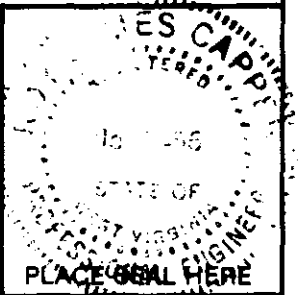


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 85016
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 IN 10000
 PROVEN SOURCE OF ELEVATION INTERSECTION 2700'
SE OF LOCATION (2136')

CO: 081 PMT: 682
 Loc Digitized from OGIS 7.5' Mylar
 QUAD: 331 DATE: 25-MAY-90
 LAT: 37 50.0 Miles South: 2.26
 LONG: 81 15.0 Miles West : 1.59
 STATE OF MINES
 (SIGNED) Roy J. Copper
 R.P.E. 9456 P.L.S.



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE 16 MARCH, 19 85
 OPERATOR'S WELL NO. 32-AC
 API WELL NO.

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

LOCATION: ELEVATION 2100 WATERSHED BRANCH OF STEPHENS BRANCH
 DISTRICT TRAPHILL 7 COUNTY RALEIGH
 QUADRANGLE ECCLES 7S 331 9ccles 036 SE9

SURFACE OWNER LAKE STEPHENS TOURIST DEV. AUTHORITY ACREAGE 81.3
 OIL & GAS ROYALTY OWNER CRAB ORCHARD COAL & LAND LEASE ACREAGE _____
 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) _____

MAY 06 1985

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Big Lime ESTIMATED DEPTH 2788
 WELL OPERATOR PEAKE OPERATING COMPANY DESIGNATED AGENT TIMOTHY K. WILCOX
 ADDRESS 423 CHARLESTON NATIONAL PLAZA ADDRESS 423 CHARLESTON NATIONAL PLAZA
CHARLESTON, WEST VIRGINIA 25301 669 CHARLESTON, WEST VIRGINIA 25301

6-6 unannounced to Slab Fort (249)

FORM IV-6 (8-78)

COUNTY NAME

PERMIT



RECEIVED
SEP 30 1985



DIVISION OF OIL & GAS
DEPT. OF ENERGY

State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date September 18, 1985
Operator's Well No. Crab Orchard #32-AC
Farm _____
API No. 47-081-0682

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 x / Underground Storage / Deep / Shallow X)

LOCATION: Elevation: 2100 Watershed Stephens Branch
District: Trap Hill County Raleigh Quadrangle Eccles 7.5

COMPANY Peake Operating Company
ADDRESS Suite 423, Charleston National Plaza
DESIGNATED AGENT Timothy K. Wilcox
ADDRESS Suite 423 Charleston National Plaza
SURFACE OWNER Lake Stephens Tourist Auth.
ADDRESS P. O. Drawer AN, Beckley, WV 25801
MINERAL RIGHTS OWNER Crab Orchard Coal & Land
ADDRESS P. O. Box 443, Charleston, WV
OIL AND GAS INSPECTOR FOR THIS WORK Rodney
Dillon ADDRESS Scarbro, WV
PERMIT ISSUED 4/30/85
DRILLING COMMENCED 8/12/85
DRILLING COMPLETED 8/18/85
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cord.			
13-10"	10	10	2 sacks
9 5/8	629	629	205 sacks
8 5/8			
7	1138	1138	180 sacks
5 1/2			
4 1/2		2725	150 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Lime Depth 2502 feet
Depth of completed well 2753 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 400 feet; Salt _____ feet
Coal seam depths: _____ Is coal being mined in the area? _____

OPEN FLOW DATA

Producing formation Maxton Pay zone depth _____ feet
Gas: Initial open flow 58 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow commingled Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ hours
Static rock pressure _____ psig (surface measurement) after _____ hours shut in
(If applicable due to multiple completion--)
Second producing formation Big Lime Pay zone depth _____ feet
Gas: Initial open flow 13 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 440 Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 480 psig (surface measurement) after 12 hours shut in

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

- 9/13/85 - perforated the Big Lime 2619 - 2633 with 26 holes - Dowell acidized - used 1000 gallons 28% HCL, 8000 gallons DG gelled 15% - BDP 1100# - ATP 400# - ISIP 350# - after 15 minutes 250# - flushed with 100 bbl's water.
- 9/16/85 - perforated Lower Maxton 2268 - 2320 with 56 holes - set W-1 plug at 2350' - Dowell used 75Q foam - used 1000 gallons 15% HCL - 15,000 80/100 - 45,000# 20/50 - 423,000 SCFN₂, - total fluid 313 bbl's - BDP 1550# - ATP 1350# - ISIP 1125# - after 15 minutes 950#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	1170	Water 400' - 25gpm
Shale			1170	1275	
Sand			1275	1338	
Shale			1338	1416	
Sand & Shale			1416	1472	
*Ravencliff Sand			1472	1520	
*Avis Lime			1520	1547	Gas Checks:
Shale (red)			1547	1600	1426 - n/s
Shale & Sand Streaks			1600	2200	1527 - n/s
Shale & Lime Streaks			2200	2270	2253 - n/s
Shaly Sand			2270	2338	2353 - 58,000 cf
Shale			2338	2380	2503 - 26,000 cf (32,000decr.)
*Little Lime			2380	2450	2628 - 36,500 cf (10,500 incr.)
Shale			2450	2502	TD - 39,500 (3,000 incr)
*Big Lime			2502	TD	

*E-log Tops ✓

DTD - 2752
LTD - 2751

(Attach separate sheets as necessary)

Peake Operating Co.
Well Operator
By: Thomas J. Abernethy
Date: Sept. 18, 1985

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 coal, encountered in the drilling of a well."



1) Date: March 21, 19 85
 2) Operator's Well No. 32-AC
 3) API Well No. 47 - 081-0682
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas / B (If "Gas", Production / Underground storage / Deep / Shallow)
- 5) LOCATION: Elevation: 2100 Watershed: Branch of Stephens Branch
 District: TRAPHILL County: Raleigh Quadrangle: Eccles 7.5
- 6) WELL OPERATOR Penke Operating Co 37100 7) DESIGNATED AGENT Timothy K. Wilcox
 Address 403 CHAS. NATIONAL PLAZA Address SAME
CHAS. WV 25301
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Rodney G. Dillow Name UNKNOWN
 Address P.O. Box 30 Address _____
Scarbore, WV. 25917
- 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate /
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, BIG LIME
- 12) Estimated depth of completed well, 2788 feet
- 13) Approximate strata depths: Fresh, 80 feet; salt, 500 ? feet.
- 14) Approximate coal seam depths: 255, 560, 870 Is coal being mined in the area? Yes _____ / No
- 15) CASING AND TUBING PROGRAM

RECEIVED
 APR 12 1985
 DEPT. OF MINES
 OIL & GAS DIVISION

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor	16	H-40	40#	X		30	30	CTS	Kinds
Fresh water									
Coal	9 7/8	H-40	36#	X		620	620	CTS	Sizes
Intermediate	7"	J-55	17#	X		1118	1118	150 SCS	BY RULE 15.01 300 SCS REQUIRED BY RULE 15.01
Production	4 1/2	J-55	9.5#	X		2758	2758	300 SCS	
Tubing									Perforations:
Liners									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-081-0682 Date April 30 19 85

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector, (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.
 Permit expires April 30 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
111	SW	MX	MH	4440 4299

Margaret J. Hassel
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

