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

July 24, 2013

WELL WORK PERMIT

Rework/Horizontal 6A Well

This permit, API Well Number: 47-9703791, 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days 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.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

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: ALT8BHS
Farm Name: WOODY, D. J., ET AL
API Well Number: 47-9703791
Permit Type: Rework/Horizontal 6A Well
Date Issued: 07/24/2013

Promoting a healthy environment.

97-3791

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

2. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the fill material shall be within plus or minus 2% (unless soil test results show a greater range of moisture content is appropriate and 95% compaction can still be achieved) of the optimum moisture content as determined by the standard proctor density test, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort. Each lift must meet 95 % compaction of the optimum density based on results from the standard proctor density test of the actual soils used in specific engineered fill sites. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

3. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

4. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations,* 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

5. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

6. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

7. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

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WW - 6B
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
W.VA. CODE §22-6A - WELL WORK PERMIT APPLICATION

97 06 206

1) Well Operator:	CNX Gas Company LLC	494458046	Upshur	Washington	Alton
		Operator ID	County	District	Quadrangle

2) Operator's Well Number: ALT8BHS Drill Deeper - API# 47-097-3791 Well Pad Name: ALT8HS

3 Elevation, current ground: 2460' Elevation, proposed post-construction: 2460'

4) Well Type: (a) Gas ■ Oil ■
Other
(b) If Gas: Shallow ■ Deep
Horizontal ■

5) Existing Pad? Yes or No: Yes

6) Proposed Target Formation(s), Depth(s), Anticipated Thicknesses and Associated Pressure(s):
Target - Marcellus, Depth - 7490, Thickness - 95', Pressure - 2500#

7) Proposed Total Vertical Depth: 7490'
8) Formation at Total Vertical Depth: Marcellus
9) Proposed Total Measured Depth: 12305'
10) Approximate Fresh Water Strata Depths: None Reported
11) Method to Determine Fresh Water Depth: Offset Well (API# 47-097-01608)
12) Approximate Saltwater Depths: None Anticipated
13) Approximate Coal Seam Depths: 105', 305'
14) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated
15) Does land contain coal seams tributary or adjacent to, active mine? No
16) Describe proposed well work: Drill and stimulate new horizontal Marcellus well. Well to be drilled to a TMD of 12305'. Well to be drilled to a TVD of 7490', formation at TVD - Marcellus. If an unexpected void is encountered, plan will be to set casing at a minimum of 30' past void and cement to surface with approved Class A type cement.

17) Describe fracturing/stimulating methods in detail:
The stimulation will be multiple stages divided over the lateral length of the well. Stage spacing is dependent upon engineering design. Slickwater fracturing technique will be utilized on each stage using sand, water, and chemicals.

18) Total area to be disturbed, including roads, stockpile area, pits, etc, (acres): 10 Acres

19) Area to be disturbed for well pad only, less access road (acres): 10 Acres

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(1/12)

20) **CASING AND TUBING PROGRAM**

TYPE	Size	New or Used	Grade	Weight per ft.	FOOTAGE: For Drilling	INTERVALS: Left in Well	CEMENT: Fill -up (Cu. Ft.)
Conductor	20"	N	L.S.	81.3#	40'	40'	CTS w/ 68sks Class A type cement
Fresh Water	13 3/8	N	J-55	54.5#	660'	660'	CTS w/ 435sks Class A Type Cement
Coal	9 5/8	N	J-55	36#	2001'	2001'	CTS w/ 640sks Class A Type Cement
Intermediate	7"	N	N-80	23#	5533'	5533'	CTS w/ 750sks Class A Type Cement
Production	4 1/2	N	P-110	11.6#	12305'	12305'	2200 cu. ft. w/ 50/50 POZ Lead & Class A Tail
Tubing	2 3/8	N	J-55	4.7#	7250'	7250'	
Liners							

Bill Hatfield 3/26/13

TYPE	Size	Wellbore Diameter	Wall Thickness	Burst Pressure	Cement Type	Cement Yield
Conductor	20"	26"	0.438	2110	Class A Type	1.18
Fresh Water	13 3/8"	17 1/2"	0.380	2730	Class A Type	1.39
Coal	9 5/8"	12 3/8"	0.352	3520	Class A Type	1.18
Intermediate	7"	8 3/4"	0.317	6340	Class A Type	1.18
Production	4 1/2"	6 1/2"	0.250	10690	Class A Type	1.26
Tubing	2 3/8"	6 1/2"	0.190	7700	.....	.....
Liners						

