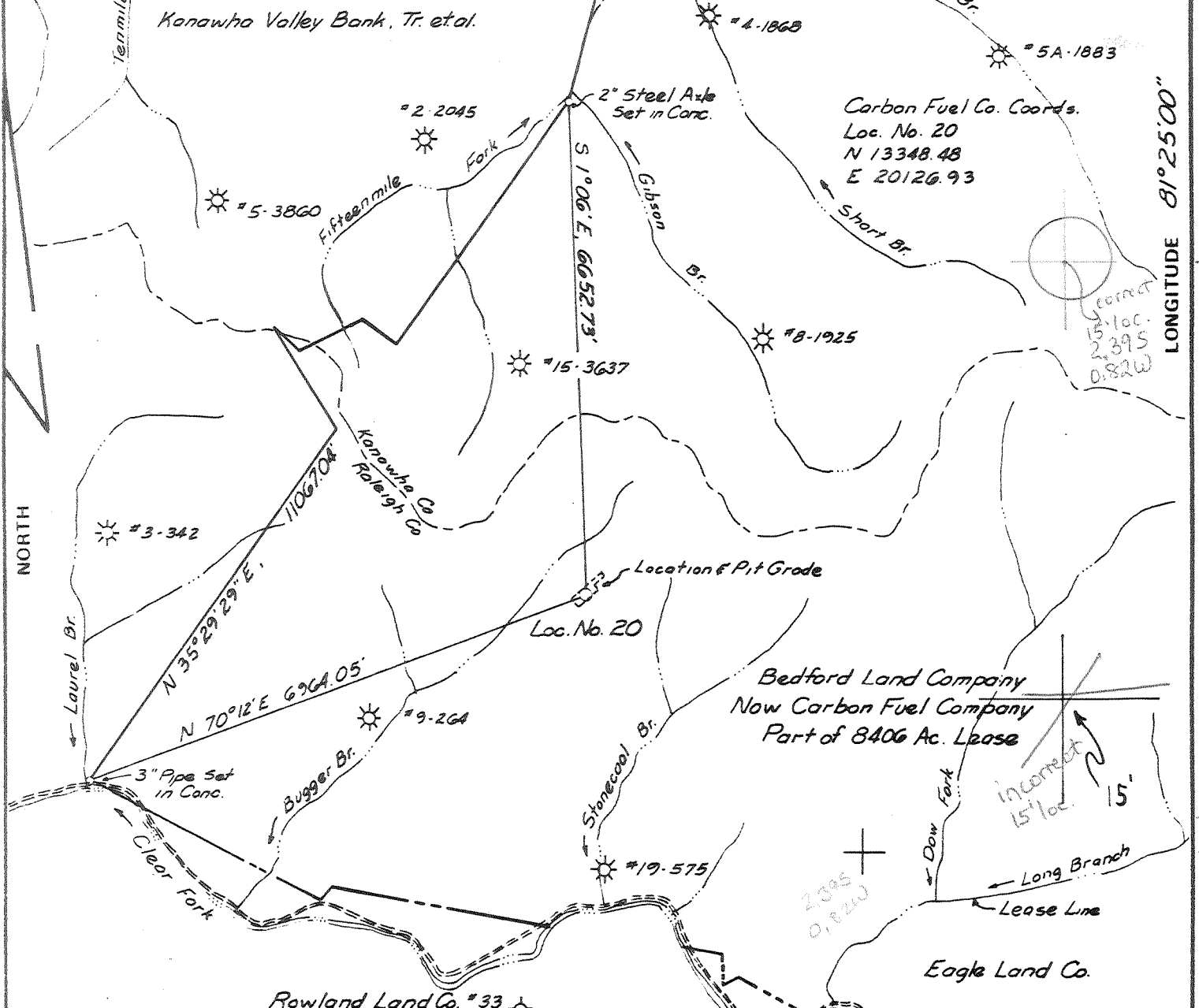


CD: 891 PMT: 626
 Loc: digitized from OGIS 7.5' Miler
 QUAD: 325 DATE: 9-FEB-90
 LAT: 38 00.0 Miles South: 2.39
 LONG: 81 25.0 Miles West: 0.85

