



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

Tuesday, May 02, 2017
WELL WORK PERMIT
Vertical / Plugging

CORE APPALACHIA OPERATING LLC (A)
414 SUMMERS STREET

CHARLESTON, WV 25301

Re: Permit approval for 9083
47-039-01765-00-00

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: 9083
Farm Name: DICKINSON, SALLIE J.
U.S. WELL NUMBER: 47-039-01765-00-00
Vertical / Plugging
Date Issued: 5/2/2017

Promoting a healthy environment.

05/05/2017

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.

39 01765 P

WW-4B
Rev. 2/01

1) Date: 2/7/2017
2) Operator's Well No. 809083 P&A
3) API Well No. 47-039-01765

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

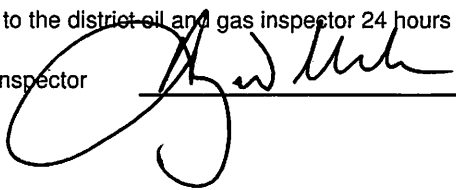
APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil _____ Gas X Liquid injection _____ Waste disposal _____
(Is Gas, Production X or Underground storage _____) Deep _____ Shallow X
- 5) Location: Elevation 1493' Watershed Five Mile Fork of Morris Fork of Blue Creek
District Elk County Kanawha Quadrangle Mammoth, WV 7.5'
- 6) Well Operator Core Appalachia Operating, LLC 7) Designated Agent Jessica Greathouse
Address P.O. Box 6070 Address P.O. Box 6070
Charleston, WV 25362 Charleston, WV 25362
- 8) Oil and Gas Inspector to be notified 9) Plugging Contractor
Name Terry Urban Name Core Appalachia Operating, LLC
Address P.O. Box 1207 Address P.O. Box 6070
Clendenin, WV 25045 Charleston, WV 25362

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  Date 2-21-17

RECEIVED
Office of Oil and Gas
FEB 21 2017
05/05/2017
WV Department of
Environmental Protection

PLUGGING PROCEDURE

- 1) Prepare road and location, MIRU service rig
- 2) Run in hole with tools to check TD at approximately 2020'
- 3) Attempt to pull 3" and packer

Elevation 1490

A) If successful

- a) Run W.S. to TD (approximately 2020'), spot gel
- b) Spot 150' cement plug 2020'-1870', pull W.S.
- c) Proceed to step 4

B) If unsuccessful

- a) Run W.S. as deep as possible (approximately 2020') spot gel
- b) Spot ~~45'~~^{100'} cement plug 2020'-~~1920'~~^{1920'} pull W.S.
- c) Cut 3" at free-point (approximately 1890') and pull
- d) Rip or shoot holes in 7" at approximately 186'
- e) Run W.S. to 1890', spot gel
- f) Spot 100' cement plug 1890'-1790', pull W.S.
- g) Proceed to step 4

4) Shoot or rip holes in 7" at approximately 1550' and 1520'

5) Run W.S. to 1550', spot gel

6) Spot 100' cement plug 1550'-1450', pull W.S. - Elevation

7) Cut 7" at free-point (approximately 1300') and pull

8) Run W.S. to 1300', spot gel

9) Spot 100' cement plug 1300'-1200', pull W.S. to 1050'

10) Spot 100' cement plug 1050'-950', pull W.S. to 800'

11) Spot 200' cement plug 800'-600', pull W.S.

12) Find free-point in 8 5/8" casing and pull from where free.

