



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

August 26, 2008

WELL WORK PERMIT

New Well

This permit, API Well Number: 47-8509757, issued to UNKNOWN - DEP PAID PLUGGING CONTRACT, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, well operators report of well work, is to be submitted to this office within 90 days of completion of drilling, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: IRELAND 1
Farm Name: IRELAND, WOODY
API Well Number: 47-8509757
Permit Type: New Well
Date Issued: 08/26/2008

Promoting a healthy environment.

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil X / Gas _____ / Liquid injection _____ / Waste disposal _____ /
(If "Gas, Production _____ or Underground storage _____) Deep _____ / Shallow x
- 5) Location: Elevation 770 _____ Watershed South Fork of Hughes River
District Union _____ County Ritchie _____ Quadrangle Pullman
- 6) Well Operator WV DEP Plugging _____ 7) Designated Agent James Martin _____
Address 601 56th Street _____ Address Same _____
Charleston, WV 25304 _____
- 8) Oil and Gas Inspector to be notified _____ 9) Plugging Contractor _____
Name David Cowen _____ Name _____
Address Route 2, Box 202 _____ Address _____
Harrisville, WV 26362 _____

10) Work Order: The work order for the manner of plugging this well is as follows:

Rig up
Clean out from surface to 1st. plug down hole @ 250'
Run 2 3/8" tubing to 250', gel the hole
Cement from 250' to the surface
Erect a monument with the API number attached

Note:
Well is an existing safety problem due to open hole at the surface.
Well does not have any leaks to the surface.
No records available for the well. Existing plats from wells in the area
Show the well being plugged. We will clean out to the 1st. existing plug and
Plug from there to the surface.

OFFICE USE ONLY

PLUGGING PERMIT

Permit Number _____ Date _____, 19 _____

This permit covering the well and well location shown below is evidence of permission granted to plug 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 24 Hours before actual permitted work has commenced.

The permitted work is as described in the Notice and Application, plat, subject to any modifications and conditions on the reverse hereof.

Permit expires _____ unless plugging is commenced prior to that date and prosecuted with due diligence.

Bond: _____ Agent: _____ Plat: _____ Casing: _____ WPCP: _____ Other: _____

Chief, Office of Oil and Gas

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

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

**STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE**

Operator Name WV DEP Plugging OP Code _____

Watershed South Fork of the Hughes River Quadrangle Pullman

Elevation 770 County Ritchie District Union

Description of anticipated Pit Waste: Plugging Fluid

Will a synthetic liner be used in the pit? Yes

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on June 14, 1994, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature _____

Company Official (Typed Name) James Martin

Company Official Title Agent

Subscribed and sworn before me this _____ day of _____, 19____

Notary Public

My commission expires _____

LEGEND

| | |
|-------------------|--|
| Property Boundary | Diversion |
| Road | Spring |
| Existing Fence | Wet Spot |
| Planned Fence | Drain Pipe with size in inches |
| Stream | Waterway |
| Open Ditch | Cross Drain |
| Rock | Artificial Filter Strip |
| North | Pit: cut walls |
| Buildings | Pit: compacted fill walls |
| Water wells | Area for Land Application of Pit Waste |
| Drill site | |

Proposed Revegetation Treatment: Acres Disturbed 1 Prevegetation pH

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre

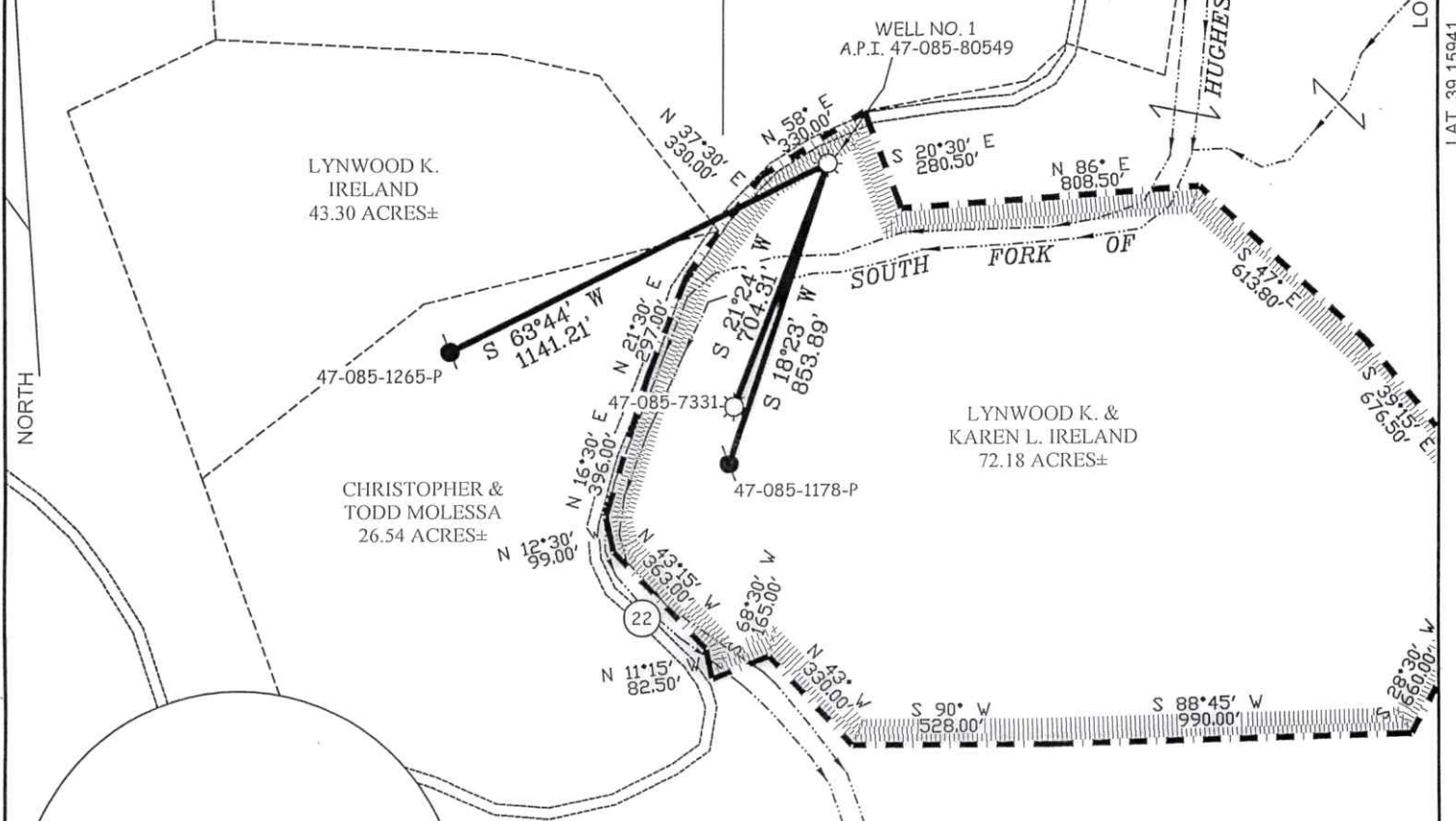
Seed Mixtures

| Area I | | Area II | |
|-------------------|---------------|-------------------|---------------|
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| <u> Ky. 31 </u> | <u> 50 </u> | <u> Ky. 31 </u> | <u> 50 </u> |
| <u> Clover </u> | <u> 5 </u> | <u> Clover </u> | <u> 5 </u> |
| _____ | _____ | _____ | _____ |

