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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

November 10, 2014

**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-1501149, issued to CABOT OIL & GAS CORPORATION, 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: 1  
Farm Name: LESUEUR, R. E.  
**API Well Number: 47-1501149**  
**Permit Type: Plugging**  
Date Issued: 11/10/2014

Promoting a healthy environment.

11/14/2014

# 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.

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## 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.

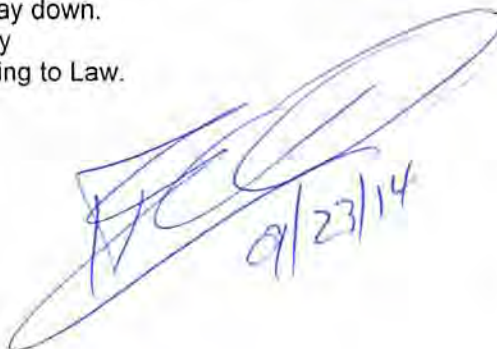
**R. E. Lesueur #1**  
**API # 47 - 015 - 01149**  
**PLUGGING PROCEDURE**

**Current Configuration**

DTD @ 2335'  
 8 <sup>5</sup>/<sub>8</sub>" casing @ 159' KB, cemented to surface  
 4 <sup>1</sup>/<sub>2</sub>" - 11.6# casing @ 2294' w/ TOC @ 1973'  
 2 <sup>3</sup>/<sub>8</sub>" tubing @ 2259' KB  
 Injun perforations: 2254' - 2268'  
 Big Lime @ 2062' - 2242'  
 Salt Sand @ 1042' - 1340'  
 No coal reported  
 Fresh water @ 40'  
 Salt water @ 1000'

**PROCEDURE**

1. Contact Glasgow District Office a minimum of 48 hours prior to starting work
2. Contact state inspector a minimum of 24 hours prior to starting work.
3. MIRU service rig and blow down well.
4. Lay 2" line from wellhead to pit/tank and stake down securely. Vent 4 <sup>1</sup>/<sub>2</sub>" x 8 <sup>5</sup>/<sub>8</sub>" annulus.
5. Unpack wellhead and ensure tubing is free and can be pulled.
6. Run rig tools to determine well TD and note any fluid level.
7. MIRU Cementing Company.
8. Pump 5 barrels of 6% Gel.
9. Pump 15 sacks of Class A cement for cement plug 1 from 2259' to 2055'.
10. Displace with 8 bbls of 6% Gel.
11. POOH with tubing and let cement plug set for a minimum of eight hours.
12. Run freepoint and cut 4 <sup>1</sup>/<sub>2</sub>" casing where free. Estimate ±1970'.
13. Pick up on casing and pump 30 barrels of 6% Gel followed by 50 sacks of Class A cement for cement plug 2 from 1970' to 1780'.
14. Displace with 27 bbls of 6% Gel.
15. Pull casing up to 1050' and pump 45 sacks Class A cement for cement plug 3 from 1050' to 850'.
16. Displace with 13 bbls of 6% Gel.
17. Pull tubing up to 200' and pump 57 sacks of Class A cement for cement plug 4 from 200' to surface.
18. TOOH with casing and lay down.
19. RDMO Cement company
20. Erect Monument according to Law.
21. RDMO.

  
 9/23/14

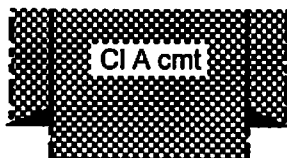
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**R. E. Lesueur #1**  
API 47-015-01149  
PROPOSED CONFIGURATION

Fresh water @ 40'

No coal reported



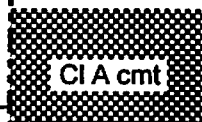
8 5/8" Casing @ 159' KB  
Bottom of plug 4 @ 200'

6% gel

Top of plug 3 @ 850'

Salt water @ 1000'

1042'



Bottom of plug 3 @ 1050'

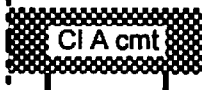
Salt Sand

1340'

6% gel

Top of plug 2 @ 1780'

2062'



Bottom of plug 2 @ 1970'  
TOC @ 1973' KB  
Top of plug 1 @ 2055'

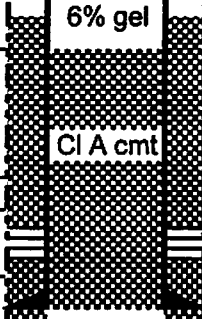
Big Lime

2242'

2252'

Injun

2272'



Perforations @ 2254' - 2268'

4-1/2" 11.6# Casing @ 2294' KB

DTD @ 2335' KB

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Office of Oil and Gas  
WV Dept. of Environmental Protection

Schematic is not to scale

T. Ou 04/08/14

11/14/2014



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
**Oil and Gas Division**

**WELL RECORD**

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas   
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle Clay  
Permit No. Clay-1149

Company <u>Appalachian Exploration &amp; Dev., Inc.</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 628, Charleston, W. Va. 25322</u>				
Farm <u>R. E. LeSueur</u> Acres <u>515</u>	Size			
Location (waters) <u>Grassy Fork</u>	<u>20-16</u>			
Well No. <u>1</u> Elev. <u>1210'</u>	Cond.			
District <u>Pleasant</u> County <u>Clay</u>	<u>13-10"</u>			
The surface of tract is owned in fee by <u>Margaret A. LeSueur et al</u>	<u>9 5/8</u>			
Address <u>219 Louis Ave., Lehigh Acres, Florida</u>	<u>8 5/8</u>	<u>159'</u>	<u>159'</u>	
Mineral rights are owned by <u>same as above</u>	<u>7</u>			
Address _____	<u>5 1/2</u>			
Drilling Commenced <u>3/12/76</u>	<u>4 1/2</u>	<u>2293.70'</u>	<u>2293.70'</u>	
Drilling Completed <u>3/17/76</u>	<u>3</u>			
Initial open flow _____ cu. ft. _____ bbls.	<u>2-3/8"</u>	<u>2259.09'</u>		
Final production <u>852</u> Mcu. ft. per day _____ bbls.	Liners Used			
Well open <u>3-1/2</u> hrs. before test <u>570#</u> RP.				

