

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

RECEIVED

FEB 4 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

API 47-033-05839 County HARRISON District TEN MILE
Quad WOLF SUMMIT 7.5' Pad Name HIRAM LYNCH 55 Field/Pool Name WOLF SUMMIT
Farm name JOHNSON, WILLIAM R. ET UX Well Number 55
Operator (as registered with the OOG) H.G. 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 4,349,039 M Easting 544,354 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4,348,881 M Easting 544,350 M

Elevation (ft) 1,176' 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 10/13/14 Date drilling commenced 12/10/14 Date drilling ceased 12/15/14
Date completion activities began 12/22/14 Date completion activities ceased 12/23/14
Verbal plugging (Y/N) N 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 N Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1100' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 440'- 447' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

WR-35
Rev. 8/23/13

API 47-033 - 05839 Farm name JOHNSON, WILLIAM R. ET UX Well number 55

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	12 1/4"	11 5/8"	30'	Used	LS		Sand In
Surface	8 3/4"	7"	507'	New	LS	64'	Y
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2947.45'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Circulated Est. 40 sks to surface on 7" surface cement job. Circulated Est. 30 sks to surface on 4 1/2" cement job.

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							
Surface	Reg Neat	120	15.6	1.18	142	Surface	8
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix	150/135	14.2/11.8	1.27/1.64	191/221	Surface	8
Tubing							

Drillers TD (ft) 2990' Loggers TD (ft) 2971'
 Deepest formation penetrated Fifth Sand Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) 650'

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 _____
20 Centralizers every 88 from bottom on 4 1/2", Centralizer placed mid string on 7"

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 _____

RECEIVED

FEB 4 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

WR-35
Rev. 8/23/13

API 47- 033 - 05839 Farm name JOHNSON, WILLIAM R. ET UX Well number 55

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
Fifth Sand	2765- 2784'	TVD 2828- 2848' MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

RECEIVED

FEB 4 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____ hrs
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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)
Sand/Shale	0	440	0	440	
Pittsburgh Coal	440	447	440	447	
Sand/Shale	447	1792	447	1820	
Big Lime	1792	1870	1820	1902	
Big Injun	1870	1932	1902	1968	
Shale	1932	2356	1968	2408	
Fifty Foot	2356	2378	2408	2438	
Shale	2378	2450	2438	2502	
Sand	2450	2620	2502	2678	
Shale	2620	2765	2678	2828	
Fifth Sand	2765	2784	2828	2848	Drilled directional S 5° E a distance of 457'
Shale	2784	2923	2848	2990	
TD	2923		2990		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
 Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
 Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
 Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Universal Services
 Address Hall Rd City Buckhannon State WV Zip 26201

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
 Signature *Roger Heldman* Title Operations Manager Date _____

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

WR-35
Rev. 8/23/13

API 47- 033 - 05839

Farm name JOHNSON, WILLIAM R. ET UX Well number 55

PRODUCING FORMATION(S)	DEPTHS	
Fifth Sand	2765- 2784'	TVD 2828- 2848' MD

RECEIVED
FEB 4 2015
WV GEOLOGICAL SURVEY
MORGANTOWN, WV

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

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

OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ 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	440	0	440	
Pittsburgh Coal	440	447	440	447	
Sand/Shale	447	1792	447	1820	
Big Lime	1792	1870	1820	1902	
Big Injun	1870	1932	1902	1968	
Shale	1932	2356	1968	2408	
Fifty Foot	2356	2378	2408	2438	
Shale	2378	2450	2438	2502	
Sand	2450	2620	2502	2678	
Shale	2620	2765	2678	2828	
Fifth Sand	2765	2784	2828	2848	Drilled directional S 5° E a distance of 457'
Shale	2784	2923	2848	2990	
TD	2923		2990		

Please insert additional pages as applicable.

Drilling Contractor Decker Drilling
Address 11565 State Route 676 City Vincent State OH Zip 45784

Logging Company Weatherford International
Address 777 North River Avenue City Weston State WV Zip 26452

Cementing Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Stimulating Company Universal Services
Address Hall Rd City Buckhannon State WV Zip 26201

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
Signature *Roger Heldman* Title Operations Manager Date _____

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



Field Ticket - (This is not an invoice)

Start Date - 12/23/2014

End Date - 12/23/2014

Customer HG Energy		Customer No. #N/A		Project No.		
#N/A		AFE / PO No.		Task No.		
#N/A		Job Type Frac		Job Type Description 1 Stage Crosslink Frac		Formation Upper Devonian
District Buckhannon		Casing	New/Used used	Size 4.5	From 1	To 2990
Bid Number:		Tubing	Arrived on Location	8:15	Left Location	Weight
Well Name and No. H. Lynch 55		Open Hole	Time	Date	Time	Date
Well Type	County: Harrison	Perforations	Perforations	Perforations	No. of Shots	No. of Shots
Gas	Township:	Perforations	Perforations	Perforations	No. of Shots	No. of Shots
State	API #	Perforations	Perforations	Perforations	No. of Shots	No. of Shots
WV	047-033-05839	Depth	Drilling Contractor	Max PSI Allowed	4000	

Product Code	Description	Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Net Amount
800000	Unit Mileage Charge Trucks and Vans (Except Bulk Units), Per Unit Mile	Mi	210.000				
800010	Crew & Light Duty Vehicle Mileage Charge, Per Unit Mile	Mi	70.000				
800051	Transport Delivery Charge (4 Hr Minimum), Per Hr	Hrs	4.000				
800070	Proppant and Bulk Delivery Charges, Per Ton Mile	TM	525.000				
802306	Minimum Pump Charge, <1500 HP, 1st 4 Hrs	Ea	1.000				
803401	0 - 10 BPM Computerized Blender, 1st 4 Hrs	Ea	1.000				
810010	Treatment Van, (WINFRAC Data Monitoring or Similar)	Job	1.000				
820035	Unihib G	Gal	0.500				
820505	LEB 10X - Liquid Enzyme Breaker	Qts	4.000				
820955	Cla-Chek G	Gal	6.000				
821125	Unilink 8.5 Crosslinker (Borate)	Gal	12.000				
822235	Unigel 19 XL	Lb	200.000				
822565	Iron Control - A (EC6673A)	Gal	5.000				
822936	NE-90G	Gal	8.000				
823805	Supersurf, Surfactant (Non-Ionic)	Gal	11.000				
825030	15% HCl Acid, Area 1	Gal	500.000				
833000	20-40 mesh White Sand, Area 1	CWT	150.000				
837000	Proppant Pumping Charge, 20/40 mesh or smaller	CWT	150.000				

						0.00%	
						0.00%	
						0.00%	
						0.00%	
						0.00%	
						0.00%	

Mileage Calculation Section		Unit of Measure	Quantity	List Price/Unit	Gross Amount	Item Discount	Net Amount
800000	Unit Mileage Charge Trucks and Vans (Except Bulk Units), Per Unit Mile	Mi					
		UNITS					
800070	Proppant and Bulk Delivery Charges, Per Ton Mile	TM					
		Loaded Total Miles					
860050	Cement Delivery Charge	TM					
		Loaded Total Miles					

Comments:

X

CUSTOMER AUTHORIZED AGENT SIGNATURE

Customer Representative:

UWS Authorized Agent:

Date:

RECEIVED

FEB 4 2015

WV GEOLOGICAL SURVEY
MORGANTOWN, WV