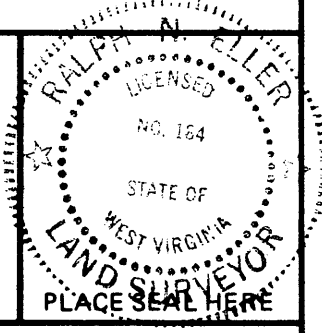


FILE NO. _____
 DRAWING NO. _____
 SCALE $1" = 2000'$
 MINIMUM DEGREE OF ACCURACY $1/200$
 PROVEN SOURCE OF ELEVATION B. M. R-138
823'

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) Ralph N. Eller
 R.P.E. _____ L.L.S. No. 184



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



DATE March, 19 83
 OPERATOR'S WELL NO. J. Mills #159
 API WELL NO. 47-103-1284
 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 1487' WATER SHED Piney Fork
 DISTRICT Grant COUNTY Wetzel
 QUADRANGLE Pine Grove Littleton 15' X
 SURFACE OWNER Lewis Wetzel Hunting Ground ACREAGE 5228.50
 OIL & GAS ROYALTY OWNER Mills Wetzel Lands Inc. LEASE ACREAGE 5228.50
 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 GORDON ESTIMATED DEPTH 3459'
 WELL OPERATOR QUAKER STATE OIL REF. CORP. DESIGNATED AGENT CARL J. CARLSON
 ADDRESS P.O. Box 1327 ADDRESS P.O. Box 1327
PARKERSBURG, W.VA. 26101 PARKERSBURG, W.VA. 26101

MAY 02 1983

Ad. Jacksonburg Str. (05)

13,300

WET. 1284

RECEIVED

DEC 30 1983



IV-35 OIL & GAS DIVISION (Rev 8-81) DEPT. OF MINES

State of West Virginia Department of Mines Oil and Gas Division

Date December 27, 1983 Operator's Well No. 159 Farm JOHN MILLS, JR. API No. 47 - 103 - 1284

WELL OPERATOR'S REPORT OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE FEB 2 - 1984

RECEIVED

OIL & GAS DIVISION

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

LOCATION: Elevation: 1487 Watershed Piney Fork District: Grant County Wetzel Quadrangle Oine Grove 7.5'

COMPANY QUAKER STATE OIL REFG. CORP. ADDRESS P.O.Box 1327, Parkersburg, WV 26102-1327 DESIGNATED AGENT Carl J. Carlson ADDRESS same as above SURFACE OWNER Lewis Wetzel Hunting Ground ADDRESS DNR, Charleston, WV 25305 MINERAL RIGHTS OWNER Mills Wetzel Lands, Inc. Elston Bank & Trust Co. ADDRESS Crawfordsville, Ind. 47933 OIL AND GAS INSPECTOR FOR THIS WORK B. Lowther ADDRESS Middlebourne, WV 26149 PERMIT ISSUED DRILLING COMMENCED 7/17/83 DRILLING COMPLETED 7/23/83 IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON

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

GEOLOGICAL TARGET FORMATION Gordon Depth 3312 - 3368 feet Depth of completed well 3454 feet Rotary xx / Cable Tools Water strata depth: Fresh na feet; Salt na feet Coal seam depths: na Is coal being mined in the area? no

OPEN FLOW DATA Producing formation Gordon Pay zone depth 3312 - 3368 feet Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d Final open flow 8 Mcf/d Final open flow 1 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--)

FEB 2 1984

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

Frac'd open hole with 174 gal. water and 134 sx of 12/20 sand.
 Fm. broke down at 2210 psi
 Avg. treating pressure - 3450 psi at 40 BPM

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale & Sandstone			0	939	
Sandstone			939	1132	
Shale & Siltstone			1132	1748	
Sandstone			1748	1803	
Shale			1803	1818	
Sandstone			1818	1943	
Shale & Sandstone			1943	2125	
Sandstone			2125	2185	
Shale			2185	2446	
Little Lime			2446	2461	
Pencil Cave			2461	2475	
Big Lime			2475	2540	
Big Injun			2540	2736	
Shale & Siltstone			2736	3098	
Siltstone			3098	3125	
Shale			3125	3304	
Gordon Stray			3304	3308	
Shale			3308	3312	
Gordon			3312	3368	
Shale			3368	3400	
Siltstone			3400	3412	
Shale			3412	3454 LTD	

(Attach separate sheets as necessary)

QUAKER STATE OIL REFG. CORP.

Well Operator

Michael C. Brannock - Sr. Geol.

By: *Michael C. Brannock*

Date: December 27, 1983

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of..."



