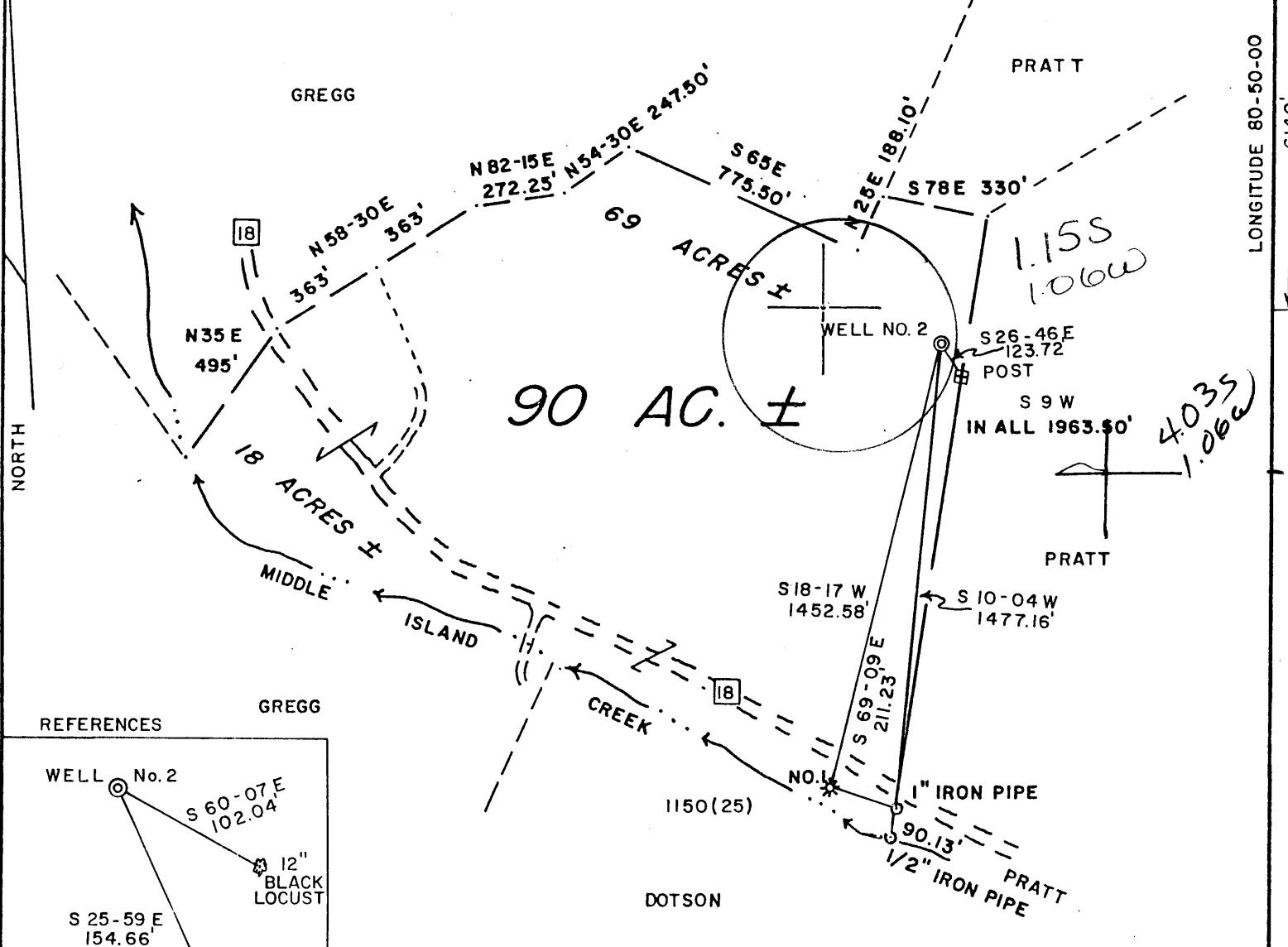


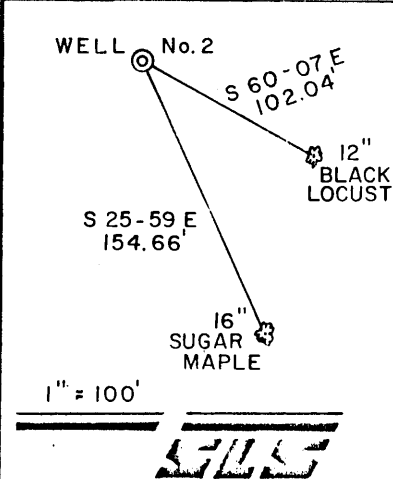
5690
39 25

IRELAND LEASE

6/3/87



REFERENCES

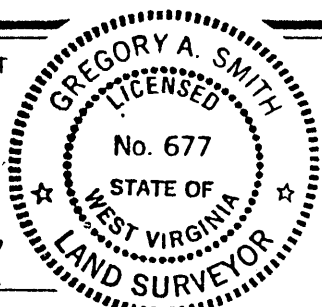


NOTE: ALL PERMITTED WELLS SHOWN WITHIN 1500'

WELL NO. 3

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 ENERGY.

L.L.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE MAY 29, 19 87
 OPERATORS WELL NO. IRELAND NO. 3
 API WELL NO. 47 - 095 - 1195
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 22 - 16 1469
 PROVEN SOURCE OF ELEVATION BM. ELEV. = 737' SCALE 1" = 500'

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 923' WATERSHED MIDDLE ISLAND CREEK

DISTRICT CENTERVILLE 1 COUNTY TYLER QUADRANGLE WEST UNION 7.5' 671

SURFACE OWNER MILDRED GREGG ET AL. ACREAGE 90 133
 ROYALTY OWNER MILDRED GREGG ET AL. LEASE ACREAGE 90 C

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION BENSON
 ESTIMATED DEPTH JUN 08 1987

WELL OPERATOR ANVIL OIL CO., INC. 0048 DESIGNATED AGENT JUSTIN HENDERSON
 ADDRESS P.O. BOX 2566, CLARKSBURG, WV. 26301 ADDRESS P.O. BOX 2566, CLARKSBURG, WV. 26301

COUNTY NAME PERMIT

66 Wilbur (92)



IV-35
(Rev 8-81)

Date 6-15-87
Operator's
Well No. Gregg #3
Farm _____
API No. 47 - 095 - 1195

RECEIVED State of West Virginia
DEC 08 1987 Department of Mines
Oil and Gas Division

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: 923 Watershed Middle Island Creek
District: Centerville County Tyler Quadrangle West Union

COMPANY Anvil Oil Co Inc
ADDRESS P.O. Box 2566 Clarksburg WV
DESIGNATED AGENT Justin Henderson
ADDRESS P.O. Box 2566 Clarksburg WV
SURFACE OWNER Milderd Gregg
ADDRESS Alma WV
MINERAL RIGHTS OWNER Milderd Gregg
ADDRESS Alma Gregg
OIL AND GAS INSPECTOR FOR THIS WORK _____
Job Lowther ADDRESS Middlebourne WV
PERMIT ISSUED _____
DRILLING COMMENCED 6-5-87
DRILLING COMPLETED 6-11-87
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 | 1050 | 1050 | 265 sks |
| 7 | | | |
| 5 1/2 | | | |
| 4 1/2 | 4890 | 4890 | 235 sks |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

GEOLOGICAL TARGET FORMATION Benson Depth 4800 feet
Depth of completed well 5578 feet Rotary XX / Cable Tools _____
Water strata depth: Fresh 105 feet; Salt 1380 feet
Coal seam depths: _____ Is coal being mined in the area? XX

OPEN FLOW DATA
Producing formation Benson Pay zone depth 4806-4818 feet
Gas: Initial open flow 152 Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow (2803) Mcf/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1650 psig (surface measurement) after 36 hours shut in
(If applicable due to multiple completion--)
Second producing formation Riley Pay zone depth 4400-4428 feet
Gas: Initial open flow as above Mcf/d Oil: Initial open flow 0 Bbl/d
Final open flow as above Mcf/d Oil: Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 1650 psig (surface measurement) after 36 hours shut in

(Continue on reverse side)

DEC 14 1987

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

Perforate Benson 4808-14 with 14 holes. Frac with 500 gal acid
150,000 scf N₂ 400 sks sd

Perforate Riley 4406-4436 with 14 holes Frac with 250 gal acid
150,000 scf N₂ 350 sks sd

