

MINGO BLOCK COAL CO.

ROCKHOUSE BRANCH

COTIGA DEVELOPMENT CO.

GEORGIA-PACIFIC sfc.
COTIGA DEVELOPMENT
CO. min.
858 ACRES

Proposed Well Elev. 1300'

S87E 2013'

N75E 3762'

S73-15W 1815'

S85-15W 990'

N86W 1204.5'

N44W 808.5'

N29-15W 627'

S86-30W 495'

N67-15W 330'

S33-45W 674.5'

N40W 1254'

S87-45W 478.5'

S78-45W 429'

EAST 1683'

N71W 957'

S62W 792'

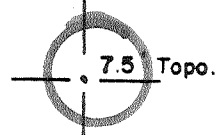
S51W 1056'

S67-45W 561'

N69-45W 709.5'

MINGO OIL & GAS

- A. S88-32E, 3580.96'
- B. N89-36W, 3795.69'
- C. S73-15W, 225.44'



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM TRACE FORK 665, USGS MYRTLE QUAD.

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) [Signature]
 R.P.E. _____ L.L.S. 624

Norton Surveys + Consulting, Inc.

PLACE SEAL HERE

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



DATE OCTOBER 6, 1981
 OPERATOR'S WELL NO. C 27
 API WELL NO. _____
47 - 059 - 993
 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 1300 WATER SHED ROCKHOUSE BRANCH
 DISTRICT HARDEE COUNTY MINGO
 QUADRANGLE MYRTLE & Holden 15' SW
 SURFACE OWNER GEORGIA-PACIFIC ACREAGE 858
 OIL & GAS ROYALTY OWNER COTIGA DEVELOPMENT CO. LEASE ACREAGE 858

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

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION DEVONIAN SHALE ESTIMATED DEPTH 5000'
 OPERATOR Seneca Up Hur Pet. Inc.

6-6 See Dempsey School (368) NOV 5 1981

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AUG 13 1982

IV-35 (Rev 8-81)

OIL AND GAS DIVISION WV DEPARTMENT OF MINES

State of West Virginia

Department of Mines

Oil and Gas Division

Date August 12, 1982

Operator's

Well No. C-27

Farm

API No. 47 - 059 - 0993

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 / Shallow X /)

LOCATION: Elevation: 1300' Watershed Rockhouse Branch District: Hardee County Mingo Quadrangle Myrtle

COMPANY Seneca-Upshur Petroleum, Inc.

ADDRESS P.O. Box 2048, Buckhannon, WV 26201

DESIGNATED AGENT Seneca-Upshur Petroleum, Inc.

ADDRESS P.O. Box 2048, Buckhannon, WV 26201

SURFACE OWNER Georgia-Pacific

ADDRESS P.O. Box 1808, Augusta, GA 30909

MINERAL RIGHTS OWNER Cotiga Development Company

ADDRESS 25 Darby Road, Paoli, PA 19301

OIL AND GAS INSPECTOR FOR THIS WORK Arthur

St. Clair ADDRESS P.O. Box 157, Brenton, WV

PERMIT ISSUED 10/23/81

DRILLING COMMENCED 12/7/81

DRILLING COMPLETED 12/15/81

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

Table with 4 columns: Casing & Tubing, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 9 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Marcellus Depth 5000 feet

Depth of completed well 4609 feet Rotary X / Cable Tools

Water strata depth: Fresh 109 feet; Salt feet

Coal seam depths: 101, 195, 720, 1558 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3216 feet

Gas: Initial open flow Trace Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 1032 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 2 hours

Static rock pressure 550 psig (surface measurement) after 24 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 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.

