



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

August 22, 2014

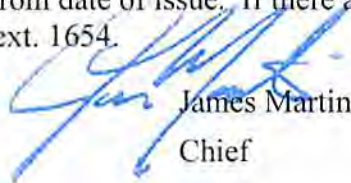
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-3904869, issued to CNX GAS COMPANY LLC , 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 penalties 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: HARRISON 1
Farm Name: GILLIAN, DAVID M. & JUDY
API Well Number: 47-3904869
Permit Type: Plugging
Date Issued: 08/22/2014

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.

1) Date _____, 20____
2) Operator's
Well No. 10789
3) API Well No. 47-039 - 04889

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 890 ft. Watershed Rocky Fork
District Union County Kanawha Quadrangle St. Albans

6) Well Operator CNX Gas Company LLC 7) Designated Agent Jeremy Jones
Address 1000 Consol Energy Drive Address One Dominion Drive
Canonsburg, PA 15317 Jane Lew, WV 26378

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gary Kennedy Name L&D Well Services
Address PO Box 268 Address PO Box 1192
Nimitz, WV 25978 Vansant, VA 24656

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

*Procedure will probably
change*

RECEIVED

Office of Oil and Gas

JUL 08 2014

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

Work order approved by inspector

[Signature]

WV Department of
Environmental Protection

08/22/2014

API 47-39-04869 Plugging Procedure

1. Verify total depth 2550'.
2. Run free-point survey on 7" casing.
3. Run tubing to TD. Set plug of expanding cement from established TD to approximately 50' below free point, utilizing a 100' gel spacer at approximately the half-way point of the wellbore.
4. Cut 7" casing at free-point.
5. Cement through 7" csg. while pulling 7", from top of bottom plug to approximately 100' below the 9-5/8" casing shoe. (Approx. 930') Pull remaining 7" out of well.
6. Run bond log on 9-5/8" casing.
7. Run tubing to previous cement top (930'). Cement across the 9-5/8" shoe to a minimum of 50' above shoe, bringing cement top to approximately 50' below the 9-5/8" free-point or to surface, whichever is necessary.
8. If necessary, cut and pull free 9-5/8" casing.
9. Cement through tubing from top of cement to surface.
10. Install ^{7"}4-1/2" X 4' steel monument with API# and Date.

NOTE: A 100' gel spacer will be placed at approximately half the well depth. Also, Expanding cement will be utilized throughout the entire cementing process.

NR-35
MAR 9 1 03
OFFICE OF OIL & GAS

06-Aug-92
API # 47- 39-04869

State of West Virginia
Division of Environmental Protection
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: GILLIAN, DAVID M. & JUDY Operator Well No.: HARRISON #1

LOCATION: Elevation: 890.00 Quadrangle: SAINT ALBANS

District: UNION County: KANAWHA
Latitude: 7045 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude 400 Feet West of 81 Deg. 47 Min. 30 Sec.

Company: CONTINENTAL RESERVES OIL
615 WASHINGTON ROAD-SUITE 304
PITTSBURGH, PA 15228-1920

Agent: LINDA E. ALDRIDGE

Inspector: CARLOS W. HIVELY
Permit Issued: 08/10/92
Well work Commenced: 10/31/92
Well work Completed: 12/01/92
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig _____
Total Depth (feet) 5656 P6 to 2550
Fresh water depths (ft) _____
None Reported
Salt water depths (ft) _____
None Reported
Is coal being mined in area (Y/N)? N
Coal Depths (ft): None Reported

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
9 5/8	830	830	CTS
7	2568	2568	N.A.

