

3-11-83

Plot Card CSD

LATITUDE 37° 50' 00"

1.505
0.100

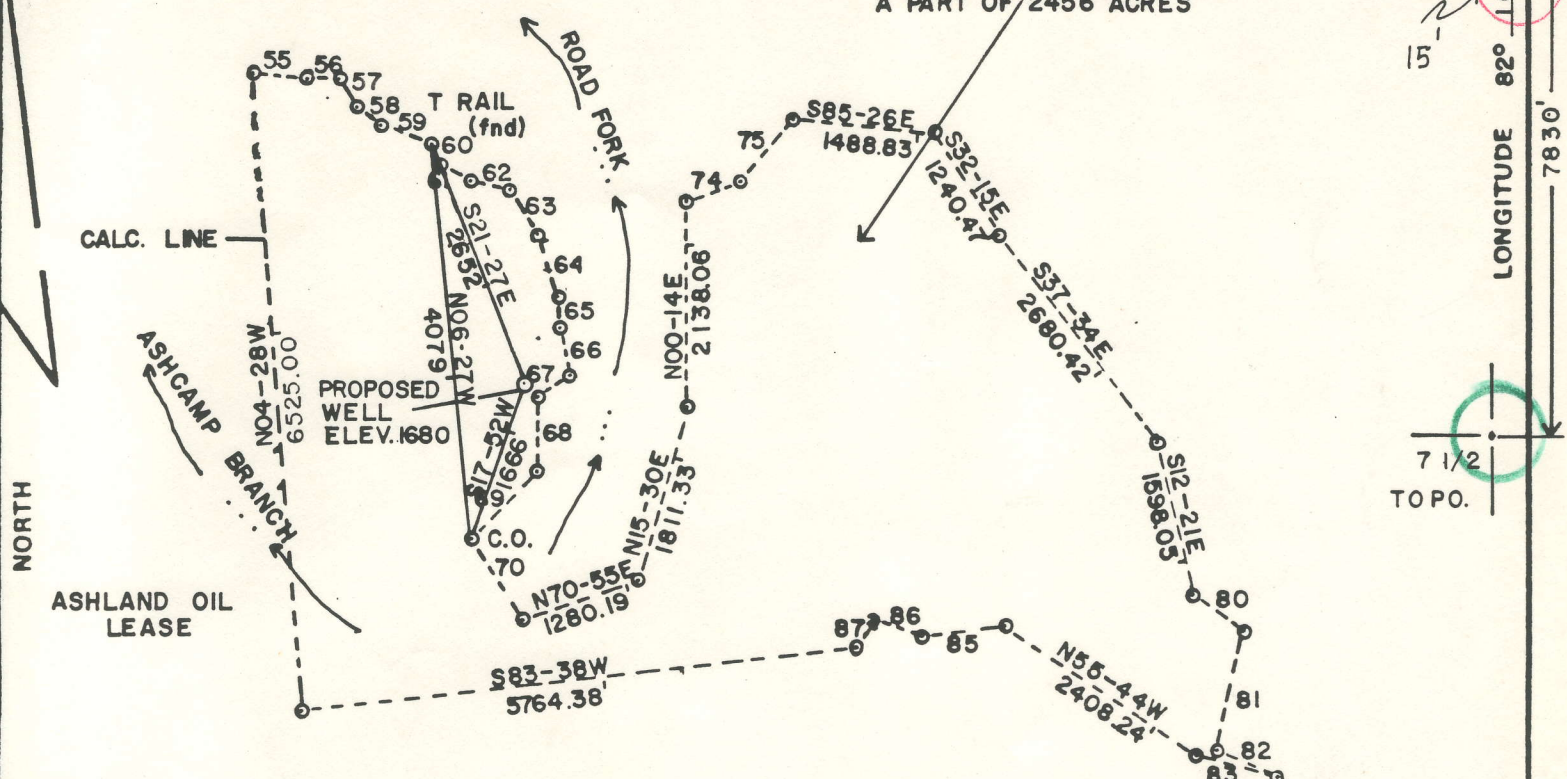
S 1.49
W 0.08

LONGITUDE 82° 10' 00"

7830'

7 1/2
TOPO.

GEORGIA PACIFIC (sfc.)
COTIGA DEVELOPMENT CO. (min)
A PART OF 2456 ACRES



- 55=S84-23E, 576.91'
- 56=N88-55E, 309.69'
- 57=S38-34E, 335.65'
- 58=S47-51E, 297.79'
- 59=S72-41E, 570.52'
- 60=S26-36E, 233.12'
- 61=S66-14E, 358.33'
- 62=S79-27E, 395.30'
- 63=S34-33E, 537.76'
- 64=S17-30E, 683.36'
- 65=S02-36E, 317.36'
- 66=S12-01E, 491.26'

- 67=S56-10W, 398.23'
- 68=S01-03W, 741.78'
- 69=S43-29W, 951.27'
- 70=S29-19E, 985.79'
- 74=N69-32E, 601.12'
- 75=N39-31E, 835.37'
- 80=S54-18E, 656.34'
- 81=S12-31W, 1261.68'
- 82=S68-23E, 676.88'
- 83=N75-37W, 868.74'
- 85=S83-47W, 883.60'
- 86=N70-32W, 528.67'

87=S31-25W, 292.68'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1"=2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM TRACEFORK 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

Nafton Surveys + Consulting, Inc.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FORM IV-6
(8-78)



DATE FEBRUARY 15, 19 83
 OPERATOR'S WELL NO. C-56
 API WELL NO. _____
47 - 059 - 1048
 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 1680' WATER SHED ASHCAMP BRANCH
 DISTRICT HARDEE COUNTY MINGO
 QUADRANGLE MYRTLE Holden 15' SW

