

### 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

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Tuesday, August 30, 2022 WELL WORK PLUGGING PERMIT Coal Bed Methane Well Plugging

DIVERSIFIED PRODUCTION LLC 101 MCQUISTON DRIVE

JACKSON CENTER, PA 16133

Re: Permit approval for HENDERSON 1A

47-081-01408-00-00

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

Operator's Well Number: HENDERSON 1A

Farm Name: TROY & NORMA HENDERS

U.S. WELL NUMBER: 47-081-01408-00-00

Coal Bed Methane Well Plugging
Date Issued: 8/30/2022

### **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. <u>Failure to adhere to the specified permit conditions may result in enforcement action.</u>

### **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 April 19	, 2022
2)Operator's	
Well No. Henderson A	<b>\1</b>
3) API Well No. 47	- 081 - 01408

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

	APPLICATION FOR A PERM	MIT TO PLUG AND ABANDON 🙏	CBM WELL,
4)	Well Type: Oil/ Gas $\frac{X}{X}$ / Liquid (If "Gas, Production $\frac{X}{X}$ or Und	d injection/ Waste dis	sposal/
5)	Location: Elevation 1963.69 ft District Trap Hill	Watershed Clear Fork County Raleigh Quadrance	gle_Arnett
6)	Well Operator Address Address Diversified Production, LLC 414 Summers Street Charleston, WV 25301	7) Designated Agent Jeff Mass Address 31 Hicko Barbours	THE STATE OF THE S
8)	Oil and Gas Inspector to be notified  Name Gary Kennedy  Address 66 Old Church Lane	9) Plugging Contractor  Name R & J Well Ser  Address P.O. Box 40	rvices
	Pipestem, WV 25979	Hueysville, KY	41640-0040
10)	See Atta  THS IS THE MCCESS WA  LATERAL PINNATE COM W	ached	RECEIVED Office of Oil and Gas  APR 29 2022  VV Department of Environmental Protection
Noti work	fication must be given to the district oi can commence.	il and gas inspector 24 hour	rs before permitted
Work	order approved by inspector	Kund Date	4/26/22

### **Plugging Prognosis**

API#: 4708101408

### Casing Schedule:

13 3/8" csg @ 47' CTS 9 5/8" csg @ 532' CTS 7" csg @ 586' CTS

TD listed as 668'

Estimated kickoff @ 615'

B Hole √

o 32,500' x 4.75" Hole ID = 4,000 Cu ft = 890 BBL w/ 125% excess

Completion – Pilot Well for CBM production. Unknown if well has bridge plug in it.

Fresh Water: None listed Salt Water: None listed Gas Shows: None listed Oil Shows: None listed

SHALL BE OF EXPANDING CEMENT.

Coal: 527' Coak 358 TO 360'

Elevation: 1980' (963.7

- 1. Notify Inspector Gary Kennedy @ 304-382-8402, 48 hrs prior to commencing operations.
- 2. Record pressure on csg.
- 3. Tag TD and record TD.
- 4. Kill well as needed with 6% bentonite gel.
- 5. Bridge lateral with bentonite pellets. Top not to exceed 636'
- 7. TOOH w/ tbg to 160' Pump 6% bentonite gel spacer from 60' to 100'.
- 8. Confirm 7" csg is cemented to surface. If not TOOH w/ tbg. Free point csg and set plug 50' in/out of cut for total of 100'.
- 9. TOOH w/ tbg to 100'. Pump 100' C1A cement plug from 100' to surface
- 10. Reclaim site and set monument per WV DEP regulations.
- 11. Note: The uncased 4 3/4" wellbore from curve to lateral will be filled w/ gel/cement from the production well (47-109-01421) when plugging it.

