Bu-434 Department of Mines, Minerals and Energy Operations Name: CBM-PGP-64 Division of Gas and Oil Permit #: Department of Mines, Minerals, and Energy Division of Gas and Oil MINER Virginia Gas and Oil Inspector P. O. Box 1416 SILA Abingdon, Virginia 24210 703/676-5423 DMSION of GAS and (COMPLETION REPORT WELL TYPE: Oil __ Gas __ Coalbed Methane x or Injection __ well. Date Well Completed: October 22, 1990 Total Depth of Well: 2170' 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* Formation Stimulated With: ____ Zone 1: No records kept.

 Perforated:
 TO
 No. of Perforations:
 Perforation Size:

 Formation Broke Down at:
 PSIG Average Injection Rate

 ISIP
 PSIG
 MIN SIP

 Date stimulated:
 P

 BPM PSIG Formation Stimulated With: Zone 2: Perforated: ______ TO ______ No. of Perforations: _____ Perforation Size: ____
 Formation Broke Down at:
 PSIG
 Average Injection Rate

 ISIP
 PSIG
 MIN SIP
 PSIG Average Injection Pressure:
 BPM PSIG 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:

 BPM PSIG 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 Comingled MCFD Hours Tested PSIG Hours Tested * Use additional sheets with this format, if more than three (3) zones were stimulated. (Company) Permittee: Pocahontas Gas Partnership

By: Kull M. Allust (Signature)

Form DGO-GO-15 Rev 9/91 Department of Mines, Minerals and Energy Division of Gas and Oil

Operations Name: <u>CBM-PGP-64</u> Permit #:_____



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



DRILLING REPORT

Pursuant to VR-480-05-22.1, s 1.36, the undersigned Permittee submits this report on Well <u>CBM-PGP-64</u> in the <u>Hurricane</u> District of the <u>Buchanan</u> City/County, Virginia on this _____ day, _____ month, 19 <u>91</u>.

City/County: Buchanan		District:	Hurricane
Surface Elevation: 2136.87' Ele	evation of Kelly Bushir	ng:	Quadrangle: Keen Mountain
6287' Ft. S. of Latitude	37 12' 30"	and 6758	B' Ft. W. of Longitude 81 57' 30"

or, State Plane Coordinates: Zone <u>5</u> N <u>330728.22'</u> E <u>986310.62'</u>

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

DRILLING DATA

 Date Drilling Commenced:
 October 11, 1990
 Drilling Contractor:
 Noah Horn Well Drilling

 Date Drilling Completed:
 October 17, 1990
 Rig Type:
 x
 Rotary
 Cable Tool

 Total Depth of Well:
 2170'
 2170'
 Cable Tool
 Cable Tool

GEOLOGICAL DATA

Fresh Water at:	N/R	Feet	GPM		Feet		GPM			
		Feet	GPM		Feet		GPM			
		Feet	GPM		Feet		GPM			
Salt Water at:		Feet _	GPM		Feet		GPM			
		Feet	GPM		Feet		GPM			
		Feet	GPM		Feet		GPM			
COAL SEAMS:						MIN	ING IN AREA			
NAME		TOP	BOT	том	THIC	KNESS	YES	NO	MINE	D OUT
See DGO-GO-14	1, Appendix									
GAS AND OIL SI										
FORMATION	TOP		BOTTOM	THICKNE	55	IPF (MCF	D/BOPD)	PRESS	URE	HOURS TESTED
Pocahontas No.	3 Seam									

Department of	Mines,	Minerals	and	Energy
Division of Gas	and Oi	1		

Operations Name: <u>CBM-PGP-64</u> Permit #: _____

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

ELECTRIC LOGS AND SURVEYS:

List logs ran on wellbore: Deviation, Gamma, Calipier

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

SURVEY RESULTS*

SURVEY RESU	JLTS*:		
DEPTH	DIRECTION/DISTANCE/DEGREES	DEPTH	DIRECTION/DISTANCE/DEGREES
OF SURVEY	FROM TRUE VERTICAL	OF SURVEY	FROM TRUE VERTICAL
	And the second s		and the second second second second second
	the second second second second		-

* Use additional sheets if necessary.

CASING AND TUBING

				CEMENT U	ISED DATE	PACKERS	OR BRID	GE PLU	GS
	SIZE	TOP	BOTTOM	LENGTH	IN CU/FT	CEMENTED	KIND	SIZE	SET AT
Conductor_	16"	0	20'-0	20'-0	Cemented to	Surface			
Surface	13 3/8"	0	749.48'	749.48′	Cemented to	Surface			
Water Protection	13 3/8"	0	749.48'	749.48'	Cemented to	Surface			· .
Coal Protection	13 3/8"	0	749.48'	749.48'	Cemented to	Surface			
<u>Other Casing</u> and Tubing Left In	5 1/2" Well	0	2066.53′	2066.53'	-				

