

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

API 47-085-10142 County Ritchie District Grant
Quad Ellenboro Pad Name Mason Field/Pool Name N/A
Farm name Nathanael Mason & Pearl Everett Mason Well Number W-1652
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 39.256625 Easting 81.096325
Landing Point of Curve Northing NA Easting NA
Bottom Hole Northing NA Easting NA

Elevation (ft) 1021' 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)
NA

Date permit issued 09/26/2014 Date drilling commenced 01/19/2015 Date drilling ceased 01/26/2015
Date completion activities began 2/4/2015 Date completion activities ceased 3/24/2015
Verbal plugging (Y/N) NA Date permission granted NA Granted by NA

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

Freshwater depth(s) ft 175 Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Reviewed

02/16/2018

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade	Backer Depth(s)	Did cement circulate (Y/N) * Provide details below
Conductor	16"	13 3/8"	36'	New	48#	NA	Yes
Surface	12 - 14"	9 5/8"	330'	New	26#	NA	Yes
Coal							
Intermediate 1	8 - 7/8"	7"	2130'	New	17#	1600'	Yes
Intermediate 2							
Intermediate 3							
Production	6 - 3/8"	4 1/2"	6447.3'	New	11.6#	6000, 5000'	No
Tubing							
Packer type and depth set							

Comment Details 116 Sacks of cement used on production string (as below) providing approximately 2,000 + feet fill up.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (ms)
Conductor	Type 1/Class A	7	14.8	1.4	8.8	Surface	8
Surface	Type 1/Class A	90	14.8	1.38	124.2	Surface	8
Coal							
Intermediate 1	Type 1/Class A	300	14.8	1.4	420	Surface	8
Intermediate 2							
Intermediate 3							
Production	Strong Lite 150	115	13.1	1.84	223.1	4,450'	24
Tubing							

Drillers TD (ft) 8490
 Deepest formation penetrated Ordway
 Plug back to (ft) NA
 Plug back procedure NA
 Click off depth (ft) NA

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
 Centralizers were used on Frack well, formers and Packers string as necessary to ensure a centered up casing string for optimal cement distribution and setting.

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- 085 . 10142

Farm name Nathaniel Mason & Pearl Everett Mason Well number W-1652

PRODUCING FORMATION(S)	DEPTHS	
<u>Oriskany</u>	<u>6294-6360</u> TVD	<u>6294-6360</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 200 psi Bottom Hole 1400 psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 200 mcfpd Oil NA bpd NGL NA bpd Water NA bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Top Drilling Corporation
Address 107 Lancaster Street City Marletta State OH Zip 45760

Logging Company Nabors Completion & Production Services Co.
Address P.O. Box 876882 City Dallas State TX Zip 75397

Cementing Company Universal Well Services, Inc.
Address P.O. Box 200969 City Dallas State TX Zip 75320

Stimulating Company Universal Well Services, Inc.
Address P.O. Box 200969 City Dallas State TX Zip 75320

Please insert additional pages as applicable.

Completed by Haight Energy Corporation Telephone 304-477-3333
Signature [Signature] Title Development Director Date 3/25/15

