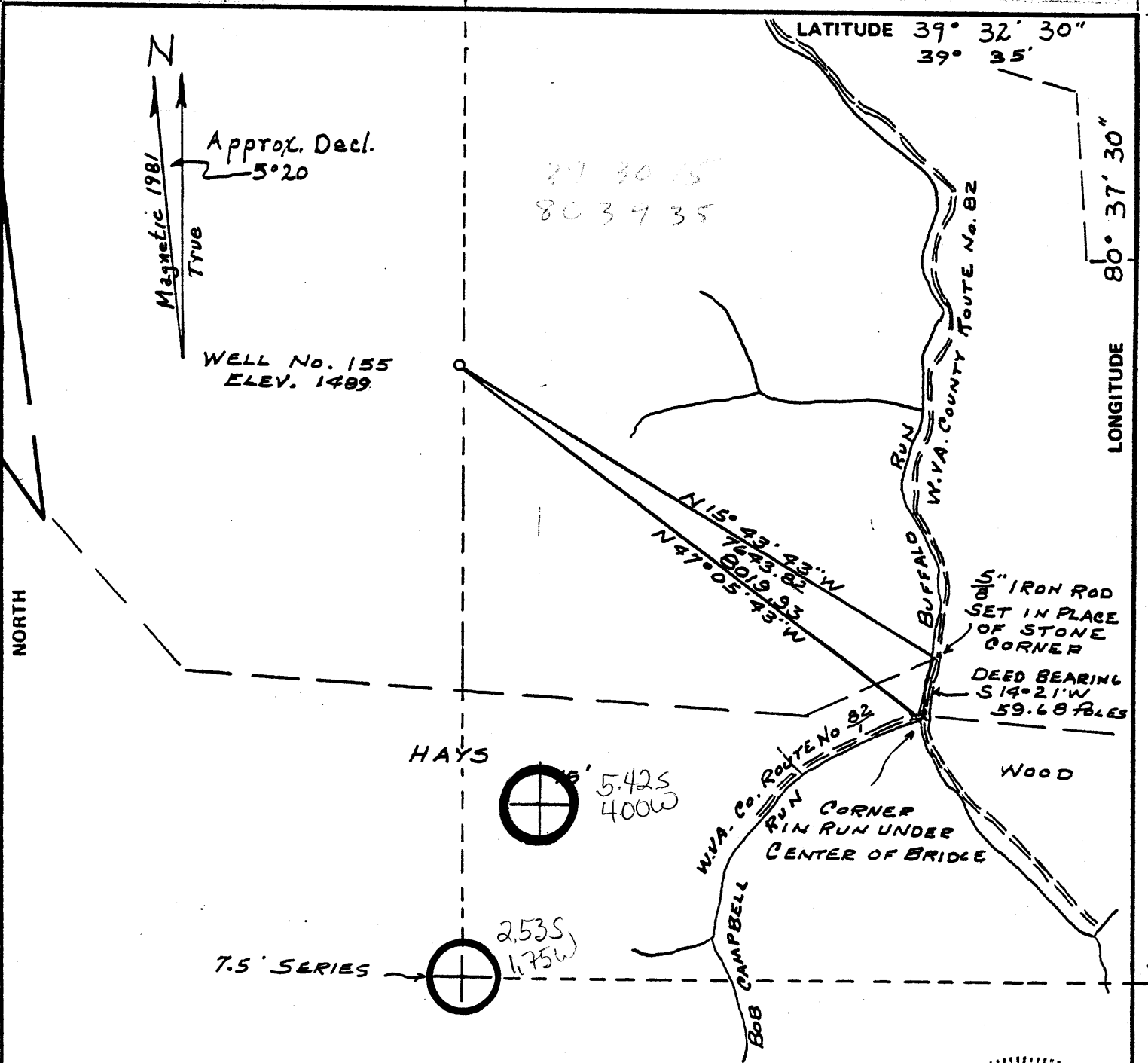
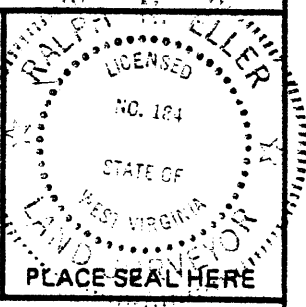


9200'



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 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) Ralph N. Eller
 R.P.E. _____ L.L.No. 184



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



DATE FEB. 28, 1981
 OPERATOR'S WELL NO. 155
 API WELL NO. 47-103-1225
 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 1489 WATER SHED BUFFALO RUN
 DISTRICT GRANT COUNTY WETZEL
 QUADRANGLE PINE GROVE Littleton 15
 SURFACE OWNER LEWIS WETZEL HUNTING GROUND ACREAGE 5228.50
 OIL & GAS ROYALTY OWNER MILLS WETZEL LAND INC. LEASE ACREAGE 5228.50
 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 3450
 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

[08-74,

WELL OPERATOR'S REPORT
OF

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

API Well No. 47 - 103 - 12
State County Permi

DRILLING, FRACURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1489 Watershed: Buffalo Run
District: Grant County: Wetzel Quadrangle: Pine Grove 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 17, 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 Tracy

Address Rt. #3
Alma, WV 26320

GEOLOGICAL TARGET FORMATION: Gordon Depth 3316-3364 feet

Depth of completed well, 3430 feet Rotary XX / Cable Tools

Water strata depth: Fresh, na feet; salt, 1875 feet.