APR 29 2022

artment of Protection

API#:: 4708101408C

WR-35 E G E W E & Gas

AUG 2 9 7308

### WV Department of Environmental Protection

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

Wall Operator's Report of Well Work



Farm Name Troy & Norma Henderso	n		Operate	or Well No.: HENI	DERSON-1A	
LOCATION Elevation: 1980.81	1963.7		Quadrar	ngle: Arnett 7 1/2		
District: Trap Hill			County: Rale	eigh .		
Latitude: 14000	Feet South of 37	Deg. 50	Min. 00	Sec.		
Longitude: 3750	Feet West of 81	Deg. 22	Min. 30	Sec.		
Company: Penn Virginia Oll & Gas Corporatio	on	Casing and Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.	
Address: 2550 East Stone Drive,	Suite 110	13 3/8"	47'	47'	17.7 Cu Ft	
Kingsport, TN 37660		9 5/8"	532'	532'	277.3 Cu Ft.	८२५
Agent: Bryant Bowman		7"	586'	586'	153.4 Cu Ft.	CTY WA.
Inspector: Terry Urban						_
Date Permit Issued: 06/13/2006					1	-
Date Well Work Commenced: 721			1			
Date Well Work Completed: 01/0				7	<u> </u>	_
Verbal Plugging:  Date Permission granted on:  Rotary X Cable Rig						
Total Depth (feet): 668						_
Fresh Water Depth (ft):						
None Reported						
Salt Water Depth (ft): None Reported						
Is coal being mined in area (N/Y)?	N		-			
Coal Depths (ft):						_
527	***					RECEIVED ice of Oil and Gas
		1	Ir	li .	Α	PR 29 2022
OPEN FLOW DATA				2 2 22	Tower	/ Department of inmental Protection
Producing formation No Producing		1-9:-1		zone depth (ft)	CT I WILL	. Inches Cosession
Gas: Initial open flow		Initial open flow al open flow	y Bbl/d	bl/d		
Final open flow	MCF/d Fin ween initial and final te		Hours			
Static rock pressure	psig (surface p		Hours			
Second producing formation	1		Pay zone	depth (ft)	œ	
Gas: Initial open flow		I: Initial open flo		Bbl/d		
Final open flow		nal open flow	Bbl/d			
Time of open flow bet	ween initial and final te	sts:	Hours		694	Gard.
Static rock pressure	psig (surface pre	ssure) after	Hours			
NOTE: ON BACK OF THIS FO INTERVALS, FRACTURING O WHICH IS A SYSTEMATIC DI COAL ENCOUNTERED BY TI	OR STIMULATING, PH ETAILED GEOLOGICA	YSICAL CHANE	TEC 2) THE	DRATED WELL LOG ONS, INCLUDING	Parice of the 29	09/02/2022
Signed: Mar	the E. Ju	dson		8	MA DELO	Status
Date:	8/28/08		079		EUNITEDING.	00/02/2020

