



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
fax: (304) 926-0452

Jim Justice , Governor
Austin Caperton , Cabinet Secretary
www.dep.wv.gov

Thursday, June 29, 2017
WELL WORK PERMIT
Not Available / Plugging

NNE RESOURCES LLC (A)
707 VIRGINIA STREET EAST, SUITE 1200

CHARLESTON, WV 25301

Re: Permit approval for HARVEY 1
47-061-00996-00-00

This well work permit 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 any additional specific 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.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: HARVEY 1
Farm Name: CONSOLIDATION COAL CO.
U.S. WELL NUMBER: 47-061-00996-00-00
Not Available / Plugging
Date Issued: 6/29/2017

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.

- 1) Date May 2, 2017
- 2) Operator's
Well No. Consolidation Coal Company/Harvey 1
- 3) API Well No. 47-061 - 00996

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 X / Gas / Liquid injection / Waste disposal /
(If "Gas, Production X or Underground storage) Deep / Shallow
- 5) Location: Elevation 1,165' Watershed Dunkard Creek
District Clay County Monongalia Quadrangle Blacksville
- 6) Well Operator NNE Resources LLC 7) Designated Agent Zack Arnold
Address 707 Virginia Street East, Suite 1200 Address 48 Donley Street, Suite 601
Charleston, WV 25301 Morgantown, WV 26501
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Gayne Knitowski Name TBD
Address P.O. Box 108 Address
Gorman, WV 26720

10) Work Order: The work order for the manner of plugging this well is as follows:
 Perform necessary earth work to establish access and work area for rig and ensure all necessary E&S controls are installed.
 RIH with open ended tubing to determine PBTD and attempt to remove all casing by pulling a minimum of 150% of casing string weight.
 If casing will not pull out, cut and remove as much casing as possible. Spot expandable cement from PBTD to 100' below coal to set a solid cement plug.
 Set a solid cement plug 70' to 100' above coal. WOC expandable cement to harden. Top off well to surface with class A cement with no more than 3% CaCl2 and no other additives. Place a well monument with API number and reclaim the site.

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department 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 Gayne J Knitowski Date 5/11/2017

DRIVING DIRECTIONS

Travel on US-19 N to Star City.
 Continue on US-19 N for 3-4 miles.
 Turn left onto Route 7.
 Travel down Route 7 for approximately 10 miles.
 Turn left onto Jakes Run Rd/County Hwy-29 and travel for 8-9 miles.
 Turn left onto McCurdysville Rd.
 The well is located just below the road.

SCOPE OF OPERATION

1. Safety is the highest priority. Control costs and avoid unnecessary expenditures.
2. Attempt to cut or pull all recoverable casing.
3. TIH with 1½" tubing to estimated TD of 3,060.5'.
4. Pump cement and gel plugs per state requirements.
5. Bury and ~~place~~ ^{PLACE} a well monument with WV State API number.

RECEIVED
 Office of Oil and Gas

MAY 30 2017

WV Department of
 Environmental Protection

PROCEDURE

- 1) Safety is the number one priority. Well site safety meetings will be held before each major operation
- 2) MIRU construction equipment and remove any tanks, separators, well lines, meter runs, etc.
- 3) MIRU service rig & needed BOP equipment
- 4) TOOH strapping rods and tubing
- 5) TIH strapping tubing to 2,000'
- 5a) SPOT GEL.
- 6) Pump 20 sks of Class A cement (150' cement plug), displace cement plug
- 6a) WAIT 4 HOURS, TAG PLUG, ADD CLASS A CEMENT IF NECESSARY.
- 7) TOOH with tubing
- 8) RIH with mechanical ripper or casing cutter to 1,620' and attempt to rip and retrieve 5 3/16" casing.
- 9) TOOH with production casing and tally out
- 10) Attempt to pull 1-1/2 times intermediate casing string weight to establish free point
- 11) If casing integrity is such that substantial pulling is unsafe, contact DEP prior to moving on to Step 12.
- 12) RIH and perforate intermediate casing below free point

- 13) RIH with mechanical ripper or casing cutter to rip intermediate casing above free point and perforations
- 14) TIH with tubing
- 15) Pump cement from 1,650' to above intermediate perforations
- 16) TOOH with tubing
- 17) TOOH with intermediate casing
- 18) RIH with tubing
- 19) Cement to surface
- 20) Cut all casing 36 inches below GL. Install a monument to WV state requirements
- 21) RDMO all service equipment providers and reclaim location to WV State requirements

