



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

March 28, 2014

WELL WORK PLUGGING PERMIT

Plugging

This permit, API Well Number: 47-9902022, issued to CHESAPEAKE APPALACHIA, L.L.C., 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.

A blue ink signature of James Martin, Chief, is written over the text.

James Martin
Chief

Operator's Well No: 824079
Farm Name: IRBY, NILA
API Well Number: 47-9902022
Permit Type: Plugging
Date Issued: 03/28/2014

Promoting a healthy environment.

03/28/2014

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.

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.

FORM WW-4 (B)
Observe
File Copy
(Rev. 2/01)

1) Date: 2/11/2014
2) Operator's Well No. 824079 P&A
3) API Well No. 47-099-02022

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 _____
 (Is Gas, Production X or Underground storage _____) Deep _____ Shallow X

5) Location: Elevation 1,016' Watershed Big Laurel Creek of Kiah Creek
 District Stonewall County Wayne Quadrangle Ranger, WV 7.5

6) Well Operator Chesapeake Appalachia, L.L.C. 7) Designated Agent Eric B. Gillespie
 Address P.O. Box 18496 Address P.O. Box 6070
Oklahoma City, OK 73154-0496 Charleston, WV 25362

8) Oil and Gas Inspector to be notified 9) Plugging Contractor
 Name Jeremy James Name Chesapeake Appalachia, L.L.C.
 Address P.O. Box 147 Address P.O. Box 18496
Ona, WV 25545 Oklahoma City, OK 73154-0496

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

See Attached Sheet

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

Work Order approved by Inspector [Signature] Date 3-21-14

~~REC'D~~ **03/28/2014**
Office of Oil and Gas
MAR 26 2014
WV Department of
Environmental Protection

824079 P&A PROCEDURE

NOTE: Well has a plug in the shale and a bridge plug at 1850'. Plus there is sand, junk and debris filling the hole to 1800'.

- 1) Prepare road and location, MIRU Service Rig
- 2) RIH with tools to check TD at approximately 1800'
- 3) Run W.S. to 1780', load hole with gel, pull W.S. to 1750'
- 4) Spot 150' cement plug 1750'-1600', pull W.S.
- 5) Cut 4 ½" at free-point (approximately 1150') and pull
- 6) Run W.S. to 1150', load hole with gel
- 7) Spot 100' cement plug 1150'-1050', pull W.S. to 950'
- 8) Spot 150' cement plug 950'-800', pull W.S. to 480'
- 9) Spot 100' cement plug 480'-380', pull W.S. to 250'
- 10) Spot 250' cement plug 250' – surface
- 11) Pull W.S. and top off with cement
- 12) Erect monument and reclaim as prescribed by law



RECEIVED
Office of Oil and Gas
03/28/2014
MAR 26 2014
WV Department of
Environmental Protection

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

Farm name: Nila Irby
Location Elevation: 1033'
District:Stonewall

Operator Well No: 824079
Quadrangle: Ranger
County: Wayne

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P. O. Box 6070 Charleston, WV 25362-0070	13 3/8"		20'	N/A
Agent: W. A. Watson, Jr.				
Inspector: Dave Belcher	9 5/8"		314'	159.3
Date Permit Issued: 03/31/00				
Date Well work commenced: 07/20/00	7"		1,657'	324.55
Date Well Work completed: 08/13/00				
Verbal Plugging:	4 1/2"		3,574'	256.5
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>	2 3/8"			N/A
Total Depth (feet):3610'				
Fresh Water Depth (ft):N/A				
Salt Water Depth (ft.):1000', 1420'				
Is coal being mined in area (N <input checked="" type="checkbox"/> Y <input type="checkbox"/>)				
Coal Depths (ft): 50, 140, 190				

OPEN FLOW DATA

Producing formation: Devonian Shale Pay zone depth(ft) from 2480 to 3501 ; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow 73 MCF/d Final open flow, Bbl/d
Time of open flow between initial and final tests 72 Hours
Static rock Pressure 290 psig (surface pressure) after 72 Hours

2nd producing formation: Pay zone depth (ft) from to ; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

3rd producing formation: Pay zone depth (ft) from to ; from to
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after 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.

