

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: 519135

API: 47 - 103 - 02793

Submission:  Initial  Amended

Notes: Please note that Stone Energy Corporation conducted the drilling operations on this well & submitted an initial WR-35. EQT Corporation performed the stimulation operations.

Please further note that Wireline Stage 19 was reperforated.

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

API 47 - 103 - 02793 County Wetzel District Magnolia  
Quad New Martinsville Pad Name Smith Field/Pool Name Mary  
Farm name Smith, Sonny and Charlotte Well Number #2H 519135  
Operator (as registered with the OOG) Stone Energy Corporation  
Address 1300 Fort Pierpont Dr. - Suite 201 City Morgantown State WV Zip 26508

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,388,536.166 Easting 516,225.853  
Landing Point of Curve Northing 4,388,080.291 Easting 515,140.859  
Bottom Hole Northing 4,386,785.138 Easting 516,901.259

Elevation (ft) 1,321 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

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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)  
Saturated salt mud which includes Caustic Soda, Barite, Lime, New-Drill, Perma-Lose HT, Xan-Plex D, X-Cide 102, Soda Ash, and Sodium Chloride

Date permit issued 10/12/12 & 5/7/14 Date drilling commenced 10/31/2013 Date drilling ceased 7/11/2014  
Date completion activities began 5/30/2018 Date completion activities ceased 6/08/2018  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

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

Freshwater depth(s) ft 100 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 2,202 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1,105 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:  
DMH

REVISIT

API 47-103 - 02793 Farm name Smith, Sonny and Charlotte Well number #2H 519135

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	24"	20"	96'	New	LS - 94.1 ppf		N - GTS
Surface	17.5"	13.375"	1,312'	New	J55 - 54.5 ppf	116' & 196'	Y - CTS
Coal	17.5"	13.375"	1,312'	New	J55 - 54.5 ppf	116' & 196'	Y - CTS
Intermediate 1	12.25"	9.625"	2,582'	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	12,444'	New	P110 - 20 ppf		N - TOC @ 1,500' Calculated
Tubing							
Packer type and depth set		TAM CAP Inflatable Packer on the 9.625" casing @ 1,183'					

Comment Details Circulated 38 bbls cement to surface on 13.375" casing string. Circulated 26 bbls cement to surface on the 9.625" casing string. Circulated no cement cement to the surface on the 5.5" casing string. TOC on 5.5" calculated to be 1,500'.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	Class "A"	957	15.6	1.19	1,139	Surface	8.0
Coal	Class "A"	957	15.6	1.19	1,139	Surface	8.0
Intermediate 1	Lead-Flex Seal Tail-Class "A"	Lead-560 Tail-329	Lead-15.4 Tail-15.6	Lead-1.28 Tail-1.19	Lead-717 Tail-392	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-TunedSpacer3 VariCem	Lead-178 Tail-2,310	Lead- 14.5 Tail-15.2	Lead-2.37 Tail-1.20	Lead-422 Tail-2,772	1,500' Calculated	7.0
Tubing							

Drillers TD (ft) 12,474 MD / 6,897 TVD      Loggers TD (ft) N/A  
 Deepest formation penetrated Marcellus Shale      Plug back to (ft) N/A  
 Plug back procedure \_\_\_\_\_

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Kick off depth (ft) 6,029 MD / 5,980' TVD

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    Surface casing had bow spring centralizers placed on joints 28 and 30. Intermediate casing had bow spring centralizers placed on joints 3, 6, 9, 12, 15, 18, 21, 24, 27 and 30.  
Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint 1 to joint 144. Ran a total of 38 rigid spiral centralizers. Ran bow spring centralizers from joint 154 to joint 283 on every third joint. A total of 44 bow spring centralizers were run.

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 \_\_\_\_\_



API 47- 103 - 02793 Farm name Smith, Sonny and Charlotte Well number #2H 519135

PRODUCING FORMATION(S)	DEPTHS		
MARCELLUS	6,834'	TVD	7,374 MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1,447 psi Bottom Hole N/A psi DURATION OF TEST 367.5 hrs

OPEN FLOW Gas 7,369 mcfpd Oil N/A bpd NGL 157 bpd Water 1,122 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
See Attached Sheet					

Please insert additional pages as applicable.


Drilling Contractor Nomac (top-hole) & Saxon Drilling (horizontal)  
Address 2034 Martins Branch Rd /9303 New Trails Drive City Mount Morris / The Woodlands State PA / TX Zip 25312 / 77381

Logging Company Scientific Drilling and Schlumberger  
Address 124 Vista Drive / 1178 US HWY 33 East City Charleroi / Weston State PA / WV Zip 15022 / 26452

Cementing Company Schlumberger  
Address 1178 US HWY 33 East City Weston State WV Zip 26452

Stimulating Company ProFrac  
Address 777 Main Street, Suite 3900 City Fort Worth State TX Zip 76102

Please insert additional pages as applicable.

Completed by Brad Maddox Telephone (412) 395-7053  
Signature  Title Completions Director Date 9/13/2018

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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**519135 47-103-02793-00-00 - 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)
1	5/31/2018	92	8,723.00	9,387.00	4,018.00	382,500.00	6,619	0
2	5/31/2018	99	8,431.00	8,714.00	4,220.00	382,380.00	6,826	0
3	5/31/2018	97	8,346.00	8,714.00	4,098.00	382,780.00	6,690	0
4	5/31/2018	97	8,313.00	8,778.00	3,665.00	382,240.00	6,340	0
5	6/4/2018	99	8,097.00	8,783.00	4,148.00	385,400.00	7,051	0
6	6/4/2018	100	8,233.00	8,438.00	4,030.00	383,520.00	6,483	0
7	6/4/2018	99	8,291.00	8,667.00	4,566.00	383,860.00	6,531	0
8	6/4/2018	100	8,232.00	8,478.00	4,140.00	384,540.00	6,347	0
9	6/5/2018	98	7,985.00	8,409.00	4,150.00	385,660.00	6,444	0
10	6/5/2018	100	7,980.00	8,275.00	4,203.00	384,500.00	6,427	0
11	6/5/2018	100	7,891.00	8,054.00	3,308.00	383,760.00	6,337	0
12	6/5/2018	99	7,450.00	7,775.00	3,338.00	386,500.00	6,381	0
13	6/5/2018	100	7,458.00	8,147.00	3,601.00	384,260.00	6,515	0
14	6/6/2018	100	7,623.00	7,957.00	4,189.00	383,800.00	6,390	0
15	6/6/2018	100	7,932.00	8,453.00	3,799.00	383,520.00	6,289	0
16	6/6/2018	100	7,899.00	8,444.00	3,782.00	383,920.00	6,229	0
17	6/6/2018	100	8,075.00	8,945.00	7,998.00	384,220.00	6,232	0
18	6/7/2018	100	7,971.00	8,876.00	4,969.00	384,460.00	6,615	0
19	6/7/2018	70	8,625.00	9,475.00	5,308.00	23,889.00	6,298	0
20	6/8/2018	100	7,568.00	8,416.00	3,691.00	574,211.00	9,084	0
21	6/8/2018	100	7,597.00	8,150.00	3,744.00	383,780.00	6,129	0
22	6/8/2018	100	7,678.00	8,157.00	4,014.00	383,840.00	6,257	0
23	6/8/2018	100	7,838.00	8,114.00	4,156.00	386,440.00	6,128	0
24	6/8/2018	100	7,707.00	8,770.00	4,457.00	383,780.00	6,109	0
25	6/8/2018	100	7,695.00	8,243.00	4,614.00	384,440.00	6,316	0

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**519135 47-103-02793-00-00 Perforations**

<b>Stage Number</b>	<b>Perforation Date</b>	<b>Top Perf Depth (ftKB)</b>	<b>Bottom Perf Depth (ftKB)</b>	<b>Number of Shots</b>	<b>Formation</b>
1	4/22/2018	12,227	12,389	30	MARCELLUS
2	5/31/2018	12,027	12,204	48	MARCELLUS
3	5/31/2018	11,827	12,004	48	MARCELLUS
4	5/31/2018	11,627	11,804	48	MARCELLUS
5	6/1/2018	11,427	11,604	48	MARCELLUS
6	6/4/2018	11,227	11,404	48	MARCELLUS
7	6/4/2018	11,027	11,204	48	MARCELLUS
8	6/4/2018	10,827	11,004	48	MARCELLUS
9	6/5/2018	10,627	10,804	48	MARCELLUS
10	6/5/2018	10,427	10,604	48	MARCELLUS
11	6/5/2018	10,227	10,404	48	MARCELLUS
12	6/5/2018	10,027	10,204	48	MARCELLUS
13	6/5/2018	9,827	10,004	48	MARCELLUS
14	6/6/2018	9,627	9,804	48	MARCELLUS
15	6/6/2018	9,427	9,604	48	MARCELLUS
16	6/6/2018	9,227	9,404	48	MARCELLUS
17	6/6/2018	9,027	9,204	48	MARCELLUS
18	6/6/2018	8,827	9,004	48	MARCELLUS
19	6/7/2018	8,590	8,804	48	MARCELLUS
20	6/8/2018	8,391	8,567	48	MARCELLUS
21	6/8/2018	8,204	8,381	48	MARCELLUS
22	6/8/2018	8,004	8,181	48	MARCELLUS
23	6/8/2018	7,804	7,981	48	MARCELLUS
24	6/8/2018	7,604	7,781	48	MARCELLUS
25	6/8/2018	7,404	7,581	48	MARCELLUS

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Smith #2H  
API 47-103-02793  
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface		*	1,105	FW @ 100
Coal	1,105		*	1,107	
Sandstone & Shale	1,107		*	2,163	
Little Lime	2,163		*	2,193	
Big Lime	2,193		*	2,293	SW @ 2,202
Big Injun	2,293		*	2,393	
Sandstone & Shale	2,393		*	2,762	
Berea Sandstone	2,762		*	2,795	
Shale	2,795		*	2,986	
Gordon	2,983		*	3,033	
Undiff Devonian Shale	3,033		*	5,875	5,912
Rhinestreet	5,875	5,912	~	6,506	6,625
Cashaqua	6,506	6,625	~	6,653	6,877
Middlesex	6,653	6,877	~	6,674	6,902
West River	6,674	6,902	~	6,733	7,050
Geneseo	6,733	7,050	~	6,749	7,094
Tully Limestone	6,749	7,094	~	6,791	7,218
Hamilton Shale	6,791	7,218	~	6,834	7,374
Marcellus	6,834	7,374	~	6,897	12,474
TD				6,897	12,474

\* From Pilot Hole Log and Driller's Log  
~ From MWD Gamma Log

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Project: Mary Prospect  
 Site: Smith Pad  
 Well: 2H  
 Wellbore: OH  
 Design: Smith 2H As Drilled