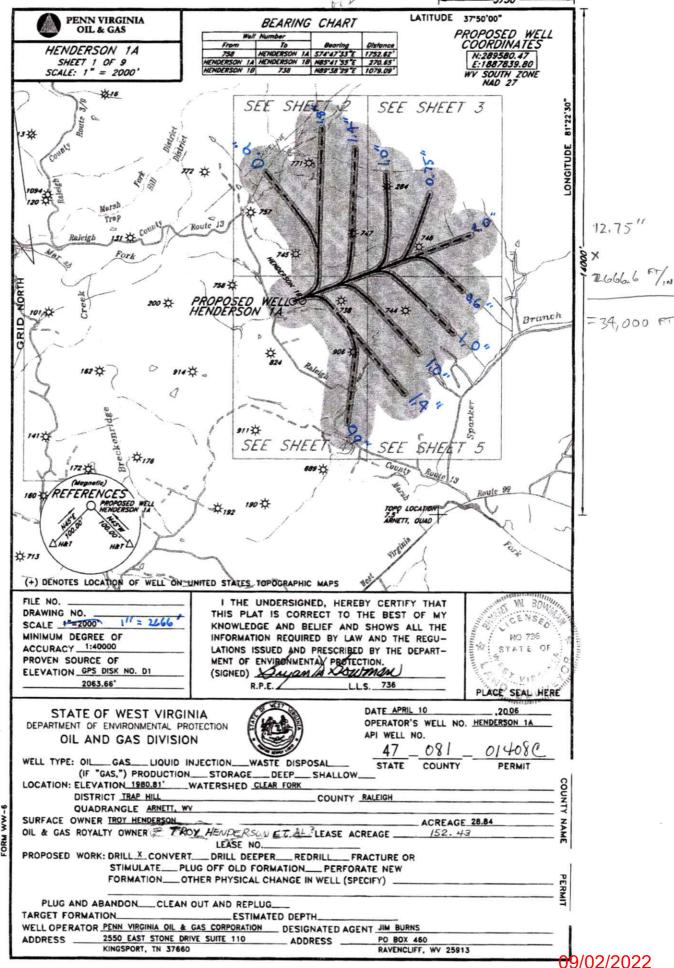
09/02/2022

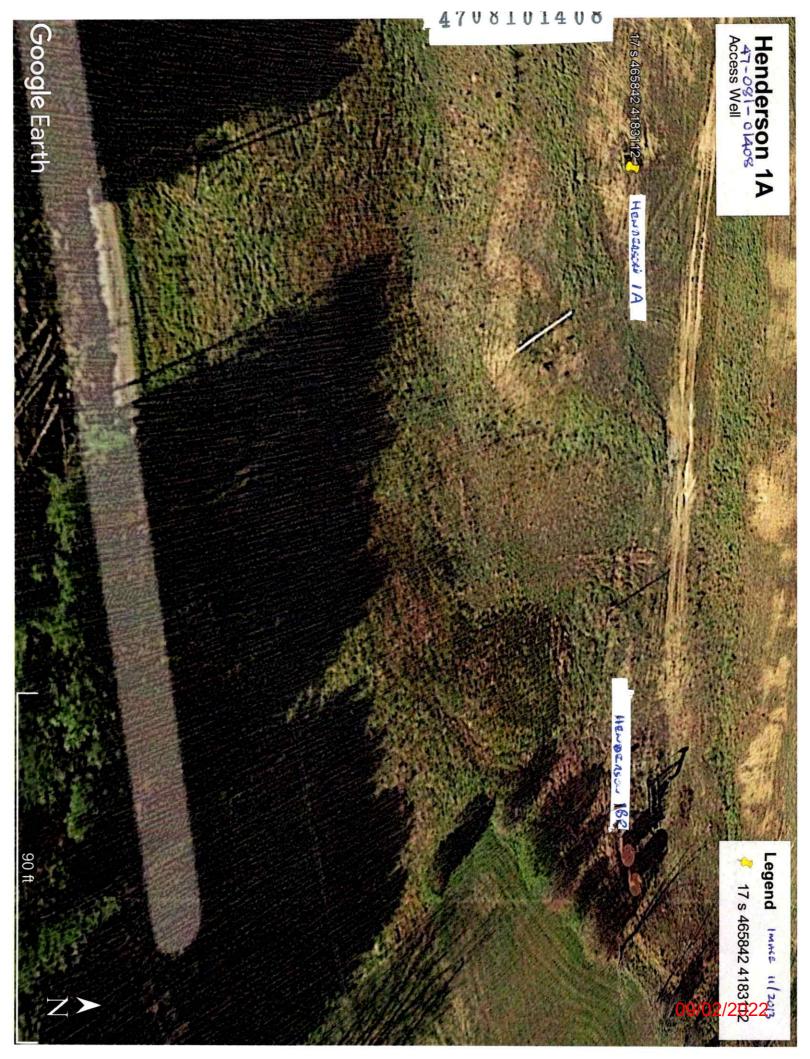
FORM WR-35R (REVERSE)

DETAILS OF PERFORATIONS, FRACTURING, OR PHYSICAL CHANGE, ETC.