Signed: _____
By: COLUMBIA NATURAL RESOURCES, INC.
Date: 9/14/00

Received
MAR 18 2000
Office of Oil and Gas
WV Dept. of Environmental Protection

03/28/2014

9902022P

Well Completion Data

ATTN:
John Adams
Dave Gocke

CNR Well #: 824079
Permit #: 47-99-02022
Elev: 1033
County: Wayne
District: Stonewall
Prospect: Harts Creek Central
Field: Harts Creek Central
Lease: Fee Land

	Top	Base
Salt Sand	930	1245
Maxon Sand	1420	1585
Little Lime	1610	1630
Greenbrier Limestone	1635	1820
Keener Sand		
Blg Injun	1890	1895
Weir Sand		
Berea Sand	2435	2480
Cleveland Shale	2480	2585
Upper Devonian	2585	3260
Lower Huron Shale	3260	3505
Olentangey Shale	3505	
Rhinstreet Shale		
Fifth Sand		
Elizabeth Sand		
Bradford Sand		
Riley Sand		

	Top	Base
Benson Sand		
Elk Sand		
Onondaga Limestone		
Huntersville Chert		
Oriskany Sand		
Helderberg Limestone		
Salina Series		
Newburg Sand		
McKenzie Dolomite		
Rose Hill Shale		
Tuscarora Sand		
Juniata Shale		
Martinsburg Shale		
Trenton Limestone		
Black River Dolomite		
Wells Creek Dolomite		
Beekmantown Dolomite		

SRP 18, 2000

	Depth	Mcf
Show Gas 1	3220, 318	
Show Gas 2	1695	
Show Gas 3		
Show Gas 4		
Show Gas 5		

	Depth	Depth
Show Oil 1	1695	Show Water
Show Oil 2		

Formation @ TD: Lower Huron Shale

	H	POR	Sw	Perf. Interval
Pay 1	L. Huron Sh.			See log
Pay 2	Upper Devonian Sh.			3210-20 3170-80 2955-60
Pay 3	Greenbrier Ls.	4	0.20	0.16
Pay 4				
Pay 5				
Pay 6				

IOF	
IRP	

Formation	
Hole Fluid	Air

Logger TD: 3605 Logging Date: 07/27/2000

Logging Suite: GR, LDT, CNL, DI, T, A TD to intermediate casing point, GR to surface. Memory PL as need

Remarks:

Received

MAR 18 2000

Office of Oil and Gas
WV Dept. of Environmental Protection

99 02022A

WELL # 824079

PERFORATIONS:

Stage 1, Perforations: 67 holes from 2480 to 3501

Stage 2, Perforations: holes from to

Stage 3 Perforations: holes from to

Stage 4, Perforations: holes from to

FRACTURING:

SEP 18 2000

1ST STAGE: N2 Frac on Devonian Shale

Perforations from	2,480 - 3,501,	Acid	gal.	HCL,
Breakdown @	1,520 PSI,	Avg. Rate	57,600	SCFM <input checked="" type="checkbox"/> OR BPM <input type="checkbox"/>
ATP	2,272 PSI,	Total H ₂ O	Bbl.,	Total sand #
Total N ₂	1,541,700 Scf.	I.S.I.P.	1370	15 min. 872

2nd STAGE:

Perforations from	-	Acid	gal.	HCL,
Breakdown @	PSI,	Avg. Rate	SCFM <input type="checkbox"/> OR BPM <input type="checkbox"/>	
ATP	PSI,	Total H ₂ O	Bbl.,	Total sand #
Total N ₂	Scf.	I.S.I.P.		15 min.

3rd STAGE:

Perforations from	-	Acid	gal.	HCL,
Breakdown @	PSI,	Avg. Rate	SCFM <input type="checkbox"/> OR BPM <input type="checkbox"/>	
ATP	PSI,	Total H ₂ O	Bbl.,	Total sand #
Total N ₂	Scf.	I.S.I.P.		15 min.

