



SURFACE AND OIL & GAS OWNERS

H.B. & CHARLOTTE GUM
NEW MILTON, W.VA.

DESIGNATED AGENT -
MR. ROBERT JONES
P.O. BOX 86
SANDFORK, W.VA. 26430

Minimum Error of Closure ONE PART IN 200'

Source of Elevation USGS SPOT ELEVATION (490' FROM LOCATION)

JUNCTION TWO ROADS TOP OF HILL - ELEV. 1141'

Fracture
 New Location GAS-DRILL-SHALLOW
 DEVONIAN SHALE-FF
 EST. DEPTH 15375'
 Drill Deeper
 Abandonment

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.

Signed: Mark C. Echard
 Squares: N S E W

Map No.

WELL OPERATOR/
 Company ROCKWELL PETROLEUM COMPANY
 Address P.O. BOX 86 SANDFORK, W.VA. 26430
 Farm J.W. GUM LEASE
 Tract _____ Acres 260.87 Lease No. _____
 Well (Farm) No. 406 Serial No. _____
 Elevation (Spirit Level) 1139'
 Quadrangle NEW MILTON 7.5 We
 County DODDRIDGE District COVE
 Surveyor MARK C. ECHARD
 Surveyor's Registration No. 490
 File No. _____ Drawing No. _____
 Date OCTOBER 19, 1979 Scale 1" = 1000'

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

WELL LOCATION MAP
 API-NO-47-017-2638
 FILE NO. _____

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.

-- Denotes one inch spaces on border line of original tracing.

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

Date April 28, 1980

FORM IV-3
(Obverse)

Operator's
Well No. Gum #1A

[08-78]

WELL OPERATOR'S REPORT 14
OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 47 -017 - 2638
State County Permit

TYPE: Oil / Gas / Liquid Injection / Waste Disposal /
(If "Gas", Production / Underground storage / Deep / Shallow /)
Elevation: 1039' Watershed: Sand Fork Creek
District: Cove County: Doddridge Quadrangle: New Milton

OPERATOR Rockwell Petroleum Company DESIGNATED AGENT Robert R. Jones
Address P O Box 86 Address P O Box 86
Sand Fork, WV 26430 Sand Fork, WV 26430

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

ISSUED ON March 24, 1980

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Paul Garrett
Address Clarksburg, WV 26301
622-3871

LOGICAL TARGET FORMATION: Devonian Shale Depth 5318 feet

Depth of completed well, 5430 feet Rotary / Cable Tools

Water strata depth: Fresh, 94 feet; salt, _____ feet.

Coal seam depths: None Is coal being mined in the area? No

Work was commenced April 1, 1980, and completed April 6, 1980

LOG AND TUBING PROGRAM

LOG OR LOG TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Water	8 5/8					1207'	1207'	To surface
Intermediate								
Production	4 1/2						5351'	150 sks
Perforations:								Top Bottom

OIL & GAS DIVISION
DEPT. OF MINES

FLOW DATA

Producing formation Benson Pay zone depth 4998 feet

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

Final open flow, _____ Mcf/d 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

[If applicable due to multiple completion--]

Second producing formation Elk Pay zone depth 5318 feet

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

Final open flow, 800,000 Mcf/d Final open flow, _____ Bbl/d

Time of open flow between initial and final tests, 3 hours

Static rock pressure, 1800 psig (surface measurement) after 72 hours shut in

COMBINED

1980

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

Fractured April 11, 1980

Elk - 25,000 lb. 80/10 sand
ALEK 50,000 lb. 20/40 sand
21.2 BPM at 2310 lb.
1900 lb. breakdown
730 bbls. water

Perforations - 4998' to 5318', 9 holes

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface			0	94	
Sand			94	100	Water
Shale			100	125	
Sand			125	128	Water
Slate			128	141	
Sand			141	145	Water
Shale			145	280	
Red Rock			280	310	
Shale			310	425	
Slate			425	432	
Red Rock			432	480	
Shale			480	598	
Red Rock			598	640	
Shale			640	810	
Red Rock			810	942	
Sand			942	998	
Red Rock			998	1060	
Shale			1060	1242	
Sand			1242	1288	
Shale			1288	1640	
Sand			1640	1710	
Shale			1710	2070	
Lime			2070	2100	
Shaley Lime			2100	2120	
Lime			2120	2234	
Sand			2234	2242	Show of gas
Lime			2242	2272	
Shale			2272	2340	
Sandy Shale			2340	2430	
Shale			2430	2526	
Sand			2526	2554	
Shale			2554	3060	
Sandy Shale			3060	3100	
Shale			3100	3380	
Sandy Shale			3380	3455	
Shale			3455	4065	Show of gas
Sandy Shale			4065	4100	
Shale			4100	4990	
Sandy Shale	4990	5004	(Attach separate sheets to complete as necessary)		
Shale	5004	5105	Show of Benson gas		
Sandy Shale	5105	5170			
Shale	5170	5260			
Sandy Shale	5260	5365	Show of gas ALE		
Shale	5365	5430			
Total Depth	5430				

Rockwell Petroleum Company

Well Operator

By

Its Partner

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."

COPY

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. Gum #1
API Well No. 47 - 017 - 2638
State County Permi

WELL TYPE: Oil / Gas X /
(If "Gas", Production X / Underground storage / Deep / Shallow X)
LOCATION: Elevation: 1039' Watershed: Sand Fork Creek
District: Cove County: Doddridge Quadrangle: New Milton

WELL OPERATOR Rockwell Petroleum Company
Address P O Box 86
Sand Fork, WV 26430

DESIGNATED AGENT Robert R. Jones
Address P O Box 86
Sand Fork, WV 26430

OIL & GAS ROYALTY OWNER H. B. & Charlotte Gum
Address New Milton, WV

COAL OPERATOR N/A
Address

Acreage 260.87

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER H. B. & Charlotte Gum
Address New Milton, WV
Acreage 260.87

Name N/A
Address
Name N/A
Address

RECEIVED

MAR 24 1980

FIELD SALE (IF MADE) TO:
Name N/A
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name N/A
Address

**OIL & GAS DIVISION
DEPT. OF MINES**

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address Clarksburg, WV 26301
622-3871

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 March 12, 1980, to the undersigned well operator from H. B. Gum and Charlotte Gum, his wife
[If said deed, lease, or other contract has been recorded:]

Recorded on NOT OF RECORD, 19 , in the office of the Clerk of the 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 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
1619 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 545-3399

BLANKET BOND

Rockwell Petroleum Company
Well Operator
Robert R. Jones
Co-owner

1903

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Union Drilling, Inc.
Address Drawer 40
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Devonian Shale

Estimated depth of completed well, 5375' feet Rotary X / Cable tools /
Approximate water strata depths: Fresh, 130 feet; salt, feet.
Approximate coal seam depths: None Is coal being mined in the area? Yes / No X /

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								Kinds
Fresh water	8 5/8					1050'	1050'	To surface
Coal								Sizes
Intermediate								
Production	4 1/2						5375'	Depths set
Tubing								
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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

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.

At the location of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 11-27-80

Robert F. [Signature]
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: , 19

By
Its