**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

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

March 23, 2016

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4902415, issued to CONSOLIDATION COAL COMPANY, 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.

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. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalities being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 5545
Farm Name: CONSOL ENERGY
**API Well Number: 47-4902415**
**Permit Type: Plugging**
Date Issued: 03/23/2016

**Promoting a healthy environment.**

4202415P

# 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

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.

4902415P

FORM WW-4(B)
Rev. 2/01

1.) Date: March 11, 20 16.
2.) Operator's Well No. 5545.
3.) API Well No. 47 - 49 - _____.
State County Permit

# STATE OF WEST VIRGINIA
# DIVISION OF ENVIRONMENTAL PROTECTION
# OFFICE OF OIL & GAS
# APPLICATION FOR A PERMIT TO PLUG & ABANDON

4.) WELL TYPE: Oil X / Gas ____ / Liquid injection ____ / Waste disposal ____ /
(IF "Gas", Production ____ / Underground storage ____ / Deep ____ / Shallow X

5.) LOCATION: Elevation: 1123.06' Watershed: Long Drain of Buffalo Creek.

District: Mannington County: Marion Quadrangle: Glover Gap 7.5'.

6.) WELL OPERATOR Consolidation Coal Co.
Address 1 Bridge St.
Monongah, WV 26554

7.) DESIGNATED AGENT Ronnie Harsh.
Address 1 Bridge St.
Monongah, WV 26554.

8.) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Bill Hendershot
Address 403 James St.
Mannington, WV 26582

9.) PLUGGING CONTRACTOR
Name _____.
Address _____.
_____.

10.) WORK ORDER: The work order for the manner of plugging this well is as follows:

**SEE EXHIBIT NO. 1**

Received
Office of Oil & Gas
MAR 17 2016

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

Work order approved by inspector _____ Date _____

4/09024/15P

# EXHIBIT NO.1

From the experience and technology developed since 1970 in plugging oil and gas wells for mining through, Consolidation Coal's Northern West Virginia Operations will utilize one of the following two methods to plug all future wells.

Received
Office of Oil & Gas
MAR 17 2016

## 4 ½ VENT PIPE METHOD

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below the lowest minable coal seam.
(b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
(c) Run 4 ½ casing from surface to a minimum of 200 feet below lowest minable coal seam and circulate 50/50 poz mix cement followed by expanding cement to surface. The expanding cement shall extend from a minimum of 200 feet below minable coal seam to a point 100 feet above.

The 4 ½ will remain open from surface to a minimum of 80 feet below that minable coal seam.

## SOLID PLUG METHOD

(a) If active well: clean out to total depth and plug back according to state regulations to a minimum of 200 feet below lowest minable coal seam.
(b) If abandoned well: clean out to first plug 200 feet below lowest minable coal seam.
(c) Circulate through tubing or drill steel an expanding cement plug from a minimum of 200 feet below minable coal seam to a point 100 feet above minable coal.

Circulate through tubing or drill steel 50/50 poz mix from 100 feet above coal seam to surface.

A monument will be installed with API No. and stating "solid plug".

4902415P

FORM WW-4(A)
Revised 6-07

1) Date: March 11, 2016
2) Operator's Well No. 5545
3) API Well No. 47 – 49 -
State County Permit

**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
(a) Name Consol Energy ✓
Address 1000 Consol Energy Dr.
Canonsburg, PA 15317

(b) Name
Address

(c) Name
Address

(6) INSPECTOR
Address

Telephone

5)a) COAL OPERATOR
Name CONSOLIDATION COAL CO.
Address 1 Bridge St.
Monongah, WV 26554

(b) COAL OWNER(S) WITH DECLARATION:
Name
Address

(c) COAL LESSEE WITH DECLARATION:
Name
Address

**TO THE PERSON(S) NAMED ABOVE:** You should have received this Form and the following documents:

Received
Office of Oil & Gas
MAR 17 2016

(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 and its location and the plugging work order; and
(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 REVERSE SIDE OF THE COPY OF THE APPLICATION (FORM WW-4(B) DESIGNATED FOR YOU. HOWEVER, YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.**

Take notice 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 From WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivery by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery by the Chief.

WELL OPERATOR Consolidation Coal Company
By Ronnie Harsh
Its Project Engineer / Agent
Address 1 Bridge St.
Monongah, West Virginia 26554
Telephone (304) – 534 – 4748

Ronnie Harsh

Subscribed and sworn before me this 11th day of March, 2016

Janet L. Lieving Notary Public

Marion County, State of West Virginia

My commission expires June 13, 2024

OFFICIAL SEAL
Notary Public, State of West Virginia
JANET L LIEVING
199 Broadview Avenue
Fairmont, WV 26554
My commission expires June 13, 2024

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 depprivacyofficer@wv.gov.