4th STAGE:

Perforations from	-	Acid	gal.	HCL,
Breakdown @	PSI,	Avg. Rate	SCFM <input type="checkbox"/> OR BPM <input type="checkbox"/>	
ATP	PSI,	Total H ₂ O	Bbl.,	Total sand #
Total N ₂	Scf.	I.S.I.P.		15 min.

Additional Comments:

Received

MAR 18 2010

Office of Oil and Gas
WV Dept. of Environmental Protection

03/28/2014

DATE: September 29, 2003

API: 47-099-02022 Workover

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

Farm name: N. Irby
 Location Elevation: 1033'
 District: Stonewall

Operator Well No: 824079
 Quadrangle: Branchland
 County: Wayne

COLUMBIA NATURAL RESOURCES	Casing & Tubing	Used in drilling	Left in Well	Cement fill up Cu.Ft.
Address: P.O. Box 6070 Charleston, WV 25362	See	previous	WR-35	
Agent: Mike John				
Inspector: Gary Scites				
Date Permit Issued: 07/24/2003				
Date Well work commenced: 09/17/2003				
Date Well Work completed: 09/29/2003				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet):				
Fresh Water Depth (ft): See prior drlg rpt				
Salt Water Depth (ft.): See prior drlg rpt				
Is coal being mined in area ()				
Coal Depths (ft): See prior drlg rpt				

OPEN FLOW DATA

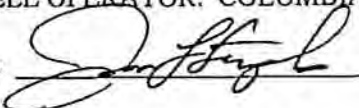
Producing formation: Big Lime Pay zone depth (ft) from 1692' to 1820'
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
 Final open flow 103 MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests 24 Hours
 Static rock Pressure 600 psig (surface pressure) after 24 Hours

2nd producing formation: Pay zone depth (ft) from to
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
 Final open flow MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests Hours
 Static rock Pressure psig (surface pressure) after Hours

3rd producing formation: Pay zone depth (ft) from to from
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
 Final open flow MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests Hours
 Static rock Pressure psig (surface pressure) after 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.

WELL OPERATOR: COLUMBIA NATURAL RESOURCES, INC.

By:  Date: 10-7-03

Received

MAR 18 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

03/28/2014

Well 824079

Geological Data

Formation

TOP

BASE

No changes to prior WR-35.

Well Treatment

Perforated Big Lime

3H/1692'-1694'

19H/1782'-1794'

3H/1818'-1820'

Attempted to 75Q & 65Q foam frac using 318,100 Scf N2 @ 13,000 Scf/min & 9400 Scf/min, 4912# 20/40 sand, 1000 gal 15% fe HCL acid, 133 bbls clean fluid @ 19 BPM and 15 BPM foam rate.

BD	2825	
ATP	3111# 75 Q	3050# 65 Q
MTP	3320# 75 Q	3150# 65 Q
Post ISIP	2585# 75 Q	2227# 65 Q with 5 bbls water cap.

5 min	-	1645#
10 Min	-	1534#
15 min	-	1490#

Solid bridge plug set and left at 1850'. Shale and Berea isolated by plug.

Received

MAR 18 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

03/28/2014

9902022P

WW4-A
Revised
2/01

1) Date: 2/11/2014
2) Operator's Well No. 824079 P&A
3) API Well No. 47-099-02022

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
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:
(a) Name Nila Irby and Dawnetta Irby
Address P.O. Box 436
Lavalette, WV 25535

(b) Name _____
Address _____

(c) Name _____
Address _____

6) Inspector Jeremy James
Address P.O. Box 147
Oona, WV 25545

Telephone 304-951-2596

5) Coal Operator
(a) Name Argus Energy WV, LLC
Address 9104 Twelve Pole Creek Road
Dunlow, WV 25511

Coal Owner(s) with Declaration
(b) Name Pocahontas Land Corp.
Address 800 Princeton Avenue
Bluefield, WV 24701