Attach:
Drawing(s) of road, location, pit and proposed area for land application.
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Rod Dillon
Title: Inspector Date: 8/18/08
Field Reviewed? Yes No

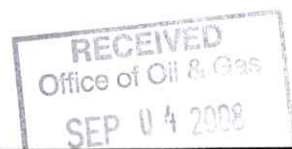
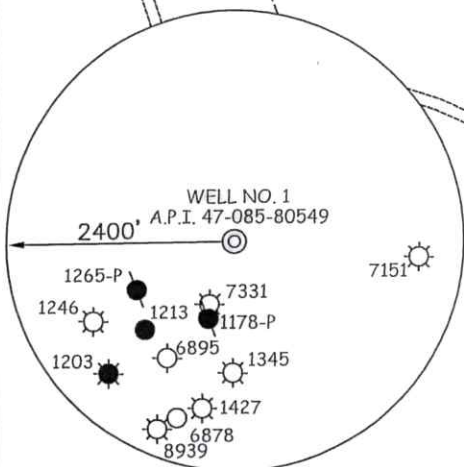
IRELAND LEASE 72.18 ACRES± WELL NO. 1 A.P.I. 47-085-80549



NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 218 PAGE 365.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF RITCHIE COUNTY IN JULY, 2008.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

WELL NO. 1
A.P.I. 47-085-80549
STATE PLANE
COORDINATES
(N) 243,274
(E) 1,602,337



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677

Gregory A. Smith



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

DATE SEPTEMBER 02, 20 08

OPERATORS WELL NO. IRELAND #1

API WELL NO. 47 - 085 - 09757
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 6942P1 (265-79)
PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 500'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 773' WATERSHED SOUTH FORK OF HUGHES RIVER
DISTRICT UNION COUNTY RITCHIE QUADRANGLE PULLMAN 7.5'

SURFACE OWNER LYNWOOD K. & KAREN L. IRELAND ACREAGE 72.18±
ROYALTY OWNER _____ LEASE ACREAGE _____
PROPOSED WORK: LEASE NO. _____
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 _____
ESTIMATED DEPTH _____

WELL OPERATOR WVDEP OFFICE OF OIL & GAS DESIGNATED AGENT DAVE BELCHER
ADDRESS 601 57TH STREET ADDRESS 601 57TH STREET
CHARLESTON, WV 25301 CHARLESTON, WV 25301

COUNTY NAME
PERMIT

STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

WEEKLY REPORT

NAME: Rodney Dillon ENVIRONMENTAL INSPECTOR

WEEK ENDING FRIDAY

DATE 9/26/08

ACTIVITIES

SATURDAY

DATE 9/20/08
 HRS 0

SUNDAY

DATE 9/21/08
 HRS 0

MONDAY

DATE 9/22/08
 HRS 14

TUESDAY

DATE 9/26/08
 HRS 14

WEDNESDAY

DATE 9/24/08
 HRS 14

THURSDAY

DATE 9/25/08
 HRS 6

FRIDAY

DATE 9/26/08
 HRS 14

| | | |
|---|--|-------------------------------------|
| Ireland # 1 | | Ritchie County |
| Build access road, & well site. Remove concrete from over the well. Remove large rocks from the well bore. Run 20' of 8" casing into the well for conductor pipe. | | |
| Rig up the rig. Run in the hole w/the 6" cherry picker. Unable to pick anything. | | |
| Run in with the 6" bit clean out from 20' to 35' Run 13' more of 8 5/8" | | |
| Daily Cost Ireland # 1 \$ 3,555.00 | | Total Cost Ireland # 1 \$ 5,175.00 |
| Ireland # 1 | | Ritchie County |
| Run in with the 6" bit clean out from 35' to 47' Run 14' more of 8 5/8" total of 47'. | | |
| Run in w/the 8" cherry picker pick out wood, rock, and mud drill from 47' to 350' | | |
| Daily Cost Ireland # 1 \$ 3,238.50 | | Total Cost Ireland # 1 \$ 8,413.50 |
| Ireland # 1 | | Ritchie County |
| Reset the stinger, string up the 6" drill bit. Go in the hole to 317' clean out from 317' to 350'. Drill on cavings, and wood at 350' Clean off all wood, and cavings. Drill and pick up a cement sample at 350'. | | |
| Daily Cost Ireland # 1 \$ 3,032.00 | | Total Cost Ireland # 1 \$ 11,455.50 |
| Ireland # 1 | | Ritchie County |
| Office working on paper work for the Prickett # 1 well in Tyler Co. | | |
| Crew gathered cement & pipe | | |
| Daily Cost Ireland # 1 \$ 460.00 | | Total Cost Ireland # 1 \$ 11,915.50 |
| Ireland # 1 | | Ritchie County |
| Haul in cement. Run tubing to 350', Cement from 350' to 250', 100' to surface. | | |
| Erect a monument. Load up plugging fluid, haul away to disposal. Rig down rig, & equipment move off the site. | | |
| Daily Cost Ireland # 1 \$ 8,503.00 | | Total Cost Ireland # 1 \$ 20,418.50 |

TOTAL HRS FOR WEEK

62

WEEKLY RIG COUNT AND SUMMARY

| | | |
|-----|----------|------------------------|
| API | OPERATOR | CONTRACTOR AND RIG NO. |
| | | |
| | | |

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

I, the undersigned, have been notified by a representative from the West Virginia Department of Environmental Protection (WVDEP), Office of Oil and Gas, of an abandoned well(s) and/or tank(s) on or adjacent to my property.

This well(s) and/or tank(s) is considered a potential hazard or imminent danger, or a possible pollutant to the surface or underground, or is wasting natural resources (leaking) and must be properly plugged or cleaned out and replugged.

I hereby give the State of West Virginia permission to have a responsible contractor enter upon or traverse my property for the purpose of plugging this well(s) and/or remove tank(s).

Permit No. (if known) 47-085-80549 Well No. (if known) Ireland #1
Farm Name Ireland County Pitchie
District Union Waters of South Fork of Hughes

The contractor will properly plug the above named well(s), remove all material from the well location and reclaim, seed and mulch the well location and well road accesses used to state specifications. The plugging and reclamation shall be supervised by the WVDEP.

