

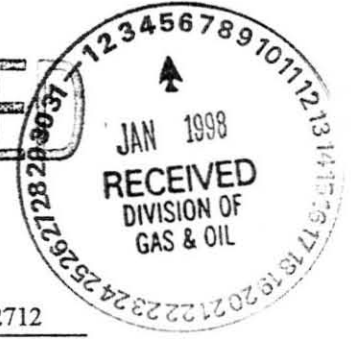
Department of Mines, Minerals and Energy
Division of Gas and Oil

Operations Name: JOSEPH KELLY
Permit #: 3470

Well #: VC3666
VA File #: DI-0863

Department of Mines, Minerals and Energy
Division of Gas and Oil
P.O. Box 1416
Abingdon, Virginia 26021
540/676-5423

ENTERED



COMPLETION REPORT

WELL TYPE: Oil Gas Coalbed Methane or Injection well

Date Well Completed: 9/26/97 Total Depth of Well: LTD - 2708 DTD - 2712

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/
17180# 12/20 SAND - 626,970 SCF N2 - 576 BF

Perforated: 1682 to: 2540 No. of Perforations: 15 Size: 0.34"
Formation Broke Down at: 1774 PSIG Average Injection Rate: 14.12 BPM
ISIP: 1459 PSIG 5 Min SIP: 1286 PSIG Average Injection Pressure 3585
Date Stimulated: 9/26/97

* U HORSEPEN, M HORSEPEN, C-SEAM, WARCREEK, UNNAMED "C", L HORSEPEN, POCO #2

Zone 2: _____ Formation Stimulated With: _____

Perforated: _____ to: _____ No. of Perforations: _____ Size: _____
Formation Broke Down at: _____ PSIG Average Injection Rate: _____
ISIP: _____ PSIG 5 Min SIP: _____ PSIG Average Injection Pressure _____
Date Stimulated: _____

Zone 3: _____ Formation Stimulated With: _____

Perforated: _____ to: _____ No. of Perforations: _____ Size: _____
Formation Broke Down at: _____ PSIG Average Injection Rate: _____
ISIP: _____ PSIG 5 Min SIP: _____ PSIG Average Injection Pressure _____
Date Stimulated: _____

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

Zone (1)
Zone (2)
Zone (3)
Final Production if Gas
Zones are Commingled 15 MCFD 6 Hours Tested 120 PSIG 48 Hours Tested

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

Permittee: EQUITABLE RESOURCES ENERGY COMPANY (Company)
By: Joseph D. Kelly (Signature)

Department of Mines, Minerals and Energy
Division of Gas and Oil

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Division of Gas and Oil
P.O. Box 1416
Abingdon, Virginia 24210
540/676-5423

DRILLING REPORT

Pursuant to VR-480-05-22.1, § 1.36, the undersigned Permittee submits this report on Well VC3666 in the
ERVINTON District of the DICKENSON County, Virginia on 18TH day,
DECEMBER month, 1997.

LOCATION

County: DICKENSON District: ERVINTON
Surface Elevation: 2305.39 Elev of Kelly Bushing: 2315.39 Quadrangle: NORA
10590 Ft. S of Latitude 37 05 00 and 4900 Ft. W of Longitude 82 17 30

DRILLING DATA

Date Drilling Commenced: 9/16/97 Drilling Contractor: UNION DRILLING
Date Drilling Completed: 9/20/97 Rig Type: X Rotary Cable Tool
Total Depth of Well: LTD - 2708 DTD - 2712

GEOLOGICAL DATA

Fresh Water at:	314	feet	DAMP	GPM	1529	feet	DAMP	GPM
		feet		GPM		feet		GPM
Salt Water at:		feet		GPM		feet		GPM
		feet		GPM		feet		GPM
		feet		GPM		feet		GPM

COAL SEAMS:

<u>NAME</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>MINING IN AREA</u>		
				<u>YES</u>	<u>NO</u>	<u>MINED OUT</u>
JAWBONE	1034	1036	2			
U HORSEPEN	1681	1684	3			
POCO #3	2491	2493	2			
POCO #2	2538	2541	3			

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 are not available for examination by a member of the Virginia Division of Mineral Resources
 Cuttings or samples have have not been furnished to the Virginia Division of Mineral Resources