WELL DETAILS: 2H

+N/-S	+E/-W	Northing	Ground Level	1321.00	Latitude	Longitude
0.00	0.00	420232.00	Easting	1630826.00	39° 38' 46.980 N	80° 48' 39.831 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well 2H, Grid North  
 Vertical (TVD) Reference: GL 1321' & KB 18' @ 1339.00ft (Saxon 141)  
 Section (VS) Reference: Slot (0.00N, 0.00E)  
 Measured Depth Reference: GL 1321' & KB 18' @ 1339.00ft (Saxon 141)  
 Calculation Method: Minimum Curvature

PROJECT DETAILS: Mary Prospect

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North 4701  
 System Datum: Mean Sea Level

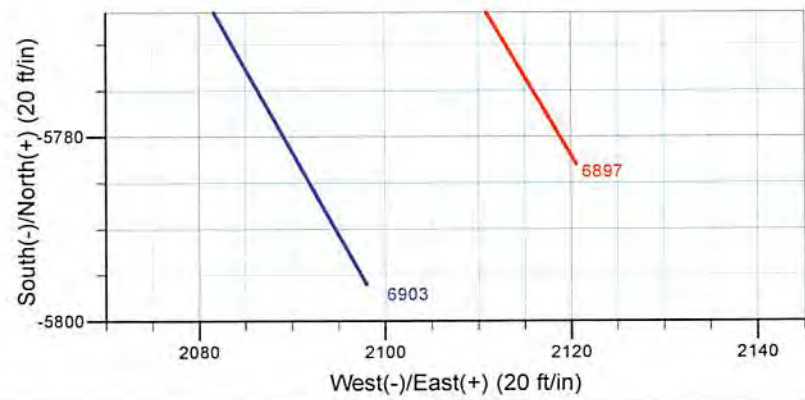
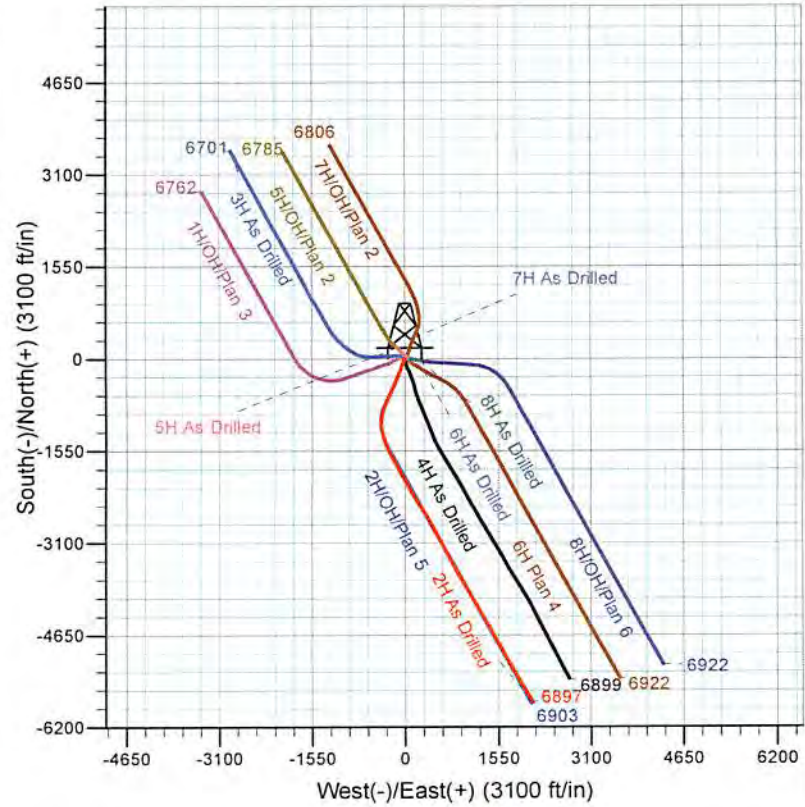
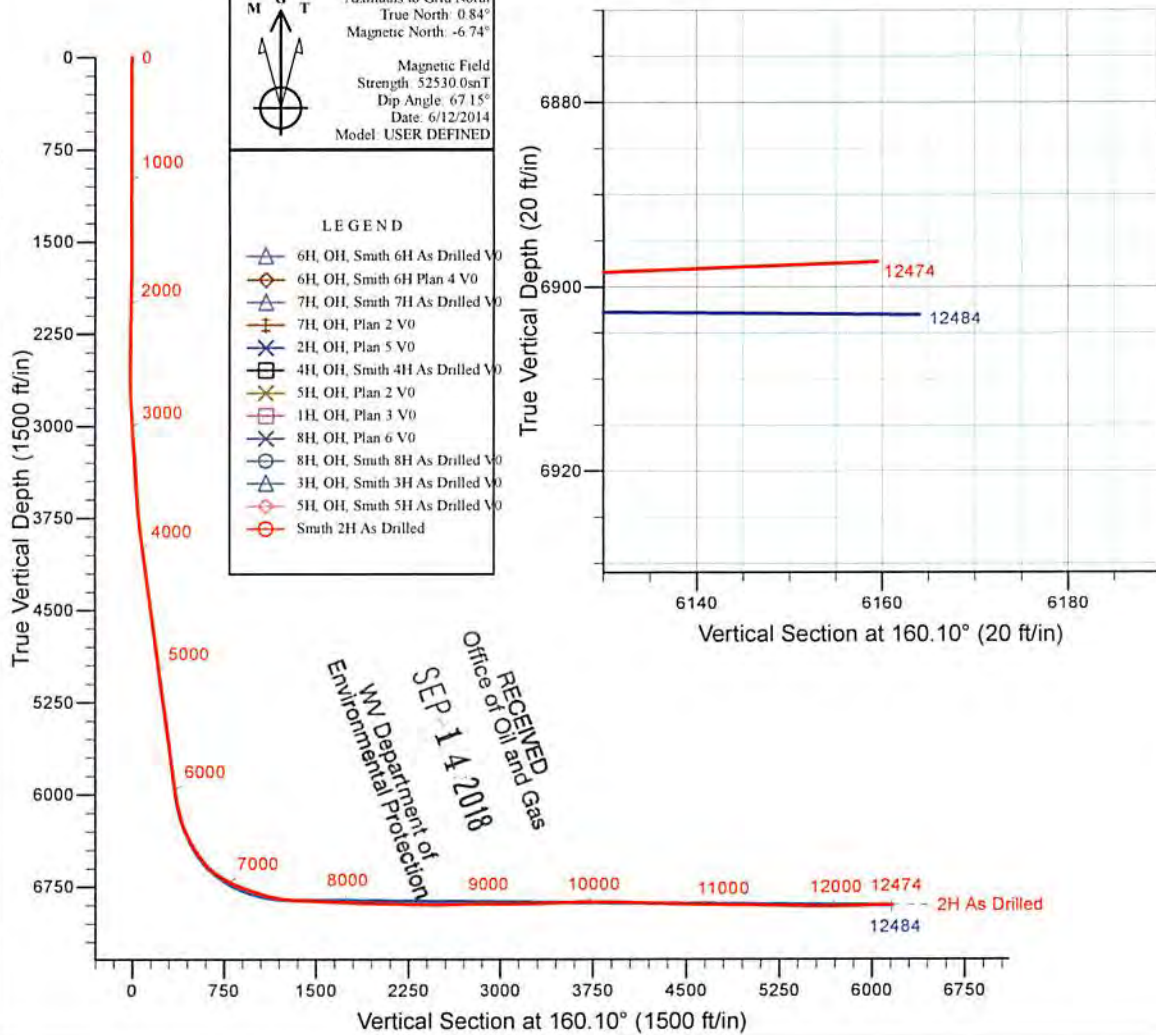
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	5914.00	10.02	203.96	5877.23	-421.31	-167.60	0.00	0.00	339.11	
2	6029.20	10.02	203.96	5990.67	-439.63	-175.74	0.00	0.00	353.56	
3	6789.37	55.22	205.58	6614.46	-800.56	-346.36	5.95	1.87	634.88	
4	7555.02	89.50	151.00	6860.00	-1485.50	-291.20	8.00	-68.36	1297.70	Smith 2H_LP3
5	12483.57	89.50	151.00	6903.01	-5796.01	2098.00	0.00	0.00	6164.04	Smith 2H_BHL3

Azimuths to Grid North  
 True North: 0.84°  
 Magnetic North: -6.74°

Magnetic Field  
 Strength: 52530.0nT  
 Dip Angle: 67.15°  
 Date: 6/12/2014  
 Model: USER DEFINED

LEGEND

- 6H, OH, Smith 6H As Drilled V0
- 6H, OH, Smith 6H Plan 4 V0
- 7H, OH, Smith 7H As Drilled V0
- 7H, OH, Plan 2 V0
- 2H, OH, Plan 5 V0
- 4H, OH, Smith 4H As Drilled V0
- 5H, OH, Plan 2 V0
- 1H, OH, Plan 3 V0
- 8H, OH, Plan 6 V0
- 8H, OH, Smith 8H As Drilled V0
- 3H, OH, Smith 3H As Drilled V0
- 5H, OH, Smith 5H As Drilled V0
- Smith 2H As Drilled





# Stone Energy

Mary Prospect

Smith Pad

2H

OH

Design: Smith 2H As Drilled

## Standard Survey Report

28 July, 2014

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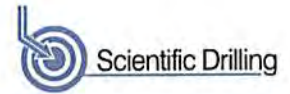
[www.scientificdrilling.com](http://www.scientificdrilling.com)







Scientific Drilling  
Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 2H
<b>Project:</b>	Mary Prospect	<b>TVD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

<b>Project</b>	Mary Prospect, West Virginia		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	West Virginia North 4701		

<b>Site</b>	Smith Pad				
<b>Site Position:</b>		<b>Northing:</b>	420,251.00 usft	<b>Latitude:</b>	39° 38' 47.168 N
<b>From:</b>	Map	<b>Easting:</b>	1,630,827.00 usft	<b>Longitude:</b>	80° 48' 39.822 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.84 °

<b>Well</b>	2H					
<b>Well Position</b>	+N/-S	0.00 ft	<b>Northing:</b>	420,232.00 usft	<b>Latitude:</b>	39° 38' 46.980 N
	+E/-W	0.00 ft	<b>Easting:</b>	1,630,826.00 usft	<b>Longitude:</b>	80° 48' 39.831 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	1,321.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2013	8/21/2013	-8.54	67.20	52,536
	BGGM2013	11/4/2013	-8.55	67.18	52,510
	BGGM2014	6/11/2014	-8.52	67.15	52,439
	User Defined	6/12/2014	-7.58	67.15	52,530

<b>Design</b>	Smith 2H As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00		160.10

<b>Survey Program</b>	Date 7/28/2014				
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
103.00	2,585.01	Survey 1 - Vaughn Gyro (OH)	VES GyroFlex		
2,585.01	12,474.00	Survey 2 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