Owner Name L. K. Ireland Owner Signature [Signature]
Owner Address Route 1, Box 39
Pullman, WV 26401 Witness Rod Dillon
Date 8-20-08

Please Return To: WVDEP - OFFICE OF OIL AND GAS
Rodney Dillon
601 57th Street
Charleston, WV 25304



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Joe Manchin III, Governor
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www.wvdep.org

October 06, 2008

FINAL INSPECTION REPORT

WELL PLUGGING PERMIT RELEASED

UNKNOWN - DEP PAID PLUGGING CONTRACT,

The FINAL INSPECTION REPORT for the permit, API Well Number: 47-8509757, issued to UNKNOWN - DEP PAID PLUGGING CONTRACT, and listed below has been received in this office.

Your Affidavit of Plugging was received and reclamation requirements approved. The well designated by the permit number below has been released under your bond.

James Martin
Chief

Operator: UNKNOWN - DEP PAID PLUGGING CONT
Operator's Well No: IRELAND 1
Farm Name: IRELAND, WOODY
API Well Number: 47-8509757
Date Issued: 08/26/2008
Date Released: 10/06/2008

Promoting a healthy environment.



west virginia department of environmental protection

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601 57th Street
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WD-8

September 1, 2008

Mr. Robert Wharton
Ross and Wharton Gas Co. Inc.
Route 5 Box 29
Buckhannon, WV 26201

Dear Mr. Wharton

Please provide to us within the next 5 days a cost proposal for the work described below, based on prices contained in your contract DEP14221C with the Office of Oil and Gas.

Location of Project: Ireland # 1 Well in Ritchie County, West Virginia.

Specific Problem: Clean out existing open well, and plug to the surface. Existing well is a safety threat to the public.

Work Performed: Provide labor, equipment and materials plugging, and reclamation of the above well.

Time Frame: Work should begin on or before October 15, 2008, and should be completed by November 30, 2008

If you have any questions regarding this work directive, please contact Rodney Dillon at 926-0499 ext. 1648 or by cell phone 304-389-7583.

Sincerely,

James Martin
Chief



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street
Charleston, WV 25304
(304) 926-0450

Joe Manchin III, Governor
Randy C. Huffinan, Cabinet Secretary
www.wvdep.org

September 4, 2008

Mr. Robert Wharton
Ross and Wharton Gas Co. Inc.
Route 5 Box 29
Buckhannon, WV 26201

RE: Work Directive # 8
Ireland # 1 Well
Notice to Proceed

Dear Mr. Wharton:

Please be advised that your Cost Proposal for the above referenced project dated September 3, 2008, has been approved and your receipt of this letter will serve as your official Notice to Proceed. The total estimated cost, as approved, for this project is \$37,307.00. The total performance period for this Work Directive will begin on or before October 15, 2008, and should be completed by November 30, 2008.

Should you have any questions regarding this Notice to Proceed feel free to contact Rodney Dillon at 926-0499 ext. 1648 or by cell phone (304) 389-7583.

Sincerely,

James Martin
Chief

TOTAL THIS JOB = \$37,307.00

Ross and Wharton Gas Company
Route 9 Box 218
Buckhannon, WV 26201

API 47-085-80549

Date: 9/3/08

COUNTY Ritchie

WELL NAME Ireland # 1

| QUANTITY | DESCRIPTION | UNIT PRICE | AMOUNT |
|---|--|------------|-------------|
| RIG (per hour): | | | |
| 0 | 2 Men Crew: | \$150.00 | \$0.00 |
| 0 | 3 Men Crew: | \$190.00 | \$0.00 |
| 55 | 4 Men Crew: | \$225.00 | \$12,375.00 |
| TRUCKING* (per hour): | | | |
| 20 | Tandem Truck w/winch: | \$65.00 | \$1,300.00 |
| 0 | Flat Bed w/winch (single axle) | \$55.00 | \$0.00 |
| 24 | Tractor and Trailer w/winch: | \$70.00 | \$1,680.00 |
| 0 | Tractor Trailer (without winch) | \$65.00 | \$0.00 |
| 10 | Pickup: | \$40.00 | \$400.00 |
| 0 | Dump Truck (tandem): | \$65.00 | \$0.00 |
| 40 | PER DIEM (per man/each day): | \$90.00 | \$3,600.00 |
| *Equipment and truck rates include operator. | | | |
| DOZER* (per hour) w/4hr minimum | | | |
| 24 | Small Dozer:Cat D5C equiv. or smaller: | \$70.00 | \$1,680.00 |
| 0 | Medium Dozer:Cat D6C equiv. or larger: | \$85.00 | \$0.00 |
| BACKHOE* (per hour) w/4hr minimum: | | | |
| 20 | Rubber Tire(4X4) Backhoe: | \$70.00 | \$1,400.00 |
| 0 | Excavator(JD450 or equivalent): | \$85.00 | \$0.00 |
| POWER SWIVEL (per hour use) - 4 hour minimum: | | | |
| 0 | 25 ton or equiv.: | \$40.00 | \$0.00 |
| 0 | 35 ton or equiv.: | \$55.00 | \$0.00 |
| MUD PUMP (per hour use) - 4 hour minimum: (includes all hoses & attachments) | | | |
| 0 | 4 x 6 or equiv.: | \$45.00 | \$0.00 |
| 0 | 5 X 7 or equiv.: | \$55.00 | \$0.00 |
| 0 | 5 X 10 or equiv.: | \$85.00 | \$0.00 |
| POWER TONGS (per day) (w/operator): | | | |