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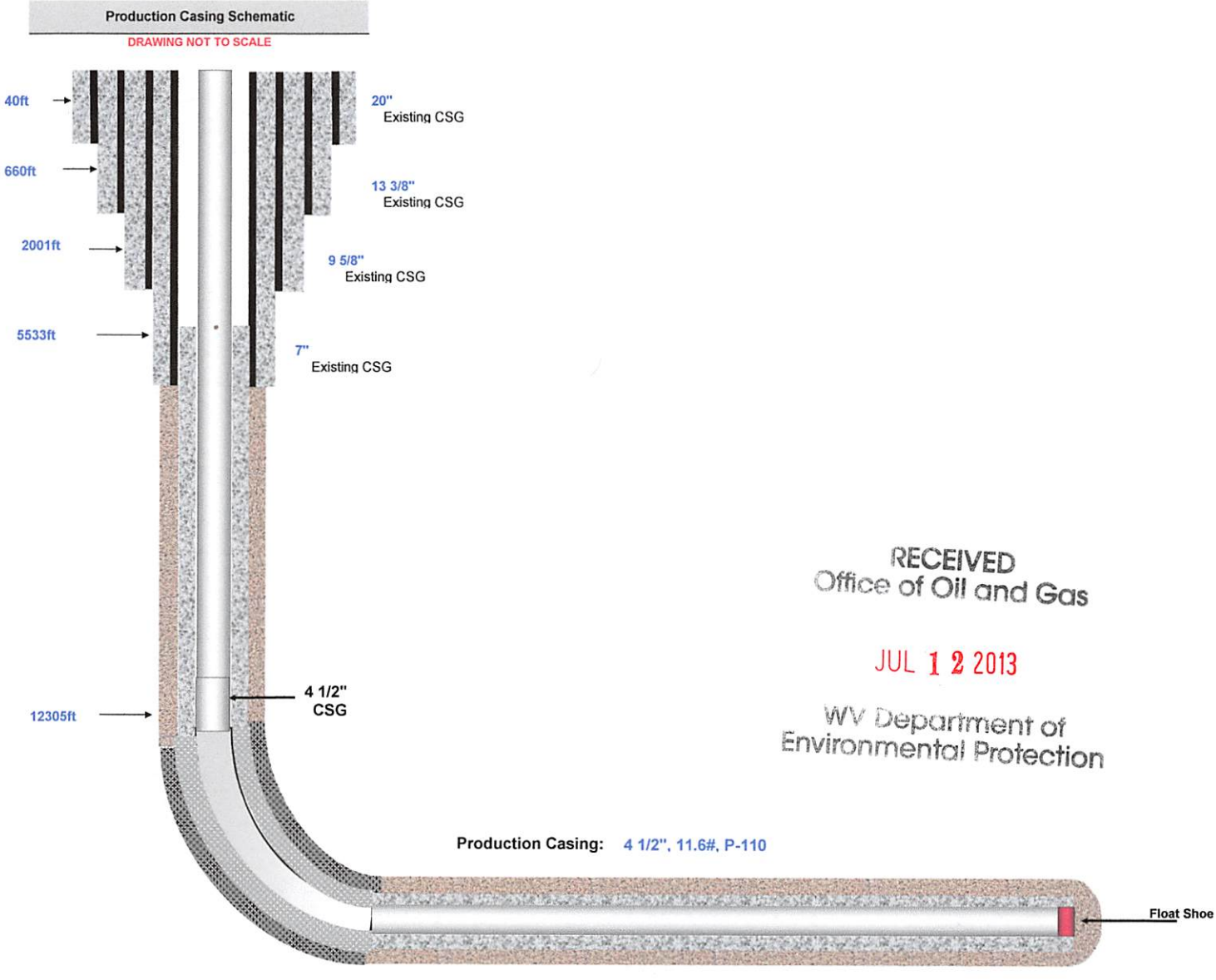
PACKERS

Kind:	None			
Sizes:	None			
Depths Set:	None			

97-3791

CONSOL ENERGY

ALT-8B-HS Casing Schematic



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21) Describe centralizer placement for each casing string. Conductor - No centralizers used. Fresh Water & Coal - Bow spring centralizers on first joint then every fourth joint to 100 feet from surface. Intermediate - Bow spring centralizers one on the first two joints and every forth joint until inside surface casing. Production - Rigid bow spring centralizer on first joint then every 2 casing joints (free floating) through the lateral and the curve. (Note: cementing the 5 1/2" casing completely in open hole lateral and curve.)

