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west virginia department of environmental protection

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Office of Oil and Gas  
601 57<sup>th</sup> Street, S.E.  
Charleston, WV 25304  
(304) 926-0450  
fax: (304) 926-0452

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

Friday, January 25, 2019  
WELL WORK PLUGGING PERMIT  
Vertical Plugging

NYTIS EXPLORATION COMPANY LLC  
PO BOX 8

RAVENSWOOD, WV 26164

Re: Permit approval for SHONK LAND 78  
47-039-04934-00-00

This well work permit 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 any additional specific 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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, 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 35 CSR 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- 0450.

James A. Martin  
Chief

Operator's Well Number: SHONK LAND 78  
Farm Name: SHONK LAND COMPANY, L<sup>td</sup>  
U.S. WELL NUMBER: 47-039-04934-00-00  
Vertical Plugging  
Date Issued: 1/25/2019

A blue ink signature of James A. Martin, Chief, is written over the permit details.

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date 11/10/18  
2) Operator's  
Well No Shonk #78  
3) API Well No. 03904934

47-39-04934P

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil      / Gas X / Liquid injection      / Waste disposal      /  
(If "Gas, Production x or Underground storage     ) Deep      / Shallow x

5) Location: Elevation 1424.47 Watershed Left Fork of Laurel Fork  
District Cabin Creek County Kanawha Quad ~~Madison~~ Eskdale

Agent: Kim Christiar  
Address P.O.Box 8, Ravenswood WV

6) Well Operator NYTIS Exploration  
Company, LLC., 2480 Fortune  
Drive, Suite 300, Lexington Ky 40509

Oil and Gas Inspector to be notified:

8) Terry Urban  
PHONE: 304 549 5915

9) Plugging Contractor  
Name Nytis Exploration Co. LLC  
Company, LLC., 2480 Fortune Drive, Suite 300,  
Lexington Ky 40509

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

- Remove all Equipment used in production
- Run Tubing to TD of 3186 Cement 100'
- Pull Tubing to 2981 cement 100' across 4 1/2 casing seat
- Cement across formation 2930 to 2730
- Cut and pull 4 1/2 casing at +/- 2200'
- Run in Tubing and Cement 100' Across cut
- Pull tubing to 2082 cement 100' across 7" seat
- Pull tubing cut and pull 7" casing at +/- 990'
- Run tubing to cement 100' across 7" cut
- Pull tubing to 1475 and cement 100' across elevation
- Pull Tubing to 230' and cement to surface
- Set Monument with proper API attached
- Reclaim well site and road
- Gel between all plugs

*Get as pre slurry*  
*set AS one plug*  
*Find TOC cut 2'*  
*set 200ft plug*  
*If 7" CSG can be pulled*

*Elevation 1425*

*200ft Elevation*

*Well to be stripped through AS per Nytes*

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector

*[Signature]*

Date 11-15-18

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FEB 03 1995

Permitting  
 Office of Oil & Gas

State of West Virginia  
 DEPARTMENT OF ENERGY  
 Division of Oil and Gas  
 Well Operator's Report of Well Work

Farm name: SHONK LAND COMPANY, LTD. Operator Well No.: SHONK LAND #78

Location: Elevation: 1,424.47 Quadrangle: ESKDALE

District: CABIN CREEK County: KANAWHA  
 Latitude: 4300 Feet South of 38 Deg. 5 Min. Sec.  
 Longitude: 3000 Feet West of 81 Deg. 27 Min. 30 Sec.

Company: CABOT OIL & GAS CORPORATION  
 400 FAIRWAY DRIVE, SUITE 400  
 CORAOPOLIS, PA 15108

Agent: DAVID G. MCCLUSKEY

Inspector: CARLOS HIVELY  
 Permit Issued: 04/21/94  
 Well Work Commenced: 05/27/94  
 Well Work Completed: 06/02/94  
 Verbal Plugging  
 Permission granted on: \_\_\_\_\_  
 Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_  
 Total Depth (feet) 3186'  
 Fresh water depths (ft) 179'

