

PM

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

API 47-043-03478 County LINCOLN District DUVAL
Quad GRIFFITHSVILLE 7.5' Pad Name BAYS, M.A. Field/Pool Name GRIFFITHSVILLE
Farm name H.G. ENERGY LLC Well Number 155
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 4,232,189 M Easting 416,055 M
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 945' 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

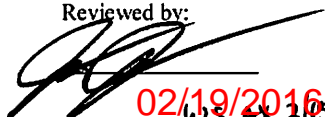
Drilling Media Surface hole Air Mud Fresh Water Intermediate hole Air Mud Fresh Water Brine
Production hole Air Mud Fresh Water Brine
Mud Type(s) and Additive(s)
N/A

Date permit issued 6/30/15 Date drilling commenced 10/1/15 Date drilling ceased _____
Date completion activities began 10/21/15 Date completion activities ceased _____
Verbal plugging (Y/N) N Date permission granted _____ Granted by _____

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug NOV 02 2015

Freshwater depth(s) ft None Open mine(s) (Y/N) depths None
Salt water depth(s) ft 1170' Void(s) encountered (Y/N) depths None
Coal depth(s) ft 566'- 572' Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) N

Reviewed by: 
02/19/2016
WS AT 1/5/16

API 47-043 - 03478 Farm name H.G. ENERGY LLC Well number 155

| 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" | 591' | New | LS | 64' | Y |
| Coal | | | | | | | |
| Intermediate 1 | | | | | | | |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 6 1/4" | 4 1/2" | 2556.2' | New | J-55 | | Y |
| Tubing | | | | | | | |
| Packer type and depth set | | | | | | | |

Comment Details Circulated Est. 50 sks to surface on 7" surface cement job. Circulated Est. 25 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 | 150 | 15.6 | 1.18 | 177 | Surface | 8 |
| Coal | | | | | | | |
| Intermediate 1 | | | | | | | |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 50:50 Pozmix | 100/125 | 13.2/14.2 | 1.64/1.27 | 164/186 | 69' | 8 |
| Tubing | | | | | | | |

Drillers TD (ft) 2600' Loggers TD (ft) 2605'
 Deepest formation penetrated Berea Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) _____

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 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 _____

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| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u> | |
|-------------------------------|-------------------------|-----------|
| <u>Berea</u> | <u>2440'- 2462'</u> TVD | <u>MD</u> |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

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 | 566 | 0 | | |
| Pittsburgh Coal | 566 | 572 | | | |
| Sand/Shale | 572 | 1722 | | | |
| Big Lime | 1722 | 1918 | | | |
| Big Injun | 1918 | 2028 | | | |
| Shale | 2028 | 2420 | | | |
| Coffee Shale | 2420 | 2440 | | | |
| Berea | 2440 | 2462 | | | |
| Shale | 2462 | 2600 | | | |
| TD | 2600 | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

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 11000 Performance PL City Youngstown State OH Zip 44502

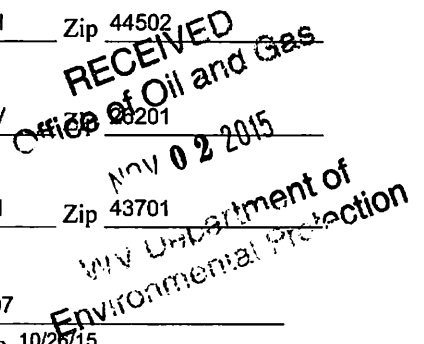
Cementing Company Universal Services
Address 14 Sewer Plant Rd City Buckhannon State WV Zip 2601

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 *Roger Heldman* Title Operations Manager Date 10/26/15

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



Prepared for:
 HG Energy
 Dustin Hendershot
 304-481-7342



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

INVOICE #: 19212

WELL NAME: MA Bays #155

STATE & COUNTY: Lincoln County, WV

TOWNSHIP/FIELD: Griffithsville

DATE of SERVICE: 10/23/2015

CUSTOMER PO#

| Description | Notes | Amount | Units | Unit Cost | Total Cost |
|---|----------------------|--------|-------|-----------|------------|
| BLENDER CHARGE 0-10 BPM | | 1 | EA | \$ | |
| FLUID PUMP CHARGE 0-3000 PSI MIN CHARGE 4 HRS | | 1 | EA | \$ | |
| MILEAGE CHARGE PER UNIT ONE WAY | 2 Units @ 66.6 Miles | 133.3 | MI | \$ | |
| SAND 20/40 OTTAWA | | 10 | CWT | \$ | |
| SAND DELIVERY / TON MILES | | 33 | TMILE | \$ | |
| IC ACID 15% | | 250 | GAL | \$ | |
| ACID DELIVERY | | 4 | HR | \$ | |
| PRO CLA LOK (KCL SUBSTITUTE) | | 10 | GAL | \$ | |
| PRO NE-21 | | 10 | GAL | \$ | |
| IRONROL | | 50 | LB | \$ | |
| PRO GEL 4 | | 150 | LB | \$ | |
| BUFFER I | | 50 | LB | \$ | |
| BIO CLEAR 750 | | 1 | LB | \$ | |
| DATA VAN | | 1 | STAGE | \$ | |
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Customer Approval: _____

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