*If at least 490' of 8 5/8" cannot be pulled, then rip holes so the following plugs can be set

13) Run W.S. to 490' and spot gel

14) Spot 100' cement plug 490'-390', pull W.S. to 320'

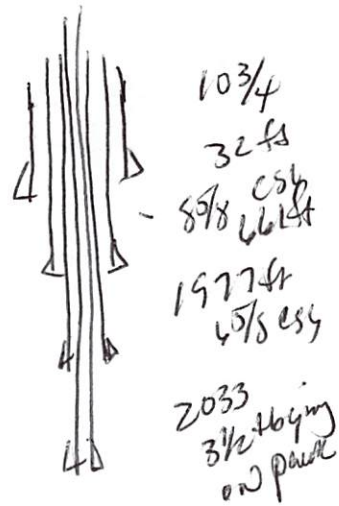
15) Spot 120' cement plug 320'-200', pull W.S. to 100'

*NOTE: There is an open mine at 281'-287' so a brush bridge may need to be set over the mine in order to cement above the mine.

16) Spot 100' cement plug 100'-surface

17) Pull W.S. and top off with cement

20) Set monument and reclaim as prescribed by law.



RECEIVED
Office of Oil and Gas

FEB 21 2017

WV Department of
Environmental Protection

Agnes Miller
Operator will not ommitt
no plugs on plugs
05/05/2017
J-21-17



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Well 809083
API 47-039-01765P

Quadrangle Clendenin

Permit No. KAN-1765

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company <u>United Fuel Gas Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Packers
Address <u>P.O. Box 1273; Charleston 25, W. Va.</u>				
Farm <u>Sallie J. Dickinson</u> Acres <u>1350</u>				
Location (waters) <u>5 Mile Fork</u>	Size			
Well No. <u>9083</u> Elev. <u>1489.83</u>	16			Kind of Packer
District <u>Elk</u> County <u>Kanawha</u>	13			Anchor
The surface of tract is owned in fee by _____	10 <u>3/4</u>		<u>32'</u>	Size of
Address _____	<u>8 5/8</u>		<u>661</u>	<u>3 1/2" x 7"</u>
Mineral rights are owned by <u>Kanawha Valley Bank</u>	<u>76%</u>		<u>1977</u>	Depth set
<u>Cr. Sally Dickinson Chase</u> Address <u>Charleston, W. Va.</u>	<u>5 3/16</u>			<u>1985'</u>
Drilling commenced <u>6-7-61</u>	<u>3 1/2</u>		<u>2033</u>	Perf. top
Drilling completed <u>7-6-61</u>	<u>2</u>			Perf. bottom
Date Shot _____ From _____ To _____	Liners Used			Perf. top
With _____				Perf. bottom

Open Flow 30/10ths Water in _____ Inch
/10ths Merc. in 3 Inch
Volume 1,917,000 - Maxon _____ Cu. Ft.
Rock Pressure 505 lbs. 48 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED _____
WELL FRACTURED _____

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 247 FEET 72 INCHES
452 FEET 48 INCHES FEET INCHES
FEET INCHES FEET INCHES

RESULT AFTER TREATMENT _____
ROCK PRESSURE AFTER TREATMENT _____
Fresh Water 790 Feet 1050 Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Surface			0	20	Water 790'	1	bbl. per hour
Slate			20	90			
Sand			90	120	Hole full water	1050'	
Slate & Shells			120	247			
Coal			247	253	Gas 2000'	4/10 W 1"	21 M
Broken Sand			253	281	Gas 2005'	21/10 W 2"	189 M
Mine Shaft			281	287	Gas 2012'	90/10 W 3"	900 M
Slate & Shells			287	305	Gas 2018'	10/10 Merc. 3"	1,107 M
Sand			305	445	Gas 2025'	30/10 Merc. 3"	1,917 M
Lime			415	438			
Slate & Shells			438	452	No treatment		
Coal			452	456			
Slate & Shells			456	1300	Final open flow when shut in	30/10 Merc.	
Salt Sand			1300	1475	3"	1,917 M	
Slate			1475	1480			
Sand			1480	1650			
Slate			1650	1687			
Sand			1687	1815	Shut in 7-6-61 in	3 1/2" tubing.	
Slate			1815	1825			
Sand			1825	1898			
Red Rock			1898	1905			
Slate			1905	1930			
Red Rock			1930	1950			
Slate			1950	1970			
Maxon			1970	2028			
Total Depth			2028'				



