

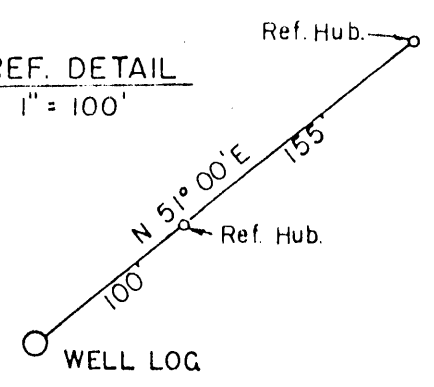
*1/16/81*  
*Janie 8/15/89*

8,450'

LATITUDE 39°47'30"

REF. DETAIL

1" = 100'

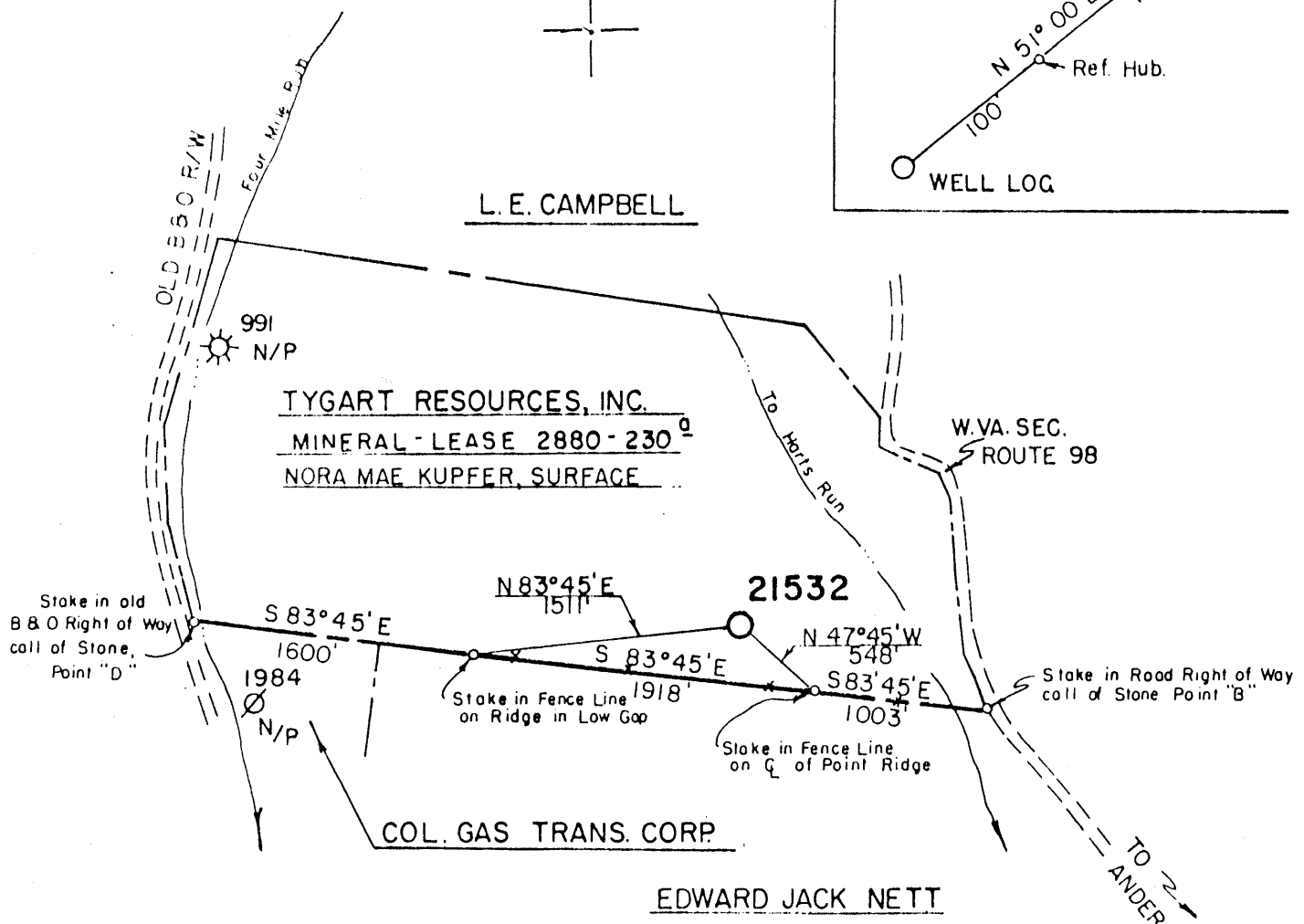


LONGITUDE 80°30'00"