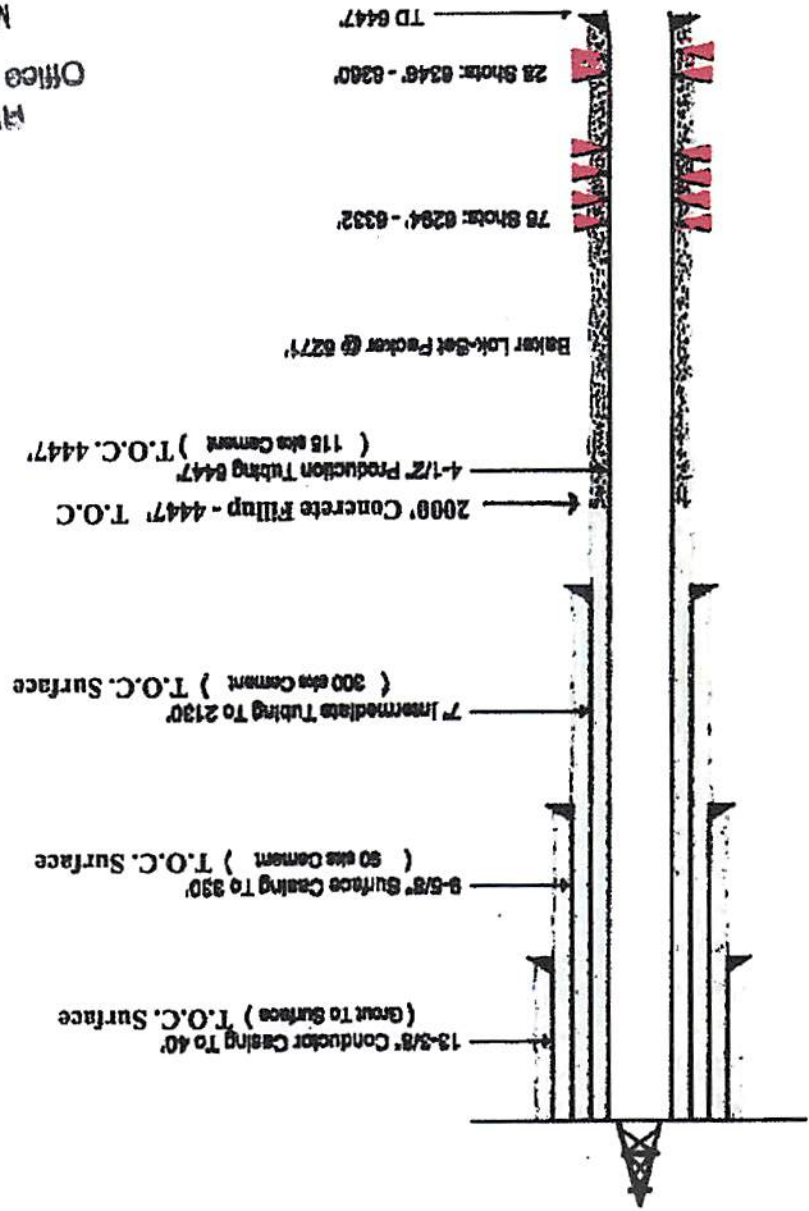
Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

Mason W-1652
API # 47-085-10142

Formation	Top	Bottom	Remarks
Red Rock & Shale	0	604	
Sand	604	639	
Red Rock	639	719	
Sand	719	739	
Red Rock	739	794	
Slate	794	874	
Dunkard Sand	874	884	
Slate & Shells	884	1264	
Gas Sand	1264	1374	
Slate	1374	1442	
1st Salt Sand	1442	1502	
Shale	1502	1538	
2nd Salt Sand	1538	1556	
Shale	1556	1684	
3rd Salt Sand	1684	1894	
Slate	1894	1780	
Maxon Sand	1780	1819	
Shale	1819	1889	
Little lime	1889	1914	
Pencil Cave	1914	1918	
Big Lime	1918	2016	
Big Injun Sand	2016	2076	
Slate Break	2076	2080	
Squaw Sand	2080	2094	
Slate & Shells	2094	2358	
Coffee Shale	2358	2392	
Berea Sand	2392	2396	
Slate & Shells	2396	2512	
Sand	2512	2524	
Slate & Shells	2524	2784	
Sand	2784	2796	
Slate & Shells	2796	4428	
Benson Sand	4428	4454	
Slate & Shells	4454	4949	
Alexander Sand	4949	4960	
Slate & Shells	4960	5358	
Sand	5358	5378	
Slate & Shells	5378	6008	
Hamilton Shale	6008	6032	
Tully Lime	6032	6036	
Marcellus Shale	6036	6074	
Onondaga Lime	6074	6300	
Oriskany Sand	6300	6360	
Lime	6360	6480	
TD	6480		

02/16/2018

GreenHunter Water
RITCHE HUNTER WATER DISPOSAL
WELLBORE SCHEMATIC & COMPLETION DATA



RECEIVED
 Office of Oil and Gas
 MAR 9 2015
 WV Department of
 Environmental Protection

Schematic Not To Scale