4310'
 LATITUDE 38°00'00"

LONGITUDE 81°25'00"



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 9980
 PROVEN SOURCE OF ELEVATION Carbon Fuel Co. Co-ordinate Control Points

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) Stephen Parks
 R.P.E. 8982 L.L.S. _____

PLACE SEAL HERE

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



DATE Dec 17, 1982
 OPERATOR'S WELL NO. 20-Ser 096471
 API WELL NO. 47-081-0626-Frac.
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 2210.8 WATER SHED Stonecoal Br. & Bugger Br. of Clear Fork
 DISTRICT Clear Fork COUNTY Rowleigh
 QUADRANGLE Dorothy Earles NW-15'
 SURFACE OWNER Carbon Fuel Company ACREAGE 8300+
 OIL & GAS ROYALTY OWNER Carbon Fuel Company LEASE ACREAGE 8406
 LEASE NO. 9965
 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 Onondaga Lime ESTIMATED DEPTH 6871'
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24818

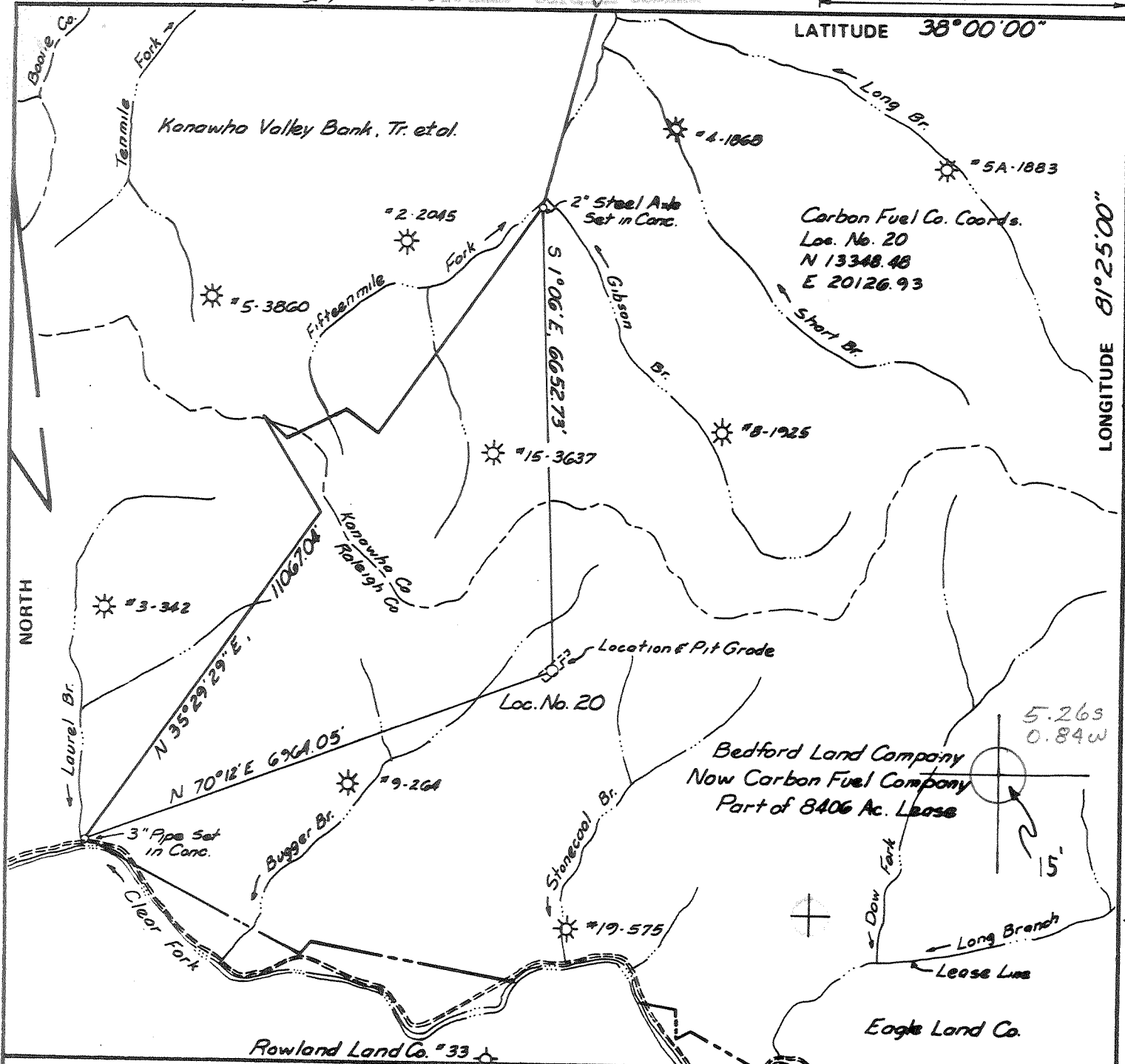
NOV 05 1994

12680
08921
PAL-0626

12/21/82 Card 7

4310' LATITUDE 38°00'00"

LONGITUDE 81°25'00"



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 9980
 PROVEN SOURCE OF ELEVATION Carbon Fuel Co. Co-ordinate Control Points

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) Stephen Parks
 R.P.E. 8982 L.I.S. _____

PLACE SEAL HERE

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



DATE Dec 17, 19 82
 OPERATOR'S WELL NO. 20-Ser 096471
 API WELL NO. 47-081-0626
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 2210.8 WATERSHED Stonecoal Br. & Bugger Br. of Clear Fork
 DISTRICT Clear Fork COUNTY Raleigh
 QUADRANGLE Dorothy Eccles 15' NW
 SURFACE OWNER Carbon Fuel Company ACREAGE 8300+
 OIL & GAS ROYALTY OWNER Carbon Fuel Company LEASE ACREAGE 8406
 LEASE NO. 9965
 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) _____

JAN 10 1983

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION Orondaga Lime ESTIMATED DEPTH 6871' deepwell
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24818