4902415P

WW-9
Rev. 5/08

Page _____ of _____
API Number 47 - 049 - _____
Operator's Well No. 5545

**STATE OF WEST VIRGINIA**
**DEPARTMENT 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 **Consolidation Coal Company** OP Code **10950**

Watershed **Long Drain of Buffalo Creek** Quadrangle **Glover Gap**

Elevation **1123.06'** County **Marion** District **Mannington**

Description of anticipated Pit Waste: **N/A**

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

Will a synthetic liner be used in the pit? **N/A**. If so, what mil.? _____

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)
**X** Other (Explain **Tanks, see attached letter**

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. **Freshwater**
If oil based, what type? Synthetic, petroleum, etc.? _____
Additives to be used? **Bentonite, Bicarbonate of Soda**

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. **Reused or Disposed (see attached letter)**
-If left in pit and plan to solidify what medium will be used? Cement, lime, sawdust _____
-Landfill or offsite name/permit number? _____

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.

Received
Office of Oil & Gas
MAR 17 2016

Company Official Signature Ronnie Harsh

Company Official (Typed Name) **Ronnie Harsh**

Company Official Title **Project Engineer**

Subscribed and sworn before me this 11th day of March, 2016

Janet L. Lieving
Notary Public

My commission expires June 13, 2024

OFFICIAL SEAL
Notary Public, State of West Virginia
JANET L LIEVING
199 Broadview Avenue
Fairmont, WV 26554
My commission expires June 13, 2024

4902415P

Received
Office of Oil & Gas
MAR 17 2016

1 MILE
7000 FEET
1 KILOMETER

ROAD CLASSIFICATION

Heavy-duty
Medium-duty
Light-duty
Unimproved dirt
U. S. Route

(SHINNSTON) 4992 N NE

W. VA.

'Glover Gap; WV' Scale: 1" = 0.379Mi 610Mt 2,000Ft, 1 Mi = 2.640" , 1 cm = 240Mt

GLOVER GAP, W. VA.

4902415P

WW-7
8-30-06

# West Virginia Department of Environmental Protection
## Office of Oil and Gas
## WELL LOCATION FORM: GPS

**API:** 47-049- **WELL NO.:** 5545

**FARM NAME:** J. L. Beatty

**RESPONSIBLE PARTY NAME:**

**COUNTY:** Marion **DISTRICT:** Mannington

**QUADRANGLE:** Glover Gap

**SURFACE OWNER:** Consol Energy Inc.

**ROYALTY OWNER:**

**UTM GPS NORTHING:** 4,376,771 m

**UTM GPS EASTING:** 550,405 m **GPS ELEVATION:** 342 m

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 X: Post Processed Differential X
Real-Time Differential ____