Name _____
Address _____

Coal Lessee with Declaration
(c) Name New Eagle Mining Corp.
Address P.O. Box 1048
Holden, WV 25625

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 the 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 the 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: Chesapeake Appalachia, L.L.C.
By: [Signature]
Its: Manager - Operations, Appalachia South
Address: P.O. Box 18496
Oklahoma City, OK 73154-0496
Telephone: 405-935-4073

Subscribed and sworn before me this 17th day of March the year of 2014
Phyllis A. Copley Notary Public
My Commission Expires September 16, 2018
Form WW-9

Received

MAR 18 2014

Office of Oil and Gas
WV Dept. of Environmental Protection
03/28/2014

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Return Receipt Fee (Endorsement Required)	2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	0.00	
Total Postage & Fees	\$ 7.61	03/17/2014

Sent **824079 P&A**
 New Eagle Mining Corp. ✓
 P.O. Box 1048
 Holden, WV 25625

PS Form Instructions

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Return Receipt Fee (Endorsement Required)	2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	0.00	
Total Postage & Fees	\$ 7.61	03/17/2014

Sent **824079 P&A**
 Argus Energy-WV, LLC ✓
 9104 Twelve Pole Creek Road
 Dunlow, WV 25511

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Restricted Delivery Fee (Endorsement Required)	0.00	
Total Postage & Fees	\$ 7.61	03/17/2014

Sent **824079 P&A**
 Pocahontas Land Corp. ✓
 800 Princeton Avenue
 Bluefield, WV 24701

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Certified Fee	3.30	05
Return Receipt Fee (Endorsement Required)	2.70	Postmark Here
Restricted Delivery Fee (Endorsement Required)	0.00	
Total Postage & Fees	\$ 7.61	03/17/2014

Sent **824079 P&A**
 Nila Irby & Dawnetta Irby ✓
 P.O. Box 436
 Lavalette, WV 25523

PS Form Instructions

Received

MAR 18 2014

Office of Oil and Gas
 WV Dept. of Environmental Protection

03/28/2014

9902022P

Rev. 02/01

API Number 47-099-02022
Operator's Well No. 824079 P&A

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 Chesapeake Appalachia, L.L.C. OP Code 494477557
Watershed Big Laurel Creek of Kiah Creek Quadrangle Ranger, WV 7.5'
Elevation 1,016' County Wayne District Stonewall

Description of anticipated Pit Waste: Plugging Returns/Cement

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
 Swabbing
 Plugging
 Other (Explain _____)

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on December 31, 1999, 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 *David Gocke*

Company Official (Typed Name) David Gocke

Company Official Title Manager - Operations, Appalachia South

Subscribed and sworn before me this 17th day of March, 2014.

Phyllis A. Copley Notary Public.

My Commission Expires September 16, 2018



03/28/2014
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Office of Oil and Gas
MAR 26 2014
WV Department of
Environmental Protection

Attachment #1

API #: 47-099-02022
Operator's Well No. 824079 P&A

LEGEND

- Property Boundary
- Road
- Existing Fence
- Planned Fence
- Stream
- Open Ditch
- Rock
- North
- Buildings
- Water wells
- Drill site

- Diversion
- Spring
- Wet Spot
- Drain Pipe with size in inches
- Waterway
- Cross Drain
- Artificial Filter Strip
- Pit: cut walls
- Pit: compacted fill walls
- Area for Land Application of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed 1.0 Prevegetation pH 6.1

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 Hay 2 Tons/acre

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		

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by:

Title: inspector OOG

Date: 3-24-14

Field Reviewed? Yes No

03/28/2014

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Office of Oil and Gas

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WV Department of
Environmental Protection

