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**west virginia** department of environmental protection

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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](http://www.dep.wv.gov)

October 23, 2013

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4300584, issued to EQT PRODUCTION 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 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: WV 41779 (LINCOLN MINERAL C  
Farm Name: EDWARDS, L & S.

**API Well Number: 47-4300584**

**Permit Type: Plugging**

Date Issued: 10/23/2013

**Promoting a healthy environment.**

1) Date: August 13, 2013  
 2) Operator's Well Number  
417791 Lincoln Mineral Q-43  
 3) API Well No.: 47 043 - 00584  
 State County Permit

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT**  
**DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL & GAS**  
**NOTICE AND APPLICATION TO PLUG AND ABANDON WELL**

*Check# 16364  
\$ 400.00  
4 permits*

4) Surface Owner(s) to be served:  
 (a) Name L. & S. Edwards ✓  
 Address 585 Midway Rd  
Alum Creek, WV 25003  
 (b) Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 (c) Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 6) Inspector Ralph Triplett ✓  
 Address 5539 McCellan Hwy  
Branchland, WV 25506  
 Telephone 304-389-0350

5) (a) Coal Operator:  
 Name None  
 Address \_\_\_\_\_  
 (b) Coal Owner(s) with Declaration ✓  
 Name Penn Virginia Resources Partners  
One Carbon Center  
 Address Suite 100  
Chesapeake, WV 25315  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 (c) Coal Lessee with Declaration ✓  
 Name Coal River Mining LLC  
 Address P.O. Box 58370  
Charleston, WV 25358  
 ## \_\_\_\_\_

**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 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 Division 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.

By: \_\_\_\_\_  
 Notary Public  
 Pamela Sytes  
 EQT Production  
 PO Box 280  
 Bridgeport, WV 26330  
 My Commission Expires Aug. 24, 2013  
 Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 2013  
 My Commission Expires: 8-24-2013

Well Operator: EQT Production Company  
Victoria J. Roark  
 Permitting Supervisor  
PO Box 280  
Bridgeport, WV 26330  
(304) 848-0076

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 WV Department of  
 Environmental Protection

The Office of Oil & Gas processes your personal information, such as name, address and phone number, as 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](mailto:depprivacyofficer@wv.gov).

Date: August 13, 2013  
Operator's Well  
Well No. 417791 Lincoln Mineral Q-43  
API Well No.: 47 043 - 00584

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        Gas   X   Liquid Injection        Waste Disposal:         
If Gas, Production   X   Or Underground storage        Deep        Shallow   X
- 5) Elevation: 902.68' Watershed: Fuquay Creek  
Location: Washington 08 County: Lincoln 43 Quadrangle: Alum Creek 207  
District:
- 6) Well Operator EQT Production Company 7) Designated Agent: Rex C. Ray  
Address: 120 Professional Place Address: 120 Professional Place  
Bridgeport, WV 26330 Bridgeport, WV 26330
- 8) Oil & Gas Ralph Triplett 9) Plugging Contractor:  
Name: 5539 McCellan Hwy Name: HydroCarbon Well Service  
Address: Branchland, WV 25506 Address: PO BOX 995  
       Buckhannon, WV 26201

- 10) Work Order: The work order for the manner of plugging this well is as follows:  
**See Attachment for details and procedures.**

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Office of Oil and Gas

OCT 03 2013

WV Department of  
Environmental Protection

OFFICE USE ONLY

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

Work order approved by inspector Ralph D. Triplett Date August 21, 2013

PLUGGING PROGNOSIS

**Lincoln Mineral #43 (417791)**

Lincoln County, West Virginia  
API # 47-043-00584  
St. Albans : Quad

BY: Craig Duckworth  
DATE: 2/27/13

**CURRENT STATUS:**

10 3/4" csg @ 551'  
8 1/4" csg @ 1301' Pulled  
7" csg @ 1818' (Open hole packer @ 1818')  
5 1/4" csg @ 1047'

TD @ 4057'

Elevation @ 977'

Fresh Water @ 1050'

Salt Water @ 1075', 1335'

Salt Sand @ 1012'

Coal @ 180', 530'

