



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

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Monday, September 10, 2018
WELL WORK PLUGGING PERMIT
Vertical Plugging

EQUITRANS, L. P.
625 LIBERTY AVE. SUITE 1700

PITTSBURGH, PA 15222

Re: Permit approval for 6190
47-049-00232-00-00

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.

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. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, 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

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a faint, larger version of the signature.

Operator's Well Number: 6190
Farm Name: BEATY, L. D., ETUX
U.S. WELL NUMBER: 47-049-00232-00-00
Vertical Plugging
Date Issued: 9/10/2018

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.

WW-4B
Rev. 2/01

1) Date July 19, 2018
2) Operator's
Well No. 606190
3) API Well No. 47-049 - 00232

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 X) Deep ___ / Shallow ___

5) Location: Elevation 997' Watershed Mannington S/W 4-3
District Mannington County Marion Quadrangle Glover Gap

6) Well Operator Equitrans, L.P. 7) Designated Agent Brian Hall
Address 625 Liberty Ave Suite 1700 Address 303 Sand Cut Rd
Pittsburgh, PA 15222 Clarksburg, WV 26301

8) Oil and Gas Inspector to be notified Name Sam Ward
Address PO Box 2327
Buckhannon WV 26201
9) Plugging Contractor Name To Be Determined
Address _____

10) Work Order: The work order for the manner of plugging this well is as follows:
See attachment for details and procedures

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

Work order approved by inspector S.P. D. Ward Date 7.12.18

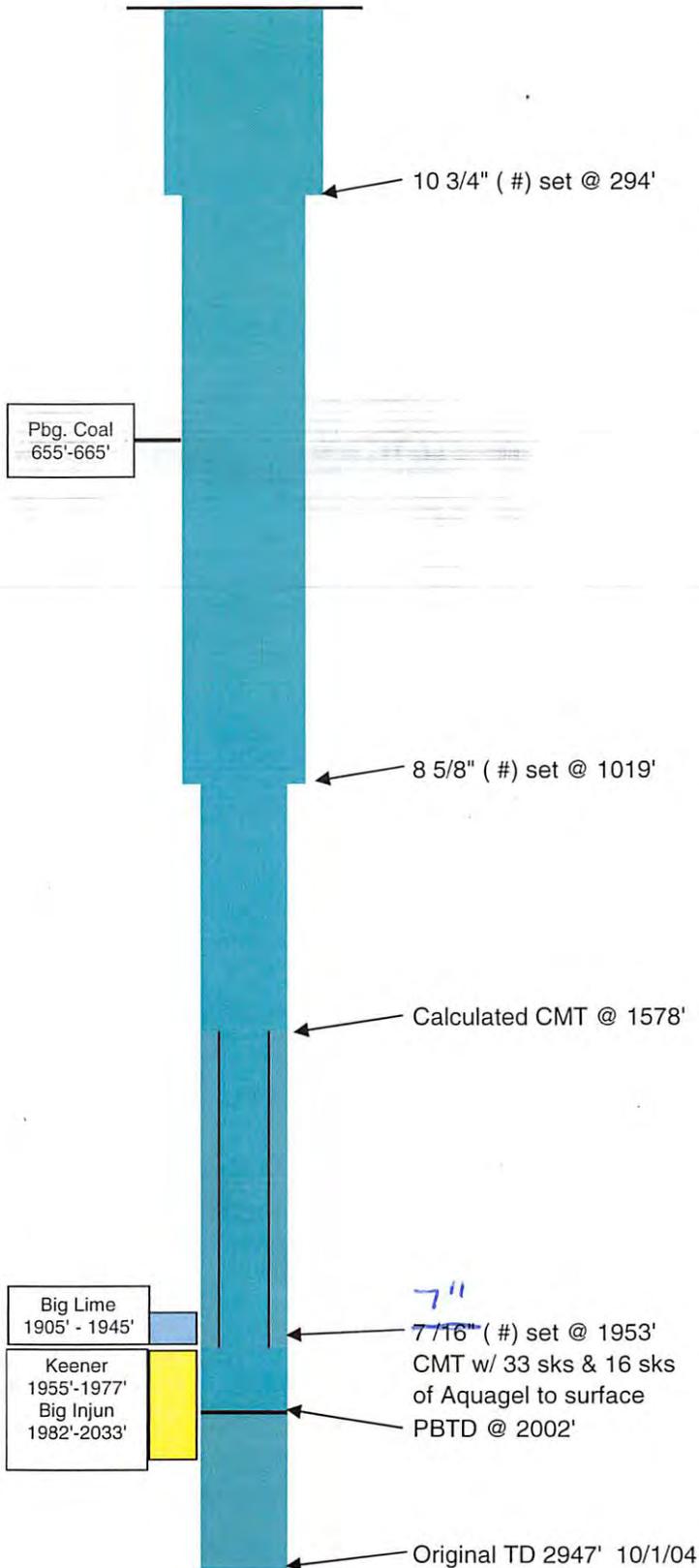
Well 6190 (OBS)