L. E. CAMPBELL

TYGART RESOURCES, INC.  
MINERAL LEASE 2880-230  
NORA MAE KUPFER, SURFACE

W.VA. SEC. ROUTE 98



NOTE: COAL NOT OPERATED AT PRESENT.  
PITTSBURG & SEWICKLEY COAL SEAMS  
OWNED BY CONSOLIDATION COAL CO.

LAT. 39°47'06"  
LONG. 80°31'48"

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS BOOK 433-A PG. 18 - L.D.R.

FILE NO. 21532  
DRAWING NO. 21532  
SCALE 1" = 1000'  
MINIMUM DEGREE OF ACCURACY 1 part in 200  
PROVEN SOURCE OF ELEVATION U.S. Gov't U.F.  
At Road Jct. Elev. 1005'

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) James L. Browning  
R.P.E. \_\_\_\_\_ L.L.S. 398

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION



DATE MAY 20, 19 86  
OPERATOR'S WELL NO. 21532  
API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 1470' WATERSHED HARTS RUN  
DISTRICT LIBERTY COUNTY MARSHALL  
QUADRANGLE CAMERON, W.VA. - PA.  
SURFACE OWNER NORA MAE KUPFER ACREAGE 215.95  
OIL & GAS ROYALTY OWNER TYGART RESOURCES, INC. LEASE ACREAGE 230  
LEASE NO. 2880

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 5th. SAND ESTIMATED DEPTH 3440'  
WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J.E. CAMPBELL  
ADDRESS P.O. BOX 1273 ADDRESS SAME  
CHARLESTON, WV 25325

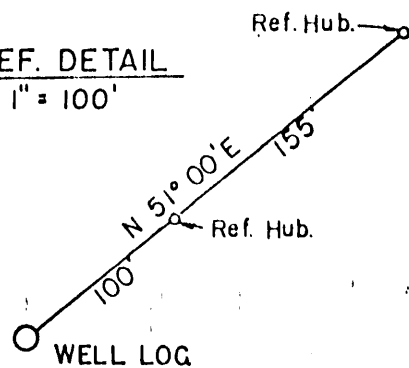
**AUG 25 1989**

COUNTY NAME MARSHALL  
PERMIT 0718

LATITUDE 39°47'30"

REF. DETAIL

1" = 100'



L. E. CAMPBELL

TYGART RESOURCES, INC.  
 MINERAL - LEASE 2880 - 230<sup>g</sup>  
 NORA MAE KUPFER, SURFACE

COL. GAS TRANS. CORP.

EDWARD JACK NETT.

Stake in old  
 B & O Right of Way  
 call of Stone,  
 Point "D"

Stake in Road Right of Way  
 call of Stone Point "B"

Stake in Fence Line  
 on Ridge in Low Gap

Stake in Fence Line  
 on G of Point Ridge

NOTE: COAL NOT OPERATED AT PRESENT.  
 PITTSBURG & SEWICKLEY COAL SEAMS  
 OWNED BY CONSOLIDATION COAL CO.

LAT. 39° 47' 06"  
 LONG. 80° 31' 48"

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 MENT OF MINES.

(SIGNED) James L. Browning  
 D.P.E. \_\_\_\_\_ L.L.S. 398



PLACE SEAL HERE

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE MAY 20, 1986  
 OPERATOR'S WELL NO. 21532  
 API WELL NO.

47 - 051 - 0718  
 STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1470' WATER SHED HARTS RUN  
 DISTRICT LIBERTY COUNTY MARSHALL

QUADRANGLE CAMERON, W.VA. - PA. 278 019 SE9  
 SURFACE OWNER NORA MAE KUPFER ACREAGE 215.95

OIL & GAS ROYALTY OWNER TYGART RESOURCES, INC. LEASE ACREAGE 230  
 LEASE NO. 2880

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
 STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW  
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PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION 5th. SAND ESTIMATED DEPTH 3440'

WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J.E. CAMPBELL

ADDRESS P.O. BOX 1273 ADDRESS 1013 ADDRESS SAME

CHARLESTON, WV 25325

FEB 23 1987

COUNTY NAME

PERMIT

FORM IV-6 (8-78)

H.T. HALL

LONGITUDE 80° 30' 00"

2400'

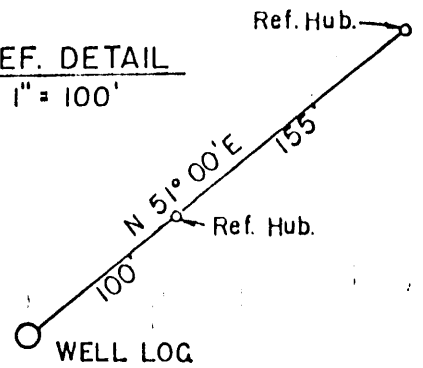
0.455  
1.58w

3.335  
1.58w

LATITUDE 39°47'30" 39 50

REF. DETAIL

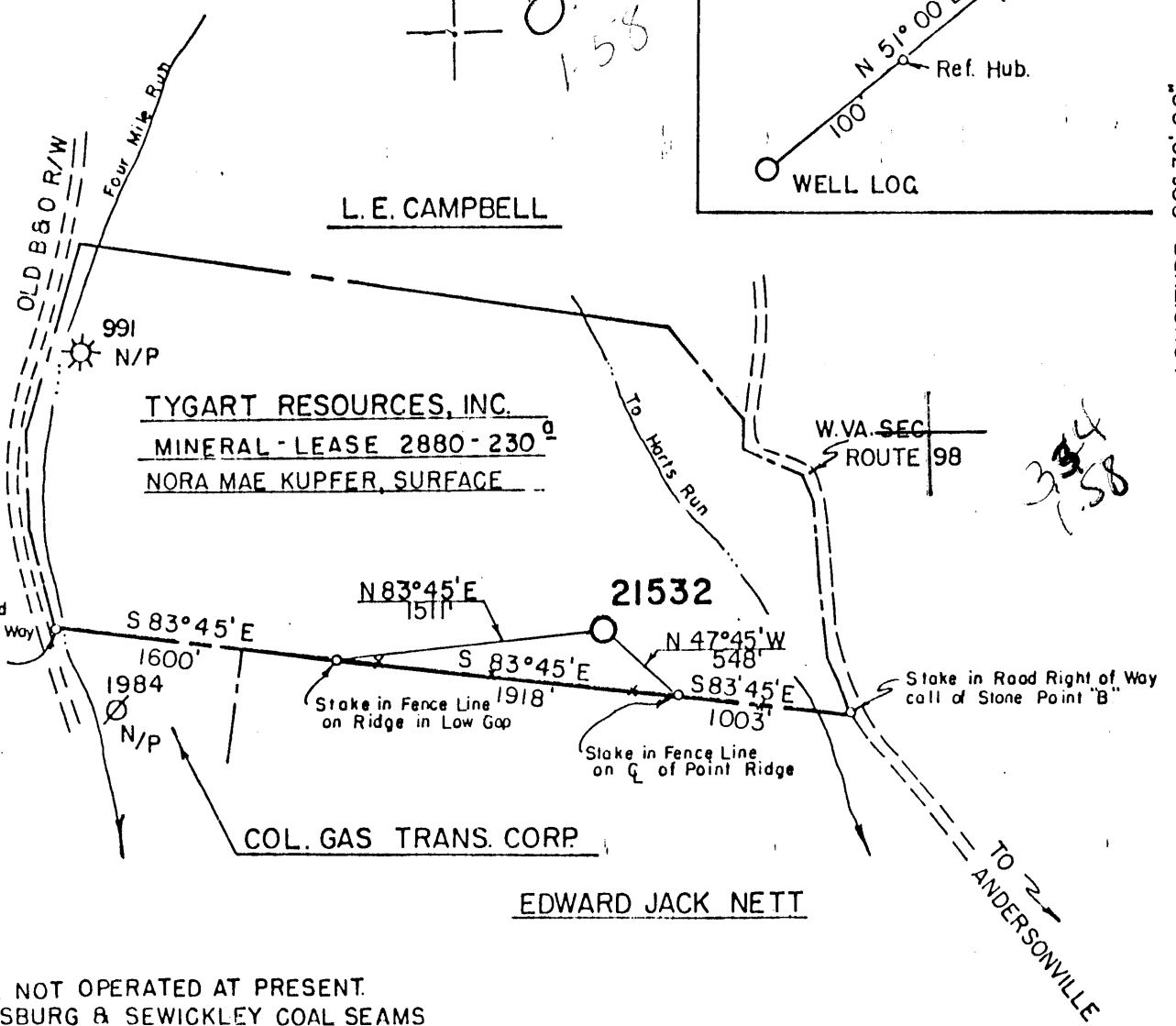
1" = 100'



