

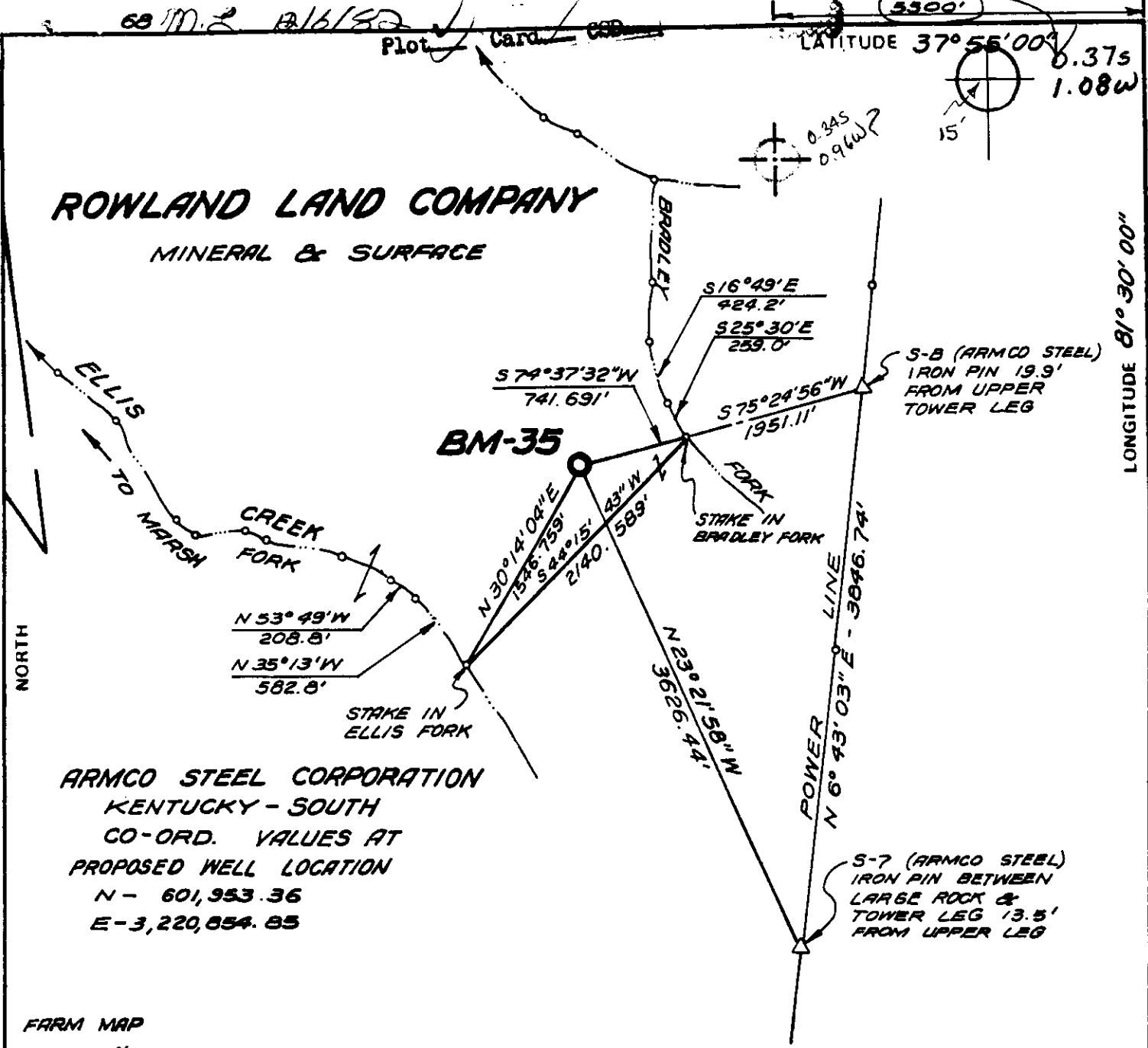
68 M.S. 8/16/82

Plot Card CSD

LATITUDE 37° 55' 00" 0.37s 1.08w

ROWLAND LAND COMPANY

MINERAL & SURFACE



ARMCO STEEL CORPORATION
 KENTUCKY - SOUTH
 CO-ORD. VALUES AT
 PROPOSED WELL LOCATION
 N - 601,953.36
 E - 3,220,854.85

FARM MAP X

NOTE:
 COAL LEASED TO BETHLEHEM MINES - NOT OPERATED IN VICINITY OF PROPOSED WELL LOCATION.

