



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

December 10, 2014

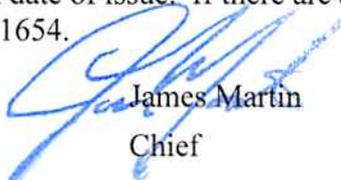
WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-10901466, issued to HARPER, HAYDEN ENERGY KA, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. The above named operator will also file, as required in WV Code 22-6-23, an affidavit on form WR-38 by two experienced persons in the operator's employment and the Oil and Gas inspector that the work authorized under this permit was performed and a description given. Failure to abide by all statutory and regulatory provisions governing all duties and operations here under may result in suspensions or revocation of this permit and in addition may result in civil and/or criminal penalties being imposed upon the operator.

This permit will expire in two (2) years from date of issue. If there are any questions, please free to contact me at (304) 926-0499 ext. 1654.


James Martin
Chief

Operator's Well No: PLC 35
Farm Name: POCAHONTAS LAND CORP.
API Well Number: 47- 10901466
Permit Type: Plugging
Date Issued: 12/10/2014

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

10901466P

WW-4B
Rev. 2/01

1) Date AUGUST 22, 2014
2) Operator's
Well No. PLC 35
3) API Well No. 47-109 - 01466

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 1488' Watershed INDIAN CREEK
District CENTER County WYOMING Quadrangle PINEVILLE 7.5

6) Well Operator HAYDEN HARPER ENERGY KA, LLC 7) Designated Agent BRETT MCDONOUGH
Address 1001 MOOREHEAD SQ. DR. STE 350 Address 1001 MOOREHEAD SQ. DR. STE 350
CHARLOTTE, NC 28203 CHARLOTTE, NC 28203

8) Oil and Gas Inspector to be notified
Gary Kennedy
PO Box 268
Nimitz, WV 25978
9) Plugging Contractor
Name PATCHWORK OIL & GAS, LLC
Address 8165 ELIZABETH PIKE
ELIZABETH, WV 26143

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

Plugging schematic and procedure on next page.