Gas shows @ none reported

Oil Shows @ none reported

Stimulation: @ 4043' to 3100' shot

1. Notify State Inspector, Ralph Triplett 304-389-0350, and 24 hrs prior to commencing operations.
2. TIH w/ tbg @ 3100'; Set 100' C1A Cement Plug @ 3100' to 3000' (Shot @ 4043'-3100')
3. TOOH w/ tbg @ 3000'; Gel hole @ 3000' to 1900'
4. TOOH w/ tbg @ 1900'; Set 100' C1A Cement Plug @ 1900' to 1800' (7" @ 1818')
5. TOOH w/tbg to pull 5 1/2" @ 1047'
6. TIH w/ tbg to check free point on 7" csg, cut & pull at free point
7. Set a 100' C1A Cement Plug 50' In/Out of cut. Perf all FW, Coal, Oil and Gas shows below 7" cut.  
Do not omit any plugs
8. TIH w/ tbg @ 1800'; Gel hole @ 1800' to 1400'
9. TOOH w/ tbg @ 1000'; Set 100' C1A Cement Plug @ 1000' to 900' (Salt Sand @ 1012' & Fresh Water @ 1050')
10. TOOH w/ tbg @ 900'; Gel hole @ 900' to 610'
11. Free point on 10 3/4" csg, cut & pull at free point
12. TIH w/ tbg @ 610'; Set 110' C1A Cement Plug @ 610' to 480' (coal @ 530' & 10 3/4" @ 551')
13. TOOH w/ tbg @ 480'; Gel hole @ 480' to 200'
14. TOOH w/ tbg @ 200'; Set 200' C1A Cement Plug @ 200' to 0 (surface)
15. Top off if necessary
16. Set Monument to WV-DEP Specifications
17. Reclaim Location & Road to WV-DEP Specifications

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RDT

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Permit No. Lin 584  
St. Albans Quad.  
Company  
Address  
Farm  
Location  
Well No.  
District  
Surface  
Mineral  
Commenced  
Completed  
Date shot  
Open flow  
Volume  
Rock Pressure  
Fresh Water  
Salt Water

Hamilton Gas Corporation  
P.O. Box 2307, Charleston 20, W.Va.  
Lincoln Land & Mineral Co. Acres 4,000  
Fuquay Cr.  
7-43 Elev. 977  
Washington Lincoln County  
Hon. Edwards  
Hamilton Gas Corporation  
Feb. 10, 1945  
May 11, 1945  
5-3-45 Depth 3100 to 4043 with 8,100# 80% Gal.  
6/10ths W in 2"  
103 OP  
148# 48 hrs.  
5-10" BPH 1,050'  
HFW 1,075-1335'

Gas Well  
CASING & TUBING

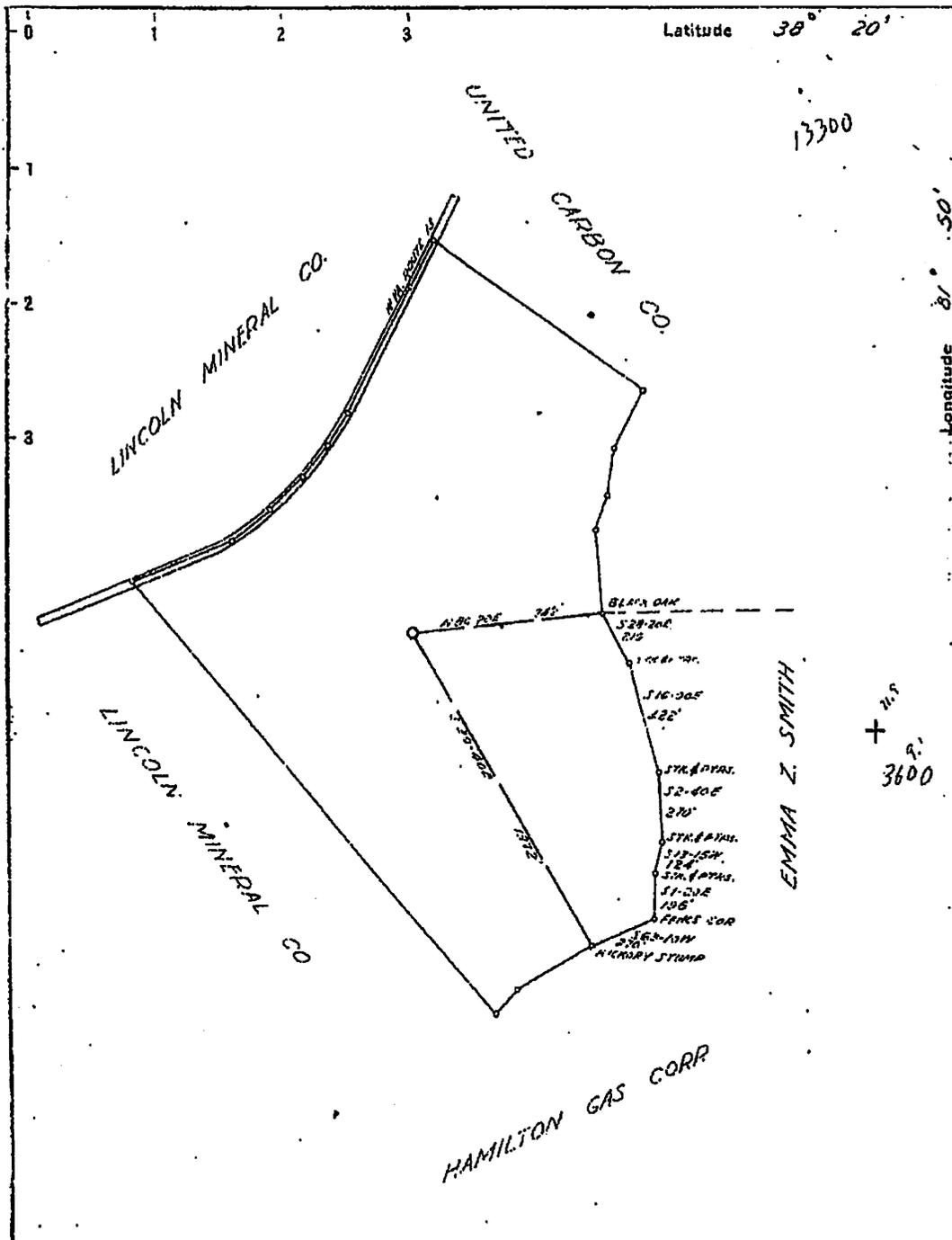
13 3/8 S2 32  
10 1/2 556 551  
8 1/4 1301 Pld.  
7 OD 1832 1818  
5 1/2 1047