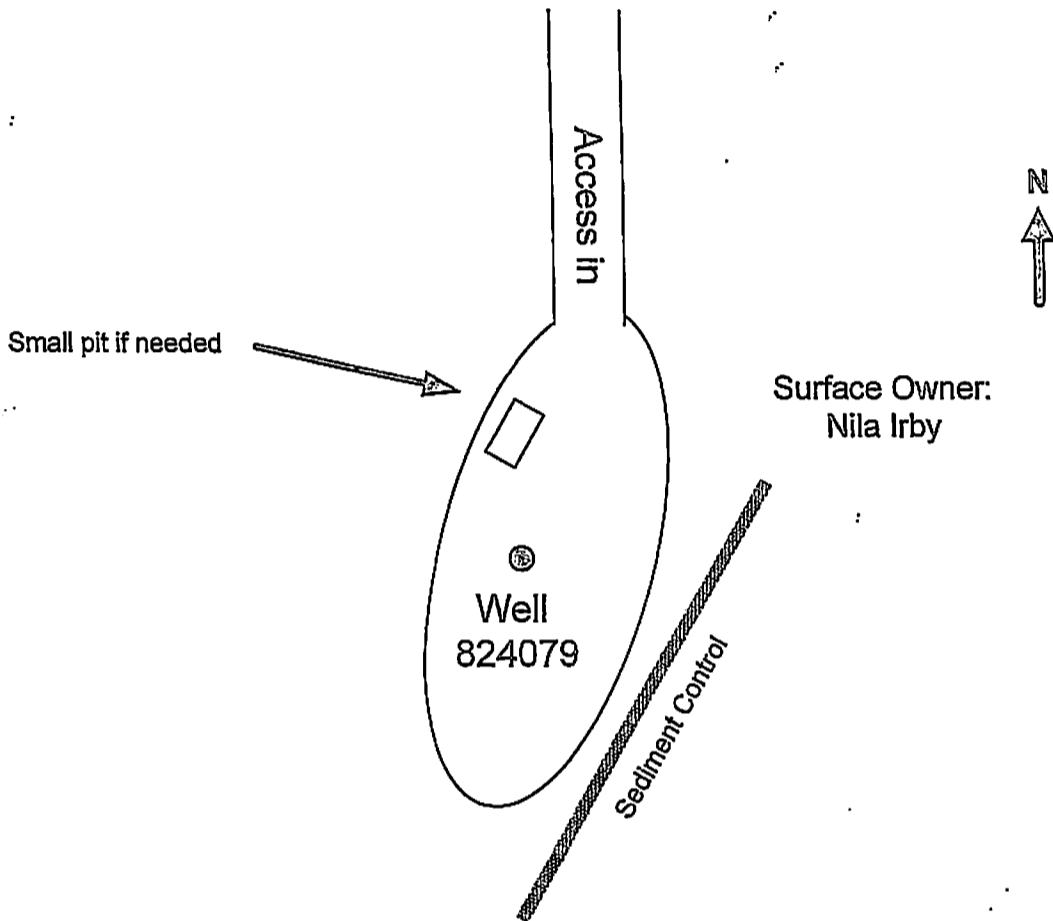
CHESAPEAKE APPALACHIA, L.L.C.

Diagram of Well 824079

API 47-099-02022

Field Office - Branchland

County -Wayne



GENERAL NOTES

This drawing is a schematic representation of the well site and access road. Proposed structures such as well site, drilling pit, roadways, culverts sediment barriers etc. are shown in approximate pre-planning configurations.

All culvert pipes will be a minimum of 15 inches in diameter. All culvert pipes installed will be accompanied by an entrance sump with dimensions no less than 3 feet (width) x 3 feet (length) x 4 feet (deep). Culverts will be installed at an angle to ensure proper flow. The out fall of culverts will be protected from erosion and sedimentation using large rocks or other sediment controls deemed necessary in the prevention of erosion and sedimentation. Storm water from the ditches to the culverts will be directed to stable natural vegetative areas. Where culverts are not practical, operator will have other sediment control in place to minimize erosion and sedimentation.

Cross drains, broad based dips, water bars, and diversion ditches will be employed during the construction phase. These erosion and sediment control structures will be used to control erosion and sedimentation during the construction phase, where applicable and areas that will allow. These structures will be considered permanent and used as such.

