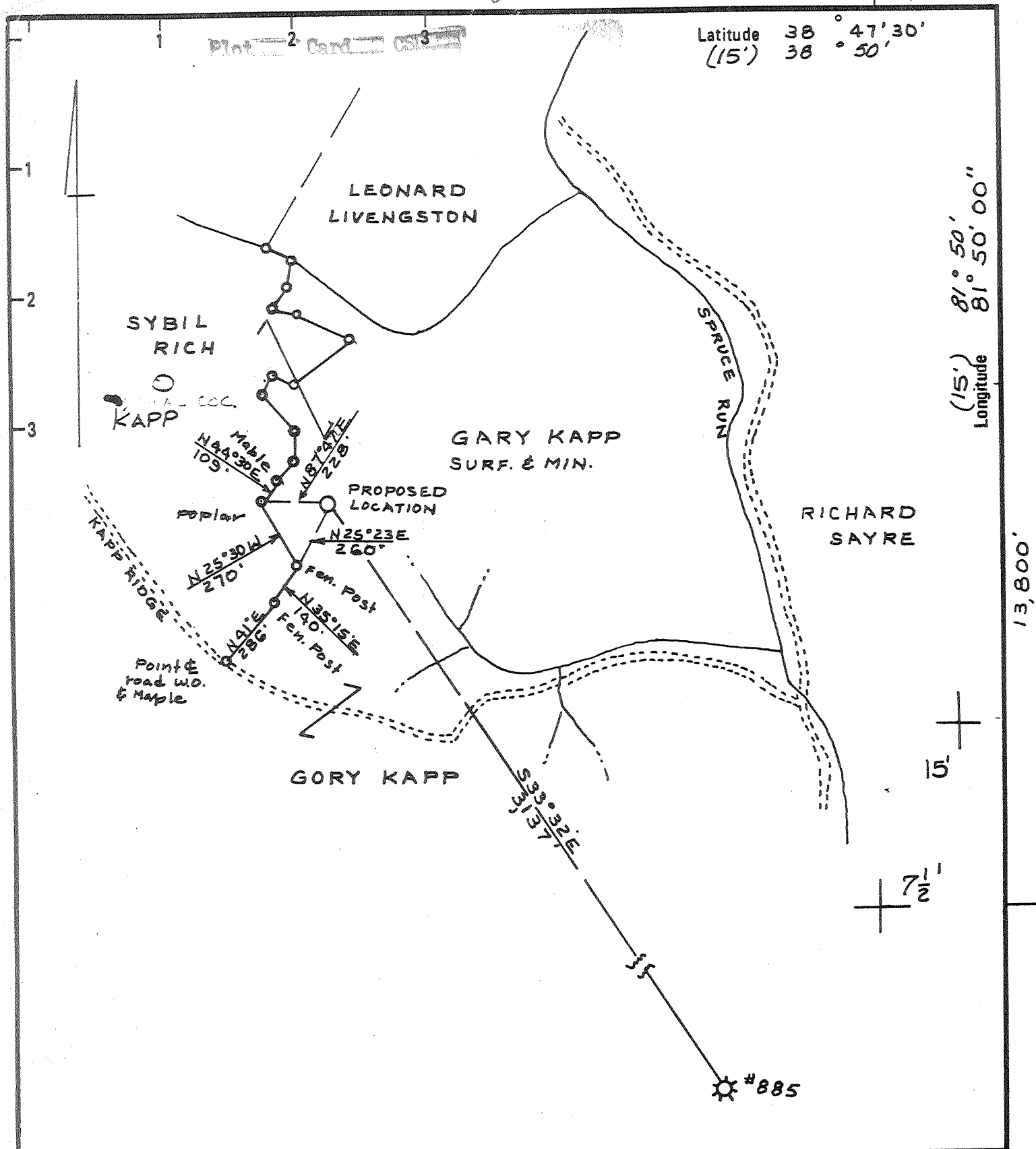


Latitude 38° 47' 30"
(15') 38° 50'



(15') 81° 50' 00"
Longitude

13,800'

15'

7 1/2'

New Location
 Drill Deeper
 Abandonment
PARTIAL PLUG + FRAC

Minimum Error of Closure 1 - 200'
 Source of Elevation Road Forks Northwest of well
 Location E.L. 918.0'
 "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 DEVON CORP.
 Address P.O. BOX 1433 CHARLESTON WVA
 Farm GARY KAPP
 Tract _____ Acres 95 Lease No. 3869
 Well (Farm) No. 1 Serial No. 924
 Elevation (Spirit Level) 801.0'
 Quadrangle RAVENSWOOD 15'
COTTAGEVILLE 7.5'
 County MASON District UNION
 Surveyor C. Y. Galley Jr.
 Surveyor Registration No. 32
 File No. B 48 P 43 Drawing No. _____
 Date 10-13-79 Scale 1" = 500'

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

WELL LOCATION MAP
 FILE NO. **47-053-0198-REV**

G PP-FRAC

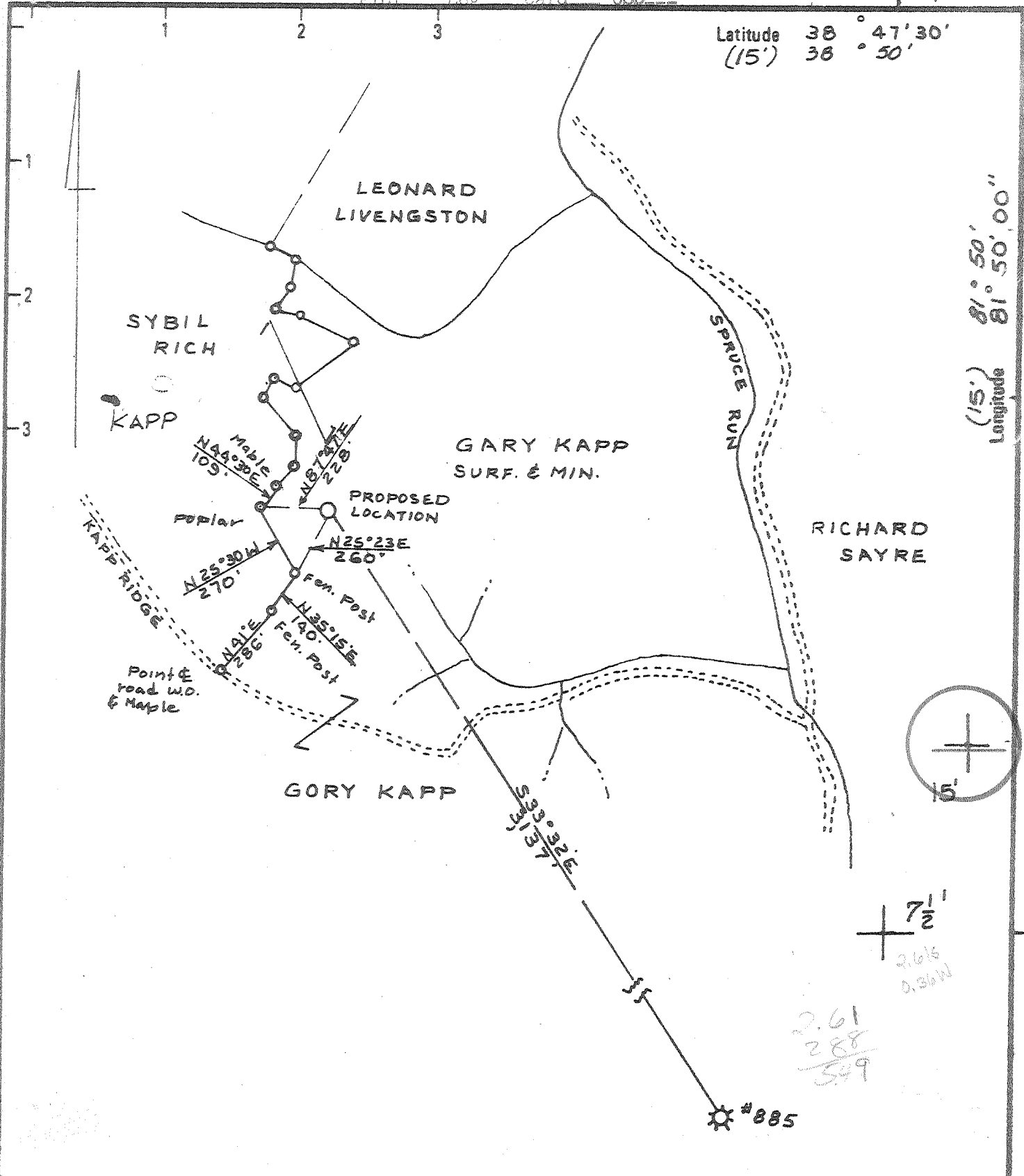
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

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

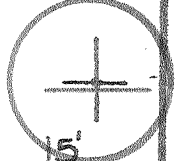
DEEPWELL (OWWO) - 666 Providence (259)

Latitude 38° 47' 30"
(15') 38° 50'

Longitude 81° 50' 00"
(15') 81° 50' 00"



008 E 1



7 1/2
2.61
2.88
3.49
2.615
0.36 W

- New Location
- Drill Deeper
- Abandonment

Minimum Error of Closure 1 - 200'
 Source of Elevation Road Forks Northwest of well
 Location E.L. 918.0'
 "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 DEVON CORP.
 Address P.O. BOX 1433 CHARLESTON WVA
 Farm GARY KAPP
 Tract _____ Acres 95 Lease No. 3869
 Well (Farm) No. 1 Serial No. 924
 Elevation (Spirit Level) 801.0'
 Quadrangle RAVENSWOOD 15' SC 110
COTTAGEVILLE 7.5' 307
 County MASON District UNION 9
 Surveyor C. Y. Galley Jr.
 Surveyor Registration No. 92
 File No. B 48 P 43 Drawing No. _____
 Date 10-13-79 Scale 1" = 500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
 WELL LOCATION MAP
 FILE NO. 47-053-0198-REV

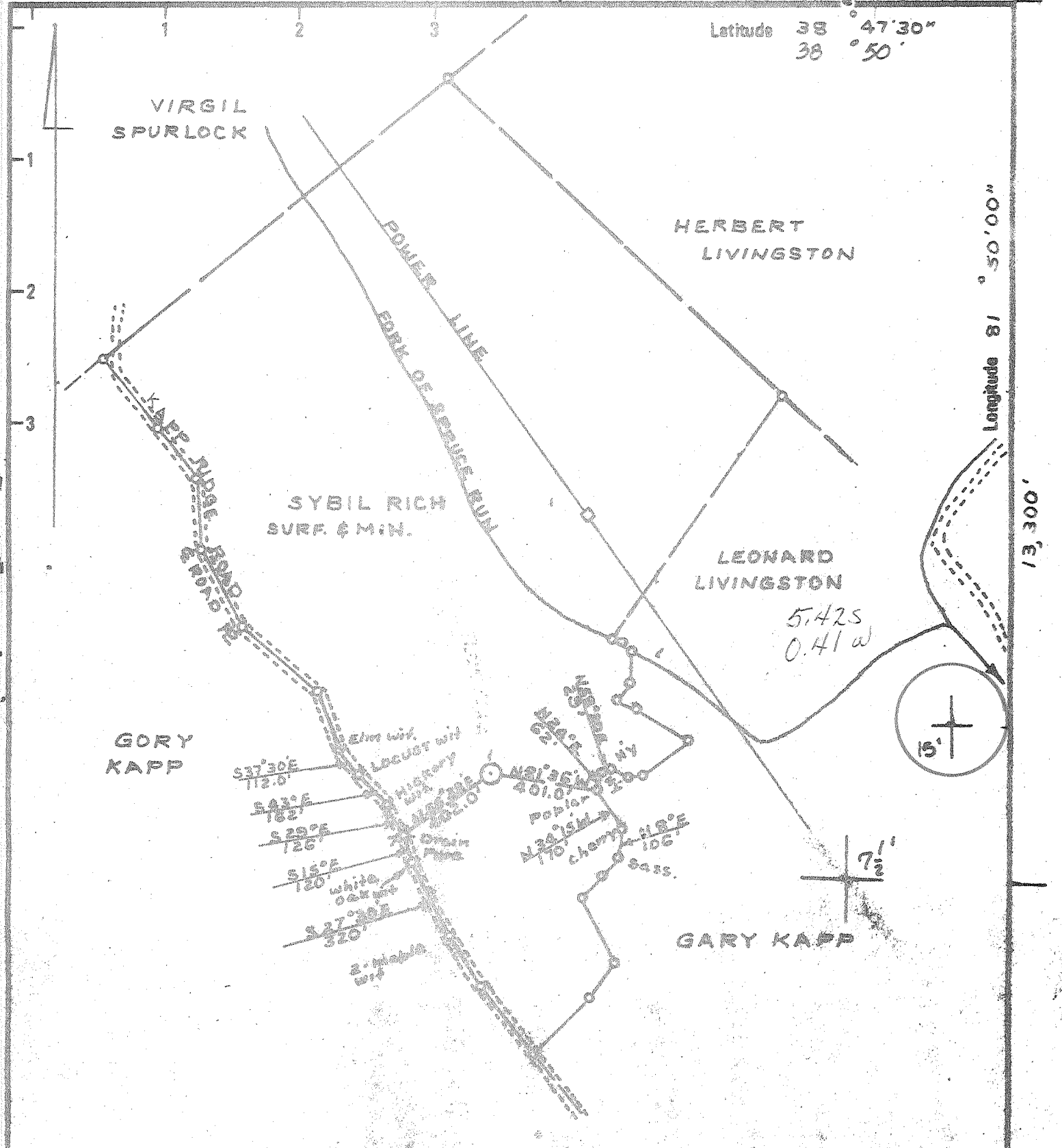
+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

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

NOV 14 1979

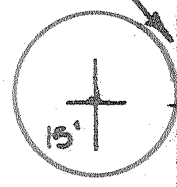
DEEP-WELL 66 Providence (359)

Latitude 38° 47' 30"
38° 50'



Longitude 81° 50' 00"

13,300'



7 1/2'

New Location
Drill Deeper
Abandonment

Minimum Error of Closure One Foot in 200
Sources of Elevation Road Facts 2000' North west of
well location El 815.0'
"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 8 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company DEVON CORP.
Address P.O. BOX 1433 CHARLESTON WV
Farm SYBIL RICH
Tract _____ Acres 106.5 Lease No. 3969
Well (Farm) No. 1 Serial No. 924
Elevation (Spirit Level) 851.0'
Quadrangle COTTAGEVILLE 7 + RAVENWOOD 15'
County MASON District West
Surveyor/Engineer C. J. Yelley Jr.
Engineer's Registration No. 165 H392
File No. 845 P20 Drawing No. _____
Date 7-7-79 Scale 1" = 500'

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION
CHARLESTON
WELL LOCATION MAP
FILE NO. 47-053-0198

+ Denotes ~~location~~ well on United States Topographic ~~map~~ at 62,500 latitude and longitude lines being represented by border lines as shown.

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

AUG 7 1979



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 14

Quadrangle Cottageville
Permit No. 47-053-0198

Rotary XXX Oil _____
Cable _____ Gas YYY
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company DEVON CORPORATION
Address Box 1433, Charleston, WV
Farm Gary O. Kapp Acres 95
Location (waters) Spruce Run
Well No. 924 Elev. 801
District Union County Mason
The surface of tract is owned in fee by Gary O. Kapp
Address 1134 Central Avenue, Barberton, OH
Mineral rights are owned by Same as above
Address _____
Drilling Commenced November 5, 1979
Drilling Completed November 13, 1979
Initial open flow 2.1 bbls. FD XXXXXX
Final production 1 bbls. MMOED XXXXXXXXXX
Well open 3 hrs. before test 1950 PSI
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"			
9 5/8	216	216	100 sax=to surf.
8 5/8			
7	2476	2476	75 sax=625'
5 1/2			
4 1/2		4750	225 sax=2400'
3			
2			
Liners Used			

Attach copy of cementing record.

Perforated 4 1/2" casing 4681-4683 with 8 shots and 4687-4689 with 8 shots
Fractured with 908 BBLs water and 90,000# sand
Coal was encountered at None reported Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Sand Depth 4681-4689

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			0	75		<div data-bbox="1077 1702 1492 1901" data-label="Text"> <p>RECEIVED OCT 31 1983</p> </div> <div data-bbox="1101 1915 1524 2048" data-label="Text"> <p>OIL & GAS DIVISION DEPT. OF MINES</p> </div>
Sand			75	108		
Shale			108	170		
Sand			170	233		
Shale			233	408		
Sand			408	430		
Shale			430	583		
Sand			583	590		
Shale			590	655		
Sand			655	662		
Shale			662	708		
Sand			708	720		
Shale			720	891		
Sand			891	920		
Shale			920	955		
Sand			955	970		
Shale			970	1043		
Sand			1043	1072		
Shale			1072	1085		
Sand			1085	1177		
Shale			1177	1243		
Sand			1243	1367		
Shale			1367	1583		