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department of
Environmental Protection

PERSONNEL / PHONE LIST

Construction Coordinator	Mike Shreve	Office: (304) 212-0432 Mobile: (304) 918-3050
General Manager, Operations	Zack Arnold	Office: (304) 241-7105 Mobile: (304) 203-8059
Completions Manager	Ian Costello	Office: (304) 241-7107 Mobile: (304) 610-9764
Production Engineer	Ryan Warner	Office: (304) 241-7117 Mobile: (304) 777-3287
Drilling Manager	Jay Hewitt	Office: (304) 241-7106 Mobile: (304) 382-1825
Associate Geologist	Emily Jordan	Office: (304) 414-7085
WV State Inspector	Gayne Knitowski	Office: (304) 546-8171

WELL DATA

Location (Surface)	Lat. 39.6667 Long. -80.1667'
TD*	3,060.5'
PBTD	NA
Packer	NA
Marker Joint	NA

CASING AND TUBULAR DATA

STRING	SIZE	WEIGHT/GRADE	DEPTH	THREAD	TOC
Surface	10"	N/A	280"	N/A	N/A
Intermediate	8 1/4"	N/A	1,201'	N/A	N/A
Production	5 3/16"	N/A	1,942'	N/A	N/A

CAPACITIES

SIZE	WEIGHT	CAPACITY (GAL/FT.)	CAPACITY (BBL/FT.)
10**	N/A	4.192	0.0998
8 1/4**	N/A	2.738	0.0652
6 5/8"	N/A	1.536	0.0365
5 3/16**	N/A	1.038	0.0247
2 3/8"	4.7#	0.16239	0.00387

SIZE	WEIGHT	CAPACITY (CU FT/FT.)	CAPACITY (BBL/FT.)
10**	N/A	0.5603	0.0998
8 1/4**	N/A	0.3659	0.0652
6 5/8"	N/A	0.2052	0.0365
5 3/16**	N/A	0.1387	0.0247
2 3/8"	4.7#	0.02171	0.00387

* The asterisks represent sizes where estimates were used to produce the capacity data. For the 10" casing the capacity of a 35.75#/ft 10 3/4" casing was used. For the 8 1/4" casing capacities a 20#/ft 8 5/8" casing was used. For the 5 3/16" casing capacities a 13#/ft 5 1/2" casing was used.

WELLHEAD EQUIPMENT

COMPONENT	SIZE & RATING
Manufacturer	N/A
Tubing Spool	N/A
Casing Spool	N/A
Bradenhead	N/A

RECEIVED
Office of Oil and Gas

MAY 30 2017

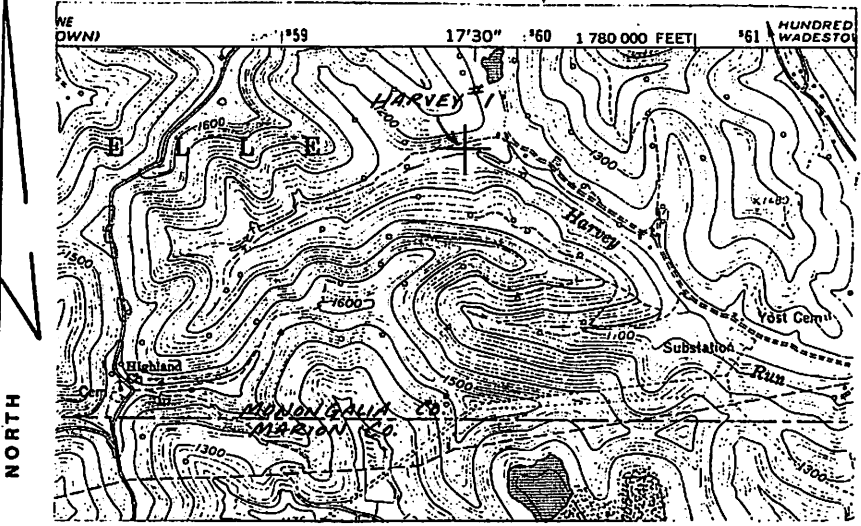
WV Department of
Environmental Protection

INSTRUCTIONS

LATITUDE 39° 37' 30"

- 1) Attach a photo copy of the location of the well on a 7.5 minute Quadrangle with the corresponding Longitude and Latitude.
- 2) Designate the location of the well with the symbol (+).