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<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
103.00	0.30	46.65	103.00	0.19	0.20	-0.11	0.29	0.29	0.00	
<b>First Vaughn Gyro Survey</b>										
203.00	0.17	40.43	203.00	0.48	0.48	-0.28	0.13	-0.13	-6.22	
303.00	0.18	35.57	303.00	0.72	0.67	-0.45	0.02	0.01	-4.86	
403.00	0.13	35.10	403.00	0.94	0.83	-0.60	0.05	-0.05	-0.47	



Scientific Drilling  
Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 2H
<b>Project:</b>	Mary Prospect	<b>TVD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Tenon Rate (°/100usft)	
503.00	0.15	32.17	503.00	1.14	0.96	-0.75	0.02	0.02	-2.93	
603.00	0.16	35.93	603.00	1.37	1.11	-0.91	0.01	0.01	-3.76	
703.00	0.05	34.48	703.00	1.52	1.22	-1.01	0.11	-0.11	-1.45	
803.00	0.04	17.78	803.00	1.58	1.26	-1.06	0.02	-0.01	-16.70	
903.00	0.31	346.02	903.00	1.88	1.20	-1.36	0.28	0.27	-31.76	
1,003.00	0.17	336.78	1,003.00	2.28	1.08	-1.78	0.14	-0.14	-9.24	
1,103.00	0.30	333.91	1,103.00	2.65	0.90	-2.19	0.13	0.13	-2.87	
1,203.00	0.24	283.89	1,203.00	2.94	0.58	-2.56	0.23	-0.06	-50.02	
1,303.00	0.32	282.16	1,303.00	3.05	0.11	-2.83	0.08	0.08	-1.73	
1,403.00	0.39	290.76	1,402.99	3.22	-0.48	-3.20	0.09	0.07	8.60	
1,503.00	0.29	289.73	1,502.99	3.43	-1.04	-3.58	0.10	-0.10	-1.03	
1,603.00	0.32	286.54	1,602.99	3.60	-1.55	-3.91	0.03	0.03	-3.19	
1,703.00	0.33	312.87	1,702.99	3.87	-2.02	-4.33	0.15	0.01	26.33	
1,803.00	0.39	315.53	1,802.99	4.31	-2.47	-4.89	0.06	0.06	2.66	
1,903.00	0.36	317.53	1,902.99	4.78	-2.92	-5.49	0.03	-0.03	2.00	
2,003.00	0.44	346.29	2,002.98	5.39	-3.23	-6.17	0.21	0.08	28.76	
2,103.00	0.60	343.66	2,102.98	6.26	-3.47	-7.07	0.16	0.16	-2.63	
2,203.00	0.58	1.79	2,202.97	7.27	-3.60	-8.06	0.19	-0.02	18.13	
2,303.00	0.81	6.14	2,302.97	8.48	-3.51	-9.17	0.24	0.23	4.35	
2,403.00	0.56	12.92	2,402.96	9.66	-3.32	-10.21	0.26	-0.25	6.78	
2,503.01	0.56	23.93	2,502.96	10.58	-3.01	-10.98	0.11	0.00	11.01	
2,585.01	0.71	25.03	2,584.95	11.41	-2.64	-11.63	0.18	0.18	1.34	
<b>Last Vaughn Gyro Survey</b>										
2,680.00	1.04	206.35	2,679.94	11.17	-2.77	-11.45	1.84	0.35	-188.09	
<b>First SDI MWD Survey</b>										
2,770.99	4.31	208.45	2,770.82	7.42	-4.77	-8.60	3.59	3.59	2.31	
2,864.99	4.67	205.24	2,864.53	0.86	-8.08	-3.56	0.47	0.38	-3.41	
2,956.99	4.44	199.64	2,956.24	-5.88	-10.87	1.83	0.54	-0.25	-6.09	
3,048.99	5.32	207.29	3,047.91	-13.03	-14.03	7.48	1.19	0.96	8.32	
3,141.99	5.24	207.23	3,140.51	-20.64	-17.95	13.30	0.09	-0.09	-0.06	
3,231.99	4.83	201.96	3,230.17	-27.80	-21.24	18.91	0.69	-0.46	-5.86	
3,324.99	4.45	197.12	3,322.86	-34.88	-23.77	24.71	0.59	-0.41	-5.20	
3,416.99	4.26	192.91	3,414.60	-41.63	-25.58	30.43	0.40	-0.21	-4.58	
3,510.99	5.19	207.78	3,508.28	-48.79	-28.35	36.23	1.63	0.99	15.82	
3,603.99	5.06	205.34	3,600.91	-56.22	-32.06	41.95	0.27	-0.14	-2.62	
3,695.99	6.10	203.07	3,692.47	-64.38	-35.71	48.38	1.16	1.13	-2.47	
3,788.99	8.04	196.32	3,784.76	-75.17	-39.48	57.25	2.27	2.09	-7.26	
3,883.99	9.82	194.47	3,878.61	-89.39	-43.37	69.30	1.90	1.87	-1.95	
3,975.99	9.63	194.80	3,969.28	-104.43	-47.29	82.10	0.22	-0.21	0.36	
4,065.99	10.29	197.42	4,057.93	-119.38	-51.62	94.68	0.89	0.73	2.91	
4,159.99	10.17	197.18	4,150.43	-135.32	-56.59	107.98	0.14	-0.13	-0.26	
4,251.99	9.55	192.62	4,241.07	-150.52	-60.66	120.89	1.08	-0.67	-4.96	
4,343.99	9.31	198.49	4,331.83	-165.03	-64.68	133.16	1.08	-0.26	6.38	
4,433.99	10.03	201.28	4,420.55	-179.24	-69.84	144.77	0.95	0.80	3.10	





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Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 2H
<b>Project:</b>	Mary Prospect	<b>TVD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,525.99	10.59	206.05	4,511.07	-194.30	-76.46	156.67	1.11	0.61	5.18
4,618.99	10.01	204.70	4,602.57	-209.32	-83.59	168.37	0.68	-0.62	-1.45
4,711.99	9.57	199.74	4,694.22	-223.94	-89.58	180.08	1.02	-0.47	-5.33
4,803.99	9.33	195.10	4,784.97	-238.34	-94.10	192.08	0.87	-0.26	-5.04
4,898.99	9.98	199.86	4,878.63	-253.51	-98.90	204.72	1.08	0.68	5.01
4,989.99	10.43	204.43	4,968.19	-268.43	-104.99	216.67	1.02	0.49	5.02
5,082.99	10.47	204.10	5,059.65	-283.81	-111.92	228.77	0.08	0.04	-0.35
5,175.99	10.24	199.04	5,151.13	-299.34	-118.07	241.28	1.01	-0.25	-5.44
5,267.99	9.98	194.74	5,241.71	-314.78	-122.77	254.20	0.87	-0.28	-4.67
5,359.99	10.19	198.40	5,332.29	-330.21	-127.36	267.14	0.73	0.23	3.98
5,451.99	10.64	206.76	5,422.77	-345.52	-133.76	279.36	1.71	0.49	9.09
5,543.99	10.70	207.42	5,513.18	-360.68	-141.51	290.98	0.15	0.07	0.72
5,635.99	10.73	203.98	5,603.58	-376.09	-148.93	302.94	0.70	0.03	-3.74
5,728.99	10.60	197.44	5,694.98	-392.16	-155.01	315.98	1.31	-0.14	-7.03
5,821.99	9.77	205.18	5,786.52	-407.46	-160.93	328.36	1.72	-0.89	8.32
5,851.99	9.60	206.28	5,816.09	-412.01	-163.12	331.89	0.84	-0.57	3.67
5,896.00	9.45	205.82	5,859.49	-418.55	-166.32	336.95	0.38	-0.34	-1.05
5,928.00	10.47	202.66	5,891.01	-423.60	-168.58	340.93	3.62	3.19	-9.88
5,959.00	10.94	202.21	5,921.47	-428.92	-170.78	345.18	1.54	1.52	-1.45
5,991.00	10.52	201.80	5,952.91	-434.44	-173.01	349.62	1.33	-1.31	-1.28
6,023.00	10.59	201.77	5,984.37	-439.89	-175.19	354.00	0.22	0.22	-0.09
6,055.00	12.38	203.96	6,015.73	-445.75	-177.67	358.67	5.76	5.59	6.84
6,087.00	14.08	205.70	6,046.88	-452.40	-180.75	363.86	5.46	5.31	5.44
6,119.00	15.99	206.30	6,077.78	-459.85	-184.40	369.64	5.99	5.97	1.88
6,149.00	17.47	206.17	6,106.51	-467.60	-188.21	375.62	4.93	4.93	-0.43
6,179.00	19.06	207.10	6,135.00	-476.00	-192.43	382.09	5.39	5.30	3.10
6,209.00	20.63	207.68	6,163.21	-485.05	-197.12	388.99	5.27	5.23	1.93
6,239.00	22.52	207.13	6,191.11	-494.84	-202.19	396.48	6.34	6.30	-1.83
6,269.00	24.28	206.66	6,218.64	-505.47	-207.58	404.63	5.90	5.87	-1.57
6,299.00	26.72	205.73	6,245.72	-517.05	-213.28	413.59	8.24	8.13	-3.10
6,330.00	28.73	204.36	6,273.16	-530.12	-219.38	423.80	6.80	6.48	-4.42
6,360.00	30.67	204.06	6,299.22	-543.68	-225.47	434.48	6.49	6.47	-1.00
6,390.00	32.29	203.83	6,324.80	-558.00	-231.83	445.78	5.41	5.40	-0.77
6,421.00	34.11	203.71	6,350.74	-573.53	-238.67	458.05	5.87	5.87	-0.39
6,451.00	36.22	203.67	6,375.26	-589.35	-245.61	470.57	7.03	7.03	-0.13
6,481.00	38.25	203.93	6,399.14	-605.96	-252.94	483.69	6.79	6.77	0.87
6,511.00	40.27	204.36	6,422.37	-623.28	-260.70	497.33	6.79	6.73	1.43
6,542.00	41.82	204.28	6,445.75	-641.83	-269.09	511.92	5.00	5.00	-0.26
6,572.00	43.24	204.90	6,467.86	-660.27	-277.53	526.39	4.94	4.73	2.07
6,602.00	44.97	204.77	6,489.40	-679.22	-286.29	541.22	5.77	5.77	-0.43
6,632.00	46.43	203.97	6,510.35	-698.77	-295.15	556.60	5.23	4.87	-2.67
6,662.00	47.07	204.78	6,530.91	-718.68	-304.17	572.24	2.90	2.13	2.70
6,692.00	48.50	204.60	6,551.06	-738.86	-313.45	588.06	4.79	4.77	-0.60