Tops probably taken from KB - about 809

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet of	Bottom Feet	Oil, Gas or Water	Remarks
Sand			1583	1660		
Shale			1660	1794		
Big Lime			1794	1925		
Shale			1925	1958		
Injun Sand			1958	2106		
Shale			2106	2403		
Coffee Shale			2403	2423		
Berea Sand			2423	2439		
Shale			2439	3596		
Brown Shale			3596	4046		
Shale			4046	4442		
Morrellus Shale			4442	4581		
Greenback S.			4581	4663		
Oriskany Sand			4663	4689		
Helderberg S.			4689	4790		
Log Total Depth				4970		

404 2439
813 3596
822 4046 150
825 4196 155
830 4386 200
461 4581

Date November 27, 1979
DEVON CORPORATION
APPROVED A. C. House
A. C. House,
District Geologist
JAN 19 1987



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
JUL 12 1979

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE July 9, 1979
Company DEVON CORPORATION
Address PO Box 1433, Charleston, WV
Farm Sybil Rich Acres 106 1/2 ac
Location (waters) Spruce Run
Well No. 924 Elevation 851
District Union County Mason
Quadrangle Cottageville 7 1/2'

Surface Owner Sybil Rich, Widow
Address Rt. 1, Box 82, Evans, W. Va. 25241
Mineral Owner Same as above
Address _____
Coal Owner Same as above
Address _____
Coal Operator Not operated
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 3-16-80

Mr. Kenneth Butcher
RFD #1
Barboursville, WV 25504
Ph: 736-4885

Deputy Director - Oil & Gas Division

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 October 27th 1978 by Sybil Rich, widow made to Devon & Eason and recorded on the _____ day of _____ 19____, in Mason County, Book 44 Page 98
XXX 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.

PLEASE SUBMIT ALL COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

Very truly yours, DEVON CORPORATION
(Sign Name) A. C. Youse
Well Operator
A. C. Youse, Dist. Geologist
P. O. Box 1433
Street
Charleston,
City or Town
West Virginia 25325
State

W. VA. OIL & GAS CONSERVATION COMMISSION
1613 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25311

Address
of
Well Operator

*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 thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANKET BOND

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

PROPOSED WORK ORDER TO XXX DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME FWA Drilling Co. NAME Bill Endicott
 ADDRESS P. O. Box 448, Elkview, W. Va. ADDRESS Box 1433, Charleston, W. Va.
 TELEPHONE 965-3379 TELEPHONE 342-3171
 ESTIMATED DEPTH OF COMPLETED WELL: 4800 ROTARY XXX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany
 TYPE OF WELL: OIL _____ GAS XXX 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			
13 - 10			
9 - 5/8	200	200	100 sax-to surf
8 - 5/8			
7	2500	2500	75 sax=630'
5 1/2			
4 1/2		4800	225 sax=2400'
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS _____ FEET SALT WATER _____ FEET
 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



1) Date: October 13, 1983
 2) Operator's Well No. Garykapp #924
 3) API Well No. 47-053-0198-PP-FRAC
 State _____ County _____ Permit _____

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES, OIL AND GAS DIVISION
APPLICATION FOR A WELL WORK PERMIT

- 4) WELL TYPE: A Oil _____ / Gas X /
 B (If "Gas", Production _____ / Underground storage _____ / Deep _____ / Shallow X /)
- 5) LOCATION: Elevation: 801 Watershed: Spruce Run
 District: Union County: Mason Quadrangle: Cottageville 7.5°
- 6) WELL OPERATOR Devon Energy Corporation
 Address Box 1433
Charleston, WV 25325
- 7) DESIGNATED AGENT Larry Fulm
 Address Box 1433
Charleston, WV 25325
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Mr. Tephaback
 Address Rt. 1, Box 101-A
Ripley, WV 25271
- 9) DRILLING CONTRACTOR:
 Name Not determined at this time
 Address _____
- 10) PROPOSED WELL WORK: Drill _____ / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation X / Perforate new formation X /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Brown Shale
- 12) Estimated depth of completed well, 4580 feet
- 13) Approximate trata depths: Fresh, 200 feet; salt, _____ feet.
- 14) Approximate coal seam depths: None anticipated Is coal being mined in the area? Yes _____
- 15) CASING AND TUBING PROGRAM

