



IV-35
(Rev 8-81)

Date 1-26-82
Operator's _____
Well No. 1
Farm North Hills Group, Inc
API No. 47-019-0460

State of West Virginia
Department of Mines
Oil and Gas Division

FEB 02 1982
W.V. OIL & GAS
CONSERVATION COMMISSION

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: 1989.95' Watershed Wolf Creek of New River
District: New Haven County Fayette Quadrangle 75' Beckwith-
15' Fayetteville

COMPANY Amoco Production Company

ADDRESS P. O. Box 1350, Traverse City, MI 49684

DESIGNATED AGENT M. J. Root
c/o Chamberlaine & Flowers, Inc.

ADDRESS 128 W. 2nd St., Clarksburg, WV 26301

SURFACE OWNER North Hills Group, Inc.

c/o R. E. Kelly, Jr.
ADDRESS 114 E. Main St., Oak Hill, WV 25901

MINERAL RIGHTS OWNER North Hills Group, Inc.

ADDRESS Same as above

OIL AND GAS INSPECTOR FOR THIS WORK Deo

Mace ADDRESS Rt. 1, Box 65, Sand Ridge,
WV 25274

PERMIT ISSUED 5-29-81

DRILLING COMMENCED 9-23-81

DRILLING COMPLETED 10-8-81

Well Completed 10-30-81
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 Cord. | | | |
| 13-10" | 140' | | 130 SX |
| 9 5/8 | 648' | | 247 SX |
| 8 5/8 | | | |
| 7 | 1853' | | 215 SX |
| 5 1/2 | | | |
| 4 1/2 | 3248' | | 94 SX |
| 3 | | | |
| 2 | | | |
| Liners used | | | |

Top o
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at
surfac
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at 165
(insid
7")

GEOLOGICAL TARGET FORMATION Berea Depth 3250 feet

Depth of completed well 3248 feet Rotary X / Cable Tools _____

Water strata depth: Fresh _____ feet; Salt _____ feet

Coal seam depths: 700' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Weir Pay zone depth 2636-2684 feet
Berea 2016

Gas: Initial open flow 360 Mcf/d Oil: Initial open flow - Bbl/d

Final open flow 360 Mcf/d Final open flow - Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 724 psig (Bottom-hole surface measurement) after 1 month hours shut in

(If applicable due to multiple completion--)

Second producing formation None 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)

NOV 15 1982

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

Perforations: 2636 - 2646', 2672 - 2684'
 Stimulating: 1000 gal. 15% HCL
 Fracturing: 590 bbls with 15,000 # 80/100 mesh
 75,000 # 20/40 mesh

WELL LOG

| FORMATION COLOR HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS |
|---|----------|-------------|---|
| | | | Including indication of all fresh and salt water, coal, oil and gas |
| No Description Given | 0 | 140 | Water at 60' |
| Sandst.-white-crs grain-Tr.Sh. | 140 | 160 | |
| Sandst.-Sltstone-coal-40-59-3% | 160 | 200 | 1" Water at 180' |
| Sandst-White-V. crs-Non-calc. | 200 | 220 | |
| Sandst 50%-Slt-30%-Sh-20%-Non-calc. | 220 | 240 | |
| Sandst-White-med grain | 240 | 340 | |
| Sh-80%-Ss-20%-gry-blk | 340 | 360 | |
| Ss-70%-Sh-30%-wht-lt.gr-Non-calc | 360 | 550 | |
| Ss-wht-med gr. Tr. Sh. | 550 | 560 | |
| Sh-Blk dense-80%-Ss-20% | 560 | 580 | |
| Ss.-wht-lt.gray-Fine med grain | 580 | 600 | |
| No Description Given-Hit aband coal mine | 600 | 650 | |
| Shale-drk gr-Blk-Tr. Ss.-2% | 650 | 680 | |
| Ss w/increas. Sh to 100%-fine grain | 680 | 820 | Damp hole at 705' |
| Shale-drk. gray-Tr. coal | 820 | 840 | |
| No Description Given | 840 | 860 | |
| Shale-drk gry-Increas. Tr. Sandstone | 860 | 960 | |
| Sandstone-white-med. grain-Tr. Shale | 960 | 1090 | 1/8" water at 1022' |
| Shale-drk gray-med grain-Increas Tr.Slt | 1090 | 1140 | |
| Shale-60%-Slt-40%-red-Slight calc. | 1140 | 1180 | |
| No Description Given-poor returns | 1180 | 1230 | |
| Sltst-med gray-slightly coarser-Tr.calc. | 1230 | 1270 | |
| Sh & Sltst-med gray-Tr. calc | 1270 | 1330 | |
| Sltst-lt. med. gray-Non-calc | 1330 | 1510 | |
| Sandst.-Shale layer intermixed Tr. calc. | 1510 | 1580 | Ravencliff (1500') |
| Shale-red-Tr. Slt. mudstone | 1580 | 1640 | |
| Sh w/20% Ss. decreas. Ss. Tr. Calc. | 1640 | 1750 | |
| Ss w/increase of Ss. lt.gr to white-fine gr. | 1750 | 1780 | |
| Shale-Med-lt. gray to red-Tr. Slt-Tr. calc. | 1780 | 1830 | |
| Ss. lt gray-v. fine grain | 1830 | 1870 | |
| Sh-red to gray-increas. slt-Non-calc. | 1870 | 2040 | |
| Shale & Sandst layer mixed-gray to white-fine grain | 2040 | 2110 | |
| Sandst w/slight St. layer-lt. gray-saturated | 2110 | 2580 | Pencil Caye (2193') |
| Sltst/Shale-red ang. | 2580 | 2630 | Greenbrier (2230') MacCrary (2540') |

(Attach separate sheets as necessary)

Well Operator _____

By: _____

Date: _____

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..."