BH Packer  
Size 7" x 8 5/8"  
x 16

Coal at 180-182' 24";  
530-538' 96"

Red Rock	0	10	Dr. Shale	2885	2395
Blue Slate	10	25	Berea Grit	2395	2416
Brown Sand	25	40	Slate & Shells	2416	3600
Gray Lime	55	70	Blk. Lime	3600	3750
Red Rock	70	78	Gray Shale	3750	3865
Lime	78	128	Dr. Shale	3865	4036
White Sand	128	155	White Slate	4036	4057
Slate	155	180	TOTAL DEPTH		4057
-Coal	180	182			
Slate & Shells	182	305			
White Sand	305	346			
Slate	346	350			
Sand	350	460			
Slate & Sand	460	530			
-Coal	530	538			
Slate & Shells	538	620			
Sand White	620	645			
Slate & Shells	645	700			
Sand White	700	740			
Slate	740	745			
Lime	745	775			
Blk. Slate	775	890			
Lime	890	905			
White Sand	905	960			
Slate & Shells	960	985			
Sand White	985	1005			
Slate Blk	1005	1012			
-Salt Sand	1012	1100			
Blk. Slate	1100	1102			
Salt Sand	1102	1365			
Wh. Slate Break	1365	1370			
Salt Sand	1370	1390			
Blk. Slate	1390	1392			
Salt Sand	1392	1510			
Blk. Slate	1510	1513			
Blk. Lime	1513	1525			
Maxon Sand	1525	1575			
Blk. Slate	1575	1580			
Dark Lime	1580	1615			
Red Rock	1615	1618			
Dark Lime	1618	1725			
Slate White	1725	1730			
Little Lime	1730	1779			
Pencil Cave	1779	1780			
Big Lime	1780	1921			
Injun Sand	1921	1977			
White Slate	1977	2000			
Blue Sand	2000	2020			
Lime	2020	2070			
Slate & shells	2070	2102			
Hd. Blue Shell	2102	2120			
Slate Shells	2120	2275			
Blk. Lime Hd	2275	2385			

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New Location, X  
 Drill Deeper ...  
 Abandonment ....

F19688

Company HAMILTON GAS CORP  
 Address CHARLESTON, W. VA.  
 Farm LINCOLN MINERAL CO.  
 Tract \_\_\_\_\_ Acres 4000 Lease No. WL-E  
 Well (Farm) No: 7 Serial No. R-43  
 Elevation (Spirit Level) 977  
 Quadrangle SAINT ALBANS 0-39-382  
 County LINCOLN District WASHINGTON  
 Engineer H. B. Stewart  
 Engineer's Registration No. 710  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date DEC. 8, 1944 Scale 1"=1000'

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

WELL LOCATION MAP  
 FILE NO. R-43-589

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border of original tracing.

