

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

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API 47 - 103 - 02908 County Wetzel District Magnolia
Quad New Martinsville Pad Name Smith Field/Pool Name Mary
Farm name Smith, Sonny and Charlotte Well Number #6H
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 4,388,530 Easting 516,231
Landing Point of Curve Northing 4,388,273 Easting 516,559
Bottom Hole Northing 4,386,930 Easting 517,347

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

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 7/31/2013 Date drilling commenced 11/25/2013 Date drilling ceased 8/6/2014
Date completion activities began 10/14/2017 Date completion activities ceased 10/21/2017
Verbal plugging (Y/N) N 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 100 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,733 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 1,017 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

Reviewed by:
DSH
02/16/2018

Smith #6H
API 47-103-02908
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface		*	1,017	FW @ 100
Coal	1,017		*	1,019	
Sandstone & Shale	1,019		*	2,163	SW @1,733
Little Lime	2,163		*	2,193	
Big Lime	2,193		*	2,293	
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		*	5,882	5,906
Rhinestreet	5,882	5,906	~	6,514	6,587
Cashaqua	6,514	6,587	~	6,666	6,805
Middlesex	6,666	6,805	~	6,686	6,837
West River	6,686	6,837	~	6,745	6,940
Geneseo	6,745	6,940	~	6,761	6,973
Tully Limestone	6,761	6,973	~	6,802	7,070
Hamilton Shale	6,802	7,070	~	6,846	7,221
Marcellus	6,846	7,221	~	6,892	12,650
TD				6,892	12,650

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

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519168.47-103-02908-0000 - Perforations

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
1	12/14/2015	12,397	12,470	40	Marcellus
2	12/15/2015	12,247	12,330	40	Marcellus
3	12/15/2015	12,095	12,180	40	Marcellus
4	10/15/2017	11,895	12,057	40	Marcellus
5	10/15/2017	11,695	11,857	40	Marcellus
6	10/15/2017	11,495	11,657	40	Marcellus
7	10/15/2017	11,295	11,457	40	Marcellus
8	10/16/2017	11,095	11,257	40	Marcellus
9	10/16/2017	10,895	11,057	40	Marcellus
10	10/16/2017	10,695	10,857	40	Marcellus
11	10/16/2017	10,495	10,657	40	Marcellus
12	10/17/2017	10,295	10,457	40	Marcellus
13	10/17/2017	10,095	10,257	40	Marcellus
14	10/17/2017	9,895	10,057	40	Marcellus
15	10/18/2017	9,695	9,857	40	Marcellus
16	10/18/2017	9,495	9,657	40	Marcellus
17	10/18/2017	9,295	9,457	40	Marcellus
18	10/18/2017	9,095	9,257	40	Marcellus
19	10/19/2017	8,895	9,057	40	Marcellus
20	10/19/2017	8,695	8,857	40	Marcellus
21	10/19/2017	8,495	8,657	40	Marcellus
22	10/19/2017	8,295	8,457	40	Marcellus
23	10/20/2017	8,095	8,257	40	Marcellus
24	10/20/2017	8,015	7,977	16	Marcellus
25	10/20/2017	7,695	7,857	40	Marcellus
26	10/21/2017	7,495	7,657	40	Marcellus
27	10/21/2017	7,295	7,457	40	Marcellus

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519168 47-103-02908-0000 - 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)
1	12/14/2015	70	7,553	9,154	4,180	294028	6,521	0
2	12/15/2015	76	7,274	7,989	3,987	292688	5,867	0
3	12/15/2015	79	7,703	9,111	4,819	300225	5,708	0
4	10/14/2017	12	5,105	7,349	4,686	450015	2,768	0
4	10/15/2017	100	8,070	8,252	4,375	0	7,691	0
5	10/15/2017	100	7,952	8,122	4,033	451009	7,501	0
6	10/15/2017	100	8,005	8,312	4,195	451019	7,488	0
7	10/15/2017	100	7,812	8,047	4,333	449813	7,739	0
8	10/16/2017	100	7,923	8,367	4,055	449230	7,788	0
9	10/16/2017	101	7,958	8,346	4,213	450011	7,563	0
10	10/16/2017	99	7,984	8,577	4,204	450883	7,488	0
11	10/17/2017	100	8,196	8,571	4,372	450040	7,495	0
12	10/17/2017	99	8,023	8,248	4,519	450091	7,451	0
13	10/17/2017	99	8,153	8,360	4,251	450063	7,495	0
14	10/17/2017	100	8,139	8,288	4,236	450106	7,527	0
15	10/18/2017	98	8,013	8,209	4,534	450640	7,522	0
16	10/18/2017	100	8,003	8,389	4,399	449570	7,456	0
17	10/18/2017	98	8,033	8,412	4,806	453614	7,594	0
18	10/19/2017	100	7,795	8,124	4,481	449650	7,640	0
19	10/19/2017	99	7,484	8,138	4,348	450062	7,499	0
20	10/19/2017	98	7,922	8,129	5,129	450270	7,426	0
21	10/19/2017	99	7,492	7,877	4,728	450470	7,400	0
22	10/20/2017	99	7,734	8,275	4,743	451083	7,386	0
23	10/20/2017	100	7,692	8,330	4,160	450084	7,605	0
24	10/20/2017	65	8,217	8,464	4,563	422094	7,408	0
25	10/20/2017	100	7,790	9,215	4,637	450850	7,939	0
26	10/21/2017	99	7,681	8,105	4,276	450008	7,348	0
27	10/21/2017	98	7,836	8,119	5,078	451765	4,065	0

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Project: Mary Prospect
 Site: Smith Pad
 Well: 6H
 Wellbore: OH
 Design: Smith 6H As Drilled



WELL DETAILS: 6H

+N/-S 0.00	+E/-W 0.00	Northing 420210.00	Ground Level: Easting 1630844.00	1321.00	Latitude 39° 38' 46.766 N	Longitude 80° 48' 39.597 W
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REFERENCE INFORMATION

Co-ordinate (N/E) Reference	Well 6H, 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

