



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

Monday, August 12, 2024
WELL WORK PERMIT
Horizontal 6A / New Drill

ARSENAL RESOURCES LLC
6031 WALLACE RD EXT., SUITE 101

WEXFORD, PA 15090

Re: Permit approval for Laura Goff Davis 202
47-033-06039-00-00

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: Laura Goff Davis 202
Farm Name: Laura Goff Davis, Et Al
U.S. WELL NUMBER: 47-033-06039-00-00
Horizontal 6A New Drill
Date Issued: 8/12/2024

Promoting a healthy environment.

08/16/2024

PERMIT CONDITIONS

West Virginia Code § 22-6A-8(d) 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. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.
2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations*, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
7. 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. Also, 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.
11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

08/16/2024

4703306039

WW-6B
(04/15)

API NO. 47-033 -
OPERATOR WELL NO. 202
Well Pad Name: Laura Goff Davis

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Arsenal Resources 494519412 Harrison Clark Clarksburg
Operator ID County District Quadrangle

2) Operator's Well Number: 202 Well Pad Name: Laura Goff Davis

3) Farm Name/Surface Owner: Laura Goff Davis Public Road Access: Armory Road

4) Elevation, current ground: 1012.62 ft Elevation, proposed post-construction: 1007.35 ft

5) Well Type (a) Gas Oil Underground Storage
Other _____
(b) If Gas Shallow Deep
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale, Top - 7002 ft, Base - 7089 ft, Anticipated Thickness - 87ft, Associated Pressure - 0.5 psi/ft

8) Proposed Total Vertical Depth: 7075 ft

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 7075 ft

11) Proposed Horizontal Leg Length: 0

12) Approximate Fresh Water Strata Depths: 40', 121', 580'

13) Method to Determine Fresh Water Depths: Offset wells reporting water (033-01107, 033-04468, 033-04520)

14) Approximate Saltwater Depths: 1320'

15) Approximate Coal Seam Depths: WVGES - No Coal Mapped : 300ft Estimated

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JUL 12 2024

16) Approximate Depth to Possible Void (coal mine, karst, other): None Known

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No None Known

WV Department of Environmental Protection

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

Ky Weir

4703306039

WW-6B
(04/15)

API NO. 47- 033
OPERATOR WELL NO. 202
Well Pad Name: Laura Goff Davis

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	24	New	H-40	102.7	120	120 /	CTS /
Fresh Water	13.375	New	J-55	54.5	650	650 /	CTS
Coal							
Intermediate	9.625	New	J-55	40	2600	2600 /	CTS
Production	5.5	New	P-110	20	7075	7075 /	TOC @ 2450 /
Tubing							
Liners							

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	24	36			0	Class A/L, 3% CaCl ₂	1.2
Fresh Water	13.375	17.5	0.38	2,730	900	Class A/L, 3% CaCl ₂	1.2
Coal							
Intermediate	9.625	12.25	0.395	3,950	1500	Class A/L, 3% CaCl ₂	1.29
Production	5.5	8.5-8.75	0.361	15,920	11,500 /	Class A/L, Poz	1.29/1.34
Tubing					5,000		
Liners					N/A		

PACKERS

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JUL 12 2024

Kind:				
Sizes:				WV Department of Environmental Protection
Depths Set:				

Ky Willett

4703306039

WW-6B
(10/14)

API NO. 47- 033 -
OPERATOR WELL NO. 202
Well Pad Name: Laura Goff Davis

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

The well will be started with a conductor rig drilling a 36" hole to Conductor programmed depth then running 24" casing and circulate cement back to surface. The conductor rig will move out and the drilling rig will move in and rig up. The drilling rig will then spud a 17 1/2" hole and drill to fresh water casing (Surface) to the programmed depth, Run 13- 3/8" casing and cement to surface. The rig will continue drilling a 12- 1/4" intermediate hole to the programmed depth, run 9- 5/8" casing and cement to surface. The rig will then continue to drill an 8- 3/4" hole to a designed KOP. We will then start drilling the curve and lateral section to the programmed total measured depth, run 5 1/2" casing and cement according to the program.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

The well will be completed using a plug and perforation method and stimulated with a slickwater and sand slurry. The anticipated maximum rate will be 90 bpm and the maximum pressure will be 11,500 psi.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 17.13

22) Area to be disturbed for well pad only, less access road (acres): 6.54

23) Describe centralizer placement for each casing string:

24"- No centralizers 13 3/8" – one bow spring centralizer on every other joint 9 5/8" – one bow spring centralizer every third joint from TD to surface 5 1/2" – one semi rigid centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to 2,700'; there will be no centralizers from 2,700' to surface.

24) Describe all cement additives associated with each cement type:

24" will be circulated to surface. The 13 3/8" casing will be cemented to surface with Class A/L cement and no greater than 3% CaCl (calcium chloride). The 9 5/8" casing will be cemented to surface with Class A/L cement, & no greater than 3% calcium chloride. The 5 1/2" production string will be cemented back to 1,350' (+/- 150' above the casing shoe for the 9 5/8") with Class A/L Poz cement retarded (to extend pumpability) cellophane flaked for fluid loss, Bentonite gel as an extender (increased pumpability and fluid loss), a defoaming agent to decrease cement foaming during mixing to insure the cement is of proper weight to placement and possibly gypsum gas blocking additive to aid in blocking/gas migration (in combination with other additive mentioned here, helps cement achieve a "right angle" set) during the plastic phase of the cement set-up.

