



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

Monday, December 18, 2017
WELL WORK PERMIT
Not Available / Plugging

ARSENAL RESOURCES LLC
6031 WALLACE ROAD EXTENSION SUITE 603

WEXFORD, PA 15090

Re: Permit approval for OAK MOUND 6
47-033-04282-00-00

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: OAK MOUND 6
Farm Name: N. GOFF ESTATE HEIRS
U.S. WELL NUMBER: 47-033-04282-00-00
Not Available / Plugging
Date Issued: 12/18/2017

Promoting a healthy environment.

12/22/2017

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.
4. This well is under a consent order and must be plugged under the terms of that agreement.

WW-4B
Rev. 2/01

1) Date August 28, 20 17
2) Operator's Well No. Oak mound #1
3) API Well No. 47-033-04282

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 / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow ___

5) Location: Elevation 1140' Watershed Branch of West Fork River
District Clark County Harrison Quadrangle Wolfe Summit 7.5

6) Well Operator Arsenal Resources 7) Designated Agent Bill Veigel
Address 6031 Wallace Road Ext. Suite 300 Address 65 Professional Place Suite 200
Wexford, PA 15090 Bridgeport, WV 26330

8) Oil and Gas Inspector to be notified Name Sam Ward 9) Plugging Contractor Name Patchwork Oil & Gas, LLC
Address P.O Box 2327 Address PO Box 168
Buckhannon, WV 26201 Davisville, WV 26142

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

Plugging procedures attached. - no records

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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 [Signature] Date 11/7/2017

12/22/2017

WW-4B Work Order Attachment

47-033-04282 Oak Mound #6

OPEN HOLE

1. MIRU Service rig, pull rods and tubing out of hole (if any), clean hole to TD \approx 3305
2. Run 2 3/8 8rd tubing to a minimum of 50' below each producing pay zone, pump and set cement plug using Class A cement to a minimum of 50' above the producing pay zone, pump 6% gel ahead of cement. (Minimum 100' bottom plug)
3. Tag cement top to ensure plug meets minimum, add cement if necessary. Find free point on casing, cut and remove casing and pull out of hole.
4. Run 2 3/8 8rd tubing to a minimum of 50' below the cut casing. Pump and set cement plug using Class A Cement to a minimum of 50' above cut casing, pump 6% gel ahead of cement. (Minimum of 100' casing cut plug)
5. Tag cement top to ensure plug meets minimum, add cement if necessary.
6. Pull and set 2 3/8 8rd tubing a minimum of 50' below elevation depth. Pump and set cement plug with Class A Cement to a minimum of 50' above elevation depth, pump 6% gel ahead of cement. (Minimum 100' elevation plug) ELEVATION 1140'
7. Tag cement top to ensure plug meets minimum, add cement if necessary.
8. Pull and set 2 3/8 8rd tubing to a minimum of ~~100'~~ below surface, pump Class A cement to surface. (Minimum ~~100'~~ surface and fresh water strata plug) No record, set 300' Surface plug.
9. Erect 3' x 6'' with identification and fill with cement. SDW 11/7/2017
10. RDMO service rig, all surface equipment and disposals.
11. Reclaim location and lease road.
12. Prepare release forms.

Note: 100' cement plug across any perforations or pay zones.

- MUST COVER ALL 20" OR GREATER COAL SEAMS WITH CLASS A CEMENT WITH NO MORE THAN 3% CaCl_2 AND NO OTHER ADDITIVES.
- 6% GEL SPACERS BETWEEN ALL CEMENT PLUGS.
- CEMENT PLUGS MUST BE A MINIMUM OF 100 FEET.

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JAW

12/22/2017



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

SIGNED Esel E Morgan Jr
 TITLE Vice President Production

DATE January 14, 19 98
 OPERATORS WELL NO. Oak Mound 6
 API WELL NO. 47-033-4282N

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IE "OAS" PRODUCTION) STORAGE DEEP SHALLOW

LOCATION: ELEVATION 1140 est WATER SITED Branch of West Fork River
 DISTRICT CLARK COUNTY MARRISON
 QUADRANGLE Wolf Summit 7 1/2'

SURFACE OWNER N. GOFF ESTATE HEIRS ACREAGE 1087
 OIL & GAS ROYALTY OWNER N. GOFF ESTATE HEIRS LEASE ACREAGE 1087
 LEASE NO. 80300

PRODUCING FORMATION BALLTOWN TOTAL DEPTH 3305
 WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ERIC R STEARNS
 ADDRESS P.O. Box 26 ADDRESS PETROLEUM DEVELOPMENT CORP.
Bridgeport, WV 26330 Bridgeport, WV 26330