Permanent seeding: See Attachment #1

Site Plan

Prepared by: Kris Aldridge
Date: 1-29-2014

No Scale
03/26/2014
RECEIVED
Office of Oil and Gas

MAR 26 2014

Chesapeake Energy Corporation - Eastern Division
P.O. Box 579 • 8165 Court Avenue • Hamlin, WV 25523
304.824.5141 • fax 304.824.2247

WV Department of
Environmental Protection

CHESAPEAKE APPALACHIA, L.L.C.

9902022P

Topographical Map of Access and

Well Location 824079

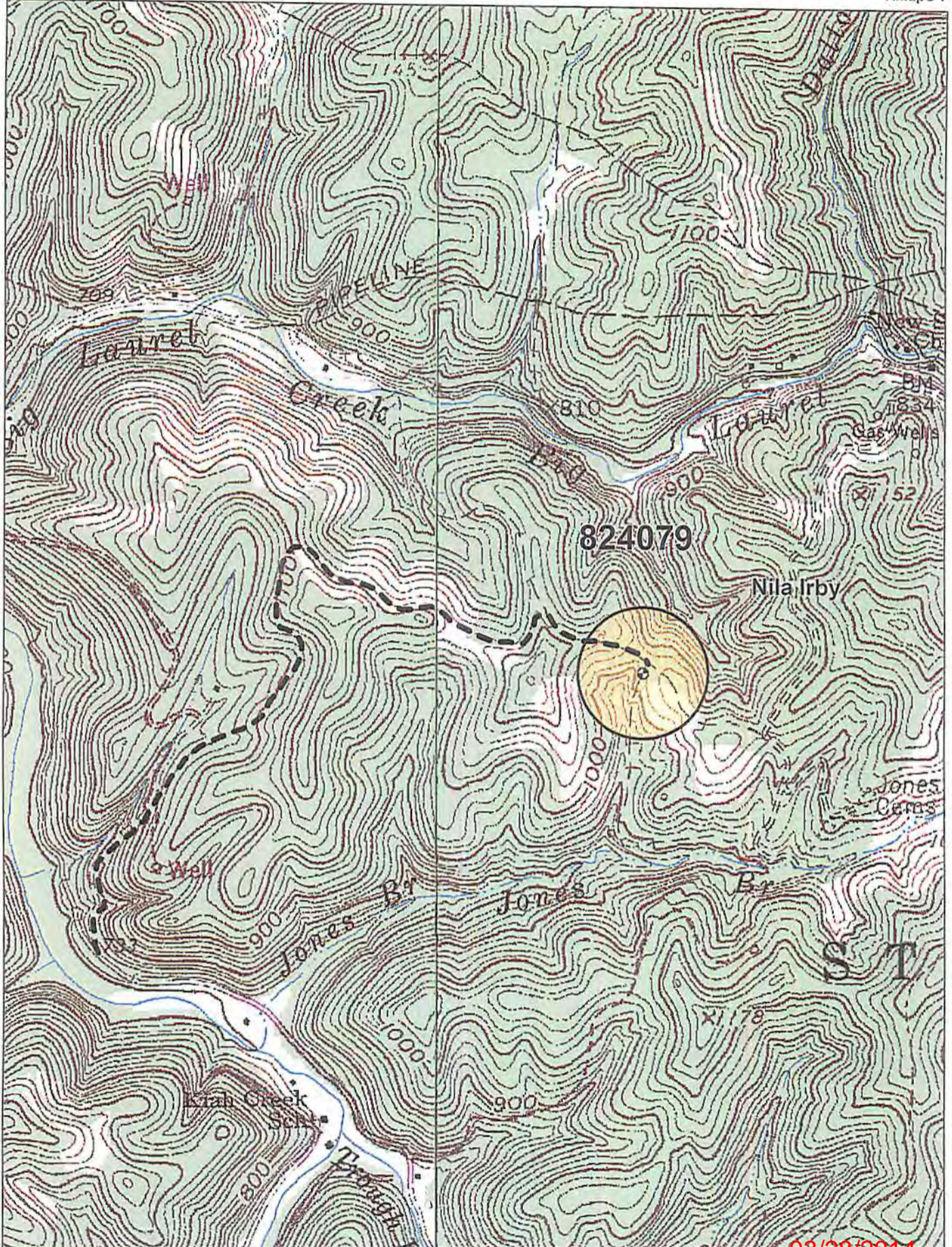
API 47-099-02022

Field Office - Branchland

County - Wayne

DELORME

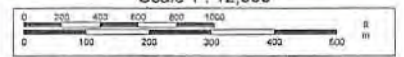
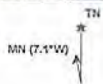
XMap® 7