FINAL SCHEMATIC

Logansport Storage Field

Well Name: L.D Beaty
 API No.: 47-049-00232
 Lease No.: 24918
 Location: Mannington Dist., Marion Co
 Drilled: 10/1/04, TD @ 2947'
 Storage: 10/21/53
 Repaired & CO: 10/21/1953 COTD 2060'
 PBSD 2002'

* Presumed weights - exact weight unknown!



SDW
7/24/2018

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P&A OF STORAGE WELL 6190 IN LOGANSPORT STORAGE
2018
Plug and Abandonment Procedure
SITE PREPARATION
Field reconnaissance
Upgrade existing well sites to accommodate service rig and ancillary equipment if necessary
Install all necessary erosion control measures spelled out in approved E&S Plan
FIELD WORK
Attempt to blow well down
Dig sump around wellhead
Kill well with fluid
Move in and rig up service rig and ancillary equipment
Weld bell nipple onto 8 5/8" casing
Install annular BOP on 8-5/8" casing
Trip in hole with sand line to check well TD
Trip in with work string and remove any fill up if needed to TD or attainable bottom
Move in and rig up cement pumps
Pump cement plug 50' above bottom of 7" production casing @ 1900' (Class A type w/ 10% excess)
Trip work string back out of hole
Wait on cement 8 hours
Move in and rig up wireline
Run bond log on 7" production casing to determine free pipe
Perforate pipe to be left in hole (5 shot clusters every 50 feet)
Cut 7" production casing @ free point
Attempt to pull free 7" production casing
Remove BOP
Move in and rig up wireline
Run bond log on 8-5/8" intermediate casing to determine free pipe
Perforate pipe to be left in hole (5 shot clusters every 50 feet)
Cut 8 5/8" intermediate casing @ free point
Attempt to pull free 8 5/8" intermediate casing
Move in and rig up cement pumps
Pump cement plug to bottom of 10 3/4" casing @ 294' (Class A type w/ 10% excess)
Trip work string out of hole
Wait on cement 8 hours
Service rig will attempt to pull 10 3/4" casing
If service rig cannot pull 10 3/4" casing move in and rig up wireline
Perforate pipe to be left in hole (5 shot clusters every 50 feet to a minimum depth of 150')
Move in and rig up cement pumps
Pump cement plug through tubing and bit to surface (Class A type w/ 10% excess)
Top off cement due to tubing displacement
Install monument and GPS
Rig down and move off service rig
PLUGGING PROCEDURE WILL COMPLY WITH THE FOLLOWING WVDEP CODE REQUIREMENTS
SITE RECLAMATION
Reclaim access road and well site
PERMITTING
Submit final plugging affidavit