25) Proposed borehole conditioning procedures:

Top holes will be drilled with fresh water KOP. At KOP, the wellbore will be loaded with synthetic oil based mud, barite-weighted mud system with such properties as to build a filter-cake on the face of the bore-hole. This will provide lubricity as well as stabilizing the well bore. We will begin rotating the drill string and mud will be circulated upon reaching TD until no further cuttings are observed coming across the shaker screens. Once clean mud is circulated back to surface, we will pull three stands of drill pipe, load the hole, pull three strands and load the hole. The weight indicator on the rig will be monitored for any occurrences of drag and if any are noticed, we will re-run the previous stand of pipe pulled across and circulate 2x bottoms up while watching shakers for signs of cuttings. Once at the base curve, the string will be continuously rotated while pumping 2x bottoms up. We will pull three stands and fill the hole until we reach the vertical section of the well.

*Note: Attach additional sheets as needed.

Ry Wieland

Page 3 of 3

08/16/2024



Other Names:	LGD 202
Surface Location:	LAT 39.263552N x Long -80.365497 W
Bottom Hole Location:	LAT 39.263552N x Long -80.365497 W
Directional Plan Vs.	SDI #1
Total Depth (MD)	7,075

County:	Harrison		
State:	WV		
AFE #:	000000	API #:	0
RKB:	26		
Ground Level:	1,007		

Logs	Significant Formations (TVD)	Depth (ft) MD	Depth (ft) TVD	Hole Size	Casing and Cement	Mud	Directional & Surveys Drlg /Csg Point
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None	Section 1						
		120	120				

None	Section 2						
Possible CBL after cement job		650	650				

None	Section 3						
		2,600	2,600				

Wireline: None Mudloggers: KOP - TD KOP @ 7,075	Section 4						
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Formation	Depth (Tss)	Top (TVD)	Base (TVD)
Bakerstown Coal	0	0	0
Brush Creek Coal	0	0	0
Upper Freeport Coal	0	0	0
Lower Freeport Coal	0	0	0
Upper Kittanning Coal	0	0	0
Middle Kittanning Coal	0	0	0
Lower Kittanning Coal	0	0	0
Big Lime	0	0	0
Balltown Sandstone	0	0	0
Bradford Sandstone	0	0	0
Benson Sandstone	0	0	0
1st Elk Siltstone	0	0	0
Burkett Shale	0	0	0
Tully Limestone	0	0	0
Mahantango Shale	0	0	0
Marcellus Shale	0	0	0
Purcell Limestone	0	0	0
Lower Marcellus Shale	0	0	0
TARGET	0	0	0
Onondaga Limestone	0	0	0

MD	7,075
TVD	7075
Azimuth	160

24" 94# H-40 BTC	Vertical
------------------	----------

17 1/2" (PDC)	Floc Water
Cement	Class A, 3% CaCl2
Density/Yield/Volume (sx)	15.6 1.2 703
TOC	Surface

13 3/8" 54.5# J-55 LTC	Vertical
------------------------	----------

12 1/4" (PDC)	Floc Water
Cement (Lead/Tail)	Class A, 3% CaCl2 Class A, 3% CaCl2
Density/Yield/Volume (sx)	15.6 1.19 712
TOC	Surface

9 5/8" 40# J-55 LTC	Vertical
---------------------	----------

Mud Data	From	To
Floc Water	120	2600
Floc Water	2600	7,075
11.5- 12.0 ppg SOBM	7,075	7,075

Bit Data	From	To
17-1/2" & 12 1/4" PDC	120	2,600
8- 3/4" (PDC)	2,600	7,075
8- 1/2" (PDC)	7,075	7,075

Directional Data		
KOP	7,075	
Curve	9"/100 ft	
	Angle	89.5
	Azi	160
EOB	MD	7075
	TVD	7075

Cement	Production
Lead	Lead: 50-50 Poz/A
	13.8 1.33 TBD
Tail	Tail: Class A
	15 1.3 TBD
TOC	2450

5 1/2" 20# P-110HP Weld Tube GBCD

Revision 1
Date Last Revised: 3-Nov-23
Ross Schweitzer
Note: Not drawn to scale
Cement Outside Casing Seal Assembly in Annulus

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WV Department of Environmental Protection
08/16/2024

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WW-9
(4/16)

API Number 47 - 033 - _____
Operator's Well No. Laura Goff Davis 202

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) West Fork Quadrangle Clarksburg

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
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number Various)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

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Will closed loop system be used? If so, describe: Yes, the closed loop system will contain all of the drilling medium and drill cuttings on location and then be taken to a landfill

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical: Freshwater, Horizontal: Oil based mud

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

Additives to be used in drilling medium? Bentonite, soap & polymer sticks, soda ash, sodium bicarbonate, defoamer, base oil, emulsifiers, lime, barite

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

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

-Landfill or offsite name/permit number? Meadowfill Landfill/Waste Management, Westmoreland Sanitary Landfill, Apex Landfill

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, 2005, 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) Dave Boyer
Company Official Title Director of Geology & Development Planning

Commonwealth of Pennsylvania - Notary Seal
Annmarie O'Connor, Notary Public
Allegheny County
My commission expires March 17, 2026
Commission number 1013834
Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this 10th day of July, 2024

Annmarie O'Connor Notary Public

My commission expires 3/17/2026

Ky Weidert
08/16/2024

4703306039

Form WW-9

Operator's Well No. Laura Goff Davis 202

Arsenal Resources

Proposed Revegetation Treatment: Acres Disturbed 17.050 Prevegetation pH 6.8 average

Lime 2.67 Tons/acre or to correct to pH 6.4

Fertilizer type 10-20-20

Fertilizer amount 1000 lbs/acre

Mulch 3-4 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Orchard Grass	129
Rye	93
Clover	24
Timothy	45

Seed Type	lbs/acre
Orchard Grass	129
Rye	93
Clover	24
Timothy	45

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: Ky W. White

Comments:

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WV Department of
Environmental Protection

