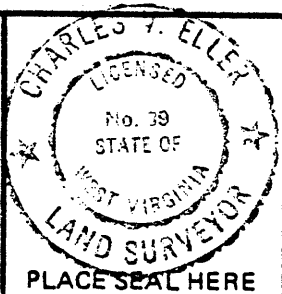


FILE NO. _____
 DRAWING NO. _____
 SCALE 1 IN. = 2000'
 MINIMUM DEGREE OF ACCURACY 1/2500'
 PROVEN SOURCE OF ELEVATION B.M. R-138
823'

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) Charles V. Eller
 R.P.E. _____ L.L.S. No. 39



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



DATE FEB. 28, 1981
 OPERATOR'S WELL NO. 154
 API WELL NO. 47-103-1224
 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 1438' WATER SHED BUFFALO RUN
 DISTRICT GRANT COUNTY WETZEL
 QUADRANGLE CENTER POINT 712415 DC
 SURFACE OWNER LEWIS WETZEL HUNTING GROUNDCREAGE 5228.50
 OIL & GAS ROYALTY OWNER MILLS WETZEL LANDS INC. LEASE ACREAGE 5228.5
 LEASE NO. W-195
 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 3460
 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

FORM IV-35
(Obverse)

Operator's
Well No. JOHN MILLS, JR. #15

[08-79,

WELL OPERATOR'S REPORT
OF

API Well No. 17 - 103 - 122
State County Permi

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1438 Watershed: Buffalo Run
District: Grant County: Wetzel Quadrangle: Center Point 7.5'

WELL OPERATOR QUAKER STATE OIL REFG. CORP. DESIGNATED AGENT Carl J. Carlson
Address P.O. Box 1327 Address P.O. Box 1327
Parkersburg, WV 26102-1327 Parkersburg, WV 26102-1327

PERMITTED WORK: Drill XX / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate ___
Plug off old formation ___ / Perforate new formation ___ /
Other physical change in well (specify) _____

PERMIT ISSUED ON March 30, 19 81

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Phillip L. Tracy

Address Rt. #3

Alma, WV 26320

GEOLOGICAL TARGET FORMATION: Gordon Depth 3303-3346 feet

Depth of completed well, 3405 feet Rotary XX / Cable Tools ___

Water strata depth: Fresh, na feet; salt, 1721 feet.

Coal seam depths: na Is coal being mined in the area? no

Work was commenced 6/20/81, 19 81, and completed 7/5/81, 19 81

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		
Conductor								Rinds
Fresh water	8 5/8	J-55	20	XX		421	421	160 sx
Coal								Sizes
Intermediate								
Production	4 1/2	K-55	9.5	XX		3401	3401	455 sx
Tubing								Deaths set
Liners								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation Gordon Pay zone depth 3303-3346 feet

Gas: Initial open flow, show Mcf/d Oil: Initial open flow, show Bbl/d

Final open flow, 10 Mcf/d Final open flow, 3 Bbl/d

Time of open flow between initial and final tests, -- hours

Static rock pressure, 125 psig (surface measurement) after 12 hours shut in

[If applicable due to multiple completion--]

Second producing formation _____ Pay zone depth _____ feet

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 measurement) after _____ hours shut in

SEP 28 1981

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

Perforated from 3305 to 3348 with 44 shots.

Frac'd with 790 bbl. water and 28,000# of 20/40 sand. Broke at 3000 psi, treated at 3000 psi and 22 BPM. I.S.I. 2100 psi.

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 & Siltstone			0	1002	
Sandstone			1002	1113	
Shale & Siltstone			1113	1210	
Sandstone			1210	1232	
Shale			1232	1280	
Sandstone			1280	1395	
Shale			1395	1721	
Sandstone & Shale			1721	2258	Salt Sands
Shale			2258	2433	
Limestone			2433	2447	Little Lime
Shale			2447	2450	Pencil Cave
Limestone			2450	2520	Big Lime
Sandstone			2520	2718	Big Injun
Shale & Siltstone			2718	3287	
Sandstone			3287	3291	Gordon Stray
Shale & Siltstone			3291	3303	
Sandstone			3303	3346	Gordon
Shale			3346	3405	L.T.D.

(Attach separate sheets to complete as necessary)

QUAKER STATE OIL REFINING CORPORATION

Well Operator

By Michael C. Brannock

Its Michael C. Brannock - Sr. Geologist

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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's
Well No. J. MILLS, JR. #154
API Well No. 47 - 103 - 1224
State County Permit

WELL TYPE: Oil XX / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow /)
LOCATION: Elevation: 1438 Watershed: Buffalo Run
District: Grant County: Wetzel Quadrangle: Center Point

WELL OPERATOR QUAKER STATE OIL REFG. CORP. DESIGNATED AGENT Carl J. Carlson
Address P.O. Box 1327 Address P.O. Box 1327
Parkersburg, WV 26101 Parkersburg, WV 26101

OIL & GAS ROYALTY OWNER Mills Wetzel Lands, Inc. COAL OPERATOR None
Address 115 So. LaSalle Street Address
Chicago, Illinois 60603 Address

ACREAGE 5228.5 COAL OWNER(S) WITH DECLARATION ON RECORD:
SURFACE OWNER Lewis Wetzel Hunting Ground Name Mills Wetzel Lands, Inc.
Address Dept. of Natural Resources Address 115 So. LaSalle Street
Charleston, WV 25303 Chicago, Illinois 60603

ACREAGE 5228.5 Name
FIELD SALE (IF MADE) TO: Address
Name None Address
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name None Address
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Phillip L. Tracy 758-4573
Address Rt. #3
Alma, WV 26320

RECEIVED
MAR 18 1981
OIL & GAS DIVISION
DEPT. OF MINES

RECEIVED
MAR 24 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 XX / lease / other contract / dated Nov. 30, 1948, to the undersigned well operator from Mills Wetzel Lands, Inc.

[If said deed, lease, or other contract has been recorded:]
Recorded on Sept. 22, 1980, in the office of the Clerk of the County Commission of Wetzel County, West Virginia, in Deed Book 60A at page 381. A permit is requested as follows:

PROPOSED WORK: Drill XX / 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 the receipt of this Application by the Department.

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.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 343-3092

BLANKET BOND

QUAKER STATE OIL REFINING CORPORATION
Well Operator
Carl J. Carlson
By
Its Asst. Dist. Prod. Manager

[08-78]

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Assoc.
Address P.O. Box 388
Elkview, WV 25071

GEOLOGICAL TARGET FORMATION, Gordon

Estimated depth of completed well, 3460 feet, Rotary XX / Cable tools /
Approximate water strata depths: Fresh, 150 feet; salt, 1900 feet.
Approximate coal seam depths: no mineable coals is coal being mined in the area? Yes / No XX /

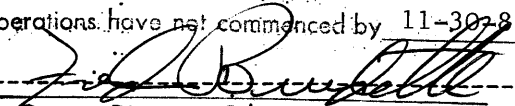
CASING AND TUBING PROGRAM

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	8 5/8	J-55	20	X		350	350	cemented to	surface
Coal									Sizes
Intermediate									
Production	4 1/2	K-55	9.5	X		3460	3460	450 sx	Depths set
Tubing									
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 to be done in connection therewith.

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 11-30-81.


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 regulations.

Date: , 19

By
Its