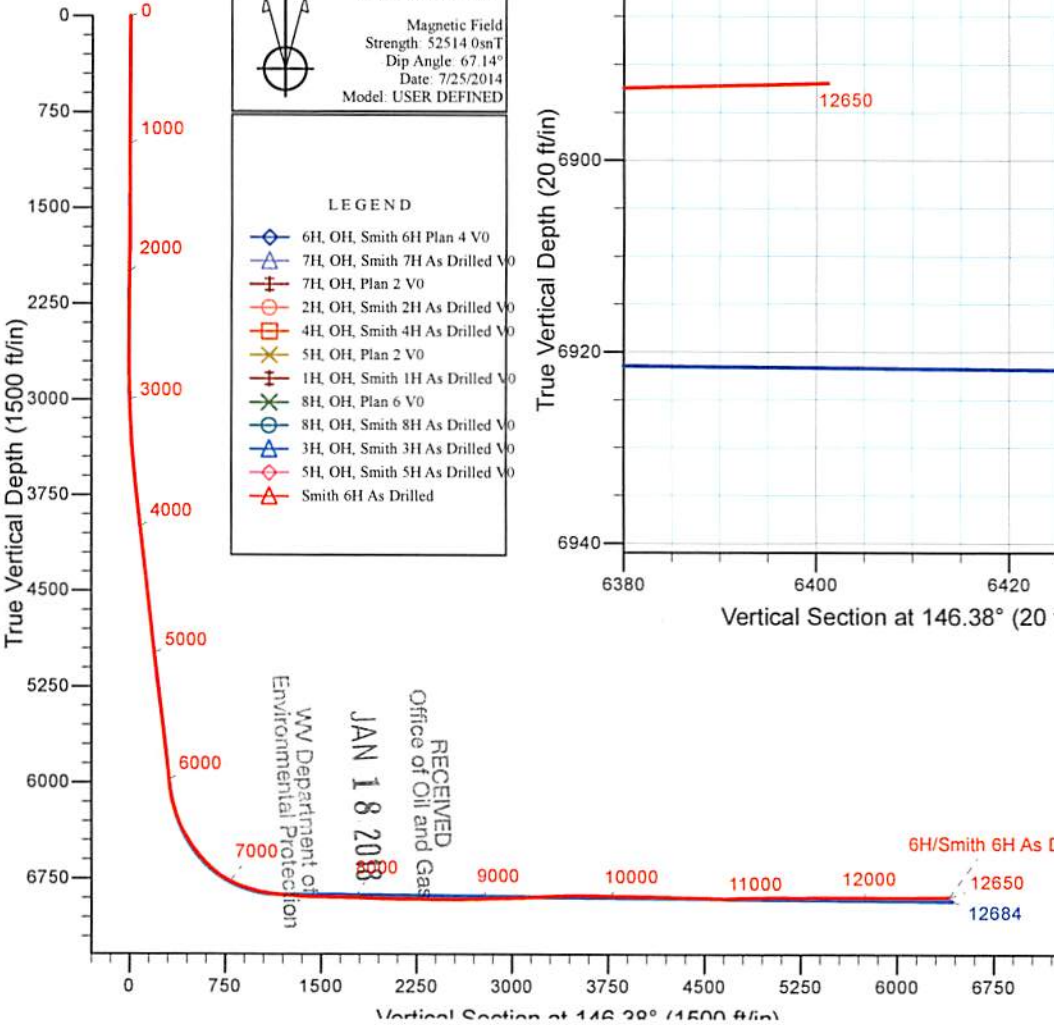
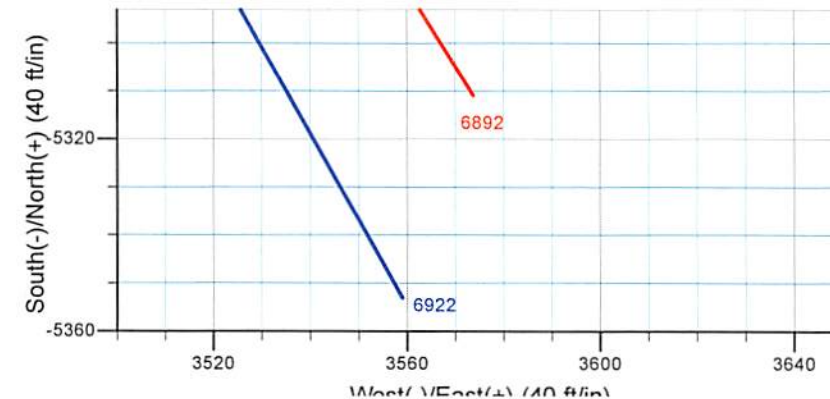
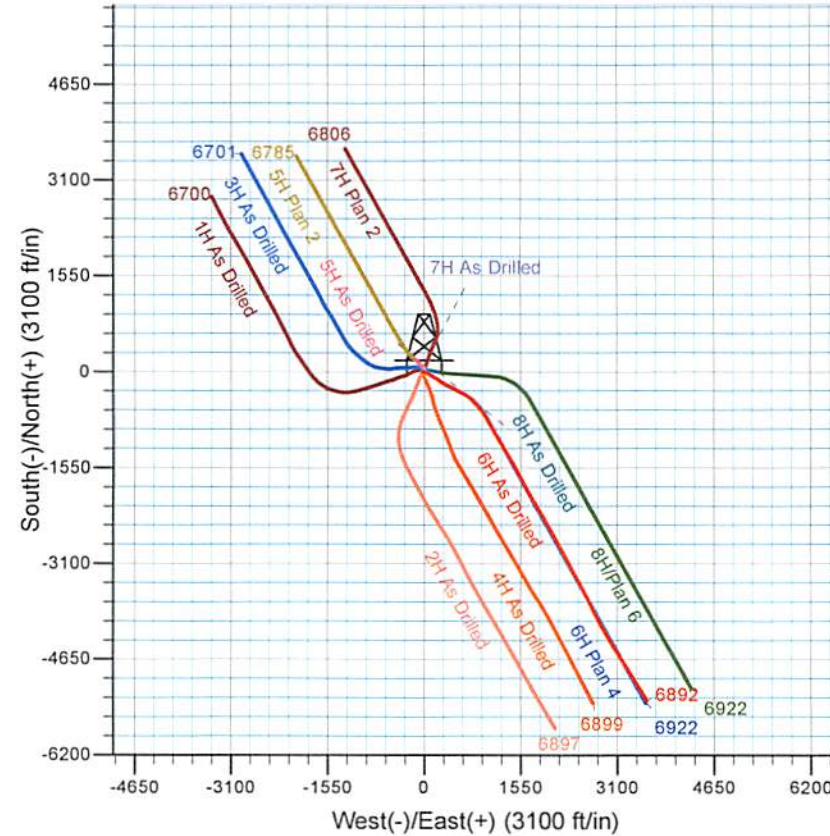
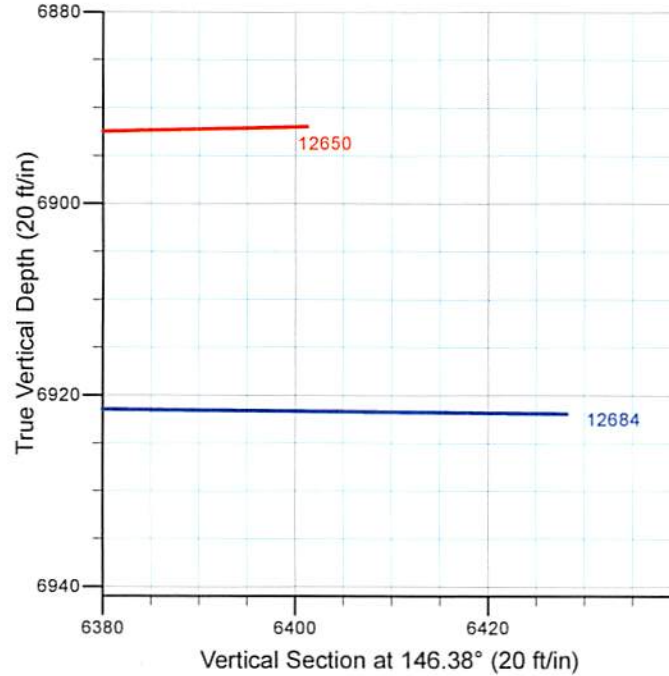
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	5895.01	6.76	123.95	5874.74	-171.31	283.67	0.00	0.00	299.71	
2	6053.01	6.76	123.95	6031.64	-181.69	299.09	0.00	0.00	316.89	
3	6811.24	52.27	116.72	6674.37	-350.38	621.06	6.01	-8.01	635.64	
4	7421.17	89.50	151.00	6876.00	-750.00	1008.00	8.00	48.48	1182.65	Smith 6H_LP3
5	12684.01	89.50	151.00	6921.93	-5353.01	3559.01	0.00	0.00	6428.16	Smith 6H_BHL3

