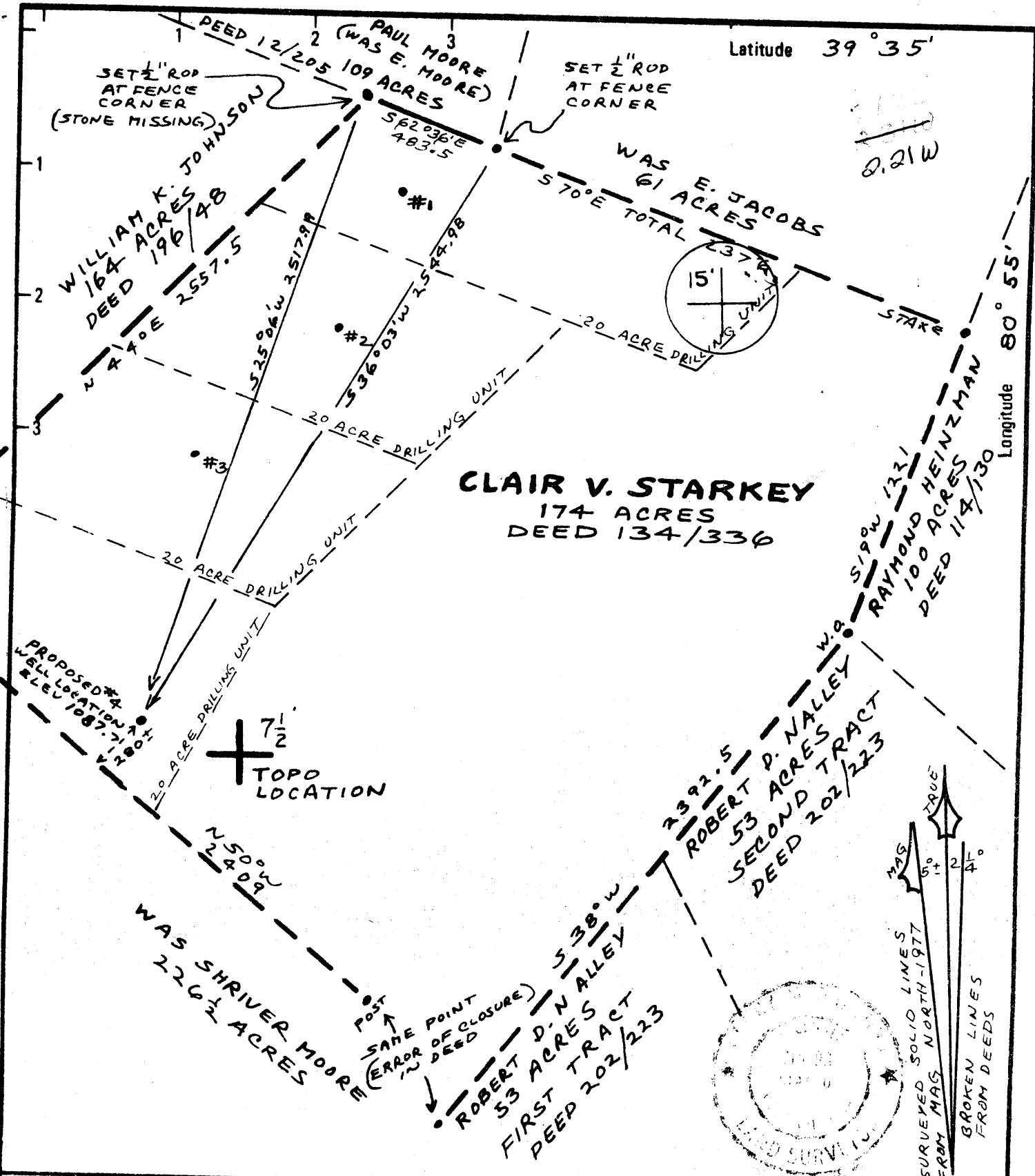


Latitude 39° 35'

Longitude 80° 55'



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure METHODS USED SHOULD PRODUCE 1 IN 2500
 Source of Elevation BASE ELEV. POINTS WERE 1108 AND 1042 FROM NEAREST ROAD INTERSECTIONS SHOWN ON TOPO MAP
 "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. *Henry M. Parsons*

Company **EMES PETROLEUM**
 Address **619 LACONIA BLDG WHEELING WV.**
 Farm **CLAIR STARKEY (20 ACRE DRILLING UNIT)**
 Tract _____ Acres **174** Lease No. _____
 Well (Farm) No. **CLAIR STARKEY #4** Serial No. _____
 Elevation (Spirit Level) **1087.7** **SW**
 Quadrangle **PADEN CITY, NEW MARTINSVILLE 15'**
 County **TYLER** District **LINCOLN**
SURVEYOR HENRY M. PARSONS
Engineer's Registration No. 98
 File No. **78-5288** Drawing No. **78-5288-C**
 Date **APRIL 18, 1979** Scale **1"=500'**

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. **47-095-0689**

+ 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.

MAY 8 1979

OCT 19 1979

OIL & GAS DIVISION
DEPT. OF MINES

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

FORM IV-35
(Obverse)

[08-78,

WELL OPERATOR'S REPORT 50
OF

DRILLING, REWORKING AND/OR STIMULATING, OR PHYSICAL CHANGE

Date Aug 23, 1979

Operator's Well No. STARKEY #4

API Well No. 47-095-0689
State County Permi-

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

LOCATION: Elevation: 1087.7 Watershed: BADGER RUN
District: LINCOLN County: TYLER Quadrangle: Paden Cox, WVA

WELL OPERATOR EMES PETROLEUM DESIGNATED AGENT C.W. Riggs, Inc.
Address 619 LACONIA BLDG. Address Box 358
WHEELING, W.VA. SEYMERS, W.VA.

