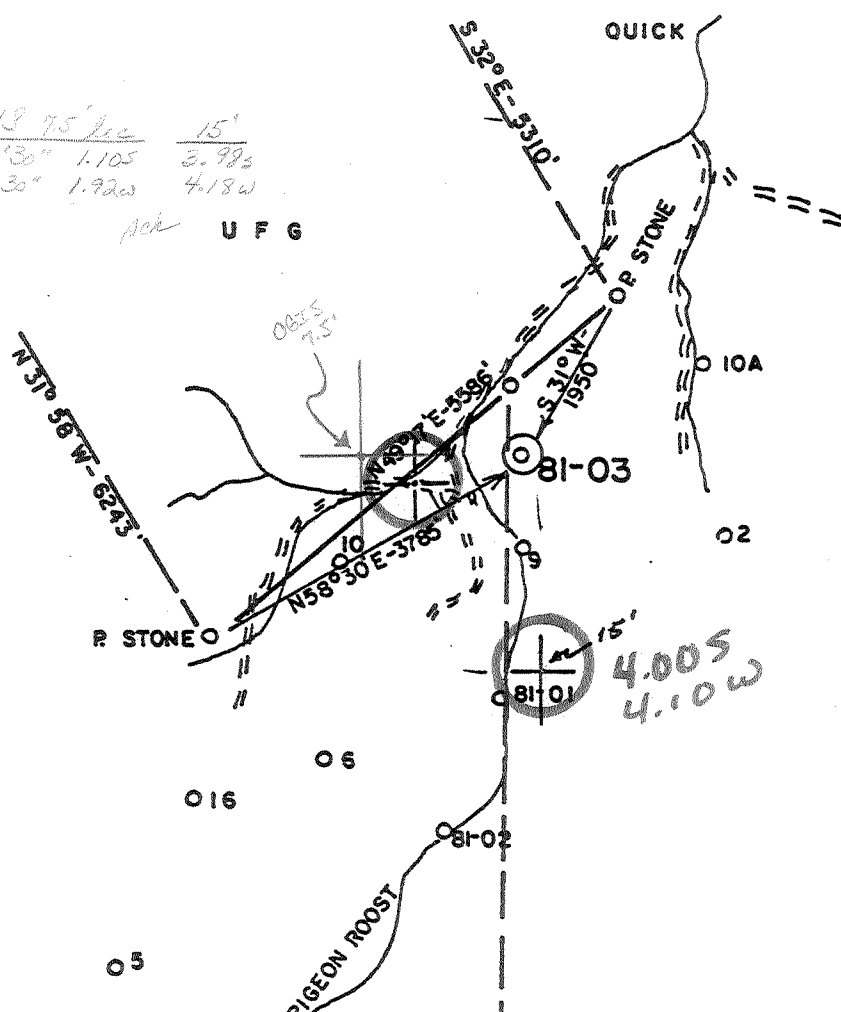


5900' SOUTH
9550' WEST

Longitude 81° 22' 30"

0.002 75' 15'
38° 22' 30" 1.105 3.99s
81° 22' 30" 1.92w 4.18w

UFG

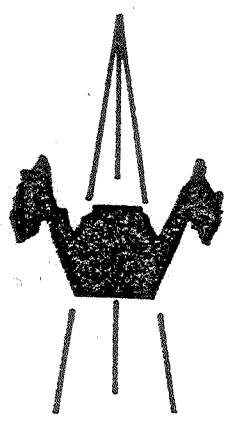


38 21 35
81 24 35

4.00S
4.10W

BLUE CREEK COAL & LAND CO. 2185 ACRES

BLUE CREEK COAL & LAND CO. 2389 ACRES



ACCURACY: 1/200
New Location
Drill Deeper
Abandonment
Fracture
Redrill
Other _____

Formation ORISKANY Oil
Est. Depth 5200 Gas
Other _____

Source of Elevation KAN-1726 (789.02')
I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Chet Waterman
STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON

Company	BLUE CREEK GAS CO.
Address	CHARLESTON, WV
Surface Owner	UNION CARBIDE
Mineral Owner	" " " " " "
Well No.	81-03
Acres	2389
Elevation	1040' (Clendenin 15')
Quadrangle	QUICK
Series	7.5
County	KANAWHA
District	ELK
Date	1/22/81
Scale	1" = 2000'