| | | | |
|--|--|------------|------------|
| 0 | 4 1/2" or smaller: | \$140.00 | \$0.00 |
| 0 | Over 4 1/2" up to 8 5/8": | \$400.00 | \$0.00 |
| 0 | Larger than 8 5/8": | \$500.00 | \$0.00 |
| PIPE CUTTING (each cut)(charge for log truck): | | | |
| 0 | 7" - 9 5/8": | \$1,800.00 | \$0.00 |
| 0 | 4 1/2" - 6 5/8": | \$1,800.00 | \$0.00 |
| 0 | 2 3/8" - 3 1/2": | \$2,000.00 | \$0.00 |
| 0 | DOWN HOLE CAMERA (per day): | \$2,000.00 | \$0.00 |
| CASING AND TUBING PURCHASE (per foot): | | | |
| 0 | 13 3/8"new: | \$31.00 | \$0.00 |
| 0 | used: | \$24.00 | \$0.00 |
| 0 | 10 3/4"new: | \$18.00 | \$0.00 |
| 0 | used: | \$12.00 | \$0.00 |
| 0 | 8 5/8"new: | \$15.00 | \$0.00 |
| 0 | used: | \$10.00 | \$0.00 |
| 0 | 7"new: | \$10.00 | \$0.00 |
| 0 | used: | \$6.00 | \$0.00 |
| 0 | 4 1/2"new: | \$8.00 | \$0.00 |
| 0 | used: | \$6.00 | \$0.00 |
| 0 | 2 3/8"new: | \$3.00 | \$0.00 |
| 0 | used: | \$2.50 | \$0.00 |
| 0 | 1 1/2"new: | \$2.50 | \$0.00 |
| 0 | used: | \$1.25 | \$0.00 |
| CASING AND TUBING RENTAL new or used (per foot): (per well)-including slips & elevators | | | |
| 0 | 7": | \$0.50 | \$0.00 |
| 0 | 4 1/2": | \$0.30 | \$0.00 |
| 0 | 2 7/8": | \$0.30 | \$0.00 |
| 0 | 2 3/8": | \$0.20 | \$0.00 |
| 250 | 1 1/2": | \$0.20 | \$50.00 |
| 10 | WATER PUMPED 3" TRASH PUMP (per hour) | \$12.00 | \$120.00 |
| 22 | OILFIELD EQUIPED VACUUM WATER TRUC (per hour)(including driver) | \$70.00 | \$1,540.00 |
| 0 | WATER TRUCK (with pump) | \$55.00 | \$0.00 |
| 1 | WATER TANK (per tank/per well): | | |
| 0 | 100 barrel: | \$150.00 | \$0.00 |
| 0 | greater than 100 barrel: | \$250.00 | \$0.00 |
| 25 | SALT WATER DISPOSAL (per bli.): (trucking not included) | \$5.00 | \$125.00 |
| 25 | GEL DISPOSAL (per bli.): | \$5.00 | \$125.00 |
| 0 | OIL TANK DISPOSAL (per tank): | \$250.00 | \$0.00 |

| | | | |
|--|---|----------|------------|
| (trucking not included) | | | |
| 0 | DISPOSAL OF DRILL CUTTINGS (per ton): (trucking not included) | \$15.00 | \$0.00 |
| 5 | AQUA GEL MIXED/PUMPED* /100 LBS: (*trucking & labor not included) | \$22.00 | \$110.00 |
| 150 | CEMENT MIXED/PUMPED* /94 LBS SACK: (*trucking & labor not included) | \$16.00 | \$2,400.00 |
| 50 | GRAVEL HAULED* (per ton): (*trucking & labor included) | \$25.00 | \$1,250.00 |
| GALVANIZED CULVERTS (per foot): | | | |
| 0 | 12 inch: | \$12.00 | \$0.00 |
| 0 | 16 inch: | \$14.00 | \$0.00 |
| 0 | 20 inch: | \$18.00 | \$0.00 |
| 0 | 24 inch: | \$20.00 | \$0.00 |
| 0 | 36 inch: | \$28.00 | \$0.00 |
| 1 | STEEL MUD PIT (per pit/per well): | \$250.00 | \$250.00 |
| 1 | PIT LINER (each): | \$200.00 | \$200.00 |
| 80 | LIME (per 50# sack): | \$4.25 | \$340.00 |
| 10 | FERTILIZER (per 50# sack): | \$8.50 | \$85.00 |
| 100 | SEED (per pound): | \$2.50 | \$250.00 |
| MULCH (per bale): | | | |
| 100 | Straw: | \$7.00 | \$700.00 |
| 0 | Hay: | \$4.00 | \$0.00 |
| 24 | BRUSH/ROUSTABOUT CREW* (per hour): (*two men, pickup and hand tools) | \$120.00 | \$2,880.00 |
| 60 | ADDITIONAL LABOR(per man hour): | \$45.00 | \$2,700.00 |
| 0 | SILT FENCING (per foot): | \$0.45 | \$0.00 |
| 0 | TYPAR(TYRAPLEX) (per square foot): | \$0.35 | \$0.00 |
| 1 | MONUMENT (each): | \$145.00 | \$145.00 |
| 2 | PORTABLE TOILET (per week): | \$200.00 | \$400.00 |
| DRILL PIPE (per foot, per well): including slips & elevators | | | |
| 0 | 2 3/8": | \$0.50 | \$0.00 |

| | | | |
|--|--|------------|----------|
| 0 | 2 7/8": | \$0.65 | \$0.00 |
| 0 | 3 1/2": | \$0.90 | \$0.00 |
| DRILL COLLARS (per collar): | | | |
| including slips & elevators | | | |
| 0 | 2 7/8": | \$110.00 | \$0.00 |
| 0 | 3 1/2": | \$140.00 | \$0.00 |
| 0 | 4 3/4", 6 1/4": | \$180.00 | \$0.00 |
| each additional day | | | |
| 0 | 2 7/8": | \$40.00 | \$0.00 |
| 0 | 3 1/2": | \$50.00 | \$0.00 |
| 0 | 4 3/4", 6 1/4": | \$60.00 | \$0.00 |
| 0 | | | |
| TOOTH DRILL BITS (per bit new)(purchase): | | | |
| 0 | 12 1/4" - 13 5/8": | \$1,500.00 | \$0.00 |
| 0 | 9" - 11 3/4": | \$1,400.00 | \$0.00 |
| 0 | 6 1/4" - 8 3/4": | \$1,100.00 | \$0.00 |
| 0 | 4 7/8" & smaller: | \$800.00 | \$0.00 |
| TOOTH DRILL BITS (per bit used)(purchase): | | | |
| 0 | 12 1/4" - 13 5/8": | \$1,250.00 | \$0.00 |
| 0 | 9" - 11 3/4": | \$1,200.00 | \$0.00 |
| 0 | 6 1/4" - 8 3/4": | \$850.00 | \$0.00 |
| 0 | 4 7/8" & smaller: | \$750.00 | \$0.00 |
| 4 | WELDER/CUTTING TORCH*(per hour): (equipment, and experience operator) | \$75.00 | \$300.00 |
| ROTATING HEAD (per day): | | | |
| 0 | 7" and smaller: | \$175.00 | \$0.00 |
| 0 | greater than 7": | \$225.00 | \$0.00 |
| BLOW OUT PREVENTER (per day): | | | |
| 0 | 7" and smaller: | \$250.00 | \$0.00 |
| 0 | greater than 7": | \$500.00 | \$0.00 |
| OIL ABSORBENT SUPPLIES: | | | |
| Absorbent Booms (each) | | | |
| 0 | 10 ft: | \$100.00 | \$0.00 |
| 0 | 25 ft: | \$140.00 | \$0.00 |
| 0 | 50 ft: | \$175.00 | \$0.00 |
| Skirted Booms (each): | | | |
| 0 | 10 ft: | \$250.00 | \$0.00 |
| 0 | 25 ft: | \$500.00 | \$0.00 |
| 0 | 50 ft: | \$925.00 | \$0.00 |