22) Describe all cement additives associated with each cement type. Conductor - 2% CaCl2. Fresh Water/Coal - 2% CaCl2. Intermediate - 2% CaCl2. Production - 2.6% Cement extender, 0.7% Fluid loss additive, 0.5% High Temperature Retarder, 0.2% Friction Reducer

23) Proposed borehole conditioning procedures. Conductor - The hole is drilled w/ air and casing ran in air. Apart from insuring the hole is clean via air circulation at TD, there are no other conditioning procedures. Fresh Water/Coat - The hole is drilled w/ air and casing is ran in air. Once casing is on bottom, the casing shoe will be cleared with fresh water and gel prior to cementing. Intermediate - The hole is drilled w/ air and casing is ran in air. Once casing is on bottom, the casing shoe will be cleared with fresh water and gel prior to cementing. (Note: Drilling soap may be utilized if the hole gets wet/damp during the drilling of all air holes with the exception of the conductor). Production - The hole will be drilled with synthetic oil base mud and once at TD the hole is circulated at a drilling pump rate until the hole is clean. Once casing is ran the hole is circulated for a minimum of one hole volume prior to pumping cement.

*Note: Attach additional sheets as needed.

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Cement Additives

- Conductor – 2% CaCl2
- Freshwater/Coal – 2% CaCl2
- Intermediate - 2% CaCl2
- Production -
    - 2.6% Cement extender
    - 0.7% Fluid Loss Additive
    - 0.5% High Temperature Retarder
    - 0.2% Friction Reducer

WW-9
Rev. 1/12

API No. 47 - 097 - 03791
Operator's Well No. ALT8BHS - Drill Deeper Permit

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 Panther Creek Quadrangle Alton

Elevation 2,459.5' County Upshur District Washington

Description of anticipated Pit Waste: Water & fluids associated with drilling and completion of new gas wells

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

Will a synthetic liner be used in the pit? Yes . If so, what mil.? 60 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)
■ Other (Explain Recycle on other wells on same pad or adjacent pads

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. Air and water based mud
-If oil based, what type? Synthetic, petroleum, etc. N/A
Additives to be used? Bactericide, Polymers and Weighting Agents
Will closed loop system be used ? No
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Landfill
-If left in pit and plan to solidify what medium will be used? Cement, lime, N/A
-Landfill or offsite name/permit number? Meadowfill, S & S Landfill, and Northwestern Landfill

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 _____

Company Official (Typed Name) Jeremy Jones

Company Official Title Designated Agent General Manager WV Gas Operations

Subscribed and sworn before me this 22nd day of March, 20 13

Kelly A. Eddy
Notary Public

My commission expires September 18, 2018

NOTARY PUBLIC OFFICIAL SEAL
STATE OF WEST VIRGINIA
KELLY A. EDDY
RT 2 BOX 225A
JANE LEW, WV 26378
MY COMMISSION EXPIRES SEPT. 18, 2018

