

SOURCE OF ELEVATION - FROM CROSSROAD  
JUST NORTH OF LOCATION ON COW  
CREEK ROAD (743')

MINIMUM ERROR OF CLOSURE:  
1 IN 200

- New Location
- Drill Deeper
- Redrill
- Abandonment

Issued 5/24/74

"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."

Company Jackson Development Co., Inc.  
Address Box 450, Hamilton, W. Va., 25523  
Farm Mc CALLISTER - Mc CLASKEY  
Tract \_\_\_\_\_ Acres 58 Lease No. \_\_\_\_\_  
Well (Farm) No. N-3 Serial No. \_\_\_\_\_  
Elevation (Spirit Level) 828.75  
Quadrangle ST. ALBANS - 15' NW  
County PUTNAM District TEAYS Valley  
Engineer John GALPIN  
Engineer's Registration No. 875  
File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
Date \_\_\_\_\_ Scale 1" = 400'

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

WELL LOCATION MAP

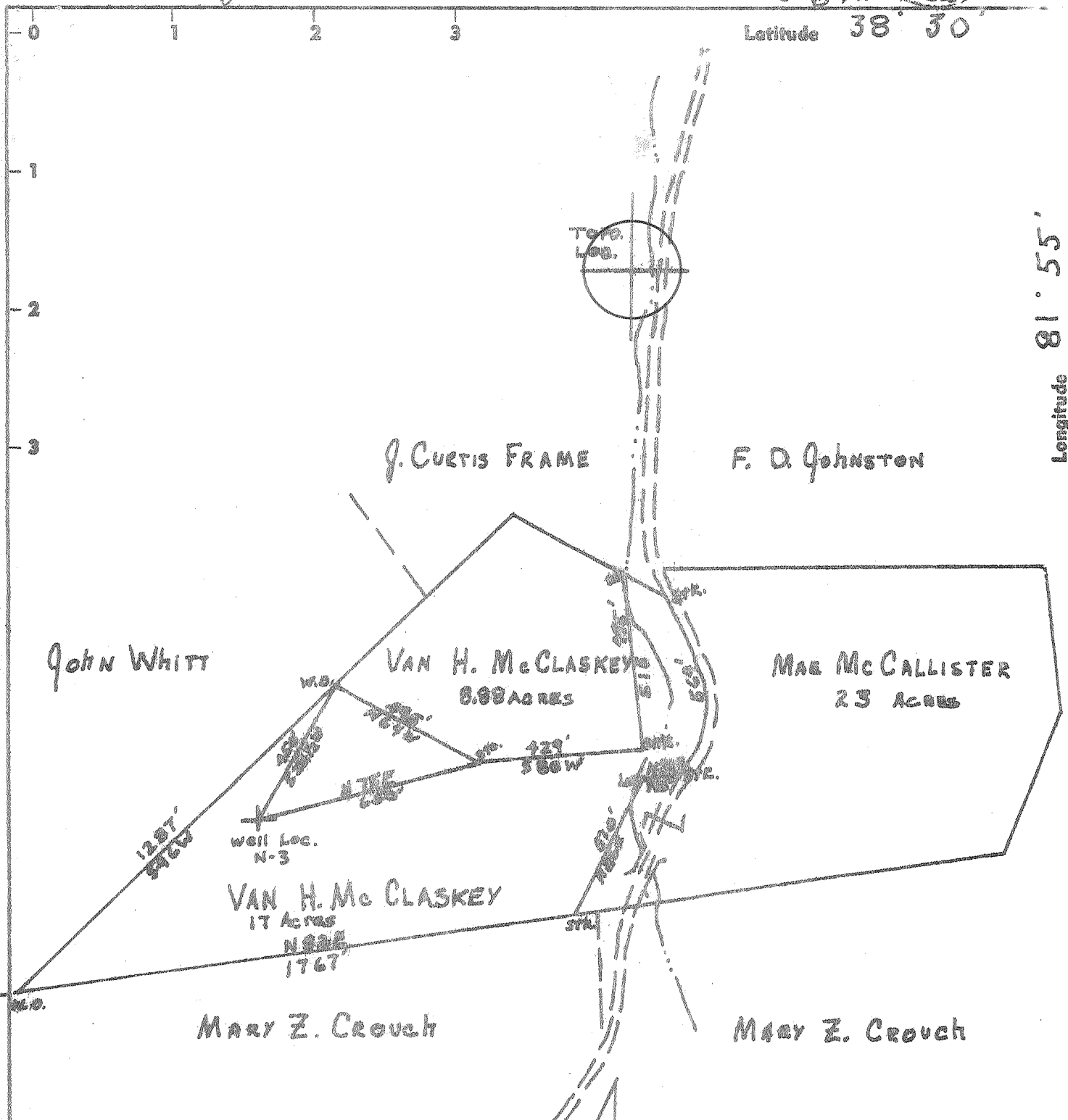
FILE NO. Put-769-R-P

Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

Denotes one inch spaces on border line of original tracing.

47-079

Deer Well



SOURCE OF ELEVATION - FROM CROSSROAD  
JUST NORTH OF LOCATION ON COW  
CREEK ROAD (748')

MINIMUM ERROR OF CLOSURE:  
1 IN 200

- Abandonment
- Drift Deeper
- Redrift
- Abandonment

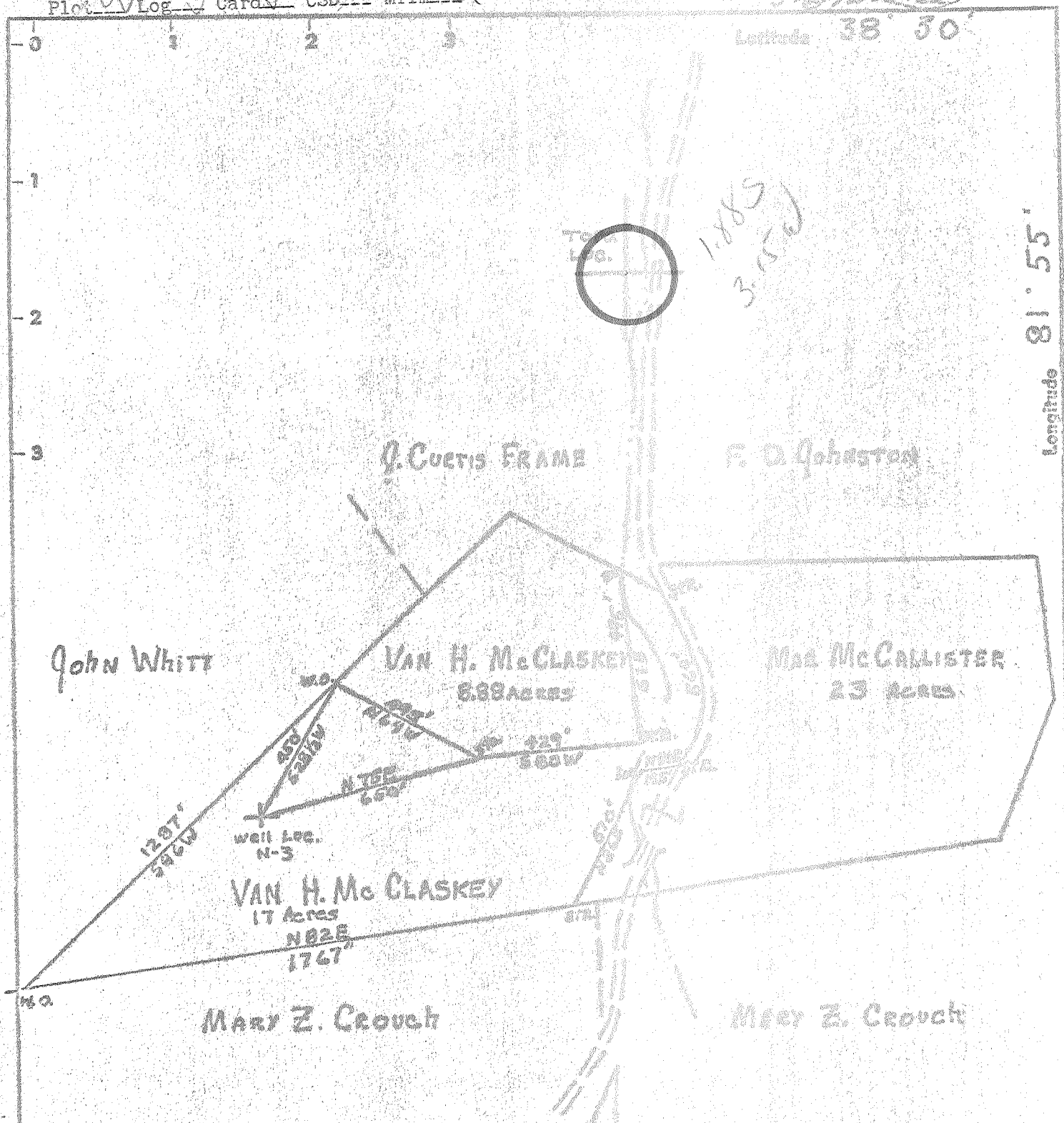
"I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company: NEDCO OIL COMPANY  
 Address: 1901 KANAWHA VALLEY BLVD. CHARLESTON, WEST VIRGINIA  
 Farm: McCALLISTER - McCLASKEY  
 Tract: \_\_\_\_\_ Acres: 58 Lease No. \_\_\_\_\_  
 Well (Farm) No.: N-3 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level): 828.75  
 Quadrangle: ST. ALBANS - 15' NW  
 County: PUTNAM District: TEAYS VALLEY  
 Engineer: JOHN GALPIN  
 Engineer's Registration No.: 875  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date: \_\_\_\_\_ Scale: 1" = 400'

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

WELL LOCATION MAP  
FILE NO. Put-769-P

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
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SOURCE OF ELEVATION - FROM CROSSROAD JUST NORTH OF LOCATION ON COW CREEK ROAD (143')

MINIMUM ERROR OF CLOSURE: 1 in 200

- New Location
- Drill Deeper
- Redrill
- 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."

Company NEDCO, Inc.  
 Address 1301 RANDOLPH VALLEY Bldg. CHARLESTON, West Virginia  
 Farm Mc CALLISTER - Mc CLASKEY  
 Tract \_\_\_\_\_ Acres 58 Lease No. \_\_\_\_\_  
 Well (Farm) No. N-3 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 828.75  
 Quadrangle ST ALBANS - 15' NW  
 County PUTNAM District TEAYS Valley  
 Engineer John GALPIN  
 Engineer's Registration No. 875  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date \_\_\_\_\_ Scale 1" = 400'

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

WELL LOCATION MAP  
 FILE NO. Put-769

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.



RECEIVED

MAR 16 1973

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas  NO. \_\_\_\_\_  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle St. Albans

Permit No. PIIT 769

Company NEDCO, INC.  
Address 1901 Kanawha Valley Building  
Farm Mae McCallister, Van McClaskey 58  
Location (waters) Cow Creek  
Well No. N-3 Elev. 828.75  
District Teays Valley County Putnam  
The surface of tract is owned in fee by Mae  
McCallister & Van McClaskey  
Address Winfield, W. Va.  
Mineral rights are owned by \_\_\_\_\_  
Address \_\_\_\_\_  
Drilling Commenced 5/5/72  
Drilling Completed 5/19/72  
Initial open flow 0 cu. ft. 0 bbls.  
Final production 33,000 cu. ft. per day 0 bbls.  
Well open 3 hrs. before test 375 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 16"	12	12	to surface
13-10" 1 1/4"	372	372	75 bags
9 5/8			
8 5/8	2014	2014	50 bags
7			
5 1/2			Cementing by
4 1/2			Well Service Inc
3			
2 2 3/8"		4474	on packer
Liners Used			

Well treatment details:

Attach copy of cementing record.

October 31, 1972, Halliburton acidized the coniferous limestone with 1,000 gallons of mod 202 acid, 200 gallons of methanol, 1 gallon Howco Suds, 2 gallons HC2

Coal was encountered at None Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water 800 Feet 1260  
Producing Sand Oriskany Depth 4480-4485

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Surface			0	40		Depths based on Kelly Bushing measurements of 9 feet  water at 800'
Red Rock			40	45		
Sand			45	70		
Sand & Slato			70	85		
Red Rock			85	95		
Sand & Shale			95	175		
Sand			175	230		
Sand & Shale			230	370		
Shale			370	468		
Sandy Shale			468	750		
Shale			750	840		
Sand			840	860		
Sand & Shale			860	882		
				over		

(over)

\* Indicates Electric Log tops in the remarks section.

