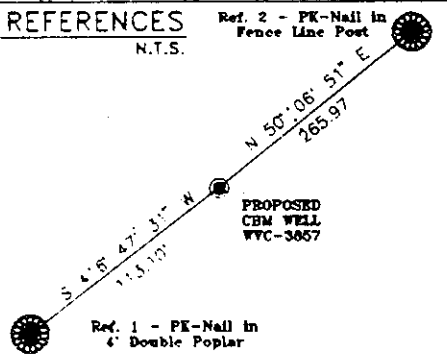
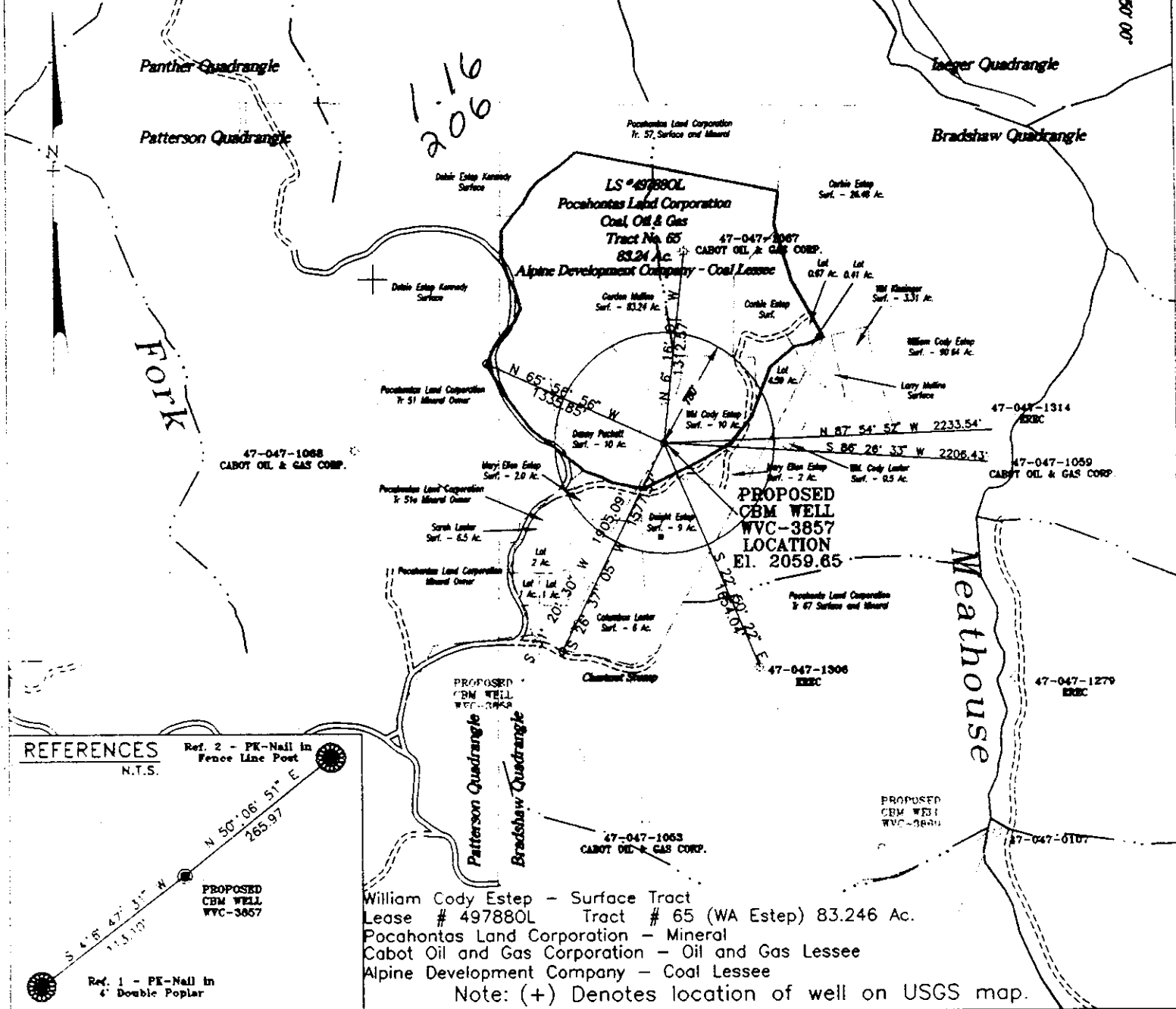


STATE PLANE COORDINATES
 (NAD 27 Datum)
 N 135437.8990
 E 1746839.5677
 Latitude 37.36868146
 Longitude 81.87108388

LATITUDE 37° 22' 30"
 (Bradshaw Quadrangle)

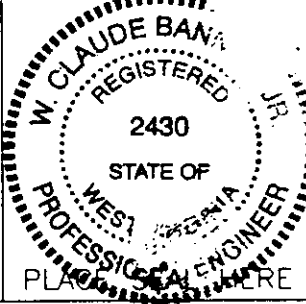
LONGITUDE 81° 50' 00"



William Cody Estep - Surface Tract
 Lease # 497880L Tract # 65 (WA Estep) 83.246 Ac.
 Pocahontas Land Corporation - Mineral
 Cabot Oil and Gas Corporation - Oil and Gas Lessee
 Alpine Development Company - Coal Lessee
 Note: (+) Denotes location of well on USGS map.