WELL LOG

| FORMATION | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS | | |
|-----------|-------|--------------|----------|-------------|---|------|-------|
| | | | | | Including indication of all fresh and salt water, coal, oil and gas | | |
| dir | | | 0 | 20 | h2O | 105' | 1380' |
| sd | | | 20 | 70 | | | |
| rr | | | 70 | 75 | | | |
| sd | | | 75 | 300 | | | |
| sh | | | 300 | 1730 | | | |
| lime | | | 1730 | 1820 | | | |
| sd | | | 1820 | 1950 | gas | 1975 | |
| sh | | | 1950 | 2125 | | | |
| sd | | | 2125 | 2230 | | | |
| sh | | | 2230 | 2315 | E-Log tops | | |
| sd | | | 2315 | 2320 | Big Lime 1730 | | |
| sh | | | 2320 | 4160 | G-Brier Injun 1820 | | |
| sd | | | 4160 | 4174 | Pocono | 1902 | |
| sh | | | 4174 | 5578 ✓ | Weir | 2121 | |
| | | | | TD | Berea | 2324 | |
| | | | | 437 | Riley | 4388 | |
| | | | | | ✓ Benson | 4809 | |

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DEC 08 1987

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Annex Oil Co. Inc.
Well Operator
By: James W. Kernal
Date: 6-17-87

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."
1375



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1) Date: May 28, 1987
 2) Operator's Well No. Gregg #3
 3) API Well No. 47 State 095 County 1195 Permit

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

- 4) WELL TYPE: A Oil / Gas X /
 B (If "Gas", Production X / Underground storage / Deep / Shallow X /)
- 5) LOCATION: Elevation: 923' Watershed: Middle Island Creek
 District: Centerville 1 County: Tyler 095 Quadrangle: West Union 670
- 6) WELL OPERATOR Amvil Oil CODE: 2275 7) DESIGNATED AGENT Justin Henderson
 Address Box 2566 Address P.O. Box 2566
Clarksburg WV V Clarksburg WV
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED Name Bob Lowther
 Address General Delivery
Middlebourne WV
- 9) DRILLING CONTRACTOR: Name
 Address
- 10) PROPOSED WELL WORK: Drill X / Drill deeper / Redrill / Stimulate X /
 Plug off old formation / Perforate new formation
 Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Benson
- 12) Estimated depth of completed well, 5200 feet
- 13) Approximate strata depths: Fresh, feet; salt, feet.
- 14) Approximate coal seam depths: Is coal being mined in the area? Yes / No X

15) CASING AND TUBING PROGRAM

| CASING OR TUBING TYPE | Size | SPECIFICATIONS | | | FOOTAGE INTERVALS | | CEMENT FILL-UP OR SACKS (Cubic feet) | PACKERS |
|-----------------------|-------|----------------|----------------|-----|-------------------|---------------|--------------------------------------|--|
| | | Grade | Weight per ft. | New | Used | For drilling | | |
| Conductor | 1 3/4 | | | | | 65 | 65 | cts |
| Fresh water | | | | | | 200' | 200' | cts by rule 15.05 |
| Coal | | | | | | | | Sizes |
| Intermediate | 3 5/8 | | | X | | 1000 | 1000 | cts by rule 15.05 |
| Production | 4 1/2 | | | X | | 5150 | 5150 | cts by rule 15.05 |
| Tubing | | | | | | | | Depth - 500 sks or as required by rule 15.05 |
| Lin. | | | | | | | | Perforation |
| | | | | | | | | Top Bottom |

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-095-1195 Date June 3 19 87

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 3, 1989 unless well work is commenced prior to that date and prosecuted with due diligence.

| | | | | | | | |
|---|--|---|-------------------|------------------|-----------------|----------------|----------------------|
| Bond: <input checked="" type="checkbox"/> | Agent: <input checked="" type="checkbox"/> | Plat: <input checked="" type="checkbox"/> | Casing: <u>MN</u> | Fee: <u>2200</u> | WPCP: <u>MN</u> | S&E: <u>MN</u> | Other: <u> </u> |
|---|--|---|-------------------|------------------|-----------------|----------------|----------------------|

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

Justin Henderson
 Director, Division of Oil and Gas File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

10233