Well treatment details: Attach copy of cementing record.  
Perforated Injun 2254-2268' (14 holes). 500 gals. 15% MCA, 30,000# 20/40, 26,000# 10/20 sand, 900 bbls. total fluid (800 bbls. sand-laden). ISIP 600#.

Coal was encountered at none logged Feet \_\_\_\_\_ Inches \_\_\_\_\_  
Fresh water 40' Feet \_\_\_\_\_ Salt Water 1000' Feet \_\_\_\_\_  
Producing Sand Injun Depth 2254-2268'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Sub			0	8		
Sub rock			8	172		
Sand			172	182		
Sand and shale			182	1042		
Salt sand			1042	1340		
Salt sand and shale			1340	1521		
Shale			1521	1700		
Sand			1700	1729		
Shale with sand			1729	1901		
Shale			1901	1984		
Little Lime and Pencil Cave			1984	2062		
Big Lime			2062	2242		
Keener sand			2242	2252		
Injun sand			2252	2272		
Shale			2272	<u>2335</u>	T.D.	

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WV Department of Environmental Protection

11/14/2014

\* Indicates Electric Log tops in the remarks section.

(over)

1501149P

Formation	Color	Hard or Soft	Top Feet /	Bottom Feet	Oil, Gas or Water	Remarks
<u>Cement Record</u>						
<u>Casing</u>			<u>No. of sks</u>	<u>Type cement</u>		
8-5/8"			125	3% CaCl <sub>2</sub> , 1/4# flocele/sk.		
4-1/2"			35	Thixo with 5% CaCl <sub>2</sub>		

Date April 27, 19 76  
 APPALACHIAN EXPLORATION & DEVELOPMENT, INC. 4/20/14  
 APPROVED [Signature] Owner  
 By District Production Superintendent  
 (Title)

1) Date September 15, 2014  
2) Operator's  
Well No. R.E. Lesueur #1  
3) API Well No. 47-015 - 01149

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 1,217.5' Watershed Grassy Fork  
District Pleasant A County Clay Quadrangle Bentree 242

6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Whitney Johnson  
Address Five Penn Center West, Ste. 401 Address P.O. Box 450  
Pittsburgh, PA 15276 Glasgow, WV 25086

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Ed Gainer Name Shreve's Well Service  
Address P.O. Box 821 Address 3473 Triplett Road  
Spencer, WV 25276 Spencer, WV 25275

10) Work Order: The work order for the manner of plugging this well is as follows:  
See attached sheet.

Received

SEP 23 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

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

Work order approved by inspector



Date

9/23/14

11/14/2014

WW-4A  
Revised 6-07

1) Date: September 15, 2014  
2) Operator's Well Number  
R.E. Lesueur #1  
3) API Well No.: 47 - 015 - 01149

**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 <u>Cochran and Southwick Company</u>	Name <u>Fola Coal Company, LLC</u> ✓
Address <u>P.O. Box C</u> ✓	Address <u>c/o Consol Energy Inc. - Tax Dept.</u>
<u>Charleston, WV 25365</u>	<u>1000 Consol Energy Drive, Canonsburg, PA 15317</u>
(b) Name <u>Vicki A. Hill</u>	(b) Coal Owner(s) with Declaration
Address <u>337 East 13th Street</u> ✓	Name <u>Cochran and Southwick Company</u> ✓
<u>Belle, WV 25015</u>	Address <u>P.O. Box C</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Ed Gainer</u> ✓	(c) Coal Lessee with Declaration
Address <u>P.O. Box 821</u>	Name <u>None of Record</u>
<u>Spencer, WV 25276</u>	Address _____
Telephone <u>(304) 389-7582</u>	_____

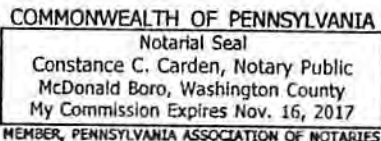
**TO THE PERSONS NAMED ABOVE:** You should have received this Form and the following documents:

- (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 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 Cabot Oil & Gas Corporation  
 By: Kenneth L. Marcum *Kenneth L. Marcum*  
 Its: Regulatory Supervisor  
 Address Five Penn Center West, Suite 401  
Pittsburgh, PA 15276  
 Telephone (412) 249-3850



Subscribed and sworn before me this 15th day of September, 2014  
*Constance C. Carden* Notary Public  
 My Commission Expires November 16, 2017

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 Office of Oil and Gas  
 SEP 17 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](mailto:depprivacyofficer@wv.gov).

11/14/2014



1501149A

7013 3020 0001 0841 8095

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**OFFICIAL USE**

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

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Sent To: Alex Energy, Inc.  
 P.O. Box 16429  
 Bristol, VA 24209

PS Form 380 Lesueur #1

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

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Sent To: Fola Coal Company, LLC  
 c/o Consol Energy Inc. - Tax Dept.  
 1000 Consol Energy Drive  
 Canonsburg, PA 15317

PS Form 380 Lesueur #1

7013 3020 0001 0841 8064

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

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Sent To: Vicki A. Hill  
 337 East 13<sup>th</sup> Street  
 Belle, WV 25015

PS Form 380 Lesueur #1

7013 3020 0001 0841 8101

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

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Sent To: Ed Gainer  
 P.O. Box 821  
 Spencer, WV 25276

PS Form 380 Lesueur #1

7013 3020 0001 0841 8057

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

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Sent To: Cochran and Southwick Company  
 P.O. Box C  
 Charleston, WV 25365

PS Form 380 Lesueur #1

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 WV Department of  
 Environmental Protection

11/14/2014

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Cabot Oil & Gas Corporation OP Code 08145

Watershed (HUC 10) Grassy Fork Quadrangle Bentree

Elevation 1,217.5' County Clay District Pleasant

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: \_\_\_\_\_

Will a synthetic liner be used in the pit? Yes \_\_\_\_\_ No X If so, what ml.? \_\_\_\_\_

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 No treated pit wastes will be produced)

*ANY WELL EFFLUENT MUST  
BE CONTAINED IN TANKS  
AND DISPOSED OF PROPERLY.  
gmm*

Will closed loop system be used? N/A

Drilling medium anticipated for this well? Air, freshwater, oil based, etc. no drilling proposed

-If oil based, what type? Synthetic, petroleum, etc. \_\_\_\_\_

Additives to be used in drilling medium? N/A

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. No cuttings produced during plugging operation

-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.

Company Official Signature Kenneth L. Marcum

Company Official (Typed Name) Kenneth L. Marcum

Company Official Title Regulatory Supervisor

Received

SEP 23 2014

Subscribed and sworn before me this 15th day of September, 20 14

Constance C. Carden Notary Public

Office of Oil and Gas  
WV Dept. of Environmental Protection  
COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Constance C. Carden, Notary Public  
McDonald Boro, Washington County  
My Commission Expires Nov. 16, 2017  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

My commission expires 11/16/2017

Proposed Revegetation Treatment: Acres Disturbed 0.61 Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

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

Mulch Pulp Fiber at 1000 to 1500 Tons/acre

Seed Mixtures

Area I	
Seed Type	lbs/acre
Grain Rye - 100	Red Clover - 5 Fescue - 40
Annual Rye - 20	White Clover - 5
Perennial Rye - 10	Alta Sweet Clover - 5
Yellow Clover - 5	Birdsfoot Trefoil - 10

Area II	
Seed Type	lbs/acre
Grain Rye - 100	Red Clover - 5 Fescue - 40
Annual Rye - 20	White Clover - 5
Perennial Rye - 1	Alta Sweet Clover - 5
Yellow Clover - 5	Birdsfoot Trefoil

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:   
Comments: \_\_\_\_\_

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Office of Oil and Gas  
West Virginia Dept. of Environmental Protection

Title: Inspector Date: 9/23/14

Field Reviewed?  Yes  No

NOTE:  
EROSION AND SEDIMENT CONTROLS  
MUST BE IN PLACE FOR ALL  
EARTH DISTURBANCE PER THE  
LATEST WEST VIRGINIA EROSION  
AND SEDIMENT CONTROL FIELD  
MANUAL AND WV DEP INSPECTOR.



PROPOSED CULVERT;  
PLACE DRAIN CULVERTS  
AS NEEDED (FOLLOW  
REQUIRED WEST VIRGINIA  
EROSION AND SEDIMENT  
CONTROL FIELD MANUAL,  
SEE TABLE 11-5 AND 11-6)

±1300' @ 15-20% SLOPE

*[Handwritten signature]*  
9/23/14

NOTES:

1. ALL ROADS SHOWN HEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL. ALL CULVERTS SHOWN ON THIS PLAN ARE PROPOSED AND WILL BE A MINIMUM OF 12" IN DIAMETER UNLESS OTHERWISE DESIGNATED AND WILL BE PACKED AS NEEDED AND REQUIRED BY WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL.
2. SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL MEASURES IN ADDITION TO THOSE SHOWN ON THIS PLAN WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. THE ADDITIONAL MEASURES MAY CONSIST OF STRAW BALES, SILT FENCES, OR OTHER MEASURES AS OUTLINED IN THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL.
3. SEDIMENT TRAPS ARE TO BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAIN INLETS AS REQUIRED IN THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL. FIELD CONDITIONS SUCH AS ROCK OUTCROPS AND BEDROCK MAY PROHIBIT INLET TRAPS. BEING INSTALLED, WHEN THESE CONDITIONS EXIST, ADDITIONAL EROSION CONTROL MEASURES SHALL BE EVALUATED AND UTILIZED AS NEEDED.
4. A SEDIMENT BARRIER OF EITHER BRUSH, STRAW BALES OR FILTER FENCE WILL BE MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DISCHARGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.
5. ENTRANCES AT COUNTY/STATES ROAD SHALL BE MAINTAINED IN ACCORDANCE WITH WVDOT REGULATIONS, SEPARATE PERMITS MAY BE REQUIRED BY THE WVDOT.
6. A STABILIZED CONSTRUCTION ENTRANCE WILL BE INSTALLED AS SHOWN UNLESS OTHERWISE DIRECTED BY WVDEP INSPECTOR AND/OR WVDOT.
7. CROSS DRAINS AND/OR WATERBARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH THE WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL.

±10' WIDE DIRT/GRAVEL ACCESS ROAD; TO BE WIDENED AND GRADED AS NECESSARY

END ±600' @ 10-15% SLOPE

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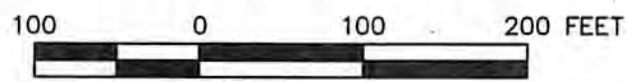
PROPOSED ROCK CONSTRUCTION ENTRANCE PER THE LATEST WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL

START ±600' @ 10-15% SLOPE

BEGIN ±5,205 ACCESS ROAD, TIE-IN TO TRUMAN HOLLOW ROAD

TRUMAN HOLLOW RD  
(WV SECONDARY ROUTE 1/16)

CONTOURS LINES ARE USGS 10' CONTOURS



SCALE

It is a violation of the law for any person, unless acting under the direct supervision of a licensed Architect, Engineer or Land Surveyor, to alter an item in any map, plans, maps, specifications, studies, and reports not containing a red ink seal imprint on the cover sheet accompanied by an original signature by the licensed professional may have been fraudulently altered and shall not be considered an original copy. Copyright Protected 2014, Larson Design Group.

11/11/2014

RECLAMATION PLAN  
R.E. LESUEUR

PLEASANT DISTRICT, CLAY COUNTY, WEST VIRGINIA

CABOT OIL & GAS CORPORATION  
FIVE PENN CENTER WEST, SUITE 401  
PITTSBURGH, PA 15276-0130  
PHONE (304) 595-5015

Larson Design Group • Architects Engineers Surveyors  
2502 Cranberry Square  
Morgantown, WV 26508  
PHONE 304.777.2940 TOLL FREE 877.323.6603  
FAX 570.323.9902 • www.larsondesigngroup.com

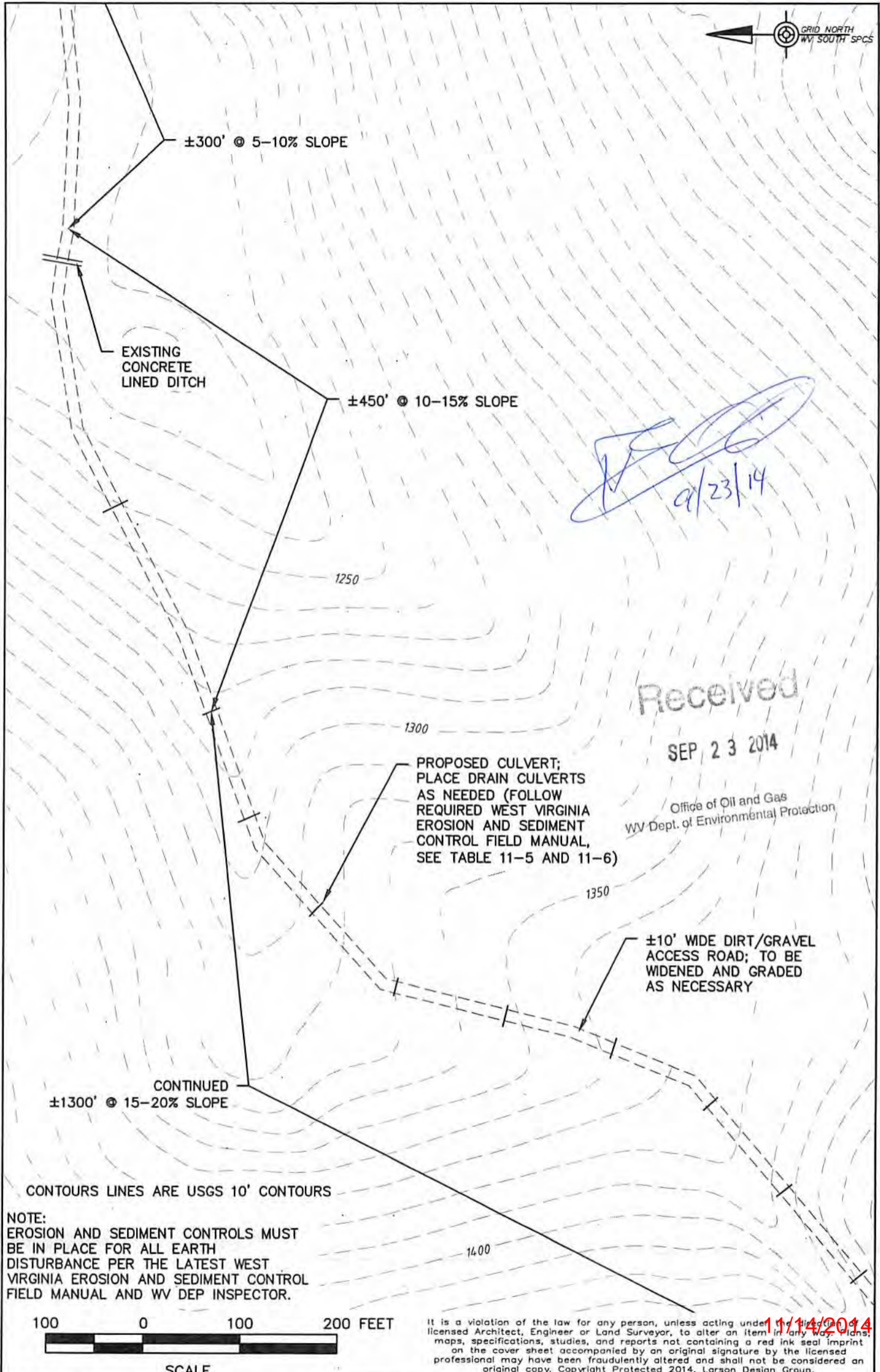


Larson Design Group®

PROJECT NO.:  
8744-010

SHEET NO.:  
1 of 6

DATE: 3/30/14 DRAWN BY: RTC CHECKED BY: THK



*[Handwritten signature]*  
9/23/14

Received

SEP 23 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

PROJECT NO.:  
8744-010

SHEET NO.:  
2 of 6

**RECLAMATION PLAN**  
**R.E. LESUEUR**  
PLEASANT DISTRICT, CLAY COUNTY, WEST VIRGINIA

<b>CABOT OIL &amp; GAS CORPORATION</b> FIVE PENN CENTER WEST, SUITE 401 PITTSBURGH, PA 15276-0130 PHONE (304) 595-5015 DATE: 3/30/14 DRAWN BY: RTC CHECKED BY: THK	<b>Larson Design Group</b> • Architects Engineers Surveyors 2502 Cranberry Square Morgantown, WV 26508 PHONE 304.777.2940 TOLL FREE 877.323.6603 FAX 570.323.9902 • www.larsondesigngroup.com
--	---