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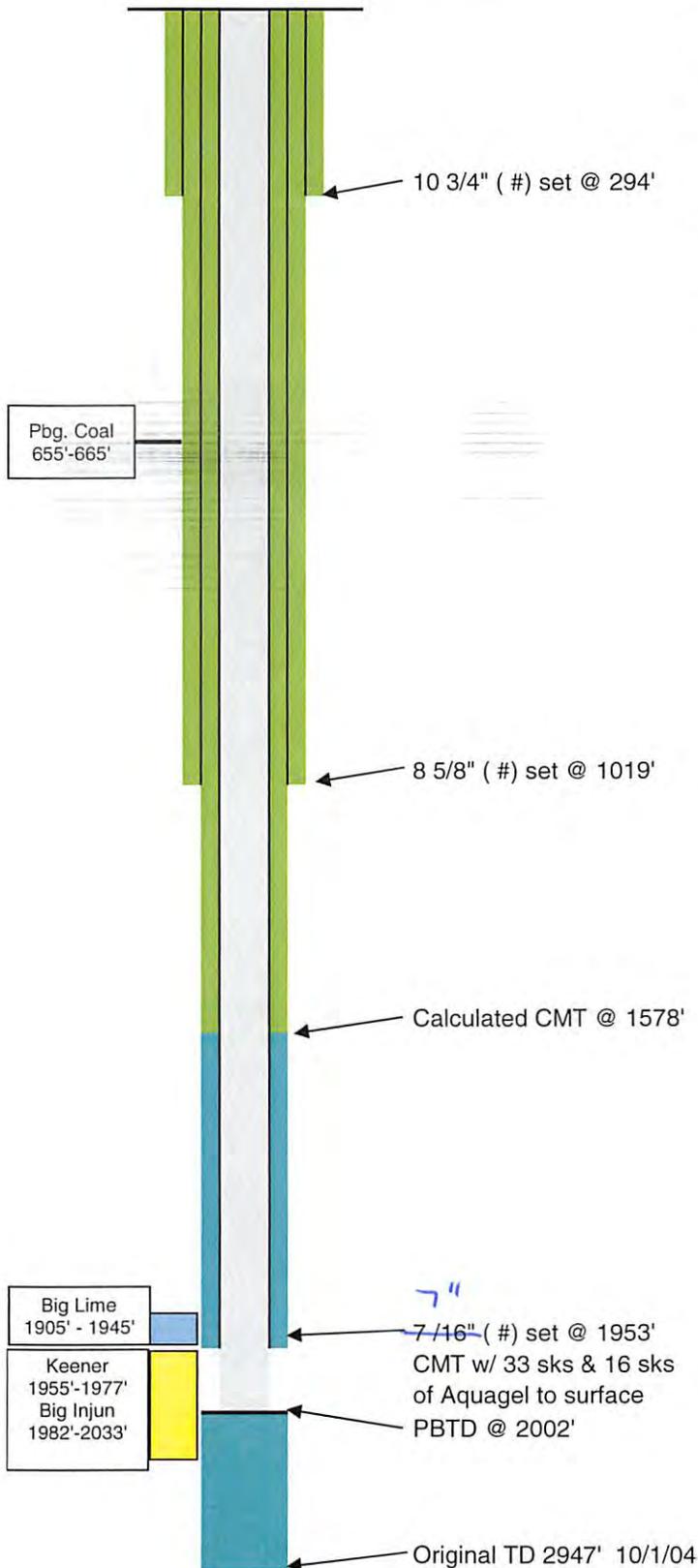
Well 6190 (OBS)

CURRENT SCHEMATIC

Logansport Storage Field

Well Name: L.D Beaty
 API No.: 47-049-00232
 Lease No.: 24918
 Location: Mannington Dist., Marion Co
 Drilled: 10/1/04, TD @ 2947'
 Storage: 10/21/53
 Repaired & CO: 10/21/1953 COTD 2060'
 PBSD 2002'

* Presumed weights - exact weight unknown!



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49-00232A



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

Mannington

WELL RECORD

Permit No. MAR-232-R

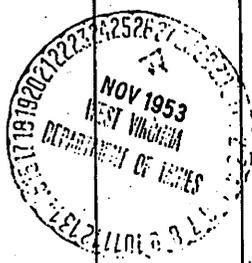
Oil or Gas Well Gas Storage
(KIND)

Company Equitable Gas Company-West Va Div.
Address Clarksburg, West Va.
Farm L. D. Beaty et ux Acres 85
Location (waters) Mann. S/W. 4-3
Well No. 6190 Elev. 997' L
District Mannington County Marion
The surface of tract is owned in fee by Fred Beaty
R.D.#1. Address Mannington, W.Va.
Mineral rights are owned by Fred Beaty
R.D.#1 Address Mannington, W. Va.
Drilling commenced April 22, 1953
Drilling completed October 21, 1953
Date Shot _____ From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume _____ Cu. Ft.
Rock Pressure _____ lbs. _____ hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water _____ feet _____ feet
Salt water _____ feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			
16			Kind of Packer
18			
10	29A'	294'	Size of
8 1/2	1019'	1019'	
6 1/2	1953'	1953'	Depth set
5 8/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Date _____
COAL WAS ENCOUNTERED AT 655 FEET 120 INCHES
_____ FEET _____ INCHES FEET _____ INCHES
_____ FEET _____ INCHES FEET _____ INCHES

