



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1' IN 5000'  
 PROVEN SOURCE OF ELEVATION USCGS B.M.  
R-44

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) \_\_\_\_\_  
 R.P.E. \_\_\_\_\_ L.L.S. \_\_\_\_\_

DAVID E. JACOBSON  
 LICENSED SURVEYOR  
 No. 314  
 PLACE SEAL HERE

(+ DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE SEPTEMBER 18 19 80  
 OPERATOR'S WELL NO. 1-A EASTER  
 API WELL NO. 47-109-0859  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
 LOCATION: ELEVATION 1437 WATER SHED LAUREL FORK OF GUYANDOTTE RIVER  
 DISTRICT OCEANA COUNTY WYOMING  
 QUADRANGLE MATHENY 7.5 MIN. Pineville 15 C  
 SURFACE OWNER U.S. EASTER ACREAGE 26.17  
 OIL & GAS ROYALTY OWNER U.S. EASTER LEASE ACREAGE 26.17  
 LEASE NO. \_\_\_\_\_  
 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 RAVENCLIFF ESTIMATED DEPTH 1663'  
 WELL OPERATOR PEAKE OPERATING DESIGNATED AGENT FLOYD B. WILCOX 266  
 ADDRESS 201 OFFICE PARK DUNBAR W.VA. 25064 ADDRESS 201 OFFICE PARK DUNBAR W.VA. 25064

JUL 09 1981

66 MANN-OCEANA

RECEIVED

JUN 11 1982



IV-35 (Rev 8-81)

OIL & GAS DIVISION, State of West Virginia DEPT. OF MINES Department of Mines Oil and Gas Division

Date May 27, 1982 Operator's Well No. 1-A Farm Easter API No. 047-109 - 0859

WELL OPERATOR'S REPORT OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas x / Liquid Injection / Waste Disposal / (If "Gas," Production / Underground Storage / Deep / Shallow x /)

LOCATION: Elevation: 1437 Watershed Laurel Fork District: Oceana County Wyoming Quadrangle Matheny 7 1/2'

COMPANY Peake Operating Company ADDRESS 201 Dunbar Office Park, Dunbar, WV 25064 DESIGNATED AGENT Floyd B. Wilcox ADDRESS 201 Dunbar Office Park, Dunbar, WV 25064 SURFACE OWNER W. S. Easter ADDRESS Jesse, W. Va. MINERAL RIGHTS OWNER W. S. Easter ADDRESS Jesse, W. Va. OIL AND GAS INSPECTOR FOR THIS WORK Rue Schoolcraft ADDRESS Pineville, W. Va. PERMIT ISSUED June 26, 1981 DRILLING COMMENCED October 13, 1981 DRILLING COMPLETED October 24, 1981

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

GEOLOGICAL TARGET FORMATION Berea Depth 3421-44 feet (GL) Depth of completed well 3529 (GL) feet Rotary x / Cable Tools Water strata depth: Fresh 40', 197feet; Salt 0 feet Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA Producing formation Ravencliff Pay zone depth 1561-1591 feet (GL) Gas: Initial open flow 146 Mcf/d Oil: Initial open flow -- Bbl/d Final open flow 304 Mcf/d Final open flow -- Bbl/d

Time of open flow between initial and final tests 4 hours Static rock pressure 420 psig (surface measurement) after 5 days shut in (If applicable due to multiple completion--)

Second producing formation Big Lime Pay zone depth 2756-2766 feet (GL) Gas: Initial open flow 28 (net) Mcf/d Oil: Initial open flow -- Bbl/d Final open flow 127 Mcf/d Oil: Final open flow -- Bbl/d Time of open flow between initial and final tests 4 hours

Static rock pressure 445 psig (surface measurement) after 5 days shut in

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

Perforated Big Lime 12/7/81: 2759-2762, 2764-2769 (2 holes per foot). Acidized with 1,000 gals. of 28% HCL and 8,000 gals. of 15% gelled HCL. Water treated with F78.

Perforated Ravencliff Dec. 9: 1565-68 (6 holes); 1586-88 (6 holes); 1588-92 (8 holes). First frac job would not break down formation.

Perforated Ravencliff Dec. 14: 2 holes per foot from 1564-72, 1584-94.

Fraced Ravencliff Dec. 14: Treating fluid J266 gel; 15,000 lbs. of 80/100; 45,000 lbs. of 20/40. Amount and acid type 500 gals. 15% HCL. Surfactant type and amount was 55 gals. of F75. Gelling agent and amount - J266, 850 lbs. Breaker type - J218, 44 lbs. Average treating pressure 2300 lbs. Average BTM 20 lbs. per minute. 4 lbs. of sand per gallon.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Depths from D. F.			3' above G	L.	
Overburden			0	20	Water at 40' 5-6 g.p.m.
Sand and shale			20	337	Water at 197' 20-30 g.p.m.
Sandstone - hard			337	435	
Sand and shale			435	490	
Sand and stone			490	625	
Sand and shale			625	1138	
Sand			1138	1210	
Sand and shale			1210	1295	
Red Shale			1295	1333	
Sand and limey shale			1313	1420	
Sand and shaley sand			1420	1558	Gas check 1513 TSTM
*Ravencliff			1558	1599	Gas check 1622 146 Mcf
*Avis Lime			1559	1638	
Shale			1638	1987	Gas check 1977 119 Mcf
*Middle Maxton			1987	2063	Gas check 2079 103 Mcf
Sand and shale			2063	2365	
*Little Lime			2365	2497	
*Pencil Cave			2497	2517	Gas check 2517 112 Mcf
*Big Lime			2517	2844	Gas check 2845 140 Mcf
Red sandy shale			2844	2850	Gas check 3431 133 Mcf
Sandy shale			2850	3054	
Weir			3054	3072	Gas check 3456 133 Mcf
Shale			3072	3402	
Coffee shale			3402	3424	
<u>Berea</u>			3424	3448	
Shale			3448	3532	