OPEN FLOW DATA

(Commingled) 2378-
Producing formation Berea Sand Pay zone depth (ft) 2382
Gas: Initial open flow -0- MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 389 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 680 psig (surface pressure) after 24 Hours

1771-
Second producing formation Big Lime Pay zone depth (ft) 1775
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

Handwritten signature

KANAWHA
08/22/2014
45

Geologic Report

Sand and Shale	0 - 1070
Sand	1070 - 1672
Little Lime	1672 - 1706
Big Lime	1706 - 1900
Big Injun	1900 - 1940
Shale	1940 - 2353
Sunburry Shale	2353 - 2372
Berea Sandstone	2372 - 2384
Devonian Shale	2384 - 3582
Lower Huron Shale	3582 - 4073
Java Shale	4073 - 4447
Rhinestreet Shale	4447 - 4732
Onondaga Ls.	4732 - 4815
Oriskany Sand	4815 - 4874
Siberian	4961
Newburg Sand	5514 - 5531
T.D.	5656
Plugback to	2550

Driller's shows:

H₂S @ 175 ppm @ 5,015'.

Plug Back Record

2550 - 2900	Neat 2% CaCl
2900 - 3400	Gel
3400 - 4100	Neat 2% CaCl
4100 - 4400	Gel 6%, 15 bbls
4400 - 4650	Neat 2%, CaCl
4650 - 5050	Laytex Cement yield yield 1.21, 75 sks
5050 - 5300	Gel 6%, 15 bbls
5300 - 5656	Neat 2% CaCl

Completion Record - 11/19/92

1. Berea Sand - Perf'd 2,378-2,382 with 17 holes; Frac'd with 40,000# of 20/40 sand, 5,000# of 12/20 sand and 75 quality foam N₂.
Pump rate = 16 bbls/min.

2. Big Lime - Perf'd 1771-1775 with 15 holes; Acidized with 500 gals 15% Hcl breakdown and 500 gals acid treatment.

Pump rate = 4-5 bbls/min.

RECEIVED
Office of Oil and Gas

JUL 08 2014

WV Department of
Environmental Protection

08/22/2014

3904869P

400'

HARRISON LEASE WELL NO. 1

Jamil
8/4/92

WARNER et al

LATITUDE 38-25-00

E/C

LOVEJOY

LEWIS

WOLFE

HUMPHREYS

WATSON

POFFENBARGER et al

N 46-30 E
2636.5'

S 38 E
1353'

73.38 AC ±

LONGITUDE 81-47-30

7,045'

C & P TELEPHONE

IRON PIPE

N 80-27 W
1393.72'

HARRISON NO. 1

CHEMICAL LEASING CO.

N 65-25 W
1633.5'

UNION CARBIDE

S 32-22 W
599.61'

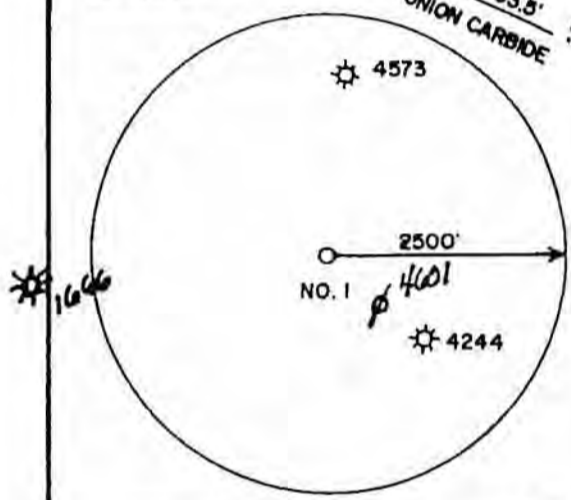
S 00-46 E
638.17'

L.M. DEVELOPMENT

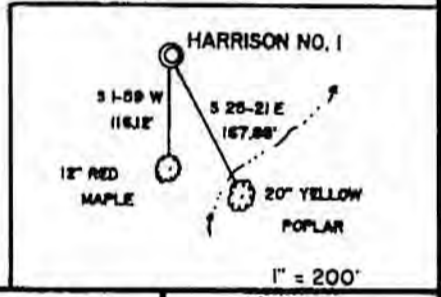
RYAN MONUMENT

3" IRON PIPE

2" IRON PIPE



REFERENCES



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION TOP OF KNOB 1065'

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 MINES
 (SIGNED) *James C. Whitfield*
 R.P.E. _____ L.L.S. 645

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE APRIL 4, 19 92
 OPERATOR'S WELL NO. HARRISON NO. 1
 API WELL NO. 10789
 STATE 47 - COUNTY 039 - PERMIT 4869