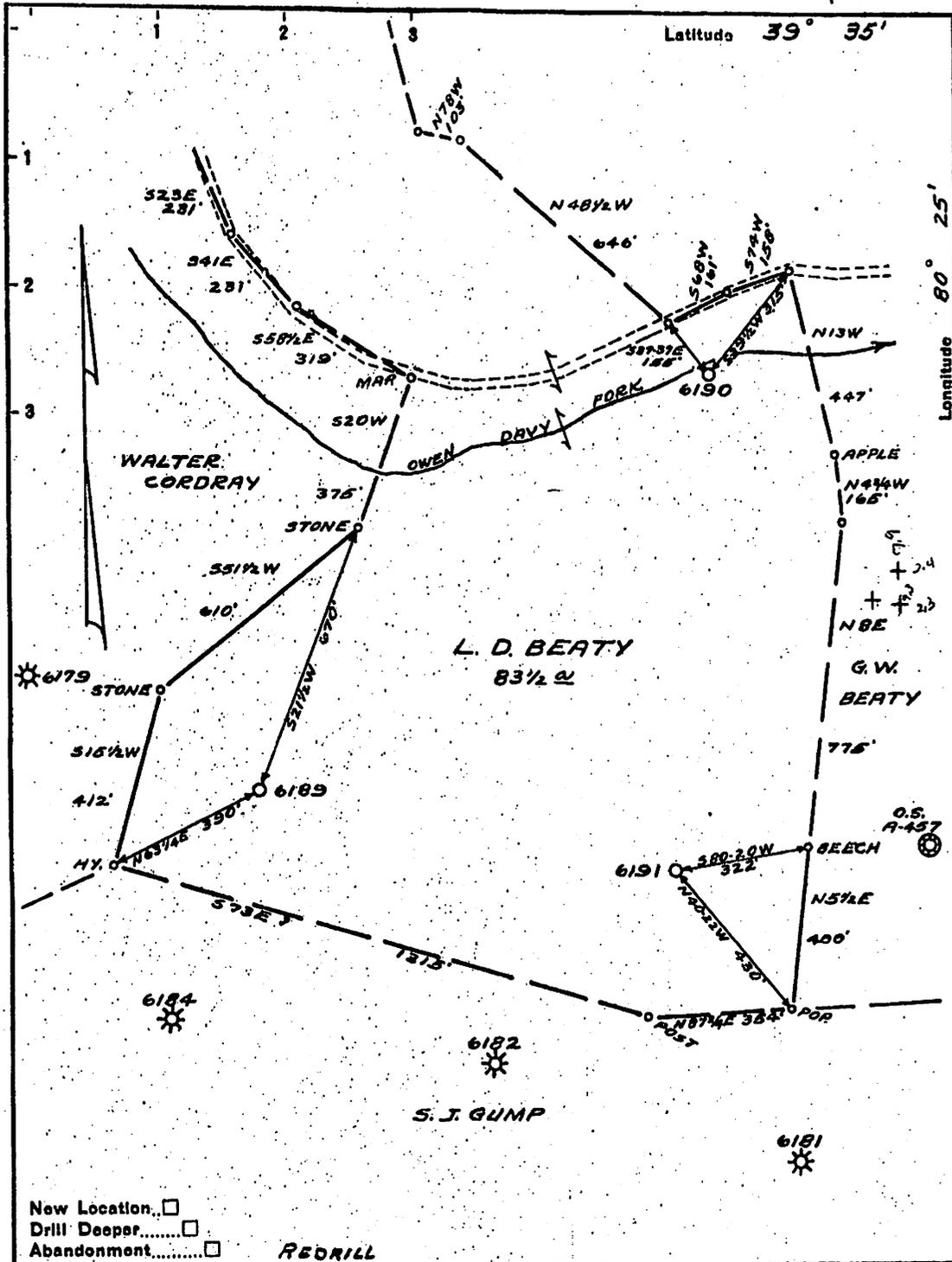
Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas, or Water	Depth Found	Remarks
Well Re-drilled to a depth of 2060 feet.							
Hole bridged at 2060 feet.							
Stones 2060 - 2036'							
8-1/4" Lead Plug 2036 - 2035'							
Set 8-1/4" Baker Plug 2021-1/2 - 2020 feet.							
1 - Bag Cal-seal 2020 - 2017'							
1 - 8-1/4" Baker Plug 1957-1/2 - 1956'							
This plug driven down to 2015'							
Cement Plug 2015 - 2005'							
Iron 2005 - 2002'							
Present depth..... 2002'							
16 Bags Aquagel and 33 bags cement around 6-5/8" Casing.							
25 Bags Aquagel between 6-5/8" - 8-1/4" and 10" Casing.							
1 - 8-1/4" Steel casing shoe on 8-1/4" Casing.							
1 - 6-5/8" " " " " 6-5/8" "							