Liners

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

Department Division of C	of Mines, Minerals Sas and Oil	s and Energy			Operations Nam Permit #:	ne: <u>C</u>	BM-PGP-64	
DRILLER'S L	.0G							
Compiled by <u>No drillers log kept.</u>								
GEOLOGIC <u>AGE</u>	FORMATION	GENERAL LITHOLOGY	COLOR	TOP	DEPTH P BOTTOM	1	THICKNESS	REMARKS

Permittee: Pogahontas Gas Partnership (Company) A.a. her By: 7 (Signature)

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Attachment DGO-GO-14, Appendix A

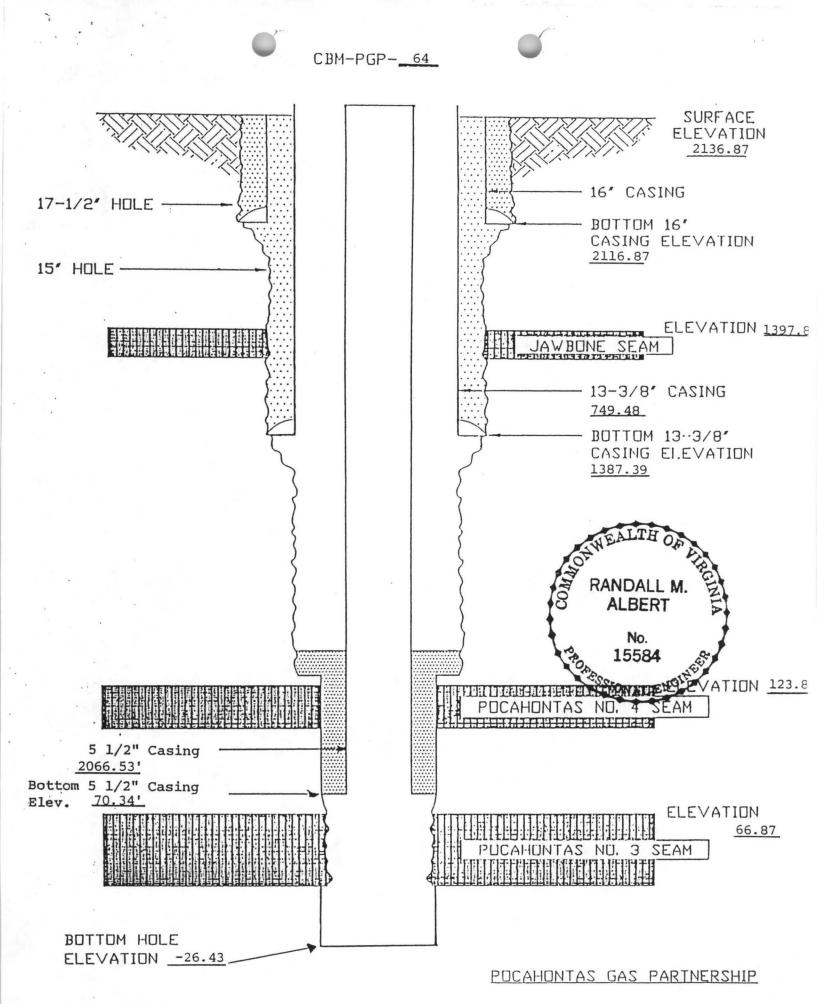
CBM-PGP-64 Surface Elevation: 2136.87

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a.

<u>Seam</u>	Thickness	Depth <u>To Top</u>	BOC <u>Elevation</u>	Mining In Area <u>Yes No</u>	
RA	2.50	558.00	1576.37	x	Red Ash
J3	2.00	702.00	1431.87	х	Jawbone (3)
JB	3.00	742.00	1391.87	х	Jawbone
CS	1.00	945.00	1190.87	x	Castle
US	2.00	1131.00	1001.87	x	Upper
					Seaboard
GC	3.00	1202.00	931.87	x	Greasy Creek
SE	2.00	1232.50	902.37	x	Sewell
LS	2.00	1290.00	844.87	x	Lower
					Seaboard
UH	0.00	1375.00	761.87	x	Upper
		4000 00			Horsepen
MH	2.00	1397.00	737.87	x	Middle
-	2 22	1475 00	650 07		Horsepen Castle
C	3.00	1475.00	658.87	x	
P11	0.00	1485.00	651.87	х	Pocahontas (11)
P10	2.00	1512.00	622.87	х	Pocahontas
PIU	2.00	1912.00	022.07	~	(10)
LH	2.00	1567.00	567.87	x	Lower
	2.00	1007.00	507.07	A	Horsepen
P9	2.00	1619.50	515.37	х	Pocahontas
19	2.00	1019100	010101		(9)
P9L	2.00	1636.00	498.87	x	Pocahontas
					(9) Lower
P5	0.00	1997.00	139.87	х	Pocahontas
					(5)
P4	2.00	2015.00	119.87	х	Pocahontas
					(4)
P3	5.00	2075.00	56.87	х	Pocahontas
					(3)



WELL BOREHOLE AND CASING SIZE SCHEMATIC