DATE:	5/27/82	6/3/82
NITROGEN:	9000 SCF	10300 SCF
WATER:	378 BBLs.	461 BBLs.
SAND:	90,000#	120,000#
PERFS:	12 <u>4260'-4438'</u>	12 <u>4008'-4162'</u>

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			0	5	
Sand			5	101	
Coal			101	109	
Sand			109	195	
Coal			195	198	
Sand			198	484	
Sand & Shale			484	720	
Coal & Shale			720	734	
Sand & Shale			734	1422	
Sand			1422	1558	
Coal			1558	1565	
Sand & Shale			1565	1644	
Sand			1644	1726	
Dark Shale			1726	1729	
White Sand			1729	1781	
Shale			1781	1802	
Sand & Shale			1802	1949	
Salt Sand			1949	2154	
Big Lime			2154	2432	
Big Injun			2432	2514	
Sand & Shale			2514	2656	
Weir			2656	2738	
Sand & Shale			2738	3066	
Sudbury Shale			3066	3154	
Berea			3154	3216	
Gray Shale			3216	3844	
Brown Shale			3844	4380	
Marcellus <i>Albion</i>			4380	4609	T.D.

*Top of Onondaga
4594 from
gamma ray density log*

(Attach separate sheets as necessary)

Seneca-Upshur Petroleum, Inc.
Well Operator

By: *[Signature]*
Date: August 12, 1982

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 ..., encountered in the drilling of a well."



Well No. C-27
Farm _____
API # 47 - 059 - 0993
Date October 7, 1981

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil ___ / Gas X /
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /

LOCATION: Elevation: 1300' Watershed: Rockhouse Branch
District: Hardee County: Mingo Quadrangle: Myrtle

WELL OPERATOR Seneca-Upshur Petroleum, Inc. DESIGNATED AGENT Seneca-Upshur Petroleum, Inc.
Address P.O. Drawer P Address P.O. Drawer P
Buckhannon, West Virginia 26201 Buckhannon, West Virginia 26201

OIL AND GAS ROYALTY OWNER Cotiga Development Company COAL OPERATOR Hobet Mining & Construction
Address 24 Darby Road Address P.O. Box 8674
Paoli, Pennsylvania 19301 South Charleston, West Virginia 25303
Acreage 858.00

SURFACE OWNER Georgia Pacific-Exchange Oil & Gas COAL OWNER(S) WITH DECLARATION ON RECORD:
Address 1250 Poydras St., 24th Floor NAME Island Creek Coal Company
New Orleans, Louisiana 70112 Address Pantsville, Kentucky 41240
Acreage 858.00 NAME Three Rivers Coal Company
Address P.O. Box 118
Pittsburgh, Pennsylvania 15320

FIELD SALE (IF MADE) TO:
NAME _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME Hobet Mining & Construction
Address P.O. Box 8674
South Charleston, West Virginia 25303

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Arthur St. Clair
Address P.O. Box 157
Brenton, West Virginia 24818
Telephone 732-6227

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OCT 8 - 1981

OIL AND GAS DIVISION
DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated Aug. 1, 1979, to the undersigned well operator from Cotiga Development Company.

(If deed, lease, or other contract has been recorded:)
Recorded on _____, 19___, in the office of the Clerk of County Commission of _____ County, West Virginia, in _____ Book at page _____. A permit is requested as follows:

PROPOSED WORK: Drill X / 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 receipt of this Application by the Dept. 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 lessees on or before the day of the mailing or delivery of this 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
1613 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

BLANKET BOND BY:

Its: President

Seneca-Upshur Petroleum, Inc.
Well Operator

Joseph H. Hagan
James

(Revised 3-81)

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Little Swiss Drilling Company

Address P.O. Drawer P

Buckhannon, West Virginia 26201

GEOLOGICAL TARGET FORMATION Devonian Shale marcellus

Estimated depth of completed well 5000 feet. Rotary x / Cable tools /

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

Approximate coal seam depths:

Is coal being mined in this area: Yes / No x /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL- UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drill- ling	Left in Well		
Conductor	16"				X	20	20	To Surface	Kinds
Fresh water									
Coal									Sizes
Intermed.	8 5/8"		20.00	X		1600	1600	To Surface	
Production	4 1/2"		10.50	X			5000	As required	Depths set
Tubing								by Rule 15.01	
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 6-23-82.

J. E. Huggins
Deputy Director - Coal 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 regularions.

Date: , 19 .

By:

Its: