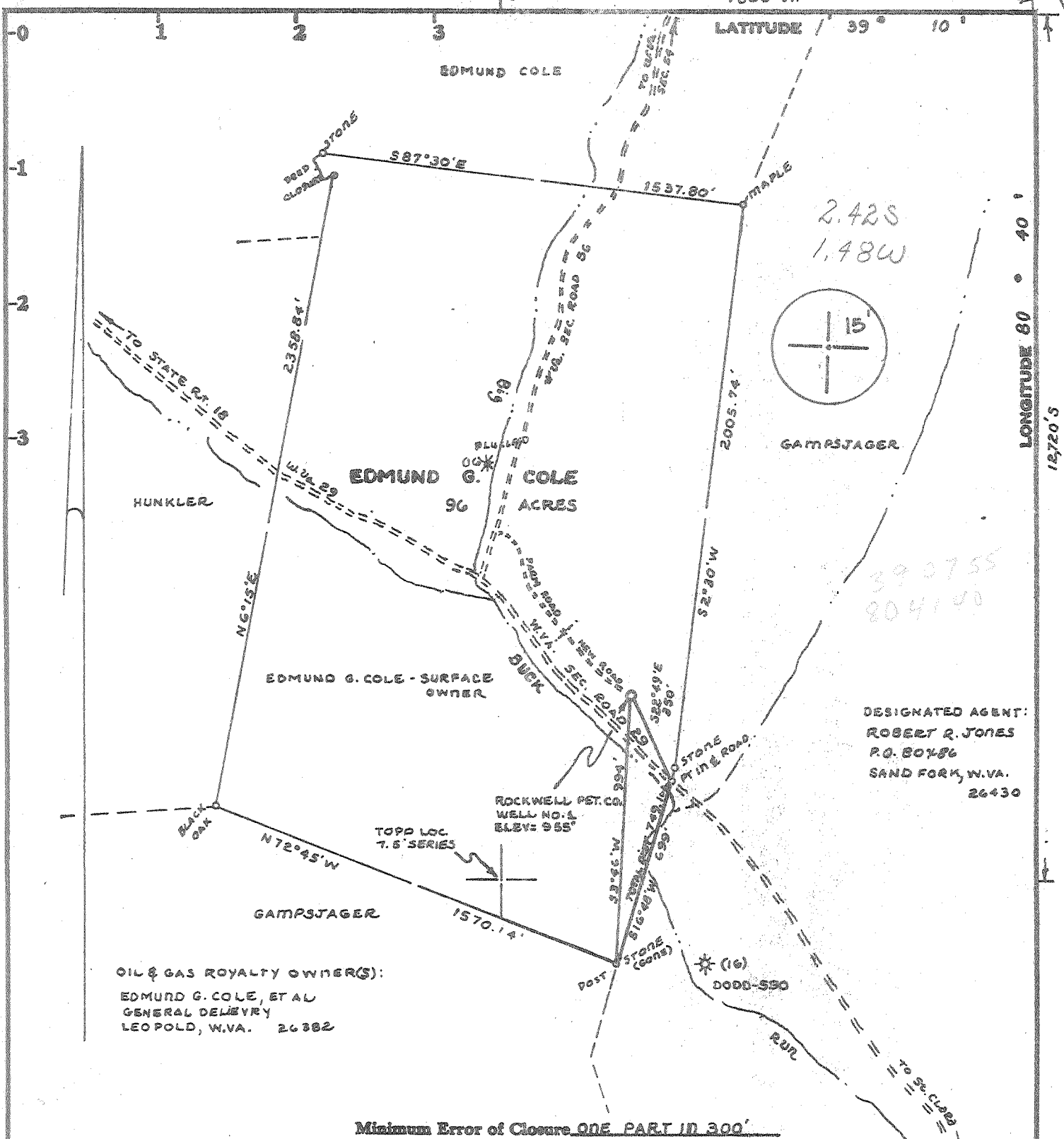


3/29/79



DESIGNATED AGENT:  
 ROBERT R. JONES  
 P.O. BOX 86  
 SAND FORK, W.VA.  
 26430

OIL & GAS ROYALTY OWNER(S):  
 EDMUND G. COLE, ET AL  
 GENERAL DELIVERY  
 LEOPOLD, W.VA. 26382

Minimum Error of Closure ONE PART IN 300'  
 Source of Elevation U.S.G.S. B.M. ON NORTH WINGWALL OF CONC. CULVERT  
 FOR BUCK RUN ALONG W.VA. SEC. ROAD 29 (700' NW FROM LOC) ELEV: 888'

- Fracture.....
- New Location.....  GAS - DRILL DEVONIAN SHALE SHALLOW-EST DEPTH 5300'
- 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

WELL OPERATOR/  
 Company ROCKWELL PETROLEUM COMPANY  
 Address P.O. BOX 86, SAND FORK, W.VA. 26430  
 Farm EDMUND G. COLE  
 Tract \_\_\_\_\_ Acres 96 Lease No. \_\_\_\_\_  
 Well (Farm) No. ONE Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 955'  
 Quadrangle NEW MILTON 7.5', VADIS 15'  
 County DODDRIDGE District COVE  
 Surveyor MARK C. ECHARD  
 Surveyor's Registration No. 490  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date MARCH 8, 1979 Scale 1" = 500'

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

**WELL LOCATION MAP**  
 FILE NO. 47-017-2364

+ 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.

