

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

API 47-017-06091 County Doddridge District New Milton
Quad New Milton 7.5' Pad Name Farr Field/Pool Name _____
Farm name Robert and Larry Johnston Well Number 4 (four)
Operator (as registered with the OOG) Jan Chapman - Key Oil Company
Address 22 Garton Plaza City Weston State WV Zip 26452

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

Elevation (ft) 1272 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 05/02/12 Date drilling commenced 08/19/13 Date drilling ceased 08/26/13
Date completion activities began 09/04/13 Date completion activities ceased 09/05/13
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 90' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1300' 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

Reviewed by: _____
01/10/2014

API 47- 017 - 06091 Farm name Robert and Larry Johnston Well number 4 (four)

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	15"	13-3/8"	33	NEW			SANDED
Surface	12-1/4"	9-5/8"	209	NEW	J-55		80 SKS. CTS
Coal							
Intermediate 1	8-3/4"	7"	2112	NEW	M-65		300 SKS.CTS
Intermediate 2	6-1/4"	4-1/2"	5677	NEW	J-55		300 SKS. CBL POZ
Intermediate 3							ETOC 2100'
Production							
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	CLASS A	80	15.6	1.18		SURFACE	8
Coal							
Intermediate 1	CLASS A	300	15.6	1.18		SURFACE	8
Intermediate 2	CBL POZ	300	13.5	1.53		2100'	
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5714 Loggers TD (ft) 5714
 Deepest formation penetrated ALEXANDER 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 _____

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 _____

API 47- 017 - 06091 Farm name Robert and Larry Johnston Well number 4 (four)

PRODUCING FORMATION(S)	DEPTHS	TVD	MD
ALEXANDER	5500		
BENSON	5100		
RILEY	4750		
BRADFORD	4280		

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1200 psi Bottom Hole 3582 psi DURATION OF TEST 72 hrs

OPEN FLOW Gas 741 mcfpd Oil 2 bpd NGL N/A bpd Water N/A 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	2100	0	2100	WATER (90') AND SALT WATER (1300')
SAND	2100	2175	2100	2175	LIME
SAND	2175	2350	2175	2350	INJUN
SAND & SHALE	2350	3500	2350	3500	SAND & SHALE
SAND	3500	3796	3500	3796	BALLTOWN
SHALE	3796	4260	3796	4260	SHALE
SAND	4260	4318	4260	4318	BRADFORD
SAND & SHALE	4318	4732	4318	4732	SAND & SHALE
SAND	4732	4784	4732	4784	RILEY
SAND	4784	5082	4784	5082	SAND
SAND	5082	5178	5082	5178	BENSON
SHALE	5178	5450	5178	5450	SHALE
SAND	5450	5522	5450	5522	ALEXANDER
TD	5714		5714		SHALE

Please insert additional pages as applicable.

Drilling Contractor NEXUS DRILLING CORP
Address INDUSTRIAL PARK City JANE LEW State WV Zip 26378

Logging Company WEATHERFORD INTERNATIONAL
Address 603 U S HIGHWAY 19 N City WESTON State WV Zip 26452

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

Stimulating Company BJ SERVICES
Address 837 PHILIPPI PIKE City CLARKSBURG State WV Zip 26301

Please insert additional pages as applicable.

Completed by JAN CHAPMAN Telephone (304) 269-7102
Signature *Jan Chapman* Title PRESIDENT Date 10/29/13

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

01/10/2014

API: 47-017-06091 Farm Name: Robert & Larry Johnston Well number: 4 (four)

ADDITIONAL PAGE FOR PRODUCING FORMATIONS

PRODUCING FORMATIONS	DEPTHS	
Balltown	3660 TVD	MD

RECEIVED
COURTESY OF
L. J. JOHNSON
01/10/2014