

CONFIDENTIAL

WR-35  
Rev. 8/23/13

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

API 47-107-01746 County Wood District Lubeck  
Quad South Parkersburg Pad Name Cabot Wood Pad 1 Field/Pool Name \_\_\_\_\_  
Farm name Cabot Wood #1 Well Number Cabot Wood #1  
Operator (as registered with the OOG) Cabot Oil & Gas Corporation  
Address Five Penn Center West, Suite 401 City Pittsburgh State PA Zip 15276

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) 855 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)  
SEE ATTACHED PAGE 5 of 9

Date permit issued 11/15/2013 Date drilling commenced 7/18/2014 Date drilling ceased 8/25/2014  
Date completion activities began --- Date completion activities ceased ---  
Verbal plugging (Y/N) Y Date permission granted 8/22/2014 Granted by Jamie Stevens ✓

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug  
**SEE ATTACHED PAGE 6 of 9**

Freshwater depth(s) ft 155 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1227-1400 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) No

**APPROVED**

NAME: Jamie Stevens  
DATE: 10/26/2017

Reviewed by: Jamie Stevens  
11/10/2017  
10/26/2017

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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	24"	24"	85'	New	94.71 #		
Surface	22"	18-5/8"	302'	New	87.5#J-55/BTC	✓	
Coal	17 1/2"	13-3/8"	1885'	New	54.5#J-55/STC	✓	
Intermediate 1	12 1/4"	9-5/8"	6383'	New	47#L-80/LTC	✓	
Intermediate 2							
Intermediate 3							
Production	8 1/2"	OPEN HOLE	8100			✓	
Tubing							
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1	SEE ATTACHED PAGE 7 of 9						
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 8100 Loggers TD (ft) 8108  
 Deepest formation penetrated Black River Plug back to (ft) 5875  
 Plug back procedure Pumped balanced plugs, pulled tubing, circulated tubing clean

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 \_\_\_\_\_

Surface: 17" centralizers every joint from 1883' to 159' (43 total)  
 Intermediate: 12 1/4" centralizers every joint from 6381' to 75' (140 total)  
 Intermediate: DV Tool located at 4517' to 4520'

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS N/A

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS N/A

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED N/A

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**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

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)

Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
	TVD	MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd  
GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		

SEE ATTACHED PAGE 8 of 9

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHED PAGE 9 of 9  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Kenneth L. Marcum Telephone 412-249-3863  
Signature *Kenneth L. Marcum* Title Regulatory Supervisor Date 9/24/14

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

API 47-107-01746 Farm Name Cabot Wood # 1 Well Number Cabot Wood #1**Well Record Attachment - MUD TYPE(S) AND ADDITIVE(S)**

Alluminum Stearate  
Sodium Carboxymethyl  
Barium Sulfate  
Methyl Alcohol, Amine  
Caustic Soda Anhydrous  
Calcium Chloride  
Calcium Carbonate  
Wood Shavings  
Citric Acid Anhydrous  
Sulfomethlyated Tannin  
Glutaraldehyde  
Cellulose (2)  
Biopolymer  
Potassium Chloride  
Calcium Hydroxide  
Mineral Fiber, Mineral Oil  
Isopropanol  
Xanthan Gum  
Barium Sulfate (2), Clay, Quartz, Calcite  
Petroleum Distillate Hydrotreat Light  
Bentonite  
Crystalline Quartz, Silica  
Mixed Alcohols  
Defoamer  
Ammonium Bisulfite Solution  
Sodium Chloride  
Sodium Carbonate  
Sodium Bicarbonate  
Zinc Carbonate

API 47-107-01746 Farm Name Cabot Wood # 1 Well Number Cabot Wood #1

### Well Record Attachment - DESCRIPTION OF PLUGGING

Explanation of Plugging: Abandoned well due to logging data. Pumped three (3) plugs as follows:

Plugging Data	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Plug 1	Class A Shalcem	200	15.6	1.2	240	7100-6600	8
Plug 2	Class A Halcem	179	14.8	1.33	238	6600-6100	8
Plug 3	Class A Halcem	68	15.6	1.21	82.3	200-0	8

# APPROVED

NAME: *Jamie Stevens*  
DATE: *10/26/2017*

API 47-107-01746 Farm Name Cabot Wood # 1 Well Number Cabot Wood #1

**Well Record Attachment - CEMENT DATA**

Cement Data	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yeild (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Drilled with Dual-Rotary Bit - No Cement Used						
Surface	Class A Halcem	565	15.6	1.21	683.7	0	8
Coal	Class A Halcem	1580	15.6	1.21	1911.8	0	8
Intermediate 1A	Class A Expandacem	250	12.5	2.29	572.5		
Intermediate 1B	Class A Bondcem	100	15.8	2.31	231		
Intermediate 1C	Class A Expandacem	750	12.5	2.29	1717.5	3400	8
Squeeze	Class A Halcem	175	14.8	1.33	232.8	6383 (drilled out)	8

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**Well Record Attachment - LITHOLOGY/FORMATIONS**

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 <sub>2</sub> S, ETC)
SILT/SHALE	0		0	1745	N/A
SANDSTONE			1745	1865	SALT WATER/GAS SHOW
SILT/SHALE			1865	2175	
BEREA			2175	2178	
SILT/SHALE			2178	3680	
HURON			3680	3900	GAS SHOW
SILT/SHALE			3900	4292	
RHINESTREET			4292	4455	GAS SHOW
MARCELLUS			4455	4510	
ONONDAGA			4510	4600	
LIMESTONE			4600	4995	
DOLOMITE			4995	5400	
NEWBURG SS			5400	5405	
DOLOMITE			5405	5755	
BIG SIX SS			5755	5785	
ROSE HILL			5785	6000	
TUSCARORA			6000	6262	
JUNIATA			6262	6700	
MARTINSBURD			6700	7508	GAS SHOW
UTICA SH.			7508	7668	GAS SHOW
POINT PLEASANT			7668	7755	GAS SHOW
TRENTON LS			7755	7978	GAS SHOW
BLACK RIVER			7978	8108	

**APPROVED**

NAME:  
DATE:

*Jamie Stevens*  
10/26/2017



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**Well Record Attachment - WELL SERVICE COMPANIES**

Conductor Drilling Contractor HAD Drilling Contractors, Inc.  
Address 9797 Benner Road, Rittman, OH, 44270

Drilling Contractor Sidewinder  
Address 952 Echo Lane, Suite 460, Houston, TX, 77024

Logging Company Weatherford International, LTD.  
Address 121 Hillpointe Drive, Suite 300, Canonsburg, PA 15317

Cementing Company Halliburton Energy Services  
Address 121 Champion Way, Suite 110, Canonsburg, PA 15317

Plugging Company Halliburton Energy Services  
Address 121 Champion Way, Suite 110, Canonsburg, PA 15317

Stimulating Company N/A - Not Completed  
Address N/A