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Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 2H
<b>Project:</b>	Mary Prospect	<b>TVD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Rate (°/100usft)
6,723.00	51.11	204.73	6,571.07	-760.38	-323.33	604.93	8.43	8.42	0.42
6,753.00	52.77	204.28	6,589.56	-781.87	-333.13	621.81	5.66	5.53	-1.50
6,783.00	54.04	201.61	6,607.45	-804.05	-342.51	639.47	8.30	4.23	-8.90
6,813.00	55.67	199.35	6,624.72	-827.03	-351.09	658.16	8.21	5.43	-7.53
6,844.00	57.89	196.75	6,641.71	-851.69	-359.12	678.61	10.02	7.16	-8.39
6,874.00	60.20	194.62	6,657.14	-876.45	-366.06	699.53	9.82	7.70	-7.10
6,904.00	61.61	193.04	6,671.72	-901.91	-372.33	721.33	6.58	4.70	-5.27
6,935.00	63.13	192.23	6,686.10	-928.71	-378.33	744.49	5.42	4.90	-2.61
6,965.00	64.49	191.15	6,699.34	-955.07	-383.79	767.42	5.57	4.53	-3.60
6,997.00	66.61	189.41	6,712.59	-983.73	-388.98	792.60	8.27	6.63	-5.44
7,027.00	67.23	187.77	6,724.35	-1,011.01	-393.10	816.85	5.44	2.07	-5.47
7,059.00	68.82	185.30	6,736.32	-1,040.49	-396.48	843.43	8.71	4.97	-7.72
7,091.00	70.05	182.72	6,747.56	-1,070.38	-398.57	870.81	8.47	3.84	-8.06
7,122.00	70.60	179.55	6,758.00	-1,099.56	-399.14	898.05	9.79	1.77	-10.23
7,154.00	70.78	176.54	6,768.59	-1,129.73	-398.11	926.78	8.89	0.56	-9.41
7,186.00	70.32	174.04	6,779.25	-1,159.80	-395.64	955.90	7.51	-1.44	-7.81
7,218.00	70.64	171.78	6,789.94	-1,189.73	-391.91	985.31	6.73	1.00	-7.06
7,249.00	71.85	169.47	6,799.91	-1,218.69	-387.13	1,014.16	8.06	3.90	-7.45
7,281.00	73.39	167.99	6,809.47	-1,248.64	-381.16	1,044.35	6.53	4.81	-4.63
7,313.00	73.84	166.54	6,818.49	-1,278.58	-374.39	1,074.81	4.57	1.41	-4.53
7,345.00	74.80	164.70	6,827.14	-1,308.42	-366.74	1,105.48	6.30	3.00	-5.75
7,377.00	76.65	163.52	6,835.03	-1,338.25	-358.25	1,136.41	6.80	5.78	-3.69
7,408.00	78.46	162.33	6,841.71	-1,367.18	-349.36	1,166.65	6.94	5.84	-3.84
7,440.00	79.98	161.49	6,847.70	-1,397.06	-339.60	1,198.06	5.40	4.75	-2.63
7,472.00	82.12	160.37	6,852.68	-1,426.94	-329.27	1,229.67	7.53	6.69	-3.50
7,504.00	84.05	158.91	6,856.53	-1,456.72	-318.22	1,261.43	7.54	6.03	-4.56
7,534.00	85.47	156.45	6,859.27	-1,484.35	-306.87	1,291.28	9.44	4.73	-8.20
7,541.59	85.89	156.00	6,859.84	-1,491.27	-303.83	1,298.82	8.03	5.48	-5.89
<b>Smith 2H_LP3</b>									
7,567.00	87.28	154.51	6,861.36	-1,514.31	-293.21	1,324.10	8.03	5.49	-5.88
7,599.00	87.58	153.04	6,862.79	-1,542.99	-279.08	1,355.87	4.68	0.94	-4.59
7,663.00	87.68	151.56	6,865.44	-1,599.60	-249.36	1,419.23	2.32	0.16	-2.31
7,726.00	87.21	151.84	6,868.25	-1,655.02	-219.52	1,481.49	0.87	-0.75	0.44
7,790.00	87.24	151.93	6,871.34	-1,711.40	-189.40	1,544.76	0.15	0.05	0.14
7,853.00	87.38	151.73	6,874.30	-1,766.88	-159.69	1,607.03	0.39	0.22	-0.32
7,916.00	87.75	151.91	6,876.98	-1,822.36	-129.96	1,669.32	0.65	0.59	0.29
7,979.00	87.75	151.69	6,879.45	-1,877.84	-100.21	1,731.61	0.35	0.00	-0.35
8,042.00	87.71	150.99	6,881.95	-1,933.08	-70.02	1,793.83	1.11	-0.06	-1.11
8,106.00	87.75	151.06	6,884.48	-1,989.02	-39.04	1,856.98	0.13	0.06	0.11
8,170.00	88.32	151.13	6,886.68	-2,045.01	-8.13	1,920.15	0.90	0.89	0.11
8,233.00	88.96	151.08	6,888.17	-2,100.16	22.31	1,982.36	1.02	1.02	-0.08
8,297.00	89.46	151.31	6,889.05	-2,156.23	53.14	2,045.58	0.66	0.78	0.36
8,361.00	89.02	150.35	6,889.90	-2,212.11	84.33	2,108.74	1.65	-0.69	-1.50
8,423.00	88.39	149.20	6,891.30	-2,265.67	115.53	2,169.72	2.11	-1.02	-1.85





Scientific Drilling  
Survey Report



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<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

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Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Rate (°/100usft)
8,486.00	88.46	148.39	6,893.04	-2,319.53	148.16	2,231.47	1.29	0.11	-1.29
8,550.00	88.79	148.25	6,894.57	-2,373.98	181.76	2,294.10	0.56	0.52	-0.22
8,613.00	88.96	147.76	6,895.81	-2,427.40	215.14	2,355.69	0.82	0.27	-0.78
8,677.00	89.33	147.94	6,896.76	-2,481.58	249.19	2,418.23	0.64	0.58	0.28
8,740.00	90.91	147.89	6,896.63	-2,534.95	282.65	2,479.81	2.51	2.51	-0.08
8,803.00	90.94	146.77	6,895.61	-2,587.98	316.65	2,541.24	1.78	0.05	-1.78
8,867.00	90.17	146.77	6,894.99	-2,641.51	351.72	2,603.51	1.20	-1.20	0.00
8,930.00	90.84	149.66	6,894.44	-2,695.05	384.90	2,665.15	4.71	1.06	4.59
8,994.00	91.11	149.81	6,893.35	-2,750.32	417.15	2,728.10	0.48	0.42	0.23
9,057.00	91.28	150.74	6,892.04	-2,805.02	448.39	2,790.16	1.50	0.27	1.48
9,121.00	91.51	151.47	6,890.48	-2,861.03	479.30	2,853.35	1.20	0.36	1.14
9,184.00	91.07	152.07	6,889.06	-2,916.53	509.09	2,915.67	1.18	-0.70	0.95
9,248.00	88.45	151.71	6,889.33	-2,972.97	539.24	2,979.01	4.13	-4.09	-0.56
9,311.00	89.53	152.51	6,890.44	-3,028.64	568.71	3,041.39	2.13	1.71	1.27
9,374.00	90.24	152.88	6,890.56	-3,084.62	597.61	3,103.86	1.27	1.13	0.59
9,438.00	91.51	153.97	6,889.59	-3,141.85	626.24	3,167.42	2.61	1.98	1.70
9,502.00	91.08	152.91	6,888.14	-3,199.08	654.85	3,230.97	1.79	-0.67	-1.66
9,566.00	91.44	152.76	6,886.73	-3,256.01	684.06	3,294.44	0.61	0.56	-0.23
9,629.00	90.64	151.40	6,885.59	-3,311.67	713.55	3,356.81	2.50	-1.27	-2.16
9,693.00	91.78	151.49	6,884.24	-3,367.87	744.14	3,420.06	1.79	1.78	0.14
9,756.00	91.98	151.19	6,882.17	-3,423.12	774.33	3,482.30	0.57	0.32	-0.48
9,820.00	92.02	150.91	6,879.94	-3,479.09	805.29	3,545.46	0.44	0.06	-0.44
9,884.00	92.18	151.04	6,877.59	-3,535.01	836.33	3,608.61	0.32	0.25	0.20
9,948.00	92.62	151.45	6,874.91	-3,591.07	867.09	3,671.79	0.94	0.69	0.64
10,011.00	90.47	151.07	6,873.21	-3,646.29	897.37	3,734.01	3.47	-3.41	-0.60
10,074.00	88.66	150.94	6,873.69	-3,701.39	927.90	3,796.22	2.88	-2.87	-0.21
10,138.00	88.72	150.83	6,875.16	-3,757.29	959.04	3,859.37	0.20	0.09	-0.17
10,202.00	88.22	150.07	6,876.86	-3,812.94	990.59	3,922.45	1.42	-0.78	-1.19
10,266.00	88.05	149.75	6,878.95	-3,868.29	1,022.66	3,985.40	0.57	-0.27	-0.50
10,329.00	88.19	149.50	6,881.01	-3,922.61	1,054.50	4,047.32	0.45	0.22	-0.40
10,393.00	88.56	149.17	6,882.83	-3,977.64	1,087.12	4,110.17	0.77	0.58	-0.52
10,457.00	88.56	148.60	6,884.44	-4,032.41	1,120.19	4,172.92	0.89	0.00	-0.89
10,521.00	88.89	148.87	6,885.86	-4,087.10	1,153.39	4,235.65	0.67	0.52	0.42
10,584.00	88.59	149.72	6,887.25	-4,141.26	1,185.55	4,297.52	1.43	-0.48	1.35
10,648.00	88.42	150.72	6,888.92	-4,196.79	1,217.33	4,360.55	1.58	-0.27	1.56
10,712.00	88.62	150.22	6,890.57	-4,252.45	1,248.86	4,423.63	0.84	0.31	-0.78
10,775.00	88.79	150.38	6,891.99	-4,307.16	1,280.07	4,485.69	0.37	0.27	0.25
10,840.00	89.03	150.44	6,893.23	-4,363.68	1,312.16	4,549.75	0.38	0.37	0.09
10,903.00	89.29	150.34	6,894.15	-4,418.44	1,343.28	4,611.84	0.44	0.41	-0.16
10,966.00	88.49	150.26	6,895.37	-4,473.16	1,374.49	4,673.91	1.28	-1.27	-0.13
11,030.00	88.22	150.52	6,897.21	-4,528.78	1,406.10	4,736.97	0.59	-0.42	0.41
11,093.00	88.69	150.69	6,898.91	-4,583.64	1,437.01	4,799.08	0.79	0.75	0.27
11,157.00	89.60	151.43	6,899.86	-4,639.65	1,467.98	4,862.28	1.83	1.42	1.16





**Scientific Drilling**  
Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 2H
<b>Project:</b>	Mary Prospect	<b>TVD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Site:</b>	Smith Pad	<b>MD Reference:</b>	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
<b>Well:</b>	2H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Smith 2H As Drilled	<b>Database:</b>	Northeast District