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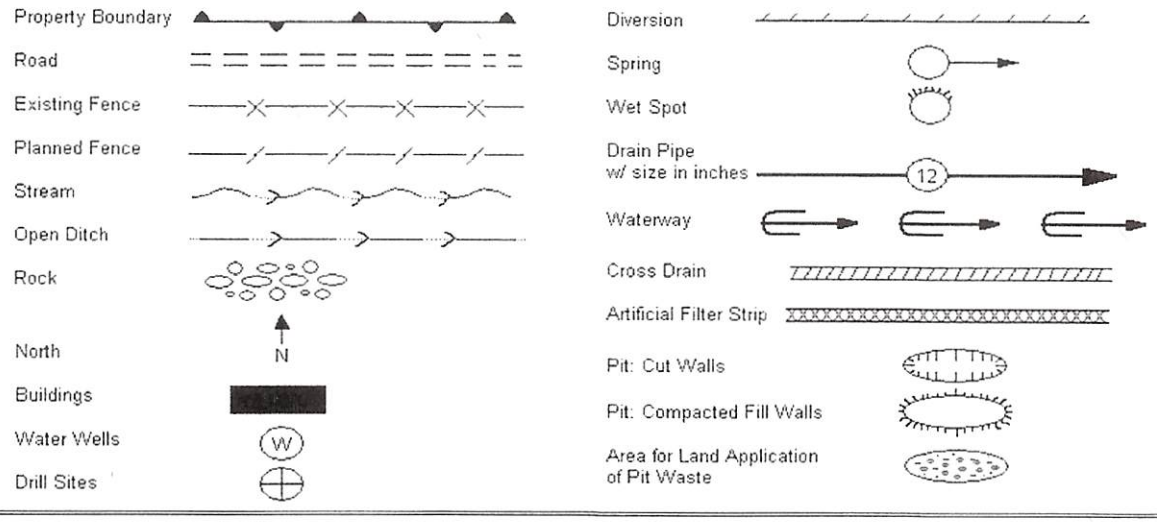
WW-9
Rev. 1/12

API No. 47 - 097 - 03791
Operator's Well No. ALT8BHS - Drill Deeper Permit



Proposed Revegetation Treatment: Acres Disturbed 10.08 Prevegetation pH 6.5

Lime according to PH test Tons/acre or to correct to pH 7.0

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

Mulch Hay or Straw 2 Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	25	Orchard Grass	25
Birdsfoot Trefoil	15	Birdsfoot Trefoil	15
Ladino Clover	10	Ladino Clover	10

Attach:
Drawing(s) of road, location,pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bill Hatfield

Comments:

Title: oil & gas inspector Date: 3/26/13

Field Reviewed? (✓) Yes ( ) No

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Water Management Plan:
Primary Water Sources

WMP-01213	API/ID Number:	047-097-03791 ALT8BHS	Operator:	Consol Energy - WV

Important:

For each proposed primary water source (including source intakes for purchased water sources) identified in your water management plan, and summarized herein, DEP has made an evaluation concerning water availability over the specified date range. DEP's assessment is based on the following considerations:

- Statistical analysis of historical USGS stream gauge data (transferred to un-gauged locations as necessary);
- Identification of sensitive aquatic life (endangered species, mussels, etc.);
- Quantification of known existing demands on the water supply (Large Quantity Users);
- Minimum flows required by the Army Corps of Engineers; and
- Designated stream uses.

Based on these factors, DEP has provided, for each intake location (and origination point for purchased water), a reference gauge location and discharge flow reading which must be surpassed prior to withdrawals. Additionally, DEP has established a minimum passby flow at the withdrawal location which must also be surpassed prior to withdrawals. These thresholds are considered terms of the permit and are enforceable as such.

DEP is aware that some intake points will be used for mutiple wells and well sites. In these cases, the thresholds set by the Water Management Plan are to be interepreted as total withdrawal limits for each location over the specified date range regardless of how many wells are supported by that intake.

For all purchased water intakes, determinations of water availability are made at the original source intake location. It is the responsibility of the Oil and Gas Operator, not the seller, to cease withdrawal of water from the seller when flows are less than the minimum gauge reading at the stream gauge referenced by the Water Management Plan in order to protect stream uses.

Note that the determinations made herein are based on the best available data, but it is impossible to predict water availability in the future. While the DEP has carefully established these minimum withdrawal thresholds, it remains the operator's responsibility to protect aquatic life at all times. Approval to withdrawal is contingent upon permission from the land owner. It is the responsibility of the operator to secure and maintain permission prior to any withdrawals.

The operator is reminded that 24-48 hours prior to withdrawing (or purchasing) water, DEP must be notified by email at DEP.water.use@wv.gov.