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

Work order approved by inspector Gary Kennedy Date 10/31/14

PLC #35
47-109-01466

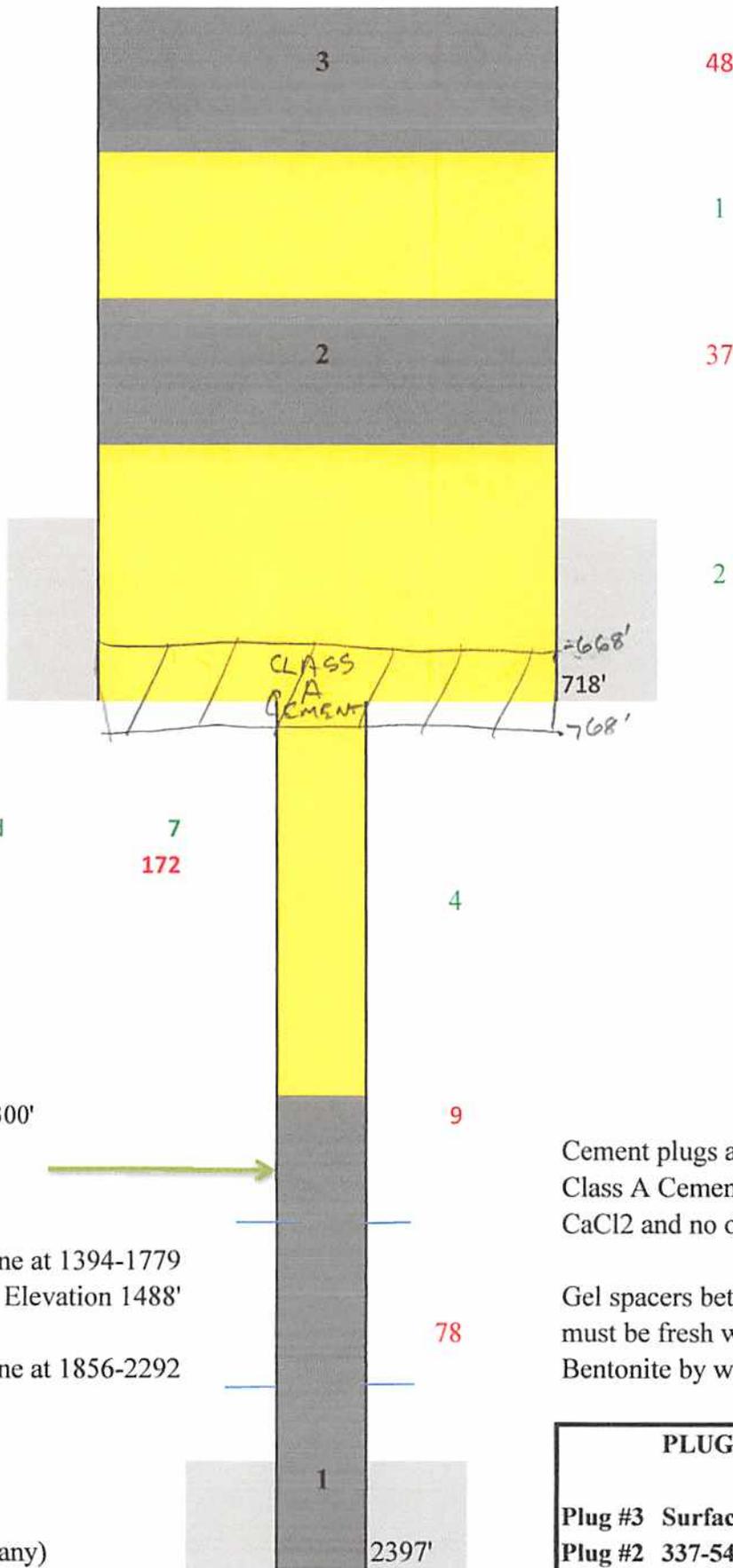
PROPOSED PLUGGING PROCEDURE

1. Prepare plugging permit application.
2. Certify to surface and coal owners.
3. Certify to designated State inspector for signature.
4. Once all signatures are obtained, copy for our records and certify to Jeff at the State Office for approval.
5. Receive plugging permit good for 2 years.
6. Notify the designated State inspector 24 hours prior to commencing operations.
7. Take equipment to location and begin prepping for plug.
8. Rig up
9. Verify total depth of 2397"
10. Run tubing to TD. Set first plug with 78 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from TD up to 1350'. *TOC OF 4 1/2" MAY BE ≈ 900'* Based on cement fill up 4 1/2 free point should be at 1300', rip and remove 1300' of 4 1/2. run back in to 1350' run 9 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 1350' up to 1250' (This covers bottom, pay zones, elevation, and rip)
11. Pull tubing back, wait 8 hours
12. Run in and tag plug.
13. Run 6 sacks of 6% Bentonite gel from 1250' up to 540'.
14. Attempt to rip 7" (if possible) * 7" APPEARS TO BE CTS, IF SO DO NOT RIP 7".
15. Pull tubing back to 540' run 37 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 540' up to 337'. (Coal seam & possible 7" rip)
16. Pull tubing back, wait 8 hours
17. Run in and tag plug.
19. Run 1 sack of 6% Bentonite gel from 337' up to 268'.

WJK

- 20.. Pull tubing back to 268' and run 48 sacks of Class A cement with no more than 3% CaCl₂ and no other additives from 268' up to surface (coal seam & surface)
21. Solidify pit if necessary with more cement and lime, then bury.
22. Set 6" x 12.5" steel pipe with concrete with 1/2" API identification.
23. Rig down, and move equipment out.
24. Reclaim location
25. Prepare WR-34 & WR-38 for permit release.