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New Location
 Drill Deeper
 Abandonment **REDRILL**

Company EQUITABLE GAS-WVA DIV.
 Address CLARKSBURG, W.VA.
 Farm L. D. BEATY
 Tract _____ Acres 85 Lease No. 24918
 Well (Farm) No. 1253 Serial No. 6189
 Elevation (Spirit Level) 6189-1512', 6190-2972', 6191-1266'
 Quadrangle MANNINGTON SW. 43
 County MARION District MANNINGTON
 Engineer James D. Jeffers
 Engineer's Registration No. 1084
 File No. Vol 163 P 1733 32 Drawing No. _____
 Date APRIL 21, 1953 Scale 1" = 300'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. MAR-233-REDRILL
MAR-234-#6191 #6190

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

K.B.M.

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49-00232F

WW-4A
Revised 6-07

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1) Date: July 19, 2018
2) Operator's Well Number
606190
3) API Well No.: 47 - 049 - 00232

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Perry R. Thorne and Janice M. Thorne</u>	Name <u>Murray Energy Corporation (Consolidation Coal Company)</u>
Address <u>93 Curtisville Rd</u>	Address <u>46226 National Road, St. Clairsville, Ohio 43950</u>
<u>Mannington, WV 26582</u>	<u>Harrison County Mine (Depth 1032'; Seam-Pittsburgh)</u>
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Perry R. Thorne and Janice M. Thorne</u>
	Address <u>93 Curtisville Rd, Mannington, WV 26582</u>
	<u>(All Coal except Pittsburgh Seam)</u>
(c) Name _____	Name <u>Consolidation Coal Company</u>
Address _____	Address <u>46226 National Road, St. Clairsville, Ohio 43950</u>
	<u>(Pittsburgh Seam only)</u>
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>PO Box 2327</u>	Name <u>Murray Energy Corporation (Consolidation Coal Company)</u>
<u>Buckhannon, WV 26201</u>	Address <u>46226 National Road, St. Clairsville, Ohio 43950</u>
Telephone <u>304-389-7583</u>	<u>Harrison County Mine (Depth 1032'; Seam-Pittsburgh)</u>

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

Well Operator	<u>Equitrans, L.P.</u>	Primary Contact:
By:	<u>Samuel K. Smallwood</u>	<u>Brian Hall</u>
Its:	<u>Attorney-in-Fact</u>	<u>NWV Ops Reg Manager</u>
Address	<u>303 Sand Cut Rd</u>	<u>(304) 626-6419</u>
	<u>Clarksburg, WV 26301</u>	<u>BRHall@eqt.com</u>
Telephone	<u>304-626-7999</u>	<u>SSmallwood@eqt.com</u>



Samuel K. Smallwood, Attorney-in-Fact

Subscribed and sworn before me this 23rd day of July 2018
Rachel Wyckoff Notary Public
My Commission Expires March 14, 2022

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.

49-00232F

WW-9
(5/16)

API Number 47 - 049 00232
Operator's Well No. 606190

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

Operator Name Equitrans, L.P. OP Code 5547235
Watershed (HUC 10) Mannington S/W 4-3 Quadrangle Glover Gap

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: N/A

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

Proposed Disposal Method For Treated Pit Wastes:

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

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7/24/2018

Will closed loop system be used? If so, describe: Yes, above ground steel pits connected to mud pump and well

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

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

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Additives to be used in drilling medium? N/A

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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) N/A

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.