Title: Inspector

Date: 7/8/24

Field Reviewed? Yes No

08/16/2024



ARSENAL
R E S O U R C E S

SITE SAFETY PLAN

Laura Goff Davis PAD, WELL #202

911 Address:

**920 Armory Rd
Clarksburg, WV 26301**

Ky Willett

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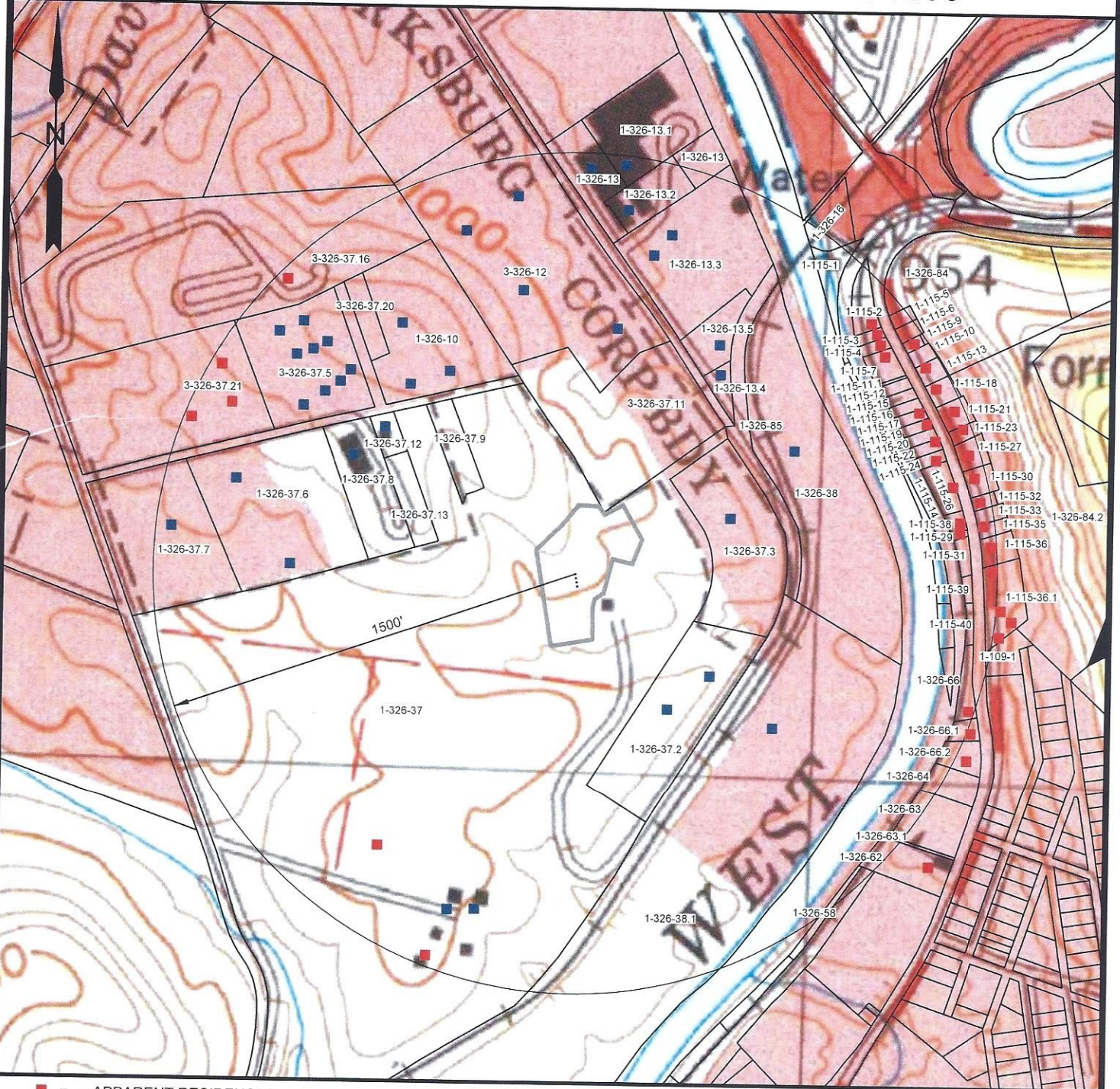
JUL 12 2024

WV Department of
Environmental Protection

ARSENAL RESOURCES 4703306039

LGD WELL PAD

POSSIBLE WATER PURVEYORS WITHIN 1500'



- = APPARENT RESIDENCES
- = APPARENT OTHER STRUCTURES



<p>SLS FROM THE GROUND UP</p> <p>12 Vanhorn Drive P.O. Box 150 Glenville, WV 26351 304.462.5634 1412 Kanawha Boulevard, East Charleston, WV 25301 304.346.3952 254 East Beckley Bypass Beckley, WV 25801 304.255.5296</p> <p style="text-align: center; font-size: small;">slswv.com</p>	TOPO SECTIONS:		OPERATOR:	
	CLARKSBURG 7.5' MOUNT CLARE 7.5' WOLF SUMMIT 7.5' WEST MILFORD 7.5'		PREPARED FOR:	
	COUNTY	DISTRICT	ARSENAL RESOURCES 6031 WALLACE RD. EXT. SUITE 101 WEXFORD, PA 15090	
	DRAWN BY	JOB NO.	DATE	SCALE
	C.P.M.	9423	11-06-2023	1" = 500'



4703306039

ARSENAL RESOURCES LGD WELL PAD PUBLIC WATER INTAKE MAP

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12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slswv.com

2022 AERIAL

OPERATOR:

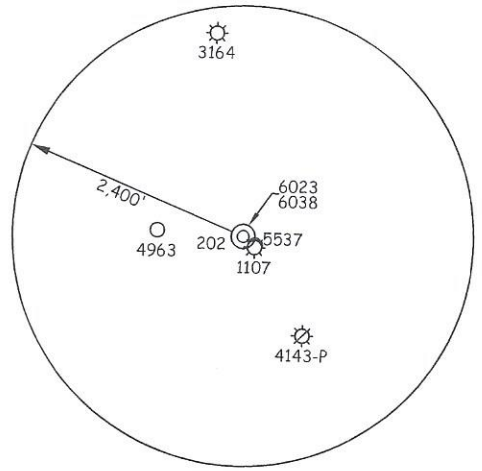
PREPARED FOR:
 ARSENAL RESOURCES
 6031 WALLACE RD. EXT.
 SUITE 101
 WEXFORD, PA 15090