PERMIT #:4708101408C WELL #: HENDERSON-1A

FORMATIONS	TOP	воттом	REMARKS	
Surface	0	. 0006		· Pu
Shale	0006	0030		
Sand	0030	0050		
Shale	0050	0154		
Sand	0154	0168		
Sandy Shale	0168	0200		
Sand	0200	0202		
Shale	0202	0204		
Sand	0204	0208		
Shale	0208	0212		
Sand	0212	0243		
Sandy Shale	0243	0260		
Sand	0260	0290		
Sandy Shale	0290	0298		DICENSED
Sand	0298	0342		RECEIVED Office of Oil and Gas
Sandy Shale	0342	0357	* CON 358 - 360'	
Sand	0357	0365	2 CON 358 - 360'	APR 29 2022
Sandy Shale	0365	0370		
Sand	0370	0464		:W Department of Environmental Protection
Sandy Shale	0464	0466		Livionimontal Fotobio
Sand	0466	0482		
Shale	0482	0520	2 2	
Sand	0520	0523		
Shale	0523	0527		
Coal	0527	0532		
Shale	0533	0580		
Sand	0580	0668	TO Vertical Hole; Begin curve	e for Horizontal Lat





WW-4A Revised 6-07

1) Date:		April 19, 2022			
		Well Numbe	r		
3)	API Well N	No.: 47 -	081	01408	

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

4) Surface Ov	vner(s) to be served:	<ol><li>(a) Coal Operator</li></ol>		
(a) Name	Clint Henderson	Name	None	
Address	P.O. Box 136	Address		
	Fairmont, WV 25839			
(b) Name		(b) Coal Own	ner(s) with Declaration	
Address		Name	Clint Henderson	
		Address	P.O. Box 136	
			Fairmont, WV 25839	
(c) Name		Name		
Address		Address		
6) Inspector	Gary Kennedy	(c) Coal Lag	see with Declaration	
Address	66 Old Church Lane	Name	Rhino Energy LLC	
nutress	Pipestern, WV 25979	Address	836 Euclid Avenue, Sulte 302	
Telephone	304-382-8402		Lexington, KY 40502	

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

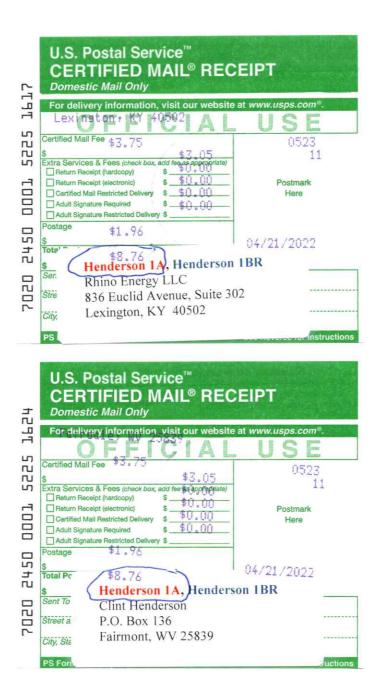
- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

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.

OF WEST L	OFFICIAL SEAL	Well Operator	Diversified Production, LLC	
LA A S	NOTARY PUBLIC  STATE OF WEST VIRGINIA	By:	Jeff Mast	
(2013年)列	Phyllis A. Copley	Its:	Director Technical Services	RECEIVED Office of Oil and Gas
	144 Willard Circle Hurricane, WV 25528	Address	414 Summers Strret	Vince of Off and Gas
My (	Commission Expires September 16, 2023		Charleston, WV 25301	ΔPR 2.5 2022
	*************	Telephone	304-543-6988	AI II V V O COLL
		-1		WV Department of Environmental Protection
Subscribed	and sworn before me th	da Maria da	Notary Public	_
	ssion Expires September 1	c 2022		

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 depprivacyoffier@wv.gov.