11/14/2014

1501149P

CONTOURS LINES ARE USGS 10' CONTOURS



±10' WIDE DIRT/GRAVEL ACCESS ROAD; TO BE WIDENED AND GRADED AS NECESSARY

PROPOSED CULVERT; PLACE DRAIN CULVERTS AS NEEDED (FOLLOW REQUIRED WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, SEE TABLE 11-5 AND 11-6)

EXISTING CONCRETE LINED DITCH

±750' @ 0-5% SLOPE

±300' @ 10-15% SLOPE

CONTINUED ±300' @ 5-10% SLOPE

*[Handwritten signature]*  
9/23/14

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23 2014

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WV Dept. of Environmental Protection

NOTE:  
EROSION AND SEDIMENT CONTROLS MUST BE IN PLACE FOR ALL EARTH DISTURBANCE PER THE LATEST WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL AND WV DEP INSPECTOR.

100 0 100 200 FEET



SCALE

It is a violation of the law for any person, unless acting under the direct supervision of a licensed Architect, Engineer or Land Surveyor, to alter an item in any drawing, map, specifications, studies, and reports not containing a red ink seal imprint on the cover sheet accompanied by an original signature by the licensed professional may have been fraudulently altered and shall not be considered an original copy. Copyright Protected 2014, Larson Design Group.

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### RECLAMATION PLAN R.E. LESUEUR

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PROJECT NO.: 8744-010  
SHEET NO.: 3 of 6

1501149P



±10' WIDE DIRT/GRAVEL ACCESS ROAD; TO BE WIDENED AND GRADED AS NECESSARY

±1150' @ 0-5% SLOPE

PROPOSED CULVERT; PLACE DRAIN CULVERTS AS NEEDED (FOLLOW REQUIRED WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL, SEE TABLE 11-5 AND 11-6)

±750' @ 5-10% SLOPE

EXISTING CONCRETE LINED DITCH

*Handwritten signature and date: 9/23/14*

Received

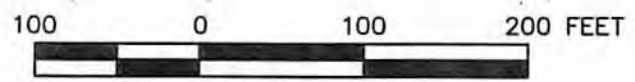
SEP 23 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

NOTE:  
EROSION AND SEDIMENT CONTROLS MUST BE IN PLACE FOR ALL EARTH DISTURBANCE PER THE LATEST WEST VIRGINIA EROSION AND SEDIMENT CONTROL FIELD MANUAL AND WV DEP INSPECTOR.

CONTINUED  
±750' @ 0-5% SLOPE

CONTOURS LINES ARE USGS 10' CONTOURS



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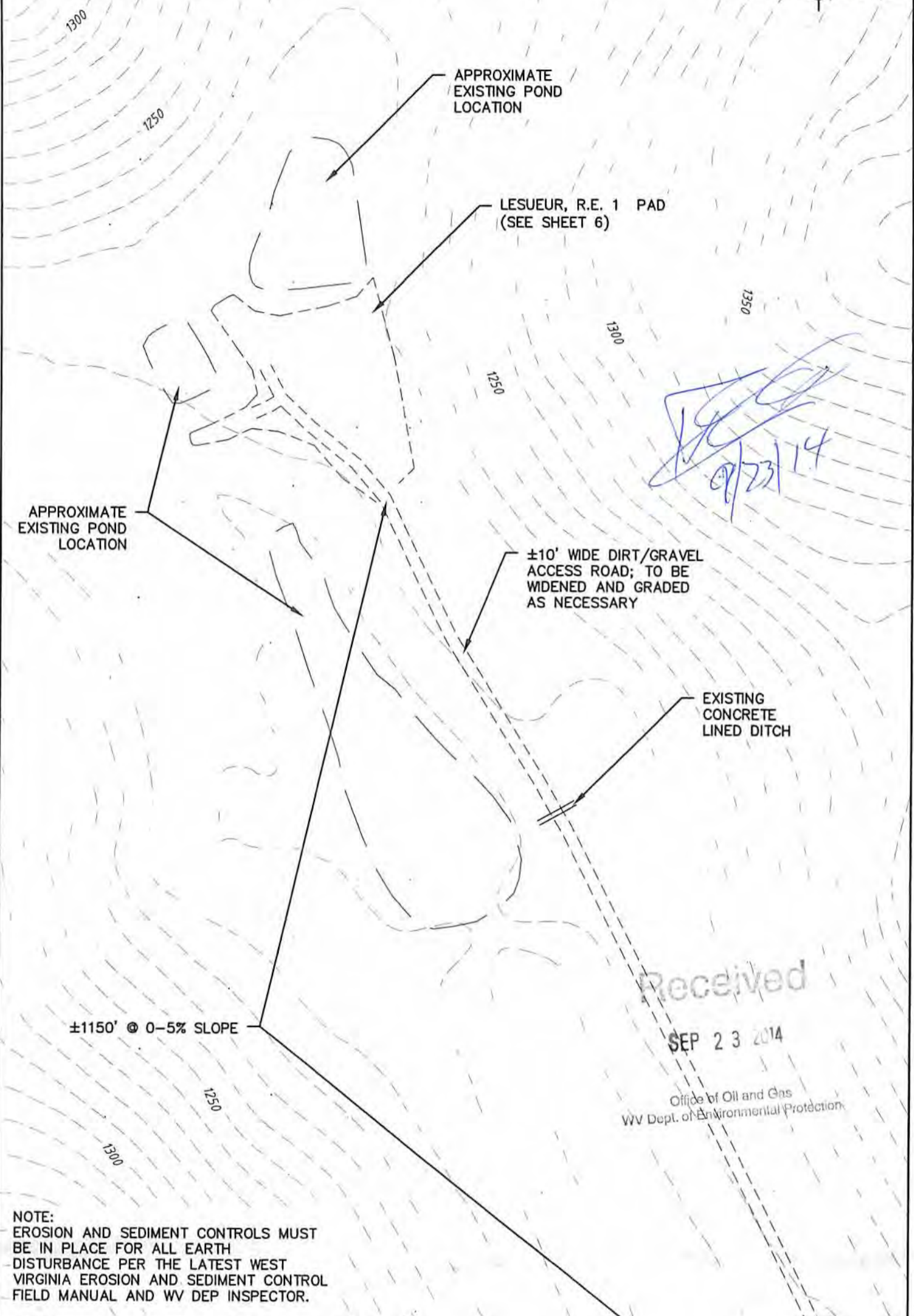