ELECTRIC LOGS AND SURVEYS

List logs run on wellbore: GR/ DEN/ TMP

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

SURVEY RESULTS

<u>DEPTH OF SURVEY</u>	<u>DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL</u>	<u>DEPTH OF SURVEY</u>	<u>DIRECTION/DISTANCE/DEGREES FROM TRUE VERTICAL</u>
132	1/4°	1675	3/4°
200	1/4°	1771	1°
230	1/4°	1826	1°
430	1/2°	1859	1°
630	1/2°	1964	3/4°
830	1/2°	2027	3/4°
1029	3/4°	2193	1°
1229	3/4°	2400	1°
1429	3/4°	2443	1°
1629	3/4°	2480	3/4°

CASING AND TUBING

	<u>SIZE</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>LENGTH</u>	<u>CEMENT USED IN CU/FT</u>	<u>DATE CEMENTED</u>	<u>PACKERS OR BRIDGE PLUGS</u>		
							<u>KIND</u>	<u>SIZE</u>	<u>SET AT</u>
<u>Conductor</u>	11 3/4		35	25	GROUTED				
<u>Surface</u>									
<u>Water Protection</u>									
	8 5/8		497	487	135(158)	9/17/97			
<u>Coal Protection</u>									
<u>Other Casing and Tubing Left in Well</u>	4 1/2		2671	2661	540(680)	9/21/97			
	2 3/8		2611.8						

Liners

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

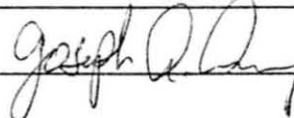
DRILLER'S LOG

Compiled by: ENGINEERING

AGE	FORMATION	GENERAL LITHOLOGY	COLOR	DEPTH		THICKNESS	REMARKS
				TOP	BOTTOM		
PENN	SAND, SHALE & THIN COALS	JAWBONE		0	1034	1034	
	SAND, SHALE & THIN COALS	U HORSEPEN		1034	1036	2	
	SAND, SHALE & THIN COALS			1036	1681	645	
	SAND, SHALE & THIN COALS			1681	1684	3	
	SAND, SHALE & THIN COALS			1684	2491	807	
	SAND, SHALE & THIN COALS			2491	2493	2	
	SAND, SHALE & THIN COALS			2493	2538	45	
	SAND, SHALE & THIN COALS			2538	2541	3	
	SAND, SHALE & THIN COALS			2541	2708	167	

LOGGER'S TOTAL DEPTH 2708

Permittee: EQUITABLE RESOURCES ENERGY COMPANY (Company)

By:  (Signature)

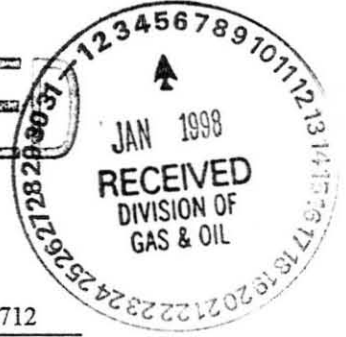
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Formation Broke Down at:	<u>1774</u>	PSIG		Average Injection Rate:	<u>14.12</u>	BPM	
ISIP:	<u>1459</u>	PSIG	5 Min SIP: <u>1286</u>	PSIG Average Injection		Pressure	<u>3585</u>
Date Stimulated:	<u>9/26/97</u>						

* U HORSEPEN, M HORSEPEN, C-SEAM, WARCREEK, UNNAMED "C", L HORSEPEN, POCO #2

Zone 2: _____ Formation Stimulated With: _____

Perforated:	_____	to:	_____	No. of Perforations:	_____	Size:	_____
Formation Broke Down at:	_____	PSIG		Average Injection Rate:	_____		
ISIP:	_____	PSIG	5 Min SIP: _____	PSIG Average Injection		Pressure	_____
Date Stimulated:	_____						

Zone 3: _____ Formation Stimulated With: _____

Perforated:	_____	to:	_____	No. of Perforations:	_____	Size:	_____
Formation Broke Down at:	_____	PSIG		Average Injection Rate:	_____		
ISIP:	_____	PSIG	5 Min SIP: _____	PSIG Average Injection		Pressure	_____
Date Stimulated:	_____						