Absorbent Pads:

| | | | |
|---|------------------------------|----------|---------|
| 1 | 2'x 2' (per bundle): | \$75.00 | \$75.00 |
| 0 | 2'x 2' (per roll): | \$90.00 | \$0.00 |
| 1 | Peat Sorb (per bag): | \$85.00 | \$85.00 |
| 0 | Supervisor on Site (per day) | \$400.00 | \$0.00 |
| | | | \$0.00 |

PRICE OF VARIOUS FISHING TOOLS(per day):
(list ea.type for the first three days and ea.addl.day)

| | | | |
|---|-------------------------------------|------------|----------|
| 3 | Subs, and Connections (per sub) | \$24.00 | \$72.00 |
| 0 | (each additional day) | \$6.00 | \$0.00 |
| 0 | Various Mills (per OD inch) | \$340.00 | \$0.00 |
| 0 | (each additional day) | \$0.00 | \$0.00 |
| 0 | Junk Basket (per OD inch) | \$200.00 | \$0.00 |
| 0 | (each additional day) | \$175.00 | \$0.00 |
| 2 | Sand Pump (4"-8") | \$100.00 | \$200.00 |
| 0 | each additional day | \$75.00 | \$0.00 |
| 2 | Cherry Picker (4"-8") | \$235.00 | \$470.00 |
| 0 | (each additional day) | \$200.00 | \$0.00 |
| 0 | Three Prong Grab (4"-8") | \$300.00 | \$0.00 |
| 0 | (each additional day) | \$150.00 | \$0.00 |
| 0 | Tubing Spear (1"- 3 1/2") (3 days): | \$600.00 | \$0.00 |
| 0 | (each additional day): | \$150.00 | \$0.00 |
| 0 | Casing Spear (4'- 8 5/8") (3 days): | \$950.00 | \$0.00 |
| 0 | (each additional day): | \$325.00 | \$0.00 |
| 0 | Overshot (1"- 3 1/2") (3 days): | \$600.00 | \$0.00 |
| 0 | (each additional day): | \$170.00 | \$0.00 |
| 0 | Overshot (4"- 8 5/8") (3 days): | \$1,300.00 | \$0.00 |
| 0 | (each additional day): | \$600.00 | \$0.00 |
| 0 | Rotary Shoe (4" to 8") (3 days): | \$1,200.00 | \$0.00 |
| 0 | (each additional day): | \$500.00 | \$0.00 |
| 0 | Center Spear (2"- 6") (3 days): | \$600.00 | \$0.00 |
| 0 | (each additional day): | \$200.00 | \$0.00 |
| 0 | Impression Block (3 days): | \$250.00 | \$0.00 |
| 0 | (each additional day): | \$100.00 | \$0.00 |

0 Magnet 3" - 7" (per day):

\$500.00

\$0.00

Ireland # 1

Calculation TOTAL =

\$37,307.00

R.L. Wharton President

R.L. Wharton

John A. Wharton V.P.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Halbrook

WELL RECORD

Permit No. *RIT-1257*

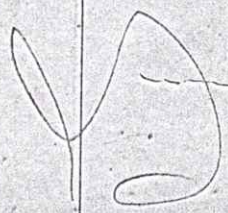
Oil or Gas Well (KIND)

Company L. G. Pigott
 Address West Union, W. Va.
 Farm A. L. Pierce Acres 50
 Location (waters) Camp Run
 Well No. 1 Elev. 860
 District Union County Ritchie
 The surface of tract is owned in fee by A. L. Pierce
 Address Oxford, W. Va.
 Mineral rights are owned by Owen Britton, Agent
 Address Oxford, W. Va.
 Drilling commenced June 19, 1948
 Drilling completed July 24, 1948
 Date Shot From To
 With
 Open Flow /10ths Water in Inch
 /10ths Merc. in Inch
 Volume Cu. Ft.
 Rock Pressure lbs. hrs.
 Oil 10 bbls., 1st 24 hrs.
 Fresh water feet feet
 Salt water feet feet

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|----------------|
| Size | | | |
| 16 | | | Kind of Packer |
| 13 | | | |
| 10 | 80 | 0 | Size of |
| 8 1/4 | 807 | 0 | |
| 6 1/4 | 1200 | 1200 | Depth set |
| 5 3/16 | 1670 | 1670 | |
| 3 | | | Perf. top |
| 2 | | | Perf. bottom |
| Liners Used | | | Perf. top |
| | | | Perf. bottom |

CASING CEMENTED SIZE No. Ft. Date
 COAL WAS ENCOUNTERED AT FEET INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|----------------|-------|--------------|------|--------|-------------------|-------------|---------|
| Slate 7 shells | | | 0 | 705 | | | |
| L. Dunkard | | | 705 | 720 | | | |
| Big Dunkard | | | 800 | 820 | | | |
| Gas sand | | | 950 | 955 | | | |
| 1st. salt | | | 995 | 1152 | | | |
| 2nd. " | | | 1280 | 1435 | | | |
| 3rd. " | | | 1522 | 1570 | | | |
| Maxon | | | 1598 | 1618 | | | |
| L. Lime | | | 1620 | 1636 | | | |
| P. Cave | | | 1636 | 1647 | | | |
| Blue Monday | | | 1647 | 1662 | | | |
| Big Lime | | | 1664 | 1729 | | | |
| Big Injun | | | 1729 | 1800 | | | |
| Gas | | | 1732 | 1739 | | | |
| Oil | | | 1739 | 1747 | | | |
| Total Depth | | | 1802 | | | | |



Amy Romano

Form OG-10



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 73

- Rotary
- Spudder
- Cable Tools
- Storage

B1

Quadrangle: HOLBROOK

WELL RECORD

Oil or Gas Well O & G
(KIND)

Permit No. RIT - 3153

Company FRANCIS M. FRIESTAD
Address 1104 Campus Hills Blvd. - Rockford, Ill.
Farm Harvey Shepler Acres 188
Location (waters) Middle Fork
Well No. One Elev. 848.50
District Union County Ritchie
The surface of tract is owned in fee by Harvey Shipler
Address Oxford, W. Va.
Mineral rights are owned by Harvey Shipler et al
Address Oxford, W. Va.
Drilling commenced 8/22/66
Drilling completed 9/16/66
Date Shot none From To
With

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|--------------------|
| Size | | | Kind of Packe |
| 16 | | | |
| 13 | 4 | 4 | Size of |
| 10 | 195' | 195' | |
| 8 1/4 | 1040' | | Depth set |
| 6 3/4 | | | |
| 5 3/16 | 1797' | 1797' | |
| 4 1/2 | | | Perf. top 1756 |
| 3 | | | Perf. bottom 1774' |
| 2 | | | Perf. top |
| Liners Used | | | Perf. bottom |