APPROVED JUN 0 6 2013

Source Summary

WMP- 01213	API Number:	047-097-03791	Operator:	Consol Energy - WV
		ALT8BHS		

Stream/River

- Source **Buckhannon River @ Consol Energy Withdrawal Site** Owner: **Consol Energy**

Start Date	End Date	Total Volume (gal)	Max. daily purchase (gal)	Intake Latitude:	Intake Longitude:
5/1/2013	5/1/2014	5,229,000		38.803115	-80.206603

☐ Regulated Stream? Ref. Gauge ID: 3052120 Buckhannon River at Alton WV

Max. Pump rate (gpm): **1,470** **Min. Gauge Reading (cfs):** **33.78** **Min. Passby (cfs)** **30.15**

DEP Comments:

Source Detail

WMP- 01213 | API/ID Number: 047-097-03791 | Operator: Consol Energy - WV

ALT8BHS

Source ID: 17800 | Source Name: Buckhannon River @ Consol Energy Withdrawal Site
Consol Energy

Source Latitude: 38.803115
Source Longitude: -80.206603

HUC-8 Code: 5020001

Drainage Area (sq. mi.): 93.62 | County: Upshur

Anticipated withdrawal start date: 5/1/2013
Anticipated withdrawal end date: 5/1/2014
Total Volume from Source (gal): 5,229,000
Max. Pump rate (gpm): 1,470
Max. Simultaneous Trucks: 0
Max. Truck pump rate (gpm)

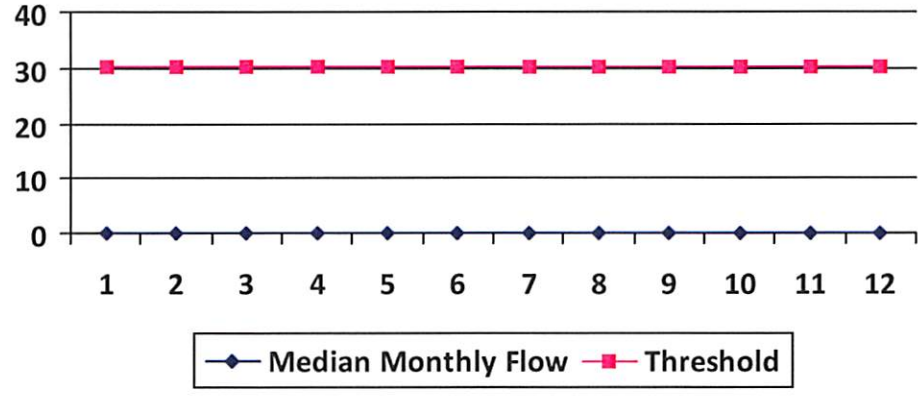
- ☐ Endangered Species?
- ☐ Mussel Stream?
- ☑ Trout Stream?
- ☐ Tier 3?
- ☐ Regulated Stream?
- ☐ Proximate PSD?
- ☑ Gauged Stream?

Reference Gaug: 3052120 Buckhannon River at Alton WV

Drainage Area (sq. mi.): 94.70 | Gauge Threshold (cfs): 30.5

Month	Median monthly flow (cfs)	Threshold (+ pump	Estimated Available water (cfs)
1	0.00	33.43	-
2	0.00	33.43	-
3	0.00	33.43	-
4	0.00	33.43	-
5	0.00	33.43	-
6	0.00	33.43	-
7	0.00	33.43	-
8	0.00	33.43	-
9	0.00	33.43	-
10	0.00	33.43	-
11	0.00	33.43	-
12	0.00	33.43	-

Water Availability Profile



Water Availability Assessment of Location

Base Threshold (cfs):	30.15
Upstream Demand (cfs):	0.00
Downstream Demand (cfs):	0.00
Pump rate (cfs):	3.28
Headwater Safety (cfs):	0.00
Ungauged Stream Safety (cfs):	0.00
Min. Gauge Reading (cfs):	**33.78**
Passby at Location (cfs):	**30.15**

"Threshold", as depicted in the chart above is meant only to indicate the calculated base threshold at the proposed withdrawal location. This value does not include the proposed pump rate or existing demand on the stream. Refer to the monthly breakdown above for a more complete estimation of water availability by month.

Water Management Plan:
Secondary Water Sources

WMP-01213 | API/ID Number 047-097-03791 | Operator: Consol Energy - WV

ALT8BHS

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Multi-site impoundment

Source ID: 17801 Source Name Alton 1 Freshwater Impoundment

Source start date: 5/1/2013

Source end date: 5/1/2014

Source Lat: 38.794961 Source Long: -80.184542 County Upshur

Max. Daily Purchase (gal)

Total Volume from Source (gal): 5,229,000

DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted.