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

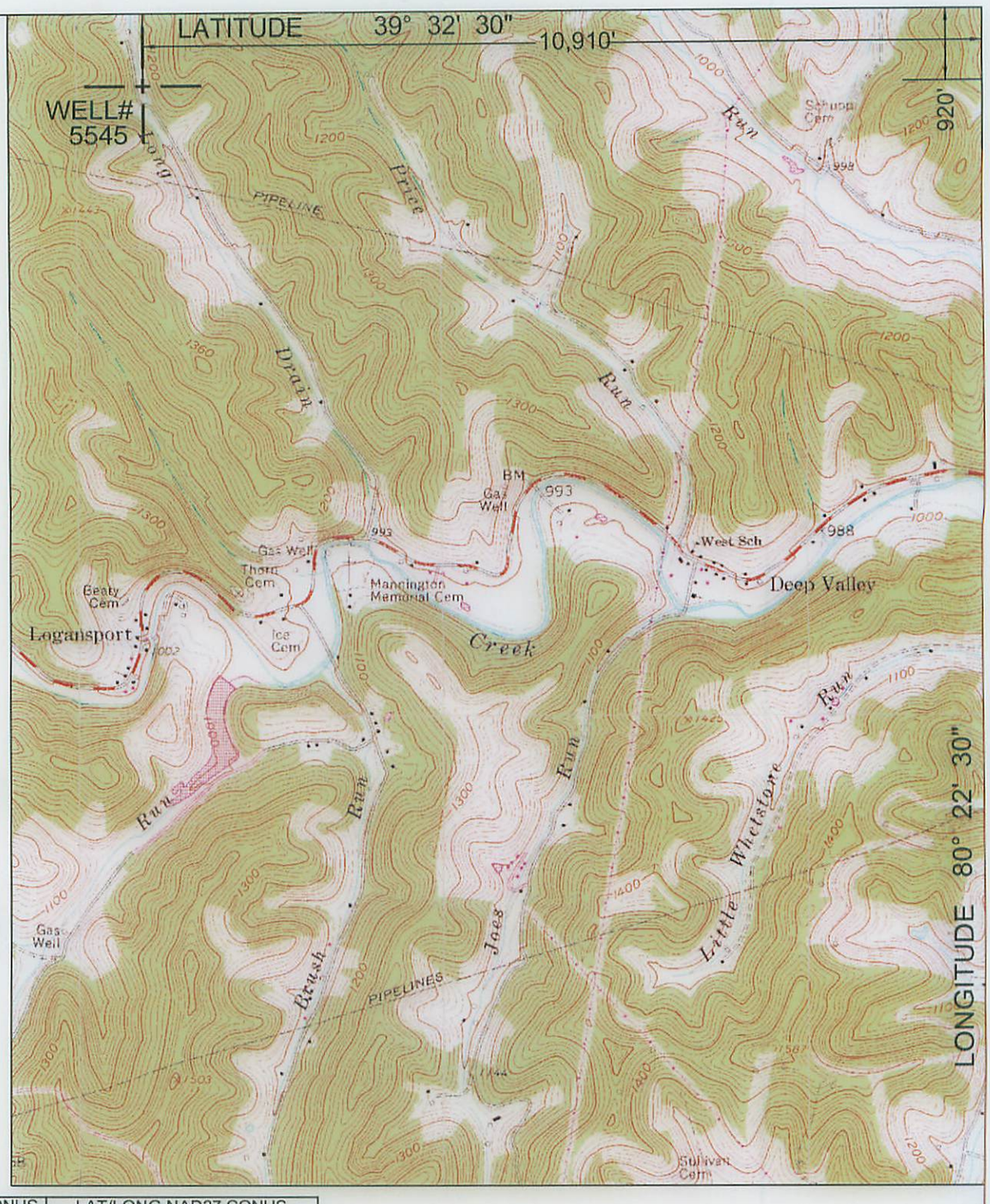
Received
Office of Oil & Gas
MAR 17 2016

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.

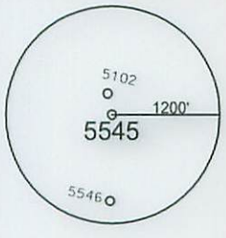
Signature — Professional Surveyor (Title)

March 11, 2016
Date

FORM WW 6




SURROUNDING WELLS WITHIN 1200' RADIUS




| UTM ZONE 17N NAD83 CONUS | | LAT/LONG NAD27 CONUS |
|---|---|---|
| NORTHING 4,376,771 | METERS | 39° 32' 20.77" N |
| EASTING 550,405 | METERS | 80° 24' 49.12" W |

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 ENVIRONMENTAL PROTECTION.

P.S. 2002

TROY D. FREELS LICENSED No. 2002 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

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

DATE MARCH 11 , 20 16

OPERATORS WELL NO. 5545

API WELL NO. 47 — 49 — 02416 P
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY: 1 / 2500

FILE NO.: GLOVER GAP 9.DWG

SCALE: 1"=2000'

PROVEN SOURCE OF ELEVATION: GPS METADATA OR COMPANY NETWORK TIED INTO U.S.G.S.

WV DEP
OFFICE OF OIL AND GAS
601 57TH ST., CHARLESTON, WV 25304

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

LOCATION:

ELEVATION: 1123.06' WATERSHED: LONG DRAIN OF BUFFALO CREEK

DISTRICT: MANNINGTON COUNTY: MARION QUADRANGLE: GLOVER GAP, WV 7.5'

SURFACE OWNER: CONSOL ENERGY ACREAGE: 85.5± ACRES

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: X CLEAN OUT AND REPLUG: ____ OTHER: ____