Open Flow - /10ths Water in Inch
 /10ths Merc. in Inch
Volume Cu. Ft.
Rock Pressure none lbs. hrs.
Oil show bbls. 1st 24 hrs.
WELL ACIDIZED (DETAILS) none
WELL FRACTURED (DETAILS) 42,000 wtaer, 2-pumpers, 22000#20-40 sand, 10000#10-20 sand, 25.2 Bbls/m at 1900psi.
RESULT AFTER TREATMENT (Initial open Flow or bbls.) 300 mcf & 1/2 Bbl. oil
ROCK PRESSURE AFTER TREATMENT 600 HOURS 13
Fresh Water 130 Feet Salt Water Feet
Producing Sand Big Injun Depth 1710'

Attach copy of cementing record.
CASING CEMENTED 4 1/2" SIZE 1797 No. Ft. 9/16/66 Date
Amount of cement used (bags) 75
Name of Service Co. Dowell
COAL WAS ENCOUNTERED AT none FEET INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth | Remarks |
|--------------|-------|--------------|-----|--------|-------------------|-------|---------|
| soil | | | 0 | 4 | | | |
| slate&shells | | | 4 | 30 | | | |
| red rock | | | 30 | 75 | | | |
| slate | | | 75 | 95 | | | |
| red rock | | | 95 | 125 | | | |
| sand | | | 125 | 150 | | | |
| slate | | | 150 | 170 | | | |
| red rock | | | 170 | 190 | | | |
| slate | | | 190 | 300 | | | |
| red rock | | | 300 | 320 | | | |
| slate | | | 320 | 395 | | | |
| red rock | | | 395 | 495 | | | |
| slate | | | 495 | 520 | | | |
| sand | | | 520 | 540 | | | |
| slate | | | 540 | 545 | | | |
| red rock | | | 545 | 555 | | | |
| slate | | | 555 | 590 | | | |
| slate | black | | 590 | 645 | | | |
| red rock | | | 645 | 680 | | | |
| slate | | | 680 | 695 | | | |
| slate | black | | 695 | 717 | | | |
| slate | | | 717 | 750 | | | |
| slate | black | | 750 | 765 | | | |



O-V-E-R

Amy Romano

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|--------------|-------|--------------|------|--------|-------------------|-------------|-------------|
| slate | | | 765 | 955 | | | |
| slate&shells | | | 955 | 995 | | | |
| sand | | | 995 | 1020 | | | |
| slate | | | 1020 | 1070 | | | |
| sand | | | 1070 | 1100 | | | |
| slate | dark | | 1100 | 1125 | | | |
| slate | white | | 1125 | 1155 | | | |
| slate | | | 1155 | 1270 | | | |
| slate&shells | | | 1270 | 1330 | | | |
| sand | | | 1330 | 1384 | | | |
| slate | | | 1384 | 1450 | | | |
| sand | | | 1450 | 1475 | | | |
| slate | black | | 1475 | 1555 | | | |
| sand | | | 1555 | 1578 | | | Maxon |
| slate | | | 1578 | 1601 | | | |
| lime | | | 1601 | 1610 | | | XXXXXXXXXX |
| slate | | | 1610 | 1615 | | | XXXXXX |
| lime | | | 1615 | 1630 | | | Little Lime |
| slate | | | 1630 | 1640 | | | |
| lime | | | 1640 | 1712 | | | Big Lime |
| sand | | | 1712 | 1775 | | | Big Injuh |
| slate | | | 1775 | 1806 | | | |
| TD | | | 1806 | | | | |

B-2

H-1-V-0

Date 9/29/66, 19

APPROVED Francis M. Friestad, Owner

By [Signature] Consultant (Title)

MICHELE YOUNG



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Quadrangle Hallbrook

Permit No. RIT-2050

WELL RECORD

Oil or Gas Well Oil & Gas
(KIND)

Company Tower Oil & Gas Company
 Address P. O. Box 1575 Parkersburg, W. Va.
 Farm Cecil Townsend et al Acres 165
 Location (waters) _____
 Well No. 1 Elev. 980
 District Union County Ritchie
 The surface of tract is owned in fee by Townsend Heirs
Oxford, W. Va. Address _____
 Mineral rights are owned by Townsend Heirs
 Address Oxford, W. Va.
 Drilling commenced June 24, 1959
 Drilling completed July 29, 1959
 Date Shot _____ From _____ To _____
 With _____
 Open Flow _____ /10ths Water in _____ Inch
 _____ /10ths Merc. in _____ Inch
 Volume 50,000 Cu. Ft.
 Rock Pressure 390 lbs. 24 hrs.
 Oil 12 bbls., 1st 24 hrs.
 WELL ACIDIZED 1,000 gal

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|--------------------|
| Size | | | Kind of Packer |
| 16 | | | none |
| 13 | | | Size of _____ |
| 10 | 179 | 0 | Depth set _____ |
| 8 1/4 | 970 | 0 | |
| 6 3/4 | | | |
| 5 3/16 | 1910' | 1910' | |
| 3 | | | Perf. top _____ |
| 2 | | | Perf. bottom _____ |
| Liners Used | | | Perf. top _____ |
| | | | Perf. bottom _____ |

CASING CEMENTED yes SIZE 5 1/2 No. Ft. 1910 Date _____

COAL WAS ENCOUNTERED AT none FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

WELL FRACTURED yes

RESULT AFTER TREATMENT 325,000 cu gas, oil not measured

ROCK PRESSURE AFTER TREATMENT _____

Fresh Water 10 Feet 150 ft. Salt Water none Feet _____

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth | Remarks |
|-----------|-------|--------------|------|--------|-------------------|-------|---------|
| Shale | red | | 0 | 60 | | | |
| slate | gray | | 60 | 85 | | | |
| sand | | | 85 | 95 | | | |
| rock | red | | 95 | 140 | | | |
| slate | | | 140 | 150 | | | |
| rock | red | | 150 | 160 | | | |
| slate | | | 160 | 185 | | | |
| rock | red | | 185 | 270 | | | |
| slate | | | 270 | 345 | | | |
| rock | red | | 345 | 355 | | | |
| slate | | | 355 | 550 | | | |
| rock | red | | 550 | 640 | | | |
| slate | | | 640 | 658 | | | |
| sand | | | 658 | 675 | | | |
| slate | gray | | 675 | 740 | | | |
| sand | | | 740 | 770 | | | |
| rock | red | | 770 | 815 | | | |
| slate | gray | | 815 | 860 | | | |
| slate | | | 860 | 875 | | | |
| slate | black | | 875 | 890 | | | |
| slate | pink | | 890 | 895 | | | |
| sand | | | 895 | 930 | | | |
| slate | black | | 930 | 985 | | | |
| slate | gray | | 985 | 1085 | | | |
| sand | | | 1085 | 1170 | | | |
| slate | | | 1170 | 1370 | | | |
| sand | | | 1370 | 1440 | | | |
| slate | | | 1440 | 1450 | | | |
| sand | | | 1450 | 1540 | | | |
| slate | dark | | 1540 | 1580 | | | |