Salt water depths (ft) n/a

Is coal being mined in area (Y/N)? Y  
 Coal Depths (ft): 14-17, 231-235,  
307-310, 433-437, 450-456, 470-477,  
640-647, 674-682, 736-741, 890-895

| Casing & Tubing | Used in Drilling | Left in Well | Cement Fill Up Cu. Ft. |
|-----------------|------------------|--------------|------------------------|
| 16"             | 35'              | 35'          | N/A                    |
| 9-5/8"          | 945'             | 945'         | 315 sks Class A        |
| 7"              | 2032'            | 2032'        | 160 sks Class A        |
| 4-1/2"          | 2931'            | 2931'        | 70 sks Class A         |

*surface*  
*1040*  
*fill up*  
*583'*

OPEN FLOW DATA

Producing formation Weir Pay zone depth (ft) 2828-2846  
 Gas: Initial open flow TSTM MCF/d Oil: Initial open flow n/a Bbl/d  
 Final open flow 660 MCF/d Final open flow n/a Bbl/d  
 Time of open flow between initial and final tests 4 Hours  
 Static rock Pressure 390 psig (surface pressure) after 12 Days

Second Producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
 Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
 Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
 Time of open flow between initial and final tests \_\_\_\_\_ Hours  
 Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Office of Oil and Gas

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WV Department of  
 Environmental Protection

For: CABOT OIL & GAS CORPORATION

By: Donald R. Young

Date: 1/31/95

KAN 4934

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

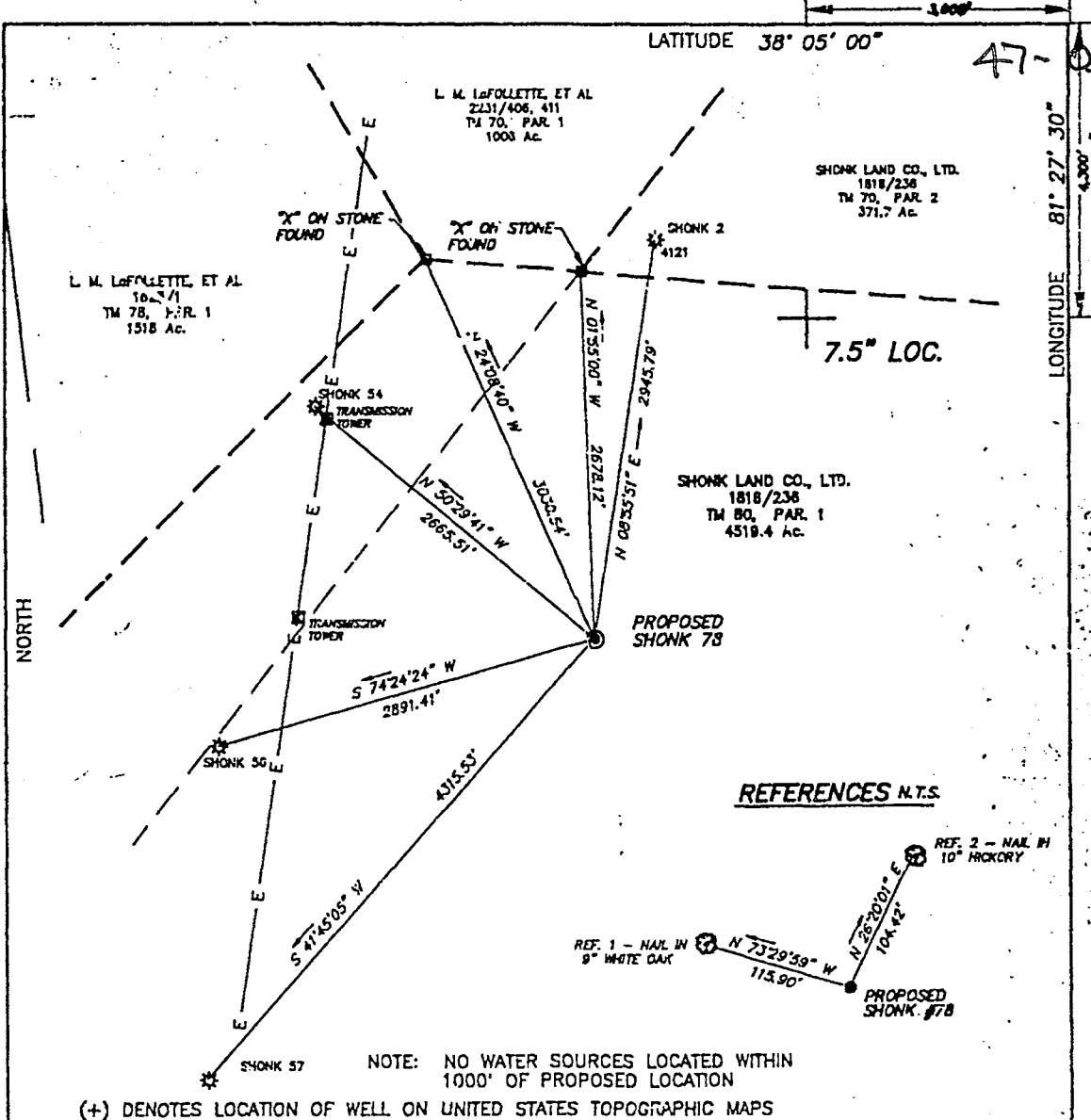
Perf Weir from 2,828' to 2,846'. Brk dwn stg 1 w/500 gals of 15% acid, displ w/ 20,000 SCF N<sub>2</sub>; Brk dwn press 1,292 psi; Surface ISIP 1,480 psi. Foam frac w/40,500 20/40 mesh sand and 17,500# 12/20 mesh sand in 75 Q foam.