COUNTY	DISTRICT	DATE	SCALE
HARRISON	CLARK	11-06-2023	1" - 2000'
DRAWN BY	JOB NO.		
C.P.M.	9423		

08/16/2024

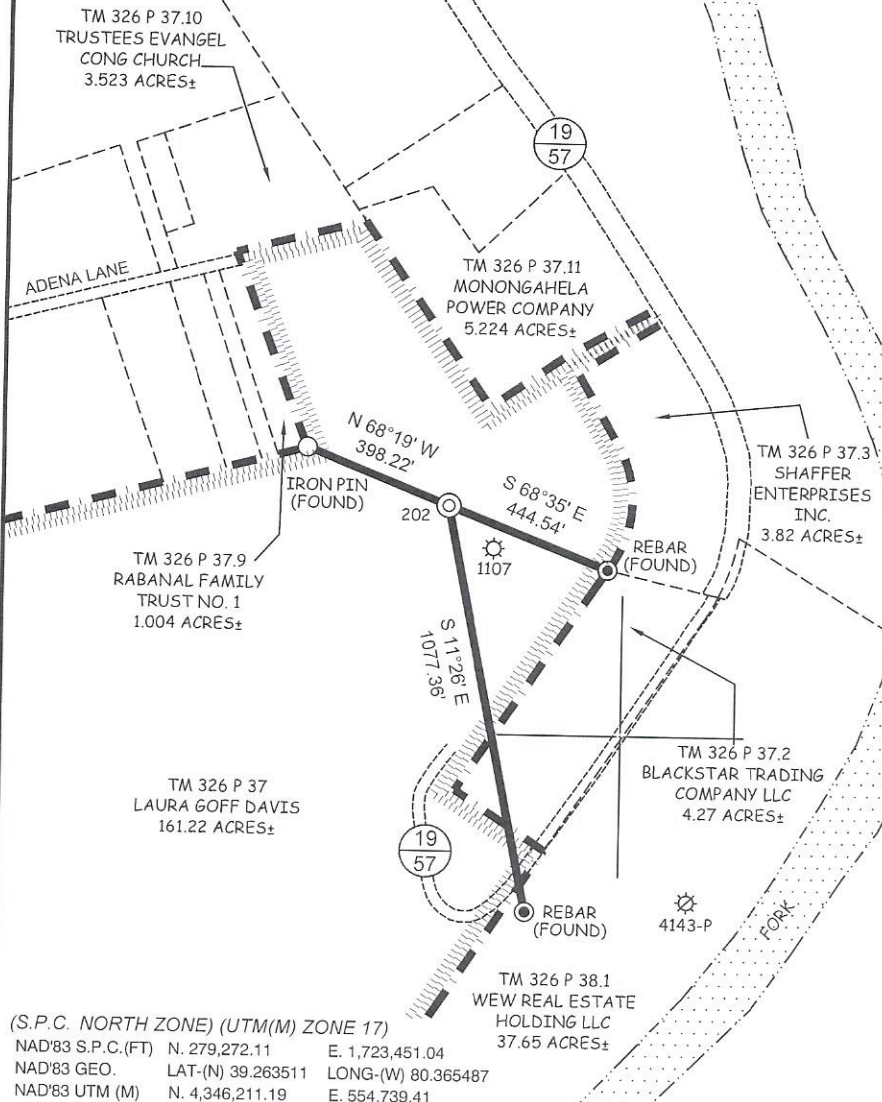
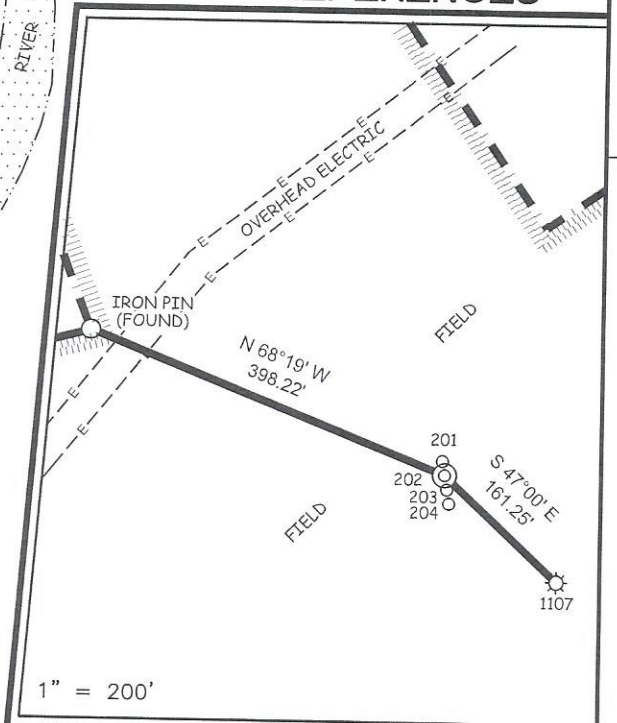
ARSENAL RESOURCES LLC LGD WELL PAD WELL 202



NOTES ON SURVEY

1. NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

REFERENCES



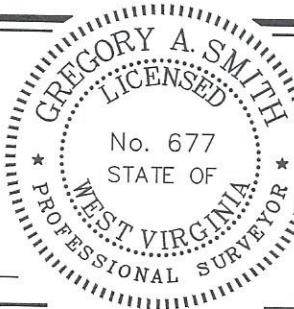
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17)
 NAD'83 S.P.C.(FT) N. 279,272.11 E. 1,723,451.04
 NAD'83 GEO. LAT-(N) 39.263511 LONG-(W) 80.365487
 NAD'83 UTM (M) N. 4,346,211.19 E. 554,739.41