66 3-3 0 amended



IV-35
(Rev 8-81)

Date January 18, 1985

Operator's

Well No. 20

State of West Virginia

Department of Mines

Oil and Gas Division

Farm Bedford Land Co.

API No. 47 - 081 - 0626 Frac

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 X / Shallow ___ /)

LOCATION: Elevation: 2210.8 ²²²⁰ Watershed Clear Fork of Big Coal River
District: Clear Fork County Raleigh Quadrangle Dorothy

COMPANY Ashland Exploration, Inc.

ADDRESS P. O. Box 391, Ashland, Ky. 41114

DESIGNATED AGENT Forrest Burkett

ADDRESS P. O. Box 156, Brenton, WV 24818

SURFACE OWNER Carbon Fuel Co.

ADDRESS Suite 3000 One Valley Square, Charleston, WV

MINERAL RIGHTS OWNER Carbon Fuel Co.

ADDRESS Suite 3000, One Valley Sq., Charleston, WV

OIL AND GAS INSPECTOR FOR THIS WORK Rodney

Dillon ADDRESS Box 30, Scarbro, WV

PERMIT ISSUED 11/1/84

RECOMPLETION DRILLING COMMENCED 12/13/84

RECOMPLETION REWORKING COMPLETED 1/3/85

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.	28	28	17 sks
13-10"	606	606	230 sks
9 5/8			
8 5/8	2281	2281	410 sks
7			
5 1/2			
4 1/2	5438	5438	400 sks
3			
2		5676	
Liners used			

GEOLOGICAL TARGET FORMATION Gordon, Weir Depth 6910 feet

Depth of completed well 6910 feet Rotary X / Cable Tools _____

Water strata depth: Fresh 440 feet; Salt 1360 feet

Coal seam depths: Open mine 518-521 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Gordon(w/D. Shale treated initially) Pay zone depth 4044-4058 feet

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

Final open flow 558 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 550 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation L. Weir Pay zone depth 3465-3479 feet

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

Final open flow 169 Mcf/d Oil: Final open flow _____ Bbl/d

Time of open flow between initial and final tests 3 hours 558 04 1985

Static rock pressure 700 psig (surface measurement) after 72 hours shut in

558
169
727
MCF
POF

IV-35
(Rev 8-81)