Azimuths to Grid North
 True North 0 84°
 Magnetic North -6.75°

Magnetic Field
 Strength: 52514.0snT
 Dip Angle: 67.14°
 Date: 7/25/2014
 Model: USER DEFINED

LEGEND

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



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Stone Energy

Mary Prospect

Smith Pad

6H

OH

Design: Smith 6H As Drilled

Standard Survey Report

05 August, 2014



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www.scientificdrilling.com

02/16/2018



Scientific Drilling International
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 6H
Project:	Mary Prospect	TVD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Site:	Smith Pad	MD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Well:	6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Smith 6H As Drilled	Database:	Northeast District

Project	Mary Prospect, West Virginia		
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		

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

Well	6H					
Well Position	+N/-S	0.00 ft	Northing:	420,210.00 usft	Latitude:	39° 38' 46.766 N
	+E/-W	0.00 ft	Easting:	1,630,844.00 usft	Longitude:	80° 48' 39.597 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	1,321.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	8/21/2013	-8.54	67.20	52,536
	BGGM2013	11/26/2013	-8.55	67.17	52,502
	BGGM2014	6/11/2014	-8.52	67.15	52,439
	User Defined	6/12/2014	-7.63	67.14	52,488
	User Defined	7/25/2014	-7.59	67.14	52,514

Design	Smith 6H As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	146.38	

Survey Program	Date 8/5/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
18.00	2,448.00	Survey 1 - Vaughn Gyro (OH)	VES GyroFlex	
2,502.00	5,834.00	Survey 2 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1
5,870.00	12,650.00	Survey 3 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1

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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)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
18.00	0.00	0.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ground Level										
103.00	0.11	287.14	103.00	0.02	-0.08	-0.06	0.13	0.13	0.00	
First Vaughn Gyro Survey										



Scientific Drilling International
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 6H
Project:	Mary Prospect	TVD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Site:	Smith Pad	MD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Well:	6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Smith 6H As Drilled	Database:	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)	Turn Rate (°/100usft)	
203.00	0.14	319.76	203.00	0.15	-0.25	-0.26	0.08	0.03	32.62	
303.00	0.12	314.75	303.00	0.31	-0.40	-0.48	0.02	-0.02	-5.01	
403.00	0.14	314.64	403.00	0.47	-0.56	-0.71	0.02	0.02	-0.11	
503.00	0.07	300.40	503.00	0.59	-0.70	-0.88	0.07	-0.07	-14.24	
603.00	0.11	13.16	603.00	0.71	-0.73	-1.00	0.11	0.04	72.76	
703.00	0.01	12.41	703.00	0.82	-0.71	-1.07	0.10	-0.10	-0.75	
803.00	0.17	350.64	803.00	0.97	-0.73	-1.21	0.16	0.16	-21.77	
903.00	0.08	318.48	903.00	1.17	-0.80	-1.42	0.11	-0.09	-32.16	
1,003.00	0.15	277.03	1,003.00	1.24	-0.98	-1.57	0.10	0.07	-41.45	
1,103.00	0.31	276.04	1,103.00	1.28	-1.38	-1.83	0.16	0.16	-0.99	
1,203.00	0.31	318.24	1,203.00	1.51	-1.83	-2.27	0.22	0.00	42.20	
1,303.00	0.14	290.71	1,303.00	1.76	-2.12	-2.64	0.20	-0.17	-27.53	
1,403.00	0.24	277.20	1,402.99	1.83	-2.44	-2.87	0.11	0.10	-13.51	
1,503.00	0.20	281.88	1,502.99	1.89	-2.82	-3.14	0.04	-0.04	4.68	
1,603.00	0.33	279.40	1,602.99	1.97	-3.28	-3.46	0.13	0.13	-2.48	
1,703.00	0.40	280.75	1,702.99	2.08	-3.90	-3.90	0.07	0.07	1.35	
1,803.00	0.40	288.74	1,802.99	2.26	-4.58	-4.42	0.06	0.00	7.99	
1,903.00	0.53	301.86	1,902.99	2.62	-5.30	-5.11	0.17	0.13	13.12	
2,003.00	0.40	304.52	2,002.98	3.06	-5.98	-5.86	0.13	-0.13	2.66	
2,103.00	0.26	351.61	2,102.98	3.48	-6.30	-6.39	0.29	-0.14	47.09	
2,203.00	0.23	19.11	2,202.98	3.90	-6.27	-6.72	0.12	-0.03	27.50	
2,303.00	0.29	17.40	2,302.98	4.33	-6.13	-7.00	0.06	0.06	-1.71	
2,403.00	0.32	38.62	2,402.98	4.79	-5.88	-7.24	0.12	0.03	21.22	
2,448.00	0.38	42.83	2,447.98	4.99	-5.70	-7.31	0.14	0.13	9.36	
Last Vaughn Gyro Survey										
2,502.01	0.36	39.67	2,501.98	5.26	-5.47	-7.40	0.05	-0.04	-5.85	
First SDI MWD Survey										
2,595.00	0.59	35.17	2,594.97	5.87	-5.01	-7.66	0.25	0.25	-4.84	
2,689.00	0.59	173.52	2,688.97	5.79	-4.67	-7.41	1.17	0.00	147.18	
2,780.00	1.16	179.89	2,779.96	4.40	-4.62	-6.22	0.63	0.63	7.00	
2,872.00	0.85	187.56	2,871.94	2.79	-4.71	-4.93	0.37	-0.34	8.34	
2,964.00	1.64	136.87	2,963.92	1.16	-3.90	-3.12	1.39	0.86	-55.10	
3,057.00	3.36	110.09	3,056.84	-0.75	-0.43	0.39	2.19	1.85	-28.80	
3,148.00	3.97	103.73	3,147.65	-2.42	5.14	4.86	0.80	0.67	-6.99	
3,241.00	3.74	106.78	3,240.44	-4.06	11.17	9.56	0.33	-0.25	3.28	
3,334.00	4.76	106.06	3,333.18	-6.00	17.78	14.84	1.10	1.10	-0.77	
3,427.00	6.23	107.32	3,425.75	-8.57	26.31	21.70	1.59	1.58	1.35	
3,519.00	6.24	113.17	3,517.21	-12.02	35.67	29.76	0.69	0.01	6.36	
3,610.00	6.65	124.18	3,607.64	-16.93	44.58	38.78	1.43	0.45	12.10	
3,703.00	7.37	124.02	3,699.94	-23.29	53.98	49.28	0.77	0.77	-0.17	
3,798.00	7.21	121.75	3,794.17	-29.84	64.10	60.33	0.35	-0.17	-2.39	
3,891.00	6.86	116.93	3,886.47	-35.42	74.01	70.48	0.74	-0.38	-5.18	
3,983.00	6.85	125.22	3,977.82	-41.08	83.39	80.38	1.07	-0.01	9.01	
4,075.00	7.63	123.89	4,069.08	-47.65	92.94	91.14	0.87	0.85	-1.45	