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

Operator Name: EQT PRODUCTION COMPANY OP ID: \_\_\_\_\_  
Watershed: Fuquay Creek Quadrangle: Alum Creek  
Elevation: 902.68' County: Lincoln District: Washington

Description of anticipated Pit Waste: Formation Fluids

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes \_\_\_ No X  
Will synthetic liner be used in the pit? Yes Is so, what ml.? 30 ml

Proposed Disposal Method for Treated Pit Wastes:

- Land Application
- Underground Injection - UIC Permit Number \_\_\_\_\_
- Reuse (at API Number) \_\_\_\_\_
- Offsite Disposal Permit #. \_\_\_\_\_
- Other: Explain \_\_\_\_\_

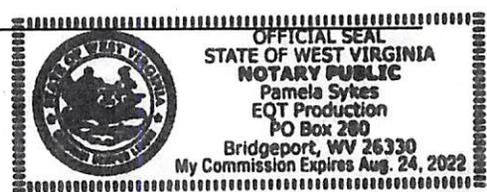
Drilling medium anticipated for this well? Air, freshwater, oil based, etc. \_\_\_\_\_  
If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_  
Additives to be used? \_\_\_\_\_

Will closed loop system be used? \_\_\_\_\_  
Drill Cuttings disposal method? Leave in pit, landfill, remove offsite, etc. \_\_\_\_\_  
If left in pit and plan to solidify what medium will be used? Cement, Lime, sawdust \_\_\_\_\_  
Landfill or offsite name/permit number? \_\_\_\_\_

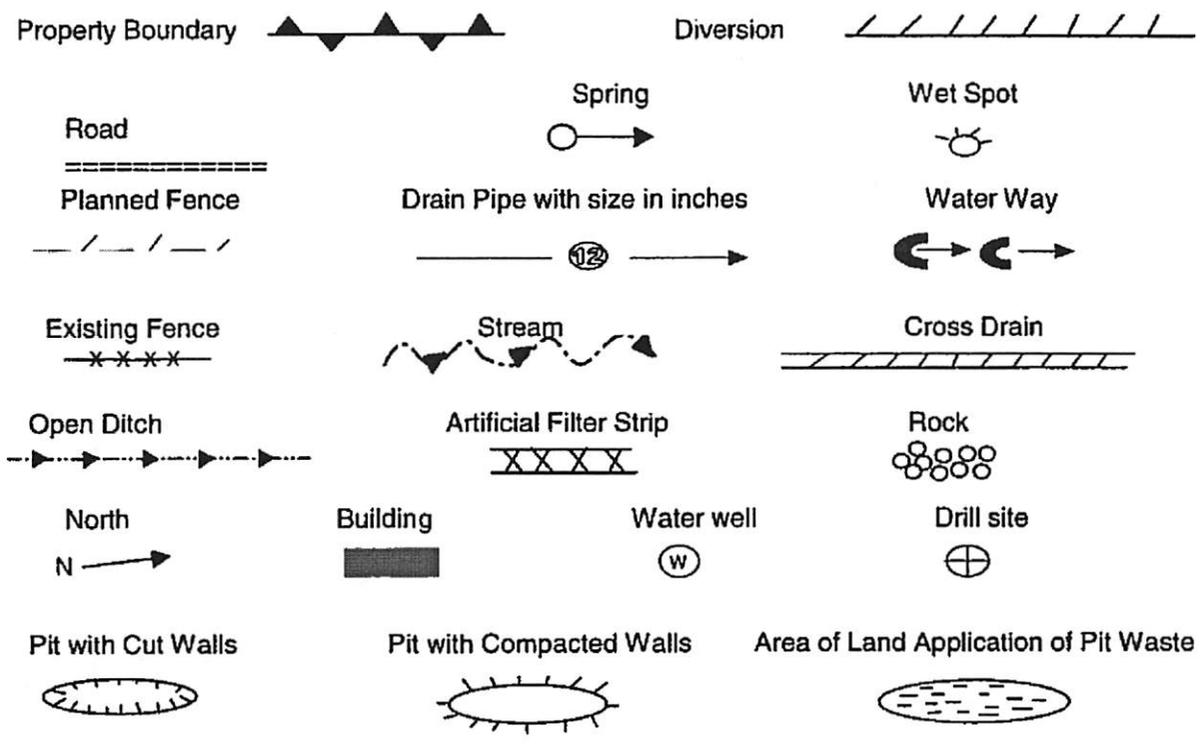
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Division of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any terms 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 *Victoria Roark*  
Company Official (Typed or Printed) Victoria Roark  
Company Official Title Permitting Supervisor-WV  
Subscribed and sworn before me this 14 day of August, 2013  
*Pamela Sykes* Notary Public  
My Commission Expires 8-24-22

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WV Department of Environmental Protection



**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed: 1± Prevegetation pH 5.8

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer (10-20-20) or equivalent 1/3 ton lbs/acre (500 lbs minimum)

Mulch 2 Tons/acre or hydroseed.