Reference: WMP-194

Important:

For each proposed secondary water source identified in your water management plan (i.e., groundwater well, lake/reservoir, recycled frac water, multi-site impoundment, out-of-state source), DEP makes no estimation of the availability of water. These sources may prove to be unsuitable water supplies. Please review the following notes:

- For groundwater supply wells, DEP recommends that the operator contact the local health department prior to drilling any new well; and reminds the operator that all drinking water wells within 1,500 feet of a water supply well shall be flow- and quality-tested by the operator at the request of the drinking well owner prior to operation of the water supply well.
- For each proposed multi-site impoundment water source identified in your water management plan (if applicable), DEP will review the withdrawal limits established in the referenced Water Management Plan for current suitability and provide to the operator these limits for each identified intake. Note that withdrawal limits may be modified as necessary based on changing demands upon that water supply.

Source ID: 17802 Source Name Alton 2 Freshwater Impoundment
Source start date: 5/1/2013
Source end date: 5/1/2014

Source Lat: 38.806146 Source Long: -80.195108 County Upshur

Max. Daily Purchase (gal) Total Volume from Source (gal): 5,229,000

DEP Comments:

The intake identified above has been defined in a previous water management plan. The thresholds established in that plan govern this water management plan unless otherwise noted. **Reference: WMP-195**

Recycled Frac Water

Source ID: 17803 Source Name Various
Source start date: 5/1/2013
Source end date: 5/1/2014

Source Lat: Source Long: County

Max. Daily Purchase (gal) Total Volume from Source (gal): 5,229,000

DEP Comments:

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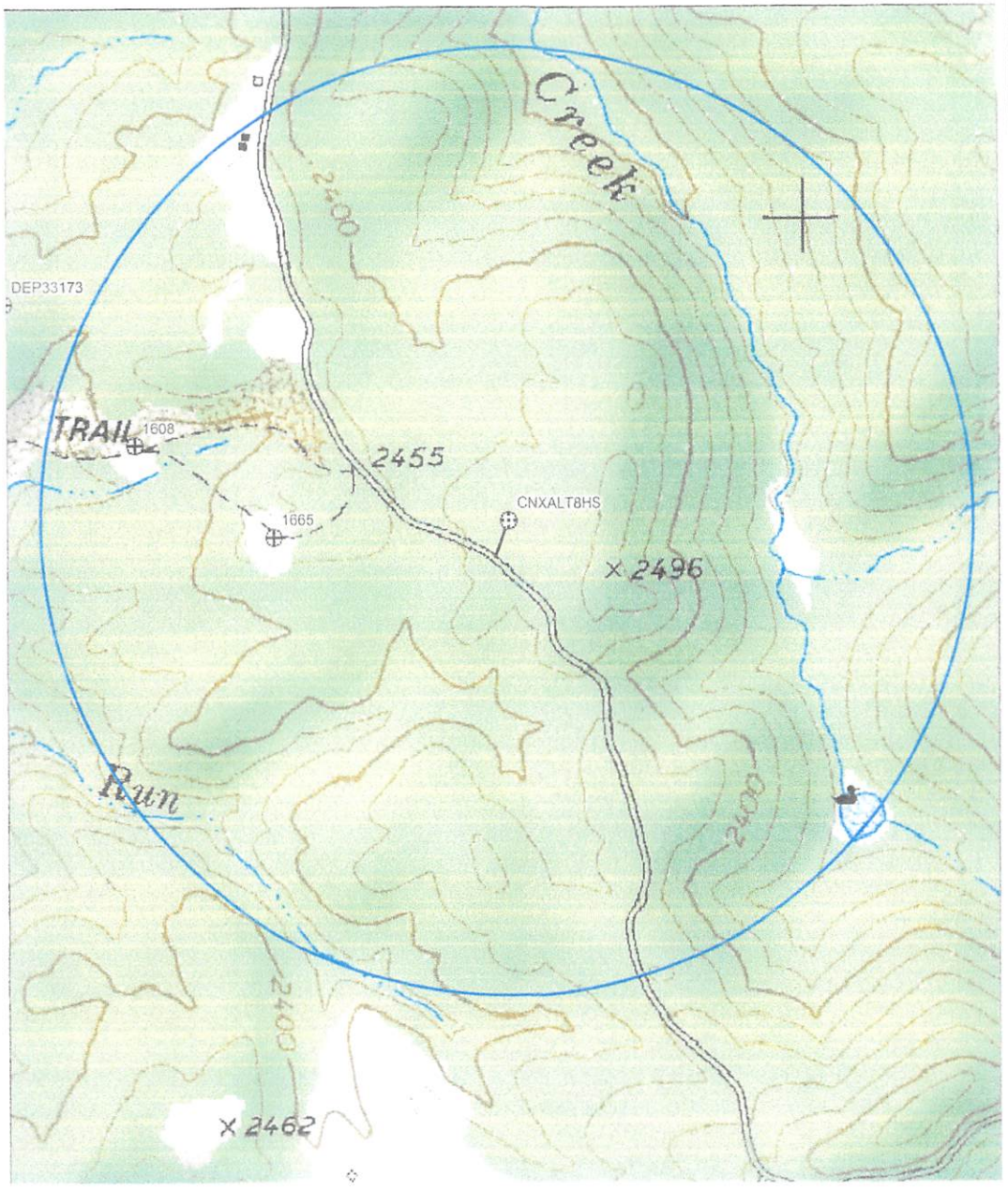


