

APPROVED

PM

State of West Virginia

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

NAME: Michael Smith
DATE: 1/27/16

API 47-085-10159 County Ritchie District Murphy
Quad Smithville Pad Name N/A Field/Pool Name N/A
Farm name Lenore Smith Well Number W-1654H
Operator (as registered with the OOG) Haught Energy Corporation
Address 12864 Staunton TPKE City Smithville State WV Zip 26178

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4329725 Easting 495507
Landing Point of Curve Northing See Deviation Survey Easting See Deviation Survey
Bottom Hole Northing See Deviation Survey Easting See Deviation Survey

Elevation (ft) 1033' 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)
N/A

Date permit issued 10/10/2014 Date drilling commenced 11/11/2014 Date drilling ceased 11/26/2014
Date completion activities began 12/10/2014 Date completion activities ceased 12/10/2014
Verbal plugging (Y/N) NA Date permission granted NA Granted by NA

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

Freshwater depth(s) ft 75' Open mine(s) (Y/N) depths NA
Salt water depth(s) ft NA Void(s) encountered (Y/N) depths NA
Coal depth(s) ft NA Cavern(s) encountered (Y/N) depths NA
Is coal being mined in area (Y/N) N

Reviewed by:

02/05/2016

API 47- 085 - 10159 Farm name Lenore Smith Well number W-1654H

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	22"	20"	30'	New	H40 - 94#	None	Grouted In
Surface	17"	13-3/8"	330'	New	EC50 - 54.5#	None	Yes
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	12-1/4"	9-5/8"	1060'	New	AT50 - 36#	530'	Yes
Intermediate 2	8-3/4"	7"	2158'	New	J55 - 20#	1120'	Yes
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	NA	NA	NA	NA	NA	NA	Left 7" hole open for production
Tubing	NA	NA	NA	NA	NA	NA	NA
Packer type and depth set		None					

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	20	15.6	1.20	261.6	Surface	8
Surface	Type 1 - 3% Cacl - 1/4 flake	218	15.6	1.20	261.6	Surface	8
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	Type 1 - 3% Cacl - 1/4 flake	310	15.6	1.2	372	Surface	8
Intermediate 2	Type 1 - 2% gel 3% Cacl - 1/4 flake	350	14.8	1.4	490	Surface	8
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	NA	NA	NA	NA	NA	NA	NA
Tubing	NA	NA	NA	NA	NA	NA	NA

Drillers TD (ft) 2,805 Loggers TD (ft) 2214' (Vertical Hole)

Deepest formation penetrated Big Injun Plug back to (ft) 1,650'

Plug back procedure Plug through Drill pipe from 2,214' to 1,650' with 188 sacks of Class A cement, pull drill pipe out of well. Wait on cement for 12 hours. Tag cement Depth, Load hole with gel. Set second plug from 1,175' to 721' with 160 sacks of Class A cement. Pull drill pipe out of well, wait on cement for 24 hours. Tag cement, Drill Cement to Kick off point.

Kick off depth (ft) 1,087 ft

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 _____

No Centralizers for 13-3/8" pipe run
One Centralizer at 820' for 9-5/8" pipe run
Two Centralizers at 950' and 850' for 7" pipe run

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS Open Hole Foam Frac as Below

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

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PRODUCING FORMATION(S)	DEPTHS	
<u>Big Injun</u>	<u>2,024' - 2,102'</u> TVD	<u>2,135' - 2,805'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface 250 psi Bottom Hole 250 psi DURATION OF TEST 24 hrs
 OPEN FLOW Gas 30 mcfpd Oil 0 bpd NGL 0 bpd Water 0 bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Top Drilling Corporation
 Address 107 Lancaster Street, Suite 301 City Marietta State OH Zip 45750

Logging Company Nabors Services
 Address PO Box 975682 City Dallas State TX Zip 75397-5682

Cementing Company Universal Services
 Address PO Box 200969 City Dallas State TX Zip 75320

Stimulating Company Universal Services
 Address PO Box 200969 City Dallas State TX Zip 75320

Please insert additional pages as applicable.

Completed by Warren R. Haught Telephone 304-477-3333
 Signature *Warren R. Haught* Title Agent Date 11-9-15

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

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Lenore Smith W-1654H

API # 47-085-10159

Formation	Top TVD	Bottom TVD	Top TMD	Bottom TMD	Remarks
Red Rock & Shale	0	630	0	630	
Sand	630	755	630	755	
Slate & Shells	755	918	755	918	
Red Rock	918	1033	918	1033	
Dunkard Sand	1033	1053	1033	1053	
Slate & Shells	1053	1165	1053	1166	
Shale	1165	1177	1166	1178	
Slate & Shells	1177	1398	1178	1401	
Long Streak	1398	1450	1401	1453	
Slate & Shells	1450	1492	1453	1495	
1st Salt Sand	1492	1560	1495	1565	
Shale	1551	1579	1565	1584	
2nd Salt Sand	1579	1651	1584	1658	
Slate & Shells	1651	1686	1658	1694	
Shale	1686	1692	1694	1700	
Slate & Shells	1692	1737	1700	1748	
3rd Salt Sand	1737	1774	1748	1788	
Slate & Shells	1774	1876	1788	1905	
Maxton	1876	1900	1905	1935	
Shale	1900	1962	1935	2024	
Big Lime	1962	2024	2024	2135	
Big Injun Sand	2024	2102	2135	2805	Traces of Gas & Oil
Squaw	2102	2117	NA	NA	Did not Penetrate Laterally
Slate & Shells	2117	2214	NA	NA	Did Not Penetrate Laterally
Vertical TD (Pugged Back)	2214				
TMD	2805				