APR 16 1979

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

Date April 26, 1979

FORM IV-35  
(Obverse)

Operator's  
Well No. Cole #1

[08-78]

WELL OPERATOR'S REPORT  
OF

API Well No. 47 - 017 - 2364  
State County Putnam

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: 955' Watershed: Buck Run  
District: Cove County: Doddridge Quadrangle: New Milton 7.5'

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

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

MAY - 7 1979

OIL & GAS DIVISION

DEPT. OF MINES

PERMIT ISSUED ON March 29, 19 79

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name Paul Garrett  
Address Clarksburg, WV  
622-3871

GEOLOGICAL TARGET FORMATION: Devonian Shale Depth 5230 feet

Depth of completed well, \_\_\_\_\_ feet Rotary  / Cable Tools \_\_\_\_\_

Water strata depth: Fresh, 125 feet; salt, \_\_\_\_\_ feet.

Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? No.

Work was commenced April 12, 19 79, and completed April 20, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-NE OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Conductor								Kinds
Fresh water	8 5/8		20	X		1195'	1195'	To surface
Coal								Sizes
Intermediate								
Production	4 1/2		9.5	X			5297	150 sks
Tubing								Depths set
Liners								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation Benson Pay zone depth 4866.5 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 ~~E1k~~ Alex Pay zone depth 5231 feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d

Final open flow, 1,250 Mcf/d Final open flow, \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests, 6 hours

Static rock pressure, 1805 psig (surface measurement) after 48 hours shut in

MAY 22 1979

2000-364

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSTOCHANGE, ETC.

Fractured April 25, 1979

Elk - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
2750 lb. breakdown  
injection rate - 22.2 BPM at  
2200 lb.  
622 barrels water

Benson - 20,000 lb. 80/100 sand  
40,000 lb. 20/40 sand  
2700 lb. breakdown  
injection rate - 17.4 BPM at  
1950 lb.  
610 barrels water

Perforations - 4996, 5137, 5175, 5179  
5195, 5214, 5222, 5231

Perforations - 4863.5, 4864, 4864.5, 4865,  
4865.5, 4866, 4866.5

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	REMARKS Including production of oil, gas and salt water, etc., and
Surface			0	100	
Shale			100	125	
Sand			125	129	Water
Shale			129	480	
Red Rock			480	508	
Shale			508	710	
Red Rock			710	754	
Shale			754	980	
Sand			980	994	
Red Rock			994	1054	
Shale			1054	1480	
Sand			1480	1514	
Shale			1514	1740	
Sand			1740	1782	
Shale			1782	1815	
Sandy Shale			1815	1880	
Shale			1880	1930	
Lime			1930	1960	
Sand (Blue Monday)			1960	2002	
Lime			2002	2040	
Big Injun			2040	2140	Show Gas 2055
Shale			2140	2192	
Sandy Shale (Weir)			2192	2280	
Shale			2280	2400	
Sand (Gantz)			2400	2414	
Shale			2414	2935	
Sand (Bayard)			2935	2955	
Shale			2955	3522	
Sand (Upper Riley)			3522	3530	
Shale			3530	3957	
Sand (Riley)			3957	3976	
Shale			3976	4856	
Sand (Benson)			4856	4874	Show Gas
Shale			4874	4978	
Sandy Shale			4978	5004	Show Gas
Shale			5004	5130	
Sandy Shale (Elk) Alex.			5130	5290	Show Gas
Shale			5290	5388	
Total Depth			5388		

(Attach separate sheets to complete as necessary.)

Rockwell Petroleum Company

Well Operator

By

Robert R. Jones

Its

Partner

NOTE: Regulation 2.0410 provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including ... encountered in the ..."

**COPY**

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. Cole #1  
API Well No. 47-017-2364  
State County Permit

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

LOCATION: Elevation: 955' Watershed: Buck Run  
District: Cove County: Doddridge Quadrangle: New Milton 7.5'

WELL 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

OIL & GAS ROYALTY OWNER Edmund G. Cole, et al COAL OPERATOR -----  
Address General Delivery Address -----  
Leopold, WV 26382

Acreage 96 COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Edmund G. Cole Name -----  
Address General Delivery Address -----  
Leopold, WV 26382

Acreage 96 Name -----

FIELD SALE (IF MADE) TO: Address -----

Name -----

Address -----

COAL LESSEE WITH DECLARATION ON RECORD:

Name -----

Address -----

OIL & GAS INSPECTOR TO BE NOTIFIED Name Paul Garrett

Address Clarksburg, WV

Phone: 622-3871

**RECEIVED**  
MAR 29 1979

OIL & GAS DIVISION  
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed  / lease  / other contract  / dated February 7, 1979, to the undersigned well operator from Edmund Cole, Marie Cole, and others

[If said deed, lease, or other contract has been recorded:]

Recorded on -----, 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  / 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  
1615 WASHINGTON STREET EAST  
CHARLESTON, WV 25311  
TELEPHONE: (304) 348-3092

**BLANKET BOND**

Rockwell Petroleum Company  
Well Operator

By Robert R. Jones  
Its Partner

Y900

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, 5230 feet Rotary X / Cable tools      /

Approximate water strata depths: Fresh, 148 feet; salt,      feet.

Approximate coal seam depths:      **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	Left in well		
Conductor									Kinds
Fresh water	8 5/8		20	X		1200	1200	To surface	
Coal									Sizes
Intermediate									
Production	4 1/2		9.5	X			5230	160 sks	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.

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 11/30/79.

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