(over)

05/05/2017

RECEIVED
Office of Oil and Gas
FEB 17 2017
Department of
Environmental Protection
WV Department of
Environmental Protection

3901765P

WW4-A
Revised 6-07

1) Date: 2/7/2017
2) Operator's Well No. 809083 P&A
3) API Well No. 47-039-01765

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 H.C. Dickinson, LLC ✓
Address C/O Margaret C. Hager
P.O. Box 14744
Richmond, VA 23221

5) (a) Coal Operator
Name Spartan Mining Company ✓
dba Mammoth Coal Company
P.O. Box 150
Cannelton, WV 25036

(b) Name _____
Address _____

(b) Coal Owner(s) with Declaration ✓
Name H.C. Dickinson, LLC
Address C/O Margaret C. Hager
P.O. Box 14744
Richmond, VA 23221

(c) Name _____
Address _____

Name _____
Address _____

6) Inspector Terry Urban
Address P.O. Box 1207
Clendenin, WV 25045
Telephone 304-549-5915

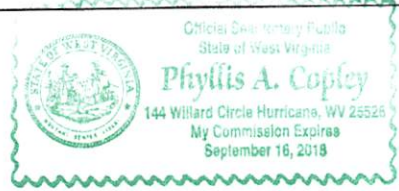
(c) Coal Lessee with Declaration ✓
Name Kanawha Energy Company
Address P.O. Box 11174 261
Charleston, WV 25311
Julian WV 25529

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: Core Appalachia Operating, LLC
By: [Signature]
Its: Manager - Regulatory Operations
Address: P.O. Box 6070
Charleston, WV 25362
Telephone: 304-353-5240

Subscribed and sworn before me this 3rd day of February the year of 2017
Phyllis A. Copley Notary Public
My Commission Expires September 16, 2018

RECEIVED
Office of Oil and Gas
FEB 7 2017

RECEIVED
Office of Oil and Gas
05/08/2017
FEB 17 2017

Well 809083 PAA
 API 47-039-01765A

7015 0640 0005 7838 4291

**U.S. Postal Service™
 CERTIFIED MAIL® RECEIPT**
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

CANNELTON, WV 25036

OFFICIAL USE

Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fee as appropriate)	\$2.75
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.40
Total Postage and Fees	\$7.50

Sent To: **Spartan Mining Co. 809083 PAA**
 Street and Apt. No., or PO Box No.: **aka Mammoth Coal Co PO Box 150**
 City, State, ZIP+4®: **Cannelton WV 25036**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7015 0640 0005 7838 4192

**U.S. Postal Service™
 CERTIFIED MAIL® RECEIPT**
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

JULIAN, WV 25529

OFFICIAL USE

Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fee as appropriate)	\$2.75
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.40
Total Postage and Fees	\$7.50

Sent To: **Kanawha Energy Co 809083 PAA**
 Street and Apt. No., or PO Box No.: **PO Box 201**
 City, State, ZIP+4®: **Julian WV 25509**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



7015 0640 0005 7838 4307

**U.S. Postal Service™
 CERTIFIED MAIL® RECEIPT**
 Domestic Mail Only

For delivery information, visit our website at www.usps.com®.

RICHMOND, VA 23221

OFFICIAL USE

Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fee as appropriate)	\$2.75
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.40
Total Postage and Fees	\$7.50

Sent To: **NC Dickinson, LLC c/o Margaret Hager**
 Street and Apt. No., or PO Box No.: **PO Box 14744**
 City, State, ZIP+4®: **Richmond, VA 23221**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions



RECEIVED
 Office of Oil and Gas
 FEB 17 2017
 WV Department of
 Environmental Protection

05/05/2017

39 01765P

Form WW-9
(5/16)