MAR 29 1973

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			882	894		
Sand & Shale			894	945		
Sand			945	958		
Sand & Shale			958	1260	water increased	1260
Shale			1260	1360		
Salt Sand			1360	1423		
Sand			1423	1612	water increased	1450
Sand & Shale			1612	1808		
Lime			1808	2003		
Sandy Shale			2003	2250		
Shale			2250	2379		
Sand - Berea?			2379	2404		
Sandy Shale			2404	2473		
Berea Sand - too deep			2473	2498		
Sandy Shale Brown			2498	2531		
Slate & Shells Gray			2531	3631		
Brown Shale Brown			3631	3706		
Slate & Shells Gray			3706	3811		
Brown Shale Brown			3811	3891		
Shale Blue			3891	3942		
Shale Brown			3921	4408		
Coniferous Lime			4408	4480		
<u>Oriskany Sand</u>			4480	4485	show of gas	
Lime			4485	4545		

TOIS MEASURED FROM  
KR-838

4408 4480  
829 829  
-----  
3579 3651

Date March 6, 19 73

APPROVED *V. [Signature]*, Owner

By President  
(Title)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

MAY 8 1972

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE May 5, 1972

Surface Owner Mae McCallister & Van McClaskey

Company NEDCO, Inc.

Address Cow Creek Road

Address 1901 Kan. Valley Bldg., Charleston, W. Va.

Mineral Owner Same

Farm McCallister-McClaskey Acres 58

Address \_\_\_\_\_

Location (waters) Cow Creek

Coal Owner \_\_\_\_\_

Well No. N-3 Elevation 228.75

Address \_\_\_\_\_

District Teays Valley County Putnam

Coal Operator \_\_\_\_\_

Quadrangle St. Albans - 15' Scott Depot - 7 1/2'

Address \_\_\_\_\_

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 Sept 8, 1972

Robert Hood  
Deputy Director - Oil & Gas Division

Mr Kenneth Butcher  
INSPECTOR TO BE NOTIFIED  
R.J.D. Barhousville PH: 736-4885  
W. Va. 25504

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated Aug. 14 19.65 by McClaskey made to Teaves Oil & Gas, Inc. and recorded on the 293 day of \_\_\_\_\_ 1965 in Putnam County, Book 52 Page 290

NEW WELL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  
OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,  
(Sign Name) Jim McNamee  
Well Operator RM

Address 1901 Kanawha Valley Bldg.  
of Street  
Well Operator Charleston  
City or Town  
West Virginia

\*SECTION 3. If no objections are filed or found by the Department of mines within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found necessary by the department and that the same is approved and the well operator authorized to proceed.

Put-769 PERMIT NUMBER

**THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO   X   DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME   NEDCO, Inc.   NAME   James McNabe    
 ADDRESS   1901 Kan. Val. Bldg. Charleston, W. Va.   ADDRESS   1901 Kanawha Valley Bldg.    
 TELEPHONE   342-2125   TELEPHONE   242-2125    
 ESTIMATED DEPTH OF COMPLETED WELL:   4520   ROTARY   X   CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION:   Criskany    
 TYPE OF WELL: OIL \_\_\_\_\_ GAS   X   COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.	
20 - 16	16 7/8	10 feet	10 feet	3 sacks
13 - 10	11 3/4	345 feet		50 sacks
9 - 5.8				
8 - 5.8		2250		
7				
5 1/2				
4 1/2				
3		4700		Per. Top
2				Per. Bottom
Liners				Per. Top
				Per. Bottom

APPROXIMATE FRESH WATER DEPTHS   100'   FEET      SALT WATER   1150   FEET   1620    
 APPROXIMATE COAL DEPTHS   None anticipated    
 IS COAL BEING MINED IN THE AREA?   No   BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

For Coal Company

Official Title