**SEED MIXTURES**

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
KY-31	40	Orchard Grass	15
Alsike Clover	5	Alsike Clover	5
Annual Rye	15		

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**ATTACH:**

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

Plan approved by: Rogel D. Trujillo

Comments: \_\_\_\_\_

Title: District Supervisor Date: August 21, 2013  
Field Reviewed?  Yes  No

WV Department of  
Environmental Protection



## POTENTIAL WATER SAMPLE DATA SHEET

CLIENT: EQT PRODUCTION COMPANY  
LEASE NAME AND WELL No. Lincoln Mineral Co. Q-43 WV 417791 (47-043-00584)

The initial mapping review of the area surrounding the proposed well site revealed the below listed surface owner(s) that were potentially utilizing groundwater (potable) for Human Consumption or other purposes within 1000' of the existing well site. The following landowners will be notified of the opportunity to request a water sample.

\*Please note that the following information is subject to change upon field inspection.

### POTENTIAL SAMPLE LOCATIONS

Site: 1 Spacing: 890' +/- Owner: Louise Edwards  
Address: P.O. Box 1273, Pawleys Island, SC 29585 Phone No. 843.237.2226  
Comments:

Site: 2 Spacing: 850' +/- Owner: Louise Edwards  
Address: P.O. Box 1273, Pawleys Island, SC 29585 Phone No. 843.237.2226  
Comments:

Site: 3 Spacing: 960' +/- Owner: Louise Edwards  
Address: P.O. Box 1273, Pawleys Island, SC 29585 Phone No. 843.237.2226  
Comments:

Site: 4 Spacing: 730' +/- Owner: Larry and Sharon Edwards  
Address: 585 Midway Road, Alum Creek, WV 25003 Phone No. 304.756.9327  
Comments:

Site: 5 Spacing: 660' +/- Owner: Larry and Sharon Edwards  
Address: 585 Midway Road, Alum Creek, WV 25003 Phone No. 304.756.9327  
Comments:

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Environmental Protection

**BIRCH RIVER OFFICE**  
P.O. Box 438 • 237 Birch River Road  
Birch River, WV 26610  
phone: 304-649-8606  
fax: 304-649-8608

**BRIDGEPORT OFFICE**  
172 Thompson Drive  
Bridgeport, WV 26330  
phone: 304-848-5035  
fax: 304-848-5037

**CALDWELL OFFICE**  
212 Cumberland Street  
Caldwell, OH 43724  
phone: 740-305-5007  
fax: 740-305-5126

**ALUM CREEK OFFICE**  
P.O. Box 108 • 1413 Childress Road  
Alum Creek, WV 25003  
phone: 304-756-2949  
fax: 304-756-2948

Site: 6 Spacing: 660' +/- Owner: Little General Stores, Inc.  
Address: P.O. Box 968, Beckley, WV 25801 Phone No. 304.253.9592  
Comments:

Site: 7 Spacing: 630' +/- Owner: Barry and Kathy D. McCallister  
Address: 551 Midway Road, Alum Creek, WV 25003 Phone No. 304.756.2135  
Comments:

Site: 8 Spacing: 670' +/- Owner: Theodore A. and Tracy M. George  
Address: 539 Midway Road, Alum Creek, WV 25003 Phone No. 304.756.2503  
Comments:

Site: 9 Spacing: 790' +/- Owner: Robert Mostellar, Trustee of New Cov. Bapt. Church  
Address: 555 Buckeye Fork Road, Sod, WV 25564 Phone No. 304.756.2782  
Comments:

Site: 10 Spacing: 910' +/- Owner: Robert Mostellar, Trustee of New Cov. Bapt. Church  
Address: 555 Buckeye Fork Road, Sod, WV 25564 Phone No. 304.756.2782  
Comments:

Topo Quad: Alum Creek 7.5'

Scale: 1" = 2000'

