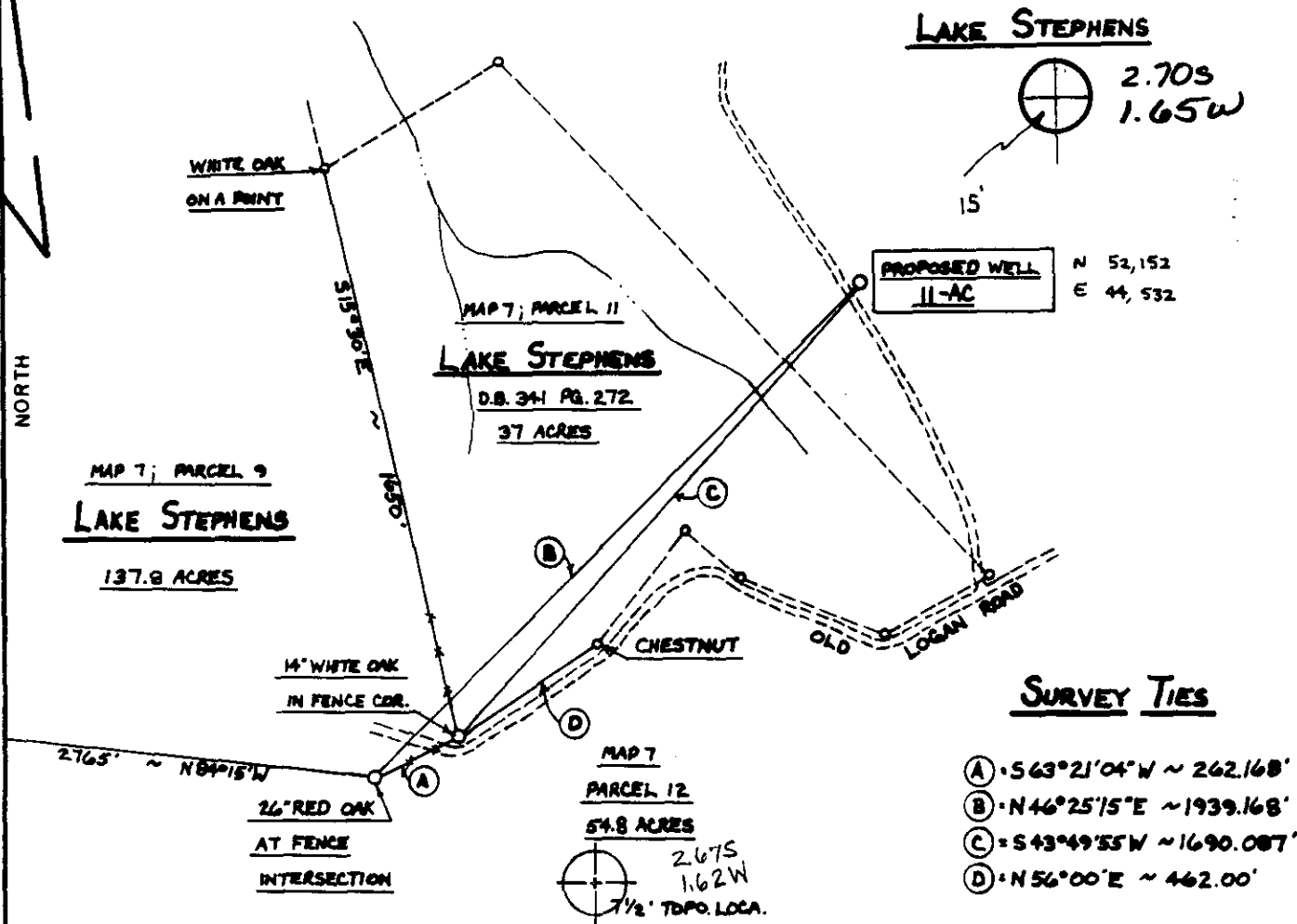


LATITUDE 37°50'00"

LONGITUDE 81°15'00"

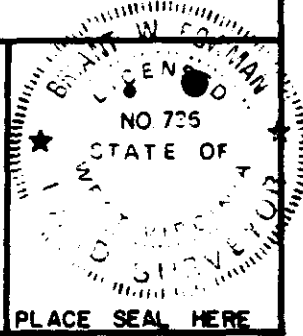


SURVEY TIES

- (A) - S 63° 21' 04" W ~ 262.168'
- (B) - N 46° 25' 15" E ~ 1939.168'
- (C) - S 43° 49' 55" W ~ 1690.087'
- (D) - N 56° 00' E ~ 462.00'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=500'
 MINIMUM DEGREE OF ACCURACY 1-200
 PROVEN SOURCE OF ELEVATION KNOB 2455' ~ 2600'
 NE OF LOCATION

CO: 081 PMT: 633
 Loc Digitized from OGIS 7.5' Mylat
 QUAD: 331 DATE: 25-MAY-90
 LAT: 37 50.0 Miles South: 2.67
 LONG: 81 15.0 Miles West : 1.62
 AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Royald Bowman
 R.P.E. _____ L.L.S. 736



