

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

API 47 - 590 - 2254 County MINGO District MAGNOLIA
Quad MATEWAN Pad Name _____ Field/Pool Name _____
Farm name LOGAN COAL & TIMBER CORP. ET AL Well Number 2363
Operator (as registered with the OOG) QUALITY NATURAL GAS, LLC
Address P.O. BOX 480 City ALLEN State KY Zip 41601

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) 893.8' 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 9/23/2014 Date drilling commenced 6/03/2015 Date drilling ceased 6/10/2015
Date completion activities began 6/16/2015 Date completion activities ceased 6/17/2015
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

Freshwater depth(s) ft N Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1740' Void(s) encountered (Y/N) depths _____
Coal depth(s) ft N Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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JUL 23 2015
Reviewed by:
JK07724/2015

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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	17 1/2"	13 3/8"	42'	New	LS		
Surface	12 1/4"	9 5/8"	470'	New	LS	426', 88'	6 bbls to surface
Coal							
Intermediate 1	8 7/8"	7"	2162'	New	LS	NONE	10 bbls to surface
Intermediate 2							
Intermediate 3							
Production	6 3/8"	4 1/2"	4344'	New	L-65		500' up in 7"
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 A						
Surface	Class A	150	15.5	1.18	177	Surface	8
Coal							
Intermediate 1	Class A	100, 165	15.6, 12.3	1.18, 1.84	118, 304	Surface	8
Intermediate 2							
Intermediate 3							
Production	Class A	165	13.6	1.90	313.5	500' up in 7"	8
Tubing							

Drillers TD (ft) 4370 Loggers TD (ft) 4372
 Deepest formation penetrated HARRELL SHALE Plug back to (ft) _____
 Plug back procedure _____

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
For drilling purposes only.

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 4177', 4010', 3843', 3676',
3509', 3342', 3175', 3008', 2841' and 2674

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 _____

WELL #2363

API#47-5902254

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, H2S, ETC)
FILL	0	25			
SAND	25	150			
SAND/SHALE	150	270			
SAND	270	330			
SAND/SHALE	330	390			
SAND	390	570			
SAND/SHALE	570	630			
SAND	630	690			
SAND/SHALE	690	1170			
SAND	1170	1290			
SAND/SHALE	1290	1410			
SAND	1410	1500			
SAND/SHALE	1500	1590			
SAND/SHALE/RED ROCK	1590	1650			
SAND/RED ROCK	1650	1710			
SAND/SHALE/RED ROCK	1710	1800			
SAND/SHALE	1800	1875			
SAND	1875	1920			
SAND/SHALE	1920	1980			
SAND/SLATE/RED ROCK	1980	2085			
LITTLE LIME	2085	2145			
BIG LIME	2145	2390			
INJUN	2390	2480			
WEIR	2480	2997			
COFFEE SHALE	2997	3054			
BEREA	3054	3215			
BROWN SHALE	3215	4254			
HARRELL SHALE	4254	4370			

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