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

RECEIVED

FEB 02 1982

OIL & GAS
CONSERVATION COMMISSION

WELL LOG

| FORMATION | COLOR | HARD OR SOFT | TOP FEET | BOTTOM FEET | REMARKS Including indication of all fresh and salt water, coal, oil and gas |
|----------------------|----------------|----------------------|----------|----------------|--|
| Ss. white-V. | Lt gray-V. | fine grain-Vry clear | 2630 | 2710 | Weier (2616') |
| Sltst-lt. | med gray- | very fine grain | 2710 | 2734 | Sunbury (2700') |
| Shale-med | gray-varying | Slt. Tr. mica | 2734 | 3130 | |
| Sandstone-v. | fine grain-tr. | mica-occ. | 3130 | 3150 | <u>Berea (3064')</u> |
| Shale | | | | | |
| Sltst-lt. | med gray- | ang. | 3150 | 3249 | |
| No Description Given | | | 3249 | <u>3260 TD</u> | |

(Attach separate sheets as necessary)

Amoco Production Company
Well Operator

By: J. F. Trickett

J. F. Trickett
Dist. Supt.

Date: January 26, 1982

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."

NOV 15 1982

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. One

API Well No. 47 - 019 - 0460
State County Permit

WELL TYPE: Oil / Gas /

(If "Gas", Production / Underground storage / Deep / Shallow /)

LOCATION: Elevation: 1989.95' Watershed: Wolf Creek of New River
District: New Haven County: Fayette Quadrangle: 7.5' Beckwith/15' Fayetteville

WELL OPERATOR Amoco Production Company
Address P. O. Box 1350
Traverse City, MI 49684

DESIGNATED AGENT M. J. Root
Address Chamberlaine & Flowers, Inc.
128 W. Second Street
Clarksburg, W. Virginia 26301

OIL & GAS ROYALTY OWNER North Hills Group, Inc.
Address c/o R. E. Kelly, Jr.
114 E. Main Street
Oak Hill, W. Virginia 25901

COAL OPERATOR
Address

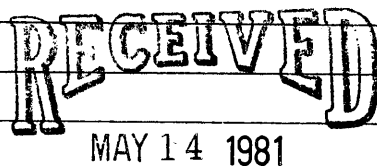
SURFACE OWNER North Hills Group, Inc.
Address c/o R. E. Kelly, Jr.
114 E. Main Street
Oak Hill, W. Virginia 25901
Acreage 2,381.65

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name New River Company
Address c/o E. V. Bowman, President
Mt. Hope, W. Virginia 25880
Name
Address

FIELD SALE (IF MADE) TO:
Name
Address

COAL LESSEE WITH DECLARATION ON RECORD:
Name
Address

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Leroy Hopkins
Address General Delivery
Ansted, West Virginia 25812



OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes on the above location under a deed / lease / other contract / dated _____, 19____, to the undersigned well operator from (See attachment)

[If said deed, lease, or other contract has been recorded:]

Recorded on _____, 19____, in the office of the Clerk of the County Commission of _____ County, West Virginia, in _____ Book _____ at page _____. A permit is requested as follows:

PROPOSED WORK: Drill / Drill deeper / Redrill / Fracture or stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code § 22-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (208) 252-2000

Amoco Production Company
Well Operator
By J.F. Trickett
District Superintendent

STAMPED BOND

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-30 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) (Unknown at this time)

Address _____

GEOLOGICAL TARGET FORMATION, Berea

Estimated depth of completed well, 3100 feet Rotary / Cable tools _____ /

Approximate water strata depths: Fresh, _____ feet; salt, _____ feet.

Approximate coal seam depths: 700' Is coal being mined in the area? Yes _____ / No /

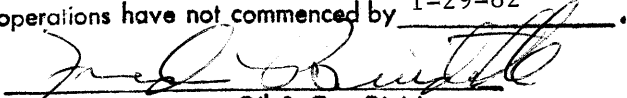
CASING AND TUBING PROGRAM

| 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 | 16 | B | 62 | X | | 0 - 50' | | ≈ 20 cu ft (CTS) | Kinds |
| Fresh water | 11 3/4 | 11-40 | 42 | X | | 0 - 150' | | ≈ 65 cu ft (CTS) | |
| Coal | | | | | | | | | Sizes |
| Intermediate | 8 5/8 | K-55 | 24# | X | | 0 - 1000' | | ≈ 210 cu ft (CTS) | |
| Production | 4 1/2 | N-80 | 11.6# | X | | 0 - 3150' | | ≈ 265 cu ft (2000') | Depths set |
| Tubing | | | | | | | | | |
| Liners | | | | | | | | | Perforations: |
| | | | | | | | | | Top Bottom |

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-4a from the owner of any water well or dwelling within 200 feet of the proposed well.

THIS PERMIT MUST BE POSTED AT THE WELL SITE where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith. All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved

for drilling. This permit shall expire if operations have not commenced by 1-29-82.


Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator _____ / owner _____ / lessee _____ / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____, 19____

By _____
Its _____