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www.delorme.com



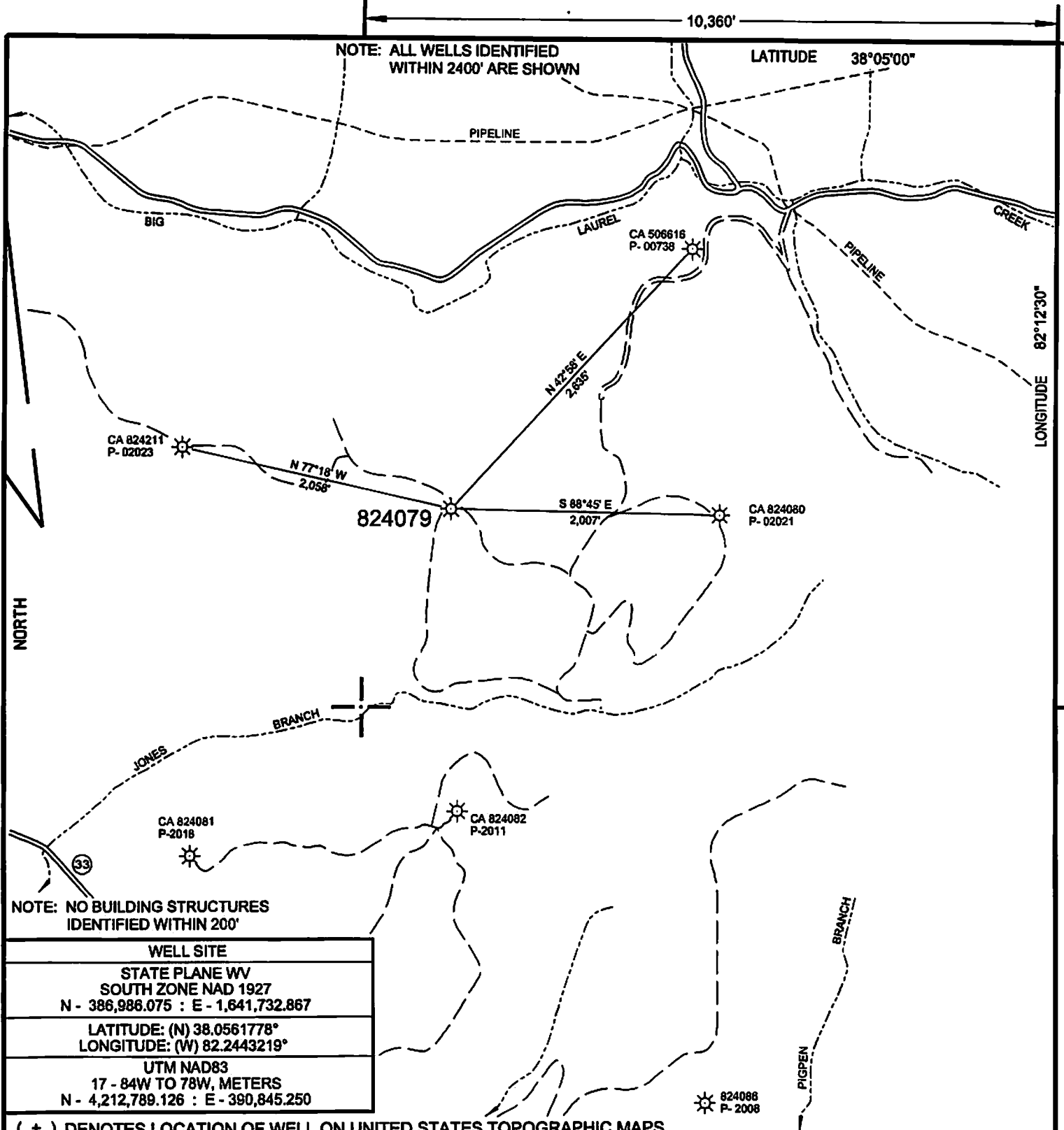
1" = 1,000.0 ft • Data Zoom 14-1

Received

MAR 18 2014

Chesapeake Energy Corporation - Eastern Division
P.O. Box 579 • 8165 Court Avenue • Hamlin, WV 25523
304.824.5141 • fax 304.824.2247

Office of Oil and Gas
WV Dept. of Environmental Protection

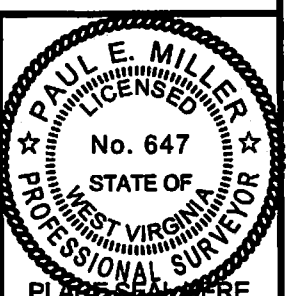


WELL SITE	
STATE PLANE WV SOUTH ZONE NAD 1927 N - 386,986.075 : E - 1,641,732.867	
LATITUDE: (N) 38.0561778° LONGITUDE: (W) 82.2443219°	
UTM NAD83 17 - 84W TO 78W, METERS N - 4,212,789.126 : E - 390,845.250	

FILE NO. CA824079P&A.DGN
 DRAWING NO. 824079P&A
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200
 PROVEN SOURCE OF ELEVATION MAPPING 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) Paul E. Miller
 R.P.E. _____ L.L.S. 647



STATE OF WEST VIRGINIA
 DIVISION OF ENVIRONMENTAL PROTECTION
 OIL AND GAS DIVISION

DATE JANUARY 15, 20 14
 OPERATOR'S WELL NO. 824079
 API WELL NO. 47 099 02022P
 STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1,016' WATER SHED BIG LAUREL CREEK OF KIAH CREEK
 DISTRICT STONEWALL COUNTY WAYNE
 QUADRANGLE RANGER, WV7.5'

SURFACE OWNER NILA IRBY, et. al. ACREAGE 52