0.45
1.15



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief.

SIGNED MARK EDDY
TITLE HARRY EDDY

DATE NOVEMBER 6, 1989
OPERATORS WELL NO. HARVEY #1
API WELL NO. 061-0996

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

110 in 1912
Co RAE
70219

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(If "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1120' WATER SHED MONONGAHELA RIVER
DISTRICT BATTELLE COUNTY MONONGALIA
QUADRANGLE MANNINGTON, WV

SURFACE OWNER CONSOLIDATION COAL CO. ACREAGE 140.00 AC.

OIL & GAS ROYALTY OWNER MARK & HARRY EDDY LEASE ACREAGE 140.00 AC.
LEASE NO. _____

PRODUCING FORMATION BIG INJUN TOTAL DEPTH 1800-2400'

WELL OPERATOR MARK & HARRY EDDY DESIGNATED AGENT _____

ADDRESS ROUTE 1, Box 43 ADDRESS _____
CORE, WV 26529

11792

Latitude

.255
.03w

Longitude

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department of
Environmental Protection

Topo Location

7.5' Loc. _____ 15' Loc. _____
_____ (calc.) _____

Company Mank & Hanny Gddy

Farm consolidation coal Co #1

15' Quad _____
(sec.)

7.5' Quad Mammington

District Battelle

WELL LOCATION PLAT

County Obi **Permit** 996p

61 00 996 P

WW-4A
Revised 6-07

1) Date: May 2, 2017
2) Operator's Well Number
Consolidation Coal Company/Harvey 1

3) API Well No.: 47 - 061 - 00996

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:
(a) Name Consolidation Coal Company
Address 46226 National Road
Saint Clairsville, OH 43950
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Gayne Knitowski
Address P.O. Box 108
Gorman, WV 26720
Telephone 304-546-8171

5) (a) Coal Operator
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name Consolidation Coal Company
Address 46226 National Road
Saint Clairsville, OH 43950
(c) Coal Lessee with Declaration
Name _____
Address _____

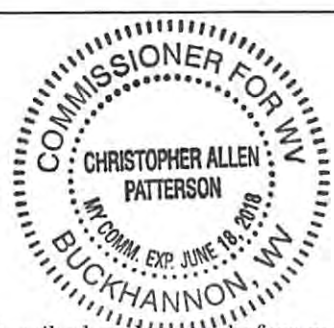
RECEIVED
Office of Oil and Gas
MAY 30 2017
WV Department of
Environmental Protection

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 NNE Resources LLC
By: Zack Arnold
Its: General Manager - Operations
Address 707 Virginia Street East - Suite 1200
Charleston, WV 25301
Telephone 304.241.5752

Subscribed and sworn before me this 11th day of May, 2017
Christopher Allen Patterson Notary Public
My Commission Expires June 18, 2018

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.

WW-4A

Consolidation Coal Company/Harvey1
API No. 47-061-00996

4) Surface Owner:

Consolidation Coal Company
Attn: Mr. Alex O'Neill
46226 National Road
St. Clairsville, OH 43950

5) Coal Owner:

Consolidation Coal Company
Attn: Mr. Alex O'Neill
46226 National Road
St. Clairsville, OH 43950

Joseph W. Sutton, Jennifer Brett,
Jennings Sutton, Megan Sutton and Jane Hagy
18 Grand Colonial
Woodlands, TX 77382

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department of
Environmental Protection

61009964

WW-9
(5/16)

API Number 47 - 061 - 00996
Operator's Well No. Consolidation Coal Co/Harvey I

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name NNE Resources LLC OP Code 494511469

Watershed (HUC 10) Dunkard Creek Quadrangle Blacksville

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number See Attachment)
- Reuse (at API Number See Attachment)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Freshwater/Gel

-If oil based, what type? Synthetic, petroleum, etc. N/A

RECEIVED
Office of Oil and Gas

Additives to be used in drilling medium? Bentonite

MAY 30 2017

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Removed Offsite

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

WV Department of
Environmental Protection

-Landfill or offsite name/permit number? See Attachment

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, 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) Zack Arnold