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 890' WATER SHED ROCKY FORK
 DISTRICT UNION COUNTY KANAWHA
 QUADRANGLE SAINT ALBANS 7.5'

SURFACE OWNER DAVID Gillian ACREAGE 73.38 AC
 OIL & GAS ROYALTY OWNER R.L. CRITCHFIELD et als. LEASE ACREAGE 73.38

08/22/2014

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 TUSCARORA ESTIMATED DEPTH 6500'
 WELL OPERATOR CONTINENTAL RESERVES CO. DESIGNATED AGENT LINDA ALDRIDGE
 ADDRESS 147-3 WEST MAIN ST. ADDRESS 147-3 WEST MAIN ST.
 BRIDGEPORT WV 26330 BRIDGEPORT WV 26330

3904869P

WW-4A
Revised 6-07

1) Date: _____
2) Operator's Well Number
10789
3) API Well No.: 47 - 039 - 04869

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
(a) Name Mercon, Inc. ✓	Name _____
Address PO Box 98 ✓	Address _____
Bethel Park, PA 15102	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name Mercon, Inc. ✓
_____	Address PO Box 98 ✓
_____	Bethel Park, PA 15102
(c) Name _____	Name _____
Address _____	Address _____
_____	_____
6) Inspector Terry Urban	(c) Coal Lessee with Declaration
Address PO Box 1207	Name _____
Clendenin, WV 25045	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
- (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. 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 CNX Gas Company LLC
 By: [Signature]
 Its: Attorney-in-Fact
 Address 1000 Conso Energy Drive
 Canonsburg, PA 15317
 Telephone 276-596-5075

Subscribed and sworn before me this 8 day of July **RECEIVED**
Richard B French Office Notary Public
 My Commission Expires July 31 2015

JUL 08 2014

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.

08/22/2014

3904869P

7011 2000 0000 8904 7087

CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

Postage	\$
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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark Here

Sent To **Mercon, Inc.**
 P.O. Box 98 ✓
 Bethel Park, PA 15102

7011 2000 0000 8904 7094

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Sent To **Terry Urban**
 P.O. Box 1207
 Clendenin, WV 25045

7011 2000 0000 8904 7100

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

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Sent To **WV DEP Office of Oil & Gas**
 Attn: Kay Holtsclaw
 601 57th Street, SE
 Charleston, WV 25304-2345

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 CNX Gas Company LLC OP Code 494458046

Watershed Rocky Fork Quadrangle St. Albans

Elevation 890 ft. County Kanawha District Union

Description of anticipated ~~Pit~~ Waste: water for plugging of abandoned gas well.

Will a synthetic liner be used in the pit? N/A *(Handwritten: W.M. USE TANKS)*

Proposed Disposal Method For Treated Pit Wastes:
 Land Application
 Underground Injection (UIC Permit Number 2D0550319)
 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 Swabbing
 Workover Plugging
 Other (Explain a pumper truck with flowback tank will be used in lieu of a pit.)

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.