50lb sacks of 6% gel used
100lb sacks of cement

Attempt Casing Rip at 1300'

Pay Zone at 1394-1779
Elevation 1488'

Pay Zone at 1856-2292

- : Cement
- : Gel
- : Bridge Plug (if any)

Cement plugs are at a minimum of 100'
Class A Cement with no more than 3%
CaCl₂ and no other additives.

Gel spacers between all cement plugs
must be fresh water with at least 6%
Bentonite by weight

JHK

PLUGS	
Plug #3	Surface-268 Coal & Surface
Plug #2	337-540 Coal
Plug #1	1250-2397 bottom, pay, elev. Rip

* PLUG 1a ACROSS 7" CASING SHOULDER
FROM 768' - 668' *gwm*

10901466P

WR-35

16-Aug-94

API # 47-109-01466

RECEIVED

WV Division of Environmental Protection

NOV 23 1994

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

Well Operator's Report of Well Work

Permitting
Farm name ~~Office of Oil & Gas~~ ANTAS LAND CORP. Operator Well No.: PLC #35

LOCATION: Elevation: 1,488.00 Quadrangle: PINEVILLE

District: CENTER County: WYOMING
Latitude: 5125 Feet South of 37 Deg. 32Min. 30 Sec.
Longitude 4450 Feet West of 81 Deg. 35 Min. 0 Sec.

Company: BOWIE, INC.
P.O. BOX 1430
CLARKSBURG, WV 26301-1430

Agent: GROVER BOWIE

Inspector: OFIE HELMICK
Permit Issued: 08/10/94
Well work Commenced: 10-6-94
Well work Completed: 10-12-94
Verbal Plugging
Permission granted on: _____
Rotary Cable _____ Rig
Total Depth (feet) 2397 DTD
Fresh water depths (ft) _____
60,220
Salt water depths (ft) _____
N/A

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 208-18,387-95,470-75,485-90

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
9 5/8	36'	--	--
7"	718'	718'	200skts
4 1/2"	2336'	2336'	130skts

CTS

OPEN FLOW DATA

Producing formation Macton, L. Maxton Pay zone depth (ft) 1856-2292
Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 1185 MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure 270 psig (surface pressure) after 24 Hours

Second producing formation U maxton, Ravencliff Pay zone depth (ft) 1394-1779
Gas: Initial open flow show MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow commingled MCF/d Final open flow N/A Bbl/d
Time of open flow between initial and final tests 12 Hours
Static rock Pressure commingled psig (surface pressure) after 24 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: BOWIE, INC.

By: W. C. Bowen
Date: 11-17-94

NVO 1446
[Signature]

- I (2277-2291) 20 holes, 500gal 15%HCL, 400sks sand, 560bbl 75Q foam
 II (1767-2134) 30 holes, 750gal 15%HCL, 450sks sand, 600bbl 75Q foam
 III (1394-1441) 30 holes, 500gal 15%HCL, 500sks sand, 540bbl 75Q foam