WV/GES # 12821

8/21/2017

There is no Stratigraphy data for this well

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

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3304282A

WW-4A
Revised 6-07

1) Date: August 28th, 2017
2) Operator's Well Number
Oak Mound #6
3) API Well No.: 47 - 033 - 04282

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

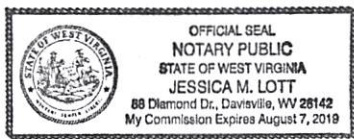
4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Laura Goff Davis</u>	Name _____
Address <u>P.O Box 707</u>	Address _____
<u>Clarksburg, WV 26302</u>	
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>Laura Goff Davis</u>
	Address <u>P.O Box 707</u>
	<u>Clarksburg, WV 26302</u>
(c) Name _____	Name _____
Address _____	Address _____
6) Inspector <u>Sam Ward</u>	(c) Coal Lessee with Declaration
Address <u>P.O Box 2327</u>	Name _____
<u>Buckhannon, WV 26201</u>	Address _____
Telephone <u>304-389-7583</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 Arsenal Resources
 By: William Veigel
 Its: Designated Agent
 Address 65 Professional Place Suite 200
Bridgeport, WV 26330
 Telephone 724-940-1117

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WV Department of Environmental Protection

Subscribed and sworn before me this 6th day of November

J. Lott

Notary Public

My Commission Expires Aug. 7, 2019

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-9
(5/16)

API Number 47 - 033 - 04282
Operator's Well No. Oak mound #6

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

Operator Name Arsenal Resources OP Code 494519412

Watershed (HUC 10) Branch of West Fork River Quadrangle Wolfe Summit 7.5'

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 _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain Vac truck is used for all fluids needed during plugging operations)

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. n/a

-If oil based, what type? Synthetic, petroleum, etc. n/a

Additives to be used in drilling medium? n/a

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? (cement, lime, 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 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.

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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.

NOV 09 2017

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.

WV Department of Environmental Protection

Company Official Signature [Signature]

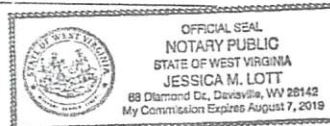
Company Official (Typed Name) Bill Veigel

Company Official Title Designated Agent, Sr. Director of Production

Subscribed and sworn before me this 6th day of November, 2017

[Signature] Notary Public

My commission expires Aug 7, 2019



12/22/2017

Form WW-9

Operator's Well No. Oak mound #6

Proposed Revegetation Treatment: Acres Disturbed One +/- Prevegetation pH 5.5

Lime One-Two Tons/acre or to correct to pH 6.5

Fertilizer type Agland 5-10-10

Fertilizer amount 500 lbs/acre

Mulch 75-100 bales of hay/straw Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
		<u>Pasture Mix</u>	<u>200</u>
		<u>(Contains: Orchard Grass, Rye, Timothy, and Clover)</u>	

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: 11/7/2017

Field Reviewed? () Yes (X) No

12/22/2017

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

Operator Name: Arsenal Resources
Watershed (HUC 10): Branch of West Fork River Quad: Wolf Summit 7.5
Farm Name: Oak mound #6

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

N/A no pit being used

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

N/A no pit being used

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

N/A no pit being used

4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A no pit being used

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5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A no pit being used

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

N/A no pit being used

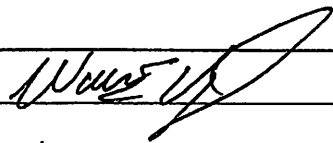
7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

N/A no pit being used

8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A no pit being used

Signature: _____



Date: _____

11/6/17

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input coordinates

enter comma delimited coordinates examples
38 15 30.1 -81 25 15.2 (lat lon as degrees minutes seconds)
38.125456 -81.123456 (lat lon as decimal degrees)
506500 4100000 (UTM as easting northing)
1507854.2E 3941123.4S (WV state plane as easting northing)

553096.31, 4345667.60

UTM NAD83 Zone 17N

Convert zoom to point

output coordinates

39 2585589 -80 377808

Lat/lon NAD27

Google Maps

history (for copy/paste edit)

