



Jackie M. Scholar
Regulatory Reporting Coordinator

May 10, 2016

CERTIFIED MAIL: 7015 0640 0001 0567 4437

WV DEP
Office of Oil and Gas
601 – 57th Street
Charleston, WV 25304

RE: Amended Well Operator's Report of Well Work WR-35
Berger 1H

Dear Sir/Madam,

Enclosed here within please find one (1) Amended Well Operator's Report of Well Work WR-35 for the **Berger 1H, (API 47-051-01702)**. The following items have been amended:

- **Production Information**

If you have any questions, please contact me at (724) 564-3721. Thank you.

Sincerely,
Chevron Appalachia, LLC

Jackie M. Scholar

Enclosures

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MAY 13 2016
WV Department of
Environmental Protection

Appalachian/Michigan Business Unit
Chevron North America Exploration & Production Company (a division of Chevron U.S.A. Inc.)
800 Mountain View Drive, Smithfield, PA 15478
Tel 724-564-3721
jscholar@chevron.com

10/28/2016

AMENDED

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

API 47-051-01702 County Marshall District Clay
Quad Powhatan, OH-WW Pad Name Berger Field/Pool Name _____
Farm name Berger Well Number 1H
Operator (as registered with the OOG) Chevron Appalachia, LLC
Address 800 Mountain View Drive City Smithfield State PA Zip 15478

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4413872.10 Easting 520992.07
Landing Point of Curve Northing 4413780.46 Easting 521383.83
Bottom Hole Northing 4412347.83 Easting 522500.66

Elevation (ft) 1292' 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)
non aqueous fluid containing weighting agent, fluid loss additive, emulsifier, viscosity, and rheological control agent, oil-wetting agent, fluid rheology conditioner

Date permit issued 2/26/2014 Date drilling commenced 6/25/2014 Date drilling ceased 2/17/2015
Date completion activities began 8/4/2015 Date completion activities ceased 12/10/2015
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

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Freshwater depth(s) ft 169' MD Open mine(s) (Y/N) depths MAY 13 2016
Salt water depth(s) ft N/A Void(s) encountered (Y/N) depths N
Coal depth(s) ft 768'MD, 820'MD, 830'MD, 850'MD Cavern(s) encountered (Y/N) depths WV Department of
Is coal being mined in area (Y/N) Y Environmental Protection

Reviewed by: [Signature]

10/28/2016

API 47-051 - 01702 Farm name Berger Well number 1H

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	36	30	40	New	118.76#; X-42		
Surface	17 1/2	13 3/8	303	New	54.50#; J-55		
Coal							
Intermediate 1	12 1/4	9 5/8	2683	New	40#; N-80		
Intermediate 2							
Intermediate 3							
Production	8 1/2	5 1/2	13372	New	20#; P-110		
Tubing							
Packer type and depth set							

Comment Details _____

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	Bulk	60					
Surface		384	15.60	1.21	465	Surface	8
Coal							
Intermediate 1		925	15.60	1.23	1138	Surface	8
Intermediate 2							
Intermediate 3							
Production	Class A; Easy BLOK	2589	15.20	1.30	3366	Surface	8
Tubing							

Drillers TD (ft) 13417' Loggers TD (ft) 13417'
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 5153'

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 Bow spring centralizer every two joints on the water and intermediate string. Production string has two centralizer every joint in the lateral and curve, then one every two joints from KOP to surface.

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS See attached perforation stimulation report

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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API 47-051-01702 Farm name Berger Well number 1H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
		TVD	MD
Marcellus (S2B)	6439	7178	

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1820 psi Bottom Hole 3900 psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 218 mcfpd Oil 70 bpd NGL n/a bpd Water 338 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)
	0		0		
Pittsburgh Coal	830	831	830	831	Solid Coal Seam
Burkett	6296	6314	6680	6717	Grey shale
Tully	6314	6355	6717	6806	Limestone
S5	6355	6404	6806	6992	Black shale
S3	6404	6428	6992	7156	Black shale
Stafford	6428	6430	7156	7178	Limestone
S2B	6430	6439	7178	7268	Black shale

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHED
Address _____ City _____ State _____ Zip _____

Logging Company ALS Group USA Corp
Address 3352 128th Avenue City Holland State MI Zip 49424

Cementing Company SEE ATTACHED
Address _____ City _____ State _____ Zip _____

Stimulating Company Schlumberger Technology Corp
Address 4600 J Barry Court, Suite 200 City Canonsburg State PA Zip 15301

Please insert additional pages as applicable.

Completed by Jackie M. Schelar Telephone 724-564-3721
Signature [Signature] Title Regulatory Compliance Team Lead Date 5/10/2016

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOUR
WV Department of Environmental Protection
MAY 13 2016
8/23/16 10/28/2016