

WR-35  
Rev (9-11)

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

DATE: \_\_\_\_\_  
API #: 49-103-02640

Well Operator's Report of Well Work

Farm name: DALLISON LUMBER, INC  
LS Hoyt Operator Well No.: 401-6H LS HOYT 401 6H

LOCATION: Elevation: 1375' Quadrangle: PINE GROVE 7.5'

District: GRANT County: WETZEL  
Latitude: 8246' Feet South of 39 Deg. 37 Min. 30 Sec.  
Longitude: 5012' Feet West of R0 Deg. 37 Min. 30 Sec.

Company: HG ENERGY LLC

Address	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>5260 DUPONT ROAD</u> <u>PARKERSBURG, WV 26101</u>	<u>20" CASING</u>	<u>40'</u>	<u>40'</u>	<u>N/A</u>
Agent: <u>MIKE KIRSCH</u>	<u>4" H-40</u>			<u>DRILLED IN</u>
Inspector: <u>DEREK HAUGHT</u>				
Date Permit Issued: <u>7/18/2011</u>	<u>13 3/8" CASING</u>	<u>485.25'</u>	<u>485.25'</u>	<u>CEMENT TO SURFACE</u>
Date Well Work Commenced: <u>12/10/2011</u>	<u>54.5" J-55</u>			<u>415 SKS</u>
Date Well Work Completed: <u>4/27/2013</u>				
Verbal Plugging:	<u>4 5/8" CASING</u>	<u>3365.81'</u>	<u>3365.81'</u>	<u>CEMENT TO SURFACE</u>
Date Permission granted on:	<u>40" J-55</u>			<u>1210 SKS</u>
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): <u>7436.34'</u>	<u>5 1/2" CASING</u>	<u>12,549'</u>	<u>12,549'</u>	<u>CEMENT TO SURFACE</u>
Total Measured Depth (ft): <u>12,578'</u>	<u>20" P110</u>			<u>2054 SKS</u>
Fresh Water Depth (ft.): <u>115', 415'</u>				
Salt Water Depth (ft.): <u>1915'</u>	<u>2 1/2" TUBING</u>	<u>7463.52'</u>	<u>7463.52'</u>	<u>N/A</u>
Is coal being mined in area (N/Y)? <u>NO</u>	<u>4.75" L-80</u>			
Coal Depths (ft.): <u>910', 1005', 1144'</u>				
Void(s) encountered (N/Y) Depth(s) <u>N, N/A</u>				

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

Producing formation Marcellus Shale Pay zone depth (ft) 7436.34  
Gas: Initial open flow 9.2M MCF/d Oil: Initial open flow 80 Bbl/d  
Final open flow 9.0M MCF/d Final open flow 80 Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 2,800 psig (surface pressure) after 24 Hours

Second producing formation \_\_\_\_\_ 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

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.

DCW for Josh Hinton  
Signature

Date

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**APPROVED**

NAME: Jaqueline Hinton  
DATE: 3/28/2016

04/01/2016

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 MUD LOGS AND REAL TIME MWD GAMMA RAY LOGS while we drilled the curves AND INTERVAL PORTION OF THE WELL,

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 SHEET -

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

\_\_\_\_\_

Formations Encountered:  
Surface:

Top Depth

1

Bottom Depth

	TVD TOPS	BOTTOM
BIG LIME	2367	2437
BIG INJUN	2437	2659
GORDON STRAY	3223	3254
GORDON	3254	3275
TULLY	7748	7852
HAMILTON	7852	8351
MARCELLUS	8351	TD

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**L S Hoyt 401 6H 47-103-02640 - Perforating Detail**