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PROJECT NO.: 8744-010  
SHEET NO.: 4 of 6

1501149 P

CONTOURS LINES ARE USGS 10' CONTOURS

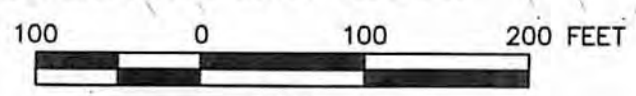


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WV Dept. of Environmental Protection

NOTE:  
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DISTURBANCE PER THE LATEST WEST  
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FIELD MANUAL AND WV DEP INSPECTOR.



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### RECLAMATION PLAN R.E. LESUEUR

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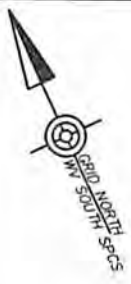
PROJECT NO.:  
8744-010

SHEET NO.:  
5 of 6

11/14/2014



*Handwritten signature and date: 9/23/14*



EXISTING LESEUR RE 1 WELL HEAD  
PHOTO DATE: 12/04/13

APPROXIMATE EXISTING POND LOCATION

APPROXIMATE EXISTING POND LOCATION

LESUEUR, R.E. 1  
EXISTING WELL HEAD  
47-015-01149

APPROXIMATE LOCATION OF  
3" STEEL  
GAS PIPELINE

EDGE OF  
PAD AREA

FILL

APPROXIMATE EXISTING POND LOCATION

ACCESS ROAD TO BE  
WIDENED AND GRADED  
AS NECESSARY

Received

SEP 23 2014

~ WOODS ~

Office of Oil and Gas  
WV Dept. of Environmental Protection

CONTOURS GENERATED FROM SURVEY DATA

30 0 30 60 FEET

SCALE

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### RECLAMATION PLAN R.E. LESUEUR

PLEASANT DISTRICT, CLAY COUNTY, WEST VIRGINIA

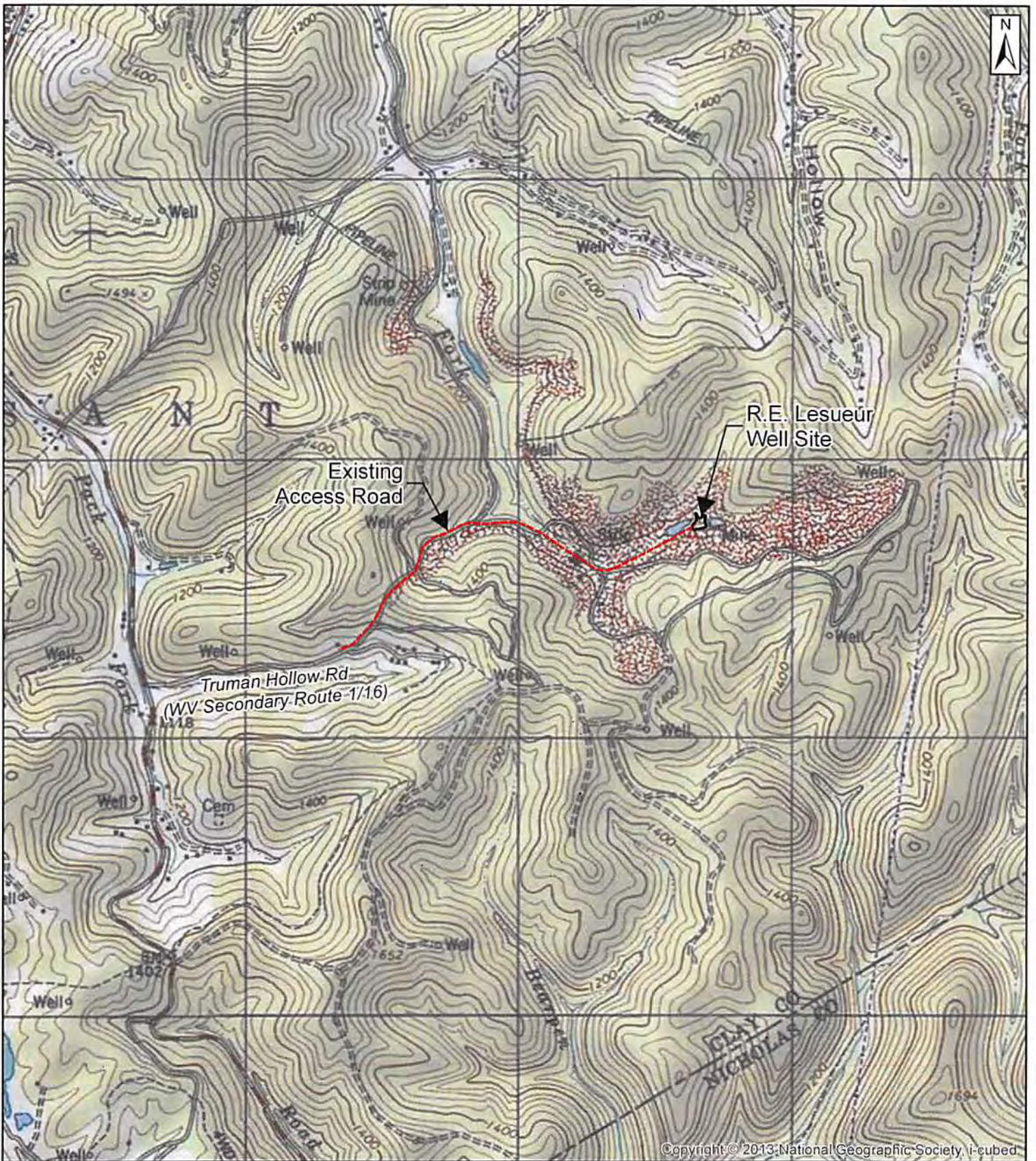
CABOT OIL & GAS CORPORATION  
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PITTSBURGH, PA 15276-0130  
PHONE (304) 595-5015  
DATE: 3/30/14 DRAWN BY: RTC CHECKED BY: THK

