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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

July 12, 2013

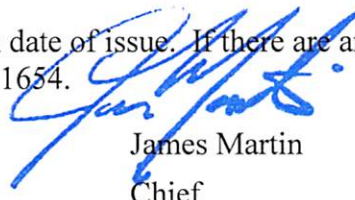
**WELL WORK PLUGGING PERMIT**

**Plugging**

This permit, API Well Number: 47-4702062, 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: POCA LAND M-124  
Farm Name: POCAHONTAS LAND CORP.  
**API Well Number: 47-4702062**  
**Permit Type: Plugging**  
Date Issued: 07/12/2013

1) Date May 22, 2013  
2) Operator's  
Well No. Pocahontas Land M-124  
3) API Well No. 47-047 - 02062

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 \_\_\_ or Underground storage \_\_\_) Deep \_\_\_ / Shallow X

5) Location: Elevation 2,136.09' Watershed Tug Fork River  
District Adkin 01 County McDowell 47 Quadrangle Welch 665

6) Well Operator Cabot Oil & Gas Corporation 7) Designated Agent Brian Hall  
Address Five Penn Center, West, Ste. 401 Address 6804 Lick Creek Road  
Pittsburgh, PA 15276 Danville, WV 25053

8) Oil and Gas Inspector to be notified 9) Plugging Contractor  
Name Gary Kennedy Name Francis Brothers, LLC  
Address 120 North Ridge Street Address 622 Church St. N  
Bluefield, WV 24701 Ripley, WV 25271

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

PLUG 4 & 5 NEEDED TO BE EXPANDING  
CEMENT PLUGS.

Received

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

MAY 23 2013

Work order approved by inspector \_\_\_\_\_

Office of Oil and Gas  
WV Department of Environmental Protection

07/12/2013

**POCAHONTAS LAND M-124**  
**API # 47 - 047 - 02062**  
**PLUGGING PROCEDURE**

**Current Configuration**

DTD @ 4940'

20" conductor @ 44' KB, not cemented

13 <sup>3</sup>/<sub>8</sub>" – 37# LS casing @ 469' KB, cemented to surface

9 <sup>5</sup>/<sub>8</sub>" – 26# LS casing @ 1229' KB, cemented to surface

7" – 20" LS casing @ 1625' KB, cemented to surface

4 <sup>1</sup>/<sub>2</sub>" – 10.5# - M-60 casing @ 4875' KB w/ TOC @ 4020'

2 <sup>3</sup>/<sub>8</sub>" – EUE tubing @ 4703' KB

Baker 2 <sup>3</sup>/<sub>8</sub>" x 4 <sup>1</sup>/<sub>2</sub>" packer set @ 3961'

Gordon perforations: 4733' – 4736', 4764' – 4768', & 4764' – 4768'

Berea perforations: 4628' – 4631' & 4649' – 4655'

Big Lime formation: 3458' – 4004' (not perforated)

Ravencliff formation: 2000' – 2032' (not perforated)

Coal @ 327' – 331 (open mine) & 1134' – 1137'

Fresh water @ 331', 480', 570', & 1134'

**PROCEDURE**

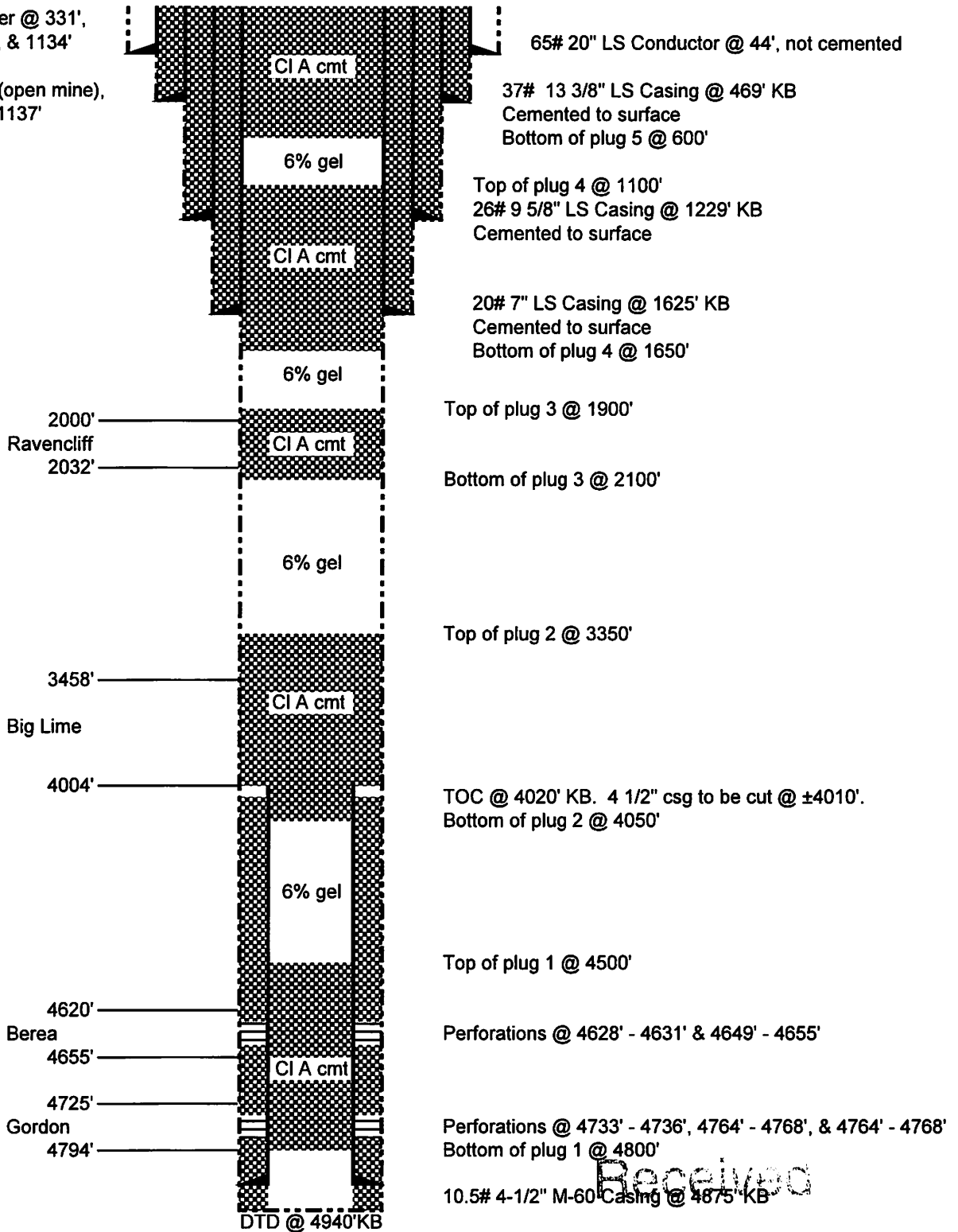
1. Contact Pineville District Office a minimum of 48 hours prior to starting work
2. Contact state inspector a minimum of 24 hours prior to starting work.
3. MIRU service rig and blow down well.
4. Lay 2" line from wellhead to pit/tank and stake down securely. Vent 4-1/2" x 7" annulus.
5. Unpack wellhead and ensure tubing is free and can be pulled.
6. Run rig tools to determine well TD and note any fluid level.
7. Unseat packer by setting down and turning right. (packer set @ 25,000#, shear @ 30,000#)
8. POOH with tubing.
9. RIH with tubing to approximately 4800' with three additional joints of tubing.
10. MIRU Cementing Company.
11. Pump 5 barrels of 6% Gel.
12. Pump 23 sacks of Class A cement for Cement Plug 1 from 4800' to 4500'.
13. Displace with 17 bbls of 6% Gel.
14. POOH with tubing and let cement plug set for a minimum of eight hours.
15. Run freepoint and cut 4 1/2" casing where free. Estimate ±4010'. POOH with casing.
16. TIH with tubing to 4050' and pump 50 barrels of 6% Gel.
17. Pump 127 sacks Class A cement for Cement Plug 2 from 4050' to 3350'.
18. Displace with 13 bbls of 6% Gel.
19. Pull tubing up to 2100' and pump 38 sacks of Class A cement for Cement Plug 3 from 2100' 1900'.
20. Displace with 7 bbls of 6% Gel.
21. Pull tubing up to 1650' and pump 106 sacks of Class A cement for Cement Plug 4 from 1650' 1100'.
22. Displace with 4 bbls of 6% Gel.
23. Pull tubing up to 600' and pump 115 sacks of Class A cement for Cement Plug 5 from 600' to surface.
24. TOOH with tubing and lay down.
25. RDMO Cement company
26. Erect Monument according to Law.
27. RDMO.