Stage 1						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
N/A	12462	N/A	N/A	N/A	N/A	RDV
Stage 2						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
12385	12335-36	12285-86	12235-36	12185-86	12135-36	PD
Stage 3						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
12080	12035-36	11985-86	11935-36	11885-86	11835-36	PD
Stage 4						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11785	11735-36	11685-86	11635-36	11585-86	11535-36	PD
Stage 5						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11485	11435-36	11385-86	11335-36	11285-86	11235-36	PD
Stage 6						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
11185	11135-36	11085-86	11035-36	10985-86	10935-36	PD
Stage 7						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10885	10835-36	10785-86	10735-36	10685-86	10635-36	PD
Stage 8						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10585	10535-36	10485-86	10435-36	10385-86	10335-36	PD
Stage 9						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
10285	10235-36	10185-86	10135-36	10085-86	10035-36	PD
Stage 10						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9985	9935-36	9885-86	9835-36	9785-86	9735-36	PD
Stage 11						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9685	9635-36	9585-86	N/A	9505-06	9450-51	PD
Stage 12						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9390	9335-36	9285-86	9235-36	9185-86	9135-36	PD
Stage 13						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
9080	9035-36	8985-86	8935-36	8885-86	8835-36	PD
Stage 14						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
8785	8735-36	8685-86	8635-36	8585-86	8535-36	PD
Stage 15						
Plug Setting Depth	1st Cluster	2nd Cluster	3rd Cluster	4th Cluster	5th Cluster	Perf Method
8498	8475-76	8445-46	8415-16	8384-85	8355-56	PD

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LS Hoyt 401 #6H Frac Summary - 47-103-02640

Stage	# of Perfs	Total Acid (gal)	Total Water (bbl)	Total Sand (lbs)	Total Slurry (bbl)	Prod Vol (bbl)	100 mesh (lbs)	40/70 Mesh (lbs)	30/50 Mesh (lbs)	20/40 Mesh (lbs)	BOP (psi)	ISIP (psi)	1 Min SIP (psi)	2 Min SIP (psi)	3 Min SIP (psi)	ATP (psi)	Avg Rate (bbl/min)	PUMP DOWN (bbl)
1	N/A	1,000	7,339	179,700	7,767	1,221	50,400	129,300	-		N/A	3,993	3,734	3,632	3,472	7,612	73	-
2	60	1,000	9,153	409,400	9,910	1,225	50,400	151,000	208,100		N/A	5,051	4,469	4,228	3,898	7,635	69	304
3	60	1,000	7,433	299,400	7,981	1,213	50,400	151,000	98,000		N/A	4,883	4,545	4,353	4,059	6,874	69	281
4	60	1,000	9,854	406,300	10,572	1,256	74,600	125,800	205,700		5,965	4,575	4,077	3,916	3,712	7,176	71	241
5	60	1,000	9,803	349,000	10,430	1,238	85,100		114,800	149,000	N/A	4,735	4,150	3,918	3,635	6,998	70	227
6	60	1,000	9,266	403,500	9,941	1,280	100,200	149,900	153,400		N/A	4,091	3,664	3,718	3,505	6,606	74	207
7	80	1,000	8,090	267,600	8,748	1,270	100,200	136,100	81,500		1,270	3,664	3,517	3,443	3,339	6,038	71	212
8	60	1,000	9,864	424,000	10,077	1,296	100,200	150,000	173,800		5,584	4,523	4,028	3,794	3,530	6,870	72	157
9	60	1,000	9,438	391,700	10,103	690	100,200	182,500	159,000		5,242	4,379	4,000	3,803	3,567	6,756	73	167
10	60	1,000	9,793	398,700	10,483	797	120,600	150,000	128,700		5,109	N/A	N/A	N/A	N/A	6,775	76	140
11	60	1,000	5,187	87,800	5,440	811	46,000	41,800	-		5,190	5,274	4,492	4,090	3,703	7,731	67	129
12	60	1,000	9,571	423,100	10,903	1,233	119,300	150,000	153,800		N/A	5,204	4,666	4,356	3,930	7,869	70	117
13	60	1,000	8,792	350,400	9,416	835	46,600	150,000	153,800		N/A	6,128	5,607	5,338	4,980	7,401	70	98
14	60	1,000	7,868	420,800	8,645	822	120,000	150,100	150,700		5,249	4,874	3,980	3,818	3,563	6,558	65	89
15	60	1,000	8,040	416,200	8,698	818	120,000	106,600	191,600		5,250	3,968	3,552	3,416	3,268	6,297	76	70
TOTAL / AVG	840	15,000	129,111	5,223,900	138,516	18,028	1,283,900	1,874,100	1,922,900	143,000	4,854	4,632	4,192	3,987	3,722	6,979	71	2419

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