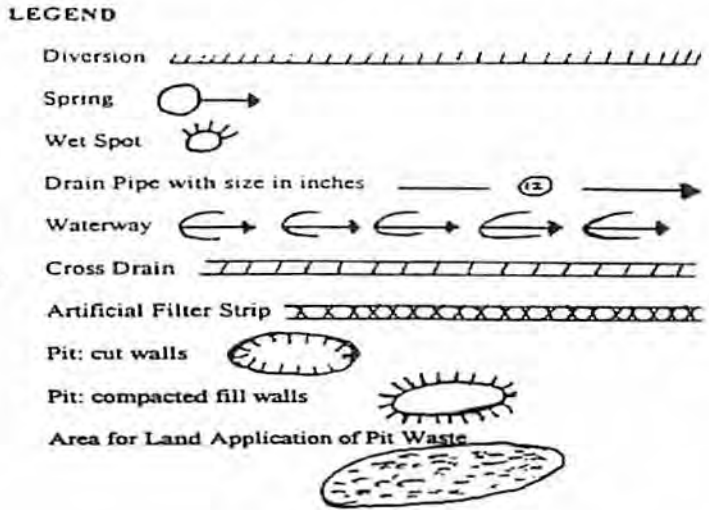
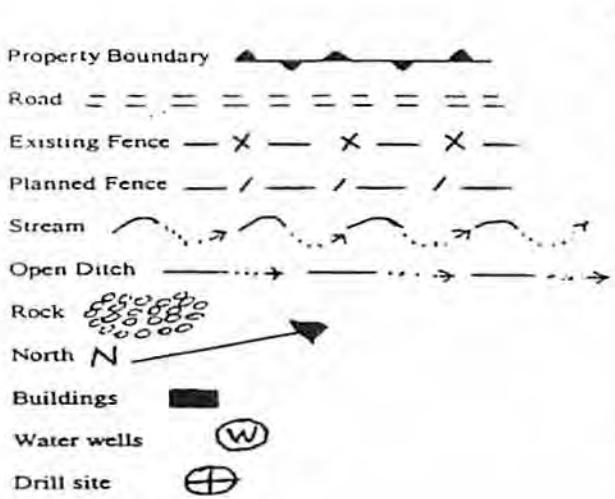
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is 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 *Ed Fanning*
Company Official (Typed Name) Ed Fanning
Company Official Title Supervisor

Subscribed and sworn before me this 8 day of July, 2014
Richard B French

RECEIVED
Office of Oil and Gas
JUL 08 2014
Notary Public
WV Department of Environmental Protection
RICHARD B. FRENCH
NOTARY PUBLIC
REG. # 7507041
COMMONWEALTH OF VIRGINIA
08/23/2014

My commission expires July 31 2015



Proposed Revegetation Treatment: Acres Disturbed 2.0 Prevegetation pH 6.5
 Lime based on pH Tons/acre or to correct to pH 7.0
 Fertilizer (10-20-20 or equivalent) 550 lbs/acre (500 lbs minimum)
 Mulch 2 Tons/acre

Seed Mixtures

Seed Type	Area I	lbs/acre	Seed Type	Area II	lbs/acre
Orchard grass		<u>25</u>	<u>same as Area I</u>		
Birdsfoot trefoil		<u>15</u>			
Lidino clover		<u>10</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: *Amy W. Baker*
 Comments: _____