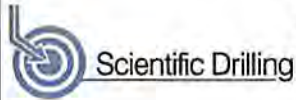
**Survey**

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,221.00	90.27	151.70	6,899.94	-4,695.92	1,498.45	4,925.57	1.13	1.05	0.42
11,284.00	90.70	151.91	6,899.40	-4,751.45	1,528.22	4,987.91	0.76	0.68	0.33
11,348.00	89.33	151.32	6,899.39	-4,807.75	1,558.64	5,051.20	2.33	-2.14	-0.92
11,411.00	88.99	151.02	6,900.31	-4,862.94	1,589.02	5,113.43	0.72	-0.54	-0.48
11,475.00	88.25	150.65	6,901.85	-4,918.81	1,620.20	5,176.58	1.29	-1.16	-0.58
11,539.00	87.95	150.48	6,903.97	-4,974.51	1,651.63	5,239.66	0.54	-0.47	-0.27
11,603.00	88.35	150.78	6,906.04	-5,030.26	1,683.00	5,302.75	0.78	0.63	0.47
11,666.00	88.79	150.59	6,907.61	-5,085.17	1,713.84	5,364.89	0.76	0.70	-0.30
11,730.00	89.06	151.06	6,908.81	-5,141.04	1,745.03	5,428.04	0.85	0.42	0.73
11,794.00	89.29	151.28	6,909.73	-5,197.11	1,775.89	5,491.25	0.50	0.36	0.34
11,857.00	89.33	150.53	6,910.49	-5,252.15	1,806.52	5,553.44	1.19	0.06	-1.19
11,921.00	90.10	150.16	6,910.81	-5,307.77	1,838.19	5,616.51	1.33	1.20	-0.58
11,984.00	90.47	149.37	6,910.50	-5,362.20	1,869.91	5,678.49	1.38	0.59	-1.25
12,048.00	90.77	149.10	6,909.81	-5,417.19	1,902.65	5,741.34	0.63	0.47	-0.42
12,112.00	91.14	149.03	6,908.74	-5,472.07	1,935.54	5,804.15	0.59	0.58	-0.11
12,175.00	91.31	149.03	6,907.39	-5,526.08	1,967.95	5,865.96	0.27	0.27	0.00
12,239.00	91.85	149.02	6,905.63	-5,580.93	2,000.88	5,928.74	0.84	0.84	-0.02
12,302.00	92.18	148.85	6,903.41	-5,634.86	2,033.37	5,990.51	0.59	0.52	-0.27
12,365.00	91.81	149.67	6,901.22	-5,688.98	2,065.55	6,052.35	1.43	-0.59	1.30
12,416.00	92.15	149.66	6,899.46	-5,732.97	2,091.29	6,102.48	0.67	0.67	-0.02
<b>Last SDI MWD Survey</b>									
12,473.63	92.15	149.66	6,897.30	-5,782.67	2,120.38	6,159.11	0.00	0.00	0.00
<b>Smith 2H_BHL3</b>									
12,474.00	92.15	149.66	6,897.28	-5,782.99	2,120.57	6,159.48	0.00	0.00	0.00
<b>Projection to Bit</b>									

<b>Design Annotations</b>				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
103.00	103.00	0.19	0.20	First Vaughn Gyro Survey
2,585.01	2,584.95	11.41	-2.64	Last Vaughn Gyro Survey
2,680.00	2,679.94	11.17	-2.77	First SDI MWD Survey
12,416.00	6,899.46	-5,732.97	2,091.29	Last SDI MWD Survey
12,474.00	6,897.28	-5,782.99	2,120.57	Projection to Bit

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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**Job No.:** 230714HMP170555  
**Company:** Stone Energy  
**Location:** Wetzel  
**Rig Name:** Saxon 141  
**State:** West Virginia  
**County:** Wetzel  
**Well Name:** Smith 2H  
**Lead Directional :** JL Cassels

**Report Time:** 2400 1 of 9  
**API Job #**  
**WORK ORDER#** 170555  
**Field:** Mary prospect  
**Township:**  
**Range/Section**  
**Company Man** Brent Metheney  
**2nd Dir Hand :** Tom Lockard

From Thursday, July 03, 2014 at 0000 to Thursday, July 03, 2014 at 2400

Daily Totals			Assembly Totals								
Start Depth	0.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	0.00										
Below Rot Hrs.	0.00										
Total Drilled:	0.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 0			
Avg. Total ROP:	NA	WOB:	0	Weight:	0	Bit No:					
Slide Footage:	0.00	Rot Wt:	0	Visc:	0	Model					
Slide Hours	0.00	Pick Up:	0	Chlorides:	0	SN.:					
Avg. Slide ROP:	NA	Slack Off:	0	YP:	0	MFG.					
Rotate Footage:	0.00	SPP:	0	PV:	0	Type					
Rotary Hours	0.00	Flow:	0 - 0	PHI:	0	IADC					
Avg. Rot ROP:	NA	SPM:	0	GAS:	0	Jets					
Circ Hours	0.00	Rot. RPM	-	SAND:	0	TFA:					
Ream Hours	0.00	Mot RPM:	-	WL:	0	Hole ID: N/A					
Rotary Hrs%:	NA	Incl. In:	0	Solid:	0	Bit Hrs:					
Slide Hrs%:	NA	Azm. In:	0	BHT°:	0	Bit Ftg:					
Rotary Ftg%:	NA	Incl. Out:	0	Flow T°:	0	Pumps					
Slide Ftg%:	NA	Azm. Out:	0	Oil %:	0	Liner	0	0			
Casing											
Size	Lb/Ft	MD									
		Cost Breakdown									
				Effic.	95.00%	95.00%					
				Gal/Stk	0.00	0.00					
				BBL/Stk	0.000	0.000					

General Comment

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	Comment
00:01	24:00	23.98	0	0	0	.00	Standby	Standby, rig N/U and test BOP

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## Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/30/2018
Job End Date:	6/8/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-02793-00-00
Operator Name:	EQT Production
Well Name and Number:	519135
Latitude:	39.64638300
Longitude:	-80.81106400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,834
Total Base Water Volume (gal):	6,848,755
Total Base Non Water Volume:	0



### 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	ProFrac	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	85.53730	None
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				Listed Below			

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ProFe 105	ProFrac	Iron Control					
				Listed Below			
Sand (Proppant)	ProFrac	Proppant					
				Listed Below			
StimSTREAM SC-398	ChemStream, Inc.	Scale Inhibitor					
				Listed Below			
StimSTREAM FR 9700	ChemStream, Inc.	Friction Reducer					
				Listed Below			
Clearal 268	ChemStream, Inc.	Biocide					
				Listed Below			
ProHib 100	ProFrac	Acid Inhibitor					
				Listed Below			
Hydrochloric Acid (15%)	ProFrac	Acidizing					
				Listed Below			

Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.

			Silica Substrate	14808-60-7	100.00000	14.11661	None
			Hydrochloric Acid	7647-01-0	15.00000	0.03768	None
			Non-Hazardous Substances	Proprietary	90.00000	0.02061	None
			Non-Hazardous Substances	Proprietary	90.00000	0.02061	

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			Non-Hazardous Substances	Proprietary	90.00000	0.01705	None
			Distillates (Petroleum), Hydrotreated Light	64742-47-8	30.00000	0.01545	None
			Glutaraldehyde	111-30-8	20.00000	0.00379	None
			Alcohols, C11-14-iso-, C13-Rich, Ethoxylated	78330-21-9	5.00000	0.00257	
			Alcohols, C11-14-iso-, C13-Rich, Ethoxylated	78330-21-9	5.00000	0.00257	None
			Bis(HexaMethylene Triamine Penta (Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00229	
			Bis(HexaMethylene Triamine Penta (Methylene Phosphonic Acid) (BHMT)	34690-00-1	10.00000	0.00229	None
			Citric Acid	77-92-9	100.00000	0.00104	
			Citric Acid	77-92-9	100.00000	0.00104	None
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00057	None
			Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00057	None
			Methanol	67-56-1	90.00000	0.00046	None
			Methanol	67-56-1	90.00000	0.00046	
			Imidazoline	61790-69-0	5.00000	0.00003	
			Proargyl Alcohol	107-19-7	5.00000	0.00003	None
			Proargyl Alcohol	107-19-7	5.00000	0.00003	
			Isopropanol	67-63-0	5.00000	0.00003	
			Xylene	1330-20-7	5.00000	0.00003	
			Isopropanol	67-63-0	5.00000	0.00003	None
			Alcohols, C7-9-Iso, C8-Rich	68526-83-0	5.00000	0.00003	
			Alcohols, C7-9-Iso, C8-Rich	68526-83-0	5.00000	0.00003	None
			Imidazoline	61790-69-0	5.00000	0.00003	None
			Xylene	1330-20-7	5.00000	0.00003	None

