

Department of Mines, Minerals and Energy  
Division of Gas and Oil  
P.O. Box 1416  
Abingdon, Virginia 24210  
703/676-5423

COMPLETION REPORT



WELL TYPE: Oil  Gas  Coalbed Methane  or Injection  well

Date Well Completed: 11-04-96 Total Depth of Well: LTD = 2960 DTD = 2960

Attach the Drilling Report; if not previously submitted. In addition, submit any changes in casing or tubing that were approved after the Drilling Report was submitted.

STIMULATION RECORD

Zone 1: COAL SEAMS\* Formation Stimulated With: 70Q FOAM  
W/33000# 12/20 SAND - 637000 SCF N2 - 481 BF  
Perforated: 1695.5 to 2723 No. of Perforations: 13 Perforation size: .34  
Formation Broke Down at: 1533 PSIG Average Injection Rate: 22.2 BPM  
ISIP: 690 PSIG 5 Min SIP: 664 PSIG Average Injection Pressure: 3780  
Date Stimulated: 11-04-96

\* M SEABOARD, L SEABOARD, M HORSEPEN, C-SEAM, L HORSEPEN, X-SEAM, POCO #4 RIDER, POCO #4, POCO #3

Zone 2: Formation Stimulated With:  
Perforated: to No. of Perforations: Perforation size:  
Formation Broke Down at: PSIG Average Injection Rate:  
ISIP: PSIG Min SIP: PSIG Average Injection Pressure:  
Date Stimulated:

Zone 3: Formation Stimulated With:  
Perforated: to No. of Perforations: Perforation size:  
Formation Broke Down at: PSIG Average Injection Rate:  
ISIP: PSIG Min SIP: PSIG Average Injection Pressure:  
Date Stimulated:

FINAL PRODUCTION:      Natural  After Stimulation  
BOD MCFD HOURS TESTED ROCK PRESSURE HOURS TESTED

Zone (1)  
Zone (2)  
Zone (3)  
Final Production if Gas Zones are Commingled 28 MCFD 6 Hours Tested 410 PSIG 48 Hours Tested

\* Use additional sheets with this format, if more than three (3) zones were stimulated.

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

By: *Joseph A. Cherry* (Signature)

Department of Mines, Minerals and Energy  
 Division of Gas and Oil  
 P. O. Box 1410  
 Abingdon, Virginia 24210  
 703/676-5423

DRILLING REPORT

Pursuant to VR-480-05-22.1, § 1.36, the undersigned Permittee submits this report on Well VCP3589 in the KENADY District of the DICKENSON County, Virginia on 3RD day, FEBRUARY month, 19 97.

LOCATION

County: DICKENSON District: KENADY  
 Surface Elevation: 2655.88 Elevation of Kelly Bushing: 2665.88 Quadrangle: NORA  
13760 FT S. of Latitude 37° 02' 30" and 11600 FT W. of Longitude 82° 15' 00"

Attach a final location plat as required by VR 480-05-22.1, § 1.36.

DRILLING DATA

Date Drilling Commenced: 10-15-96 Drilling Contractor: Union Drilling  
 Date Drilling Completed: 10-29-96 Rig Type:  Rotary  Cable Tool  
 Total Depth of Well: LTD=2960 DTD=2960

GEOLOGICAL DATA

Fresh Water at:	295	feet	DAMP	GPM	feet	GPM
		feet		GPM	feet	GPM
Salt Water at:		feet		GPM	feet	GPM
		feet		GPM	feet	GPM

COAL SEAMS:

<u>NAME</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>YES</u>	<u>MINING IN AREA</u>	
					<u>NO</u>	<u>MINED OUT</u>
TILLER	1238	1242	4			
POCO #4 RIDER	2630	2632	2			
POCO #4	2661	2663	2			
POCO #3	2722	2724	2			

GAS AND OIL SHOWS:

<u>FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>IPF (MCFD/BOPD)</u>	<u>PRESSURE</u>	<u>HOURS TESTED</u>
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Cuttings or samples are  available for examination by a member of the Virginia Division of Mineral Resources  
 Cuttings or samples have  been furnished to the Virginia Division of Mineral Resources

ELECTRIC LOGS AND SURVEYS

List logs run on wellbore: DEN/TMP/GR

Did log disclose vertical location of a coal seam? Yes  No

SURVEY RESULTS

DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL	DEPTH OF SURVEY	DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL
152	1/4°	1630	1°
200	1/4°	1738	1°
400	3/4°	1830	1°
600	1°	2000	1°
800	1°	2200	3/4°
1000	1°	2400	1/4°
1181	1°	2600	3/4°
1250	3/4°	2789	3/4°
1450	1°		

CASING AND TUBING

	SIZE	TOP	BOTTOM	LENGTH	CEMENT USED (IN CU/FT)	DATE CEMENTED	PACKERS OR BRIDGE PLUGS KIND SIZE SET AT
<u>Conductor</u>							
<u>Surface</u>	11 3/4"		45'	35'			
<u>Water Protection</u>	8 5/8"		580'	570'	145(171)	10-26-96	
<u>Coal Protection</u>							
<u>Other Casing and Tubing Left in Well</u>	4 1/2" 2 3/8"		2907' 2802'	2897'	412(519)	10-29-96	
<u>Liners</u>							

REMARKS: Shut down, fishing jobs, depths and dates, caving, lost circulation, etc.

