

11,750'

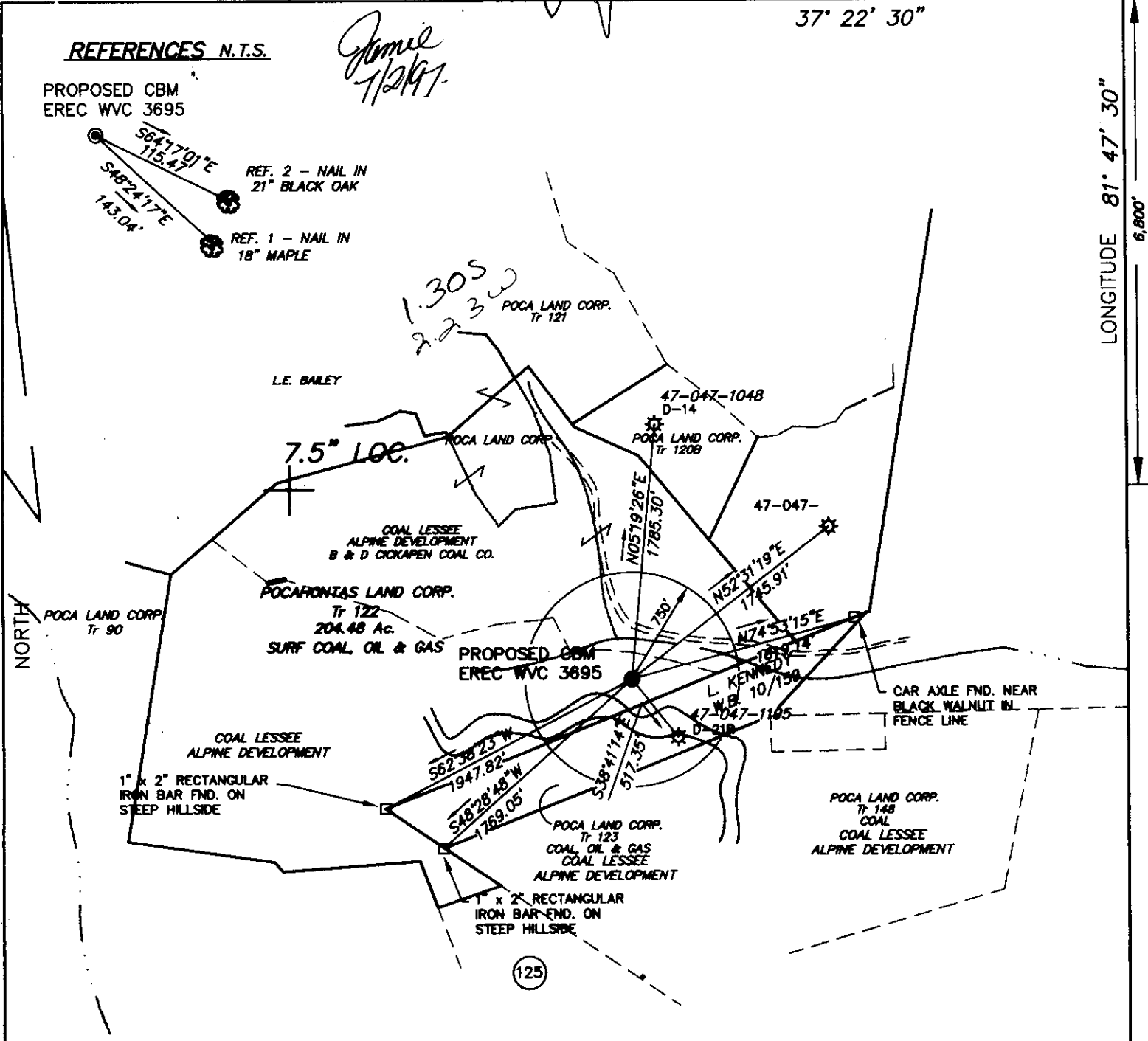
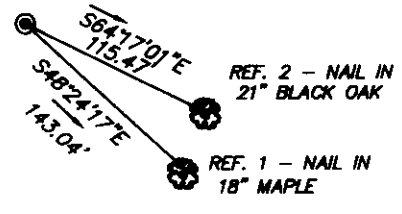
37° 22' 30"

LONGITUDE 81° 47' 30"

REFERENCES N.T.S.

PROPOSED CBM  
EREC WVC 3695

*James*  
*1/2/97*



NOTE: NO POSSIBLE WATER SOURCES LOCATED WITHIN 1000' OF PROPOSED LOCATION.