**Received**

MAY 23 2013

**Pocahontas Land M-124**  
 API 47-047-02062  
 PROPOSED CONFIGURATION

Fresh water @ 331',  
 480', 570', & 1134'  
 Coal @  
 327'-331' (open mine),  
 & 1134' - 1137'



Schematic is not to scale

*Received*

MAY 23 2013  
 T. Ott 02/05/13

WR-35

Date July 14, 2005  
 API # 47- 047 - 02062, (L)

State of West Virginia  
 Division of Environmental Protection  
 Section of Oil and Gas  
 Well Operator's Report of Well Work

*AP* JUL 20 2005

Farm Name: Pocahontas Land Corp. Operator Well No.: Pocahontas Land M-124

LOCATION: Elevation: 2144.24' Quadrangle: Welch  
 District: Adkin County: McDowell  
 Latitude: 14,390' feet South of 37° DEG. 27' MIN. 30" SEC.  
 Longitude: 10,978' feet West of 81° DEG. 32' MIN. 30" SEC.

Company: Cabot Oil & Gas Corporation  
900 Lee Street East, Suite 500  
Charleston, WV 25301

Agent: Thomas S. Liberatore  
 Inspector: Barry Stollings  
 Permit Issued: 4/29/2005  
 Well Work Commenced: June 6, 2005  
 Well Work Completed: June 28, 2005  
 Verbal Plugging: \_\_\_\_\_  
 Permission granted on: \_\_\_\_\_  
 Rotary X Cable \_\_\_\_\_  
 Total Depth (feet) 4937'  
 Fresh Water Depths (ft) 331', 480', 570', 1134'  
 Salt Water Depths (ft) None reported  
 Is coal being mined in area (Y/N)? Y  
 Coal Depths (ft) 327'-331' (Open), 1134'-1137'

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
20"	44'	44'	N/A
13 3/8"	461'	461'	534
9 5/8"	1228'	1228'	483
7"	1624'	1624'	359
4 1/2"		4876'	118
2 3/8"		4703'	

OPEN FLOW DATA

Producing Formation Gordon Pay Zone \_\_\_\_\_  
 Depth (ft) 4733'-4736', 4764'-4768', 4772'-4784'  
 Gas: Initial Open Flow N/A MCF/d Oil: Initial Open Flow 0 Bbl/d  
 Final Open Flow 750 (COMMINGLED) MCF/d Final Open Flow 0 Bbl/d  
 Time of open flow between initial and final tests 264 Hours  
 Static rock pressure 540 psig surface pressure after 16 Hours

Second Producing Formation Berea Pay Zone \_\_\_\_\_  
 Depth (ft) 4649'-4655', 4628'-4631'  
 Gas: Initial Open Flow N/A MCF/d Oil: Initial Open Flow 0 Bbl/d  
 Final Open Flow 750 (COMMINGLED) MCF/d Final Open Flow 0 Bbl/d  
 Time of open flow between initial and final tests 264 Hours  
 Static rock pressure 540 psig surface pressure after 16 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 SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE

For: CABOT OIL & GAS CORPORATION

By: [Signature] Drilling Superintendent

Date: 7/13/05

Received

MAY 23 2013

07/12/2013

Welch 5

MCD-2062

STAGE	PERFS	ACID 15% HCl	FOAM	SAND (lbs)	NITROGEN (scf)	BDP	ATP	MTP	ISIP
1-Gordon	4733-4736 (40)	250 gal	75Q	55,350	584,000	1556	1633	1792	1450
	4764-4768								
	4772-4784								
2-Berea	4649-4655 (24)	1000 gal	75Q	60,000	533,000	1392	1449	1648	1370
	4628-4631 (12)								

FORMATION	TOP	BOTTOM	REMARKS
Sand & Shale	0	327	
Coal (Open)	327	331	
Sand & Shale	331	1134	
Coal	1134	1137	
Sand & Shale	1137	1758	
Pride	1758	1930	
Silty Shale	1930	2000	
Ravenclyff	2000	2032	
Silty/Sandy Shale	2032	2112	
Avis	2112	2158	
Silty/Sandy Shale	2158	3112	
Shale	3112	3192	
Little Lime	3192	3272	
Pencil Cave	3272	3458	
Big Lime	3458	4004	
Silty Shale (Pocono)	4004	4295	
Shale	4295	4620	
Berea	4620	4655	
Silty Shale	4655	4725	
Gordon	4725	4794	
Silty Shale	4794	4937	TD

Received

MAY 23 2013

07/12/2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

WW-4A  
Revised 6-07

1) Date: May 22, 2013  
2) Operator's Well Number  
Pocahontas Land M-124  
3) API Well No.: 47 - 047 - 02062

