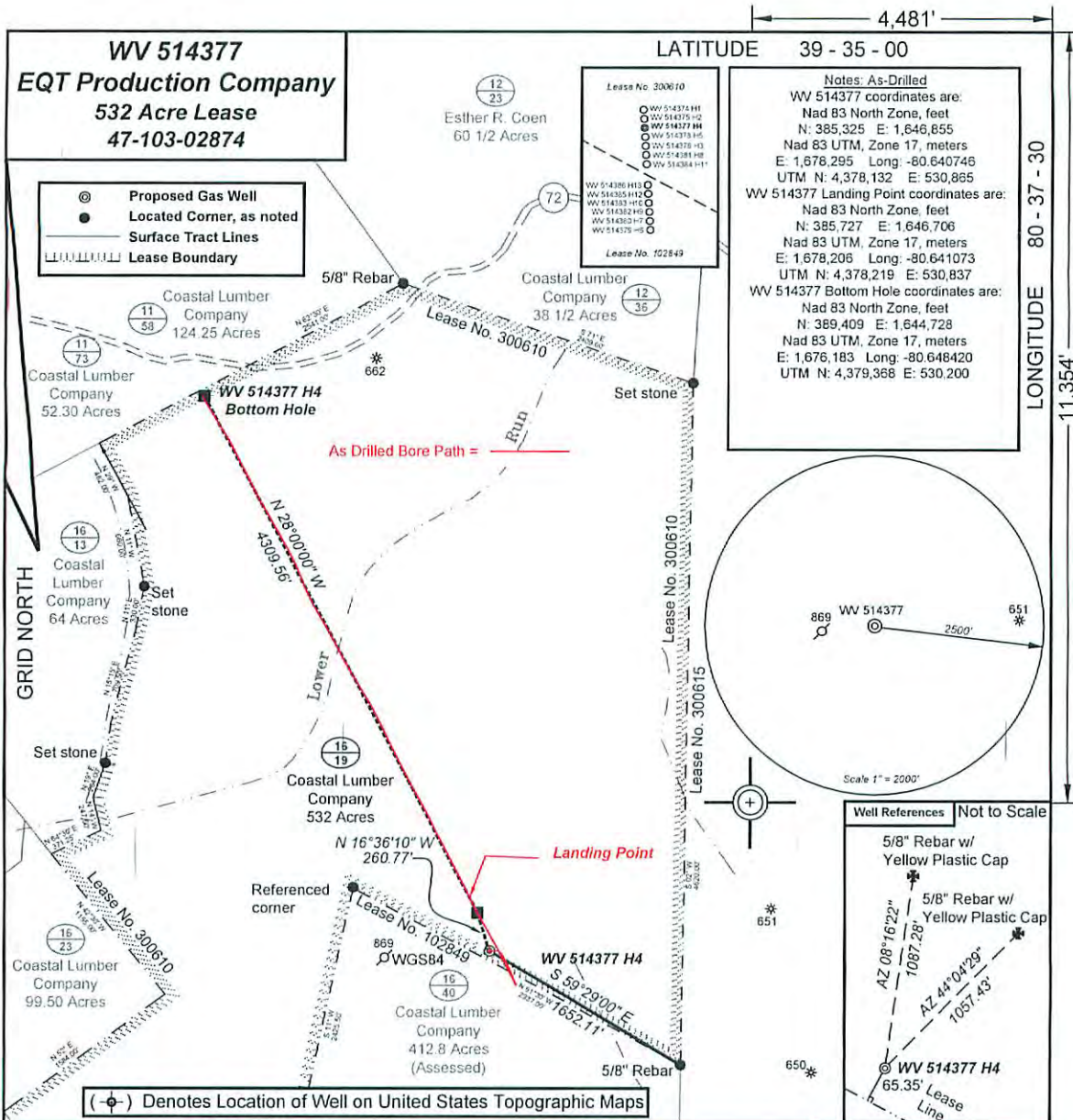
CIO2	Neptune	Biocide					
			Chlorine Dioxide	10049-04-4	100.00000	0.00051	
CI-150	FTSI	Corrosion Inhibitor					
			Ethylene Glycol	107-21-1	30.00000	0.00008	
			Organic amine resin salt	Proprietary	30.00000	0.00008	
			Isopropanol	67-63-0	30.00000	0.00008	
			Aromatic aldehyde	Proprietary	10.00000	0.00003	
			Quaternary ammonium compound	Proprietary	10.00000	0.00003	
			Dimethylformamide	68-12-2	10.00000	0.00003	
FE-100L	FTSI	Iron Control					
			Citric Acid	77-92-9	55.00000	0.00032	
NE-100	FTSI	Non-Emulsifier					
			2-Butoxyethanol	111-76-2	10.00000	0.00002	
			2-Propanol	67-63-0	10.00000	0.00002	
			Dodecylbenzenesulfonic acid	27176-87-0	5.00000	0.00001	
APB-1	FTSI	Gel Breaker					
			Ammonium Persulfate	7727-54-0	95.00000	0.00005	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS) Ingredients shown below are Non-MSDS							

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

P.S. 2092



FILE NO: 204-34-G-12 EQT PNG 129
 DRAWING NO: 204-12 PNG 129 H4
 SCALE: 1" = 1000'
 MINIMUM DEGREE OF ACCURACY: 1:2500
 PROVEN SOURCE OF ELEVATION: NGS CORS Station



DATE: April 21, 2014
 OPERATOR'S WELL NO.: WV 514377
 API WELL NO: 47-103-02874
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF GAS) PRODUCTION: STORAGE DEEP SHALLOW
 LOCATION: ELEVATION: Proposed: 1329.50 Ground: 1362.50 WATERSHED Upper Run of South Fork of Fishing Creek QUADRANGLE: Pine Grove
 DISTRICT: Grant COUNTY: Wetzel
 SURFACE OWNER: Coastal Lumber Company ACREAGE: 532
 ROYALTY OWNER: Waco Oil & Gas Co., Inc. LEASE NO: 300610 ACREAGE: 532
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: TVD 7,700 MD 13,300

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Rex C. Ray
 ADDRESS: 1710 Pennsylvania Avenue ADDRESS: 1710 Pennsylvania Avenue
Charleston, WV 25302 Charleston, WV 25302

03/25/2016