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SHEET NO.: 6 of 6



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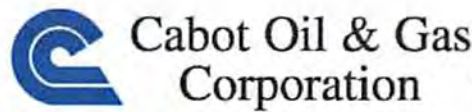
R.E. Lesueur Well Site  
 Location Map  
 Bintree Quad  
 Pleasant District, Clay County, WV

RECEIVED 4/23/2014  
 Office of Oil and Gas

Designer CAB

SEP 17 2014

Project No 8744-010



WV Department of Environmental Protection  
 Scale 11/14/2014  
 1 inch = 2,000 feet

4596'

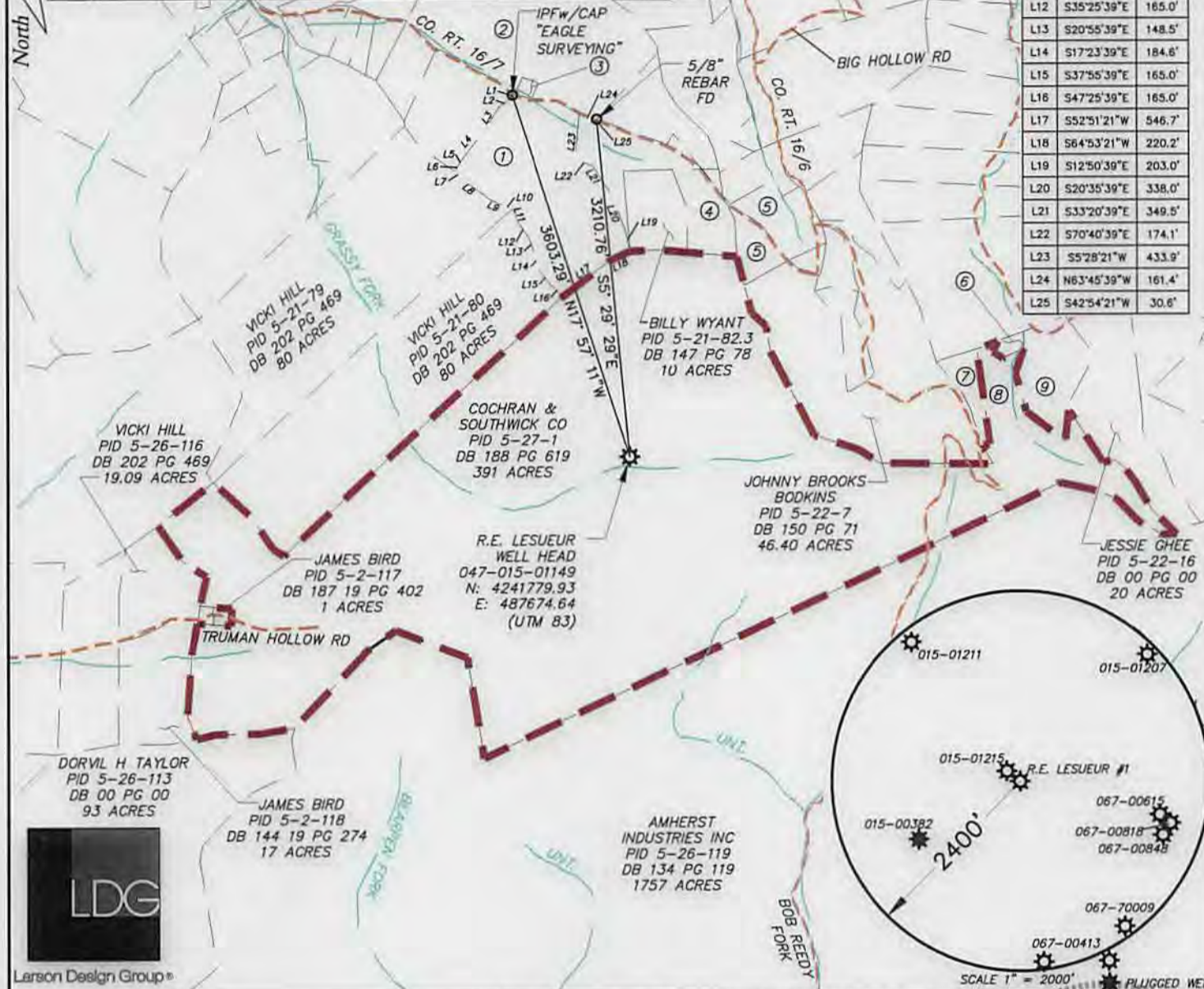
Latitude: 38° 20' 00"

Longitude: 81° 07' 30"