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slsvw.com

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT 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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 DATE JULY 2, 2024
 REVISED _____, 20____
 OPERATORS WELL NO. 202
 API WELL NO. 47 - 033 - D6D39
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 9423P202V.dwg
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY: DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 500'

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

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: GROUND = 1,012.62' ELEVATION PROPOSED = 1,007.35' WATERSHED WEST FORK RIVER
 DISTRICT CLARK COUNTY HARRISON QUADRANGLE CLARKSBURG
 SURFACE OWNER LAURA GOFF DAVIS ACREAGE 161.22±
 ROYALTY OWNER LAURA GOFF DAVIS, ET AL ACREAGE 400±
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH 7,075±

WELL OPERATOR ARSENAL RESOURCES DESIGNATED AGENT ERIC MORRIS
 ADDRESS 6031 WALLACE RD. EXT. SUITE 101 WEXFORD, PA 15090 ADDRESS 633 WEST MAIN STREET BRIDGEPORT, WV 26330

COUNTY NAME
 PERMIT

08/16/2024

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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See attached

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Office of Oil and Gas

JUL 12 2024

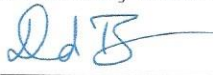
WV Department of
Environmental Protection

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: 
 By: Dave Boyer
 Its: Director of Geology & Development Planning

Attachment to WW-6A1, Laura Goff Davis 202

Letter Designation/Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
1 (00003556)	DIANA GOFF CATHER AND H DOTSON CATHER HER HUSBAND AND LAURA GOFF DAVIS	Petroleum Development Corporation	12.50%	1007 / 714	1622
	Petroleum Development Corporation	PDC Mountaineer LLC		1440 / 364	
	PDC Mountaineer LLC	River Ridge Energy LLC		59 / 1260	

4703306039

Agreement to Drill, Complete and Operate Oil & Gas Wells

This Agreement to Drill, Complete and Operate Oil & Gas Wells (this "Agreement"), by and among Arsenal Resources LLC, a West Virginia limited liability company ("Arsenal"), River Ridge Energy, LLC, a Delaware limited liability company ("River Ridge"), and River Ridge Energy, Holdings, LLC, a Delaware limited liability company ("River Ridge Holdings"), is effective as of March 1, 2017. (the "Effective Date") and sets forth the terms pursuant to which Arsenal will drill, complete and operate the Wells (as defined below) on behalf of River Ridge and River Ridge Holdings. Arsenal, River Ridge, and River Ridge Holdings are each a "Party" and are collectively the "Parties". In consideration of the foregoing and the respective agreements hereinafter set forth and the mutual benefits to be derived therefrom, the Parties, intending to be legally bound, hereby agree as follows:

1. **Term:** This Agreement is effective from the Effective Date until terminated by Arsenal on the one hand or River Ridge and River Ridge Holdings on the other hand with 30 days' written notice to the other Party or Parties, as applicable (the "Term").
2. **Authorization to Operate:** River Ridge and River Holdings authorize Arsenal to undertake and perform, on River Ridge and River Ridge Holdings behalf, all operations, including without limitation permit applications, well pad preparation, drilling and completing wells, and marketing gas, oil and other hydrocarbons therefrom with respect to all oil and gas wells to be drilled on oil and gas leasehold acreage held by River Ridge or River Ridge Holdings. River Ridge, River Ridge Holdings and Arsenal are affiliates with a common parent. Arsenal was formed to operate oil and gas leasehold acreage held by River Ridge, River Ridge Holdings and certain other affiliates. Arsenal agrees that it shall, in a good and workmanlike manner and in accordance with industry standards as they prevail in the area, drill, complete and operate oil and gas wells on leasehold acreage owned by River Ridge or River Ridge Holdings from time to time as directed by River Ridge or River Ridge Holdings (collectively, the "Wells").
3. **No Third Party Beneficiary:** This Agreement is for the benefit of the Parties and is not for the benefit of any third party.
4. **Counterparts:** This Agreement may be simultaneously executed in several counterparts and via facsimile or similar electronic transmittal, each of which shall be deemed to be an original and taken together shall constitute one and the same instrument.

[Signature Page Follows]

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IN WITNESS WHEREOF, Arsenal, River Ridge, and River Ridge Holdings have caused their duly authorized representatives to execute this Agreement as of the Effective Date.

ARSENAL RESOURCES LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE ENERGY, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

RIVER RIDGE HOLDINGS, LLC

By: Joel E. Symonds
Name: Joel E. Symonds
Title: Vice President - Land

4703306039



People Powered. Asset Strong.

July 8, 2024

Mr. James Martin, Chief of Oil and Gas
West Virginia Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

RE: Ownership of Roadways; Laura Goff Davis

Dear Mr. Martin:

In preparation of filing a permit application for the above referenced well, Arsenal Resources has conducted a thorough title examination in order to determine the ownership of the oil and gas underlying roadways crossed by the proposed well(s). If owned in fee by the West Virginia Department of Transportation, Division of Highways, a lease covering its interest in the roadway or roadways has been properly obtained and provided in the application materials. If a right of way only, the oil and gas underlying such roadway or roadways is owned by the adjoining landowners and is also covered by the leaseholds provided in the application materials.

If you have any questions, concerns or need further information, please do not hesitate to contact me at the address listed below.

Sincerely,

A handwritten signature in cursive script that reads "Jon Sheldon".