 OIL & GAS ROYALTY OWNER CHESAPEAKE APPALACHIA, L.L.C. LEASE ACREAGE 03/28/2014
 LEASE NO. _____

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 X CLEAN OUT AND REPLUG ___
 TARGET FORMATION _____ ESTIMATED DEPTH _____
 WELL OPERATOR CHESAPEAKE APPALACHIA, L.L.C. DESIGNATED AGENT ERIC B. GILLESPIE
 ADDRESS P.O. BOX 18496, OKLAHOMA CITY, OK 73154-0496 ADDRESS CHESAPEAKE APPALACHIA, L.L.C. PO BOX 8070, CHARLESTON, WV 25382

FORM WV-6

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Hold Mail

Change of Address

USPS Tracking™



Customer
Have ques

Tracking Number: 70123460000044992531 ✓

Friday

Expected Delivery Day: Tuesday, March 18, 2014

Product & Tracking Information

Available A

Postal Product:

First-Class Mail®

Features:

Certified Mail™

Return Receipt

Email Updates

DATE & TIME

STATUS OF ITEM

LOCATION

March 18, 2014, 10:06 am

Available for Pickup

LAVALETTE, WV 25535 ✓

March 17, 2014, 4:55 pm

Dispatched to Sort Facility

HAMLIN, WV 25523

March 17, 2014, 9:48 am

Acceptance

HAMLIN, WV 25523

Track Another Package

What's your tracking (or receipt) number?

Track It

Received

MAR 19 2014

Office of Oil and Gas
WV Dept. of Environmental Protection

03/28/2014