

WR-35
Rev (9-11)

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

DATE: January 23, 2013
API #: 47-103-2643

Farm name: L. S. Hoyt Operator Well No.: 402-3H

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LOCATION: Elevation: 1428' Quadrangle: Pine Grove 7.5'

District: Grant County: Wetzel
Latitude: _____ Feet South of _____ Deg. _____ Min. _____ Sec.
Longitude _____ Feet West of _____ Deg. _____ Min. _____ Sec.

JUL 26 2013

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Company: HG Energy, LLC

Address:	Casing & Tubing	Used in drilling	Left in well.	Cement fill up Cu. Ft.
5260 Dupont Road Parkersburg, WV 26101	20" Casing	40'	40'	N/A - Drilled
Agent: Mike Kirsch	94 #, H-40			In
Inspector: Derek Haught				
Date Permit Issued: 5/26/2011	13 3/8" Casing	1,383'	1,383'	Cement to Surface
Date Well Work Commenced: 9/01/2011	54.5#, J-55			1172 Sacks
Date Well Work Completed: 11/27/2012				
Verbal Plugging:	9 5/8" Casing	3,488'	3,488'	Cement to Surface
Date Permission granted on:	40#, J-55			1232 Sacks
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 7,398' 7,452'	5 1/2" Casing	12,898'	12,898'	Cement to Surface
Total Measured Depth (ft): 12,920'	20#, P-110			1711 Sacks
Fresh Water Depth (ft.): 160', 440'				
Salt Water Depth (ft.): 1,940'	2 3/8" Tubing	N/A	7,612'	N/A
Is coal being mined in area (N/Y)? No	4.7 #, L-80			
Coal Depths (ft.): 936', 1,033', 1,172'				
Void(s) encountered (N/Y) Depth(s) N/A				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheet)

Producing formation Marcellus Pay zone depth (ft) 7,398'
Gas: Initial open flow 11,000 MCF/d Oil: Initial open flow 288 Bbl/d
Final open flow 9,000 MCF/d Final open flow 240 Bbl/d
Time of open flow between initial and final tests 24 Hours
Static rock Pressure 3,600 psig (surface pressure) after 24 Hours

Second producing formation N/A Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

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I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Diane White
Signature

2-27-13
Date

09/27/2013

103-02643

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes X No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list _____
Real time gamma ray logs while drilling via the MWD Tool. Also Mud logs.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

---See Attached---

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered: _____ Top Depth _____ / _____ Bottom Depth _____
Surface: _____

TVD Tops	Bottom
Big Lime - 2420	2490
Big Injun - 2490	2712
Gordon Stray - 3276	3307
Gordon - 3307	3328
Tully - 7312	7336
Hamilton - 7336	7407
Marcellus - 7407	7451 ? 7452

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103-02643

Stage	# of Ports	Total Add (gal)	Total Water (bbl)	Total Sand (bbl)	Total Slurry (bbl)	Prod Vol (bbl)	100 Mesh (lb)	40/70 Mesh (lb)	40/70 RC Mesh (lb)	BSP (gal)	SRP (gal)	1 Min SRP (gal)	2 Min SRP (gal)	5 Min SRP (gal)	ATP (gal)	Avg Rate (bbl/min)	Purge Volume (bbl)
Stage 1	RDV	1,000	9,206	389,600	9,690	2,045	80,600	289,700	11,000	5,393	4,631	3,824	3,546	3,164	7,393	80	-
1	60	1,000	9,101	388,600	9,585	2,066	66,700	297,700	20,200	5,247	4,699	4,227	4,057	3,746	7,279	80	-
2	60	1,000	9,298	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
3	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
4	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
5	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
6	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
7	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
8	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
9	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
10	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
11	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
12	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
13	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
14	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
15	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
16	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
17	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
18	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
19	60	1,000	9,292	410,600	10,711	2,199	73,700	316,700	20,200	5,502	4,838	4,130	3,905	3,588	7,284	79	-
TOTAL / AVG	1,080	19,000	151,944	7,466,200	169,764	31,594	1,596,100	5,613,500	226,200	5,394	4,550	3,720	3,543	3,301	6,710	77	3,113

Performing Details

Stage	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
Stage 1	12808	NA	NA	NA	NA	RDV
Plug Setting Depth	12808	NA	NA	NA	NA	Perf Method
Stage 2	12716	12843-45	12598-60	12533-55	12513-15	PD
Plug Setting Depth	12716	12843-45	12598-60	12533-55	12513-15	Perf Method
Stage 3	12463	12413-45	12372-75	12328-85	12283-45	PD
Plug Setting Depth	12463	12413-45	12372-75	12328-85	12283-45	Perf Method
Stage 4	12193	12140-42	12098-100	12056-58	12010-12	PD
Plug Setting Depth	12193	12140-42	12098-100	12056-58	12010-12	Perf Method
Stage 5	11973	11873-75	11833-85	11788-90	11743-45	PD
Plug Setting Depth	11973	11873-75	11833-85	11788-90	11743-45	Perf Method
Stage 6	11653	11563-65	11518-20	11475-77	11433-35	PD
Plug Setting Depth	11653	11563-65	11518-20	11475-77	11433-35	Perf Method
Stage 7	11370	11333-85	11248-50	11203-05	11163-85	PD
Plug Setting Depth	11370	11333-85	11248-50	11203-05	11163-85	Perf Method
Stage 8	11113	11063-65	11073-25	10978-80	10933-35	PD
Plug Setting Depth	11113	11063-65	11073-25	10978-80	10933-35	Perf Method
Stage 9	10843	10793-95	10753-85	10708-10	10663-65	PD
Plug Setting Depth	10843	10793-95	10753-85	10708-10	10663-65	Perf Method
Stage 10	10573	10523-25	10483-85	10488-90	10393-95	PD
Plug Setting Depth	10573	10523-25	10483-85	10488-90	10393-95	Perf Method
Stage 11	10310	10263-55	10213-15	10168-70	10123-25	PD
Plug Setting Depth	10310	10263-55	10213-15	10168-70	10123-25	Perf Method
Stage 12	10093	9983-85	9943-45	9898-9900	9853-55	PD
Plug Setting Depth	10093	9983-85	9943-45	9898-9900	9853-55	Perf Method
Stage 13	9763	9710-12	9668-70	9625-27	9583-85	PD
Plug Setting Depth	9763	9710-12	9668-70	9625-27	9583-85	Perf Method
Stage 14	9490	9443-45	9403-05	9358-60	9313-15	PD
Plug Setting Depth	9490	9443-45	9403-05	9358-60	9313-15	Perf Method
Stage 15	9273	9173-75	9133-35	9088-90	9043-45	PD
Plug Setting Depth	9273	9173-75	9133-35	9088-90	9043-45	Perf Method

Stage	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
Stage 15	8950	8903-05	8863-65	8818-20	8773-75	PD
Plug Setting Depth	8950	8903-05	8863-65	8818-20	8773-75	Perf Method
Stage 16	8683	8633-35	8593-95	8550-52	8506-08	PD
Plug Setting Depth	8683	8633-35	8593-95	8550-52	8506-08	Perf Method
Stage 18	8413	8363-65	8323-25	8278-80	8233-35	PD
Plug Setting Depth	8413	8363-65	8323-25	8278-80	8233-35	Perf Method
Stage 19	8153	8118-20	8093-95	8063-65	8033-35	PD
Plug Setting Depth	8153	8118-20	8093-95	8063-65	8033-35	Perf Method

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