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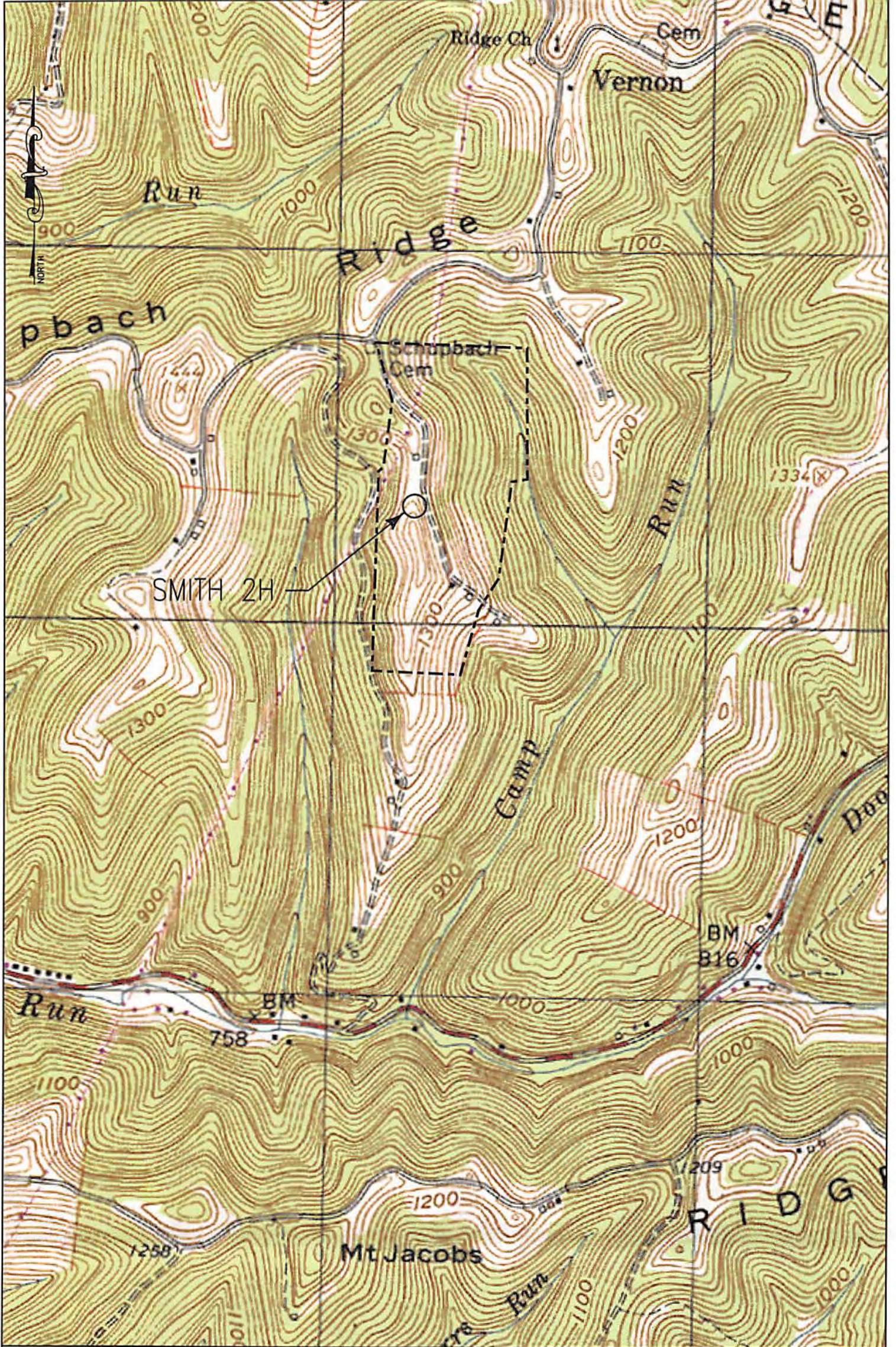
	Ethylbenzene	100-41-4	1.00000	0.00001	None
	Ethylbenzene	100-41-4	1.00000	0.00001	

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water  
 \*\* Information is based on the maximum potential for concentration and thus the total may be over 100%  
 \*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)

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KEYSTONE CONSULTANTS, INC.  
 32 EAST MAIN STREET,  
 CARNEGIE, PA 15106  
 412-278-2100

1" = 1000'  
 NEW MARTINSVILLE 7.5'

EQT PRODUCTION COMPANY  
 115 PROFESSIONAL PLACE  
 PO BOX 280  
 BRIDGEPORT, WV 26330



LATITUDE 39° 40' 00"

TH: 5,450'

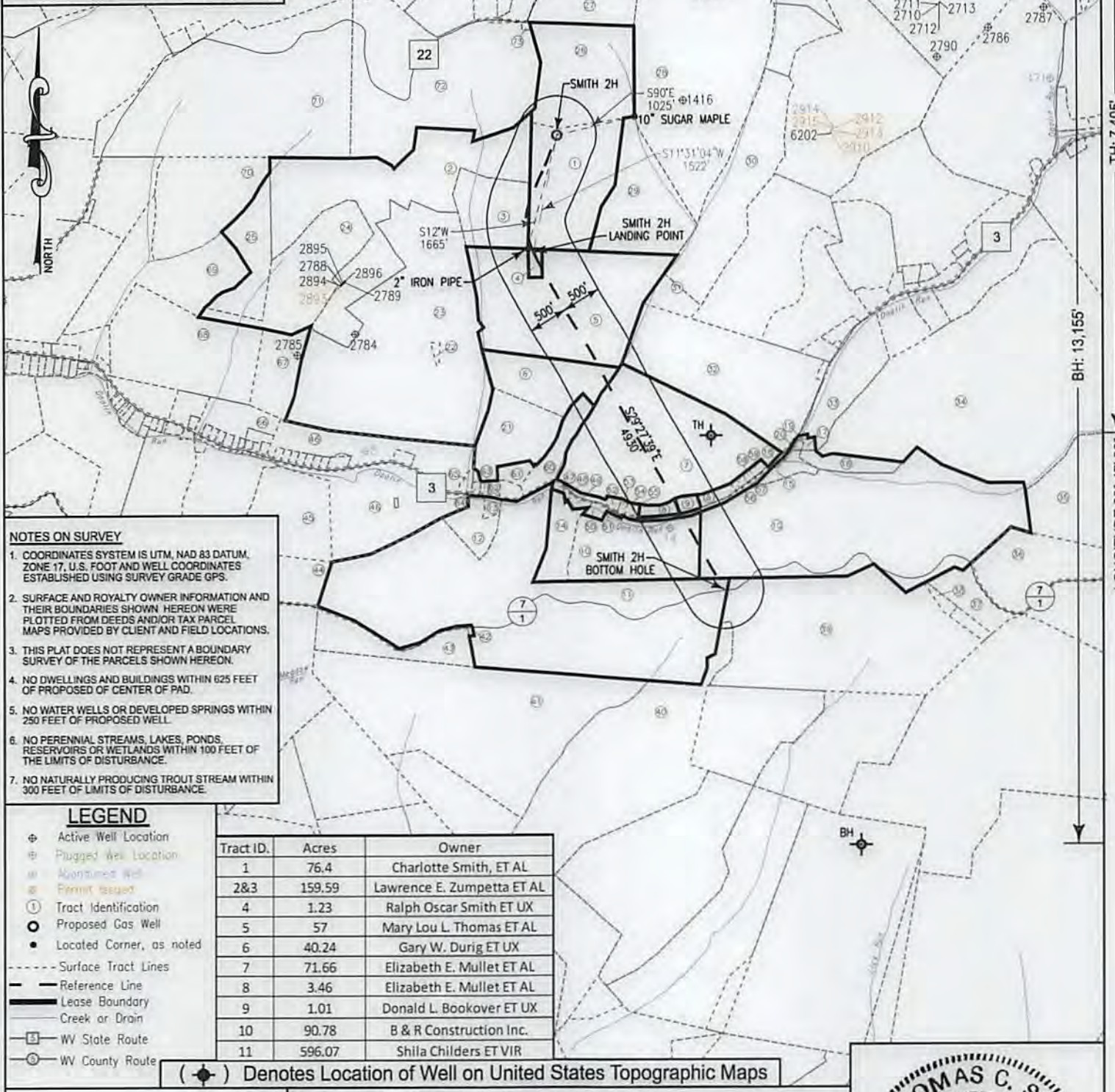
BH: 3,245'

TH: 7,405'

BH: 13,155'

LONGITUDE 80° 47' 30"

**Smith 2H  
Smith  
EQT Production Company**



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

**LEGEND**

- ⊕ Active Well Location
- ⊕ Plugged Well Location
- ⊕ Abandoned Well
- ⊕ Permit Issued
- ① Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⊠ WV State Route
- ⊙ WV County Route

Tract ID.	Acre	Owner
1	76.4	Charlotte Smith, ET AL
2&3	159.59	Lawrence E. Zumpetta ET AL
4	1.23	Ralph Oscar Smith ET UX
5	57	Mary Lou L. Thomas ET AL
6	40.24	Gary W. Durig ET UX
7	71.66	Elizabeth E. Mullet ET AL
8	3.46	Elizabeth E. Mullet ET AL
9	1.01	Donald L. Bookover ET UX
10	90.78	B & R Construction Inc.
11	596.07	Shila Childers ET VIR

(⊕) Denotes Location of Well on United States Topographic Maps



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.

*L. L. S.*

L. L. S. 687



FILE NO: W2032 (BK 49-6)  
 DRAWING NO:  
 SCALE: 1" = 1800'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE: DECEMBER 4 20 17  
 OPERATORS WELL NO: SMITH 2H  
 API WELL NO  
 47 - 103 - 02793  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1335' WATERSHED: TRIBUTARY OF DOOLIN RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
 DISTRICT: Magnolia COUNTY: Wetzel

SURFACE OWNER: Charlotte Smith ACREAGE: 38.9 ±  
 ROYALTY OWNER: Charlotte Smith, ET AL LEASE NO: 873632 ACREAGE: 76.4 ±

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: 6,880'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330

AS-BUILT



ADDRESS: 112 Professional Place PO Box 380  
 MEGG OPERATOR: EOT Production Company

ADDRESS: 112 Professional Place PO Box 380  
 DESIGNATED AGENT: Jason Hanson

PLUG AND ABANDON  CLEAN OUT AND REGRUE  TARGET FORMATION: Marcellus ESTIMATED DEPTH: 8,880.  
 REFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PROPOSED WORK:  DRILL  COMPLET  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION

ROYALTY OWNER: Charlotte Smith, ET AL LEASE NO: 833835 ACREAGE: 18.4 ±  
 SURFACE OWNER: Charlotte Smith ACREAGE: 38.8 ±

DISTRICT: Morgan COUNTY: West

LOCATION ELEVATION: 1332 WATERSHED: TRIBUTARY OF DOGUE RIVER QUADRANGLE: NEW MARTINSVILLE T.S.  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL



STATE: WV COUNTY: 103 PERMIT: 052583  
 API WELL NO:  
 OPERATORS WELL NO: 2 WITH SH  
 DATE: DECEMBER 4 20 17

WGS CORP Station  
 PROVEN SOURCE OF ELEVATION:  
 1:5200  
 MINIMUM DEGREE OF ACCURACY:  
 SCALE: 1" = 1900'  
 DRAWING NO:  
 FIGE NO: W5035 (BK 48-8)



188.2.081  
 Department of Environmental Protection  
 The regulations issued and prescribed by the  
 and shows all the information required by law and  
 and to the best of my knowledge and belief  
 correct to the best of my knowledge and belief.  
 I, the undersigned, hereby certify that this plat is



- (\*) Denotes location of Well on United States Topographic Maps
- Well County Route
  - Well State Route
  - Creek or Drain
  - Lease Boundary
  - Reference Line
  - - - Surface tract lines
  - Located corner, as noted
  - Proposed Gas Well
  - ① Tract Identification
  - ⊕ Boundary Marker
  - ⊕ Proposed Well Location
  - ⊕ Active Well Location