PHYSICAL CHANGE IN WELL (SPECIFY): ____ TARGET FORMATION: NONE

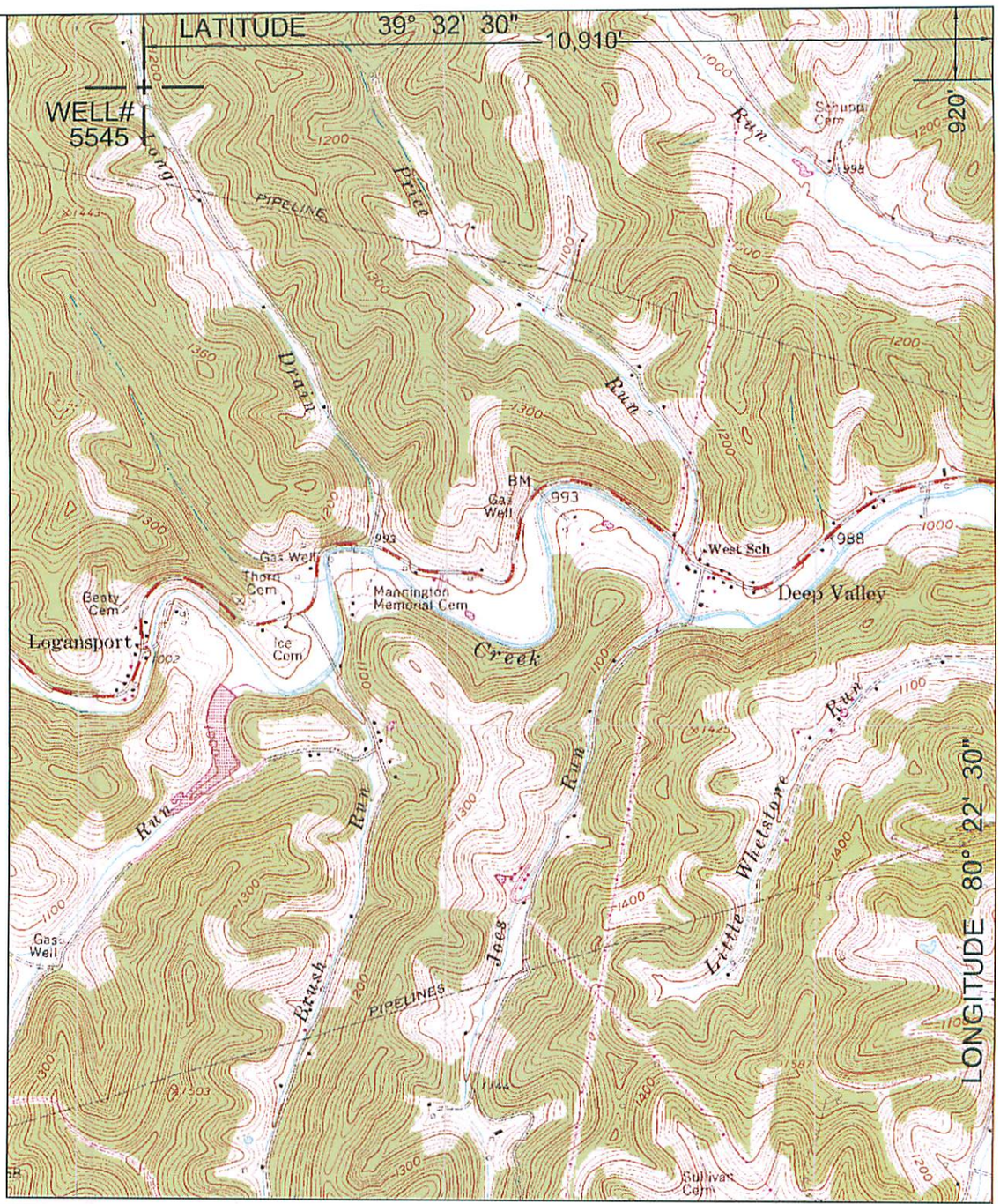
ESTIMATED DEPTH: ____

COUNTY NAME PERMIT

WELL OPERATOR: CONSOLIDATION COAL COMPANY DESIGNATED AGENT: RONNIE HARSH

ADDRESS: 1 BRIDGE ST., MONONGAH, WV 26554 ADDRESS: 1 BRIDGE ST., MONONGAH, WV 26554

FORM WW-6

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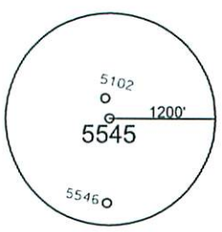


| UTM ZONE 17N NAD83 CONUS | | LAT/LONG NAD27 CONUS |
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PROPOSED WORK: ____ LEASE NO.: ____

DRILL: ____ CONVERT: ____ DRILL DEEPER: ____ REDRILL: ____ FRACTURE OR STIMULATE: ____ PLUG OFF OLD: ____

FORMATION: ____ PERFORATE NEW FORMATION: ____ PLUG AND ABANDON: X CLEAN OUT AND REPLUG: ____ OTHER: ____

PHYSICAL CHANGE IN WELL (SPECIFY): ____ TARGET FORMATION: NONE

ESTIMATED DEPTH: ____

COUNTY NAME PERMIT

WELL OPERATOR: CONSOLIDATION COAL COMPANY DESIGNATED AGENT: RONNIE HARSH

ADDRESS: 1 BRIDGE ST., MONONGAH, WV 26554 ADDRESS: 1 BRIDGE ST., MONONGAH, WV 26554