RECEIVED

JUN 13 1983

OIL & GAS DIVISION
DEPT. OF MINES



State of West Virginia

Department of Mines
Oil and Gas Division

Date 6/8/83
Operator's
Well No. 20
Farm Bedford Land Co.
API No. 47 - 081 - 0626

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 x / Shallow /)

LOCATION: Elevation: 2210.8' Watershed Clear Fork of Big Coal River
District: Clear Fork County Raleigh Quadrangle Dorothy

COMPANY Ashland Exploration, Inc.
ADDRESS P. O. Box 391, Ashland, Ky. 41114
DESIGNATED AGENT Forrest Burkett
ADDRESS P. O. Box 156, Brenton, WV 24818
SURFACE OWNER Carbon Fuel Co.
ADDRESS 1300 - One Valley Square, Charleston, WV 25301
MINERAL RIGHTS OWNER Carbon Fuel Co.
ADDRESS 1300 One Valley Square, Charleston, WV 25301
OIL AND GAS INSPECTOR FOR THIS WORK Craig Duckworth
ADDRESS Box 454, Mt. Lookout, WV 26678
PERMIT ISSUED 12/22/82
DRILLING COMMENCED 2/18/83
DRILLING COMPLETED 3/2/83

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	20"	20"	17 sks
13-10"	606'	606'	230 sks
9 5/8			
8 5/8	2281'	2281'	410 sks
7			
5 1/2			
4 1/2	5438'	5438'	100 sks
3			
2		5673	-0-
Liners used			

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

GEOLOGICAL TARGET FORMATION Marcellus Shale Depth 6871 feet
Depth of completed well 6910 feet Rotary x / Cable Tools
Water strata depth: Fresh 440' feet; Salt 1360' feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 5431 feet
Gas: Initial open flow 1860 Mcf/d Oil: Initial open flow Bbl/d
Final open flow 1830 Mcf/d Final open flow Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 1250 psig (surface measurement) after 20 hours shut in
(If applicable due to multiple completion--)

JUN 21 1983

Second producing formation Pay zone depth feet
Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d
Final open flow Mcf/d Oil: 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

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

Open hole foam frac 5431-6700 - BD @ 3100#, ATP 3440# @ 14.9 B/M (wtr)
 ISIP 1600#, 5 min 1430#, 15 min 1300#
 Used 1,140 MCFN₂, 735 sks 20/40 sd, 3%
 HCl. TL&FW 433 bbl, TSLF 330 bbl.

Churon - Rhine Street

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fr and salt water, coal, oil and
Sand & Shale			Surface	202	
Shale			202	250	
Sand & Shale			250	407	
Shale & Sand			407	670	Fresh wtr @ 440'
Shale			670	688	
Sand			688	817	
Shale & Sand			817	989	
Shale			989	1139	
Sand			1139	1175	
Shale			1175	1232	
Sand			1232	1445	Salt wtr @ 1360'
Shale			1445	1536	
Lower Salt Sand			1536	2243	
Shale			2243	2282	
Ravencliff			2282	2333	
Shale			2333	2347	
Avis LS			2347	2379	
Sand & Shale			2379	2837	
Lower Maxton			2837	2927	
Shale			2927	2931	
Little Lime			2931	3023	
Shale			3023	3026	
Big Lime			3026	3328	
Shale			3328	3358	
Injun			3358	3397	
Shale			3397	3432	
Middle Weir			3432	3452	
Shale			3452	3458	
Lower Weir			3458	3582	
Shale			3582	3801	
Coffee Shale			3801	3832	
Berea ✓			3832	3872	
Devonian Shale			3872	4040	
Gordon			4040	4060	
Devonian Shale			4060	6860	
Onondaga LS			6860	TD	

5431 6700
 3872 3872
 7559 2818

6860 6960
 2211 3872
 4649 3038

DTD 6910
 LTD 6910

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By: *Derek S. King*

Date: June 8, 1983

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

FILE COPY RECEIVED

SEP 26 1984



- 1) Date: September 25, 19 84
 2) Operator's Bedford Land Company
 Well No. #20, Serial No. 096471
 3) API Well No. 47 - 081 - 0626 - FRAC
 State County Permit