WELL LOCATION MAP
47 - 039 - 3720-Rev.
STATE COUNTY PERMIT

+ Denotes location of well on United States Topographic Maps.
Engineer CHET WATERMAN
Engineer's Registration No. 3788 File No. 81-024

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

Date April 16, 1981

FORM IV-35
(Obverse)

Operator's
Well No. KAN 8103

WELL OPERATOR'S REPORT
OF

API Well No. 47 - 039 - 3720
State County Permit

[08-78]

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas / Liquid Injection / Waste Disposal /
(If "Gas", Production / Underground storage / Deep / Shallow /)

LOCATION: Elevation: 1040' Watershed: Pigeon Roost
District: Elk County: Kanawha Quadrangle: Quick

WELL OPERATOR Blue Creek Gas Company DESIGNATED AGENT Stanley M. Rubin
Address 1700 Pennsylvania Ave. Address 1700 Pennsylvania Ave.
Charleston, WV 25302 Charleston, WV 25302

PERMITTED WORK: Drill / Convert / Drill deeper / Redrill / Fracture or stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify) _____

PERMIT ISSUED ON February 20, 1981

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Martin Nichols

Address P. O. Box 554

Clendenin, WV 25045

GEOLOGICAL TARGET FORMATION: Shale Depth 5415 feet

Depth of completed well, 5415 feet Rotary / Cable Tools

Water strata depth: Fresh, _____ feet; salt, _____ feet.

Coal seam depths: _____ Is coal being mined in the area?

Work was commenced March 19, 1981, and completed March 25, 1981

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	13"			X			20'	To Surface	Kinds
Fresh water	9 5/8"		136	X			290'	125 Sks.	
Coal									Sizes
Intermediate	7"			X			1610'	45 Sks.	
Production	4 1/2"		9.5	X			4360'	125 Sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom
								2900	4150

RECEIVED
APR 29 1981
OIL & GAS DIVISION
DEPT. OF MINES

OPEN FLOW DATA

Producing formation Shale Pay zone depth 2900 - 4150 feet

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

Final open flow, 180 Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, _____ hours

Static rock pressure, 940 psig (surface measurement) after 24 hours shut in

[If applicable due to multiple completion--]

Second producing formation Injun Sand & Weir Pay zone depth 1745 - 1780 feet

Gas: Initial open flow, 220 Mcf/d Oil: Initial open flow, _____ Bbl/d

Final open flow, 220 Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, _____ hours

Static rock pressure, 180 psig (surface measurement) after 24 hours shut in

180
220
400
MCF
FOR FOR WELL

MAY 21 1981

[08-78]

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

Perforations 2900 - 4170

Foam Fract 300 Bbls. Water
600,000 CCF Nitrogen
50,000 Lbs. 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
Rock			0	20	
Rock & Shale			20	80	
Sand & Shale			80	315	
Shale			315	523	
Shale & Sand			523	1000	
Salt Sand			1000	1298	
Shale			1298	1323	
Red Rock			1323	1475	
Shale			1475	1525	
Little Lime			1525	1560	
Shale			1560	1585	
Big Lime			1585	1640	
Lime			1640	1745	
Injun			1745	1780	Gas 1740 - 1770
Shale			1780	2175	Gas 1820 - 1840
Shale			2175	2565	
Shale			2565	3115	
Shale			3115	3730	
Shale			3730	4250	
Shale			4250	4632	
Shale			4632	5215	
Lime			5215	5280	Well plugged back to 4400
Lime <u>ORISK</u>			5280	5415	T.D.

(Attach separate sheets to complete as necessary)

Well Operator _____
By Stacy M. R. C.
Its _____

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."



WELL NO. 8103
FARM Union Carbide
API: #47-039-3720-REV.

DATE: March 18, 1981

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

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 1040' Watershed: Pigeon Roost
District: Elk County: Kanawha Quadrangle: Quick-7½' Clendenin-15'

WELL OPERATOR Blue Creek Gas Company DESIGNATED AGENT Steven M. Rubin
Address 1700 Pennsylvania Avenue Address Same
Charleston, W.Va. 25302

OIL & GAS ROYALTY OWNER Union Carbide COAL OPERATOR Union Carbide
Address P.O. Box 8004 Address P.O. Box 8004
So. Charleston, W.Va. So. Charleston, W.Va.