FILE NO 68-29
 DRAWING NO BM-35
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 PART IN 2500
 PROVEN SOURCE OF ELEVATION U.S. GOV'T. BM ELEV. - 946

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) Alfred C. Hart
 R.P.E. L.L.S. 99 W.VA.

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LATITUDE: 37° 54' 43"
 LONGITUDE: 81° 31' 02"

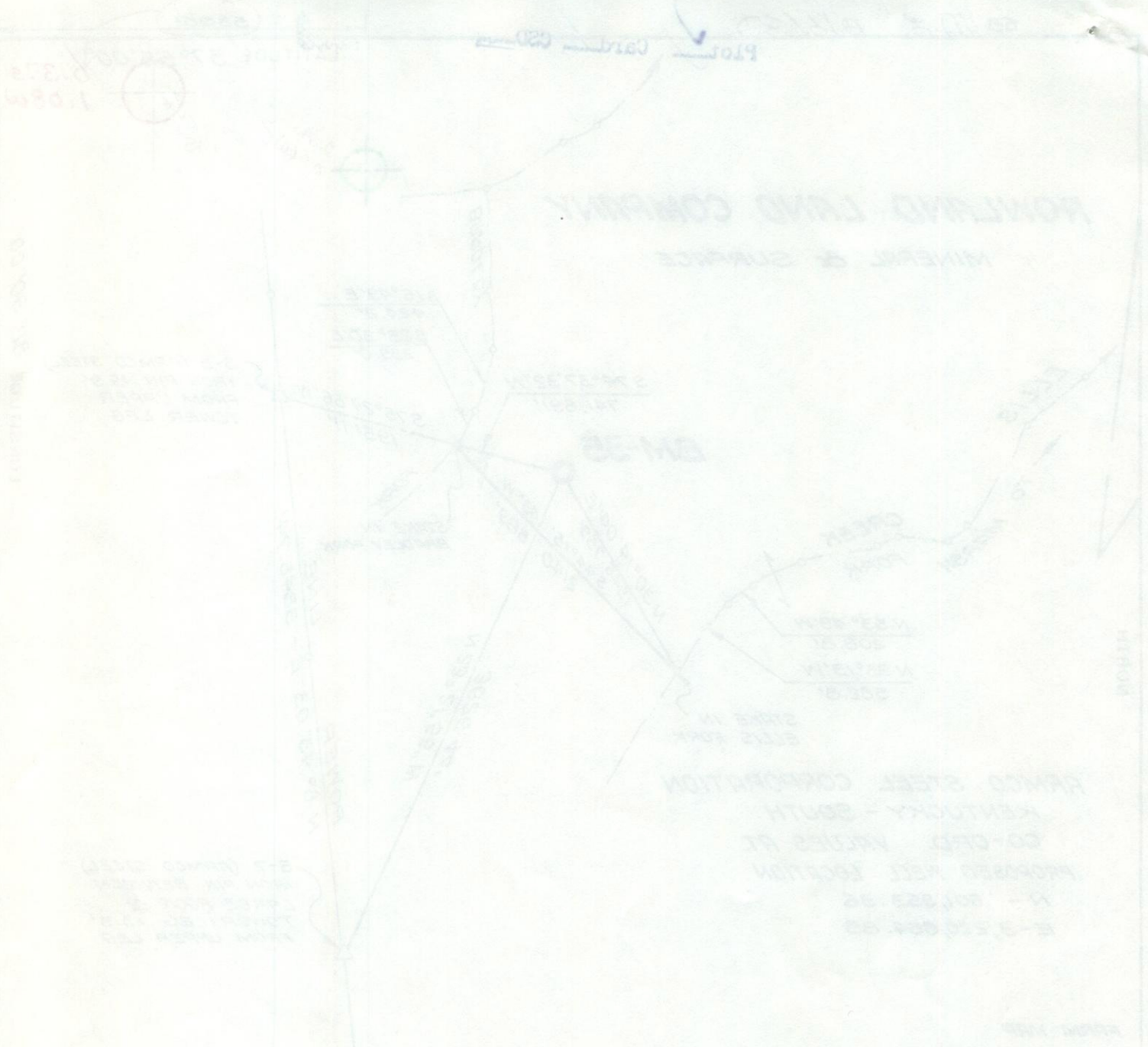


DATE SEPTEMBER 28, 1982
 OPERATOR'S WELL NO. BM-35
 API WELL NO. 47-081-0622
 STATE COUNTY PERMIT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW X
 LOCATION ELEVATION 1881.42' WATER SHED MARSH FORK
 DISTRICT MARSH FORK COUNTY RALEIGH
 QUADRANGLE WHITESVILLE, W.VA. Bald Knob 15' EC
 SURFACE OWNER ROWLAND LAND CO. ACREAGE 1930.553
 OIL & GAS ROYALTY OWNER ROWLAND LAND CO. LEASE ACREAGE 6,000
 LEASE NO. BM-1
 PROPOSED WORK: DRILL X 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 WEIR ESTIMATED DEPTH 3690'
 WELL OPERATOR BIG MARSH OIL CO. DESIGNATED AGENT J.L. WEEKLY 6-6
 ADDRESS P.O. BOX 1273 CHARLESTON, W.VA. 25325 ADDRESS SAME Hopkins Fork - Jarrolds Valley (247)

DEC 13 1982



NOTE:
 THE LANDS TO BE CONVEYED
 ARE NOT OPERATED IN
 CONNECTION WITH THE
 PROPOSED WELL LOCATION

THE UNDERSIGNED HEREBY CERTIFY THAT
 THIS PLAN IS CORRECT TO THE BEST OF MY
 KNOWLEDGE AND BELIEF AND SHOWS ALL THE
 INFORMATION REQUIRED BY LAW AND THE REGU-
 LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
 MENT OF MINES

SIGNED: *[Signature]*
 DATE: 11-28-82

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 LOCATION: 3225 W. 43rd
 LATITUDE: 38° 21' 00" N
 LONGITUDE: 81° 57' 00" W

IN DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAP
 WELL TYPE: DRILL
 GAS LIQUID INJECTION: _____
 WASTE DISPOSAL: _____
 IF GAS PRODUCTION: STORAGE: _____
 LOCAL ELEVATION: _____
 DISTRICT: _____
 COUNTY: _____
 SURFACE OWNER: _____
 OIL & GAS ROYALTY OWNER: _____
 LEASE NO.: _____
 PROPOSED WORK: DRILL & CONVERT _____
 STIMULATE _____
 FORMATION: _____
 OTHER PHYSICAL CHANGES: _____
 CLEANOUT AND REFLUID: _____
 ESTIMATED DEPTH: _____
 DESIGNATED AGENT: _____
 WELL OPERATOR: _____