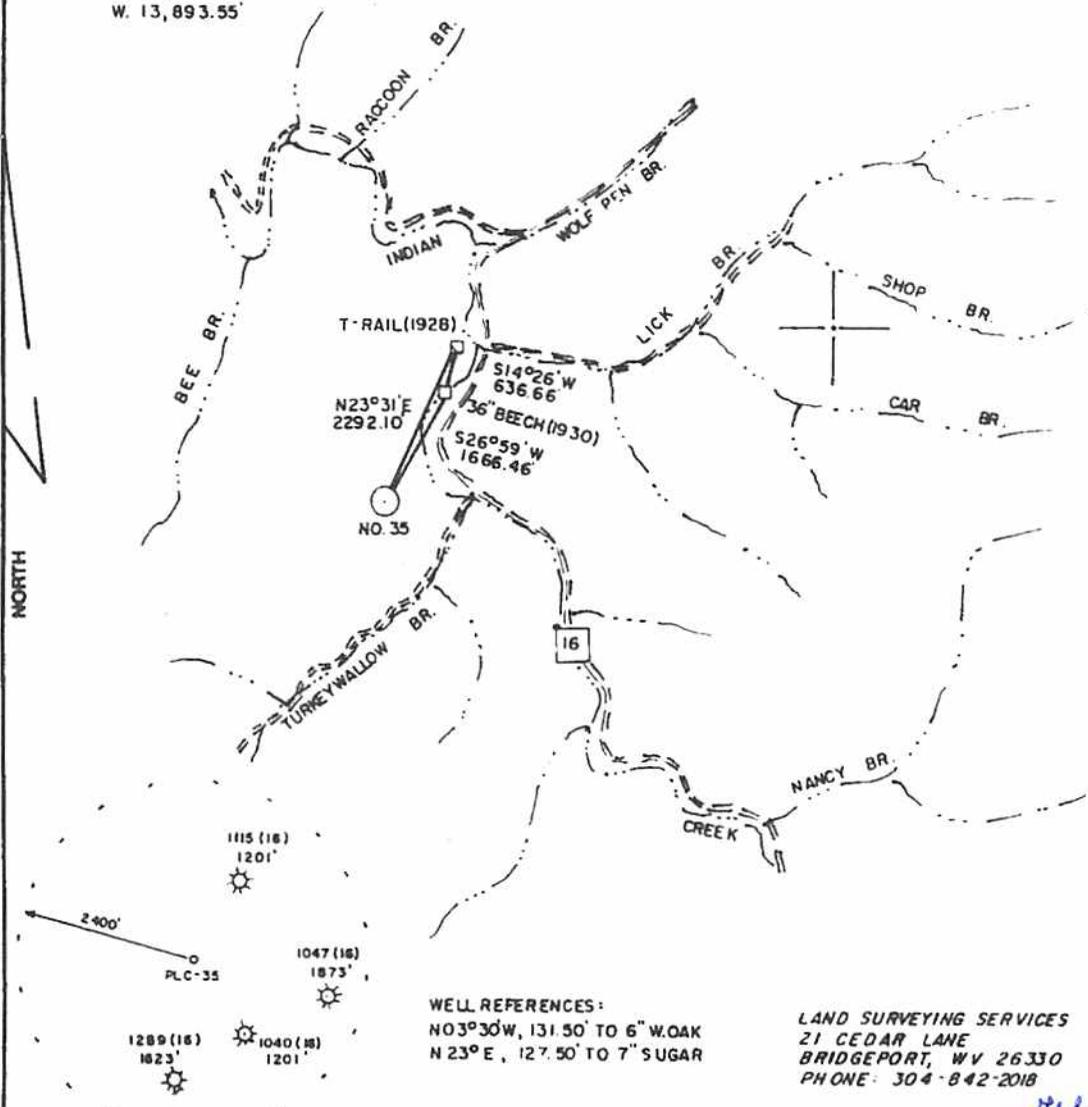
SAND	0-208	1/4" @60'
COAL	208-218	
SAND	218-387	3/4" @220'
COAL	387-395	
SAND	395-470	
COAL & SAND	470-490	
SAND & SHALE	490-1345	
RAVENCLIFF	1345-1440	GAS SHOW
AVIS	1440-1490	
SHALE & SAND	1490-1737	
U. MAXTON	1737-1796	
SHALE & SAND	1796-1821	
MAXTON	1821-2152	
SHALE & SAND	2152-2250	
L. MAXTON	2250-2292	GAS SHOW
SHALE	2292-2343	
L. LIME	2343-2397	DTD

10901466P

POCA. LAND COOR.:
NO. 35- N. 58,590.29'
W. 13,893.55'

4450'
LATITUDE 37° 32' 30"

5125'
LONGITUDE 81° 35' 00"



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 2500
 PROVEN SOURCE OF ELEVATION BM 2500' NE OF LOCATION ELEV. 1281'

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) _____
 R.P.E. _____ L.L.S. 674
 STEPHEN D. LOSH

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE MAY 06 19 94
 OPERATOR'S WELL NO. PLC NO. 35
 API WELL NO. 47-109-1466
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1488' WATERSHED INDIAN CREEK
 DISTRICT CENTER COUNTY WYOMING
 QUADRANGLE PNEVILLE 7.5 min.