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Wellbore Schematic

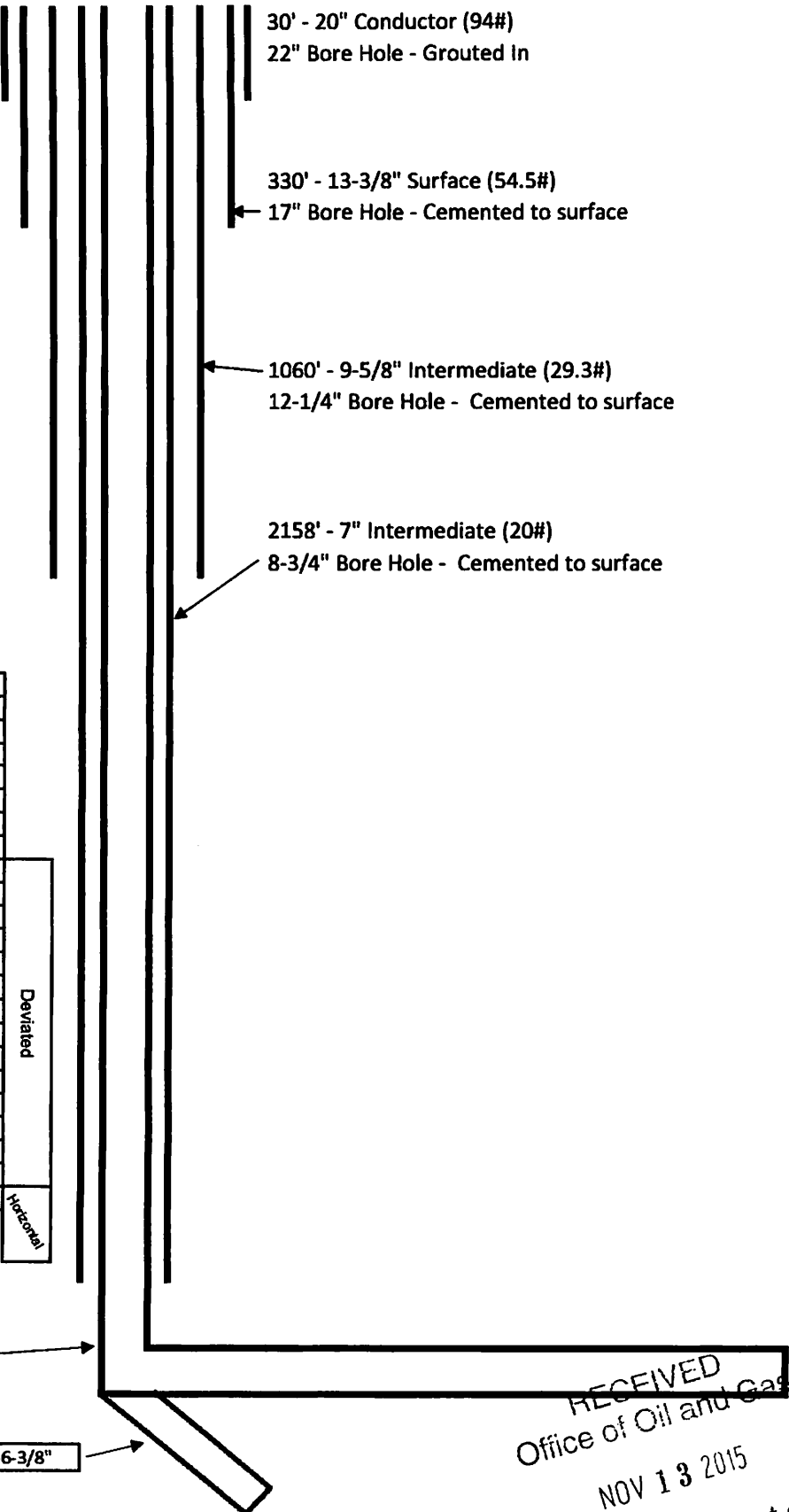
Well: Lenore Smith W1654H

API: 47-085-10159

TMD	2,805
TVD	2,055'

Stratigraphic Information

Formation	Top	Bottom	TMD
Red Rock & Shale	0	630	0
Sand	630	755	630
Slate & Shells	755	918	755
Red Rock	918	1033	918
Dunkard Sand	1033	1053	1033
Slate & Shells	1053	1165	1053
Shale	1165	1177	1166
Slate & Shells	1177	1398	1178
Long Streak	1398	1450	1401
Slate & Shells	1450	1492	1453
1st Salt Sand	1492	1560	1495
Shale	1551	1579	1565
2nd Salt Sand	1579	1651	1584
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Shale	1900	1962	1935
Big Lime	1962	2024	2024
Big Injun Sand	2024	2102	2135



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