| <b>FORMATION</b> | <b>TOP</b>  | <b>BOTTOM</b> |
|------------------|-------------|---------------|
| SAND/SHALE       | 0           | 1120          |
| SALT SAND        | 1120        | 1630          |
| SAND/SHALE       | 1630        | 2200          |
| MAXTON           | 2200        | 2280          |
| LITTLE LIME      | 2280        | 2340          |
| BIG LIME         | 2340        | 2630          |
| BIG INJUN        | 2630        | 2670          |
| SHALE            | 2670        | 2780          |
| WEIR             | <u>2780</u> | <u>2880</u>   |
| SHALE            | 2880        | 3060          |
| SUNBURY SHALE    | 3060        | 3186          |
| TD               |             | 3186          |

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FILE No. 8723-349  
DRAWING No. SHONK #78  
SCALE 1" = 1000'  
MINIMUM DEGREE OF  
ACCURACY 1 : 2500  
PROVEN SOURCE OF  
ELEVATION EXISTING WELL  
SHONK #2 ELEV. 1177.11

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 REGU-  
LATIONS ISSUED AND PRESCRIBED BY THE  
DEPARTMENT OF MINES

(SIGNED) William J. Whitman R.P.S. 646

WILLIAM J. WHITMAN  
REGISTERED  
No. 646  
STATE OF  
WEST VIRGINIA  
PROFESSIONAL SURVEYOR

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
NITRO, WV

DATE MARCH 16 19 94  
OPERATOR'S WELL No. SHONK #78  
API WELL No. 47 039 - 4934

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

LOCATION: ELEVATION 1424.47 WATER SHED LEFT FORK OF LAUREL FORK  
DISTRICT CABIN CREEK COUNTY KANAWHA  
QUADRANGLE ESKDALE, W. VA.

SURFACE OWNER SHONK LAND CO., LTD. ACREAGE 4519.4  
OIL & GAS ROYALTY OWNER SHONK LAND CO., LTD. LEASE ACREAGE 4519.4

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 \_\_\_\_\_ ESTIMATED DEPTH \_\_\_\_\_

WELL OPERATOR CAROL OIL & GAS CORP. DESIGNATED AGENT DON LAURIN  
ADDRESS P.O. BOX 1473 ADDRESS P.O. BOX 1473  
CHARLESTON, W. VA. CHARLESTON, W. VA.

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FORM IV-6 (8-78)

KAN 4934

MAR 15 2018

47-039-04934P

WW-4A  
Revised 6-07

1) Date: 11/10/18  
2) Operator's Well Number  
Shonk #78  
3) API Well No.: 47 - 039 04934

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

4) Surface Owner(s) to be served: 5) (a) Coal Operator: Catenary Coal Co.  
(a) Name Shonk Land Company LLC. 3412 Chesterfield AVE, Chas WV 25304  
Address P.O. Box 969, Chas WV 25324  
(b) Name \_\_\_\_\_ (b) Coal Owner( Shonk Land Co.  
Address \_\_\_\_\_ Name \_\_\_\_\_  
P.O. \_\_\_\_\_  
Box 969. Chas WV 25324  
(c) Name \_\_\_\_\_ Address \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Terry Urban (c) Coal Lessee with Declaration  
Address \_\_\_\_\_ Address \_\_\_\_\_