1) Date: April 13, 1983
 2) Operator's Well No. JOHN MILLS, JR., #156
 3) API Well No. 47 State County Permit

DRILLING CONTRACTOR:

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES, OIL AND GAS DIVISION

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil XX / Gas _____ /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow _____ /)
- 5) LOCATION: Elevation: 1467 Watershed: Piney Fork
 District: Grant County: Netzel Quadrangle: Pine Grove
- 6) WELL OPERATOR MAKER STATE OIL REFS. CORP. 11) DESIGNATED AGENT Carl J. Carlson
 Address P.O. Box 1327 Address MARK SAGE
Parkersburg, WV 26102-1327
- 7) OIL & GAS ROYALTY OWNER Mills Netzel Lands, Inc. 12) COAL OPERATOR _____
 Address c/o Elston Bank & Trust Co. Address _____
Crawfordsville, Indiana 47233
- 8) SURFACE OWNER Louis Netzel Hunting Ground 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address Dept. of Natural Resources Name _____
Charleston, WV 25305 Address c/o Elston Bank & Trust Co.
Crawfordsville, Indiana 47233
- 9) FIELD SALE (IF MADE) TO: Name _____
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED Name Robert A. Luther
 Address General Delivery
Middlesboro, WV 26149
- 14) COAL LESSEE WITH DECLARATION ON RECORD:
 Name _____
 Address _____
- 15) PROPOSED WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, _____
- 17) Estimated depth of completed well, _____ feet
- 18) Approximate water strata depths: Fresh, _____ feet; salt, 1740 feet.
- 19) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ / No XX

20) CASING AND TUBING PROGRAM

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									Kinds
Fresh water	<u>3 7/8</u>	<u>R-40</u>	<u>20</u>	<u>XX</u>		<u>530</u>	<u>530</u>	<u>615</u>	
Coal									Sizes
Intermediate									
Production	<u>1 1/2</u>	<u>J-80</u>	<u>12.5</u>	<u>XX</u>		<u>340</u>	<u>240</u>	<u>342 5X</u>	Depths set
Tubing	<u>2</u>	<u>J</u>	<u>4.5</u>	<u>XX</u>		<u>330</u>	<u>330</u>		
Liners									Perforations:
									Top Bottom

21) EXTRACTION RIGHTS

- Check and provide one of the following:
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

24) 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 lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary: _____
 My Commission Expires _____

Signed: Carl J. Carlson
 Its: _____

OFFICE USE ONLY
DRILLING PERMIT

Permit number _____

19

Date

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. 10) 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.)

Permit expires December 30, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee

Administrator, Office of Oil and Gas

Line Item Explanation

- 1) Date of Application
- 2) Your well name and number
- 3) To be filled out by office of oil & gas
- 4A) "Oil" means natural crude oil or petroleum and other hydrocarbons, regardless of gravity, which are produced at the well in liquid form by ordinary production methods and which are not the result of condensation of gas after it leaves underground reservoirs: "Gas" means all natural gas and all other fluid hydrocarbons not defined as oil.
- 4B) "Shallow well" means any well drilled and completed in a formation above the top of the uppermost member of the "Onondaga Group" or a depth less than six thousand feet, whichever is shallower.
"Deep well" means any well drilled and completed in a formation at or below the top of the uppermost member of the "Onondaga Group" or at a depth less than six thousand feet, whatever is shallower.
- 5) Where well is located
- 6) Before a permit can be issued in a corporation, company partnership, or fictitious name, the name must be registered with the Secretary of State Office
- 7) Use separate sheet if necessary
- 8) Present surface owner at time application is filed.
- 9) Optional
- 11) See Reg. 7.01 relating to code §22-4-1k
- 12) "Coal Operator" means any persons, firm, partnership, partnership association or corporation that proposes to or does operate a coal mine. See Note 24
- 13 & 14) As per §22-4-20; See Note 24
- 15) Work that will be attempted—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.
- 16) Anticipated formation for which well will be completed
- 17) Self explanatory
- 18) Depth to deepest freshwater, and shallowest salt water, taken from nearby wells corrected for differences in elevation
- 19) All coal seam depths
- 20) Proposed casing program and cementing refer to Code 22-4-5, 22-4-6, 22-4-7, 22-4-8, 22-4-8a Reg 9.01, 15.01, 15.02, 15.03, 15.04, 25.01, 25.02, 25.03, 25.04
- 21) Code 22-4-11(c) - In lieu of filing the lease or leases or other continuing contract or contracts, the applicant for a permit described herein may file the following:
 - (1) A brief description of the tract of land including the district and county wherein the tract is located;
 - (2) The identification of all parties to all leases or other continuing contractual agreements by which the right to extract, produce or market the oil or gas is claimed;
 - (3) The book and page number wherein each such lease or contract by which the right to extract, produce or market the oil or gas is recorded;
 - (4) A brief description of the royalty provisions of each such lease or contract.
- 22) Code 22-4-11(d) and 22-4-11(e).
- 23) 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.
- 24) **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 the receipt of this Application by the Department.**

.....

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.

WAIVER

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 regulations.

Date: _____, 19_____

By _____

Its _____