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 OCT 31 1983

OIL & GAS DIVISION
 DEPT. OF MINES

CASING OR TUBING TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used			
Conductor							Kinds Speedy line plug	
Fresh water	9 5/8		36			216	216	100 sax=surf.
Coal								Sizes 4"
Intermediate	7		21			2476	2476	75 sax=625'
Production	4 1/2		10.5			4580	4580	225 sax=2400'
Tubing	2 3/8		4.6					(1 sack Cal Seal)
Liners								(4580-4560)
								Perforations: 239
								Top 3800 Bottom 4039

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-053-0198-PP-FRAC Date November 1, 1983

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. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. 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.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires November 1, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Board	Agent:	Plat	Casing	Fee
MARKET BOND	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	6363

Michael Lewis
 Administrator, Office of Oil and Gas



IV-35
(Rev 8-81)

Date January 13, 1987

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JAN 15 1987

State of West Virginia
Department of Mines
Oil and Gas Division

Operator's
Well No. 924
Farm Gary Kapp
API No. 47 - 053 - 0198

Frac.

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY 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: 801⁶²₈₀₉₋₁₈ Watershed Spruce Run
District: Union County Mason Quadrangle Cottageville

COMPANY Quinoco Petroleum, Inc.

ADDRESS P. O. Box 1433, Charleston, WV 25325

DESIGNATED AGENT Bill W. Backus

ADDRESS P. O. Box 1433, Charleston, WV 25325

SURFACE OWNER Gary O. Kapp

ADDRESS 1134 Central Ave., Barberton, OH

MINERAL RIGHTS OWNER Gary O. Kapp

ADDRESS 1134 Central Ave., Barberton, OH

OIL AND GAS INSPECTOR FOR THIS WORK Kenneth

Butcher ADDRESS 736-4885

FRAC PERMIT ISSUED 11/1/83

FRAC DRILLING COMMENCED 11/8/83

FRAC DRILLING COMPLETED 11/9/83

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

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"			
9 5/8	216	216	
8 5/8			
7	2476	2476	
5 1/2			
4 1/2	4580	4580	
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Brown Shale Depth 3856 feet

Depth of completed well 4970 feet Rotary x / Cable Tools _____

Water strata depth: Fresh N/A feet; Salt N/A feet

Coal seam depths: none reported Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Brown Shale Pay zone depth 3856 feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow 155 Mcf/d Final open flow _____ Bbl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 575 psig (surface measurement) after 16 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

JAN 19 1987

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

Petro Rig #14 moved on location and rigged up. Pulled 2-3/8" tubing and swabbed hole dry. Set permanent bridge plug at 4120'. Dumped 12' of Cal-Seal. McCullough perforated the Brown Shale formation using 3-1/8" Dyna perforating select fire jets between 4017' and 3856' with 30 holes. Halliburton dumped 500 gallons of 15% HCl Acid down hole. *Furon*

Petro Rig #14 and Halliburton on location. Fracture treated the Brown Shale formation using 75 quality foam. Loaded and broke down with acid, 50 barrels of fluid and 100,000 SCF nitrogen. Breakdown pressure 3800 psi. Treated with 60,000# 20/40 sand, 15,000# 10/20 sand, 609,000 SCF nitrogen and 304 barrels of water. Average treating rate 12.3 barrels per minute; nitrogen rate 21,000 SCF per minute. Maximum pressure 3800 psi; average pressure 2285 psi. Flushed with 16 barrels of foam and 10 barrels of water. ISIP 1320 psi; after 5 minutes 1160 psi; after 15 minutes 1110 psi. Treating and flushing time 31 minutes. Opened well to flow back through 4-1/2" casing with 3/4" orifice.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
See Attached Form OG-10.					

RECEIVED
JAN 15 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

QUINOCO PETROLEUM, INC.
Well Operator

By: *Billie Backus*

Date: JANUARY 13, 1987

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."