PERMITTED WORK: Drill / Convert ___ / Drill deeper ___ / Redrill ___ / Fracture / Plug off old formation ___ / Perforate new formation SEP 24 1979
Other physical change in well (specify) _____

OIL & GAS DIVISION
DEPT. OF MINES

PERMIT ISSUED ON 4-25, 19 79

OIL & GAS INSPECTOR FOR THIS WORK:

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

Name PHIL TRACY
Address MIDDLEBORNE, W.VA.

GEOLOGICAL TARGET FORMATION: FIELD SAND Depth 3190'

Depth of completed well, 3150 feet Rotary Cable Tools ___

Water strata depth: Fresh, N/A feet; salt, N/A feet.

Coal seam depths: N/A Is coal being mined in the area? No

Work was commenced 5-17, 19 79, and completed 5-22, 19 79

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	<u>11 3/4</u>			<input checked="" type="checkbox"/>			<u>100 sks</u>	Kinds
Fresh water	<u>8 3/8</u>		<u>20#</u>	<input checked="" type="checkbox"/>			<u>190 sks</u>	
Coal								Sizes
Intermediate								
Production	<u>4 1/2</u>		<u>10.5#</u>	<input checked="" type="checkbox"/>			<u>450 sks</u>	Depths set
Tubing								
Liners								Perforations:
								Top Bottom

OPEN FLOW DATA

Producing formation GORDON Pay zone depth 2900 feet

Gas: Initial open flow, N/A Mcf/d Oil: Initial open flow, N/A Bbl/d

Final open flow, N/A Mcf/d Final open flow, N/A Bbl/d

Time of open flow between initial and final tests, 1.246 MCEH hours NOV 14 1979

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

[if applicable due to multiple completion--]

Second producing formation NONE Pay zone depth _____ feet

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

PERFORATIONS

15 .50 HOLES 2900' - 2942'

FRACTURING

~~1500 GAL H₂O, 100,000# SAND, 440,000 GAL~~

WELL LOG

FORMATION	Color	Hard or Soft	50 Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
1ST COW RUN	SAND	SOFT	NO RECORD		} NO LOG AVAILABLE AT THIS INTERVAL
2ND COW RUN	SAND	SOFT	"	"	
SALT SAND	SAND	SOFT	"	"	
MAXTON	SAND	SOFT-HARD	1590	1630	
PENCIL CAVE	SHALE	SOFT	1748	1760	
BIG LIME	LIME	HARD	1810	1822	
KEENER	SAND	SOFT	1840	1936	
BIG INJUN	SAND & SHALES	HARD	1980	2102	
SQUAW	SAND	HARD	2112	2126	
WEIR	SAND	HARD	2328	2392	
BEREA	SAND	HARD	2484	2488	
GORDON	SILT-STONE	SOFT	2880	2930	GAS
FIFTH SAND	SHALE	SOFT	NO SHOW		
			2930	3150	TD.

(Attach separate sheets to complete as necessary)

Jim Emes Petroleum Co. Inc.
Well Operator

By James Emes
V.P.

NOTE: Regulation 8.02(f) 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."



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED
APR 25 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 4-19-79

Surface Owner Clair Starkey
Address Sistersville, W. Va.
Mineral Owner Clair Starkey
Address Sistersville, W. Va.
Coal Owner Clair Starkey
Address Sistersville, W. Va.
Coal Operator None
Address _____

Company Emes Petroleum
Address 619 Laconia Bldg., Wheeling, W. Va.
Farm Starkey Acres 174
Location (waters) Badger Run
Well No. 4 Elevation 1087.7
District Lincoln County Tyler
Quadrangle Paden City

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
operations have not commenced by 12-26-79

INSPECTOR
TO BE NOTIFIED Philip Tracy

ADDRESS Middlebourne, W. Va.

Deputy Director - Oil & Gas Division

PHONE 758-4573

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 Oct. 4 19 78 by John Richmond made to James T. Emes and recorded on the 4th day of Oct. 19 78, in Tyler County, Book 217 Page 9

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 COPIES OF ALL
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND
ECONOMIC SURVEY
P. O. BOX 879
MORGANTOWN, WEST VIRGINIA 26505
AC-304 - 292-6331

Very truly yours,

(Sign Name) James T. Emes
Well Operator

Address 619 Laconia Bldg.
of _____
Well Operator _____
City or Town Wheeling
State W. Va.

*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.

CASH DEPOSIT
MAILED BY TREASURER

47-095-0689

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 Little Swiss Drilling NAME C. W. Riggs, Inc.
 ADDRESS Buchannon, W. Va. ADDRESS St. Marys, W. Va.
 TELEPHONE 472-6396 TELEPHONE 684-3974
 ESTIMATED DEPTH OF COMPLETED WELL: 3190' ROTARY X CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Fifth Sand
 TYPE OF WELL: OIL _____ GAS _____ COMB. X STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT (LBS) UP OR SACKS (CUBIC FT)
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8 <u> 250' </u>		<u> 250' </u>	<u> cement top-bottom </u>
7			
5 1/2			
4 1/2			
3		<u> 3190' </u>	<u> 200 sks. </u>
2			Perf. Top
Liners			Perf. Bottom
			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 128 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS _____
 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