FINAL PRODUCTION:	_____	Natural	<u>X</u>	After Stimulation			
	<u>BOD</u>	<u>MCFD</u>	<u>HOURS TESTED</u>	<u>ROCK PRESSURE</u>	<u>HOURS TESTED</u>		
Zone (1)							
Zone (2)							
Zone (3)							
Final Production if Gas							
Zones are Commingled	<u>15</u>	<u>MCFD</u>	<u>6</u>	<u>Hours Tested</u>	<u>120</u>	<u>PSIG</u>	<u>48</u> <u>Hours Tested</u>

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

Permittee: EQUITABLE RESOURCES ENERGY COMPANY (Company)

By: Joseph D. Kelly (Signature)

Department of Mines, Minerals and Energy
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Operations Name: JOSEPH KELLY
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<u>NAME</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>THICKNESS</u>	<u>MINING IN AREA</u>		
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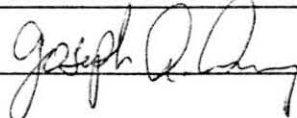
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LOGGER'S TOTAL DEPTH

2708

Permittee: EQUITABLE RESOURCES ENERGY COMPANY (Company)

By:  (Signature)

TOTAL UNIT AREA
= 58.77 ACRES

LATITUDE 37°05'00"

LONGITUDE 82°17'30"

LS #241501L
FREDDIE MULLINS
1423 ACRES
FREDDIE MULLINS
- coal, oil, & gas
GAS 3.50 AC. 5.96 %

UNIT BOUNDARY

LS #241490L / T-33
N.M. DEEL
38.85 ACRES
CLINCHFIELD COAL COMPANY/
PYXIS RESOURCES COMPANY - coal
PINE MOUNTAIN OIL & GAS, INC.
- oil & gas
GAS 5.85 AC. 9.61 %

PEARL H. SUTHERLAND
-surface

N47°27'44"E
556.42'

18" MARKED
HICKORY FND.

CEMETERY

VC-3666

16" MARKED
BLACK GUM FND.

CLAUDE W. POWERS
-surface

LS #241490L / T-75
JOSEPH KELLY
1372.48 ACRES
CLINCHFIELD COAL COMPANY/
PYXIS RESOURCES COMPANY - coal
PINE MOUNTAIN OIL & GAS, INC.
- oil & gas
GAS 49.62 AC. 84.43 %

S73°08'35"E
483.10'

THURMAN C. AMBURGEY et. als.
-surface

COORDINATES OF WELL
S 16776.24
E 21803.99
(AS DRILLED)

300'

UNIT BOUNDARY

UNIT BOUNDARY

NOTE ! ! !

WELL COORDINATES ARE BASED ON CLINCHFIELD
COAL COMPANY'S MINE COORDINATE SYSTEM
STATE PLANE WELL COORDINATES ARE CALCULATED
FROM CLINCHFIELD COAL COMPANY COORDINATES.

PROPERTY INFORMATION PROVIDED BY EQUITABLE
RESOURCES ENERGY COMPANY.

ELEVATIONS ARE BASED ON TRIANGULATION STATION
HATCHET, ELEV. = 2447.26.



COORDINATES OF
BENCHMARK
S 13640.02
E 21237.31

STATE PLANE COORDINATES
OF WELL VC-3666
N 284751.51
E 888844.61

WELL LOCATION PLAT

COMPANY Equitable Resources Energy Co. WELL NAME AND NUMBER VC - 3666
TRACT No. LS #241490L/T-75 ELEVATION 2301.22 (Trig) QUADRANGLE NORA
COUNTY DICKENSON DISTRICT ERVINTON SCALE: 1" = 400' DATE SEPTEMBER 18, 1997
THIS PLAT IS A NEW PLAT ; AN UPDATED PLAT ; OR A FINAL LOCATION PLAT x
PROPOSED TOTAL DEPTH OF WELL =

+ 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.

B. Leman Kendrick 9/15/97

(AFFIX SEAL)

LICENSED PROFESSIONAL ENGINEER OR LICENSED LAND SURVEYOR