**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>Pocahontas Land Corporation</u> ✓	Name <u>See Attached Sheet</u>
Address <u>P.O. Box 1517</u>	Address _____
<u>Bluefield, WV 24701</u>	_____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Pocahontas Land Corporation</u> ✓
_____	Address <u>P.O. Box 1517</u>
(c) Name _____	<u>Bluefield, WV 24701</u>
Address _____	Name _____
_____	Address _____
6) Inspector <u>Gary Kennedy</u> ✓	(c) Coal Lessee with Declaration
Address <u>120 North Ridge Street</u> <u>Box 268</u>	Name <u>See Attached Sheet</u>
<u>Bluefield, WV 24701</u> <u>NIMITZ, WV</u>	Address _____
Telephone <u>(304) 382-8402</u> <u>25978</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	<u>Cabot Oil &amp; Gas Corporation</u>
	By:	<u>Kenneth L. Marcum</u> <i>Kenneth L. Marcum</i>
	Its:	<u>Regulatory Supervisor</u>
	Address	<u>Five Penn Center West, Suite 401</u>
	Telephone	<u>Pittsburgh, PA 15276</u> <u>(412) 249-3850</u>

Received

Subscribed and sworn before me this 22nd day of May, 2013  
Constance C. Carden Notary Public  
My Commission Expires November 16, 2013 MAY 23 2013

**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 [depprivacyoffier@wv.gov](mailto:depprivacyoffier@wv.gov).

## COAL LESSEE WITH DECLARATION

## COAL OPERATORS

- ✓ Shannon-Pocahontas Coal Corporation  
P.O. Box 16429  
Bristol, Virginia 24209
- ✓ Southern Minerals, Inc.  
P.O. Box 770  
Bluefield, West Virginia 24701
- ✓ Westwood Mining Co., Inc.  
P.O. Box 1030  
Bluefield, Virginia 24605
- ✓ Marianna Coal Company  
P.O. Box 1084  
Bluefield, Virginia 24605
- ✓ Sally Ann Coal Company, Inc.  
P.O. Box 770  
Bluefield, West Virginia 24701
- ✓ Glow Worm Coal Company  
278 Dover St., P.O. Box 822  
North Tazewell, Virginia 24630
- ✓ Triple G Coal Company, Inc.  
P.O. Box 770  
Bluefield, West Virginia 24701

Received

MAY 23 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection

07/12/2013



4702062P

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 Cabot Oil & Gas Corporation OP Code \_\_\_\_\_

Watershed Tug Fork River Quadrangle Welch

Elevation 2,136.09 County McDowell District Adkin

Description of anticipated Pit Waste: None - no cuttings produced during plugging operation

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

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection ( UIC Permit Number \_\_\_\_\_ )
- Reuse (at API Number \_\_\_\_\_ )
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain no treated pit wastes will be produced)

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? \_\_\_\_\_

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

MAY 23 2013

Subscribed and sworn before me this 22nd day of May, 2013,  
Office of Oil and Gas  
Dept. of Environmental Protection

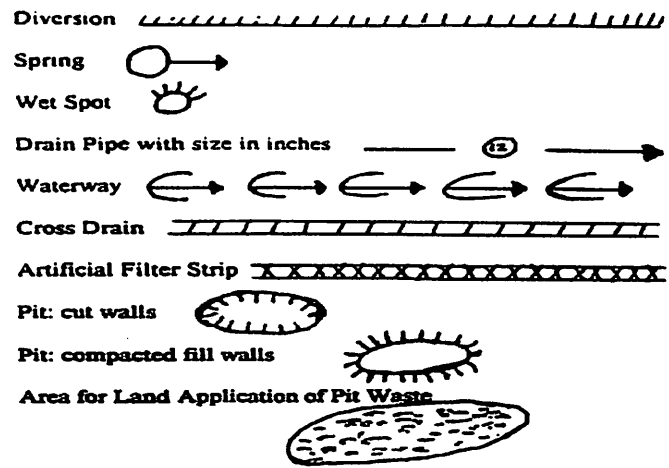
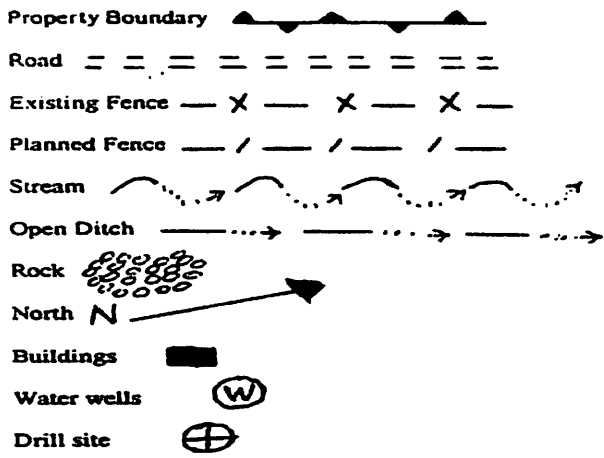
Constance C. Carden Notary Public

My commission expires November 16, 2013

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Constance C. Carden, Notary Public  
McDonald Boro, Washington County  
My Commission Expires Nov. 16, 2013  
Member, Pennsylvania Association of Notaries

07/12/2013

**LEGEND**



Proposed Revegetation Treatment: Acres Disturbed \_\_\_\_\_ 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

Seed Type	Area I	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	

Seed Type	Area II	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 - 10	

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

Photocopied section of involved 7.5' topographic sheet.