Acreage 2389 COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME _____
Address _____

SURFACE OWNER Same NAME _____
Address _____
Acreage _____

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

OIL AND GAS INSPECTOR TO BE NOTIFIED: NAME _____
Address _____
Name Martin Nichols
Address P.O. Box 554
Clendenin, W.Va. Telephone 548-6993

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease XX / other contract ___ / dated July 3, 1944, to the undersigned well operator from United Fuel Gas Company

(If said deed, lease, or other contract has been recorded:)
Recorded on May 29, 1945, in the office of the Clerk of County Commission of Kanawha County, West Virginia, in 103 Book at page 78. A permit is requested as follows:

PROPOSED WORK: Drill XX / Drill Deeper ___ / Redrill ___ / Fracture or stimulate ___ / Plug off old formation ___ / Perforate new formation ___ / Other physical change in well (specify) Chance casing program and estimated depth to Oriskany Sand.....

--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 s22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

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 Permit 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
Phone - 304/348-3092

Blue Creek Gas Company
Well Operator

By: Steven M. Rubin
Its: Owner

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN): Address

GEOLOGICAL TARGET FORMATION, Oriskany Estimated depth of completed well, 5200' feet Rotary XX / Cable tools / Approximate water strata depths: Fresh, feet; salt, feet. Approximate coal seam depths: Is coal being mined in the area? Yes XX / No /

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft, New, Used), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT FILL-UP OR SACKS (Cubic feet), PACKERS (Kinds, Sizes, Depths set, 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-3, "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 revising. This permit shall expire if operations have not commenced by 11-18-81

Deputy Director - Oil & 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 XX / 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: 2-20-81

Original Permit Signed

By M.M. Barker Its Engineer

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. 8103
API Well No. 47 - 039 3720
State County Permit

WELL TYPE: Oil / Gas
(If "Gas", Production / Underground storage / Deep / Shallow)
LOCATION: Elevation: 1040' Watershed: Pigeonroost
District: Elk County: Kanawha Quadrangle: Quick

WELL OPERATOR Blue Creek Gas Company
Address 1700 Pennsylvania Ave.
Charleston, WV 25302

DESIGNATED AGENT Steven M. Rubin
Address 1700 Pennsylvania Ave.
Charleston, WV 25302

OIL & GAS ROYALTY OWNER Union Carbide
Address P. O. Box 8004
So. Charleston, WV

COAL OPERATOR Union Carbide
Address P. O. Box 8004
So. Charleston, WV

ACREAGE 2389
SURFACE OWNER SAME

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____

FIELD SALE (IF MADE) TO:
Name _____
Address _____
Acreage _____

Name _____
Address _____
Name _____
Address _____
RECEIVED
FEB 24 1981

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

COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Martin Nichols
Address Clendenin, WV

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease / other contract / dated July 3, 19 44, to the undersigned well operator from United Fuel Gas Company

If said deed, lease, or other contract has been recorded:
Recorded on May 29, 19 45, in the office of the Clerk of the County Commission of Kanawha County, West Virginia, in Charleston Book 103 at page 78. A permit is requested as follows:

PROPOSED WORK: Drill 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 the receipt of this Application by the Department.

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.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 248-3092

Blue Creek Gas Company
Well Operator
By Steven M. Rubin
Its _____

BLANKET BOND

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION, Shale

Estimated depth of completed well, 5000 feet Rotary / Cable tools _____ /

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

Approximate coal seam depths: _____ Is coal being mined in the area? Yes / No _____

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		
Conductor	9 5/8		136	X		300	300	To Surface
Fresh water								Kinds
Coal								Sizes
Intermediate	7"					1500'	1500'	40 Sks
Production	4 1/2		9.3	X		5000'	5000'	100 Sks
Tubing								Depths set
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 drilling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well. 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 11-5-81.



Deputy Director - Oil & 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 regulations.

Date: 2-20, 1981

By 
Its 