47-081-01408 Renderson 4A

Office of Oil and Gas
APR 2 5 2022

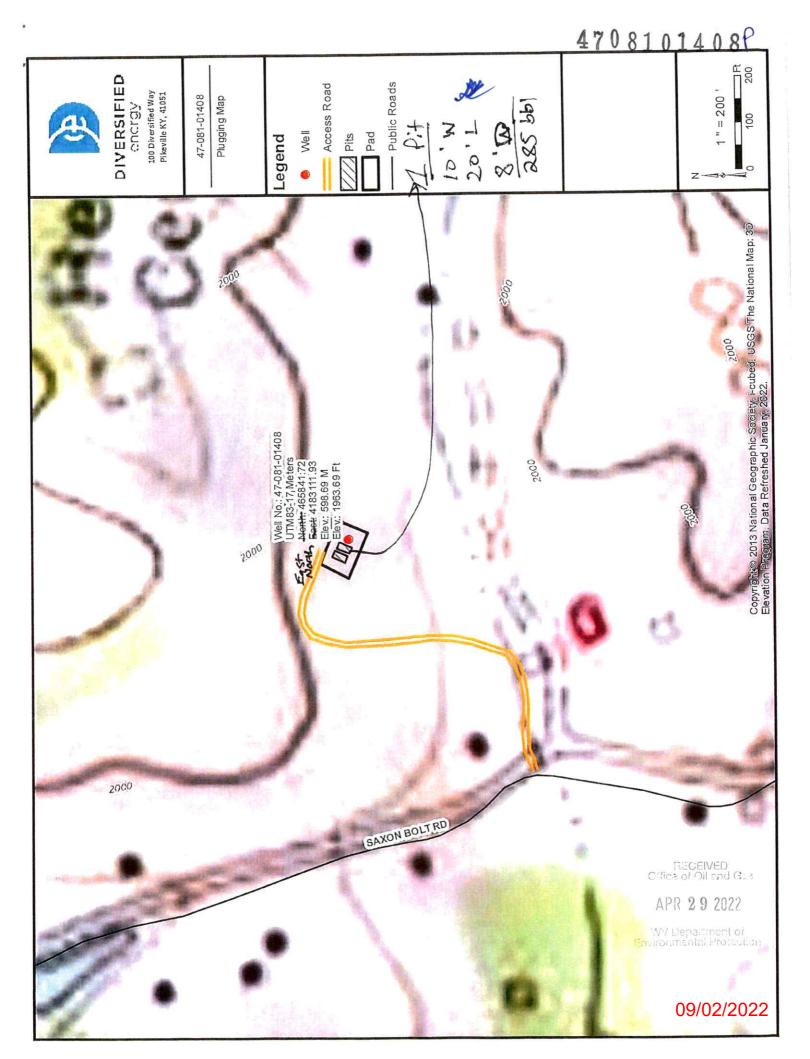
WV Department of Environmental Protection WW-9 (5/16)

API Number 47 -	081	_ 01408
Operator's Well N	o. Hende	rson A1

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

Operator Name Diversified Production, LLC	OP Code 494524121
Watershed (HUC 10)_Clear Fork Quadrangle	Arnett
Do you anticipate using more than 5,000 bbls of water to complete the proposed water to compl	well work? Yes No
Will a pit be used? Yes No	
If so, please describe anticipated pit waste: Produced fluid and cement	t returns
Will a synthetic liner be used in the pit? Yes No If	so, what ml.? 20
Proposed Disposal Method For Treated Pit Wastes:	
Land Application (if selected provide a completed form	n WW-9-GPP)
Underground Injection (UIC Permit Number Twin Brain Reuse (at API Number	)
Off Site Disposal (Supply form WW-9 for disposal lo	cation)
Other (Explain	
Will closed loop systembe used? If so, describe: N/A	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwat	
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. N/A	
-If left in pit and plan to solidify what medium will be used? (ccment, li	ime, sawdust) N/A
-Landfill or offsite name/permit number? N/A	
Permittee shall provide written notice to the Office of Oil and Gas of any load of West Virginia solid waste facility. The notice shall be provided within 24 hours owhere it was properly disposed.	
where it was properly disposed.	
I certify that I understand and agree to the terms and conditions of the Con April 1, 2016, by the Office of Oil and Gas of the West Virginia Department provisions of the permit are enforceable by law. Violations of any term or condit or regulation can lead to enforcement action.  I certify under penalty of law that I have personally examined and a application form and all attachments thereto and that, based on my inquiry of the information, I believe that the information is true, accurate, and complete. submitting false information, including the possibility of fine or imprisonment.	of Environmental Protection. I understand that the ion of the general permit and/orother applicable law im familiar with the information submitted on this se individuals immediately responsible for o btaining
Company Official Signature	NOTARY PUBLIC STATE OF WEST VIRGINIA
Company Official (Typed Name) Jeff Mast	Phyllis A. Copley 144 Willard Circle
Company Official Title Director Technical Services	Hurricane, WV 25528  My Commission Expires September 16, 2023
Subscribed and sworn before me this day of april , 20	RECEIVED Gas
The G. Cople	Notary Public Office of Oil and Gas
My commission expiresSeptember 16, 2023	O APR 2 5 2022
	WV Department of Environmental Protection