1, 103904.680, 1810138.211, 2272.115, "n end pond"

97-03791 D ALT8BHS
CNX GAS COMPANY LLC

PAD NAME: ALT8HS

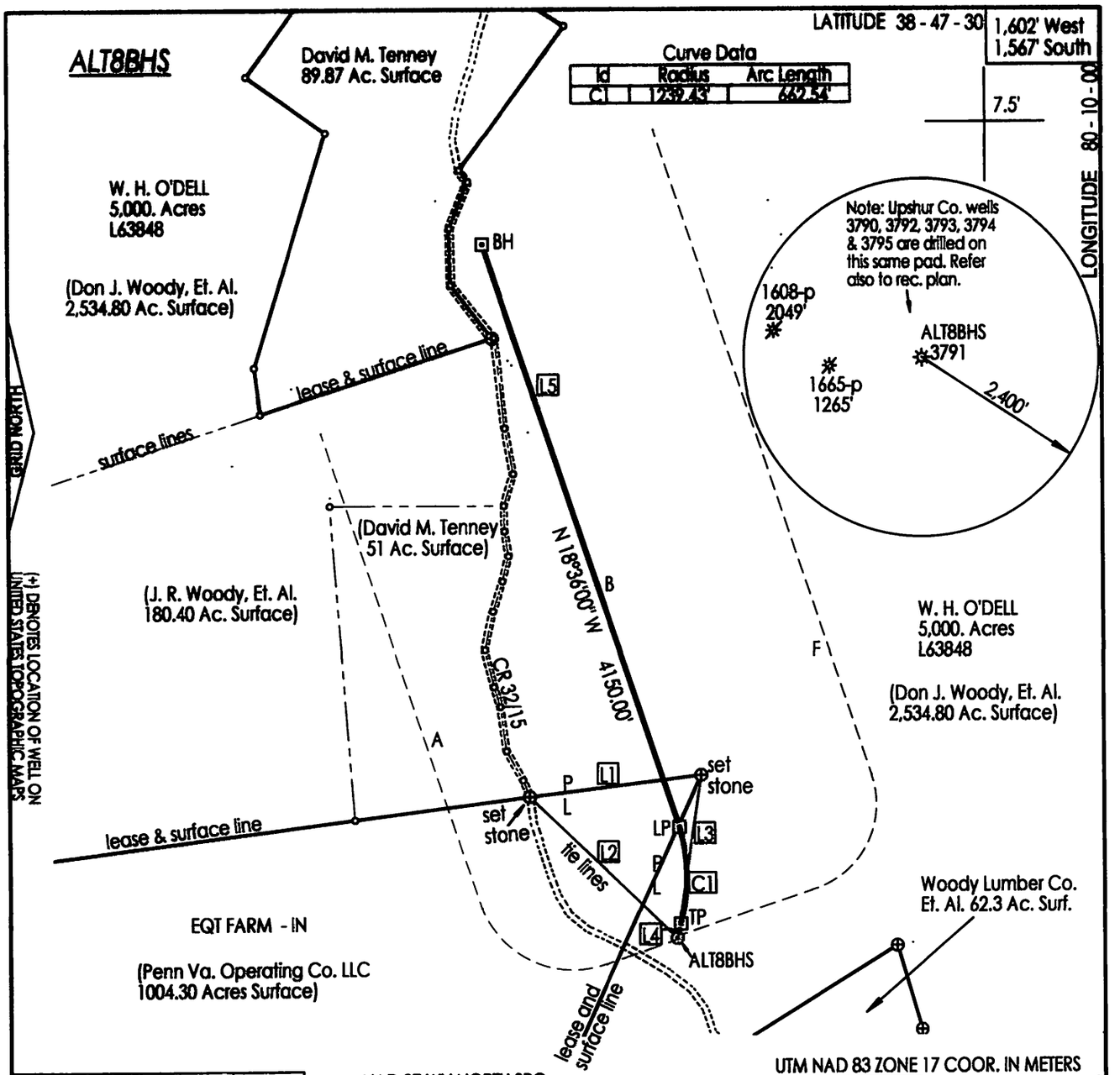
COORDINATE BASIS
NAD27 WV N STATE PLANE

NORTH

APR 04 2013

CNX Gas Company LLC P. O. Box 1248 Jane Lew, WV 26378		
PLAT SHOWING WATER PURVEYORS WITHIN 2,500 FEET OF THE ALT8HS PAD CENTER		
DISTRICT Washington	COUNTY Upshur	STATE WV
DATE Oct. 22, 2012	SCALE 1" = 733.33 ft.	DWG NO. alt8wtrpur

LAND SURVEYING SERVICES
21 Cedar Lane
Bridgeport, WV 26330
304-842-2018



Id	Bearing	Distance
L1	S 83°00'11" W	1173.90'
L2	S 46°08'29" E	1384.09'
L3	N 8°37'31" E	1114.62'
L4	N 14°00'00" E	100.00'
L5	N 18°36'00" W	4150.00'

NAD 27 WV NORTH SPC			
North	East	Description
105371.71000'	1808360.56000'	ALT8BHS
105468.73957'	1808384.75219'	TANGENT POINT
106123.38556'	1808378.37404'	LANDING POINT
110056.62446'	1807054.69291'	BOTTOM HOLE

UTM NAD 83 ZONE 17 COOR. IN METERS		
North	East	Description
4,293,514.42 m	571,908.60 m	ALT8BHS
4,293,544.10 m	571,915.48 m	TANGENT PT.
4,293,743.50 m	571,910.24 m	LANDING PT.
4,294,935.05 m	571,487.15 m	BOTTOM HOLE

FILE NUMBER: M 6-Q P 10
DRAWING NUMBER: cnxalt8bhsr3
SCALE: 1" = 1,000
MINIMUM DEGREE OF ACCURACY: Centimeter
PROVEN SOURCE OF ELEVATION: DGPS Survey