SURFACE OWNER GEORGIA PACIFIC ACREAGE A PART OF 2456
 OIL & GAS ROYALTY OWNER COTIGA DEVELOPMENT CO. LEASE ACREAGE A PART OF 2456

LEASE NO. _____

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 MARCELLUS ESTIMATED DEPTH 5000'

WELL OPERATOR SENECA-UPSHUR PET. INC. DESIGNATED AGENT JOSEPH HAGER

ADDRESS P.O. BOX 2048 BUCKHANNON, VA. 26201 ADDRESS P.O. BOX 2048 BUCKHANNON, W.VA. 26201

MAR 14 1983

IV-35
(Rev 8-81)



Date July 22, 1983
Operator's Well No. C-56
Farm _____
API No. 47 - 059 - 1048

JUL 27 1983
OIL & GAS DIVISION
DEPT. OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

AUG 08 1983

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: 1680' Watershed Ashcamp Branch
District: Hardee County Mingo Quadrangle Myrtle

COMPANY Seneca-Upshur Petroleum, Inc.
ADDRESS P.O. Box 2048, Buckhannon, WV 26201
DESIGNATED AGENT Joseph G. Hager
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 Co.
ADDRESS 2nd Floor Rear, 14 E. Lancaster Ave. Paoli, PA 19301
OIL AND GAS INSPECTOR FOR THIS WORK Arthur St. Clair ADDRESS P.O. Box 157, Brenton, WV
PERMIT ISSUED 3/11/83
DRILLING COMMENCED 6/16/83
DRILLING COMPLETED 6/22/83
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON _____

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cond.	20	20	10
13-10"			
9 5/8			
8 5/8	2592	2592	500
7			
5 1/2			
4 1/2		4950	175
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Depth 5000 feet
Depth of completed well 5034 feet Rotary X / Cable Tools _____
Water strata depth: Fresh _____ feet; Salt 2260 feet
Coal seam depths: 334' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3522 feet
Gas: Initial open flow Trace Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow 880 Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 2 hours
Static rock pressure 530 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

(Continue on reverse side)

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

FOAM FRAC:

DATE: 7/12/83

SAND: 210,000#

WATER: 853 BBLS.

PERFS: 4208' - 4565' 23 .49 Perfs

NITROGEN: 21,840 CCF

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
Sand & Shale			0	334	Including indication of all fresh and salt water, coal, oil and gas
Coal			334	338	
Sand & Shale			338	2470	
White Sand			2470	2485	
Little Lime			2485	2524	
Big Lime			2524	2802	
Big Injun			2802	2847	
Sand & Shale			2847	2992	
Weir			2992	3050	
Sand & Shale			3050	3400	
Sudbury Shale			3400	3466	
Berea			3466	3522	
Gray Shale			3522	4285	
Brown Shale			4285	4850	
Marcellus			4850	5034	
<p>Tip of Onondaga 5026 from gamma ray - density log.</p>					

(Attach separate sheets as necessary)

Seneca-Upshur Petroleum, Inc.
Well Operator

By: [Signature]
Date: July 22, 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 coal, encountered in the drilling of a well."



1) Date: February 21, 1983

2) Operator's Well No. C-56

3) API Well No. 47 - 059 - 1048
State _____ County _____ Permit _____

DRILLING CONTRACTOR:

Little Swiss Drilling Company
P.O. Box 2048
Buchannon, WV 26201

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 X / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 1680' Watershed: Ashcamp Branch
District: Hardee County: Mingo Quadrangle: Martle
- 6) WELL OPERATOR Seneca-Upshur Petroleum, Inc. 11) DESIGNATED AGENT Joseph G. Hager
Address P.O. Box 2048 Address P.O. Box 2048
Buchannon, WV 26201 Buchannon, WV 26201
- 7) OIL & GAS ROYALTY OWNER Cotiga Development Company 12) COAL OPERATOR None
Address 3rd Floor Rear, 14 East Lancaster Ave. Address _____
Poali, Pennsylvania 19301
- 8) SURFACE OWNER Georgia-Pacific 13) COAL OWNER(S) WITH DECLARATION ON RECORD:
Address P.O. Box 1808 Name Island Creek Coal Company
Augusta, Georgia 30909 Address Paintsville, Kentucky 41240
Acreage Part of 2,456 Name _____
Address _____
- 9) FIELD SALE (IF MADE) TO:
Address _____
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Arthur St. Clair 14) COAL LESSEE WITH DECLARATION ON RECORD:
Address P.O. Box 157 Name None
Brenton, WV 24918 Address _____
- 15) PROPOSED WORK: Drill X / Drill deeper _____ / Redrill _____ / Fracture or stimulate _____
Plug off old formation _____ / Perforate new formation _____
Other physical change in well (specify) _____
- 16) GEOLOGICAL TARGET FORMATION, Marcellus
- 17) Estimated depth of completed well, 5000 feet
- 18) Approximate water strata depths: Fresh, 680 feet; salt, 1080 feet.
- 19) Approximate coal seam depths: 320 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"				X	20	20	No Surface		Kinds
Fresh water										
Coal										Sizes
Intermediate	8 5/8"		23.00	X		2650	2650	No Surface		
Production	4 1/2"		23.00	X			5000	As Required		Depths set
Tubing								by Rule 15.0		
Liners										Perforations:
										Top Bottom

- 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: Lesley A. Beate Signed: _____
My Commission Expires June 6, 1988 Its: Vice President

OFFICE USE ONLY

Permit number 47-059-1048 **DRILLING PERMIT** Date _____

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.** 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:
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Administrator, Office of Oil and Gas

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