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Scientific Drilling International
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Project:	Mary Prospect	TVD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Site:	Smith Pad	MD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Well:	6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Smith 6H As Drilled	Database:	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)
4,169.00	7.44	121.45	4,162.27	-54.30	103.32	102.42	0.40	-0.20	-2.60
4,261.00	7.06	116.44	4,253.54	-59.93	113.46	112.72	0.80	-0.41	-5.45
4,357.00	7.55	119.16	4,348.76	-65.63	124.25	123.44	0.62	0.51	2.83
4,450.00	7.40	117.73	4,440.97	-71.39	134.89	134.13	0.26	-0.16	-1.54
4,542.00	6.84	113.30	4,532.26	-76.31	145.16	143.92	0.85	-0.61	-4.82
4,633.00	6.88	118.40	4,622.61	-81.05	154.93	153.27	0.67	0.04	5.60
4,727.01	6.74	126.98	4,715.96	-87.05	164.29	163.45	1.09	-0.15	9.13
4,819.01	7.27	126.00	4,807.27	-93.72	173.32	174.00	0.59	0.58	-1.07
4,913.01	7.22	123.07	4,900.52	-100.43	183.08	185.00	0.40	-0.05	-3.12
5,007.01	7.20	120.62	4,993.78	-106.66	193.10	195.73	0.33	-0.02	-2.61
5,100.01	7.17	118.17	5,086.05	-112.37	203.23	206.09	0.33	-0.03	-2.63
5,192.01	7.06	119.23	5,177.34	-117.84	213.22	216.18	0.19	-0.12	1.15
5,284.01	7.25	128.33	5,268.63	-124.20	222.71	226.73	1.25	0.21	9.89
5,374.01	7.57	130.62	5,357.88	-131.58	231.67	237.84	0.48	0.36	2.54
5,468.01	7.62	130.27	5,451.05	-139.64	241.12	249.78	0.07	0.05	-0.37
5,559.01	7.26	128.41	5,541.28	-147.11	250.23	261.05	0.48	-0.40	-2.04
5,651.01	7.30	127.69	5,632.54	-154.30	259.41	272.12	0.11	0.04	-0.78
5,740.01	6.98	125.72	5,720.85	-160.91	268.28	282.53	0.45	-0.36	-2.21
5,834.00	6.78	122.78	5,814.17	-167.25	277.58	292.96	0.43	-0.21	-3.13
5,870.00	7.01	124.06	5,849.90	-169.63	281.18	296.94	0.77	0.64	3.56
5,934.00	6.36	123.76	5,913.47	-173.79	287.37	303.82	1.02	-1.02	-0.47
5,997.00	6.12	121.54	5,976.10	-177.48	293.13	310.09	0.54	-0.38	-3.52
6,029.00	6.12	120.91	6,007.91	-179.25	296.05	313.18	0.21	0.00	-1.97
6,061.00	6.86	117.50	6,039.71	-181.01	299.21	316.39	2.61	2.31	-10.66
6,093.00	8.78	118.24	6,071.41	-183.05	303.05	320.22	6.01	6.00	2.31
6,125.00	11.21	118.73	6,102.92	-185.70	307.93	325.13	7.60	7.59	1.53
6,155.00	13.57	121.41	6,132.22	-188.94	313.49	330.91	8.09	7.87	8.93
6,185.00	15.83	122.27	6,161.24	-192.96	319.96	337.83	7.57	7.53	2.87
6,215.00	17.60	120.76	6,189.97	-197.46	327.32	345.66	6.07	5.90	-5.03
6,246.00	19.38	118.69	6,219.37	-202.33	335.86	354.44	6.12	5.74	-6.68
6,276.00	21.81	117.45	6,247.45	-207.29	345.17	363.72	8.23	8.10	-4.13
6,306.00	24.07	115.83	6,275.07	-212.52	355.62	373.87	7.82	7.53	-5.40
6,336.00	25.51	116.43	6,302.31	-218.06	366.92	384.74	4.87	4.80	2.00
6,366.00	26.95	117.10	6,329.22	-224.04	378.75	396.26	4.90	4.80	2.23
6,397.00	28.64	116.77	6,356.64	-230.58	391.64	408.85	5.47	5.45	-1.06
6,427.00	31.43	116.50	6,382.61	-237.31	405.06	421.89	9.31	9.30	-0.90
6,457.00	33.47	117.06	6,407.92	-244.57	419.43	435.88	6.87	6.80	1.87
6,487.00	34.71	117.10	6,432.77	-252.22	434.40	450.55	4.13	4.13	0.13
6,517.00	34.58	117.75	6,457.45	-260.08	449.54	465.47	1.31	-0.43	2.17
6,548.00	35.40	117.08	6,482.85	-268.26	465.32	481.02	2.92	2.65	-2.16
6,578.00	37.21	117.61	6,507.02	-276.42	481.10	496.55	6.12	6.03	1.77
6,608.00	40.40	117.53	6,530.40	-285.12	497.76	513.02	10.63	10.63	-0.27
6,638.00	42.53	118.88	6,552.88	-294.51	515.26	530.53	7.70	7.10	4.50



Scientific Drilling International
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 6H
Project:	Mary Prospect	TVD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Site:	Smith Pad	MD Reference:	GL 1321' & KB 18' @ 1339.00ft (Saxon 141)
Well:	6H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Smith 6H As Drilled	Database:	Northeast District

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)
6,668.00	45.10	117.92	6,574.52	-304.39	533.53	548.87	8.85	8.57	-3.20
6,699.00	46.27	118.21	6,596.18	-314.82	553.10	568.40	3.83	3.77	0.94
6,729.00	47.77	117.53	6,616.63	-325.08	572.51	587.68	5.27	5.00	-2.27
6,759.00	49.02	116.98	6,636.55	-335.35	592.45	607.28	4.39	4.17	-1.83
6,789.00	50.01	117.08	6,656.03	-345.72	612.77	627.16	3.31	3.30	0.33
6,820.00	50.75	117.68	6,675.80	-356.70	633.98	648.05	2.81	2.39	1.94
6,850.00	52.22	120.38	6,694.48	-368.10	654.49	668.90	8.58	4.90	9.00
6,880.00	54.50	122.84	6,712.38	-380.72	674.99	690.75	10.05	7.60	8.20
6,910.00	57.50	125.08	6,729.16	-394.62	695.61	713.74	11.76	10.00	7.47
6,941.00	59.91	127.93	6,745.26	-410.38	716.89	738.65	11.05	7.77	9.19
6,972.00	62.21	129.49	6,760.26	-427.34	738.05	764.50	8.63	7.42	5.03
7,001.00	63.89	131.42	6,773.41	-444.12	757.72	789.35	8.29	5.79	6.66
7,031.00	65.91	133.05	6,786.13	-462.38	777.83	815.70	8.34	6.73	5.43
7,062.00	68.23	134.65	6,798.21	-482.16	798.41	843.56	8.87	7.48	5.16
7,092.00	69.99	136.42	6,808.91	-502.16	818.04	871.09	8.05	5.87	5.90
7,122.00	71.52	137.97	6,818.80	-522.94	837.29	899.05	7.06	5.10	5.17
7,152.00	72.91	139.08	6,827.96	-544.35	856.20	927.34	5.82	4.63	3.70
7,184.00	74.05	139.95	6,837.06	-567.68	876.12	957.80	4.41	3.56	2.72
7,216.00	76.06	140.70	6,845.31	-591.47	895.86	988.55	6.68	6.28	2.34
7,248.00	77.52	142.81	6,852.63	-615.94	915.14	1,019.59	7.88	4.56	6.59
7,279.00	79.31	144.95	6,858.85	-640.47	933.04	1,049.93	8.89	5.77	6.90
7,311.00	80.65	146.86	6,864.42	-666.56	950.70	1,081.44	7.22	4.19	5.97
7,343.00	82.49	148.82	6,869.11	-693.36	967.55	1,113.08	8.35	5.75	6.13
7,375.00	84.76	150.22	6,872.66	-720.76	983.67	1,144.83	8.32	7.09	4.38
7,407.00	84.93	150.31	6,875.54	-748.44	999.48	1,176.63	0.60	0.53	0.28
7,412.58	85.00	150.35	6,876.03	-753.27	1,002.24	1,182.18	1.46	1.29	0.68
Smith 6H_LP3									
7,438.00	85.33	150.52	6,878.17	-775.30	1,014.73	1,207.44	1.46	1.29	0.68
7,470.00	85.50	150.96	6,880.73	-803.13	1,030.32	1,239.25	1.47	0.53	1.38
7,502.00	85.41	150.77	6,883.26	-830.99	1,045.85	1,271.05	0.66	-0.28	-0.59
7,534.00	85.50	150.38	6,885.80	-858.78	1,061.53	1,302.86	1.25	0.28	-1.22
7,597.00	85.90	150.11	6,890.52	-913.31	1,092.70	1,365.54	0.77	0.63	-0.43
7,660.00	88.32	150.36	6,893.70	-967.93	1,123.94	1,428.31	3.86	3.84	0.40
7,723.00	89.06	150.11	6,895.14	-1,022.60	1,155.20	1,491.16	1.24	1.17	-0.40
7,787.00	89.70	149.60	6,895.83	-1,077.94	1,187.34	1,555.03	1.28	1.00	-0.80
7,851.00	91.21	149.74	6,895.32	-1,133.18	1,219.66	1,618.92	2.37	2.36	0.22
7,914.00	87.82	149.95	6,895.86	-1,187.65	1,251.30	1,681.80	5.39	-5.38	0.33
7,977.00	87.32	149.88	6,898.53	-1,242.11	1,282.85	1,744.62	0.80	-0.79	-0.11
8,041.00	87.62	149.09	6,901.35	-1,297.19	1,315.32	1,808.46	1.32	0.47	-1.23
8,105.00	88.09	149.24	6,903.75	-1,352.10	1,348.10	1,872.34	0.77	0.73	0.23
8,168.00	88.59	148.80	6,905.57	-1,406.09	1,380.51	1,935.25	1.66	0.79	-0.70
8,231.00	88.83	149.61	6,906.99	-1,460.20	1,412.76	1,998.16	1.34	0.38	1.29
8,294.00	88.43	151.02	6,908.50	-1,514.91	1,443.95	2,060.99	2.33	0.63	2.24

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MC MX 8-2544	Multi-Chem Group	Live Culture - Nitrate Reducing Bacteria					
				Listed Below			
HVG-1	FTS International	Water Gelling Agent					
				Listed Below			
CI-150	FTS International	Acid corrosion inhibitor					
				Listed Below			
Sand (Proppant)	FTS International	Proppant					
				Listed Below			
Hydrochloric Acid (15%)	FTS International	Acidizing					
				Listed Below			
APB-1	FTS International	Gel Breaker					
				Listed Below			
FRW-900	FTS International	Friction Reducer					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					
				Listed Below			
MC MX 5-3886	Multi-Chem Group	Specialty Brine					

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				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	14.20873	None
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.09680	None
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.09680	None
			Hydrochloric Acid	7647-01-0	15.00000	0.02140	None
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.01708	
			Hydrotreated Light Distillate	64742-47-8	30.00000	0.01708	None
			Sodium chloride	7647-14-5	100.00000	0.00860	
			Sodium chloride	7647-14-5	100.00000	0.00860	None
			Alkyl Alcohol	Proprietary	10.00000	0.00569	None
			Alkyl Alcohol	Proprietary	10.00000	0.00569	
			Oxyalkylated alcohol A	Proprietary	5.00000	0.00285	None
			Oxyalkylated alcohol A	Proprietary	5.00000	0.00285	
			Ethylene glycol	107-21-1	10.00000	0.00221	None
			Sodium nitrate	7631-99-4	5.00000	0.00043	None
			Sodium nitrate	7631-99-4	5.00000	0.00043	
			Petroleum Distillate	64742-47-8	55.00000	0.00019	None
			Petroleum Distillate	64742-47-8	55.00000	0.00019	
			Guar gum	9000-30-0	50.00000	0.00017	
			Guar gum	9000-30-0	50.00000	0.00017	None
			Ethylene glycol	107-21-1	30.00000	0.00008	None
			Isopropanol	67-63-0	30.00000	0.00008	None
			Organic amine resin salt	Proprietary	30.00000	0.00008	None
			Quaternary ammonium compound	Proprietary	10.00000	0.00003	None
			Dimethylformamide	68-12-2	10.00000	0.00003	None
			Aromatic aldehyde	Proprietary	10.00000	0.00003	None
			Clay	14808-60-7	2.00000	0.00001	
			Surfactant	68439-51-0	2.00000	0.00001	None

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			Surfactant	68439-51-0	2.00000	0.00001	
			Clay	14808-60-7	2.00000	0.00001	None
			Ammonium Persulfate	7727-54-0	95.00000	0.00001	None
			Ammonium Persulfate	7727-54-0	95.00000	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.

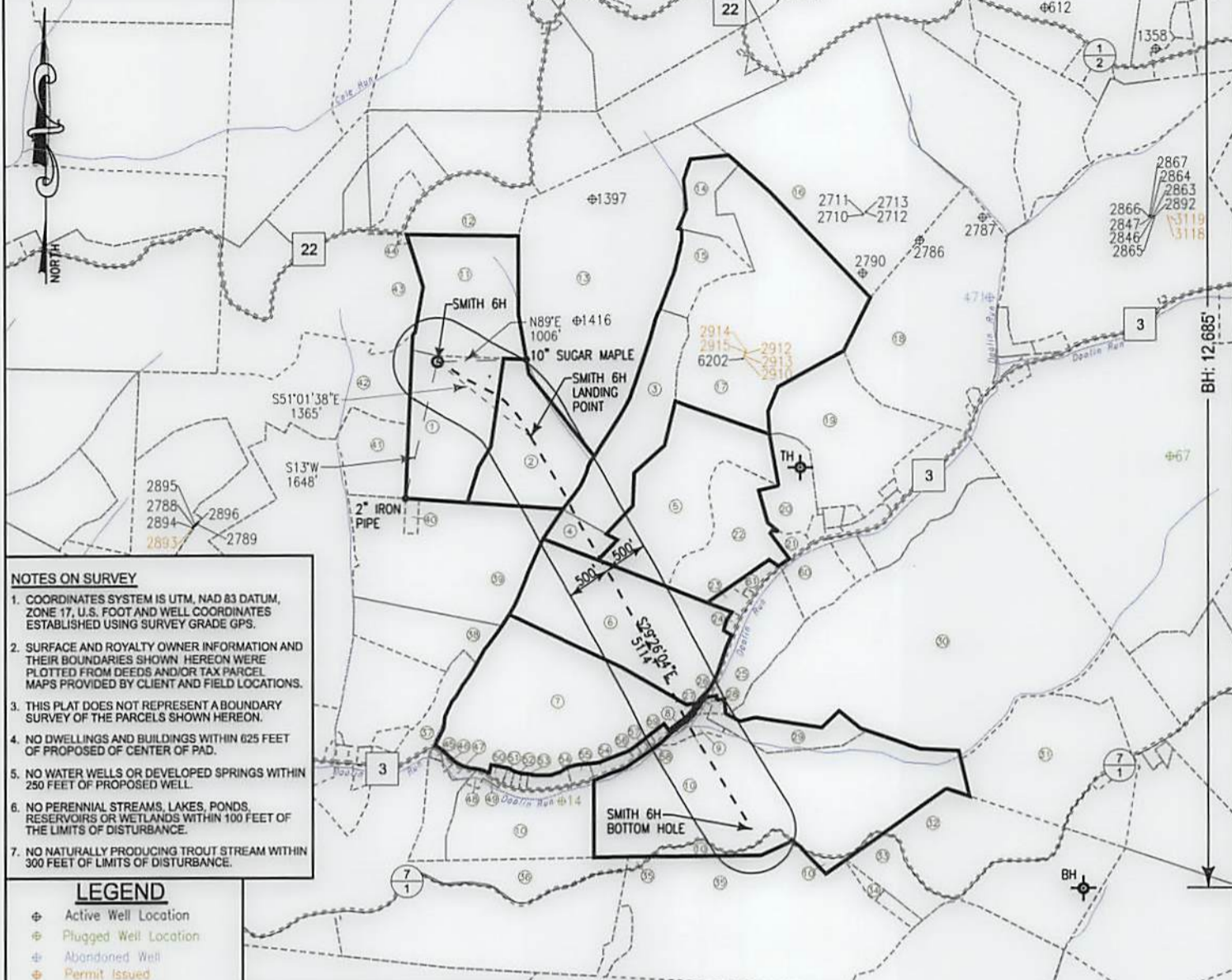
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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**Smith 6H
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 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

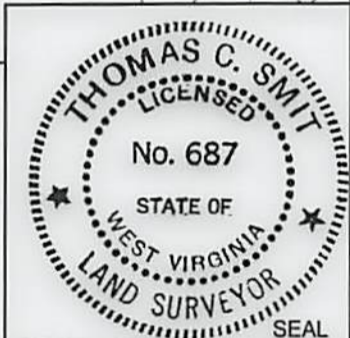
Tract ID.	Acres	Owner
1	77.686601	Sonny L. Smith ET UX
2	31.908598	Mary Lou Thomas
3 & 4	123.258264	Gary Lemons ET AL
5	67.9	Donna O. Smittle
6	54.815275	Ruth E. Mullett ET AL
7	73.573981	Elizabeth E. Mullett ET AL
8, 9 & 10	155.195314	B&R Construction Inc

(⊕) 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.