Jon Sheldon
Chief Operating Officer

6031 Wallace Road Ext, Suite 300
Wexford, PA 15090
P: 724-940-1100
F: 800-428-0981
www.arsenalresources.com

08/16/2024

4703306039

WW-PN
(11-18-2015)

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Exponent Telegram

Public Notice Date: 9-29-2023 and 10-6-2023

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: Arsenal Resources **Well Number:** Laura Goff Davis 201,202,203,204

Address: 6031 Wallace Road Extension, Suite 101
Wexford, PA 15090

Business Conducted: Natural gas production.

Location –

State: West Virginia County: Harrison
District: Clark Quadrangle: Clarksburg
UTM Coordinate NAD83 Northing: 4346215.68, 4346211.19, 4346206.69, 4346202.20
UTM coordinate NAD83 Easting: 554738.58, 554739.41, 554740.24, 554741.07
Watershed: West Fork River

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Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

08/16/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 07/08/2024

API No. 47- 033 - _____
Operator's Well No. 202 _____
Well Pad Name: Laura Goff Davis _____

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>554746.04</u>
County:	<u>Harrison</u>		Northing:	<u>4346221.35</u>
District:	<u>Clark</u>	Public Road Access:		<u>Armory Road</u>
Quadrangle:	<u>Clarksburg</u>	Generally used farm name:		<u>Laura Goff Davis</u>
Watershed:	<u>West Fork River</u>			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

<p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p>	<p style="text-align: center;">OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p>
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Required Attachments:

The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been notified as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

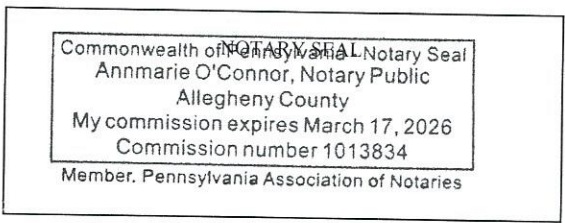
08/16/2024

Certification of Notice is hereby given:

THEREFORE, I Dave Boyer, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, 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 and imprisonment.

Well Operator: Arsenal Resources
By: Dave Boyer
Its: Director of Geology and Development Planning
Telephone: 724-940-1100

Address: 6031 Wallace Road Extension, Suite 300
Wexford, PA 15090
Facsimile: _____
Email: dboyer@arsenalresources.com



Subscribed and sworn before me this 10th day of July 2024
Annmarie O'Connor Notary Public
My Commission Expires 3/17/2026

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

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STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 07/08/2024 **Date Permit Application Filed:** 07/08/2024

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

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SURFACE OWNER(s)
Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26302
Name: _____
Address: _____

COAL OWNER OR LESSEE
Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26302

JUL 12 2024

COAL OPERATOR
Name: _____
Address: _____

WV Department of
Environmental Protection

SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Blackstar Trading Company LLC
Address: 716 Armory Rd
Clarksburg, WV 26302
Name: Monongahela Power Company
Address: 800 Cabin Hill Dr
Greensburg PA 15601

SURFACE OWNER OF WATER WELL
AND/OR WATER PURVEYOR(s)
Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26302

SURFACE OWNER(s) (Impoundments or Pits)
Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name: _____
Address: _____

*Please attach additional forms if necessary

4703306039

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 7/10/2024 **Date Permit Application Filed:** 7/10/2024

Notice of:

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

ADDITIONAL SURFACE OWNER(s)

Name: _____

Address: _____

Name: _____

Address: _____

Name: _____

Address: _____

ADDITIONAL COAL OWNER OR LESSEE

Name: Goff Energy LLC ✓

Address: 624 Riverside Dr

Annapolis MD 21403-3828

ADDITIONAL COAL OWNER OR LESSEE

Name: Waldomore Interests LLC

Address: PO Box 66505

Houston TX 77266-6505

ADDITIONAL COAL OWNER OR LESSEE

Name: Zero Hollow LLC ✓

Address: 1935 Davisson Run Rd

Clarksburg WV 26301-7648

ADDITIONAL MINERAL OWNER(s)

Name: Goff Energy LLC ✓

Address: 624 Riverside Dr

Annapolis MD 21403-3828

*please attach additional forms if necessary

ADDITIONAL MINERAL OWNER(s)

Name: Waldomore Interests LLC ✓

Address: PO Box 66505

Houston TX 77266-6505

*please attach additional forms if necessary

ADDITIONAL MINERAL OWNER(s)

Name: Zero Hollow LLC ✓

Address: 1935 Davisson Run Rd

Clarksburg WV 26301-7648

*please attach additional forms if necessary

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Environmental Protection

08/16/2024

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

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Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

WV Department of Environmental Protection

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

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Environmental Protection

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

RECEIVED
Office of Oil and Gas

JUL 12 2024

WV Department of
Environmental Protection

08/16/2024

Notice is hereby given by:

Well Operator: Arsenal Resources

Telephone: 724-940-1100

Email: dboyer@arsenalresources.com



Address: 6031 Wallace Rd Ext Suite 101

Wexford PA 15090

Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.

Commonwealth of Pennsylvania - Notary Seal
Annmarie O'Connor, Notary Public
Allegheny County
My commission expires March 17, 2026
Commission number 1013834
Member, Pennsylvania Association of Notaries

Subscribed and sworn before me this 10th day of July 2024

Annmarie O'Connor Notary Public

My Commission Expires 3/17/2026

RECEIVED
Office of Oil and Gas

JUL 12 2024

WV Department of
Environmental Protection

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 10/30/2023 **Date of Planned Entry:** 11/6/2023

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
 REGISTERED MAIL
 METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26302

Name: Blackstar Trading Company LLC
Address: 716 Armory Rd
Clarksburg, WV 26302

Name: Monongahela Power Company
Address: 800 Cabin Hill Dr
Greensburg PA 15601

COAL OWNER OR LESSEE

Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26301

RECEIVED
Office of Oil and Gas

MINERAL OWNER(s)

Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26301

JUL 12 2024
WV Department of
Environmental Protection

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State: <u>West Virginia</u>	Approx. Latitude & Longitude: <u>39.263552, 80.365497</u>
County: <u>Harrison</u>	Public Road Access: <u>Armory Road</u>
District: <u>Clark</u>	Watershed: <u>West Fork River</u>
Quadrangle: <u>Clarksburg</u>	Generally used farm name: <u>Goff</u>

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator: <u>Arsenal Resources</u>	Address: <u>6031 Wallace Rd Ext Suite 101</u>
Telephone: <u>724-940-1100</u>	<u>Wexford PA 15090</u>
Email: <u>dboyer@arsenalresources.com</u>	Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

08/16/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 10/30/2023 **Date of Planned Entry:** 11/6/2023

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

ADDITIONAL SURFACE OWNER(s)
 Name: _____
 Address: _____

 Name: _____
 Address: _____

 Name: _____
 Address: _____

ADDITIONAL COAL OWNER OR LESSEE
 Name: Goff Energy LLC
 Address: 624 Riverside Dr
Annapolis MD 21403-3828

ADDITIONAL COAL OWNER OR LESSEE
 Name: Waldomore Interests LLC
 Address: PO Box 66505
Houston TX 77266-6505

ADDITIONAL COAL OWNER OR LESSEE
 Name: Zero Hollow LLC
 Address: 1935 Davisson Run Rd
Clarksburg WV 26301-7648

ADDITIONAL MINERAL OWNER(s)
 Name: Goff Energy LLC
 Address: 624 Riverside Dr
Annapolis MD 21403-3828

*please attach additional forms if necessary

RECEIVED
Office of Oil and Gas

JUL 12 2024

ADDITIONAL MINERAL OWNER(s)
 Name: Waldomore Interests LLC
 Address: PO Box 66505
Houston TX 77266-6505

WV Department of
Environmental Protection

*please attach additional forms if necessary

ADDITIONAL MINERAL OWNER(s)
 Name: Zero Hollow LLC
 Address: 1935 Davisson Run Rd
Clarksburg WV 26301-7648

*please attach additional forms if necessary

08/16/2024

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 07/10/2024 **Date Permit Application Filed:** 07/10/2024

RECEIVED
Office of Oil and Gas

JUL 12 2024

WV Department of
Environmental Protection

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Laura Goff Davis, et al
Address: PO Box 707
Clarksburg, WV 26302

Name: Blackstar Trading Company LLC Monongahela Power Company
Address: 716 Armory Rd 800 Cabin Hill Dr
Clarksburg, WV 26302 Greensburg PA 15601

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia UTM NAD 83 Easting: 554746.04
County: Harrison Northing: 4346221.35
District: Clark Public Road Access: Armory Road
Quadrangle: Clarksburg Generally used farm name: Laura Goff Davis
Watershed: West Fork River

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Arsenal Resources
Telephone: 724-940-1100
Email: dboyer@arsenalresources.com

Address: 6031 Wallace Road Extension, Suite 300
Wexford, PA 15090
Facsimile: _____

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as 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 or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

FRACTURING ADDITIVES			
	PURPOSE	TRADE NAME	CAS #
Additive #1:	Friction Reducer	WFRA-405	Proprietary
Additive #2:	Scale Inhibitor	SI-1000	7440-21-3
Additive #3:	Biocide	BIOCLEAR 2000	25314-61-8
Additive #4:	Gelling Agent	LGC-15	9000-30-0
Additive #5:	Corrosion Inhibitor	AI-300	111-76-2
Additive #6:	Gel Breaker	AP-One	7727-54-0
Additive #7:	Acid	HCl - 7.5%	7647-01-0

RECEIVED
Office of Oil and Gas

JUL 12 2024

WV Department of
Environmental Protection

08/16/2024



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Alanna J. Keller, P.E.
Deputy Secretary of Transportation
Deputy Commissioner of Highways

Jimmy Wriston, P. E.
Secretary of Transportation
Commissioner of Highways

November 17, 2023

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Laura Goff Davis Pad, Harrison County

Laura Goff Davis 202 Well Site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #04-2023-0600 which has been issued to Arsenal Resources, LLC for access to the State Road for a well site located off Harrison County Route 19/57 SLS MP 0.97.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated March 6, 2023. This letter is valid for permitting purposes for one year from the date of this letter.

Very Truly Yours,

A handwritten signature in purple ink that reads "Gary K. Clayton".

Gary K. Clayton, P.E.
Regional Operations Engineer
Central Office O&G Coordinator

Cc: Ross Schweitzer
Arsenal Resources, LLC
OM, D-4
File

PROJECT INFORMATION

SURFACE OWNERS
 LAURA GOFF DAVIS
 IM 208 PAR 27
 CLARK DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA: 15.22 ACRES
 DISTURBANCE AREA: 15.20 ACRES

BLACKSTAR TRADING COMPANY LLC
 IM 208 PAR 27.2
 CLARK DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA: 4.27 ACRES
 DISTURBANCE AREA: 1.97 ACRES

MONIGAMELA GIVER COMPANY
 IM 208 PAR 27.11
 CLARKSBURG CORPORATION DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA: 6.224 ACRES
 DISTURBANCE AREA: 0.24 ACRES

SITE LOCATION
 THE LGD WELL PAD IS LOCATED ON THE NORTH SIDE OF THE WEST FORK RIVER, WEST OF HARRISON COUNTY ROUTE 1957 AND HAVING AN ENTRANCE OFF COUNTY ROUTE 1957 THAT IS APPROXIMATELY 0.5 MILES SOUTH OF THE INTERSECTION OF U.S. ROUTE 19.