Telephone 304 549 5915  
**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

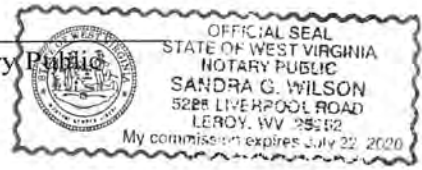
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and im.μ
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection. with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator: NYTIS Exploration Company, LLC  
By: (Robert Johnson) Sign X Robert W. Johnson  
Its: District Superintendent  
Address P.O. Box 450, Glasgow WV 25086  
Telephone 304 595 5015

X Subscribed and sworn before me this 14th day of November  
7-22-2020 Sandra G. Wilson Notary Public



**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at [oprivacyofficer@wv.gov](mailto:oprivacyofficer@wv.gov).

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name NYTIS Exploration, Co, LLC OP Code 494473563

Watershed Left Fork Laurel Fork Quadrangle Eskdale

Elevation 1424.47 County Kanawha District Cabin Cr

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes no X

Will a pit be used for drill cuttings? Yes no X

If so, please describe anticipated pit waste: Water, Gel

Will a synthetic liner be used in the pit? Yes no If so, what ml? no

Proposed Disposal Method For Treated Pit Wastes:

- no Land Application
- no Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- no Reuse (at API Number \_\_\_\_\_ )
- no Off Site Disposal (Supply form WW-9 for disposal location)
- no Other (Explain **NO RETURN EXPECTED**)

Any Return will be captured in a tank and properly disposed

Will closed loop system be used? \_\_\_\_\_

Drilling medium anticipated for this well? \_\_\_\_\_

Additives to be used in drilling medium? \_\_\_\_\_

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department 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 X Robert Johnson

Company Official (Typed Name: Robert Johnson)

Company Official Title District Superintendent

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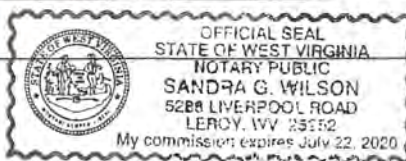
WV Department of Environmental Protection

Subscribed and sworn before me this 14th day of November, 2018

Sandra G. Wilson

Notary Public

My commission expires 7/22/2020





Kanawha 039 4934

Proposed Revegetation Treatment  
Acres Disurbed 1

Prevegetation pH 6.0

Lime \_\_\_\_\_ Acre or to correct to pH 6,5  
2 Ton

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

Mulch \_\_\_\_\_ Tons/acre  
2.0

Seed Mixtures

| Seed Type | Area I |          | Seed Type | Area II |          |
|-----------|--------|----------|-----------|---------|----------|
|           |        | lbs/acre |           |         | lbs/acre |
| Fescue 40 |        |          |           |         |          |
| Alsike 5  |        |          |           |         |          |
|           |        |          | Same      |         |          |

Attach:  
Drawing(s) of road, location,  
Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *[Signature]*