Thomas C. Smith
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 6H
 API WELL NO
47 - 103 - 02908
 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: Sonny & Charlotte Smith ACREAGE: 77.69 ±
 ROYALTY OWNER: Sonny & Charlotte Smith, ET AL LEASE NO: 873632 ACREAGE: 77.69 ±

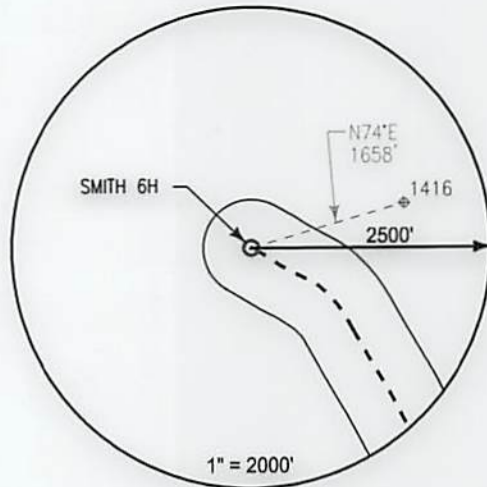
PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,690'

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

**Smith 6H
Smith
EQT Production Company**

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	8	5	Wetzel	Magnolia	Sonny L. & Charlotte Smith	38.9
2	8	6	Wetzel	Magnolia	Kocher Albert HRS	33.01
3	8	7	Wetzel	Magnolia	Gary Lemons	30.19
4	8	13	Wetzel	Magnolia	Gary Lemons	5.56
5	8	14	Wetzel	Magnolia	Aaron Lloyd Lemons	43.79
6	8	25	Wetzel	Magnolia	Cathy M. Westfall ETAL	57.68
7	8	55	Wetzel	Magnolia	Cathy M. Westfall ETAL	17.66
8	8	55.1	Wetzel	Magnolia	Mark I. & Mary Beth Cochran	0.34
9	8	66.2	Wetzel	Magnolia	Mark I. & Mary Beth Cochran	2.47
10	8	66	Wetzel	Magnolia	Mark I. Cochran	134.66
11	5	32	Wetzel	Magnolia	Sonny L. & Charlotte L. Smith	37.5
12	5	26.2	Wetzel	Magnolia	Franklin Ray Blake	17.73
13	5	33	Wetzel	Magnolia	Franklin Ray Blake	108.47
14	5	27	Wetzel	Magnolia	Gary Lemons	11
15	5	34	Wetzel	Magnolia	Gary Lemons	11.17
16	5	28	Wetzel	Magnolia	Gary & Judy Ann Lemons	102.75
17	5	35	Wetzel	Magnolia	Gary Lemons	79.7
18	6	30	Wetzel	Magnolia	Gary Patrick Fitzsimmons	71.99
19	8	8	Wetzel	Magnolia	Danny L. & Orion F. Neff	42.88
20	8	15.3	Wetzel	Magnolia	David & Orion Neff	11.97
21	8	15.1	Wetzel	Magnolia	Timothy S. Myers	1.8
22	8	14.1	Wetzel	Magnolia	James D. Johnston	24.46
23	8	26	Wetzel	Magnolia	Raymond L. & Ellen E. Ebert	1.84
24	8	25.1	Wetzel	Magnolia	Kevin A. & Sarah L. Yeater	0.56
25	8	28	Wetzel	Magnolia	Raymond L. & Ellen E. Ebert	17.33
26	8	28.1	Wetzel	Magnolia	Mark I. Cochran	0.17
27	8	66.3	Wetzel	Magnolia	Mark I. Cochran	0.32
28	8	66.4	Wetzel	Magnolia	Mark I. Cochran	0.6
29	8	66.1	Wetzel	Magnolia	Mark I. Cochran	10.53
30	9	7	Wetzel	Magnolia	James B. Stewart ET AL	164.78
31	9	15	Wetzel	Magnolia	David L. Goddard	52.95
32	9	27	Wetzel	Magnolia	David L. Goddard	59.3
33	9	24	Wetzel	Magnolia	Clinton L. & Albert E. Leasure	10.03
34	9	25	Wetzel	Magnolia	Clinton L. & Albert E. Leasure	1.26
35	8	74	Wetzel	Magnolia	Thomas Eugene Presley	97.1
36	8	73	Wetzel	Magnolia	Burwell Newman	154.12
37	8	54	Wetzel	Magnolia	Barbara E. Palmer	7.64
38	8	24	Wetzel	Magnolia	Gary W. Linda J. Durig	18.32
39	8	12	Wetzel	Magnolia	David L. & Ralph O. Smith	58.15
40	8	12.1	Wetzel	Magnolia	Ralph Oscar & Jonee Kay Smith	1.37
41	8	4	Wetzel	Magnolia	Lawrence E. Zumpetta ETAL	15.28
42	8	3	Wetzel	Magnolia	Lawrence E. Zumpetta ETAL	72.86
43	5	31	Wetzel	Magnolia	John William Burton	66.56
44	5	31.1	Wetzel	Magnolia	Schupbach Cemetery	0.27
45	8	64.1	Wetzel	Magnolia	Peter Pitsenberger	0.32
46	8	64.2	Wetzel	Magnolia	Leonard R. Oates Jr	0.25
47	8	85	Wetzel	Magnolia	Raymond L. Pribble	0.72
48	8	65	Wetzel	Magnolia	Jason T & Tracy L. Goodrich	0.53
49	8	65.1	Wetzel	Magnolia	Mark I. Cochran	0.16
50	8A	20	Wetzel	Magnolia	Cathy M. Westfall ETAL	0
51	8A	19	Wetzel	Magnolia	Daniel R. Westfall	0.35
52	8A	18	Wetzel	Magnolia	Daniel R. Westfall	0.34
53	8A	17	Wetzel	Magnolia	Daniel R. Westfall	0.3
54	8A	5	Wetzel	Magnolia	Cathy M. Westfall ETAL	2.9
55	8A	5.1	Wetzel	Magnolia	Donald L. & Brenda K. Brookover	1.07
56	8A	5.2	Wetzel	Magnolia	Danny Lee Neff	0.22
57	8A	4	Wetzel	Magnolia	Danny Lee & Usa H. Neff	0.23
58	8A	3	Wetzel	Magnolia	Michael J. Miller	0.24
59	8A	1	Wetzel	Magnolia	Michael J. Miller	0.46
60	8	29	Wetzel	Magnolia	Mary L. & Kenneth F. Hartley	9.84
61	8	26.2	Wetzel	Magnolia	Timothy & Theresa Shreve	1.78