SURFACE OWNER POCAHONTAS LAND CORP. ACREAGE 24980.40
 OIL & GAS ROYALTY OWNER POCAHONTAS LAND CORP. LEASE ACREAGE 10050.85
 LEASE NO. 56244

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION MAXTON ESTIMATED DEPTH 2600'
 WELL OPERATOR BOWIE, INC. DESIGNATED AGENT WILLIAM BOWIE
 ADDRESS P. O. BOX 1430 ADDRESS P. O. BOX 1430
 CLARKSBURG, WV 26302-1430 CLARKSBURG, WV 26302-1430

WV COUNTY NAME PERMIT 1466

WW-4A
Revised 6-07

1) Date: AUGUST 22, 2014
2) Operator's Well Number
PLC #35

3) API Well No.: 47 - 109 - 01466

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 PINNACLE LAND COMPANY ✓	Name PINNACLE LAND COMPANY ✓
Address PO BOX 446 ✓	Address PO BOX 446 ✓
MAN, WV 25635	MAN, WV 25635
(b) Name	(b) Coal Owner(s) with Declaration
Address	Name NRP, WPP LLC ✓
	Address 5260 IRWIN DR. ✓
	HUNTINGTON, WV 25705
(c) Name	Name
Address	Address
6) Inspector Gary Kennedy) Coal Lessee with Declaration
Address PO BOX 268	Name PINNACLE LAND COMPANY & MECHEL BLUESTONE ✓
Nimitz, WV 25978	Address PO BOX 446 PO BOX 1085 ✓
Telephone 304-382-8402	MAN, WV 25635 BECKLEY, WV 25802

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.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Lynne M. Coogle, Notary Public
City of Pittsburgh, Allegheny County
My Commission Expires March 18, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

Well Operator HAYDEN & HARPER ENERGY KA, LLC
By: ERIC LINN ✓
Its: VICE PRESIDENT ✓
Address 1001 MOOREHEAD SQ. DR. SUITE 350 ✓
CHARLOTTE, NC 28203 ✓
Telephone 704-343-2447 ✓

Subscribed and sworn before me this 9th day of September 2014
Lynne M. Coogle Notary Public
My Commission Expires March 18, 2016

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.

10901466P

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature <input checked="" type="checkbox"/> <i>Donna Campbell</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
	B. Received by (Printed Name) <i>Donna Campbell</i> C. Date of Delivery <i>9/22/14</i>	
1. Article Addressed to: <i>Mechel Bluestone</i> <i>PO Box 1085</i> <i>Beckley, WV 25802</i>	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.		
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		
2. Article Number (Transfer from service label) 7014 0510 0001 8220 1527		
PS Form 3811, February 2004	Domestic Return Receipt	102595-02-M-1540

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature <input checked="" type="checkbox"/> <i>[Signature]</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
	B. Received by (Printed Name) <i>Leslie Hobbs</i> C. Date of Delivery <i>9/22/14</i>	
1. Article Addressed to: <i>Pinnacle Land</i> <i>PO Box 446</i> <i>Man, WV 25635</i>	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.		
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		
2. Article Number (Transfer from service label) 7014 0510 0001 8220 1503		
PS Form 3811, February 2004	Domestic Return Receipt	102595-02-M-1540

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature <input checked="" type="checkbox"/> <i>Manda Beggs</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
	B. Received by (Printed Name) <i>Manda Beggs</i> C. Date of Delivery <i>9-22-14</i>	
1. Article Addressed to: <i>NPP, WPP, LLC</i> <i>5260 Irwin Rd.</i> <i>Huntington, WV 25705</i>	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
3. Service Type <input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.		
4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes		
2. Article Number (Transfer from service label) 7014 0510 0001 8220 1510		
PS Form 3811, February 2004	Domestic Return Receipt	102595-02-M-1540