Comments: *Well being plugged to be Stripped through*

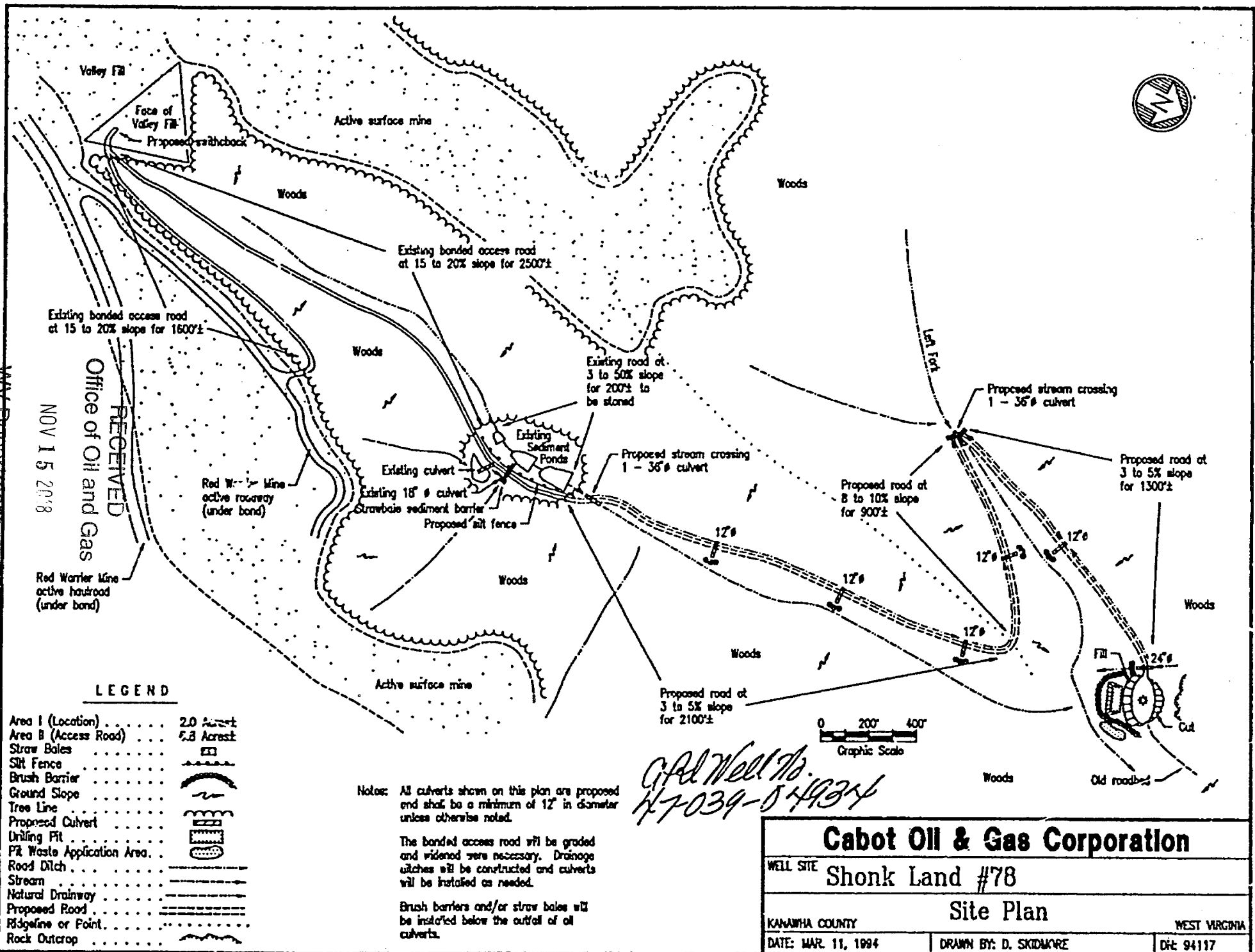
Title: *Inspect Well & Gas*

Date: *11/15/18*

Field Reviewed?  Yes  No

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**LEGEND**

- Area I (Location) . . . . . 2.0 Acres±
- Area B (Access Road) . . . . . 5.3 Acres±
- Straw Bales
- Silt Fence
- Brush Barrier
- Ground Slope
- Tree Line
- Proposed Culvert
- Drilling Pit
- PR Waste Application Area
- Road Ditch
- Stream
- Natural Drainway
- Proposed Road
- Ridgeline or Point
- Rock Outcrop

**Notes:** All culverts shown on this plan are proposed and shall be a minimum of 12" in diameter unless otherwise noted.

The bonded access road will be graded and widened where necessary. Drainage ditches will be constructed and culverts will be installed as needed.