PROPERTY INFO

#	OWNER	PID	DB PG	ACRES
1	MILDRED BRASSEUR ,et al	5-21-82	WB 19 PG 292	27.1
2	WAYNE KEENER	5-21-90	DB 209 PG 294	58.0
3	WAYNE KEENER	5-21-81	DB 138 PG 29	-
4	ORVILLE WYANT	5-21-82.2	DB 147 PG 09	10.0
5	JERRY BODKINS	5-22-7.1	DB 119 PG 596	9.1
6	MICHAEL CLIVER	5-22-15	DB 169 PG 384	1.0
7	EVA PRICE	5-22-15.2	FR 44 PG 804	4.0
8	GALE E BROWN	5-22-15.3	DB 169 PG 384	15.0
9	ALFRED AUXIER	5-22-15.1	DB 177 PG 695	12.0

LINE	BEARING	LENGTH
L1	S24°46'21"W	30.2'
L2	S54°01'21"W	141.0'
L3	S31°46'21"W	270.0'
L4	S38°01'21"W	350.0'
L5	S30°27'21"W	45.0'
L6	S31°31'21"W	80.0'
L7	S42°08'39"E	76.9'
L8	S53°17'39"E	347.3'
L9	S64°55'39"E	132.0'
L10	S72°00'39"E	102.1'
L11	S22°55'39"E	148.5'
L12	S35°25'39"E	165.0'
L13	S20°55'39"E	148.5'
L14	S17°23'39"E	184.6'
L15	S37°55'39"E	165.0'
L16	S47°25'39"E	165.0'
L17	S52°51'21"W	546.7'
L18	S64°53'21"W	220.2'
L19	S12°50'39"E	203.0'
L20	S20°35'39"E	338.0'
L21	S33°20'39"E	349.5'
L22	S70°40'39"E	174.1'
L23	S52°28'21"W	433.9'
L24	N63°45'39"W	161.4'
L25	S42°54'21"W	30.6'



FILE #: 8744-010  
 DRAWING #: 1  
 SCALE: 1" = 1500'  
 MINIMUM DEGREE OF ACCURACY: 1 in 2500'  
 PROVEN SOURCE OF ELEVATION: SURVEY GRADE GPS

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.  
 Signed: *[Signature]*  
 R.P.E.: \_\_\_\_\_ L.L.S.: 1969

Professional Surveyor Seal for Timothy H. Kinder, License No. 1969, State of West Virginia. Includes the instruction 'PLACE SEAL HERE'.

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP  
 OFFICE OF OIL & GAS  
 601 57TH STREET  
 CHARLESTON, WV 25304



DATE: APRIL 21st, 2014  
 OPERATOR'S WELL #: R.E. LESUEUR 1 Gas  
 API WELL #: 47 015 01149 P  
 STATE COUNTY PERMIT

Well Type:  Oil  Waste Disposal  Production  Deep  
 Gas  Liquid Injection  Storage  Shallow

WATERSHED: GRASSY FORK ELEVATION: 1217.5'  
 COUNTY/DISTRICT: CLAY / PLEASANT QUADRANGLE: BENTREE  
 SURFACE OWNER: COCHRAN & SOUTHWICK COMPANY ACREAGE: 391  
 OIL & GAS ROYALTY OWNER: J. A. LESUEUR, ET AL ACREAGE: 378.07

DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE   
 PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG & ABANDON   
 CLEAN OUT & REPLUG  OTHER CHANGE  (SPECIFY): \_\_\_\_\_

TARGET FORMATION: INJUN ESTIMATED DEPTH: 2,294'  
 WELL OPERATOR CABOT OIL & GAS CORPORATION DESIGNATED AGENT WHITNEY JOHNSON  
 Address FIVE PENN CENTER WEST, SUITE 401 Address CABOT OIL & GAS CORPORATION, P.O. BOX 450  
 City PITTSBURGH State PA Zip Code 15276 City GLASGOW State WV Zip Code 25086

FORM WW-6

11/14/2014

1501149A



CERTIFIED MAIL

September 15, 2014

Ed Gainer  
P.O. Box 821  
Spencer, WV 25276

Re: R.E. Lesueur #1  
Pleasant District, Clay County, WV  
API # 47-015-01149  
Written Application to plug and abandon wellbore

Dear Mr. Gainer:

Enclosed are the following forms for the subject well:

Form WW-4A	Notice of Application to Plug and Abandon Well (1 copy)
Form WW-4B	Application for a Permit to Plug and Abandon (1 copy)
Well Location Plat	Certified Copy of WVDEP Well Location Plat
Form WW-9	Reclamation Plan and Site Registration Application (1 copy)

Copies of the Well Permit Application and Voluntary Statement of No Objection have been sent to the appropriate surface owner(s) and coal operator(s), owner(s) and lessee(s) for signature.

Please make necessary recommendations and sign the Reclamation Plan before forwarding to Chief, Division of Oil & Gas, 601 57<sup>th</sup> Street, Charleston, WV 25304

If you have any questions or need additional information, please contact me at 412-249-3850.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth L. Marcum".

Kenneth L. Marcum  
Regulatory Supervisor

Received

SEP 23 2014

Office of Oil and Gas  
WV Dept. of Environmental Protection

11/14/2014



North Region  
September 15, 2014

Chief  
West Virginia Division of Environmental Protection  
Office of Oil & Gas  
601 57<sup>th</sup> Street  
Charleston, WV 25304

RE: R.E. Lesueur #1  
Pleasant District, Clay County, WV  
API # 47-015-01149  
Written Application to plug and abandon wellbore

Dear Chief:

In accordance with Article 22-6-23 of the Code of State Regulations regarding oil and gas operations, please find attached a formal application for the plug and abandonment of the subject well.

Notices of our intention to plug this wellbore have been sent to surface owner, coal owner, and coal operators associated with this well. Copies of the certified mail receipts are attached for your records.

If you have any questions or need additional information, I can be reached at 412-249-3850.

Sincerely,

Kenneth L. Marcum  
Regulatory Supervisor

RECEIVED  
Office of Oil and Gas  
SEP 17 2014  
WV Department of  
Environmental Protection