

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

RECEIVED
Office of Oil and Gas
AUG 18 2014
WV Department of
Environmental Protection

API 47 - 103 - 02744 County Wetzel District Grant
Quad Pine Grove 7.5' Pad Name L S Hoyt Unit 403 Field/Pool Name Wileyville
Farm name Dallison Lumber, Inc Well Number L S Hoyt 403 N-2H
Operator (as registered with the OOG) HG Energy, LLC
Address 5260 DuPONT ROAD City PARKERSBURG State WV Zip 26101

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,382,686 Easting 529,406
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,383,566 Easting 527,780

Elevation (ft) 1250 GL Type of Well New Existing Type of Report Interim Final
Permit Type Deviated Horizontal Horizontal 6A Vertical Depth Type Deep Shallow
Type of Operation Convert Deepen Drill Plug Back Redrilling Rework Stimulate
Well Type Brine Disposal CBM Gas Oil Secondary Recovery Solution Mining Storage Other _____
Type of Completion Single Multiple Fluids Produced Brine Gas NGL Oil Other _____
Drilled with Cable Rotary

Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
Water based salt polymer mud

Date permit issued 3/30/2012 Date drilling commenced 1/14/2013 Date drilling ceased 7/30/2013
Date completion activities began 9/30/2013 Date completion activities ceased 10/31/2013
Verbal plugging (Y/N) n/a 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 310', 1050' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1550' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 820', 910', 1050' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

10/03/2014

API 47-103 - 02744 Farm name Dallison Lumber, Inc Well number L S Hoyt 403 N-2H

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	20"	20"	80'	New	H-40/40' /94#	n/a	No Cement-Drilled in
Surface	17-1/2"	13-3/8"	1238'	New	J-55/54.5/1238.04	n/a	Cement to Surface
Coal							
Intermediate 1	12-1/4"	9-5/8"	3288'	New	J-55/40/3288'	n/a	Cement to Surface
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	13,070'	New	P110/20/13,070'	n/a	Cement to Surface
Tubing		2-3/8"		New	L-80/4.7/6998'		
Packer type and depth set		<u>N/A</u>					

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	Drilled in						
Surface	Gas Block	1105	15.6	1.21	1333	Surface	12
Coal							
Intermediate 1	Type 1	1028	t - 15.0	1.30	1327	Surface	12
Intermediate 2			l - 15.0	1.29			
Intermediate 3							
Production	ASC	2533	14.7	1.49	3409	Surface	12
Tubing			14.3	1.23			

Drillers TD (ft) 13,104' Loggers TD (ft) 13,104'
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) N/A

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 Surf - 13

Int - 12
Prod - 86

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 - 02744

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Coal							
Intermediate 1	12-1/4"	9-5/8"	3350'	New	J-55/40/3288'	n/a	Cement to Surface
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5-1/2"	13,102'	New	P110/20/13,070'	n/a	Cement to Surface
Tubing		2-3/8"		New	L-80/4.7/6998'		
Packer type and depth set		<u>N/A</u>					

1125

Comment Details _____

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Intermediate 3							
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Drillers TD (ft) 13,104'

Loggers TD (ft) 13,104'

Deepest formation penetrated Marcellus

Plug back to (ft) n/a

Plug back procedure n/a

Kick off depth (ft) N/A

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

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	9/30/2013	12982		N/A	Marcellus
2	9/30/2013	12682	12883	50	Marcellus
3	10/1/2013	12382	12583	50	Marcellus
4	10/2/2013	12082	12283	50	Marcellus
5	10/3/2013	11782	11983	50	Marcellus
6	10/4/2013	11482	11683	50	Marcellus
7	10/7/2013	11182	11383	50	Marcellus
8	10/9/2013	10882	11083	50	Marcellus
9	10/10/2013	10582	10783	50	Marcellus
10	10/10/2013	10282	10483	50	Marcellus
11	10/11/2013	9982	10183	50	Marcellus
12	10/14/2013	9682	9883	50	Marcellus
13	10/15/2013	9382	9583	50	Marcellus
14	10/16/2013	9082	9283	50	Marcellus
15	10/17/2013	8782	8983	50	Marcellus
	See	Page	4		

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations 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	9/30/13	78.5	7510	N/A	3920	139500	4669	n/a
2	9/30/13	75.3	7766	5243	5065	244000	6981	n/a
3	10/1/13	80.3	7238	5259	4311	388900	8350	n/a
4	10/2/13	77.8	7525	5341	4286	383000	9741	n/a
5	10/3/13	75.7	7534	5467	5997	420000	8872	n/a
6	10/4/13	77	7661	5179	5175	315000	9365	n/a
7	10/7/13	81.9	7349	5367	n/a	426000	9889	n/a
8	10/9/13	78.5	7514	n/a	5322	426000	9413	n/a
9	10/10/13	74.4	7757	n/a	5770	199100	8324	n/a
10	10/10/13	76.6	7618	5230	4268	320000	8892	n/a
11	10/11/13	70.4	7079	5228	n/a	426000	9523	n/a
12	10/14/13	73.6	7098	n/a	4014	386000	9594	n/a
13	10/15/13	71.4	7188	5341	5401	416000	10064	n/a
14	10/16/13	73	6658	5238	4802	420000	8737	n/a
15	10/17/13	74.8	6687	5117	5305	432500	8816	n/a
	See	Page	4					

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)

DEPTHS

Marcellus (LP - TD) 7215' - 7230' TVD 7640' - 13104' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3450 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 7224 mcfpd Oil 0 bpd NGL 113 bpd Water 98 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 ₂ S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
Sand/Shale	0	0	0	0	
Pittsburgh Coal	n/a	n/a	n/a	n/a	
Sand/Shale	0	2242'	0	2242'	
Big Lime	2242'	2312'	2242'	2312'	
Big Injun	2312'	2534'	2312'	2534'	
Shale	2534'	3098'	2534'	3098'	
Fifty Foot					
Shale					
Sand					
Shale					
Fifth Sand	3098'	3150'	3098'	3150'	
Shale	3150'	7230'	3150'	13104'	
TD	7230'		13104'		

Please insert additional pages as applicable.

Drilling Contractor Dallas-Morris
Address 103 South Kendall City Bradford State PA Zip 16701

Logging Company Empirca Surface Logging
Address 85 Karago Ave, Suite 12 City Youngstown State OH Zip 44512

Cementing Company Baker Hughes
Address PO Box 301057 City Dallas State TX Zip 75303-1057

Stimulating Company Producers Service Company
Address PO Box 2277 City Zanesville State OH Zip 43702-2277

Please insert additional pages as applicable.

Completed by Joshua Hinton Telephone 304-420-1103
Signature [Signature] Title Operations Manager Date 8-15-14

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