API Number 47-039-01765
Operator's Well No. 809083 P&A

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FLUIDS/CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Core Appalachia Operating, LLC OP Code 494518671
Watershed (HUC 10) Five Mile Fork of Morris Fork of Blue Creek Quadrangle Mammoth, WV 7.5'

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

Description of anticipated Pit Waste: Plugging Returns/Cement - Will utilize above ground tanks

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

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain: Any fluid recovered will be hauled to a Core tank battery and disposed of properly)

Will closed loop system be used? No If so, describe: _____

Drilling medium anticipated for this well (Vertical and horizontal)? Air, freshwater, oil based, etc. _____

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

Additives to be used in drilling medium? _____

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

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

-Landfill or offsite name/permit number? _____

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 August 1, 2015, 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) Jessica Greathouse

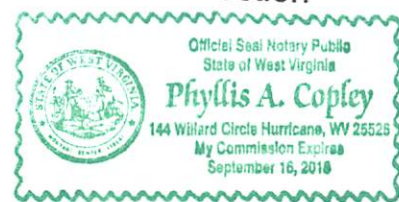
Company Official Title Manager - Regulatory Operations

Subscribed and sworn before me this _____ day of February, 2017.

Phyllis A. Copley Notary Public.
WV Department of Environmental Protection

My Commission Expires September 16, 2018

RECEIVED
Office of Oil and Gas
FEB 17 2017



05/05/2017

Timothy - 7 lbs/acre
Kentucky Bluegrass - 7 lbs/acre
Winter Wheat (June 15-Nov 15) or Spring Wheat (Feb 15-June 15) - 12 lbs./acre
Annual Rye (June 15-Nov 15) or Oats (Feb 15-June 15) - 14 lbs/acre
Alfalfa (pre inoculated) - 10 lbs/acre
Durana Clover (pre inoculated) - 3 lbs/acre
Mammoth Red Clover (pre inoculated) - 5 lbs/acre
Chicory - 2 lbs/acre

Total Seeding will be 60 lbs/acre

Mulch - Weed free straw at 1500 lbs/acre

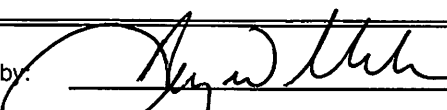
Fertilizer - 1-20-20 at 500 lbs/acre

Lime - Agricultural lime or lime pellets at 3 tons/acre


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, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet

Plan Approved by: 