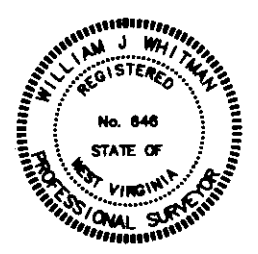
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WELL COORDINATES  
W. VA. STATE PLANE  
N 130895.3073  
E 1758106.7664

FILE No 9614-12  
 DRAWING No. EREC WVC 3695  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 : 2500  
 PROVEN SOURCE OF ELEVATION USGS BM 151 RHP, 1959, EL 2156  
 WEST VIRGINIA

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES

(SIGNED) William J. Whitman R.P.E. R.P.S. 646



PLACE SEAL HERE

DIVISION OF ENVIRONMENTAL PROTECTION  
 OFFICE OF OIL AND GAS  
 #10 McJUNKIN ROAD  
 NITRO, WEST VIRGINIA 25143-2506



DATE MAY 27 19 97  
 OPERATOR'S WELL No. WVC 3695  
 API WELL No.

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  STATE 47 COUNTY 047-01310C PERMIT  
 (IF "GAS") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1648.47 WATER SHED OOZLEY BRANCH OF DRY FORK  
 DISTRICT SANDY RIVER COUNTY McDOWELL  
 QUADRANGLE BRADSHAW, W. VA. - VA.

SURFACE OWNER POCAHONTAS LAND CORP. ACREAGE 295.92  
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP. LEASE ACREAGE 15,379.43  
 LEASE No. 497880L

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION PENNSYLVANIAN COALS ESTIMATED DEPTH 1550' JUL 3 1997  
 WELL OPERATOR EQUITABLE RESOURCES ENERGY CO. DESIGNATED AGENT DAVID DEAN  
 ADDRESS 1989 EAST STONE DR. ADDRESS P.O. DRAWER 40  
KINGSPORT, TN 37660 BUCHANNON, WV 26201

FORM IV-6 (8-78)

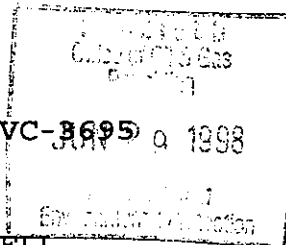
WR-35

30-Jun-97  
API # 47- 47-01310 C

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: POCAHONTAS LAND CORP. Operator Well No.: WVC-3695  
LOCATION: Elevation: 1,648.47 Quadrangle: BRADSHAW  
District: SANDY RIVER County: MCDOWELL  
Latitude: 6800 Feet South of 37 Deg. 22Min. 30 Sec.  
Longitude 11750 Feet West of 81 Deg. 47 Min. 30 Sec.



Company: EQUITABLE RESOURCES EXP.  
1989 E. STONE DR., P.O. BOX 1983  
KINGSPORT, TN 37662-1983

Agent: DAVID A. DEAN

Inspector: OFIE HELMICK  
Permit Issued: 07/02/97  
Well work Commenced: 9/17/97  
Well work Completed: 9/20/97  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) LTD=1604 DTD=1625  
Fresh water depths (ft) 60,870'  
Salt water depths (ft) \_\_\_\_\_

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	53	53	
8 5/8	320	320	104
4 1/2	1589	1589	438
2 3/8	1487	1487	

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): 278-281, 492-497, 634-644,  
758-764, 861-864, 1014-1017, 1030-1036, 1131-1135,  
1249-1252, 1307-1315, 1371-1377  
OPEN FLOW DATA

Producing formation COAL SEAMS \* Pay zone depth (ft) 632-1305  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 35 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 98 psig (surface pressure) after 48 Hours  
Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

- \* BECKLEY
- FIRE CREEK
- POCO #5
- POCO #3
- POCO #2
- POCO #1

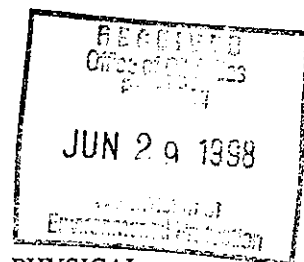
JOSEPH A. AWNY  
For: EQUITABLE RESOURCES EXP. INC.

By: Joseph A. Awny  
Date: 6/23/97

Mc Dow 1310 C

JUN 23 1997

API #: 47-047-01310 C  
 OPERATOR WELL #: WVC3695  
 FARM NAME: POCAHONTAS LAND CORP



1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

1<sup>ST</sup> STAGE - PERFORATED POCO SEAMS #1, 2, 3, & 5 FROM 632 - 1305 WITH 15 PERFORATIONS. FRACTURED ON 10/7/97 BY DOWELL WITH 70Q LE FOAM; 55500# 12/20 SAND, 429,000 SCF N2, 407 TOTAL BBLs FLUID. BREAKDOWN PRESSURE 2009 PSI, MAX PRESSURE 3932 PSI, AVERAGE PRESSURE 3522 PSI, ISIP 1359 PSI, 1 MIN SIP 1405 PSI, 5 MIN SIP 1263 PSI. AVERAGE INJECTION RATE 30 BPM.. F.G. = 1.75. SET FRAC PLUG @ 830'

