

AM JK

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

API 47-085-10124 County Ritchie District Murphy
Quad Smithville 7.5' Pad Name none Field/Pool Name Eva Field
Farm name Yoder, Noah L. & Emma Well Number J. E. Gum #4
Operator (as registered with the OOG) Murvin & Meier Oil Co.
Address P. O. Box 396 City Olney State IL Zip 62450

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,318,792.6 Easting 498,537.4
Landing Point of Curve Northing n/a Easting n/a
Bottom Hole Northing 4,318,792.6 Easting 498,537.4

Elevation (ft) 1108 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)
none

Date permit issued June 17, 2014 Date drilling commenced July 11, 2014 Date drilling ceased July 18, 2014
Date completion activities began July 24, 2014 Date completion activities ceased July 26, 2014
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

RECEIVED
Office of Oil and Gas
SEP 18 2014
WV Department of
Environmental Protection

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

Freshwater depth(s) ft 65, 105 Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Void(s) encountered (Y/N) depths N
Coal depth(s) ft None Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: _____

09/19/2014

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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		16"	20'	new			
Surface	15"	11 3/4"	337'	new	A500 32#	42'	Y
Coal							
Intermediate 1	11"	8 5/8"	1311'	new	A500 20#	42	Y
Intermediate 2							
Intermediate 3							
Production	7 7/8"	4 1/2"	2519'	new	WT65 10.5#	1743'	N
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							
Surface	A	200	15.6	1.18	236	CTS	8
Coal							
Intermediate 1	A	300	14.8	1.40	420	CTS	8
Intermediate 2							
Intermediate 3							
Production	CBL Poz	170	13.5	1.54	262	1370'	
Tubing							

Drillers TD (ft) 2,578' Loggers TD (ft) 2,567'
 Deepest formation penetrated Bersa 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 4 1/2" x 7 7/8": 2476' 2390' 2303' 2217' 2045' 1959' 1873'

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	7-25-2014	2421	2431	30	Berea
2	7-25-2014	2062	2070	12	Big Injun
	7-25-2014	2074	2082	24	Big Injun

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	7/25/14	34	1460	1834	820	25,000	580	88,000 scf
2	7/25/14	37	1390	850	1130	30,000	650	93,000 scf

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS	
same as perforation record	_____ TVD	_____ MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 50 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 20 mcfpd Oil show 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)
	0	8	0	8	
Fill	8	10	8	10	
Sd, Sh, RR	10	1222	10	1222	damp - 48', 1/4" H2O 65', 3/4" H2O 105'
Salt Sand	1222	1252	1222	1252	
Sd, Sh, RR	1252	1490	1252	1490	
Sand	1490	1667	1490	1667	oil odor at 1660'
3rd Salt Sand	1667	1724	1667	1724	
Sd, Sh	1724	1800	1724	1800	gas - 1800'
Maxon	1800	1838	1800	1838	
Sd, Sh	1838	1910	1838	1910	
L. Lime	1910	1937	1910	1937	
Sand	1937	1948	1937	1948	
Big Lime	1948	1988	1948	1988	
Keener	1988	2020	1988	2020	

Please insert additional pages as applicable.

Drilling Contractor Nexus Drilling Corporation
Address P. O. Box 903 City Jane Lew State WV Zip 26378

Logging Company Nabors Completion & Production Services Co.
Address P. O. Box 975682 City Dallas State TX Zip 75397-5682

Cementing Company Universal Well Services, Inc.
Address P. O. Box 200969 City Dallas State TX Zip 75320

Stimulating Company Universal Well Services, Inc.
Address P. O. Box 200969 City Dallas State TX Zip 75320

Please insert additional pages as applicable.

Completed by Kate M. Blackford Telephone 618-395-4405
Signature Kate M. Blackford Title Executive Vice-President Date 9/11/2014

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

Farm name: Yoder, Noah L. Emma
Well number: J. E. Gum #4
API 47-085-10124

Lithology / Formation	Top Depth in FT Name TVD	Bottom Depth in FT TVD	Top Depth in FT MD	Bottom Depth in FT MD	Described Rock Type and Record Quantity and Type of Fluid (Freshwater, Brine, Oil, Gas, H2S, etc.)
Big Injun	2020	2146	2020	2146	
Sd. Sh	2146	2428	2146	2428	
Berea	2428	2438	2428	2438	
Shale	2438	2578	2438	2578	
Total Depth	2578		2578		