Company Official Title General Manager - Operations

Subscribed and sworn before me this 11th day of May, 2017

[Signature] Notary Public

My commission expires June 18, 2018



Proposed Revegetation Treatment: Acres Disturbed 0.20 Prevegetation pH TBD

Lime 2 Tons/acre or to correct to pH 7

Fertilizer type 19-19-19

Fertilizer amount 500 lbs/acre

Mulch 2 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Orchard Grass	46	Orchard Grass	46
Red Clover	8	Red Clover	8
Tertraploid Perennial Rye	16	Tertraploid Perennial Rye	16
Timothy 15 Annual Rye	15	Timothy 15 Annual Rye	15

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gaym J. Kintawsk

Comments: _____

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department of
Environmental Protection

Title: Inspector

Date: 5/11/2017

Field Reviewed? () Yes () No

Attachment A to WW-9

Northeast Natural Energy LLC (“NNE”) plans to utilize a closed loop process for the plugging of the Consolidation Coal Company/Harvey No. 1 well. Return flow from the well will be separated into its liquid and solid form. Liquids will be held in steel tanks and reused in the drilling and completion process or disposed of at an approved facility listed below. Solids removed from the stream will be diverted to steel half-round tanks where they will be solidified on site and taken to disposal as they are accumulated.

Consolidation Coal Company/Harvey No. 1 Drill Cuttings will be taken to disposal at one or more of the following disposal/approved waste facilities, unless listed facilities are no longer approved to accept waste at time of disposal:

- Westmoreland Landfill (Tervita) – Belle Vernon, PA (Permit # 100277)
- Meadowfill Landfill (Waste Management) – Bridgeport, WV (Permit # SWF 103298)
- Max Environmental – Yukon, PA (PAD004835146 and 301071)
- Max Environmental – Bulger, PA (PAD059087072 and 301359)
- Chestnut Valley Landfill (Advanced Disposal) – Export, PA (Permit # 101421)

NNE plans to reuse and recycle all fluid and/or reach out to other operators in the area who may be able to reuse and recycle such fluid. However, in the event that reuse is not obtainable the fluid will be disposed of at one, or multiple, of the following disposal/approved waste facilities unless listed facilities are no longer approved to accept waste at time of disposal:

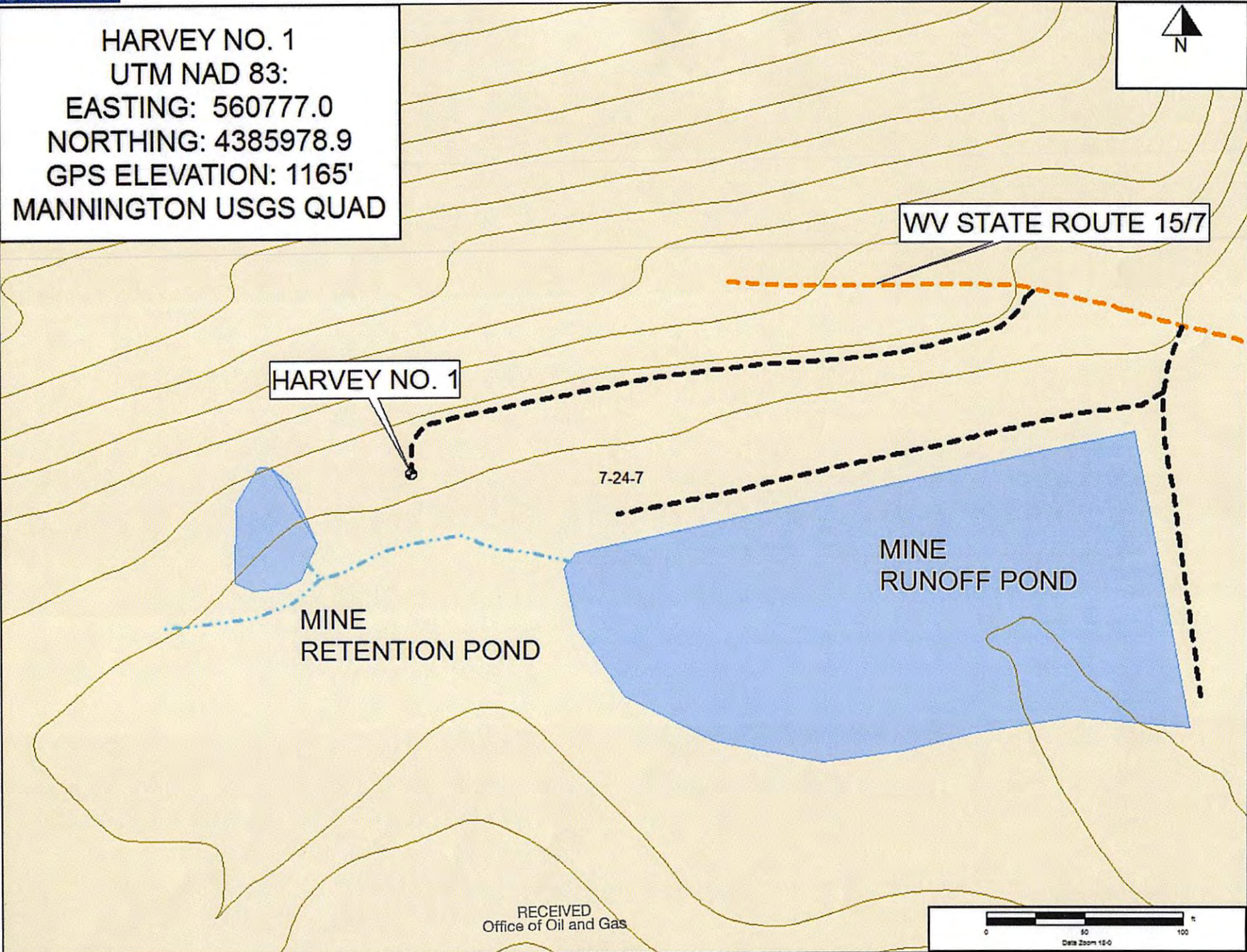
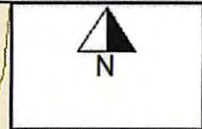
- Fairmont Brine Processing (WV NPDES #0116408)
- Green Hunter M. E. Elder 1 Disposal Well (Permit # 47-085-05151)
- Green Hunter Mason 1 Disposal Well (Permit #47-085-09721)
- Green Hunter Warren Disposal Well (Permit #34-121-2-3995)
- Green Hunter Travis Unit Disposal Well (Permit #34-121-2-4086)
- Viking Energy Corporation 20320 Disposal Well (Permit#47-039-02210)
- Ohio Oil Gathering Killbuck Disposal Well (Permit #34-075-24527)
- Ohio Oil Gathering Moran Disposal Well (Permit #34-089-24792)
- Ohio Oil Gathering Bells Run Disposal Well (Permit #34-167-29395)
- Ohio Oil Gathering Long Run Disposal Well (Permit #34-167-29658)
- Ohio Oil Gathering Newell Run Disposal Well (Permit #34-167-29685)
- Appalachian Oil Purchaser Greens Run Disposal Well (Permit #2D0732540)
- Appalachian Oil Purchaser BW#4 Disposal Well (Permit # 2D0732523)

RECEIVED
Office of Oil and Gas

MAY 30 2017

WV Department of
Environmental Protection

HARVEY NO. 1
 UTM NAD 83:
 EASTING: 560777.0
 NORTHING: 4385978.9
 GPS ELEVATION: 1165'
 MANNINGTON USGS QUAD



HARVEY NO. 1

WV STATE ROUTE 15/7

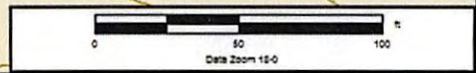
7-24-7

MINE RETENTION POND

MINE RUNOFF POND

RECEIVED
Office of Oil and Gas

MAY 30 2017



Data use subject to license.