LONGITUDE 80° 30' 00"

2400

0.465  
1.58



TYGART RESOURCES, INC.  
MINERAL-LEASE 2880-230  
NORA MAE KUPFER, SURFACE

COL. GAS TRANS. CORP.

EDWARD JACK NETT

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(SIGNED) James L. Browning  
 D.P.E. \_\_\_\_\_ L.L.S. 398



STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION



DATE MAY 20 19 86  
 OPERATOR'S WELL NO. 21532  
 API WELL NO. \_\_\_\_\_

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE X DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1470' WATERSHED HARTS RUN  
 DISTRICT LIBERTY 4 COUNTY MARSHALL  
 QUADRANGLE CAMERON, W.VA. - PA. 278 019 SE  
 SURFACE OWNER NORA MAE KUPFER ACREAGE 215.95  
 OIL & GAS ROYALTY OWNER TYGART RESOURCES, INC. LEASE ACREAGE 230  
 LEASE NO. 2880

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE \_\_\_ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

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 TARGET FORMATION 5th. SAND ESTIMATED DEPTH 3440'  
 WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J.E. CAMPBELL  
 ADDRESS P.O. BOX 1273 1013 ADDRESS SAME  
CHARLESTON, WV 25325

COUNTY NAME

PERMIT

FORM IV-6 (8-78)

H.T. HALL

6-6 Cameron

(24)

2/23/87 11/22/88



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

Perforated - 1 shot/ft. - 3314, 3315, 3341, 3342, 3343, 3372, 3373, 3374.  
Perforated - 1 shot/ft. - 3219, 3220, 3221, 3222, 3278, 3286, 3287, 3288, 3294.

Gordon Sand - 75 quality Foam Frac, 28% FE acid, 500 gals. @ 2200#, N<sub>2</sub> 707,184 scf,  
20/40 sand 50,000#.

Fourth & Fifth Sand - 75 quality Foam Frac, 15% FE acid, 150 gals. @ 2300#, N<sub>2</sub> 496,584  
scf, 20/40 sand 40,000#, 80/100 sand 2500#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	97	Damp to 87'
Sand			97	140	
Sand & Shale			140	180	
Sand			180	190	
Red Rock			190	197	Fresh Water
Sand & Shale			197	212	
Sand			212	352	
Red Rock			352	361	
Sand			361	411	
Red Rock			411	433	
Sand			433	448	
Red Rock			448	450	
Sand			450	462	
Red Rock			462	471	
Sand			471	490	
Sand & Shale			490	559	
Sand			559	570	
Sand & Shale			570	880	
Sand			880	917	
Shale			917	930	
Sand & Shale (Wbg. Coal)			930	1042	
Sand			1042	1114	
Shale - Mapletown Coal			1114	1125	
Pitts. Coal			1125	1239	
Sand & Shale			1239	1293	
Murphy Sand			1293	1337	
Sand & Shale			1337	1630	
Little Dunkarp			1630	1644	
Sand & Shale			1644	2057	
1st Salt Sand			2057	2081	
Sand & Shale			2081	2193	
Maxon			2193	2284	
Sand & Shale			2284	2366	
Big Lime			2366	2418	
Big Injun			2418	2660	
Sand & Shale			2660	3019	
Murrysville			3019	3036	
Sand & Shale			3036	3210	
Gordon Stray			3210	3232	
Sand & Shale			3232	3274	
Gordon Sand			3274	3302	

RECEIVED  
SEP 16 1988  
DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Columbia Natural Resources, Inc.

Well Operator

By: *[Signature]*

Date: *SEP 14 1988*

SEP 23 1988

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  
minerals, encountered in the drilling of a well."

WELL LOG - Con't.