FILE No. ERE-9803198/SP
 DRAWING NAME WVC-3857/GW-PLAT
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 : 2500
 PROVEN SOURCE OF ELEVATION USGS B.M. ESTEP

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) W. Claude Bannister
 R.P.E. _____ R.P.S. _____



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS
 NITRO, WV

DATE MARCH 30 19 98
 OPERATOR'S WELL No. WVC-3857
 API WELL No. 47 - 047 01340 C
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS CBM LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION X STORAGE DEEP SHALLOW

LOCATION: ELEVATION 2059.65 WATER SHED UPPER HORSE BRANCH OF MEATHOUSE FORK
 DISTRICT SANDY RIVER COUNTY McDOWELL
 QUADRANGLE BRADSHAW, WV - VA

SURFACE OWNER WILLIAM CODY ESTEP ACREAGE 5.0
 CBM ROYALTY OWNER POCAHONTAS LAND CORPORATION LEASE ACREAGE 15379.43
 LEASE No. 497880L

PROPOSED WORK: DRILL X CONVERT DRILL DEEPER REDRILL FRACTURE OR
 STIMULATE X PLUG OFF OLD FORMATION PERFORATE NEW
 FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) C-6 383

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION PENNSYLVANIAN COALS ESTIMATED DEPTH 2275'
 WELL OPERATOR EQUITABLE RESOURCES ENERGY COMPANY DESIGNATED AGENT DAVID DEAN
 ADDRESS 1989 EAST STONE DRIVE ADDRESS P.O. DRAWER 40
KINGSPORT, TN 37660 BUCKHANNON, WV 26201

WR-35

29-Apr-98
API # 47- 47-01340 C

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

Well Operator's Report of Well Work

Farm name: William Cody Estep Operator Well No.: WVC 3857

LOCATION: Elevation: 2,059.65 Quadrangle: BRADSHAW

District: SANDY RIVER County: MCDOWELL
Latitude: 2298 Feet South of 37 Deg. 22Min. 30 Sec.
Longitude 10974 Feet West of 81 Deg. 50 Min. 0 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: 04/29/98
Well work Commenced: 8/11/98
Well work Completed: 9/4/98
Verbal Plugging
Permission granted on: N/A
Rotary Cable Rig
Total Depth (feet) LTD-2208 DTD-2205
Fresh water depths (ft)

Salt water depths (ft) 393/708/1930

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 134/201/214/700/1253
1475/1588/1806/1816/1821/1879

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	38	38	GROUTED
8 5/8	750	750	165
4 1/2	2178	2178	584
2 3/8	2074	2074	N/A

OPEN FLOW DATA

Producing formation POCO 7, 6 RIDER, 6 & 5 Pay zone depth (ft) ^{1806.5} - 1880
 Gas: Initial open flow N/A MCF/d Oil: Initial open flow Bbl/d
 Final open flow 45 MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests 6 Hours
 Static rock Pressure 305 psig (surface pressure) after 48 Hours

COMMINGLED
 Second producing formation BECKLEY, FIRECREEK Pay zone depth (ft) ¹⁴⁷⁵ - 1592
 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.

RECEIVED
Office of Oil & Gas
Permitting
FEB 05 1999
WV Division of
Environmental Protection

For: Michael P Jaskoski
EQUITABLE RESOURCES EXP. INC.
By: MICHAEL P JASKOSKI
Date: 1/28/99

FEB 29 1999

Mc Dow 1340 C

API #: 47-047-01340 C
OPERATOR WELL #: WVC3857
FARM NAME: WILLIAM CODY ESTEP

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

1ST STAGE - PERFORATED POCO SEAMS # 7, 6 RIDER, 6, & 5 FROM 1806.5 - 1880 WITH 15 PERFORATIONS. FRACTURED ON 8/25/98 BY DOWELL WITH 70Q LE FOAM; 17396# 12/20 SAND, 771933 SCF N2, 322 TOTAL BBLs FLUID. BREAKDOWN PRESSURE 1964 PSI, MAX PRESSURE 4257 PSI, AVERAGE PRESSURE 3735 PSI, ISIP SCREENED OUT. AVERAGE INJECTION RATE 27 BPM..

2ND STAGE - PERFORATED BECKLEY, FIRECREEK FROM 1475 - 1592 WITH 16 PERFORATIONS. FRACTURED ON 8/26/98 BY DOWELL WITH 70Q LE FOAM; 29500# 12/20 SAND, 1116000 SCF N2. BREAKDOWN PRESSURE 1702, MAX PRESSURE 3598 PSI, AVERAGE PRESSURE 3408 PSI, ISIP 1749, 1-MIN SIP 1722, 5-MIN SIP 1653. AVERAGE INJECTION RATE 41 BPM

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	1475
BECKLEY	1475	1479
SAND, SHALE & THIN COALS	1479	1588
FIRECREEK	1588	1592
SAND, SHALE & THIN COALS	1592	1806
POCO #7	1806	1808
SAND, SHALE & THIN COALS	1808	1816
POCO #6 RIDER	1816	1817
SAND, SHALE & THIN COALS	1817	1821
POCO #6	1821	1825
SAND, SHALE & THIN COALS	1825	1879
POCO #5	1879	1881
SAND, SHALE & THIN COALS	1881	2208
LOGGER'S TOTAL DEPTH		2208
DRILLER'S TOTAL DEPTH		2205