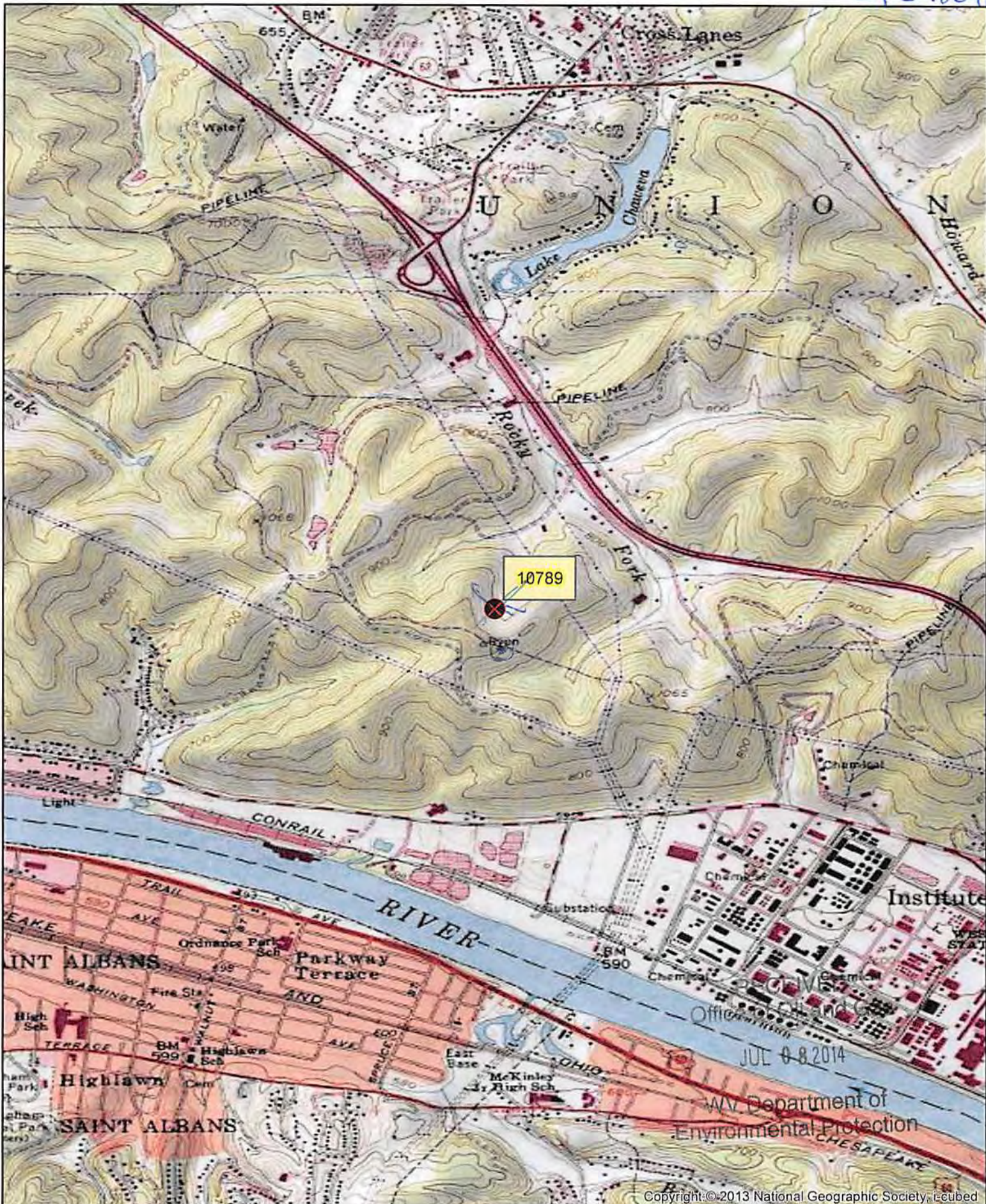
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 Office of Oil and Gas

Title: *Inspect Delans*

Date: *6-27-14* JUL 08 2014

Field Reviewed? Yes No

WV Department of
 Environmental Protection



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0 500 1,000 Feet	
Date: 5/9/2014	Prepared By: KK
Revisions:	Approved By: BS
This map is property of CONSOL Energy Inc. and contains information that is proprietary and confidential in nature and may not be copied or reproduced without prior written consent.	

CONSOL ENERGY

PROPOSED PLUGGING
WELL NUMBER 20784
API# 47-039-04869
GENERAL LOCATION MAP

WW-7
8-30-06



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

API: 47-039-04869 WELL NO.: 10789

FARM NAME: David Gillian

RESPONSIBLE PARTY NAME: CNX Gas Company LLC

COUNTY: Kanawha DISTRICT: Big Creek Union

QUADRANGLE: St. Albans, WV 594

SURFACE OWNER: David Gillian

ROYALTY OWNER: R.L. Critchfield et al

UTM GPS NORTHING: 4,250,010.94 m

UTM GPS EASTING: 430,760.68 m GPS ELEVATION: 278 m (912 FT)

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:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

- 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.

[Signature]
Signature

Prod. Coord.
Title

JUL 08 2014
7/7/14
Date

WV Department of Environmental Protection

3904869



Virginia Operations
627 Claypool Hill Road
Cedar Bluff, VA 24609

Bob Staton, MS, PG
Permitting Agent
Phone: 276-596-5137

Ms. Kay Holtsclaw
WVDEP **Office of Oil and Gas**
601 57th Street, SE
Charleston, WV 25304-2345

RE: 47-039-04869

Dear Ms. Holtsclaw;

Please find enclosed the plugging applications for the above referenced wells in Kanawha County. Please let me know if you require any additional information.

Sincerely,

A handwritten signature in blue ink that reads 'Bob Staton'.

Bob Staton

Permitting Agent

enclosures

RECEIVED
Office of Oil and Gas
JUL 08 2014
WV Department of
Environmental Protection

08/22/2014