

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

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Office of Oil and Gas
JUN 15 2016

WV Department of
Environmental Protection

API 47-15-02888 County CLAY District UNION
Quad ELKHURST 7.5' Pad Name _____ Field/Pool Name _____
Farm name CONNER, CHESSIE ET. AL. Well Number J.S. COCHRAN #3
Operator (as registered with the OOG) CUNNINGHAM ENERGY, LLC
Address 3230 PENNSYLVANIA AVENUE City CHARLESTON State WV Zip 25302

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

Elevation (ft) 1,237' 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)
SOAP


Date permit issued 6/26/2013 Date drilling commenced 11/2/2013 Date drilling ceased 11/30/2013
Date completion activities began 2/25/2015 Date completion activities ceased 3/15/2015
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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

Freshwater depth(s) ft 200' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1150' - 1650' Void(s) encountered (Y/N) depths N
Coal depth(s) ft N/A Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

APPROVED

NAME: Jeremy James
DATE: 7-6-16

Reviewed By: 
Ax RBDMS 09/23/2016
09/20/16

API 47-15 - 02888

Farm name CONNER, CHESSIE ET. AL.

Well number J.S. COCHRAN #3

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	14 1/4"	13 3/8"	30'	NEW	J-55 - 42LBS	NONE	YES - CEMENTED BY RIG
Surface	12 1/4"	9 5/8"	377'	NEW	J-55 - 29LBS	120'	YES
Coal							
Intermediate 1	8 3/4"	7"	1908'	NEW	J-55 - 17LBS	335'	YES
Intermediate 2							
Intermediate 3							
Production	6 1/4"	4 1/2"	2230'	NEW	J-55 - 10.5LBS	NONE	YES
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	CLASS I	10-RIG				GROUND LEVEL	8
Surface	CLASS I	140	15.6	1.18	165.2	GROUND LEVEL	8
Coal							
Intermediate 1	CLASS I	275	14.7	1.36	374	GROUND LEVEL	8
Intermediate 2							
Intermediate 3							
Production	CLASS I	70	15.6	1.18	82.6	1650'	12
Tubing							

Drillers TD (ft) ^{2350'} _____

Loggers TD (ft) ^{2346'} _____

Deepest formation penetrated SQUAW

Plug back to (ft) _____

Plug back procedure _____

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 _____

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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PRODUCING FORMATION(S)	DEPTHS	
SQUAW	2062' TVD	2082' MD
BIG INJUN	2096'	2116'

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 200 psi Bottom Hole _____ psi DURATION OF TEST 12 hrs

OPEN FLOW Gas 8 mcfpd Oil 9 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	1048'	0		
SALT SANDS	1048'	1646'			
PENCIL CAVE	1646'	1832'			
LITTLE LIME	1832'	1871'			
SAND/SHALE	1871'	1891'			
BIG LIME	1891'	2003'			
SAND/SHALE	2003'	2062'			
BIG INJUN	2062'	2082'			
KEENER	2082'	2096'			
SQUAW	2096'	2116'			
SAND/SHALE	2116'	2350'			

Please insert additional pages as applicable.

Drilling Contractor CUNNINGHAM ENERGY, LLC
Address 3230 PENNSYLVANIA AVENUE City CHARLESTON State WV Zip 25302

Logging Company NABORS COMPLETION & PRODUCTION
Address 1650 HACKERS CREEK ROAD City JANE LEW State WV Zip 26378

Cementing Company FORMATION CEMENTING, INC.
Address P.O. BOX 2667 City ZANESVILLE State OH Zip 43702

Stimulating Company UNIVERSAL WELL SERVICE
Address 5 HALL ROAD City BUCKHANNON State WV Zip 26201

Please insert additional pages as applicable.

Completed by DANIELLE N. BOGGS Telephone 304-344-9291
Signature *Danielle N. Boggs* Title OPERATIONS MANAGER Date 6/15/2016

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

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