2<sup>ND</sup> STAGE - PERFORATED BECKLEY, FIRECREEK & BECKLEY FROM 632 - 760.5 WITH 12 PERFORATIONS. FRACTURED ON 10/7/97 BY DOWELL WITH 70Q LE FOAM; 58900# 12/20 SAND, 434,700 SCF N2, 409 TOTAL BBLs FLUID. BREAKDOWN PRESSURE N/A, MAX PRESSURE 3827 PSI, AVERAGE PRESSURE 2710 PSI, ISIP 964 PSI, 1 MIN SIP 961 PSI, 5 MIN SIP 943 PSI., AVERAGE INJECTION RATE 35 BPM. F.G. = 2.86.

2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

SAND, SHALE & THIN COALS	0	632	632
BECKLEY	632	635	3
SAND, SHALE & THIN COALS	635	761	126
FIRE CREEK	755	764	9
SAND, SHALE & THIN COALS	764	1096	332
POCO #5	1096	1098	2
SAND, SHALE & THIN COALS	1098	1210	112
POCO #3	1210	1212	2
SAND, SHALE & THIN COALS	1212	1240	28
POCO #2	1240	1242	2
SAND, SHALE & THIN COALS	1242	1304	62
POCO #1	1304	1306	2
SAND, SHALE & THIN COALS	1306	1604	298
LOGGER'S TOTAL DEPTH		1604	
DRILLER'S TOTAL DEPTH		1625	

1) Date: June 10, 1997  
2) Operator's well number  
WVC-3695  
3) API Well No: 47 - 47 - 1310-C  
State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served:  
(a) Name Pocahontas Land Corp.  
Address P.O. Box 1517  
Bluefield, WV 24701  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Mr. Ofie Helmick  
Address P.O. Box 398  
Brenton, WV 24818  
Telephone (304) - 543-0764

5) (a) Coal Operator: Lessee  
Name B&D Chickapen Coal Company  
Address Route 52  
Iager, WV 24844  
(b) Coal Owner(s) with Declaration  
Name Pocahontas Land Corp.  
Address P.O. Box 1517  
Bluefield, WV 24701  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name Alpine Development  
Address P.O. Box 303  
Welch, WV 24801

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
 Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_\_\_ on the above named parties, by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Equitable Resources Energy Company  
By: Michael P. [Signature]  
Its: Manager - Drilling & Workover  
Address 1989 East Stone Drive, P.O. Box 1983  
Kingsport, Tennessee 37662-1982  
Telephone (423) 224-3800

Subscribed and sworn before me this over day of June, 1997  
[Signature] Notary Public  
My commission expires December 31, 2000





**WEST VIRGINIA COALBED METHANE  
DRILLING PROGNOSIS DATA SHEET**

Well No	<u>WVC-3695</u>	Field Name	<u>Bradshaw - CBM</u>
Farm Name	<u>Pocahontas Land Corp.</u>	Carter Coordinates	<u></u>
Lease/Fee No	<u>497880L/T-122</u>	Longitude	<u>11,750' W 81 47' 30"</u>
Quadrangle	<u>Bradshaw</u>	Latitude	<u>6,800' S 37 22' 30"</u>
County	<u>McDowell</u>	Waters	<u></u>
State	<u>West Virginia</u>		

**DRILLING OBJECTIVES**

Primary: Pennsylvanian Coals

Secondary:

Proposed Geophysical Logging Suite: Enhanced Coal Log

Elevation: 1648.47

**ESTIMATED COAL TOPS**

Iager	<u>10</u>	Poco # 5	<u>1135</u>
Welch	<u>495</u>	Poco # 3	<u>1265</u>
Beckley	<u>690</u>	Poco # 2	<u>1290</u>
Fire Creek	<u>820</u>	Poco # 1	<u>1350</u>
Poco # 9	<u>875</u>	Red Rock	<u></u>
Poco # 7	<u>1060</u>	Total Depth	<u>1550'</u>

REMARKS:

**TENTATIVE CASING AND CEMENTING TECHNIQUES**

<u>Surface</u>	CSG OD	<u>11-3/4"</u>	CSG DEPTH	<u>20'</u>
	Lead in Cement System			
	Tail in Cement System			
<u>Intermediate</u>	CSG OD	<u>8-5/8"</u>	CSG DEPTH	<u>300'</u>
	Lead in Cement System			
	Tail in Cement System			
<u>Production</u>	CSG OD	<u>4-1/2"</u>	CSG DEPTH	<u>1530'</u>
	Lead in Cement System			