

JK

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

API 47-033-05684 County HARRISON District SARDIS
Quad WOLF SUMMIT 7.5' Pad Name C.L. GRIFFIN Field/Pool Name WOLF SUMMIT
Farm name MIKE ROSS, INC. & I.L. MORRIS Well Number 10
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 4,353,331 M Easting 547,702 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1,152' 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

This is a brine well

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

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WV Dept. of Environmental Protection
Date permit issued 10/24/12 Date drilling commenced 1/31/14 Date drilling ceased 2/3/14
Date completion activities began 5/19/14 Date completion activities ceased 5/22/14
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 None Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft 190'-200' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

06/27/2017

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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	17 1/2'	13 3/8"	30'	Used	LS		Sand In
Surface	12 1/4"	9 5/8"	253'	New	LS	64'	Y
Coal							
Intermediate 1	8 3/4"	7"	450'	New	LS	64'	N
Intermediate 2							
Intermediate 3							
Production	6 1/2"	4 1/2"	2731.6'	New	J-55		Y
Tubing							
Packer type and depth set							

Comment Details Grouted surface on 7" surface cement job w/ 45 sks. Circulated Est. 50 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	165	15.6	1.18	195	Surface	8
Coal							
Intermediate 1	Reg Neat	110	15.6	1.18	130	Surface	8
Intermediate 2							
Intermediate 3							
Production	50:50 Pozmix/ Econo	200/60	14.2/11.8	1.27/2.93	254/176	25'	8
Tubing							

Drillers TD (ft) 2810' Loggers TD (ft) 2778'
 Deepest formation penetrated Fifth Sand 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 _____
6 Centralizers every 64' from bottom on 4 1/2", Centralizer placed mid string on 7", Centralizer placed mid string on 9 5/8"

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 _____

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	5/19/14	2600'	2603'	12	Fifth Sand
1	5/22/14	2592'	2593'	4	
1	5/22/14	2578'	2581'	12	

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	5/22/14	10	1740	2227	1667	40,000	862	

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Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS
Fifth Sand	2581'-2603 TVD MD

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	190	0		
Pittsburgh Coal	190	200			
Sand/Shale	200	1596			
Big Lime	1596	1678			
Big Injun	1678	1755			
Shale	1755	2178			
Fifty Foot	2178	2200			
Shale	2200	2254			
Sand	2254	2444			
Shale	2444	2581			
Fifth Sand	2581	2603			
Shale	2603	2810			
TD	2810				

Please insert additional pages as applicable.

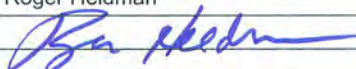
Drilling Contractor Decker Drilling
 Address 11565 State Route 676 City Vincent State OH Zip 45784

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

Cementing Company Baker Hughes
 Address 2228 Phillipi Pike City Clarksburg State WV Zip 26301

Stimulating Company Producers Service Corp.
 Address 109 South Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Roger Heldman Telephone 304-420-1107
 Signature  Title Operations Manager Date 06/17/14

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

33.05684

Prepared for:
HG Energy LLC.
Dustin Hendrshot



Prepared by:
Producers Service Corp
Justin Snyder
109 S. Graham St.
Zanesville, OH 43702
740-454-6253

INVOICE #: 15668
 WELL NAME: CL Griffin #10 Stage #2
 COUNTY/STATE Harrison/WV
 TOWNSHIP/FIELD: Wolf Summit
 DATE of SERVICE: 5/22/2014
 CUSTOMER PO#

Description	Notes	Amount	Units	Unit Cost	Total Cost
FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS		1	EA	\$	2750.00
BLENDER CHARGE 0-10 BPM		1	EA	\$	
MILEAGE CHARGE PER UNIT ONE WAY	2 Units @ 70 Miles		MI	\$	
SAND 20/40 OTTAWA		200	CWT	\$	
SAND DELIVERY / TON MILES	10 Tons X 70 Miles	700	TMILE	\$	
IC ACID 15%		500	GAL	\$	
PRO HIB II		1	GAL	\$	
ACID DELIVERY			HR	\$	
PRO CLA LOK (KCL SUBSTITUTE)		20	GAL	\$	
PRO NE-21		10	GAL	\$	
PRO GEL 4		400	LB	\$	
BUFFER I		50	LB	\$	
BUFFER II		50	LB	\$	
BIO CLEAR 750		1	LB	\$	
AP BREAKER		22	LB	\$	
BXL-A		15	GAL	\$	
BXL-10C		15	GAL	\$	
DATA VAN		1	STAGE	\$	
Flowmeter 2" or 3"		1	STAGE	\$	

Customer Approval: _____

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