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



Department of Mines
 Oil & Gas Division

DATE NOVEMBER 16, 19 82
 OPERATOR'S WELL NO. 11-AC
 API WELL NO. 47-081-0633
 STATE COUNTY PERMIT

NOV 08 1982

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS", PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X)
 LOCATION: ELEVATION 2195' WATER SHED STEPHENS LAKE
 DISTRICT TRAP HILL COUNTY RALEIGH
 QUADRANGLE ECCLES (7 1/2) 4 15' SE
 SURFACE OWNER LAKE STEPHENS ACREAGE _____
 OIL & GAS ROYALTY OWNER _____ LEASE ACREAGE _____
 LEASE NO. _____
 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) _____
 PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Big LMG ESTIMATED DEPTH ± 2000'
 WELL OPERATOR PEAKE OPERATING Co. DESIGNATED AGENT FLOYD WILCOX
 ADDRESS 423 CHAS. NAT. PLAZA ADDRESS 423 CHAS. NAT. PLAZA
CHARLESTON, W. VA. CHARLESTON, W. VA.

RECEIVED



IV-35
(Rev 8-81)

AUG 21 1984

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

Date 8/15/84
Operator's
Well No. Crab Orchard #11-AC
Farm _____
API No 47 - 081 - 0633

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: 2185 Watershed Lake Stephens
District: Trap Hill County Raleigh Quadrangle Eccles 7.5

COMPANY Peake Operating Company
ADDRESS 423 Charleston National Plaza
DESIGNATED AGENT Floyd B. Wilcox
ADDRESS 423 Charleston National Plaza
SURFACE OWNER Lake Stephens Development Auth.
ADDRESS P.O. Drawer, Beckley, WV 25801
MINERAL RIGHTS OWNER Crab Orchard Land & Coal
ADDRESS Charleston, WV
OIL AND GAS INSPECTOR FOR THIS WORK Rue
Schoolcraft ADDRESS Pineville, WV
PERMIT ISSUED 8/4/83
DRILLING COMMENCED 7/20/84
DRILLING COMPLETED 7/27/84
IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON NA

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"	21	21	2 sacks
9 5/8			
8 5/8			
7	1158'	1158'	190 sacks
5 1/2			
4 1/2	2832'	2832'	95 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Big Lime Depth 2600 feet
Depth of completed well 2854 feet Rotary X / Cable Tools _____
Water strata depth: Fresh feet; Salt _____ feet
Coal seam depths: 322', 619' Is coal being mined in the area? NO

OPEN FLOW DATA

Producing formation Big Lime 345 Pay zone depth 2600 - 2852 feet
Gas: Initial open flow 44 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 40 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests _____ hours

Static rock pressure 360 (H) psig (surface measurement) after 72 hours shut in
(If applicable due to multiple completion--)

Second producing formation Maxton 325 Pay zone depth 2350-2400 feet
Gas: Initial open flow 21 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 893 Mcf/d Oil: Final open flow 0 Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 360 (H) psig (surface measurement) after 72 hours shut in
316 (T)

SEP 24 1984

(Continue on reverse side)

893
40
933
mcf
FOP

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

- 8/1/84 - Perforated Big Lime, 2710-2715' (10 holes) and 2724 - 2730 (20 Holes)
 8/1/84 - Acidized Big Lime with 1000 gal. 28% acid, 8,000 gal. 15% gelled acid, 140 bbl's flush total flush 354 bbl's. Breakdown pressure 250#, treating pressure 150#, instant shut in 0#, after 15 minutes 0#.
 8/3/84 - Perforated Maxton: 2362 - 2766 (8 holes), 2376-2386 (20 holes), 2394-2402(16 holes)
 8/3/84 - Fraced the Maxton with 299 bbl total fluid (acid & water) used 1000 gal. acid, 15,000# 80/100(6#/gal), 45,000# 20/50 (8#/gal.) BD at 1300#, ATP 1600#, used 444,000 SCFN₂ (7bbl/min) ISIP 1150# after 15 minutes 900#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
			0	1000	Water: 250' 5 gal./minute
			1000	1118	
			1118	1166	⁹⁹⁸ Coal: 322 - 326' Sewell Seam
			1166	1208	⁹⁹⁸ 619 - 622' Beckley Seam
			1208	1236	
			1236	1312	Gas Checks:
			1312	1322	
			1322	1342	1554 - no gas
315		* Princeton Sandstone	1342	1397	1604 - no gas
			1397	1543	2329 - no gas
319		* Ravenscliff Sand	1543	1596	2379 - no gas
		* Avis Lime	1596	1626	2429 - 4/10 1" W = .021
		Sand & Shale	1626	2118	2606 - 5/10 1" W = .023
		Sand	2118	2124	2681 - 8/10 1" W = .029
		Sand & Shale	2124	2344	2731 - 30/10 1" W = .057
		Sand	2344	2356	2781 - 28/10 1" W = .055
		Shaly Sand	2356	2408	2856 - 18/10 1" W = 1044
321		* Little Lime	2408	2470	
324		Pencil Cave	2470	2552	
345		* Big Lime	2552	2600	
			2600	TD	
		DTD - <u>2854</u>			
		LTD - 2854			

* Electric Log Tops

(Attach separate sheets as necessary)

PEAKE OPERATING Co.
 Well Operator
 By: John B. Wilkins
 Date: Aug 20 84

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."