RTK Centimeter System

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 ENERGY.

(SIGNED) J. Michael Evans
J. Michael Evans, P. S. #900

PROFESSIONAL LAND SURVEYOR
J. Michael Evans
SURVEYOR
NO. 900
STATE OF WEST VIRGINIA

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 McJUNKIN ROAD
NITRO, WV 25143-2506
FORM WW-6

LAND SURVEYING SERVICES
21 CEDAR LANE, BRIDGEPORT, WV 26330
PHONE: 304-842-2018 OR 842-5762

DATE: January 17, 2013
OPERATORS WELL NO.: ALT8BHS
API WELL NO. Rework
47 — 097 — 3791 H6A
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 2,459.5' (749.66 m) WATERSHED Panther Creek
DISTRICT Washington COUNTY Upshur
QUADRANGLE Alton 7.5' LEASE NUMBER L63848
SURFACE OWNER Don J. Woody, Et. Al. ACREAGE 2,534.80
OIL & GAS ROYALTY OWNER W. H. O'Dell 5000. Acres, EQT Farm - In LEASE ACREAGE 5,000.

PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER X REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) HORIZONTAL
PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

TARGET FORMATION Marcellus ESTIMATED DEPTH TVD 7,490' TMD12,305'
WELL OPERATOR CNX Gas Company LLC DESIGNATED AGENT Jeremy Jones
ADDRESS P. O. Box 1248, Jane Lew, WV 26378 ADDRESS P. O. Box 1248, Jane Lew, WV 26378

COUNTY NAME PERMIT