Coal seam depths: 1258-61 Is coal being mined in the area? no

Work was commenced 7/7/81, 19 , and completed 7/12/81, 19

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								Kinds
Fresh water	8 5/8	J-55	20	xx		430	430	110 sx
Coal								Sizes
Intermediate								
Production	4 1/2	K-55	9.5	xx		3413	3413	500 sx
Tubing								Deaths set
Liners								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation Gordon Pay zone depth 3316-64 feet

Gas: Initial open flow, SHOW Mcf/d Oil: Initial open flow, show bbl/d

Final open flow, 6 Mcf/d Final open flow, 10 bbl/d

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

Static rock pressure, 250 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 with 21 shots from 3324 to 3344.

Frac'd with 810 bbl. water and 27.000# of 20/40 sand.

Broke at 3100 psi, treated at 2500 psi and 33.7 BPM. I.S.I. 1570 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
Pittsburgh Coal			1258	1261	
Shale			1261	1350	
Sandstone & Siltstone			1350	2453	
Little Lime			2453	2467	
Limy Siltstone			2467	2489	
Pencil Cave			2489	2495	
Big Lime			2495	2560	
Big Injun			2560	2743	
Shale & Siltstone			2743	2895	
Coffee Shale			2895	2900	
Berea SS			2900	2906	
Siltstone & Sandstone			2906	3305	
Gordon Stray			3305	3312	
Shale			3312	3316	
Gordon Sand			3316	3364	
Siltstone			3364	T.D.	

3430

(Attach separate sheets to complete as necessary)

QUAKER STATE OIL REFINING CORPORATION
Well Operator
By Steve Opritza
Its Steve Opritza - 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]

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

Date: March 17, 1981

Operator's
Well No. JOHN MILLS, JR. #155

API Well No. 47 - 103 - 1225
State County Permit

OIL AND GAS WELL PERMIT APPLICATION

MAR 18 1981

OIL AND GAS STORAGE DEPT. OF MINES Deep / Shallow /

WELL TYPE: Oil X / Gas /

(If "Gas", Production /

LOCATION: Elevation: 1489

Watershed: Buffalo Run

District: Grant

County: Wetzel

Quadrangle: Pine Grove 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 26101

Parkersburg, WV 26101

OIL & GAS ROYALTY OWNER Mills Wetzel Lands, Inc.

COAL OPERATOR None

Address 115 So. LaSalle Street

Address:

Chicago, Illinois 60603

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 25305

Chicago, Illinois 60603

Acreage 5228.5

Name

FIELD SALE (IF MADE) TO:

Address

Name None

Address

COAL LESSEE WITH DECLARATION ON RECORD

Name None

Address

OIL & GAS INSPECTOR TO BE NOTIFIED

Name Phillip L. Tracy 758-4573

Address Rt. #3

Alma, WV 26320

OIL & GAS DIVISION
DEPT. OF MINES

MAR 24 1981

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

QUAKER STATE OIL REFINING CORPORATION

Carl J. Carlson Well Operator

By Carl J. Carlson
Its Asst. Dist. Production Manager

NET BOND

[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 & Associates
Address P.O. Box 388
Elkview, WV 25071

GEOLOGICAL TARGET FORMATION, Gordon

Estimated depth of completed well, 3450 feet, Rotary XX/ Cable tools /

Approximate water strata depths: Fresh, 150 feet; salt, 1950 feet.

Approximate coal seam depths: no mineable coals 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	XX		350	350	cemented to	surface
Coal									Sizes
Intermediate									
Production	4 1/2	K-55	9.5	XX		3450	3450	450 sx	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

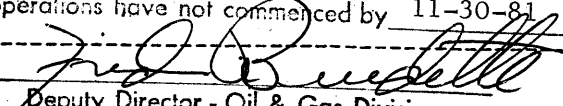
NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security 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 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 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

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. JOHN MILLS, JR. #156
API Well No. 47 - 103 - 1226
State County Permit

WELL TYPE: Oil X / Gas /
(If "Gas", Production / Underground storage / Deep / Shallow /)
LOCATION: Elevation: 1430 Watershed: Buffalo Run
District: Grant County: Wetzel Quadrangle: Pine Grove 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 26101 Parkersburg, WV 26101

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

SURFACE OWNER Lewis Wetzel Hunting Ground COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Mills Wetzel Lands, Inc.
Address 115 So. LaSalle Street
Chicago, Illinois 60603

FIELD SALE (IF MADE) TO:
Name None
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) 345-3992

BLANKET BOND

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

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 & Associates
Address P.O. Box 388
Elkview, WV 25071

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Estimated depth of completed well, 3400 feet, Rotary XX/ Cable tools /
Approximate water strata depths: Fresh, 150 feet; salt, 1800 feet.
Approximate coal seam depths no mineable coal Is coal being mined in the area? Yes / No XX/

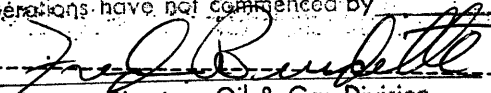
CASING AND TUBING PROGRAM

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	XX		350	350	cemented to	surface
Coal									Sizes
Intermediate									
Production	4 1/2	K-55	9.5	XX		3400	3400	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 drilling 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 not a separate permit. **THIS PERMIT MUST BE POSTED AT THE WELL SITE** if the Form IV-2 filed 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