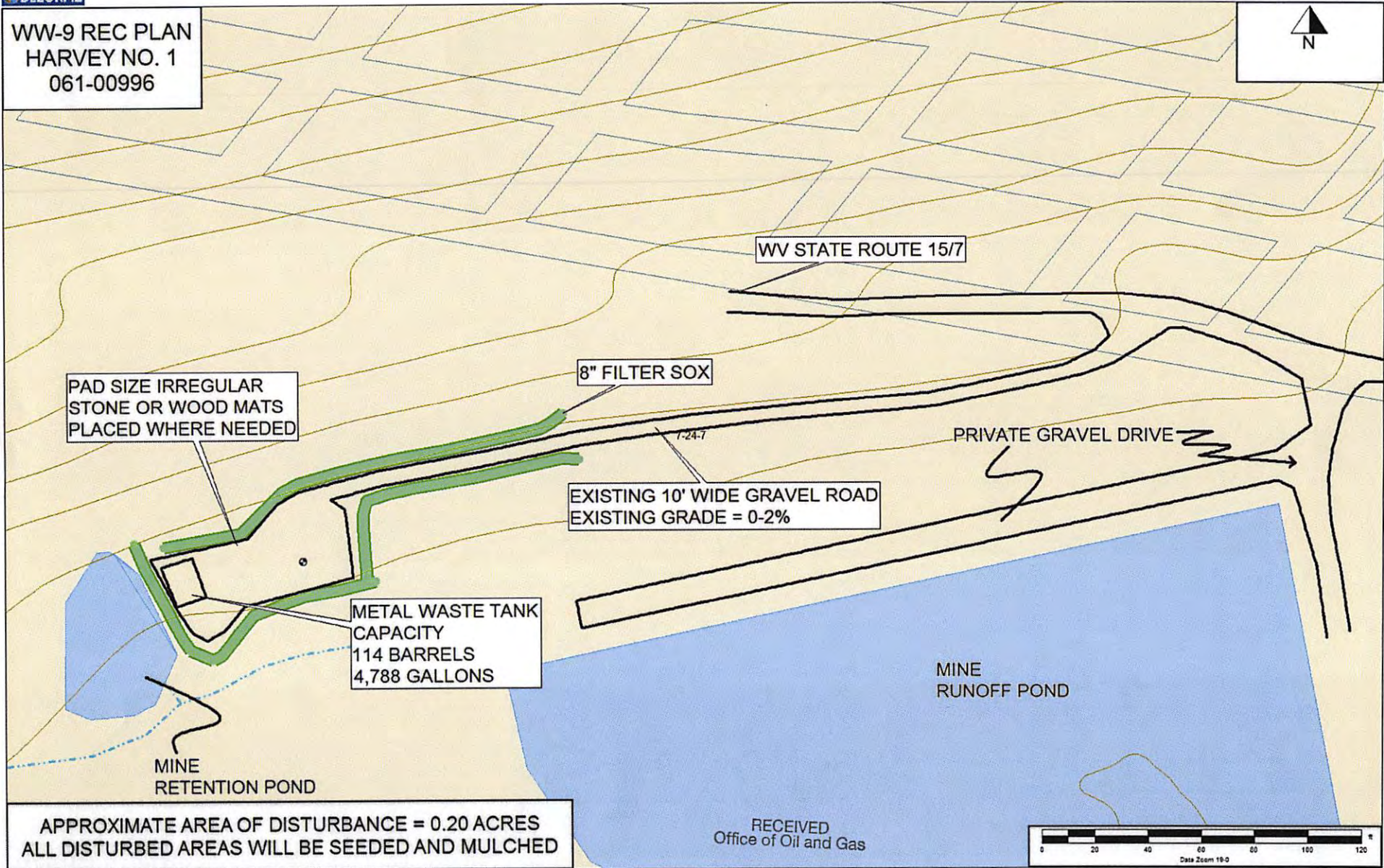
© DeLorme. XMap® 7.

