



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 300'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION USGS BM 604'

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) Paul L. Marshall
 R.P.E. _____ L.L.S. 580



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



DATE January 10, 19 83
 OPERATOR'S WELL NO. Pickering #1
 API WELL NO. _____
47 - 107 - 1290
 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 595' WATER SHED POND CREEK
 DISTRICT HARRIS COUNTY WOOD
 QUADRANGLE Pond Creek (7.5') Belleville (15') WC
 SURFACE OWNER Ora Young, Ernestine Young, Katherine Harrison CREAGE 68
 OIL & GAS ROYALTY OWNER Ora Young, Ernestine Young, Kath. Harrison LEASE ACREAGE 68
 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 MARCELLUS SHALE ESTIMATED DEPTH 4450'
 WELL OPERATOR HYDROCARBON INST. DESIGNATED AGENT RAY LOWE
 ADDRESS 324 SECOND STREET, ST. MARYS, W.VA. 26170 ADDRESS 324 SECOND STREET ST. MARYS, W.VA. 26170

OCT 23 1983



IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date 12-1-83
Operator's
Well No. Pickersburg #1
Farm
API No. 47-107-1290

WELL OPERATOR'S REPORT
OF
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: 104' Watershed Pond Creek
District: Harris County Wood Quadrangle Pond Run

COMPANY Hydrocarbon Investments
ADDRESS 45 NORTH RD, Niles, OH 44446
DESIGNATED AGENT Ray Love
ADDRESS Rt. 1 Valley Mills, Pickersburg, WV.
SURFACE OWNER Oru Young
ADDRESS Franklin Co., OH
MINERAL RIGHTS OWNER Oru Young
ADDRESS Franklin Co., OH
OIL AND GAS INSPECTOR FOR THIS WORK Robert
Leather ADDRESS Middlebourne, W.V.
PERMIT ISSUED 10-14-83
DRILLING COMMENCED 10-22-83
DRILLING COMPLETED 10-28-83
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			
8 5/8	272	292	206.5
7			
5 1/2			
4 1/2	1983	1983	147.5
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Berea Depth 1890 feet
Depth of completed well 2013 feet Rotary X / Cable Tools
Water strata depth: Fresh 936 feet; Salt feet
Coal seam depths: Is coal being mined in the area?

OPEN FLOW DATA

Producing formation Berea Pay zone depth 1890 feet
Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow (30) Mcf/d Final open flow (3) Bbl/d
Time of open flow between initial and final tests 48 hours
Static rock pressure 350 psig (surface measurement) after 24 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

MAY 29 1984

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

Perforated Berea from 1890 to 1893 with four .56 dia. holes (Aluminum strip jets)

Berea broke down @ 3000 psig.

Treated @ an average pressure of 1700 psig, average rate of 20 BPM

INITIAL shut in pressure: 540 psig.

5 minute shut in pressure: 490 psig.

Fractured with 53,000 gal. water + 200 SKS. of sand

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
COAL SEAMS			660	678	
			724	734	WET
			838	846	
			926	936	WET
MAXTON			1082	1106	NO SHOW
KEENER			1200	1248	GAS SHOW
BIG INJUN			1270	1325	GAS SHOW
SQUAW			1360	1414	WATER & GAS
<u>BEREA</u>			1890	1893	OIL & GAS
				√2013	TD

(Attach separate sheets as necessary)

Hydrocarbon Investments
Well Operator

By: Richard S. Pluse

Date: 12-1-83

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 ... encountered in the drilling of a well."



1) Date: Oct. 14, 19 83
 2) Operator's Well No. Pickering #1
 3) API Well No. 47 - 107 - 1290
 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: USGA BM 604' Watershed: Pond Creek
 District: Harris County: Wood Quadrangle: Pond Run
 6) WELL OPERATOR Hydrocarbon Investments
 Address 45 N. Road
Niles, Ohio
 7) DESIGNATED AGENT Ray Love
 Address Rt. 1 Valley Mills Circle
Parkersburg, W. Va. 26170
 8) OIL & GAS INSPECTOR TO BE NOTIFIED
 Name Jerry Tephobock
 Address Rt. 1 Box 101-A
Ripley, W. Va. 25271
 9) DRILLING CONTRACTOR:
 Name Adams Well Service
 Address Box 585
Cambridge, Ohio
 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate _____
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____

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 OCT 19 1983

11) GEOLOGICAL TARGET FORMATION, _____
 12) Estimated depth of completed well, 5000 feet
 13) Approximate trata depths: Fresh, 80-120 feet; salt, _____ feet.
 14) Approximate coal seam depths: 1300-1500 Is coal being mined in the area? Yes No _____

OIL & GAS DIVISION
 DEPT. OF MINES

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	Kinds	Sizes
Conductor				<input checked="" type="checkbox"/>		50	0	To Surface	Kinds	
Fresh water										
Coal										
Intermediate	8 5/8		20	<input checked="" type="checkbox"/>		290	290	290		By Rule 15-05
Production	4 1/2		10.5	<input checked="" type="checkbox"/>		4995	4985	470 SKS		Depths set OR AS REQ by Rule 15-01
Tubing										
Liners										
									Perforations:	
									Top	Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1290 Date October 19, 19 83

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 October 19, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>CASH</u>	Agent: <u>[Signature]</u>	Plat: <u>[Signature]</u>	Casing: <u>[Signature]</u>	Fee: <u>104</u>
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Margaret J. Hesse
 Administrator, Office of Oil and Gas