County: Lincoln

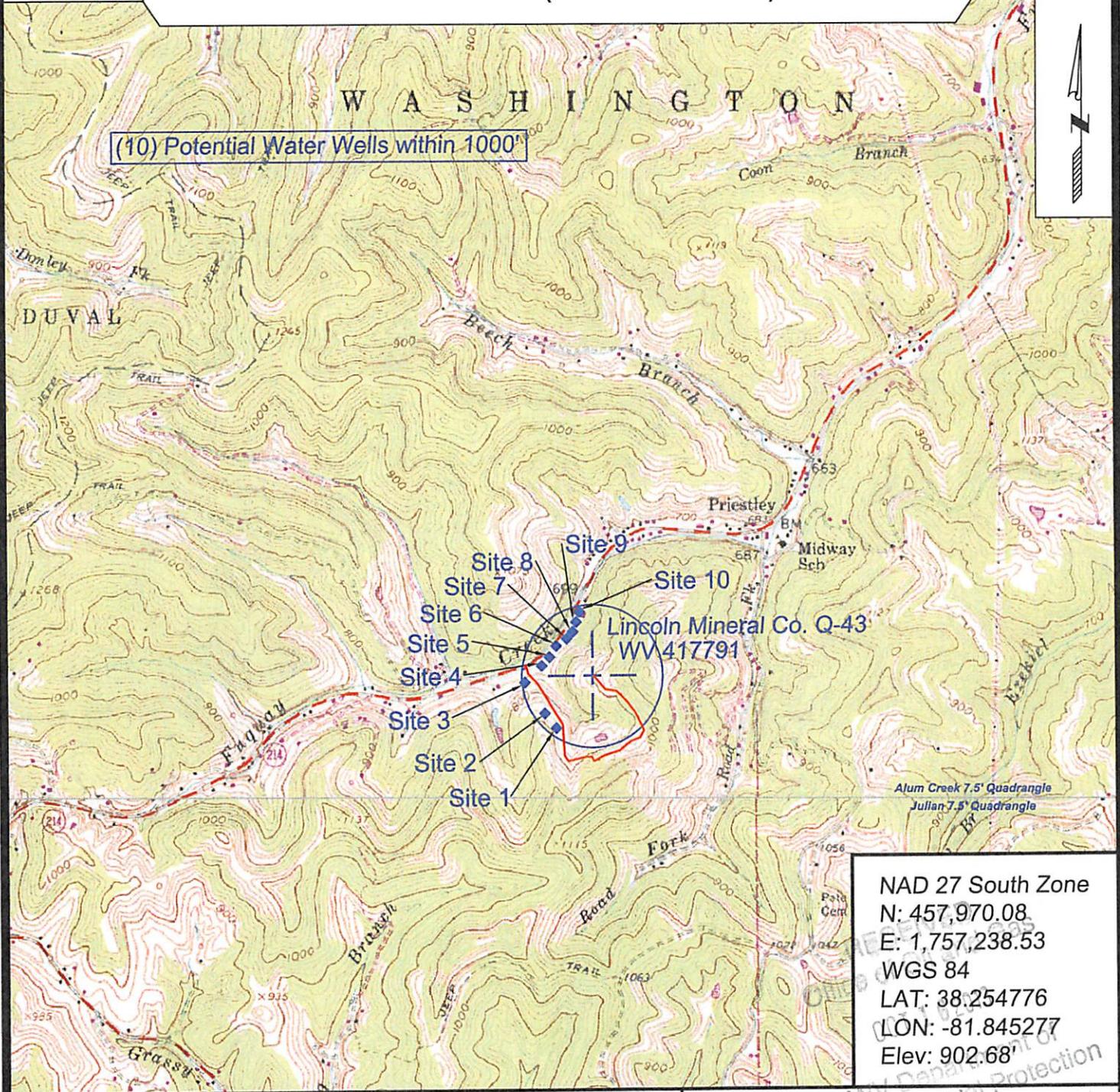
Date: August 1, 2013

District: Washington

Project No: 206-26-S-13

Water

Lincoln Mineral Co. Q-43 (47-043-00584) WV 417791



NAD 27 South Zone  
 N: 457,970.08  
 E: 1,757,238.53  
 WGS 84  
 LAT: 38.254776  
 LON: -81.845277  
 Elev: 902.68'



SURVEYING AND MAPPING SERVICES PERFORMED BY:  
**ALLEGHENY SURVEYS, INC.**  
 1-800-482-8606  
 P.O. BOX 438  
 BIRCH RIVER, WV 26610  
 PH: (304) 649-8606  
 FAX: (304) 649-8608