www.delorme.com

WV Department of
Environmental Protection

610096 P

WW-9 REC PLAN
HARVEY NO. 1
061-00996



APPROXIMATE AREA OF DISTURBANCE = 0.20 ACRES
ALL DISTURBED AREAS WILL BE SEEDING AND MULCHED

RECEIVED
Office of Oil and Gas

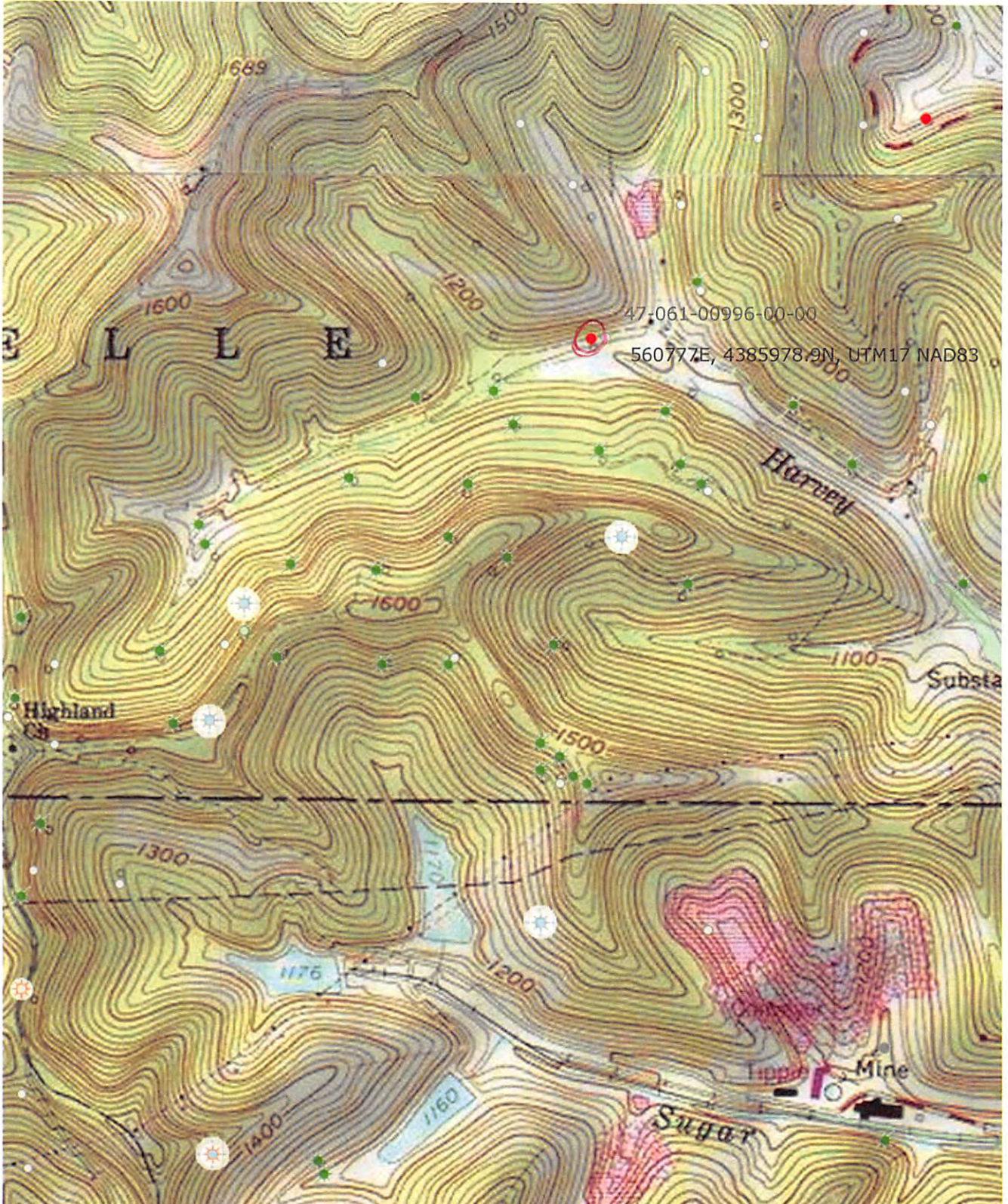
MAY 30 2017

WV Department of
Environmental Protection

Data use subject to license.
© DeLorme. XMap® 7.
www.delorme.com

6100996 P

6100996P



61 00996 P

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-061-00996 WELL NO.: 1
FARM NAME: Consolidation Coal Company/Harvey 1
RESPONSIBLE PARTY NAME: NNE Resources LLC
COUNTY: Monongalia DISTRICT: Clay
QUADRANGLE: Blacksville, WV
SURFACE OWNER: Consolidation Coal Company
ROYALTY OWNER: Northeast Natural Energy LLC
UTM GPS NORTHING: 4385978.9
UTM GPS EASTING: 560777.0 GPS ELEVATION: 1,165'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
- Accuracy to Datum – 3.05 meters
- Data Collection Method:
Survey grade GPS : Post Processed Differential
Real-Time Differential
Mapping Grade GPS : Post Processed Differential
Real-Time Differential

RECEIVED
Office of Oil and Gas
MAY 30 2017
WV Department of
Environmental Protection

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data 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 Office of Oil and Gas.

[Signature] General Manager - Operations 11 MAY 17
Signature Title Date