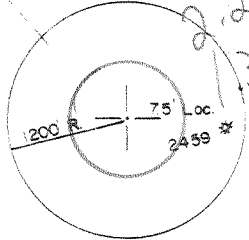
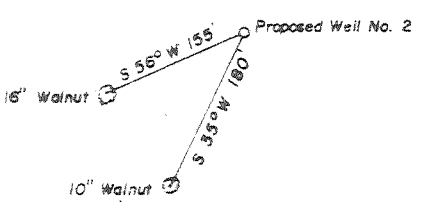


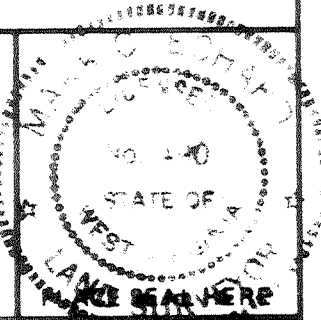
NORTH

WELL REFERENCES



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION Spot Elev. at Road NE of Location, Elev. = 896'

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) Mark C. Echard
 MARK C. ECHARD
 R.P.E. _____ L.L.S. 490



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE JUNE 3 1985
 OPERATOR'S WELL NO. TWO
 API WELL NO. 47-017-3443
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 1090' WATER SHED TOWN CAMP RUN
 DISTRICT COVE 2 COUNTY DODDRIDGE
 QUADRANGLE NEW MILTON 7.5' S11 Vadis 123 WC 4
 SURFACE OWNER HENRY STAARMAN ACREAGE 134.75
 OIL & GAS ROYALTY OWNER HENRY STAARMAN LEASE ACREAGE 134.75
 LEASE NO. _____
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BEREA 765 ESTIMATED DEPTH 2700'
 WELL OPERATOR ROCKWELL PETROLEUM DESIGNATED AGENT MR. MACK R. WORL
 ADDRESS P.O. BOX 179 ADDRESS P.O. BOX 179
GLENVILLE, W.VA. 26351 GLENVILLE, W.VA. 26351

6-6 Leopold (306) (134)

IV-35
(Rev 8-

RECEIVED
NOV 25 1985

DIVISION OF OIL & GAS
DEPT. OF ENERGY



State of West Virginia
Department of Mines
Oil and Gas Division

Date September 9, 1985
Operator's Staarman #2
Well No. Staarman #2
Farm Staarman
API No. 47 - 017 - 3443

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 ___ /)

LOCATION: Elevation: 1090 Watershed Town Camp Run
District: Cove County Doddridge Quadrangle New Milton

COMPANY Rockwell Petroleum Company
ADDRESS P. O. Box 179, Glenville, WV 26351
DESIGNATED AGENT Mack R. Worl
ADDRESS P. O. Box 179, Glenville, WV 26351
SURFACE OWNER Henry Staarman
ADDRESS New Milton, WV
MINERAL RIGHTS OWNER same as surface owner
ADDRESS _____
OIL AND GAS INSPECTOR FOR THIS WORK _____

Mike Underwood ADDRESS Salem, WV
PERMIT ISSUED June 21, 1985
DRILLING COMMENCED June 24, 1985
DRILLING COMPLETED June 27, 1985

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

Casing Tubing Size Cond.	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16			
13-10"			
9 5/8			
8 5/8	1119	1119	300 sacks
7			
5 1/2			
4 1/2		2340	100 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Gantz. Depth 2580 feet
Depth of completed well 2698 feet Rotary X / Cable Tools _____
Water strata depth: Fresh 60 feet; Salt _____ feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Big Injun Pay zone depth 2277 feet
Gas: Initial open flow 100 Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 660 Mcf/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 640 psig (surface measurement) after 12 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

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

1st Zone 2275½ to ^{Injun} 2269½ 8 Holes

2nd Zone 2203½ to ^{Keener} 2206 6 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
Soil & Sand			0	80	Water @ 60' 1" Stream
Sand & Shale			80	1910	
Sand			1910	1950	
Shale			1950	2006	
Sand			2006	2026	
Shale			2026	2088	
Sand			2088	2110	
Shale			2110	2116	
Sand			2116	2132	
Shale			2132	2134'	
Lime (Big)			2134	2190	
Sand (Keener)			2190	2214	
Sand (Big Injun) ^{GER}			2214	2282	Gas @ 2277' 100mcf
Shale			2282	2572	
Sand (Gantz) ✓			2572	2584	
Shale			2584	2698	
Total Depth				<u>2698</u>	

(Attach separate sheets as necessary)

Rockwell Petroleum Company
Well Operator

By: Mark R. Worl

Date: September 9, 1985

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 ~~minerals~~, encountered in the drilling of a well."



1) Date: June 13, 19 85
 2) Operator's Starrman #2
 Well No. _____
 3) API Well No. 47 - 017 - 3443
 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
 B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow)
- 5) LOCATION: Elevation: 1090' Watershed: Town Camp Run
 District: Cove 2 County: Doddridge Quadrangle: New Milton 7.5 370
- 6) WELL OPERATOR Rockwell Petroleum Co. (765) 7) DESIGNATED AGENT Mack R. Worl
 Address P. O. Box 179 Address P. O. Box 179
Glenville, WV 26351 42925 Glenville, WV 26351
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Harold Mike Underwood
 Address Route 2, Box 114
Salem, WV 26426
- 9) DRILLING CONTRACTOR: Name Duckworth Drilling
 Address Gassaway, WV 26624
- 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Berea (395)
- 12) Estimated depth of completed well, 2700 feet
- 13) Approximate trata depths: Fresh, 60 feet; salt, _____ feet.
- 14) Approximate coal seam depths: _____ Is coal being mined in the area? Yes _____ No

15) 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									Sizes
Coal									Depths set
Intermediate	8 5/8	ERW	20	X		500'	500'	150 sacks	Perforations: <u>15.01</u>
Production	4 1/2	J-55	10.5	X			1700'	240 sacks	Top _____ Bottom _____
Tubing									
Liners									

SENSEI

CTS by rule 15.05
 or as required by rule
 15.01

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-017-3443 Date June 21 19 85

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 June 21, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
132	MLB	MM	MM	1481

Margaret J. Hesse
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.