**Received**

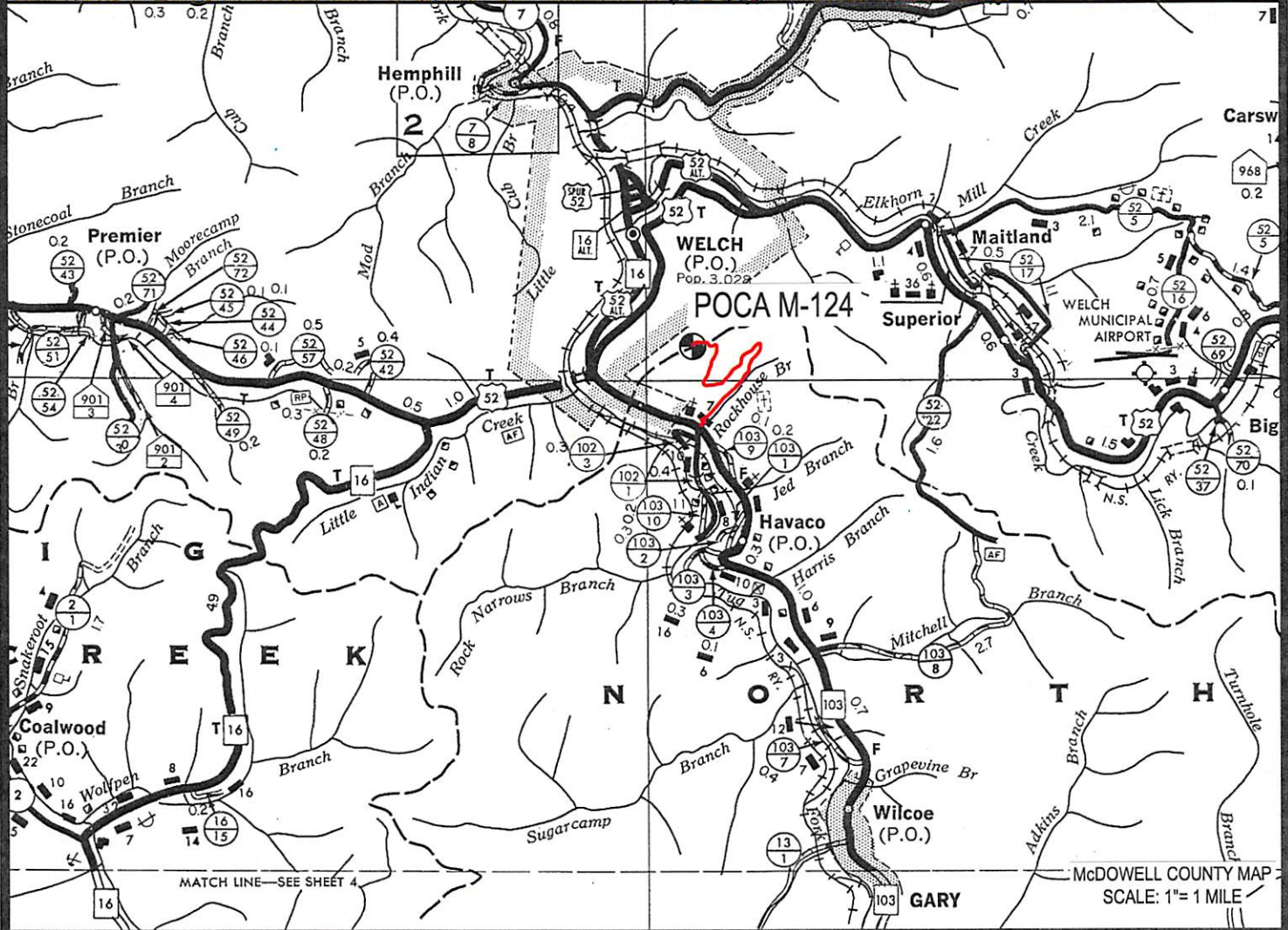
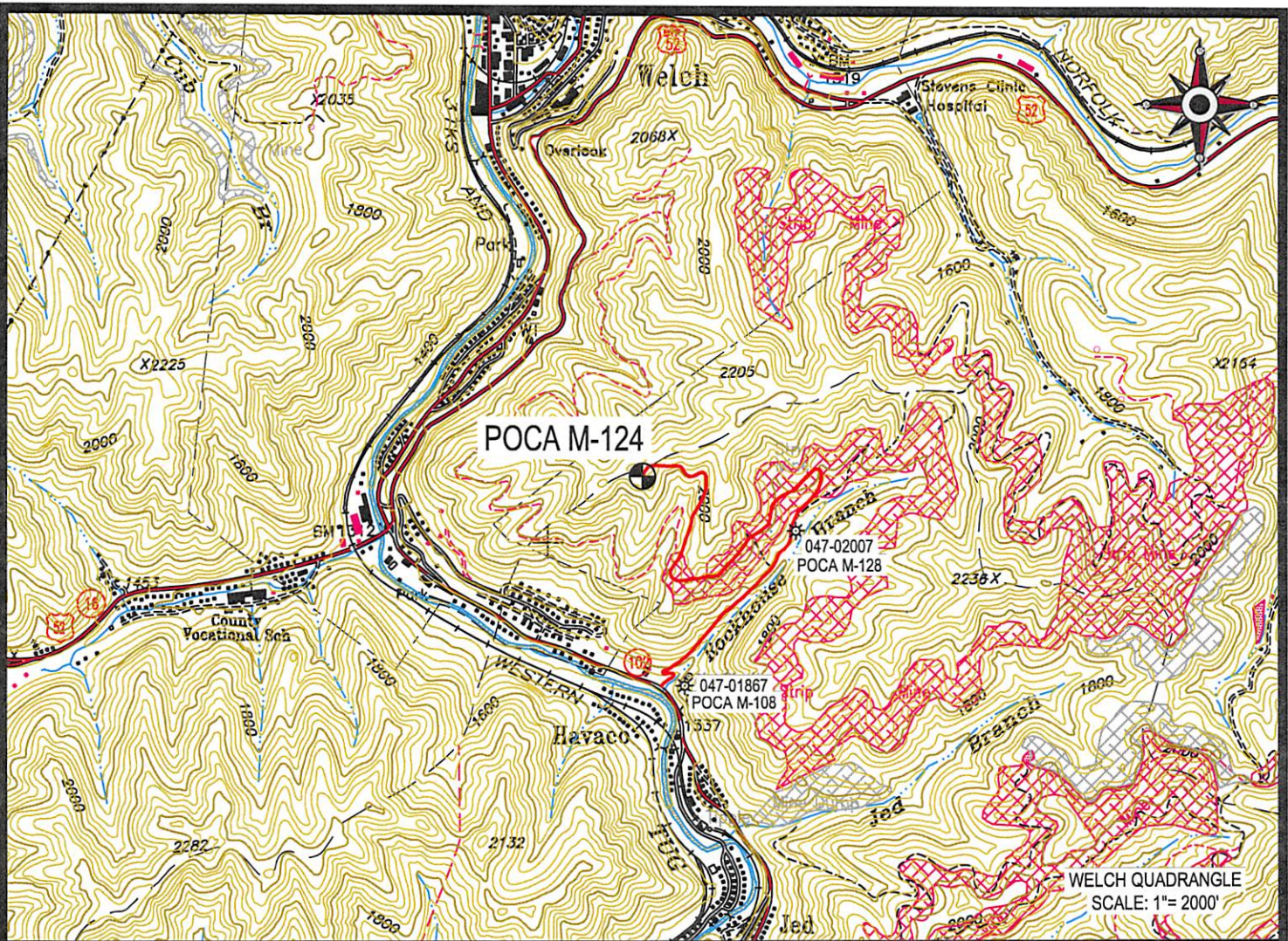
Plan Approved by: \_\_\_\_\_ Nov 23 2013