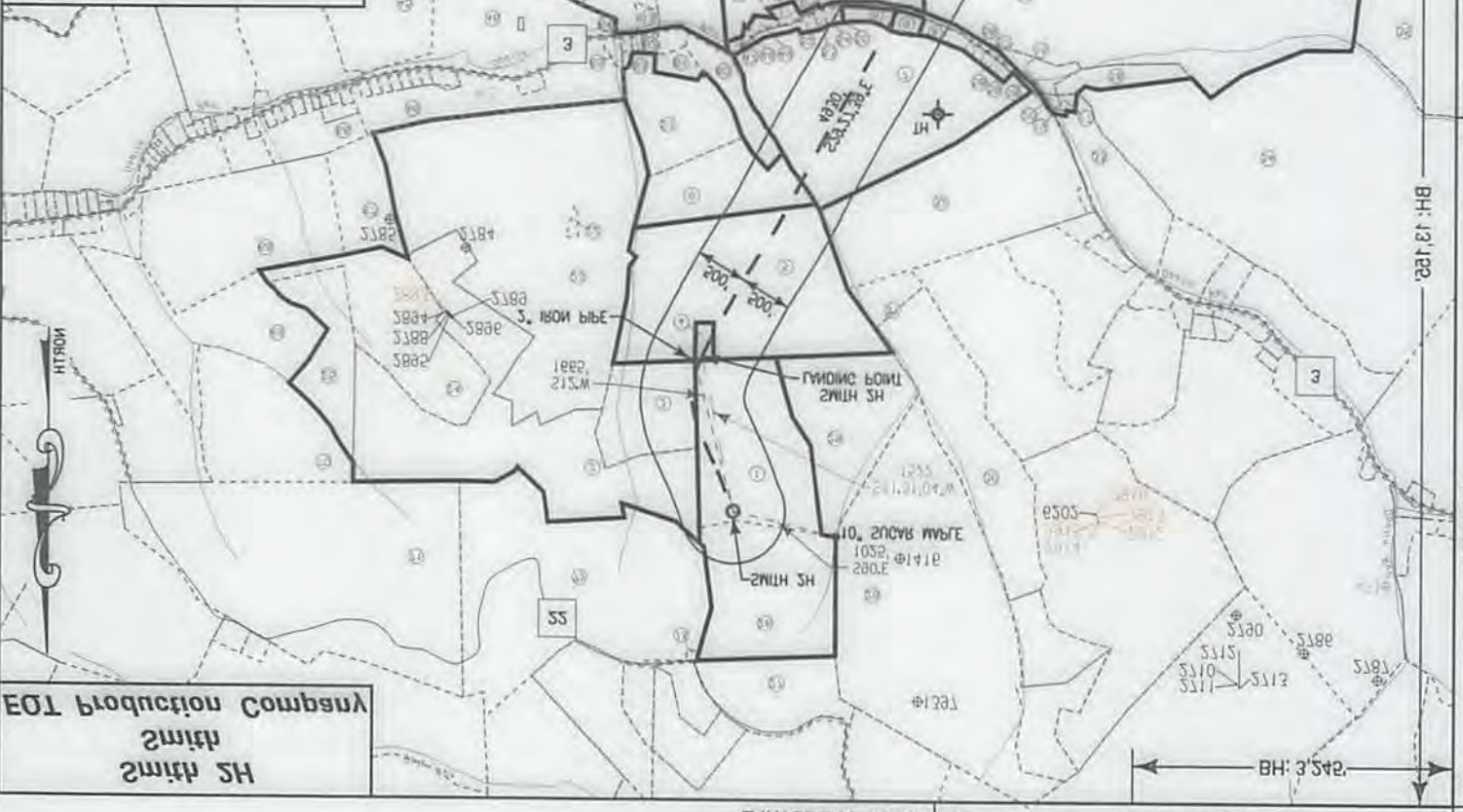
11	288.10	Shila Childers ET AL
10	28.18	B & R Construction Inc
9	1.01	Donald G Bookover ET UX
8	3.48	Elizabeth E. Muller ET AL
7	17.88	Elizabeth E. Muller ET AL
6	40.24	Gay W. Dunig ET UX
5	27	J. L. Thomas ET AL
4	1.33	James O. Smith ET UX
3	128.28	Lawrence E. Sampson ET UX
2	17.4	Charlotte Smith ET AL
1	292.4	OWNER

**LEGEND**

300 FEET OF LIMITS OF DISTURBANCE  
 NO NATURALLY OCCURRING THREAT STRIKES WITHIN  
 THE LIMITS OF DISTURBANCE  
 REPERCUSSIONS ON WELLS WITHIN 100 FEET OF:  
 6. NO PERENNIAL STREAMS, LAKES, PONDS  
 300 FEET OF PROPOSED WELL  
 2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN  
 OF PROPOSED OR CENTER OF RVD  
 4. NO Dwellings AND BUILDINGS WITHIN 625 FEET  
 SURVEY OF THE SURVEY'S ZONE HEREON  
 THIS PLAT DOES NOT REPRESENT A BOUNDARY  
 3. THIS PLAT DOES NOT REPRESENT A BOUNDARY  
 2. SURFACE AND ROYALTY OWNER INFORMATION AND  
 1. THIS PLAT DOES NOT REPRESENT A BOUNDARY  
 3. SURFACE AND ROYALTY OWNER INFORMATION AND  
 2. SURFACE AND ROYALTY OWNER INFORMATION AND  
 1. THIS PLAT DOES NOT REPRESENT A BOUNDARY

**NOTES ON SURVEY**

ESTABLISHED USING SURVEY CHAIN  
 1. THIS PLAT DOES NOT REPRESENT A BOUNDARY  
 2. SURFACE AND ROYALTY OWNER INFORMATION AND  
 3. SURFACE AND ROYALTY OWNER INFORMATION AND  
 4. COORDINATE SYSTEM IS NAD 83 AND IS 2011  
 5. COORDINATE SYSTEM IS NAD 83 AND IS 2011

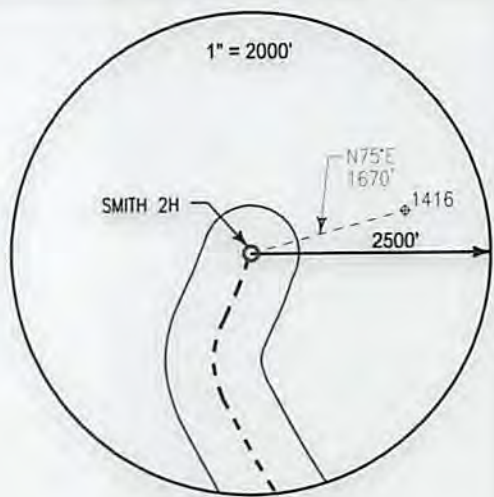


EOT Production Company  
 Smith  
 Smith SH



**Smith 2H  
Smith  
EQT Production Company**

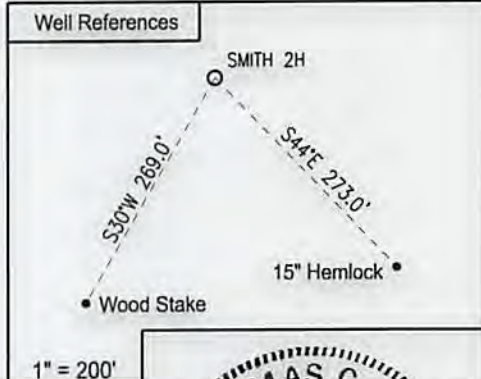
Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	8	5	Wetzel	Magnolia	Charlotte Smith	38.9
2	8	3	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	72.80
3	8	4	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	15.25
4	8	12.1	Wetzel	Magnolia	Ralph Oscar & James Kay Smith	1.23
5	8	12	Wetzel	Magnolia	David L. & Ralph O. Smith	56.15
6	8	24	Wetzel	Magnolia	Gary W. & Linda J. Durlig	18.32
7	8	05	Wetzel	Magnolia	Cathy M. Westfall ET AL	17.66
8	8A	5	Wetzel	Magnolia	Cathy M. Westfall ET AL	2.9
9	8A	5.1	Wetzel	Magnolia	Donald L. & Brenda K. Brookover	1.07
10	8	96	Wetzel	Magnolia	Mark I. Cochran	134.66
11	8	73	Wetzel	Magnolia	Burwell Newman	154.12
12	8	6.5	Wetzel	Magnolia	Ronald & Viola Newman	6.81
13	8	63.1	Wetzel	Magnolia	Ronald & Viola Newman	1.1
14	8	64	Wetzel	Magnolia	Peter Pitsenberger	8.78
15	8	66.2	Wetzel	Magnolia	Mark I. & Mary Beth Cochran	2.47
16	8	66.1	Wetzel	Magnolia	Mark I. Cochran	50.53
17	8	66.4	Wetzel	Magnolia	Mark I. Cochran	11.53
18	8	55.1	Wetzel	Magnolia	Mark I. & Mary Beth Cochran	0.34
19	8	28.1	Wetzel	Magnolia	Mark I. Cochran	0.17
20	8	66.3	Wetzel	Magnolia	Mark I. Cochran	0.13
21	8	34.1	Wetzel	Magnolia	Gary W. & Linda J. Durlig	32.47
22	8	23	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	0.27
23	8	22	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	107.5
24	8	11	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	38.85
25	8	2.1	Wetzel	Magnolia	Lawrence E. Zumpetta ET AL	18.15
26	5	32	Wetzel	Magnolia	George S. Schuchbach	37.5
27	5	28.2	Wetzel	Magnolia	Franklin Ray Blake	17.73
28	5	33	Wetzel	Magnolia	Franklin Ray Blake	106.47
29	8	6	Wetzel	Magnolia	Korcher Albert HRS	33.01
30	8	7	Wetzel	Magnolia	Gary Lemons	33.19
31	8	13	Wetzel	Magnolia	Gary Lemons	5.52
32	8	25	Wetzel	Magnolia	Cathy M. Westfall ET AL	57.68
33	8	28	Wetzel	Magnolia	Raymond L. & Ellen E. Ebert	17.33
34	8	7	Wetzel	Magnolia	James B. Stewart ET AL	264.28
35	9	15	Wetzel	Magnolia	David L. Goddard	52.95
36	9	27	Wetzel	Magnolia	David L. Goddard	58.3
37	9	24	Wetzel	Magnolia	Clinton L. & Albert E. Leasure	20.03
38	9	25	Wetzel	Magnolia	Clinton L. & Albert E. Leasure	1.36
39	8	74	Wetzel	Magnolia	Thomas Eugene Presley	97.1
40	13	5	Wetzel	Magnolia	Anna Lee & James Dennis	83.79
41	8	80	Wetzel	Magnolia	Charles S. Coffins	200.6
42	8	73.1	Wetzel	Magnolia	Russell F. Albright	0.14
43	8	81	Wetzel	Magnolia	Michael J. & Jeanne K. Barnes	15.02
44	8	78	Wetzel	Magnolia	Clyde G. & Dennis K. Dennis	26.94
45	8	61	Wetzel	Magnolia	James L. & Rose A. Thomas	25.72
46	8	62	Wetzel	Magnolia	Gary W. & Linda J. Durlig	37.15
47	8	64	Wetzel	Magnolia	Peter Pitsenberger	0.32
48	8	64.2	Wetzel	Magnolia	Leonard R. Gubes Jr	0.25
49	8	85	Wetzel	Magnolia	Raymond L. Proffitt	0.72
50	8	65	Wetzel	Magnolia	Jason T. & Tracy L. Goodrich	0.53
51	8	65.1	Wetzel	Magnolia	Mark I. Cochran	0.16
52	8A	20	Wetzel	Magnolia	Cathy M. Westfall ET AL	0
53	8A	19	Wetzel	Magnolia	Daniel R. Westfall	0.35
54	8A	18	Wetzel	Magnolia	Daniel R. Westfall	0.34
55	8A	17	Wetzel	Magnolia	Daniel R. Westfall	0.3
56	8A	5.2	Wetzel	Magnolia	Danny Lee Neff	0.22
57	8A	4	Wetzel	Magnolia	Danny Lee & Lisa H. Neff	1.22
58	8A	3	Wetzel	Magnolia	Michael J. Miller	0.24
59	8A	1	Wetzel	Magnolia	Michael J. Miller	0.46
60	8	54	Wetzel	Magnolia	Barbara E. Palmer	7.64
61	8	54.2	Wetzel	Magnolia	David Lee & Freda Lough	1.8
62	8	53.2	Wetzel	Magnolia	Christy Fluhrty	0.65
63	8	53.3	Wetzel	Magnolia	Raymond Proffitt	0.4
64	8	53.1	Wetzel	Magnolia	Debra L. Holm	0.57
65	8	54.3	Wetzel	Magnolia	Debra L. Holm	0.27
66	8	38.2	Wetzel	Magnolia	George R. Mullett	8.28
67	8	21	Wetzel	Magnolia	Michael L. Mullett	12.25
68	8	20	Wetzel	Magnolia	Billy Darrell Morris	54.66
69	8	10	Wetzel	Magnolia	Myron H. Helmick	35.57
70	8	2	Wetzel	Magnolia	J W Schamp ES1	37.54
71	5	30	Wetzel	Magnolia	Wayne A. & Virginia L. Schuchbach	93.83
72	5	31	Wetzel	Magnolia	John William Burton	66.56
73	5	31.1	Wetzel	Magnolia	Schuchbach Cemetery	0.27