DRILLER'S LOG

Compiled by Engineering

<u>AGE</u>	<u>FORMATION</u>	<u>GENERAL LITHOLOGY</u>	<u>DEPTH</u>		<u>THICKNESS</u>	<u>REMARKS</u>
			<u>TOP</u>	<u>BOTTOM</u>		
Pennsylvanian	SAND, SHALE & THIN COALS		0	1238	1238	
	TILLER		1238	1242	4	
	SAND, SHALE & THIN COALS		1242	2630	1388	
	POCO #4 RIDER		2630	2632	2	
	SAND, SHALE & THIN COALS		2632	2661	29	
	POCO #4		2661	2663	2	
	SAND, SHALE & THIN COALS		2663	2722	59	
	POCO #3		2722	2724	2	
	SAND, SHALE & THIN COALS		2724	2960	236	
	Logger's Total Depth			2960		

Permittee: EQUITABLE RESOURCES EXPLORATION (Company)

By:  (Signature)

11,600'

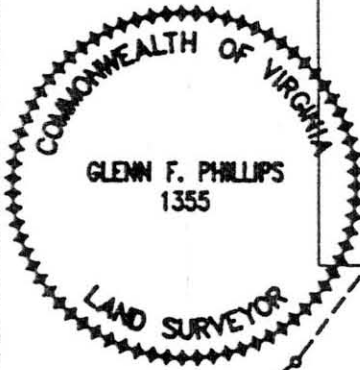
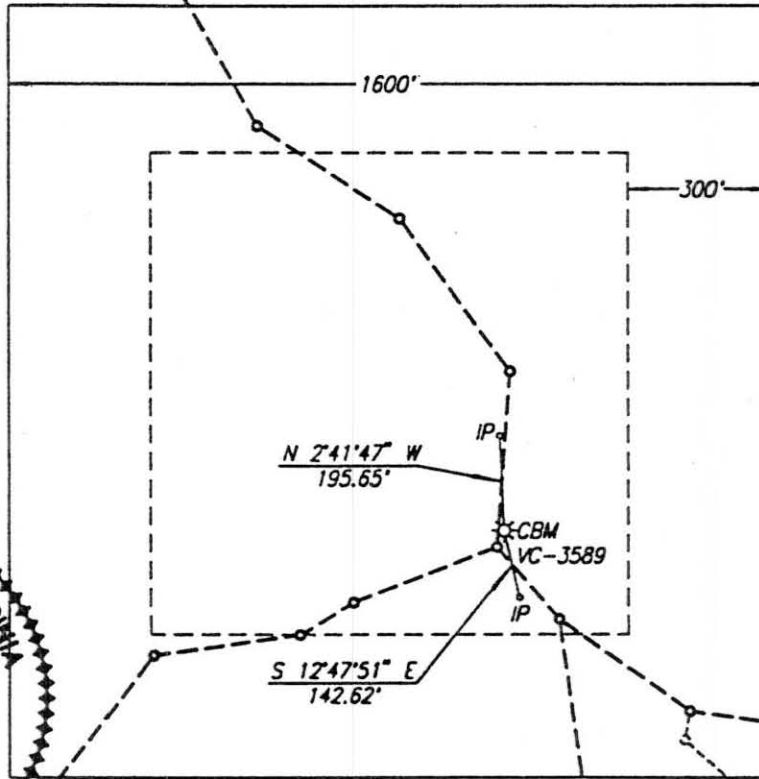
Latitude 37° 02' 30"

Longitude 82° 15' 00"

13,760'

Lease No. PO-148 / T-11  
 Pioneer Coal Corp.  
 361.00 Acres  
 Clinchfield Coal Company /  
 Pyxis Resources Company - coal & surface  
 Pine Mountain Oil & Gas, Inc. - oil & gas  
 Gas 23.26 Ac. 39.58%

Lease No. PO-148 / T-105  
 Cranes Nest Coal & Coke Co.  
 175.32 Acres  
 Clinchfield Coal Company /  
 Pyxis Resources Company - coal & surface  
 Pine Mountain Oil & Gas, Inc. - oil & gas  
 Gas 25.97 Ac. 44.19%



Lease No. PO-148 / T-5  
 Marion Amburgy  
 34.98 Acres  
 Clinchfield Coal Company /  
 Pyxis Resources Company - coal & surface  
 Pine Mountain Oil & Gas, Inc. - oil & gas  
 Gas 7.73 Ac. 13.15%

CCC - sur. Curtis Kiser - surface

Lease No. PO-1042 / T2-252  
 John D. Irvin  
 121.02 Acres  
 Clinchfield Coal Company /  
 Pyxis Resources Company - coal  
 Pine Mountain Oil & Gas, Inc. - oil & gas  
 Gas 1.81 Ac. 3.08%

Well Coordinates: (VA St. Plane S. Zone,  
 Calculated from CCC coordinates)  
 N 266,337 E 893,647

Well Coordinates: (Clinchfield Coal Co.)  
 S 34,983.48 E 27,338.93

**FINAL PLAT**

Area of Unit = 58.77 Ac.

Well elevation determined by GPS survey  
 from BM F 109

WELL LOCATION PLAT

COMPANY Equitable Resources Energy Company WELL NAME AND NUMBER VC-3589  
 TRACT NO. T-11 ELEVATION 2650.32 QUADRANGLE Nora  
 COUNTY Dickenson DISTRICT Kenady SCALE 1" = 400' DATE 10-25-1996  
 This Plat is a new plat   ; an updated plat   ; or a final location plat x

+ Denotes the location of a well on United States topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

*Glenn F. Phillips*

Licensed Professional Engineer or Licensed Land Surveyor