Notes:
SMITH 6H As-Built coordinates are
 NAD 27 N: 420,210.004 E: 1,630,844.000
 NAD 27 Lat: 39.646324 Long: -80.810999
 NAD 83 UTM N: 4,388,529.556 E: 516,231.449

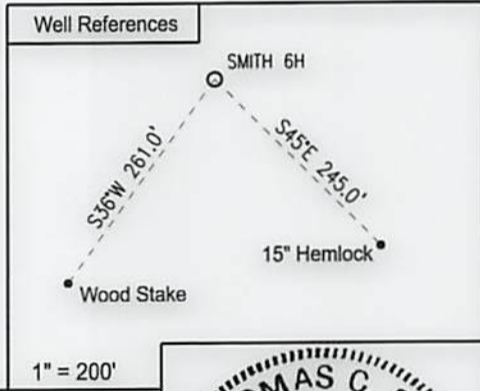
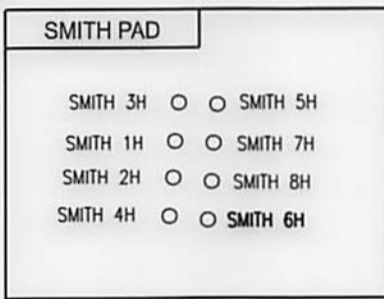
SMITH 6H As-Built Landing Point coordinates are
 NAD 27 N: 419,351.233 E: 1,631,905.520
 NAD 27 Lat: 39.644009 Long: -80.807185
 NAD 83 UTM N: 4,388,273.333 E: 516,559.209

SMITH 6H As-Built Bottom Hole coordinates are
 NAD 27 N: 414,899.174 E: 1,634,417.790
 NAD 27 Lat: 39.631887 Long: -80.798037
 NAD 83 UTM N: 4,386,929.779 E: 517,347.193

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



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.

Thomas C. Smalls
 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 6H
 API WELL NO
47 - 103 - 02908
 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

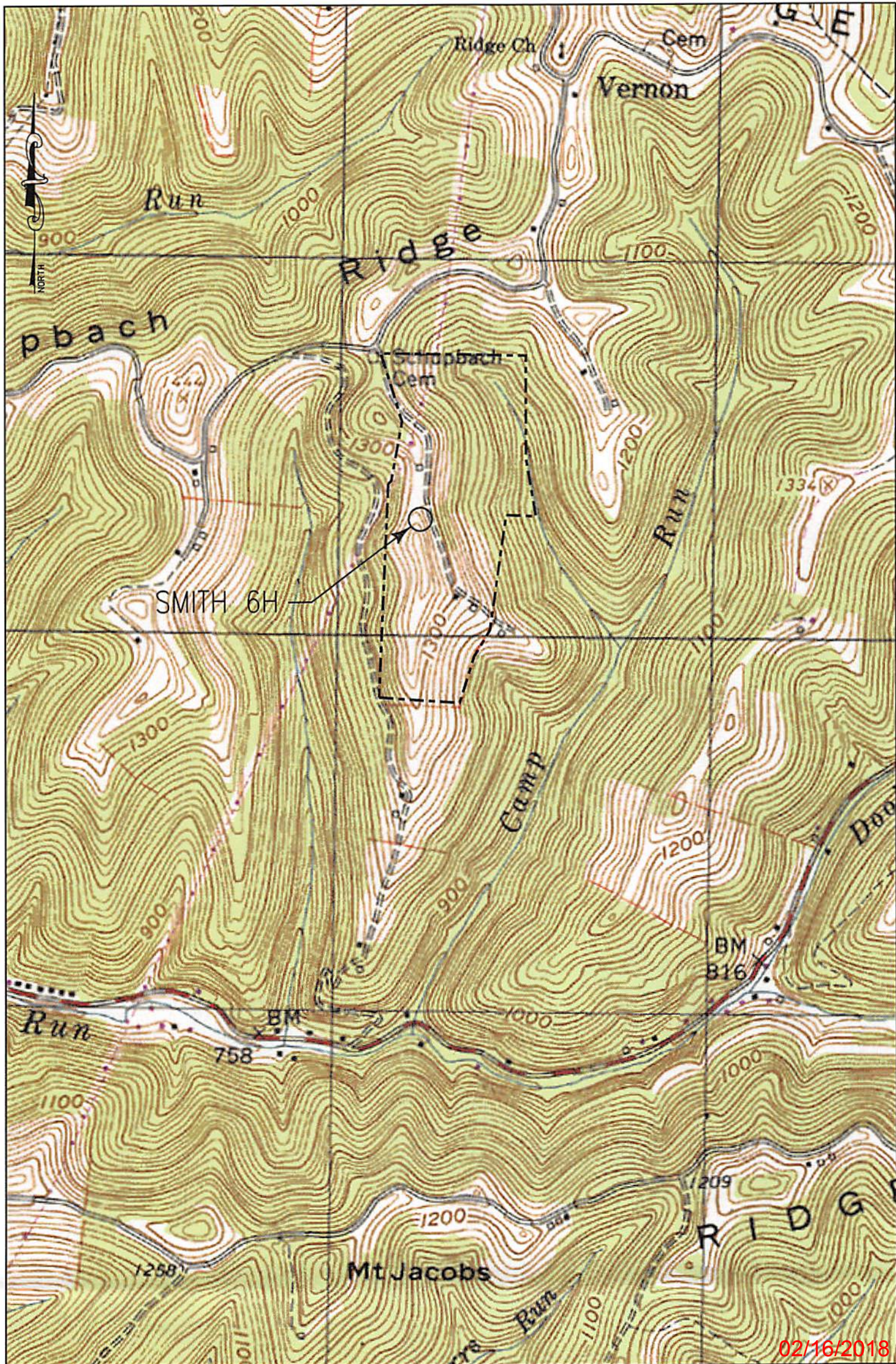
SURFACE OWNER: Sonny & Charlotte Smith ACREAGE: 38.91
 ROYALTY OWNER: Sonny & Charlotte Smith, ET AL LEASE NO: 873632 ACREAGE: 77.69 ±

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: 6,690'

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



02/16/2018

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

AS-BUILT