Comments: _____

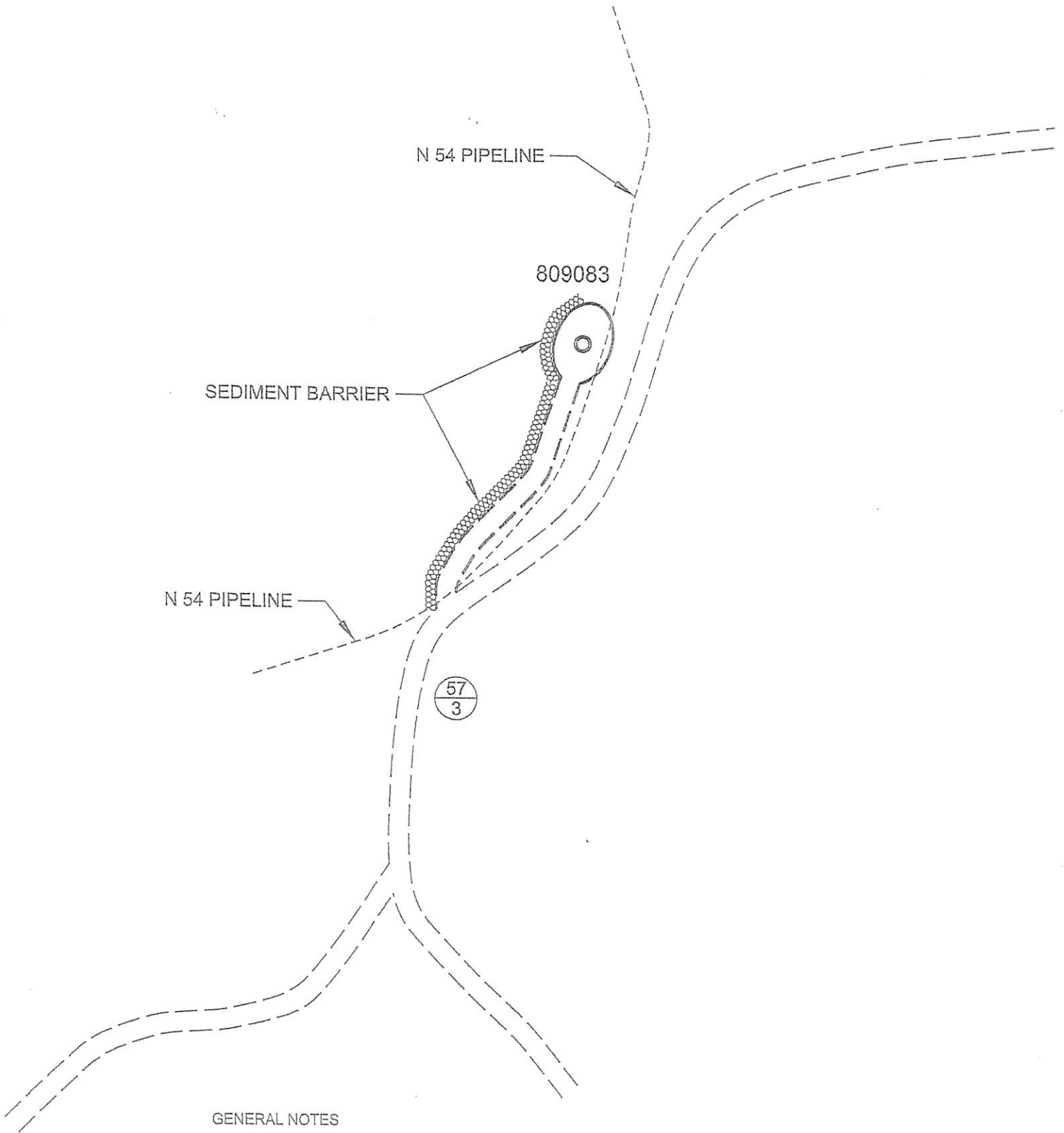
Title: Inspector  Date: 2-2-17

Field Reviewed? Yes No

RECLAMATION DIAGRAM
WELL LOCATION 809083

API 47-039-01765

39 01765 P



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 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 in areas that will allow for these structures will be considered permanent and used as such.

