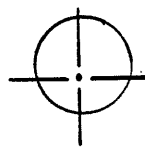


Plot Card CSD

LATITUDE 39° 20' 00"



4.11W
0225
88W

W. VA. ROUTE #2

ANDERSON

COOPER

JOHNSON

MIRACLE

BROOKOVER
13.5 AC.

EL. 680'
CARPENTER
RUN

107-435

P. STONE

P. STONE

WINGROVE

• = OLD WELL

S 2° W - 6204.00'

N 22° E - 3780'

N 6° 52' W - 3162'

N 2° E - 2138'

N 78° 30' E - 1831.50'

LONGITUDE 81° 22' 30"

NORTH

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. 84-65
DRAWING NO. _____
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY 1/200'
PROVEN SOURCE OF ELEVATION B.M. - RT. 31 (792')

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) [Signature]
R.P.E. 3788 L.L.S. _____



PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE 2/14, 19 84
OPERATOR'S WELL NO. 1
API WELL NO. _____

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
(IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
LOCATION: ELEVATION 680' WATER SHED CARPENTERS RUN
DISTRICT UNION COUNTY WOOD
QUADRANGLE: VALLEY MILLS 7.8' 680 Marquette S.C.
SURFACE OWNER L BROOKOVER ACREAGE 13.5
OIL & GAS ROYALTY OWNER M. INGRAM HEIRS LEASE ACREAGE 217

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 FIFTH ESTIMATED DEPTH 2900'
WELL OPERATOR MOTOR FUELS CORP. 690 DESIGNATED AGENT JOHN BROOKOVER
ADDRESS 316 W SECOND ST. 210 ADDRESS RT. 1, COOPER RIDGE
SALT LAKE CITY, UTAH 84111 WILLIAMSTOWN, WV 26187

MAR 19 1984

FORM IV-6 (8-78)

COUNTY NAME PERMIT

6-6 Waverlu (71)



WR-35
RECEIVED
 JUL 18 383
 OIL & GAS DIVISION
 DEPT. OF MINES

State of West Virginia
 DEPARTMENT OF ENERGY
 Oil and Gas Division

Date 7-12-85
 Operator's
 Well No. 1
 Farm Ingraham Heirs
 API No. 47-107-1307

WELL OPERATOR'S REPORT
 OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 685 KB ✓ Watershed Carpenter Run
 District: Union County Wood Quadrangle Valley Mill

COMPANY Carl Heinrich
 ADDRESS Box 305, Reno, OH 45773
 DESIGNATED AGENT John S. Bailey
 ADDRESS 601 Avery St., Parkersburg, WV 26102
 SURFACE OWNER L. Brookover
 ADDRESS Williamstown, WV
 MINERAL RIGHTS OWNER Melvin Ingraham Heirs
 ADDRESS Loveland, Colorado
 OIL AND GAS INSPECTOR FOR THIS WORK Glen Robinson ADDRESS Mineral Wells
 PERMIT ISSUED 3-12-84
 DRILLING COMMENCED 4-3-84
 DRILLING COMPLETED 4-11-84
 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			
7	161'	161'	27sks
5 1/2			
4 1/2	2406'	2406'	
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Devonian Shale Depth 2406' feet
 Depth of completed well 2406 feet Rotary X / Cable Tools
 Water strata depth: Fresh None feet; Salt None feet
 Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Berea & Devonian Sh. Pay zone depth 1992 - 1996 feet
2354 - 2360
 Gas: Initial open flow 163 Mcf/d Oil: Initial open flow 0 Bbl/d
 Final open flow 163 Mcf/d Final open flow 0 Bbl/d
 Time of open flow between initial and final tests 1 hours
 Static rock pressure 520 psig (surface measurement) after 90+ 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

(Continue on reverse side)

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

Perforated: Berea 1992 - 1996' (16 holes) and Gordon 2352 - 2360 (20 holes)

Fracced: 381 bbl wtr. 756 MSCF of N₂ and 70,000# sand (2 stage foam frac)

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Shale and red rock			0	440	
Sand			440	456	
Shale			456	758	
Sand (Cow Run)			758	780	Oil show
Shale			780	860	
Sand			860	910	
Shale and slate			910	940	
Sand			940	965	
Shale			965	994	
Sand			994	1034	
Shale			1034	1074	
Sand and shale			1074	1140	
Shale			1140	1190	
Sand			1190	1225	
Shale			1225	1345	
Sand			1345	1460	
Shale			1460	1514	
Sand			1514	1620	
Shale			1620	1964	
Coffee Shale			1964	1990	
Berea			1990	1994	
Shale			1994	2338	
Sandy shale (Gordon)			2338	2366	Oil and gas show
Shale			2366	T.D.	
T.D.					

Up, Dev and diff @ T.D.

(2406)

(Attach separate sheets as necessary)

Carl Hennel
Well Operator

By: _____

Date: 12 Jul 85

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."



1) Date: February 27, 19 84
 2) Operator's Well No. 1 107
 3) API Well No. 47 - 107 - 1307
 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: 680' Watershed: _____
 District: Union County: Wood Quadrangle: Valley Mills 7.5'
 6) WELL OPERATOR Motor Fuels, Inc. 7) DESIGNATED AGENT John Brookover
 Address: 316 West 2nd South Address Rt. 1, Cooper Ridge
Salt Lake City, UT 84111 Williamstown, W.V. 26187
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Glen Robinson Name Rainbow Drilling
 Address XXXXXXXXXXXX Rt1, #6, Mt. Pleasant Address P. O. Box 102
Whipple, OH 489-9162
 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate
 Plug off old formation _____ / Perforate new formation _____
 Other physical change in well (specify) _____

RECEIVED
 MAR 9 - 1984

11) GEOLOGICAL TARGET FORMATION, DEPTH BEREIA
 12) Estimated depth of completed well, 2980 1820 feet
 13) Approximate strata depths: Fresh, _____ feet; salt, _____ feet.
 14) Approximate coal seam depths: n/a 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										
Fresh water	<u>7"</u>			<input checked="" type="checkbox"/>		<u>150'</u>	<u>150 ft.</u>	<u>CTS-NEAT</u>		
Coal										
Intermediate										
Production	<u>4 1/2"</u>			<input checked="" type="checkbox"/>		<u>1820</u>	<u>1820'</u>	<u>to cover 300' sand</u>		
Tubing										
Liners										

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-107-1307 Date March 12, 19 84

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 March 12, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>CB</u>	Agent: <input checked="" type="checkbox"/>	Plat: <input checked="" type="checkbox"/>	Casing <u>MH</u>	Fee <u>006 + 105</u>
-----------------	--	---	------------------	----------------------

[Signature]
 Administrator, Office of Oil and Gas

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