(over)

Amy Romano

06-10

WEST VIRGINIA DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. Wm-73

Oil or Gas Well Oil
(Kind)

Company Moore-Tex Oil Company
 Address Morgantown, W. Va
 Farm Leonard Shanks Acres _____
 Location (waters) _____
 Well No. 2 Elev 2427
 District Calay County Morgan
 The surface of tract is owned in fee by _____
 Address _____
 Mineral rights are owned by _____
 Address _____
 Drilling commenced _____
 Drilling completed December, 1937
 Date shot December Depth of shot 1837
 Open Flow /10ths Water in _____ Inch
 /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock Pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|----------------|
| Size | | | |
| 16 | | | Kind of Packer |
| 13 | | | |
| 10 4/8 | | 475 | Size of |
| 8 1/8 | | 1154 | |
| 6 5/8 | | 1668 | Depth set |
| 5 3/16 | | | |
| 3 | | | Perf. top |
| 2 1/8 | | 1840 | Perf. bottom |
| Liners Used | | | Perf. top |
| | | | Perf. bottom |

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES
 _____ FEET _____ INCHES FEET _____ INCHES

| Formation | Color | Hard or Soft | Top | Bottom | Oil Gas or Water | Depth Found | Remarks |
|-------------------------------|-------|--------------|---------|--------|------------------|-------------|---------|
| Maple Coal | | | 369 | 374 | | | |
| P.G.H. Coal | | | 457 | 463 | | | |
| Murphy Sand | | | 660 | 710 | | | |
| Little Dunkard | | | 790 | 810 | | | |
| Big. " | | | 975 | 1020 | | | |
| Gas Sand | | | 1154 | 1220 | | | |
| 1st. Salt Sand | | | 1290 | 1390 | | | |
| 2nd. " | | | 1410 | 1508 | | | |
| Little Lime | | | 1635 | 1656 | | | |
| Big Lime | | | 1664 | 1709 | | | |
| Big Indun | | | 1709 | | | | |
| Gas | | | 1742 | 1763 | | | |
| 4/10-w. on 6-5/8 Casing | | | | | | | |
| Total | | | 1763 | | | | |
| Drilled down to | | | 1840 | | | | |
| Oil at | | | 1837 to | 1840 | | | |
| Total | | | | 1840 | | | |
| Shot with 20 sticks of Jello. | | | | | | | |



Army Komano

MOV-73

Robt. D. Hennen and
Wm. E. Glasscock Jr.,
Special Receivers,
Moore-Tex Oil Company,
P.O. Box 672,
Morgantown, West Virginia

OIL OR GAS WELL Oil and Gas

COMPLETION DATA SHEET

No. 2

FORMATION RECORD

WELL No. 2 FARM Leonard Shanks and A.B. Price et al

| Name | Color | Character | Oil, Gas or Water | Top | Bottom | Thickness | Total Depth | Remarks |
|----------------------------|-------|-----------|-------------------|---------|--------|-----------|---------------|---------|
| Pittsburgh Coal | | | | 475 | | | | |
| Gas Sand | | | | 1174 | 1232 | | | |
| GAS | | | GAS | 1192 | | 40/10 | | W on 2" |
| 1st Salt | sand | | | 1268 | 1294 | | | |
| 2nd Salt | sand | | | 1315 | 1415 | | | |
| | sand | | | 1448 | 1537 | | | |
| | lime | | | 1673 | 1655 | | | |
| | break | | | 1655 | 1660 | | | |
| Little Lime | | | | 1660 | 1675 | | | |
| Pencil Cave | | | | 1675 | 1680 | | | |
| Big Lime | | | | 1680 | 1754 | | | |
| Big Injun | | | | 1754 | 1955 | | | |
| | lime | | | 1978 | 2040 | | | |
| Squaw Sand | | | | 2040 | 2075 | | | |
| | break | | | 2075 | 2083 | | | |
| | lime | | | 2083 | 2128 | | | |
| | break | | | 2128 | 2136 | | | |
| | lime | | | 2136 | 2251 | | | |
| | sand | | | 2251 | 2281 | | | |
| 50 foot sand | | | | 2328 | 2475 | | | |
| 30 foot sand | | | | 2515 | 2533 | | | |
| Gordon Stray sand | | | | 2615 | 2648 | | | |
| Gordon Sand | | | | 2700 | 2712 | | | |
| | sand | | | 2741 | 2774 | | | |
| | sand | | | 2778 | 2789 | | | |
| | sand | | | 2868 | 2872 | | | |
| | sand | | GAS | 2897 | | 14/10 | | W on 2" |
| | sand | | | 2893 | 2923 | | | |
| | | | OIL | 2910 | | | | |
| Total depth of well | | | | | | | 2932 | |
| production is estimated at | | | | | | | 2 barrels per | day. |
| Hole cemented from | | | | 2868 to | 2621 | | | |
| 2 inch tubing to | | | | 2924 | | | | |
| 8 foot barrel | | | | | | | | |
| 40 feet 5" below barrel | | | | | | | | |

shot
Well was not shot at 2910 feet; well was shot at _____ feet.

Salt
Fresh water at no record of any feet; fresh water at _____ feet.

producing
Well was _____ hole. estimated to make 2 barrels per day

Robt. D. Hennen and
Wm. E. Glasscock Jr.,
Special Receivers
Moore-Tex Oil Company
by _____
Owner