Time 3	Tons/acre or to correc	et to pH 605	
	10-20-20 or equiv		
50 Section 2007			
Mulch_2		_Tons/acre	
		Seed Mixtures	
T	emporary	Perm	anent
Seed Type	lbs/acre	Seed Type	lbs/acre
Red Fescue	40	Red Fescue	15
Alsike	5	Alsike Clover	5
Annual Rye	15		
(aps(s) of road, location, provided). If water from the water, W), and area in acres, o	pit and proposed area for lan e pit will be land applied, pr f the land application area.	d application (unless engineered plans incluovide water volume, include dimensions (L	iding this info have been, W, D) of the pit, and dim
provided). If water from the L, W), and area in acres, or Photocopied section of involved	e pit will be land applied, pr f the land application area. plyed 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved and Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved and Approved by:	e pit will be land applied, pr f the land application area. plyed 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim  Office of APR
Maps(s) of road, location, provided). If water from the L, W), and area in acres, or Photocopied section of involved Approved by:	e pit will be land applied, pr f the land application area. olved 7.5' topographic sheet	rovide water volume, include dimensions (L	, W, D) of the pit, and dim  Office of APR



WW-7 8-30-06



# West Virginia Department of Environmental Protection Office of Oil and Gas

WELL LO	CATION FORM: GPS		
<sub>API:</sub> 4708101408	WELL NO.:_1	A	
FARM NAME: Troy Hende			
RESPONSIBLE PARTY NAME:	Diversified Producti	on LLC	
COUNTY: Raleigh	DISTRICT: Tra	ap Hill	
QUADRANGLE: Arnett, W	V		
SURFACE OWNER: Clint He			
ROYALTY OWNER: DP Blu	egrass		
UTM GPS NORTHING: 4183			
UTM GPS EASTING: 465841	GPS ELEVAT	<sub>ION:</sub> 1963.69'	
The Responsible Party named above preparing a new well location plat for above well. The Office of Oil and Gothe following requirements:  1. Datum: NAD 1983, Zone height above mean sea le 2. Accuracy to Datum – 3.0 3. Data Collection Method: Survey grade GPS: Post Preparence of the preparence o	or a plugging permit or assigned A as will not accept GPS coordinate e: 17 North, Coordinate Units: me vel (MSL) – meters.  5 meters	API number on the es that do not meet	
	ime Differential	RECEIVED Office of Oil and Gas	
Mapping Grade GPS X : Post	Processed Differential	APR <b>2 5</b> 202 <b>2</b>	
4. Letter size copy of the to I the undersigned, hereby certify this belief and shows all the information prescribed by the Office of Oil and O	opography map showing the we data is correct to the best of my required by law and the regulatio	WV Department of Environmental Protection	or
Digitally signed by Austin Sutler Date: 2022.04.12 17:03:21	Sr. Proj. Manager	4/12/2022	
Signature	Title	Date	



### Kennedy, James P < james.p.kennedy@wv.gov>

### Plugging permits issued 4708101421, 08101408

1 message

**Kennedy, James P** <james.p.kennedy@wv.gov> Tue, Aug 30, 2022 at 11:26 AM To: Gary L Kennedy <gary.l.kennedy@wv.gov>, raleigh@wvassessor.com, Phyllis Copley <pcopley@dgoc.com>, Austin Sutler <asutler@dgoc.com>

To whom it may concern, plugging permits have been issued for 4708101421, and 08101408.

James Kennedy

WVDEP OOG

3 attachments