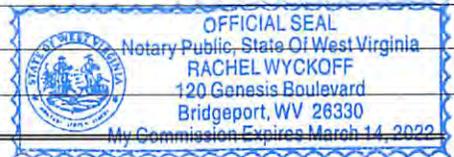
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations 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 Samuel K. Smallwood

Company Official (Typed Name) Samuel K. Smallwood

Company Official Title Attorney-in-Fact



Subscribed and sworn before me this 23rd day of July, 2018

Rachel Wyckoff Notary Public

My commission expires March 14, 2022

Proposed Revegetation Treatment: Acres Disturbed less than one (1) acre Prevegetation pH N/A

Lime 3 Tons/acre or to correct to pH 6 1/2

Fertilizer type 10-20-20 or equivalent

Fertilizer amount 600 lbs/acre

Mulch Hay or Straw Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type lbs/acre

Seed Type lbs/acre

N/A

Meadow Mix 40 lbs per 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, 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: [Signature]

Comments: _____

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Title: OOG Inspector

Date: 7/24/2018

Field Reviewed? () Yes

(X) No

Attachment WW-9 Landfill or Offsite Disposal Name/Permit Number

Region	Facility Type	Facility Location Name	Street	City	State	Zip Code
Manufacturing	Disposal Well	Nichols (SWIW #13) 1 - A	10555 Veto Road	Belpre	OH	45714
	Disposal Well	D - 1 (SWIW #7)	3549 Warner Road	Fowler	OH	44118
	Disposal Well	Goff (SWIW #27) 1	9350 East Pike Road	Norwich	OH	43767
	Disposal Well	Eva Jean Root Wolf 1 and 4, Wolf 2	5480 State Route 5	Newton Falls	OH	44444
	Disposal Well	Pander R&P (SWIW # 15 & #16) 1 & 2	5310 State Route 5	Newton Falls	OH	44444
	Disposal Well	John G. Dolores Blazek 2	5700 Allyn Road	Hiram	OH	44234
	Disposal Well	Belden & Blake Corporation 2 - 1050	8000 Edison Street	Louisville	OH	43641
	Disposal Well	Plum Creek 1	4285 Karg Industrial Parkway	Kent	OH	44240
	Disposal Well	Ed Lyons (Genet) 1	7700 Lincoln Street	East Canton	OH	44730

List of Ohio SWDs 6.13.2013

Wells	County	Township	State	Permit #s	Entity
Belden & Blake #2	Stark	Marlboro	Ohio	34-151-2-3420	Heckmann Water Resources (CVR), Inc.
Blazek #2	Portage	Hiram	Ohio	34-133-2-0525	Heckmann Water Resources (CVR), Inc.
Lyons #1	Stark	Osnaburg	Ohio	34-151-2-1198	Heckmann Water Resources (CVR), Inc.
Pander R & P #1	Trumbull	Newton	Ohio	34-155-2-3795	Heckmann Water Resources (CVR), Inc.
Pander R & P #2	Trumbull	Newton	Ohio	34-155-2-3794	Heckmann Water Resources (CVR), Inc.
Plum Creek #1	Portage	Brimfield	Ohio	34-133-2-3614	Heckmann Water Resources (CVR), Inc.
Eva Jean Root Wolf #1	Trumbull	Newton	Ohio	34-155-2-1893	Heckmann Water Resources (CVR), Inc.
Wolf #2	Trumbull	Newton	Ohio	34-155-2-1894	Heckmann Water Resources (CVR), Inc.
Eva Jean Root Wolf #4	Trumbull	Newton	Ohio	34-155-2-3203	Heckmann Water Resources (CVR), Inc.
D-1 (AnnaRock)	Trumbull	Fowler	Ohio	34-155-2-2403	Heckmann Water Resources (CVR), Inc.
Nichols #1-A	Washington	Dunham	Ohio	34-167-2-3862	Heckmann Water Resources (CVR), Inc.
Goff #1	Muskingum	Union	Ohio	34-119-2-8776	Heckmann Water Resources (CVR), Inc.
Appalachian Water (APP or AWS)	Conneautville	NA	PA	2608201	

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