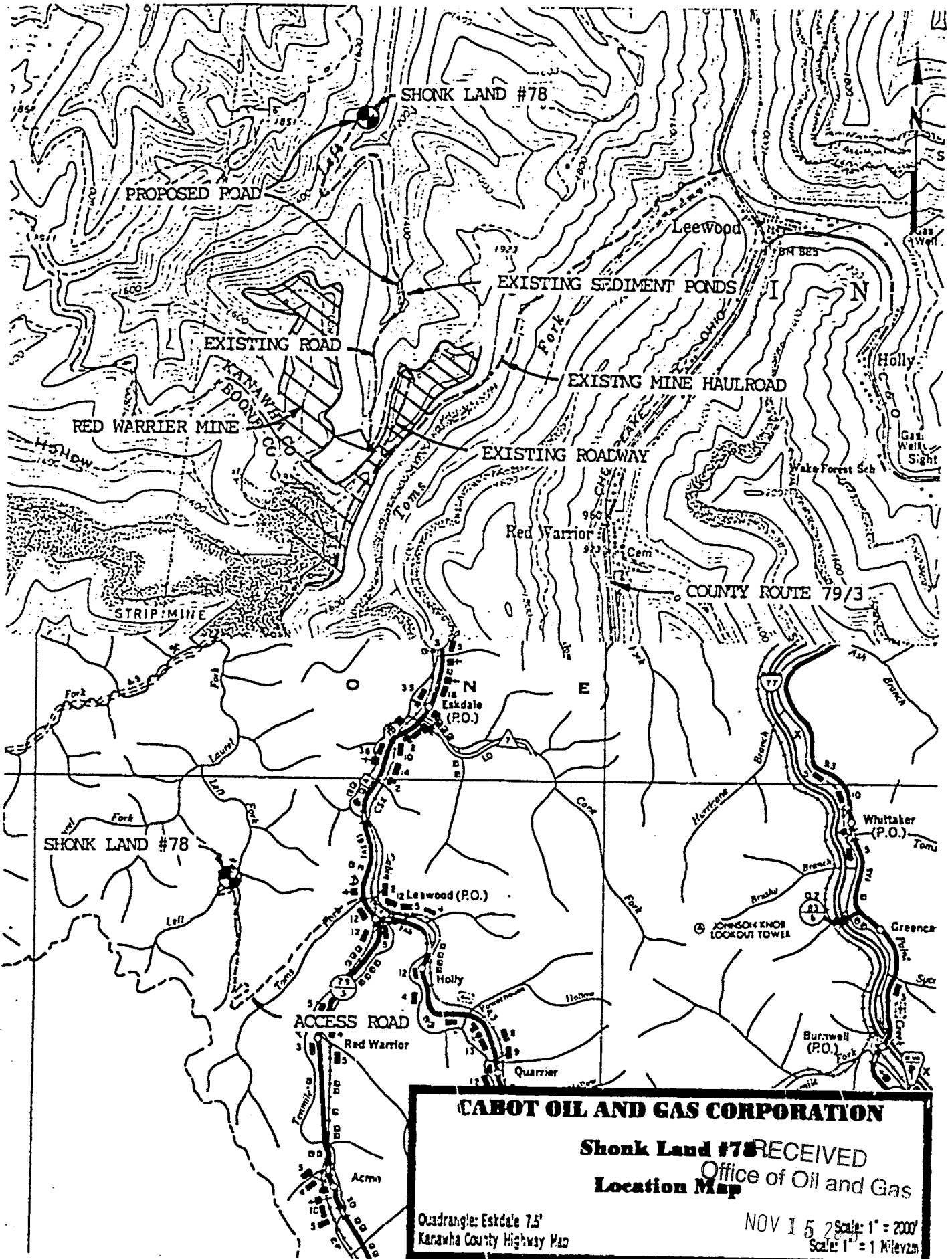
Brush barriers and/or straw bales will be installed below the outfall of all culverts.

*Grd Well No. 17-039-04934*



|  |                    |                       |
|--|--------------------|-----------------------|
| <b>Cabot Oil &amp; Gas Corporation</b> |                    |                       |
| WELL SITE <b>Shonk Land #78</b>        |                    |                       |
| <b>Site Plan</b>                       |                    | WEST VIRGINIA         |
| KANAWHA COUNTY                         | DATE: MAR 11, 1994 | DRAWN BY: D. SKIDMORE |
|  |                    | Dt: 94117             |