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
 DEPT. OF MINES
 APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage / Deep / Shallow)
 5) LOCATION: Elevation: 2210.8 Watershed: Clear Fork of Big Coal River
 District: Clear Fork County: Raleigh Quadrangle: Dorothy
 6) WELL OPERATOR Ashland Exploration, Inc. 7) DESIGNATED AGENT Forrest Burkett
 Address P. O. Box 391 Address Box 156
Ashland, KY 41114 Brenton, WV 24818
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Rodney G. Dillon Name Tri-State Well Service
 Address P.O. Box 30, Scarbro, WV 25917 Address Box 299, 1 Berea Plaza
304/469-2015 Bridgeport, WV 26330
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate /
 Plug off old formation / Perforate new formation /
 Other physical change in well (specify) _____
 11) GEOLOGICAL TARGET FORMATION, Gordon, Weir
 12) ~~ESIMESZ~~ depth of completed well, 6910 feet
 13) Approximate trata depths: Fresh, 440 feet; salt, 1360 feet.
 14) Approximate coal seam depths: Open Mine 518-521 Is coal being mined in the area? Yes / No /

15) 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	16	H-40	65	X		28	28	17 sks.	Kinds
Fresh water									
Coal	11 3/4	H-40	42	X		606	606	230 sks.	Sizes
Intermediate	8 5/8	J-55	24	X		2281	2281	410 sks.	
Production	4 1/2	J-55	10.5	X		5438	5438	400 sks.	Depths set
Tubing	2 3/8	J-55	4.7	X		5673	5673		
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-081-0626-FRAC

Date November 1 19 84

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. 8) 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.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires November 1, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>10</u>	<u>MW</u>	<u>TS</u>	<u>TS</u>	<u>509</u> <u>196</u>

Margaret J. Hesse
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.



1) Date: December 17, 1982
 2) Operator's Well No. 20, Serial No. 096471
 3) API Well No. 47 081 0626
 State _____ County _____ Permit _____

DRILLING CONTRACTOR:

Ray Resources Drilling Co.
2101 Washington St., East
Charleston, WV 25311

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep X / Shallow _____)
- 5) LOCATION: Elevation: 2210.8 Watershed: Clear Fork of Big Coal River
 District: Clear Fork County: Raleigh Quadrangle: Dorothy
- 6) WELL OPERATOR Ashland Exploration, Inc. 11) DESIGNATED AGENT Forest Burkett
 Address P. O. Box 391 Address Box 176
Ashland, KY 41114 Brenton, WV 24810
- 7) OIL & GAS ROYALTY OWNER Carbon Fuel Company 12) COAL OPERATOR None
 Address 1300 - One Valley Square Address _____
Charleston, WV 25301
 Acreage 8406
- 8) SURFACE OWNER Carbon Fuel Company 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
 Address 1300 - One Valley Square Name _____
Charleston, WV 25301 Address 1300 - One Valley Square
 Acreage 8300* Charleston, WV 25301
- 9) FIELD SALE (IF MADE) TO:
 Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name P. Craig Duckworth
 Address P. O. Box 454
N. Lookout, WV 26678
- 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, Marcellus Shale
 17) Estimated depth of completed well, _____ feet top of salt sand
 18) Approximate water strata depths: Fresh, _____ feet; salt, _____ feet.
 19) Approximate coal seam depths: 720 Is coal being mined in the area? Yes _____ / No X

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	16	H-40	54	X		30	30	30 Sacs	Kinds
Fresh water	11 3/4	K-40	42	X		590	590	Circulate	Sizes
Coal	8 5/8	K-55	24	X		2275	2275	Circulate	Depths set
Intermediate	4 1/2	K-55	11.6	X		6871	6871	As Required	Perforations:
Production									Top Bottom
Tubing									
Liners									

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: Gabriel Jay Stumbo
 My Commission Expires October 15, 1986

Signed: John H. Burkett
 Its: Regional Civil Engineer

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-081-0626 Date January 4 1982

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 _____ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
<u>Check</u>	<u>11/24</u>	<u>---</u>	<u>---</u>	<u>200.00</u>

Fred Burkett
 Administrator, Office of Oil and Gas