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

Office of Oil and Gas  
 WV Dept. of Environmental Protection

Title: \_\_\_\_\_ Date: \_\_\_\_\_

Field Reviewed? ( ) Yes ( ) No



 Cabot Oil & Gas Corporation

**POCA M-124**  
LOCATION MAP 07/12/2013



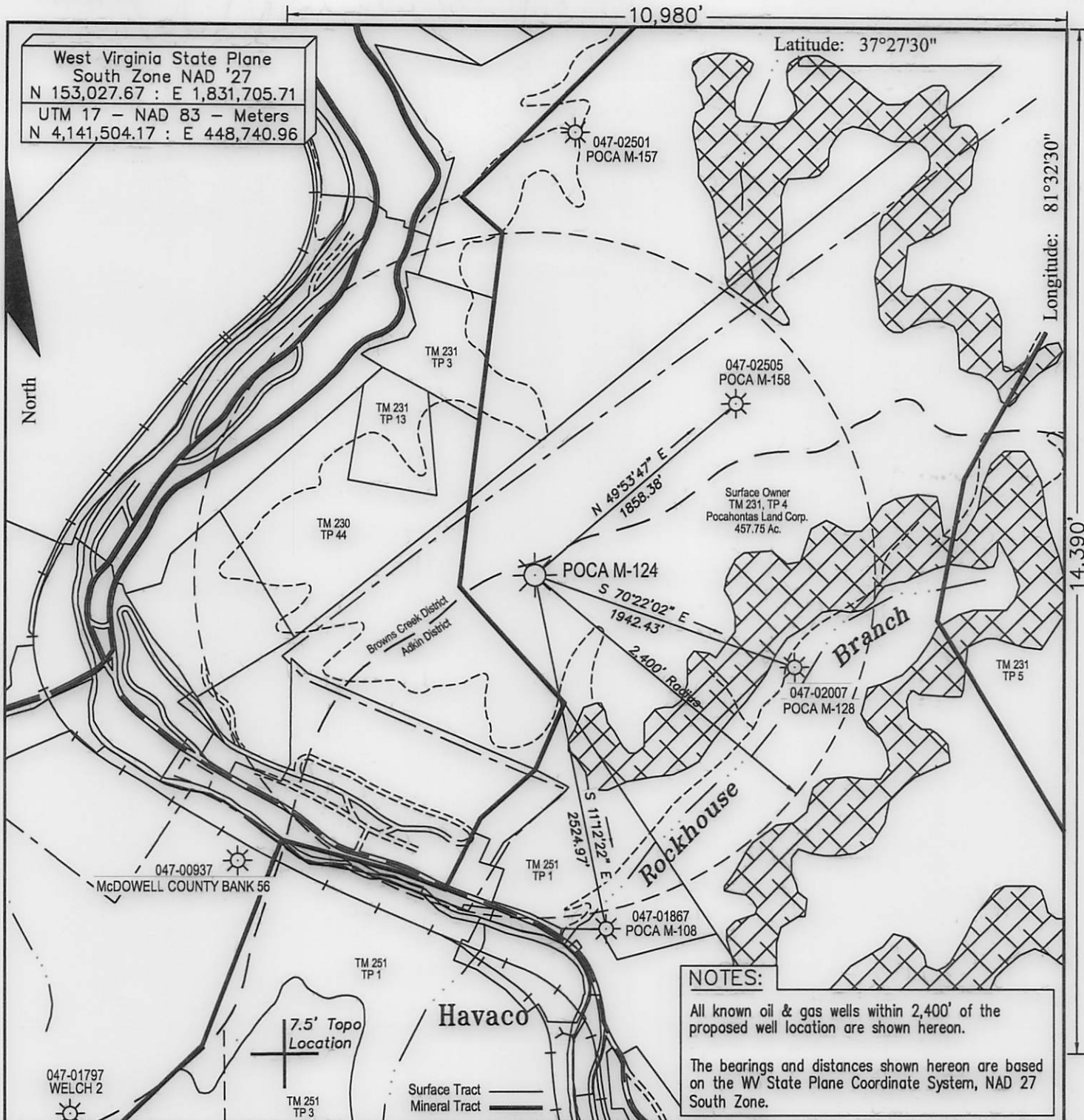
**CUNNINGHAM**

LAND SURVEYING & MAPPING SERVICES, LLC

- 5213 STEPHEN WAY •
- CROSS LANES, WEST VIRGINIA 25313 •
- VOICE (304) 561-4129 • FAX (304) 776-0703 •
- E-MAIL ADDRESS • DKCUNNINGHAM@SUDDENLINK.NET •

LOCATED ON THE WATERS  
OF TUG FORK RIVER  
ADKIN DISTRICT, McDOWELL COUNTY, W.VA  
WELCH QUADRANGLE

PROJECT NO. CABOT	DWG. NO. POCA M-124 LOC.DWG
DATE: 04-03-13	SCALE: AS NOTED
CHK'D BY: D.K.C.	DRAWN BY: G. PERKINS
FILE: C:\PROJECT FOLDER\CABOT	



**NOTES:**  
 All known oil & gas wells within 2,400' of the proposed well location are shown hereon.  
 The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

FILE #:  
 DRAWING #: Poca M-124 ww6  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1 : 12,729  
 PROVEN SOURCE OF ELEVATION: Global Positioning System (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 ENVIROMENTAL PROTECTION.