47-039-04934P



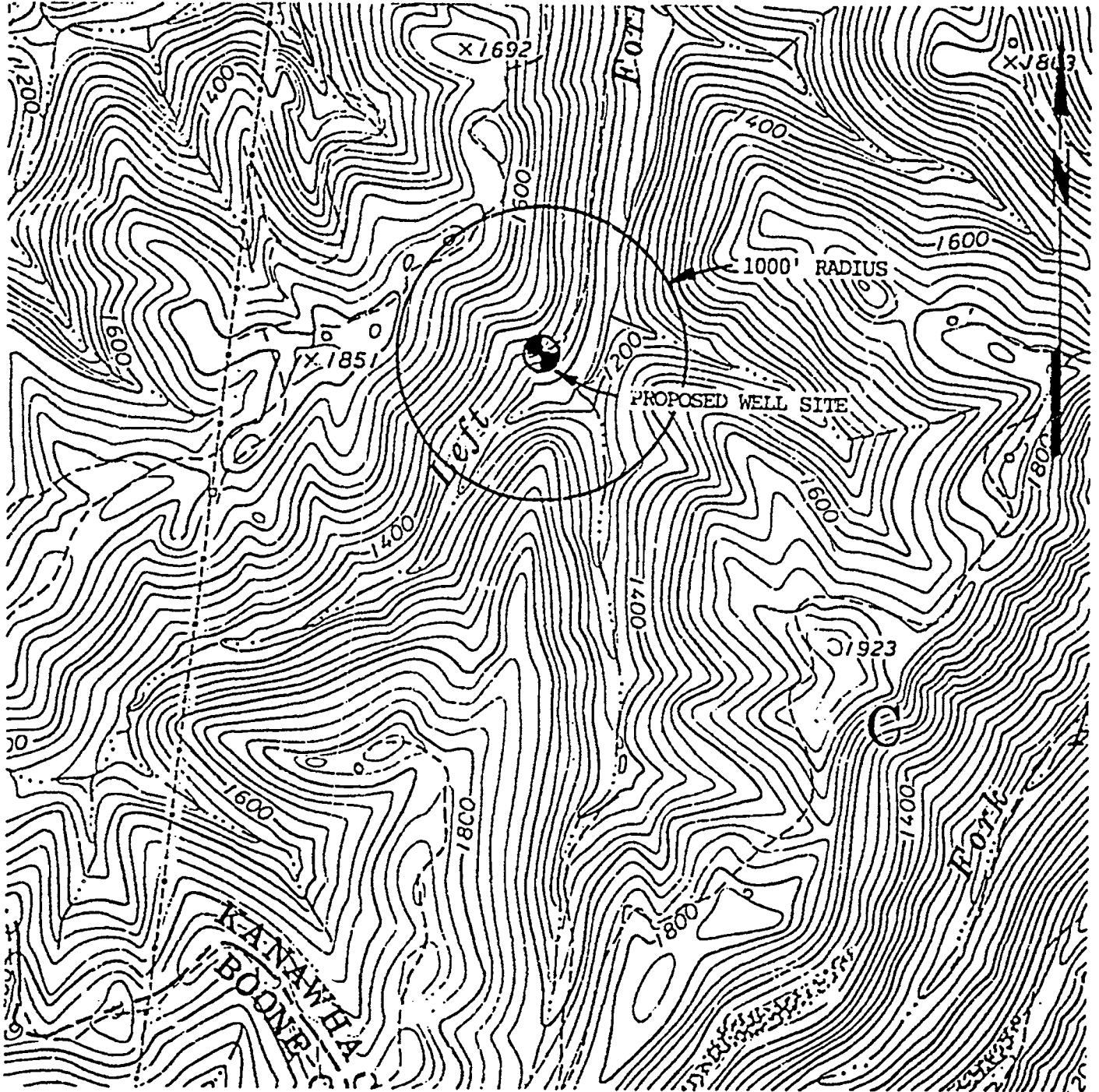
**CABOT OIL AND GAS CORPORATION**  
**Shonk Land #78** RECEIVED  
 Office of Oil and Gas  
**Location Map**