**Notes:**  
 SMITH 2H As-Built coordinates are  
 NAD 27 N: 420,232.000 E: 1,630,826.000  
 NAD 27 Lat: 39.642277 Long: -80.811064  
 NAD 83 UTM N: 4,388,536.166 E: 516,225.853  
 SMITH 2H As-Built Landing Point coordinates are  
 NAD 27 N: 418,740.730 E: 1,630,522.170  
 NAD 27 Lat: 39.642277 Long: -80.812066  
 NAD 83 UTM N: 4,388,080.291 E: 516,140.859  
 SMITH 2H As-Built Bottom Hole coordinates are  
 NAD 27 N: 414,449.010 E: 1,632,946.570  
 NAD 27 Lat: 39.630593 Long: -80.803236  
 NAD 83 UTM N: 4,386,785.138 E: 516,901.259  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon  
 the grid north meridian  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.

**LEGEND**  
 ⊕ Active Well Location  
 ○ Proposed Gas Well  
 ● Located Corner, as noted  
 - - - - - Surface Tract Lines  
 — Reference Line  
 — Lease Boundary  
 — Creek or Drain  
 ⊙ WV County Route  
 ⊠ WV State Route

**SMITH PAD**  
 SMITH 3H ○ ○ SMITH 5H  
 SMITH 1H ○ ○ SMITH 7H  
 SMITH 2H ○ ○ SMITH 8H  
 SMITH 4H ○ ○ SMITH 6H



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.

*L. L. S. 687*  
 L. L. S. 687



FILE NO: W2032 (BK 49-6)  
 DRAWING NO:  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY:  
 1:2500  
 PROVEN SOURCE OF ELEVATION:  
 NGS CORS Station

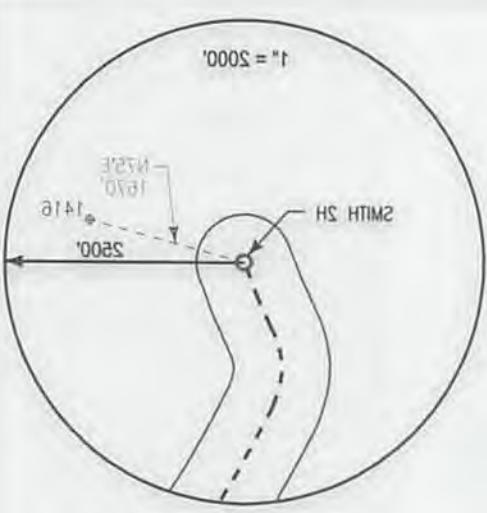
STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE: DECEMBER 4 20 17  
 OPERATORS WELL NO: SMITH 2H  
 API WELL NO  
 47 - 103 - 02793  
 STATE COUNTY PERMIT

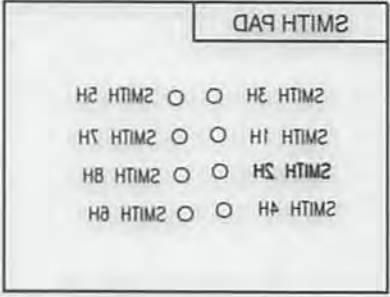
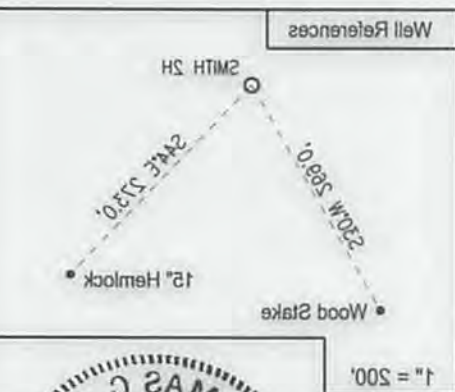
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 1,335' WATERSHED: TRIBUTARY OF DOLLIN RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
 DISTRICT: Magnolia COUNTY: Wetzel  
 SURFACE OWNER: Charlotte Smith ACREAGE: 38.9 ±  
 ROYALTY OWNER: Charlotte Smith, ET AL LEASE NO: 873632 ACREAGE: 76.4 ±  
 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: 6,880'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330



Well ID	Well Name	County	District	Depth (ft)	Production
101	Smith 2H	Madison	Madison	101	Oil
102	Smith 2H	Madison	Madison	102	Oil
103	Smith 2H	Madison	Madison	103	Oil
104	Smith 2H	Madison	Madison	104	Oil
105	Smith 2H	Madison	Madison	105	Oil
106	Smith 2H	Madison	Madison	106	Oil
107	Smith 2H	Madison	Madison	107	Oil
108	Smith 2H	Madison	Madison	108	Oil
109	Smith 2H	Madison	Madison	109	Oil
110	Smith 2H	Madison	Madison	110	Oil
111	Smith 2H	Madison	Madison	111	Oil
112	Smith 2H	Madison	Madison	112	Oil
113	Smith 2H	Madison	Madison	113	Oil
114	Smith 2H	Madison	Madison	114	Oil
115	Smith 2H	Madison	Madison	115	Oil
116	Smith 2H	Madison	Madison	116	Oil
117	Smith 2H	Madison	Madison	117	Oil
118	Smith 2H	Madison	Madison	118	Oil
119	Smith 2H	Madison	Madison	119	Oil
120	Smith 2H	Madison	Madison	120	Oil
121	Smith 2H	Madison	Madison	121	Oil
122	Smith 2H	Madison	Madison	122	Oil
123	Smith 2H	Madison	Madison	123	Oil
124	Smith 2H	Madison	Madison	124	Oil
125	Smith 2H	Madison	Madison	125	Oil
126	Smith 2H	Madison	Madison	126	Oil
127	Smith 2H	Madison	Madison	127	Oil
128	Smith 2H	Madison	Madison	128	Oil
129	Smith 2H	Madison	Madison	129	Oil
130	Smith 2H	Madison	Madison	130	Oil
131	Smith 2H	Madison	Madison	131	Oil
132	Smith 2H	Madison	Madison	132	Oil
133	Smith 2H	Madison	Madison	133	Oil
134	Smith 2H	Madison	Madison	134	Oil
135	Smith 2H	Madison	Madison	135	Oil
136	Smith 2H	Madison	Madison	136	Oil
137	Smith 2H	Madison	Madison	137	Oil
138	Smith 2H	Madison	Madison	138	Oil
139	Smith 2H	Madison	Madison	139	Oil
140	Smith 2H	Madison	Madison	140	Oil
141	Smith 2H	Madison	Madison	141	Oil
142	Smith 2H	Madison	Madison	142	Oil
143	Smith 2H	Madison	Madison	143	Oil
144	Smith 2H	Madison	Madison	144	Oil
145	Smith 2H	Madison	Madison	145	Oil
146	Smith 2H	Madison	Madison	146	Oil
147	Smith 2H	Madison	Madison	147	Oil
148	Smith 2H	Madison	Madison	148	Oil
149	Smith 2H	Madison	Madison	149	Oil
150	Smith 2H	Madison	Madison	150	Oil



**Notes:**  
 UTM coordinates are NAD83, Zone 17, Meters.  
 Well location references are based upon the grid north meridian.  
 First orientation, Corner and well ties are based upon West Virginia Coordinates system of 1827 (North Zone) based upon Differential GPS Measurements.  
 SMITH 2H A-Built Bottom Hole coordinates are  
 NAD 83 UTM N: 4388,782.138 E: 818,901.259  
 NAD 27 N: 414,449.010 E: 1,832,846.870  
 SMITH 2H A-Built Landing Point coordinates are  
 NAD 83 UTM N: 4388,080.591 E: 818,140.889  
 NAD 27 N: 418,740.730 E: 1,830,822.170  
 SMITH 2H A-Built coordinates are  
 NAD 83 UTM N: 4388,836.166 E: 818,228.883  
 NAD 27 N: 420,232.000 E: 1,830,828.000  
 NAD 27 Lat: 39.842377 Long: -80.811084  
 NAD 83 Lat: 39.842883 Long: -80.811084



**LEGEND**

- Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



I, the undersigned, hereby certify that this plot 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.  
 Thomas C. Smith, L.L.S.  
 L.L.S. 687



FILE NO: W2032 (BK 49-8)  
 DRAWING NO:  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1335' WATERSHED: QUADRANGLE: NEW MARTINSVILLE T.S.  
 DISTRICT: Madison COUNTY: Wetzel

SURFACE OWNER: Chahotte Smith  
 ROYALTY OWNER: Chahotte Smith, ET AL  
 LEASE NO: 873632 ACREAGE: 76.4 ±  
 ACREAGE: 38.9 ±

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: 6,880'

WELL OPERATOR: EQT Production Company  
 ADDRESS: 115 Professional Place PO Box 280 Bhdqport, WV 26330  
 DESIGNATED AGENT: Jason Ranson

STATE COUNTY PERMIT DATE: DECEMBER 4 20 17  
 OPERATORS WELL NO: SMITH 2H  
 API WELL NO: 47 - 103 - 02793