OK 7/80
1000

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 HAYDEN & HARPER ENERGY KA, LLC OP Code 494495359

Watershed INDIAN CREEK Quadrangle PINEVILLE 7.5

Elevation 1488' County WYOMING District CENTER

Description of anticipated Pit Waste: FLUIDS AND OTHER MATERIALS ASSOCIATED WITH PLUGGING

Will a synthetic liner be used in the pit? YES 20 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 _____)

Proposed Work For Which Pit Will Be Used:

- Drilling
- Workover
- Other (Explain _____)
- Swabbing
- Plugging

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 [Signature]
Company Official (Typed Name) ERIC LINN
Company Official Title VICE PRESIDENT

RECEIVED
Office of Oil and Gas
NOV 06 2014
WV Department of
Environmental Protection

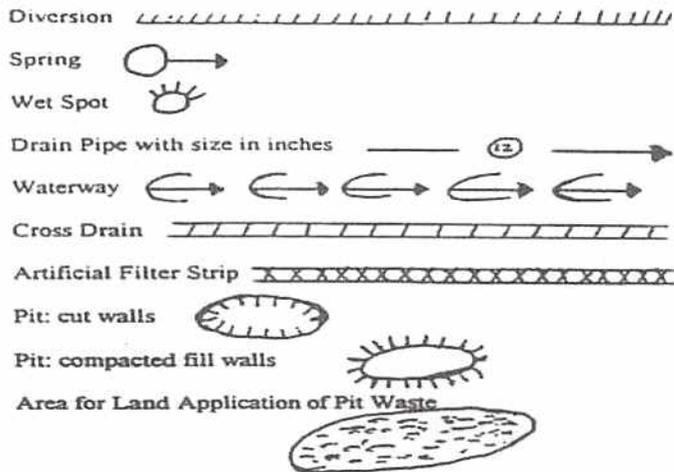
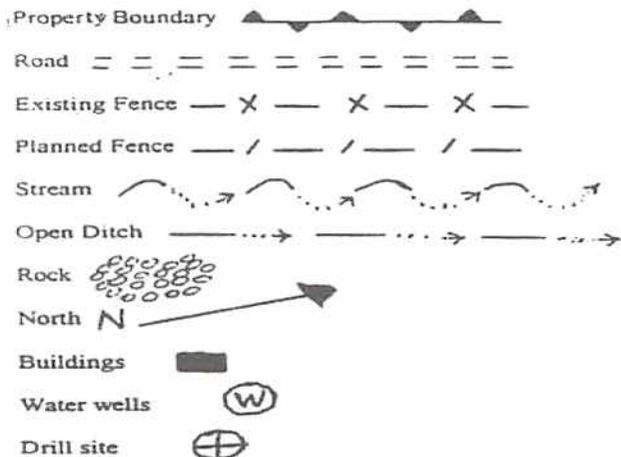
Subscribed and sworn before me this 9th day of September, 2014

[Signature] Notary Public

My commission expires March 18, 2016

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Lynne M. Coogle, Notary Public
City of Pittsburgh, Allegheny County
My Commission Expires March 18, 2016
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

LEGEND



Proposed Revegetation Treatment: Acres Disturbed 3.2 Prevegetation pH 6.67
 Lime 2 Tons/acre or to correct to pH 6.5
 Fertilizer (10-20-20 or equivalent) 500 lbs/acre (500 lbs minimum)
 Mulch STRAW Tons/acre

Seed Mixtures

Area I		Area II	
Seed Type	lbs/acre	Seed Type	lbs/acre
TALL FESCUE	40	"	
LADINO CLOVER	5	"	