Quadrangle: Eskdale 7.5'  
 Kanawha County Highway Map

NOV 15 2007 Scale: 1" = 2000'  
 Scale: 1" = 1 Mile/2.54cm

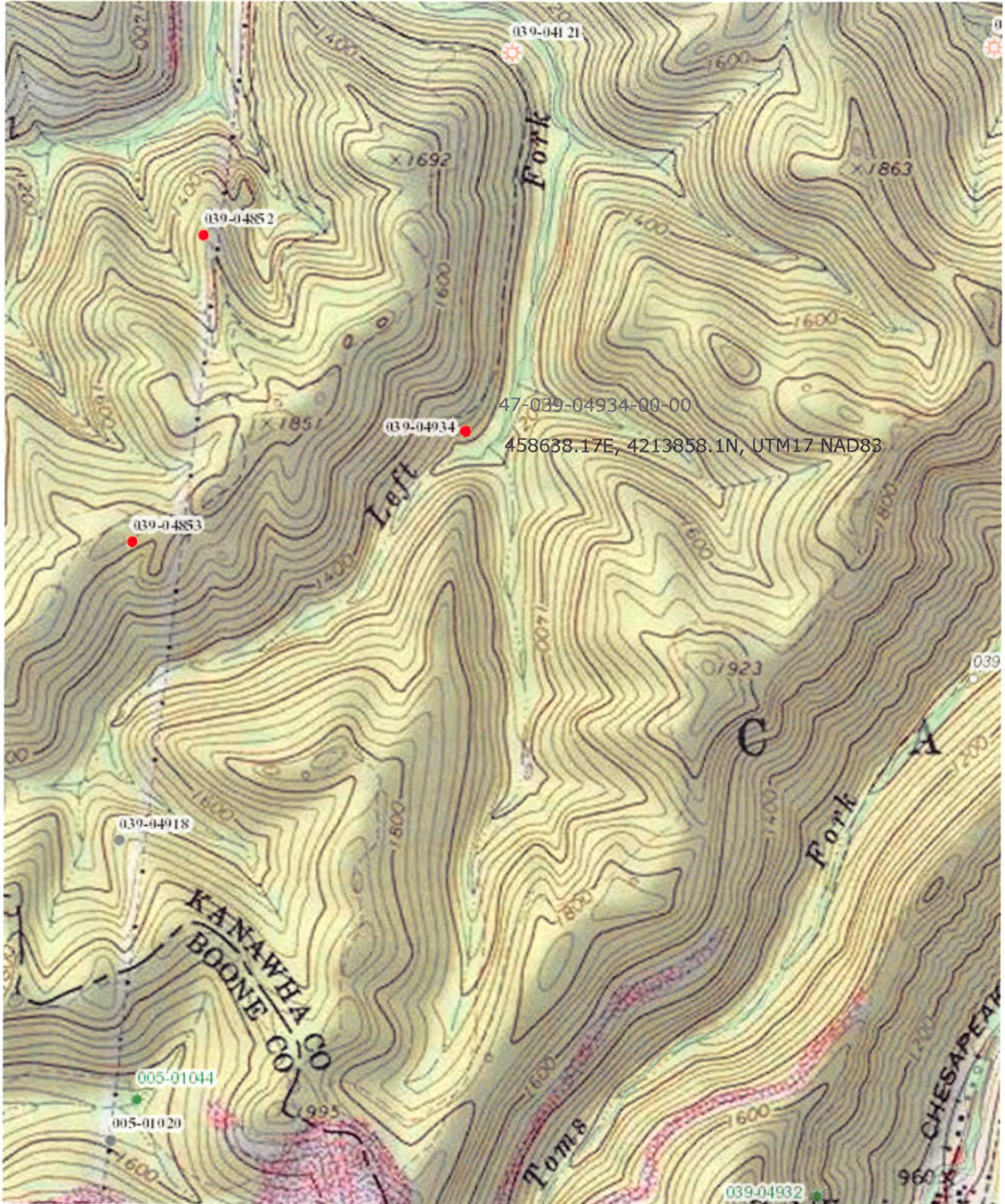
# Location Map

Shonk Land #78  
Pre-Drilling Water Samples  
Eskdale 7.5' Quadrangle  
Scale: 1" = 1000'



NO GROUNDWATER WELLS, SPFINGS, OR OTHER WATER SOURCES BEING USED FOR HUMAN AND/OR DOMESTIC CONSUMPTION, OR ANY OTHER PURPOSES WERE IDENTIFIED WITHIN 1000 FEET OF THE PROPOSED WELL SITE.

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WW-7  
8-30-06



West Virginia Department of Environmental Protection  
Office of Oil and Gas

**WELL LOCATION FORM: GPS**

API: 47 039 04934 WELL NO.: Shonk #78

FARM NAME: Shonk Land Company, LLC

RESPONSIBLE PARTY NAME: Nytis Exploration Company

COUNTY: Kanawha DISTRICT: Cabin Creek

QUADRANGLE: Eskdale

SURFACE OWNER: Shonk Land Company

ROYALTY OWNER: Shonk Land Company

✓ UTM GPS NORTHING: 4213858.1 N

✓ UTM GPS EASTING: 458638.17 E GPS ELEVATION: 1424.47'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS \_\_\_\_\_: Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

Mapping Grade GPS \_\_\_\_\_: Post Processed Differential \_\_\_\_\_  
Real-Time Differential \_\_\_\_\_

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

X Robert Jah  
Signature

X Superintendent  
Title

11/14/18  
Date

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