Packer set at 2576

Well test May 17, 1982

Before test, tubing SI pressure 445#.

Open flow after:

- 1 hr. - 207 MCF
- 2 hr. - 169 MCF
- 3 hr. - 127 MCF
- 4 hr. - 127 MCF

Tubing shut in after test:

- ½ hour - 195#
- 1 hour - 250#

Before tubing test, casing SI pressure 420#. Casing SI pressure 420# 1 hour after tubing open flow test, showing the packer has separated the two pay zones.

Casing was then tested:

- 1 hour - 442 MCF
- 2 hours - 363 MCF
- 3 hours - 332 MCF
- 4 hours - 304 MCF

*Floyd B Wilcox* Peake Operating Company  
Well Operator

By: Floyd B. Wilcox

Date: May 27, 1982

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including all encountered in the drilling of a well."



Well No. #1-A Easter  
Farm Easter  
API #47-109-0859  
Date June 19, 1981

STATE OF WEST VIRGINIA  
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil \_\_\_ / Gas x /  
(If "Gas", Production x / Underground storage \_\_\_ / Deep \_\_\_ / Shallow x /

LOCATION: Elevation: 1437' Watershed: Laurel Fork of Guyandotte River  
District: Oceana County: Wyoming Quadrangle: Matheny 7 1/2

WELL OPERATOR Peake Operating Company  
Address 201 Dunbar Office Park  
Dunbar, WV 25064

DESIGNATED AGENT Floyd B. Wilcox  
Address 201 Dunbar Office Park  
Dunbar, WV 25064

OIL AND GAS ROYALTY OWNER W. S. Easter  
Address General Delivery  
Jesse, WV 24849  
Acreage 26.17

COAL OPERATOR N/A  
Address \_\_\_\_\_

SURFACE OWNER W. S. Easter  
Address General Delivery  
Jesse, WV 24849  
Acreage 26.17

COAL OWNER(S) WITH DECLARATION ON RECORD:  
NAME W. S. Easter  
Address General Delivery  
Jesse, WV 24849

FIELD SALE (IF MADE) TO:  
NAME N/A  
Address \_\_\_\_\_

NAME \_\_\_\_\_  
Address \_\_\_\_\_

COAL LESSEE WITH DECLARATION ON RECORD:  
NAME N/A  
Address \_\_\_\_\_

OIL AND GAS INSPECTOR TO BE NOTIFIED:  
NAME Rue Schoolcraft  
Address P. O. Box 706  
Pineville, WV 24874  
Telephone \_\_\_\_\_

**RECEIVED**

JUN 22 1981

OIL & GAS DIVISION  
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed \_\_\_ / lease x / other contract \_\_\_ / dated Aug. 9, 1980, to the undersigned well operator from W. S. Easter.

(If said deed, lease, or other contract has been recorded:)

Recorded on May 28, 1981, in the office of the Clerk of County Commission of Wyoming County, West Virginia, in Deed 330 Book at page 973. A permit is requested as follows:

PROPOSED WORK: Drill x / Drill Deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_ / Plug off old formation \_\_\_ / Perforate new formation \_\_\_ / Other physical change in well (specify) \_\_\_\_\_

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION  
1613 WASHINGTON ST., E.  
CHARLESTON, WV 25311  
Telephone - 304/348-3092

**BLANKET BOND**

By: Floyd B. Wilcox  
Peake Operating Company  
Well Operator  
Its: Attorney-In-Fact

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:  
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Unknown

Address \_\_\_\_\_

GEOLOGICAL TARGET FORMATION Ravencliff  
Estimated depth of completed well 1663 feet. Rotary x / Cable tools    /  
Approximate water strata depths: Fresh, 200 feet; salt, 700 feet.  
Approximate coal seam depths: None  
Is coal being mined in this area: Yes    / No x /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drill-ling		
Conductor	16"	K-55	23#	X		30'	30'	Kinds
Fresh water								
Coal								Sizes
Intermed.	8 5/8"	K-55	23#	X		1200'	1200'	150 sacks as req. rule 15.01
Production	4 1/2"	K-55	9.5#	X		1600'	1600'	300 sacks Depths set
Tubing	2 3/8"	K-55	4.6#	X		1563'	1563'	
Liners								Perforations: Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 2-26-82.

J. J. Muzzy  
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator    / owner    / lessee    / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regularions.

Date:   , 19   .

By: \_\_\_\_\_

Its: \_\_\_\_\_