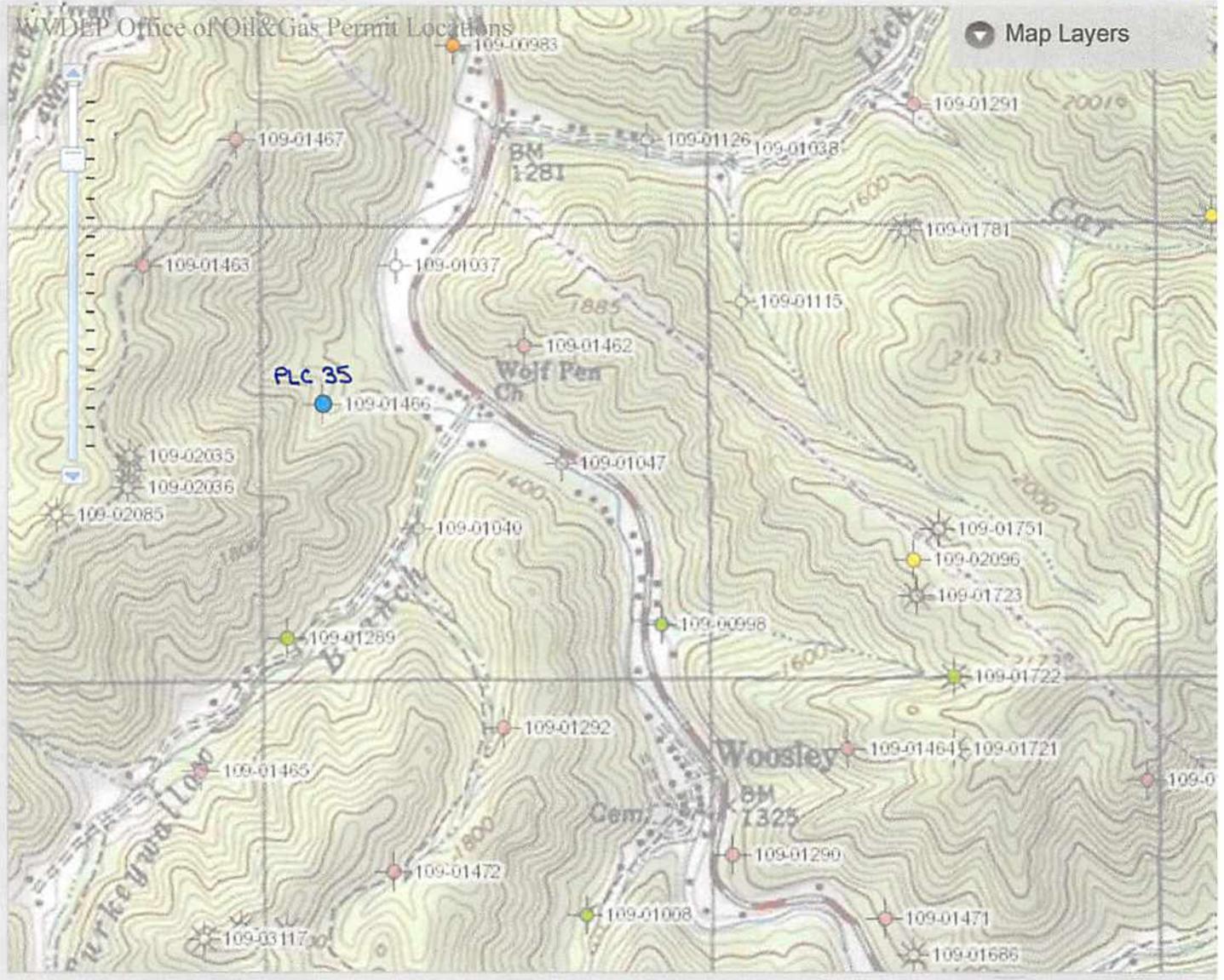
Attach:
 Drawing(s) of road, location, pit and proposed area for land application.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Jeffery Kennedy*
 Comments: _____

Title: Inspector Date: 10/31/14

Field Reviewed? () Yes () No



[Handwritten signature]

PLC 35 47-109-01466