Sand & Shale	3302	3312
4th Sand	3312	3318
Sand & Shale	3318	3339
5th Sand	3339	3348
Sand & Shale	3348	3450
Sand & Shale	3450	3574

Driller T.D. - 3574 ✓

Logger T.D. - 3348

\* Note: Well was declared a dry hole on 3/21/88 and will be sold to Asia Oil. }

RECEIVED  
SEP 16 1988

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

2508

SEP 23 1988

7/85

**RECEIVED**  
JAN 15 1987



1) Date: October 22, 19 86  
 2) Operator's Well No. 21532  
 3) API Well No. 47 State 051 County 0718 Permit

STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil  Gas   
 B (If "Gas", Production  Underground storage  Deep  Shallow )
- 5) LOCATION: Elevation: 1470' Watershed: Harts Run  
 District: Liberty County: Marshall 051 Quadrangle: Cameron 278
- 6) WELL OPERATOR Columbia Natural Resources, Inc. 7) DESIGNATED AGENT Joseph E. Campbell  
 Address P. O. Box 1273 1013 10460 Address P. O. Box 1273  
Charleston, WV 25325 Charleston, WV 25325
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Mike Underwood  
 Address Rt. 2, Box 135  
Salem, WV 26426
- 9) DRILLING CONTRACTOR: Name \_\_\_\_\_ Address \_\_\_\_\_
- 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, Fifth Sand
- 12) Estimated depth of completed well, 3440 feet
- 13) Approximate true depths: Fresh, 1269 feet; salt, \_\_\_\_\_ feet.
- 14) Approximate coal seam depths: 1190' Is coal being mined in the area? Yes  / No
- 15) CASING AND TUBING PROGRAM SEE 051-0289

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	11-3/4			X		90'	90'	To surface	Kinds
Fresh water									
Coal	8-5/8			X		<del>1299</del> 280'	<del>1280</del> 1299'	To surface	Size <u>Per Rule 15.05</u>
Intermediate									
Production	4-1/2			X		3440'	3440	340 SKS <u>AS REQUIRED BY Rule 15.01</u>	Depths set
Tubing									Perforations:
Liners									Top Bottom

OFFICE USE ONLY  
DRILLING PERMIT

Permit number 47-051-0718 Date February 19 19 87

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 February 19, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent: <u>FLB</u>	Plat: <u>AS</u>	Casing: <u>AS</u>	Fee: <u>5011525</u> <u>166</u>	WCCP: <u>RS</u>	S&F: <u>AS</u>	Other:
-------	-------------------	-----------------	-------------------	-----------------------------------	-----------------	----------------	--------

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

Director, Division of Oil and Gas

File

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

953-7

R-38  
1-AD  
**RECEIVED**  
SEP 12 1989

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVITE SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: KUPFER, NORA Operator Well No.: 21532

LOCATION: Elevation: 1470.00 Quadrangle: CAMERON  
District: LIBERTY County: MARSHALL  
Latitude: 2400 Feet South of 39 Deg. 47 Min. 30 Sec.  
Longitude 8450 Feet West of 80 Deg. 30 Min. 0 Sec.

Well Type: OIL \_\_\_\_\_ GAS X

Company: Columbia Natural Resources, Inc. Coal Operator Consolidated Coal Company  
P. O. Box 1273 or Owner 924 N. Washington Road  
Charleston, WV 25325 McMurray, PA 15317

Agent: Joseph E. Campbell Coal Operator Tygart Resources, Inc.  
Inspector: Mike Underwood or Owner 108 McCurdy Road  
Permit Issued: 08/21/89 Pittsburgh, PA 15235

AFFIDAVIT

STATE OF WEST VIRGINIA,  
County of Marshall ss:

Charles D. Fordyce and Tracy Weekley being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Columbia Natural Resources, Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 29th day of August, 1989, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Cement Plug 50 sks	3530	2580	13-5/8	87'
10% Gel	2580	2220	9-5/8	1305'
Cement Plug 50 sks	2220	1970	4-1/2 - 2120	1410'
10% Gel	1970	1320		
Cement Plug 220 sks	1320	900		
10% Gel	900	250		
Cement Plug 70 sks	250	Surface		

Description of monument: 2" tubing 36" high as prescribed by law

and that the work of plugging and filling said well was completed on the 30th day of August, 1989.

And further deponents saith not.

Sworn and subscribe before me this 11 day of September, 1989

My commission expires: May 25 1998

Charles d. Fordyce  
Tracy Weekley  
Stephen V. Smolcher  
Notary Public