DATE: 11-28-82
 OPERATOR WELL NO: 3225
 API WELL NO: 3225
 STATE COUNTY PERMIT

DEC 13 1982

IV-35
(Rev 8-81)



RECEIVED

APR 19 1984

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

Date 4-17-84
Operator's
Well No. BM-35
Farm Rowland Land Co.
API No 47 - 081 - 0622

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 ___ / Underground Storage ___ / Deep ___ / Shallow X /)

LOCATION: Elevation; 1881.42 Watershed Marsh Fork
District: Marsh Fork County Raleigh Quadrangle Whitesville

COMPANY Columbia Gas Transmission Corp

ADDRESS P. O. Box 1273, Charleston, WV

DESIGNATED AGENT J. L. Weekley

ADDRESS P. O. Box 1273, Charleston, WV

SURFACE OWNER Rowland Land Co.

ADDRESS Rm. 301, 1033 Quarrier St., Chas., WV 25301

MINERAL RIGHTS OWNER Rowland Land Co.

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Rue

Schoolcraft ADDRESS Pineville W. Va.

PERMIT ISSUED _____

DRILLING COMMENCED 7-6-83

DRILLING COMPLETED 1-15-84

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 Cond.			
20 10" 3/4	84.3	84.3	35.10 cu/ft to surface
9 5/8			
8 5/8	1441.3	1441.3	292.50 cu/ft to surface
7	2737	439	30 cu/ft.
5 1/2			
4 1/2	4011	4011	120 cu/ft.
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Weir Depth 3526 feet

Depth of completed well 3570 feet Rotary ___ / Cable Tools X

Water strata depth: Fresh ___ feet; Salt ___ feet

Coal seam depths: 228', 482', 529' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Gordon Pay zone depth 3952 feet

Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d

Final open flow "Wet" Mcf/d Final open flow ___ Bbl/d

Time of open flow between initial and final tests 6 hours

Static rock pressure ___ psig (surface measurement) after ___ hours shut

(If applicable due to multiple completion--)

Second producing formation Weir Pay zone depth 3526 feet

Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d

Final open flow 265 Mcf/d Oil: Final open flow ___ Bbl/d

Time of open flow between initial and final tests 6 hours

Static rock pressure 580 psig (surface measurement) after 72 hours shut

MAY 7 1984

(Continue on reverse)