PREPARED FOR:  
**EQT Production Company**  
 P.O. Box 280  
 Bridgeport, WV 26330

Topo Quad: Alum Creek 7.5'

Scale: 1" = 2000'

County: Lincoln

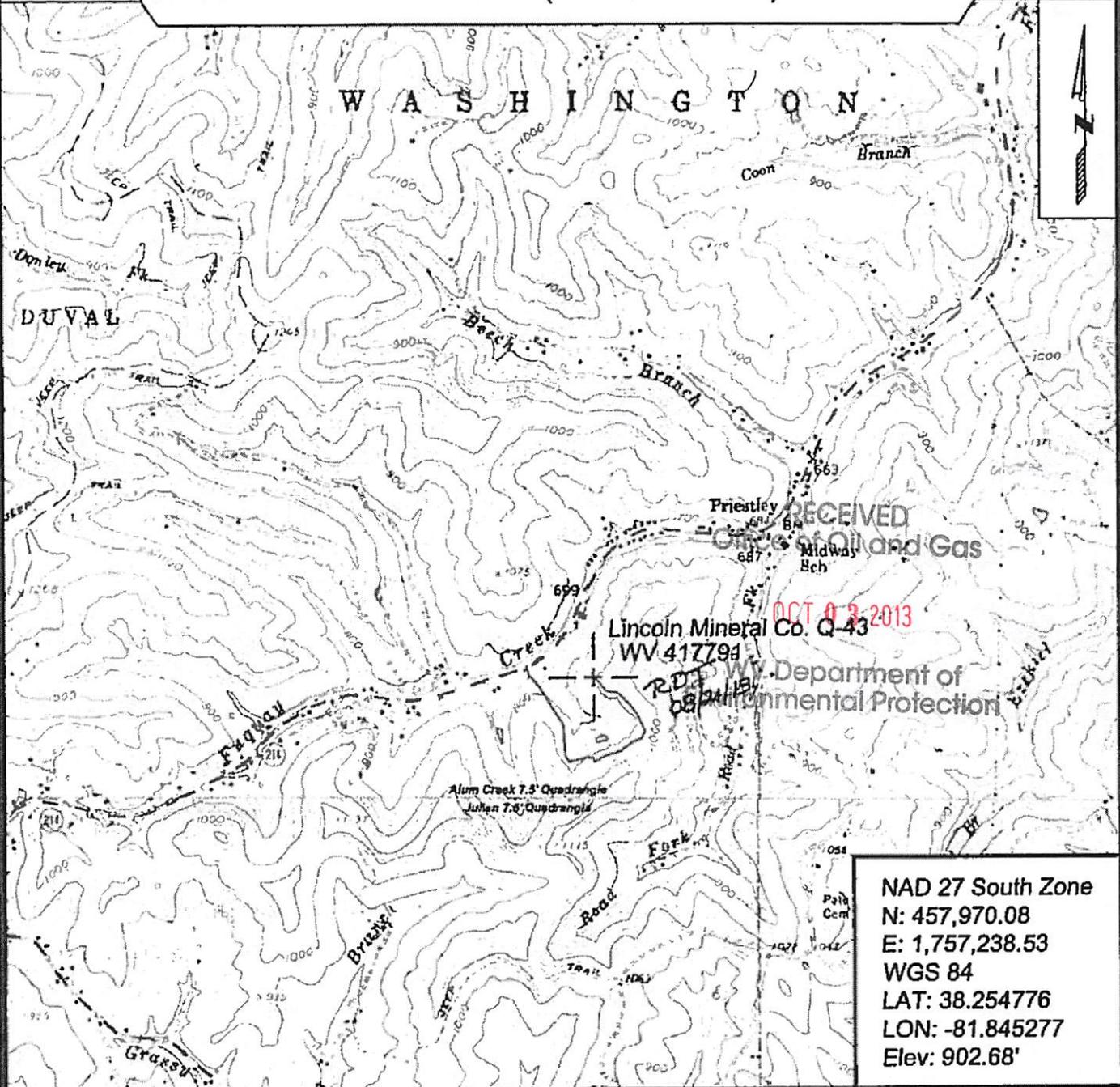
Date: August 1, 2013

District: Washington

Project No: 206-26-S-13

Lincoln Mineral Co. Q-43 (47-043-00584) WV 417791

Topo



NAD 27 South Zone  
 N: 457,970.08  
 E: 1,757,238.53  
 WGS 84  
 LAT: 38.254776  
 LON: -81.845277  
 Elev: 902.68'



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PREPARED FOR:

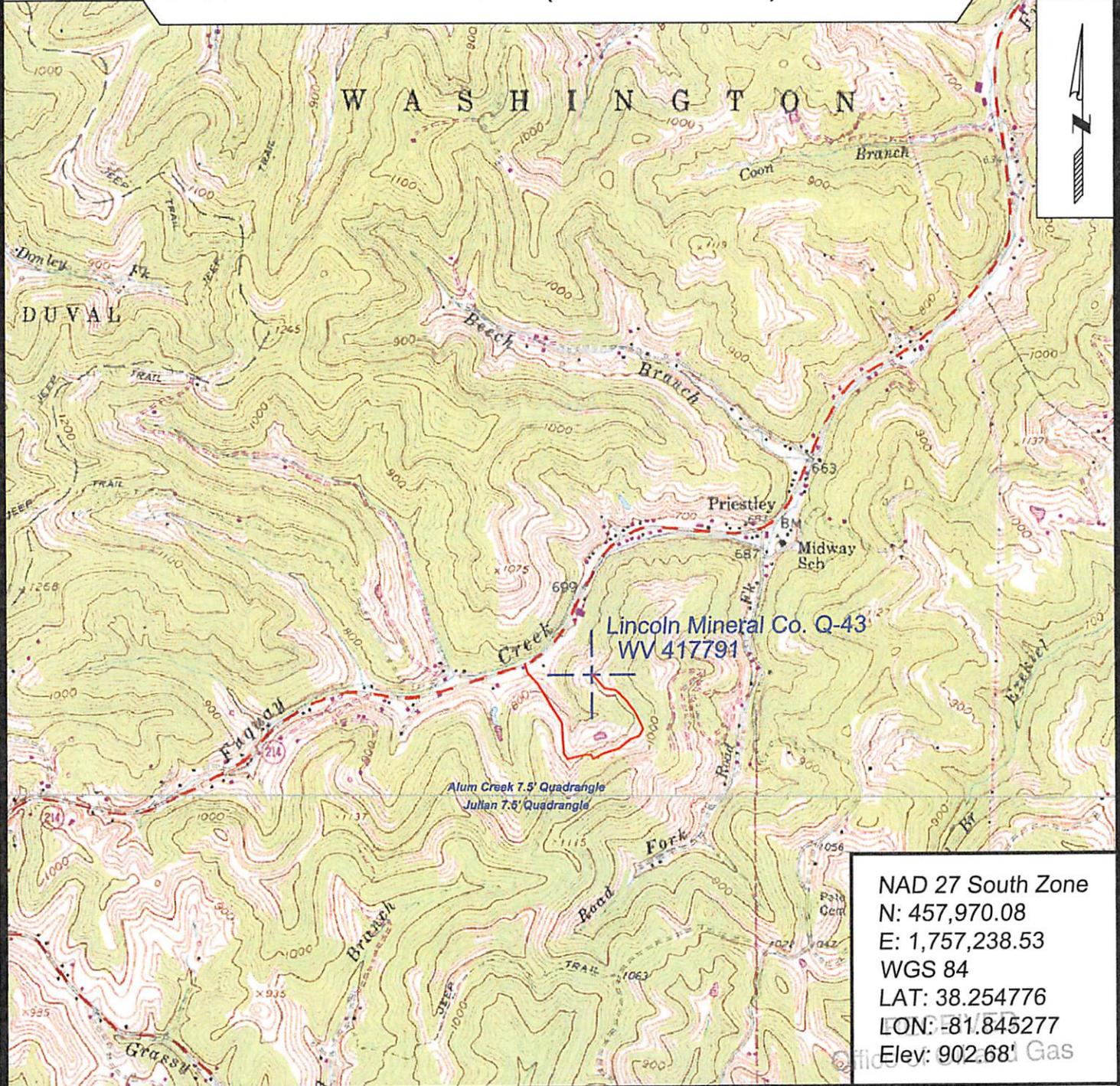
**EQT Production Company**

P.O. Box 280  
 Bridgeport, WV 26330

Topo Quad: Alum Creek 7.5' Scale: 1" = 2000'  
 County: Lincoln Date: August 1, 2013  
 District: Washington Project No: 206-26-S-13

Lincoln Mineral Co. Q-43 (47-043-00584) WV 417791

Topo



NAD 27 South Zone  
 N: 457,970.08  
 E: 1,757,238.53  
 WGS 84  
 LAT: 38.254776  
 LON: -81.845277  
 Elev: 902.68' Gas



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 Department of Environmental Protection