Signed: Don K. Cunningham  
 R.P.E.: \_\_\_\_\_ L.L.S.: 701

**DON K. CUNNINGHAM**  
 LICENSED  
 No. 701  
 STATE OF WEST VIRGINIA  
 PROFESSIONAL SURVEYOR

PLACE SEAL HERE

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

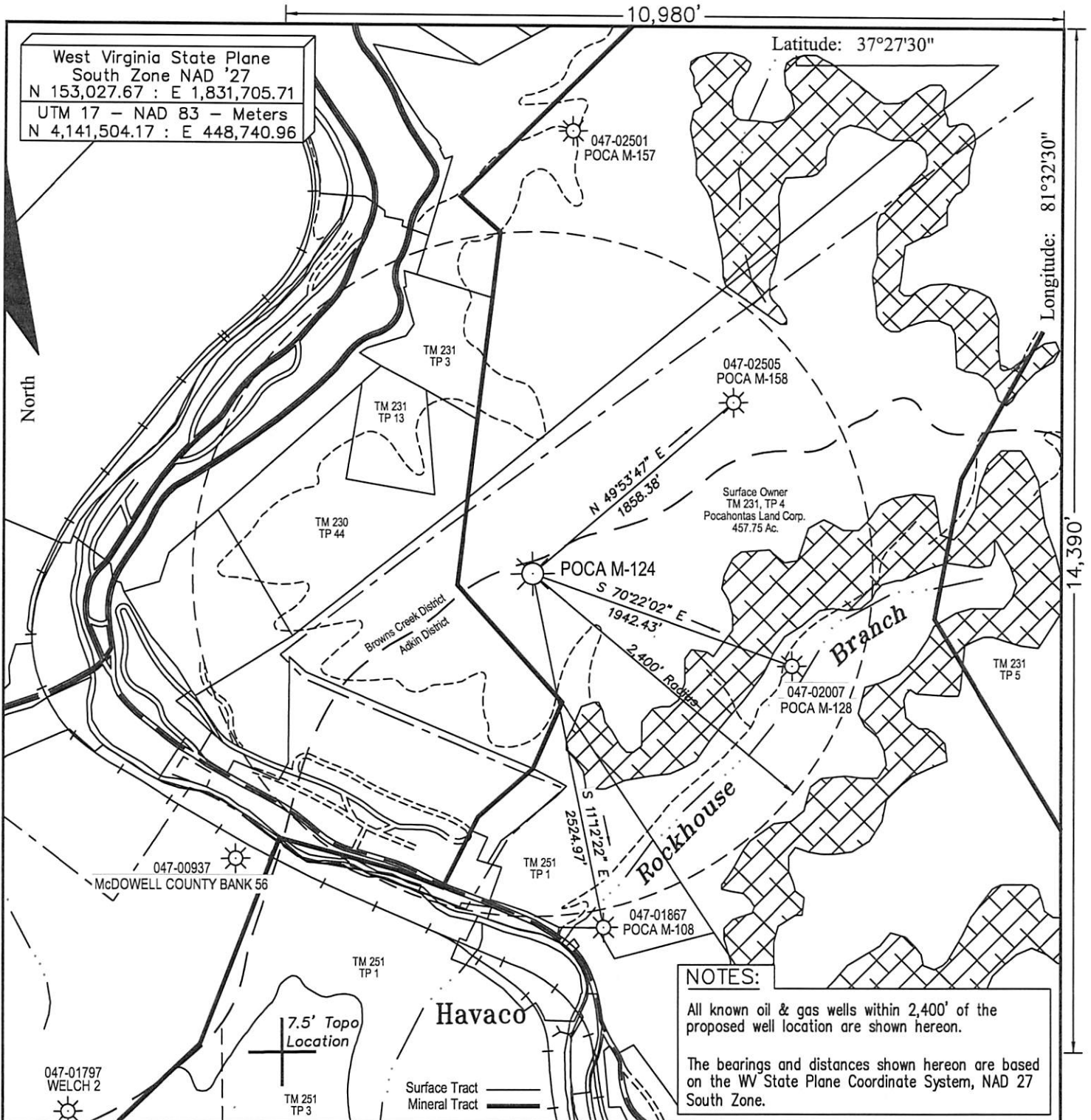


DATE: April 4, 2013  
 OPERATOR'S WELL #: Poca M-124  
 API WELL #: 47 047 02062 P  
 STATE COUNTY PERMIT

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

WATERSHED: Tug Fork River ELEVATION: 2,136.09'  
 COUNTY/DISTRICT: McDowell / Adkin QUADRANGLE: Welch  
 SURFACE OWNER: Pocahontas Land Corp. ACREAGE: 457.75  
 OIL & GAS ROYALTY OWNER: Penn Virginia Oil & Gas Corp. ACREAGE: 47,520  
 LEASE #: 47-0507 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: \_\_\_\_\_ ESTIMATED DEPTH: \_\_\_\_\_

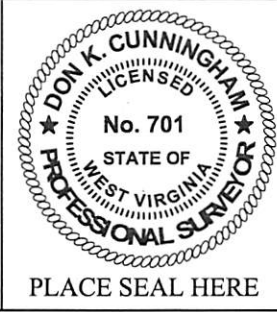
WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Brian Hall  
 Address Five Penn Center West, Suite 401 Address P.O. Box 260  
 City Pittsburgh State PA Zip Code 15276 City Danville State WV Zip Code 25053



**NOTES:**  
 All known oil & gas wells within 2,400' of the proposed well location are shown hereon.  
 The bearings and distances shown hereon are based on the WV State Plane Coordinate System, NAD 27 South Zone.

FILE #:  
 DRAWING #: Poca M-124 ww6  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1 : 12,729  
 PROVEN SOURCE OF ELEVATION: Global Positioning System (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 ENVIROMENTAL PROTECTION.  
 Signed: Don K. Cunningham  
 R.P.E.: \_\_\_\_\_ L.L.S.: 701



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



DATE: April 4, 2013  
 OPERATOR'S WELL #: Poca M-124  
 API WELL #: 47 047 02062P  
 STATE COUNTY PERMIT

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

WATERSHED: Tug Fork River ELEVATION: 2,136.09'

COUNTY/DISTRICT: McDowell / Adkin QUADRANGLE: Welch

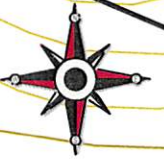
SURFACE OWNER: Pocahontas Land Corp. ACREAGE: 457.75

OIL & GAS ROYALTY OWNER: Penn Virginia Oil & Gas Corp. ACREAGE: 47,520

LEASE #: 47-0507 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: \_\_\_\_\_ ESTIMATED DEPTH: \_\_\_\_\_

WELL OPERATOR Cabot Oil & Gas Corp. DESIGNATED AGENT Brian Hall  
 Address Five Penn Center West, Suite 401 Address P.O. Box 260  
 City Pittsburgh State PA Zip Code 15276 City Danville State WV Zip Code 25053



MATCH LINE SHEET 2

NOTE:  
Apply all culverts as needed.

TM 251, TP 1  
Pocahontas Land Corporation  
D.B. 94, Pg. 126  
5,644.29 Ac. Fee

# Rockhouse

TM 231, TP 4  
Pocahontas Land Corporation  
D.B. 94; Pg. 126  
5,644.29 Ac. Fee

EXISTING ROAD  
+17% TO +20%  
425'±

EXISTING ROAD  
+9% TO +12%  
380'±

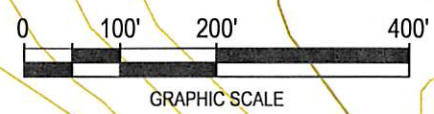
EXISTING ROAD  
+17% TO +20%  
155'±

EXISTING ROAD  
+9% TO +12%  
250'±

102

TM 251, TP 1  
Pocahontas Land Corporation  
D.B. 94, Pg. 126  
5,644.29 Ac. Fee

DRAWING LEGEND		
PROPOSED ROAD	---	ROAD DITCH
EXISTING ROAD	---	GAS LINE
STRAW BALES		FENCE LINE
SILT FENCE		ROCK OUTCROP
BRUSH BARRIER		WATER WELL
TREE LINE		HOUSE/STRUCTURE
ROCK RIP RAP		UTILITY POLE
CROSS DRAIN		SPRING
CULVERT		WET SPOT
DRILLING PIT		PIT WASTE APP. AREA