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

Gordon Wet - Plugged back to ~~3570'~~ on 2-22-84.
 Completed Weir on 2-24-84
 Perforations at (~~3368'-3354'~~) 2 foot intervals.
 Acidized with 500 gallons 15% Mud Acid with 61,000 pounds of 20/50 sand.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Slate			0'	68	
Sand			68	80	
Slate			80	89	
Sand			89	165	
Slate			165	177	
Sand			177	220	Lost water @ 208'-210'
Coal			220	228	
Sand			228	238	
Slate			238	248	
Sand			248	345	
Black Lime			345	393	
Slate			393	398	
Sand			398	477	
Coal			477	482	
Sand			490	526	
Coal			526	529	
Slate			529	532	
Sand			532	544	
Slate			544	562	
Sand			562	567	
Slate-Shells			567	575	
Sand			575	597	
Slate			597	620	
Hard Lime			620	626	
Slate			626	630	
Sand			630	640	
Slate			640	665	
Sand			665	694	
Coal			694	697	
Slate			697	703	
Sand			703	790	
Broken Sand			790	827	
Shells			827	835	
Grey Sand			835	880	
Slate Shells			880	1120	
Sand			1120	1170	

(See Attached Sheet)

(Attach separate sheets as necessary)

Columbia Gas Transmission Corp.
Well Operator

By:

Date:

J. Weckley
4-18-84

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
 well, encountered in the d..."

WELL LOG

Pg. 2, 081-622

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Slate Shells			1170	1309	
Sand			1309	1441	
Shells			1441	1448	
Sand			1448	1460	
Gritty Shells			1460	1493	
Sand			1493	1520	
Slate			1520	1565	
Sand			1565	1756	
Slate			1756	1793	
Sand			1793	1836	
Slate			1836	1843	
Sand			1843	1957	
Slate			1957	2051	
Sand			2051	2115	
Slate			2115	2165	
Sand			2165	2185	
Slate & Shells			2185	2194	
Sand			2194	2226	
Hard Lime			2226	2236	
Slate			2236	2276	
Red Rock			2276	2281	
Lime Shells			2281	2361	
Red Rock			2361	2412	
Sand			2412	2448	
Lime			2448	2452	
Red Rock			2452	2481	
Slate			2481	2655	
Red Rock			2655	2685	
Lime			2685	2715	
Sand			2715	2723	
Slate			2723	2762	
Black Lime			2767	2787	
Maxon Sand			2787	2857	Show of gas
Slate			2857	2898	
Big Lime			2898	3260	
Black Lime			3260	3291	
Injun Sand			3291	3320	
Slate & Shells			3320	3375	
Weir			3375	3415	
Sand			3415	3522	
Slate			3522	3754	
" Gordon			3754	3952	
				TO 4011	
				(Up. Dev. undiff. (401))	

INSPECTOR:

DEPARTMENT OF MINES, OIL & GAS

W (H" Gas", Production _____ / Underground _____

OWNER: Standard Fuel Company

ADDRESS: Washington, D.C.

DATE: 1982

OWNER: Standard Fuel Company

ADDRESS: Washington, D.C.

DATE: 1982

NAME OF MINE TO: 53

JUL 10 1982

GAS INSPECTOR TO BE EMPLOYED: B. George [unclear]

OIL & GAS DIVISION
DEPT. OF MINES

WELL NO: 100

WELL TYPE: Drill

Other physical data in well (specify): _____

FORMAL TARRANT FORMATION: _____

Approximate water table depth: _____ feet

Approximate coal seam depth: _____ feet

WELL LOG AND TESTING PROGRAM

TIME	DEPTH	TEMPERATURE	RESISTIVITY	OTHER
8:15	0			
8:30	10			
8:45	20			
9:00	30			
9:15	40			
9:30	50			
9:45	60			
10:00	70			
10:15	80			
10:30	90			
10:45	100			

WELL NO: 100

WELL TYPE: Drill

Other physical data in well (specify): _____

FORMAL TARRANT FORMATION: _____

Approximate water table depth: _____ feet

Approximate coal seam depth: _____ feet

WELL LOG AND TESTING PROGRAM

TIME	DEPTH	TEMPERATURE	RESISTIVITY	OTHER
8:15	0			
8:30	10			
8:45	20			
9:00	30			
9:15	40			
9:30	50			
9:45	60			
10:00	70			
10:15	80			
10:30	90			
10:45	100			

WELL NO: 100

WELL TYPE: Drill

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 _____