RECEIVED
Office of Oil and Gas

05/05/2017

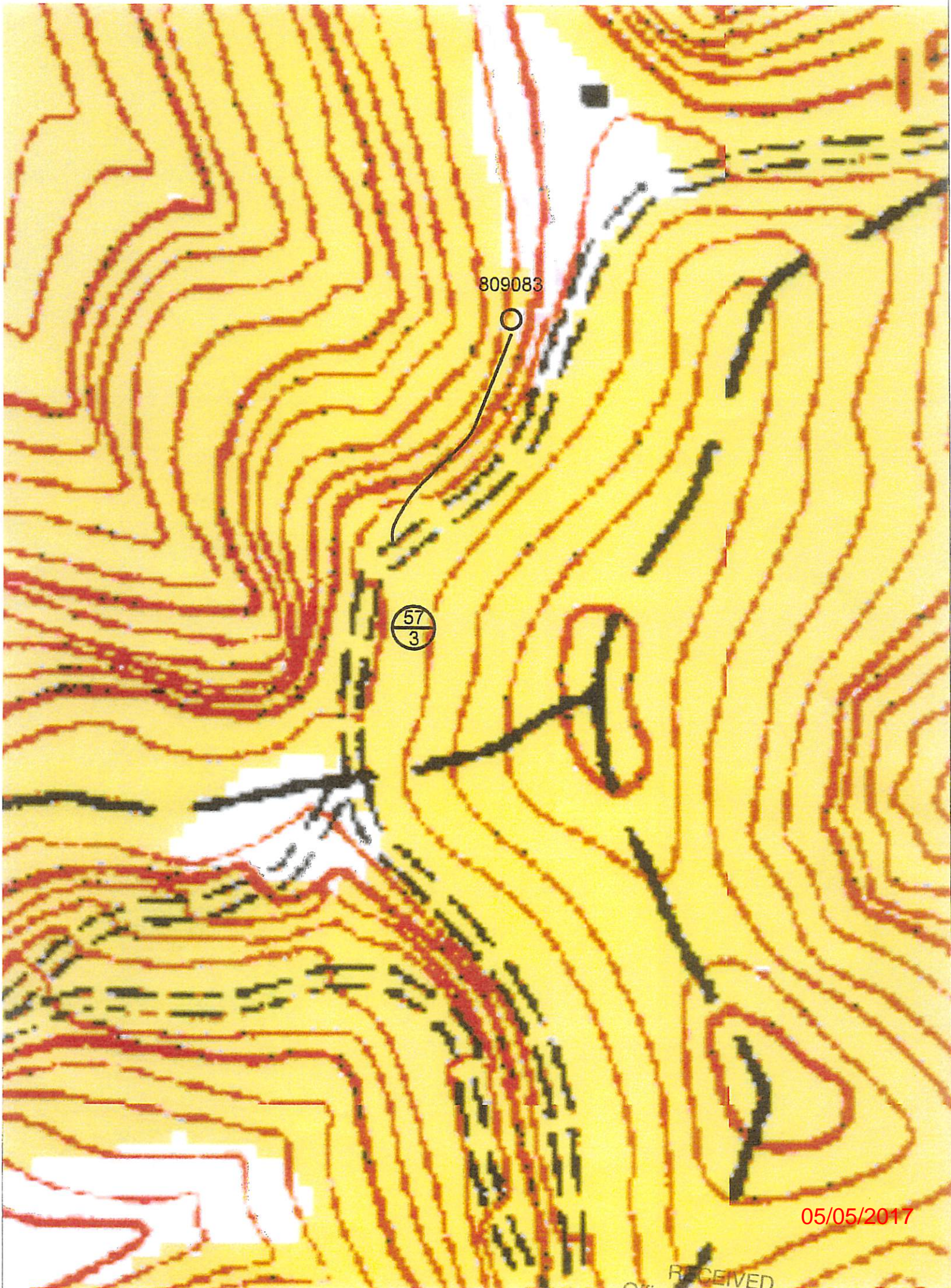
FEB 17 2017

WV Department of
Environmental Protection

3901765P

TOPOGRAPHICAL MAP OF ACCESS AND
WELL LOCATION 809083

API 47-039-01765



05/05/2017

RECEIVED
Office of Oil and Gas



8165 Court Avenue • Hamlin, WV 25523

FEB 17 2017

WV Department of
Environmental Protection

WW-7
8-30-06



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

API: 47-039-01765 WELL NO.: 809083

FARM NAME: Sallie J. Dickinson

RESPONSIBLE PARTY NAME: Kris Aldridge

COUNTY: Kanawha DISTRICT: Elk

QUADRANGLE: Mammoth

SURFACE OWNER: H.C Dickinson LLC

ROYALTY OWNER: H.C Dickinson LLC

UTM GPS NORTHING: 4,239,323.094

UTM GPS EASTING: 468,193.304 GPS ELEVATION: 1493'

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:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:

Survey grade GPS : Post Processed Differential

Real-Time Differential

Mapping Grade GPS : Post Processed Differential

Real-Time Differential

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

Construction Foreman
Title

2/1/17
Date