Cabot Oil & Gas Corporation

**POCA M-124**  
CONSTRUCTION & RECLAMATION SITE PLAN

SITUATED ON THE WATERS OF TUG FORK RIVER  
AKIN DISTRICT, MCDOWELL COUNTY, W.VA  
WELCH QUADRANGLE

SHEET NUMBER	SCALE:	DRAWN BY:	DATE:	CHK'D. BY:
1 OF 2	1"=200'	J.M.JONES	04/10/13	DKC



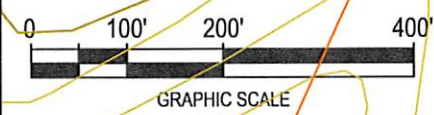
DRAWING LEGEND	
PROPOSED ROAD	ROAD DITCH
EXISTING ROAD	GAS LINE
STRAW BALES	FENCE LINE
SILT FENCE	ROCK OUTCROP
BRUSH BARRIER	WATER WELL
TREE LINE	HOUSE/STRUCTURE
ROCK RIP RAP	UTILITY POLE
CROSS DRAIN	SPRING
CULVERT	WET SPOT
DRILLING PIT	PIT WASTE APP. AREA

**Note:**  
Tanks will be used instead of drilling pit(s), and may be adjusted to the most environmental safe site to meet the requirements of the WVDEP.

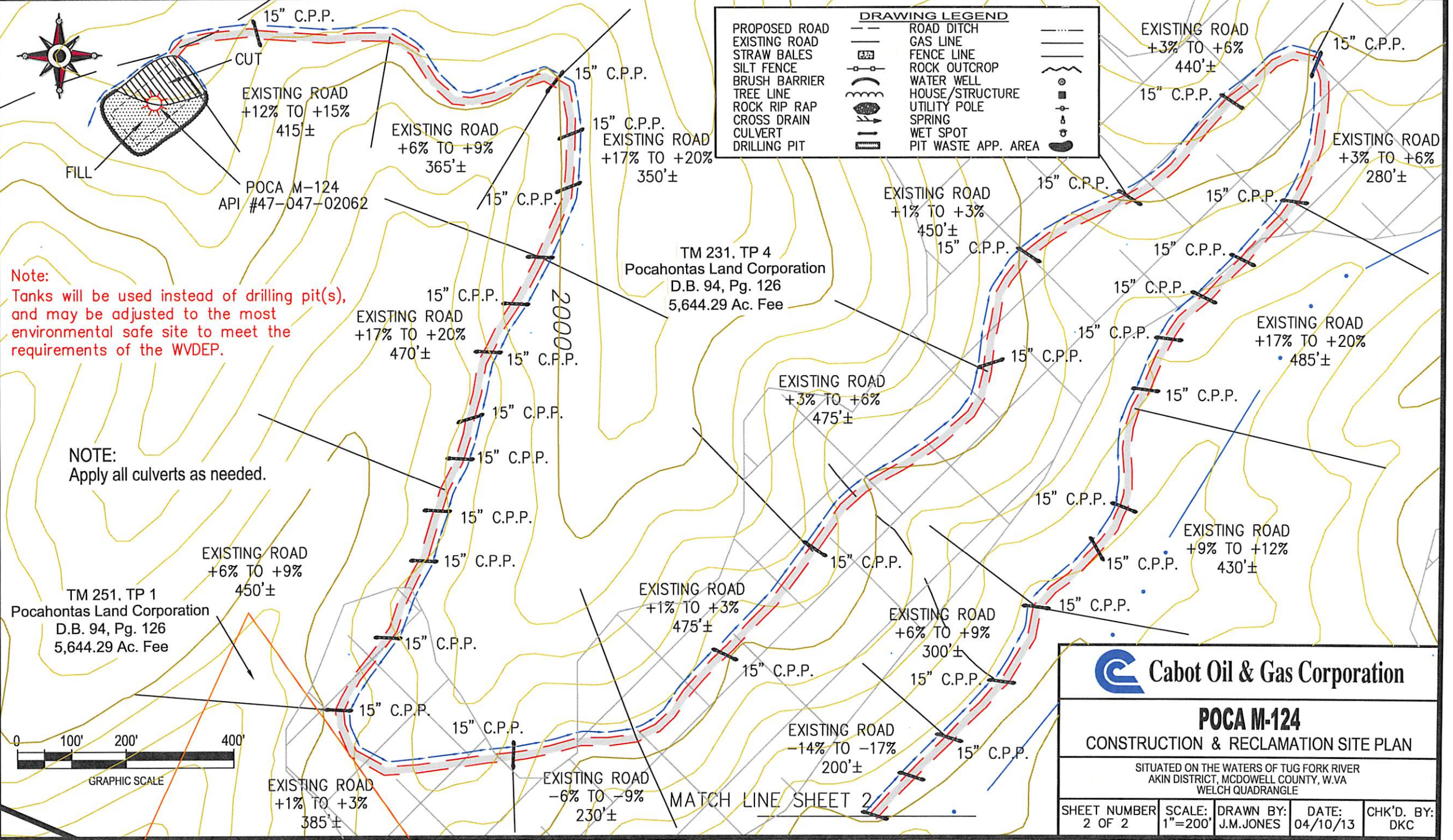
**NOTE:**  
Apply all culverts as needed.

TM 251, TP 1  
Pocahontas Land Corporation  
D.B. 94, Pg. 126  
5,644.29 Ac. Fee

TM 231, TP 4  
Pocahontas Land Corporation  
D.B. 94, Pg. 126  
5,644.29 Ac. Fee



<b>POCA M-124</b>				
CONSTRUCTION & RECLAMATION SITE PLAN				
SITUATED ON THE WATERS OF TUG FORK RIVER AKIN DISTRICT, MCDOWELL COUNTY, W.VA WELCH QUADRANGLE				
SHEET NUMBER	SCALE:	DRAWN BY:	DATE:	CHK'D. BY:
2 OF 2	1"=200'	J.M.JONES	04/10/13	DKC



**GENERAL NOTES:**

THIS DRAWING REPRESENTS A SCHEMATIC REPRESENTATION OF THE PROPOSED WELL SITE AND ACCESS ROAD. PROPOSED STRUCTURES SUCH AS THE DRILLING PIT, ROADWAY, CULVERTS, SEDIMENT BARRIERS, ETC. ARE SHOWN IN THEIR APPROXIMATE PREPLANNING CONFIGURATION. GIVEN UNFORESEEN CIRCUMSTANCES, THE AS-BUILT LOCATION OF THESE STRUCTURES MAY VARY SLIGHTLY FROM THE LOCATION SHOWN ON THE ATTACHED DRAWINGS.

ALL ROADS SHOWN THEREON ARE EXISTING UNLESS OTHERWISE NOTED AND SHALL BE MAINTAINED IN ACCORDANCE WITH GUIDELINES AND REQUIREMENTS OF WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL MANUAL.

ALL CULVERTS SHOWN ON THIS DRAWING ARE PROPOSED AND WILL BE A MINIMUM OF 15" IN DIAMETER UNLESS OTHERWISE NOTED.

DITCH LINES AND CULVERTS WILL BE INSTALLED WHENEVER PRACTICAL. HOWEVER PORTIONS OF THE EXISTING/PROPOSED ROADS WHICH ARE LOCATED IN SOLID ROCK SHALL NOT REQUIRE DITCHES OR CROSS DRAINS, UNLESS OTHERWISE WARRANTED BY FIELD CIRCUMSTANCES.

SUPPLEMENTAL DRAINAGE AND/OR SEDIMENT CONTROL STRUCTURES MEASURES IN ADDITION TO THOSE SHOWN ON THE ATTACHED DRAWINGS WILL BE INSTALLED WHEN AND WHERE DEEMED NECESSARY. SUCH ADDITIONAL MEASURES MAY CONSIST OF EITHER STRAW BALES, SILT FENCES OR OTHER MEASURES OUTLINED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

SEDIMENT BASINS (TRAPS) WILL BE CONSTRUCTED AT ALL CULVERTS AND CROSS DRAINS INLETS AS REQUIRED IN THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL 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.

A SEDIMENT BARRIERS OF EITHER BRUSH, STRAW BALES, FILTER FENCE, ETC. WILL BE INSTALLED AND MAINTAINED BELOW THE OUT FALL OF ALL PROPOSED CULVERTS AND AT ALL OTHER STORM WATER DRAINAGE POINTS FROM EITHER THE ROADWAY OR THE LOCATION.

ALL NECESSARY TIMBER OR BRUSH WILL BE REMOVED FROM ROUTE OF THE ROADWAY AND LOCATION BY CLEANING AND GRUBBING ACTIVITIES. ANY SALVAGEABLE TIMBER WILL BE CUT AND STACKED TO THE SIDE OF THE ROADWAY OR REMOVED TO A STOCKPILE AREA. THE REMAINING TIMBER OR BRUSH WILL BE CUTUP AND WIND ROWED BELOW THE OUTSLOPE OF THE CONSTRUCTION AREAS TO BE UTILIZED AS A SEDIMENT BARRIER.

SEPARATE PERMITS WILL BE OBTAINED FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION FOR ALL POINTS OF INGRESS AND EGRESS FROM COUNTY AND STATE ROADS. THESE INGRESS AND EGRESS POINTS WILL BE MAINTAINED IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS. A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF 8" OF CRUSHED STONE WILL BE CONSTRUCTED FOR A MINIMUM DISTANCE OF 50' FROM THE INGRESS AND EGRESS POINTS OF ALL PUBLIC ROADWAYS IN ACCORDANCE WITH CURRENT WEST VIRGINIA DEPARTMENT OF TRANSPORTATION REGULATIONS.

ALL CULVERTS SHOWN ON THE ATTACHED DRAWINGS ARE TO BE CONSIDERED PERMANENT AND WILL REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION ACTIVITIES UNLESS NOTED OTHERWISE. A STABILIZED OUTLET CONTROL DEVICE SUCH AS RIP RAP, NATURAL STONE, BRUSH, ETC. WILL BE INSTALLED BELOW THE OUT FALL OF ANY ROADWAY CULVERT(S) WHICH ARE NOT LOCATED IN A STREAM OR CREEK.

PERMANENT CROSS DRAINS OR WATER BARS WILL BE INSTALLED AS AN INTEGRAL PART OF THE RECLAMATION PROCESS AND SHALL BE SPACED IN ACCORDANCE WITH AS-BUILT ROADWAY SLOPES AND TABLE 11-4 OF THE WEST VIRGINIA DEPARTMENT OF OIL AND GAS EROSION AND SEDIMENT CONTROL FIELD MANUAL.

TEMPORARY SEEDING AND MULCHING WILL BE UTILIZED TO PROVIDE A VEGETATIVE COVER ON ALL DISTURBED AREAS I.E. ROADWAYS, LOCATION, ROAD/LOCATION SLOPES AND ANY OTHER AREAS THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES.

THE LOCATION OF DRILLING PIT(S) MAY BE ADJUSTED TO THE MOST ENVIRONMENTAL SAFE SITE TO MEET THE REQUIREMENTS OF THE WVDEP.

**CONTRACTORS NOTE:**

IT IS THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND CONDITION OF ALL UNDERGROUND UTILITIES, SANITARY SEWERS, STORM SEWERS, ETC. PRIOR TO THE COMMENCEMENT OF ANY/OR CONSTRUCTION ACTIVITIES. DIG WITH C.A.R.E. CALL MISS UTILITY 1-800-245-4848.

ROAD GRADE (%)	DISTANCE (FT)
1	400
2	250
5	135
10	80
15	60
20	45

ROAD GRADE (%)	DISTANCE (FT)
2-5	500-300
6-10	300-200
11-15	200-100
16-20	100



1-800-245-4848

**DRAWING LEGEND**

- PROPOSED ROAD -----
- EXISTING ROAD - - - - -
- STRAW BALES [Symbol]
- SILT FENCE [Symbol]
- BRUSH BARRIER [Symbol]
- TREE LINE [Symbol]
- ROCK RIP RAP [Symbol]
- CROSS DRAIN [Symbol]
- CULVERT [Symbol]
- DRILLING PIT [Symbol]
- ROAD DITCH [Symbol]
- GAS LINE [Symbol]
- FENCE LINE [Symbol]
- ROCK OUTCROP [Symbol]
- WATER WELL [Symbol]
- HOUSE/STRUCTURE [Symbol]
- UTILITY POLE [Symbol]
- SPRING [Symbol]
- WET SPOT [Symbol]
- PIT WASTE APP. AREA [Symbol]

**DRIVING DIRECTIONS FOR POCA #.-124**

- 1.) FROM WELCH, W.VA DRIVE SOUTH ON STATE ROUTE 16 FOR 1.1 MILES± TO INTERSECTION OF STATE ROUTE 52 AND SECONDARY ROUTE 102.
- 2.) TAKE SECODARY ROUTE 102 SOUTH 0.7 MILES± TO THE BEGINNING OF QN EXISTING ACCESS ROAD FOR POCA M-124, LOCATED ON THE LEFT-HAND SIDE OF THE ROAD.
- 3.) TURN LEFT ONTO THE EXISTING ACCESS ROAD AND GO FOR 1.5 MILES± TO THE EXISTING WELL SITE OF POCA M-124 AS SHOWN ON THE "CONSTRUCTION AND RECLAMATION PLAN".

Received

07/12/2013

MAY 23 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection





May 22, 2013

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

RE: Pocahontas Land M-124  
Adkin District, McDowell County, WV  
API # 47-047-02062  
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

MAY 23 2013

Office of Oil and Gas  
WV Dept. of Environmental Protection