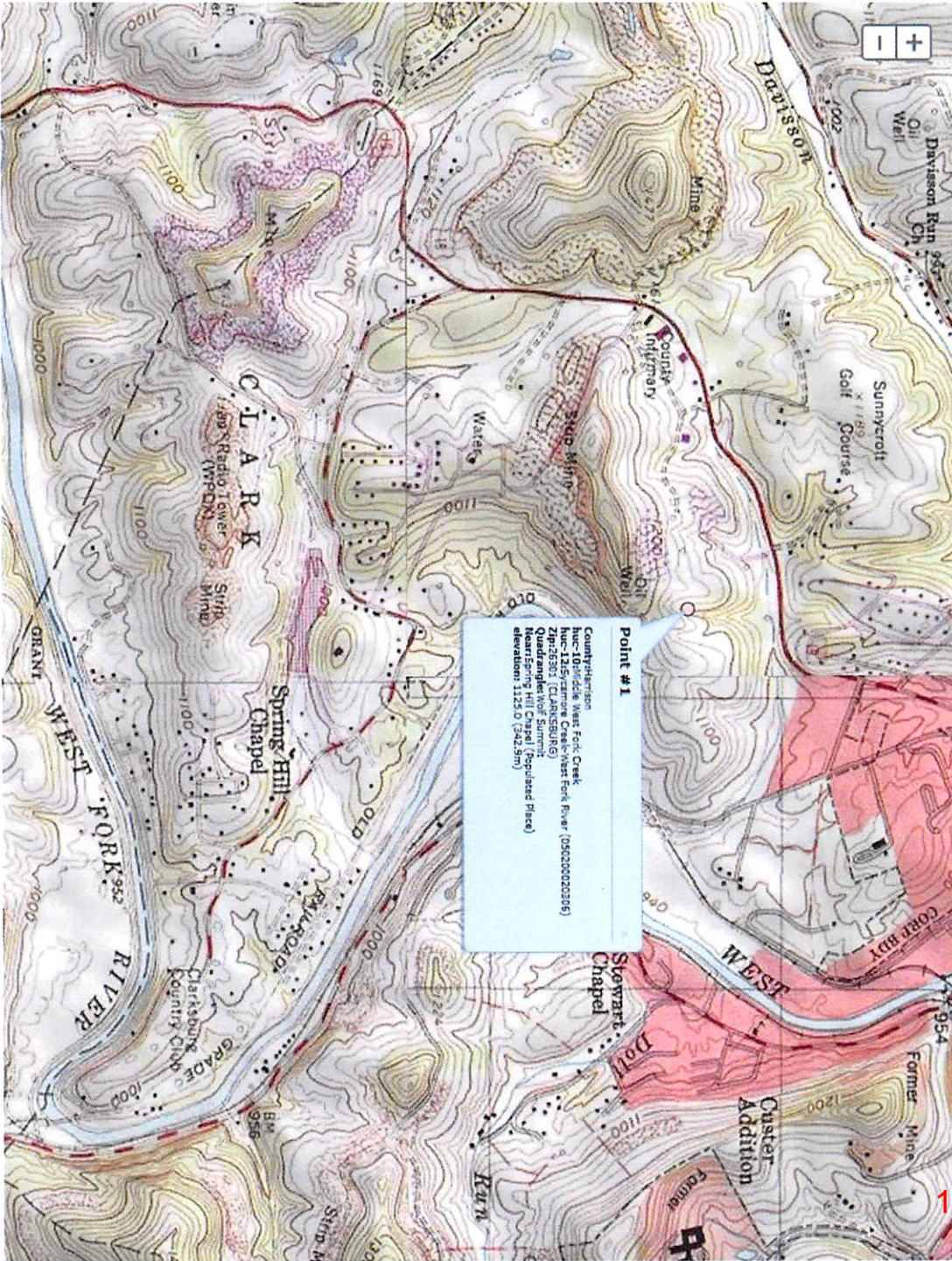
1 553096.3,4345667.6,UTM,NAD83,1983,39 2585589,-80,377808,LL,NAD27

notes about datum conversions

Datum conversions between all realizations of NAD27, NAD83, and NAD83 are not practical, or sometimes not strictly possible. Many of the issues are associated with the inability to convert between the original realization of NAD83 and more recent realizations. While error could be reduced by introducing an intermediate HARN conversion, separate transformations would have to be implemented for each state, which significantly increases the complexity of the application. Therefore datum conversions include a few built-in assumptions:

1. Conversion between NAD27 and NAD83: This converts between NAD27 and NAD83(1986) using the NADCON transformation. Never realization of NAD83, such as NAD83(CORS96) and NAD83(2011) can differ from NAD83(1986) by a meter or so. This conversion uses the East transformation NAD_1927_To_NAD_1983_NADCON.

[Link to previous version](#)



Oak Mount #6 47-03-04282

WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas

WELL LOCATION FORM: GPS

API: 47-033-04282N WELL NO.: #6

FARM NAME: Oak Mound

RESPONSIBLE PARTY NAME: Arsenal Resources

COUNTY: Harrison DISTRICT: Clark

QUADRANGLE: Wolf Summit 7.5

SURFACE OWNER: Laura Goff Davis

ROYALTY OWNER: Laura Goff Davis & "M" Trust of Diana Goff Cather

UTM GPS NORTHING: 553696.31

UTM GPS EASTING: 4345667.60 GPS ELEVATION: 1140

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]
Signature

Designated Agent, Sr. Director of Production

Title

11/10/17
Date

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