APR 11 1936 Date

Approved _____

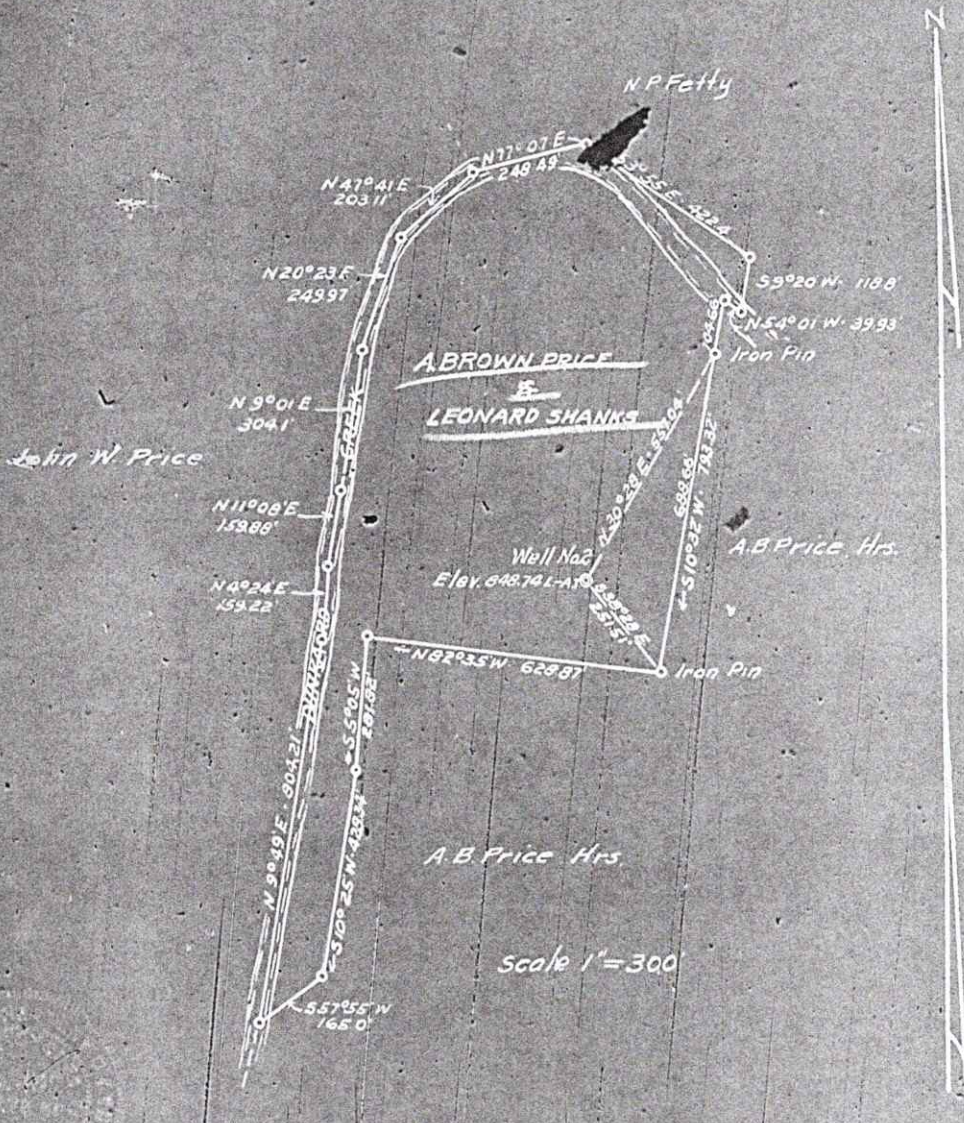
NOTE: All bottom formations must be noted as indicated above and all key-rocks and oil and gas sands must be recorded under their proper geological names in the district as well as any local names commonly used in the district for such strata.



copy mailed to the
Moore-Tex Oil Company
Pittsburgh Penna.

Amy R. ...

Plat of the Proposed Location of Well No. Two (2) of the
Receivers of MOOR-TEX OIL COMPANY of Morgantown, W. Va., on the
J. BROWN PRICE & LEONARD SHANKS Farm Consisting of 188 Acres
Located in Clay District, Monongalia County.



Engineer's Certificate

I, the undersigned, hereby certify that this Map is correct and shows all the information to the best of my knowledge and belief, required by the oil and gas section of the Mining Laws of West Virginia

A. L. Hattle
Engineer

Acknowledged before me a _____
this _____ day of _____ 1935

Mon-73

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. *RT-1138*

Oil or Gas Well *Oil*
(Kind)

Halbrook

Company W. D. Griddle & Ira Cox
Address West Union, W. Va.

Farm J. I. Pierce Acres 95
Location (waters) Brush Run
Well No. 1 Elev. 314

District Union County Richie

The surface of tract is owned in fee by J. I. Pierce Address Oxford, W. Va.
Mineral rights are owned by J. I. Pierce Address _____

Drilling commenced September 6 1947
Drilling completed October 5, 1947
Date shot October 3 & 9 Depth of shot 1686 - 169

Open Flow 15 10ths Water in _____ Inch
1 10ths Merc. in _____ Inch

Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water _____ feet _____ feet
Salt water _____ feet _____ feet

| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------|--------------|----------------|
| Size | | | |
| 16 | | | Kind of Packer |
| 13 | | | |
| 10 | 215' | | Size of |
| 8 1/2 | 809' | | |
| 6 3/4 | 1622' | | Depth set |
| 5 3/16 | | | |
| 3 | | | Perf. top |
| 2 | | | Perf. bottom |
| Liners Used | | | Perf. top |
| | | | Perf. bottom |

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
No Coal Found _____

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|-------------------------------|-------|--------------|------|--------|-------------------|--------------|-----------------------------|
| Gravel | | | 0 | 10 | Water | 45 | |
| Red Rock | | | 10 | 104 | | | |
| Sand | | | 104 | 129 | | | |
| Red Rock | | | 129 | 175 | 1500' - 1300' | 6" | 35 SKS |
| Lime Shells | | | 175 | 245 | 1000' - 900' | 8" | 31 SKS |
| Coal Blossom | | | 245 | | 700 - 600 | 10" | 48 SUS |
| Lime | | | 245 | 365 | 400 - 300 | 10" | 48 SUS |
| Red Rock | | | 365 | 460 | 100 - 0 | 13" | 81 SUS |
| Slate & Shells | | | 460 | 595 | | | |
| Red Rock | | | 595 | 625 | | | |
| Slate & Shells | | | 625 | 725 | | | |
| Sand | | | 725 | 740 | | | Little Downward |
| Slate & Shells | | | 740 | 775 | | | |
| Broken Lime | | | 775 | 920 | | | Big Downward |
| Sand | | | 920 | 970 | | | |
| Lime Shells | | | 970 | 1020 | | | |
| Slate & Shells | | | | | | | |
| Slate & Shells | | | 1020 | 1320 | Top Salt Sand | | |
| Sand | | | 1320 | 1365 | Gas | 1337 to 1346 | |
| Slate & Shells | | | 1365 | 1432 | | | |
| Sand | | | 1432 | 1448 | | | Bottom Salt Sand |
| Slate | | | 1448 | 1450 | | | |
| Gritty Lime | | | 1450 | 1497 | | | |
| Slate & Shells | | | 1497 | 1535 | | | |
| Sand | | | 1535 | 1552 | | | |
| Slate | White | | 1552 | 1564 | | | |
| Lime | Dark | | 1564 | 1578 | | | Maxed |
| Slate Shells | | | 1578 | 1591 | | | |
| Broken Lime | | | 1591 | 1613 | | | |
| Big Lime | | | 1613 | 1673 | | | |
| Big Injun Sand | | | 1673 | 1740 | Gas | 1680 to 1696 | 12/10 Water through 1/2 In. |
| Slate Shells | | | 1740 | 1770 | | | |