LOCATION COORDINATES

WELL PAD ACCESS ROAD #1
 LATITUDE: 39.260497 LONGITUDE: -80.356390 (NAD 83)

WELL PAD ACCESS ROAD #2
 LATITUDE: 39.264428 LONGITUDE: -80.353593 (NAD 83)

CENTER OF WELL PAD
 LATITUDE: 39.263810 LONGITUDE: -80.356413 (NAD 83)

CENTER OF AST
 LATITUDE: 39.261648 LONGITUDE: -80.350086 (NAD 83)

AST ACCESS ROAD
 LATITUDE: 39.262727 LONGITUDE: -80.363211 (NAD 83)

STOCKPILE #2 ACCESS ROAD
 LATITUDE: 39.261315 LONGITUDE: -80.360567 (NAD 83)

SITE DISTURBANCE COMPUTATIONS

WELL PAD AREA = 6.54 ± ACRES
 ACCESS ROADS = 5.44 ± ACRES
 AST AREA = 2.69 ± ACRES
 BURIED ELECTRIC RELOCATION = 0.24 ± ACRES
 EXCESS TOPSOIL STOCKPILE AREAS = 1.76 ± ACRES
 TOTAL SITE DISTURBANCE = 17.57 ± ACRES
 TOTAL CLEARING AREA = 4.15 ± ACRES

ENTRANCE PERMIT

MINERAL RESOURCES WILL OBTAIN ENCROACHMENT PERMITS (FORM M4-109) FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT. DEMO. TICKET #B 236 418913, 297 19670, AND 243729593. IN ADDITION MISS UTILITY WILL BE CONTACTED PRIOR TO START OF THE PROJECT.

FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT IS NOT LOCATED WITHIN DELINEATED FLOOD HAZARD ZONE PER FLOOD INSURANCE RATE MAP NUMBER 44329D193B DATED OCTOBER 2, 2011.

GEOTECHNICAL NOTE

A SUBSURFACE INVESTIGATION WAS NOT PERFORMED DURING THE INITIAL DESIGN. A SUBSURFACE INVESTIGATION WILL BE PERFORMED AT A LATER DATE.

ENVIRONMENTAL NOTE

A WETLAND/STREAM DELINEATION WAS PERFORMED ON 06-26-2023 AND 10-14-2023 BY MLS/STAN ECOLOGY TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS (USACE). THIS DELINEATION DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE LAND/WATER LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE. IT IS STRONGLY RECOMMENDED THAT THE USACE BE CONSULTED IN AN EFFORT TO OBTAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGINEERING OR CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S. INCLUDING WETLAND FILL AND STREAM CROSSINGS.

RESTRICTIONS NOTES:

- THERE IS ONE (1) WETLAND WITHIN 100' OF THE WELL PAD LOD. (WAVER TO BE OBTAINED).
- THERE ARE TWO (2) PERENNIAL STREAM IMPACTS WITHIN THE TOTAL SITE LOD.
- THERE IS ONE (1) PERENNIAL STREAM IMPACT WITHIN THE TOTAL SITE LOD.
- THERE IS ONE (1) PERENNIAL STREAM IMPACT WITHIN 50' FEET OF THE WELL PAD LOD.
- THERE ARE NO NATURALLY PRODUCTIONS TROUT STREAMS WITHIN 200 FEET OF THE WELL PAD AND LOD.
- THERE ARE NO CIRCUMFERENTIAL FIRE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 200 FEET OF THE WELL PAD AND LOD.
- THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 200 FEET OF THE WELLS BEING PROPOSED.
- THERE ARE NO DWELLINGS WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.
- THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 625 FEET OF THE CENTER OF THE WELL PAD.

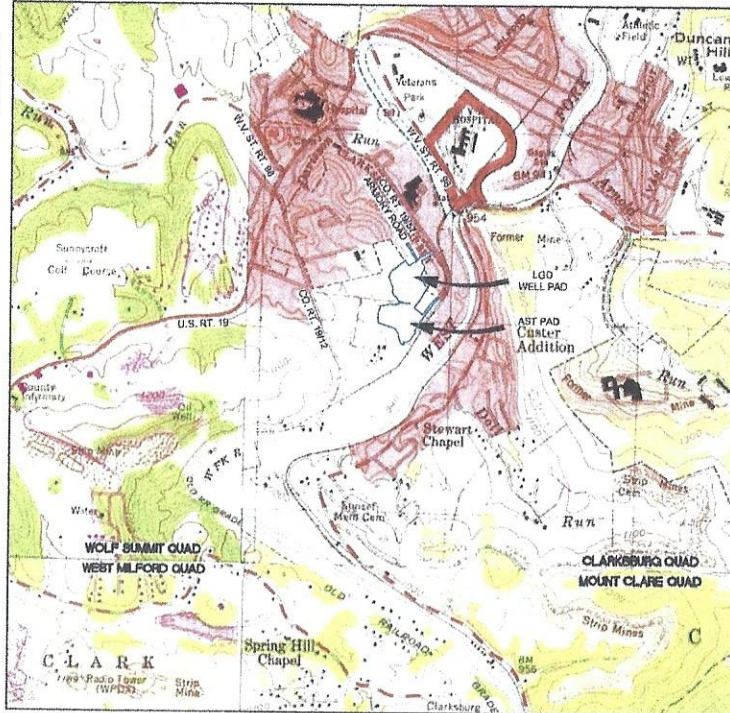
ONE NORTH (NAD83) AND SPANISH BLANKS (NAD83) ESTABLISHED BY TOP SURVEY CONVEY COMPANY.

LGD WELL PAD FINAL SITE PLAN

ARSENAL RESOURCES

PROPOSED WELL NO.'S 201, 202, 203, & 204

SITUATE ON THE WATERS OF WEST FORK RIVER
 IN CLARK DISTRICT, HARRISON COUNTY, WEST VIRGINIA.



Well No.	Start Date	End Date	Area (Acres)	Volume (Cubic Yards)	Notes
201	12/28/23	12/28/23	1.00	1000	Well 201
202	12/28/23	12/28/23	1.00	1000	Well 202
203	12/28/23	12/28/23	1.00	1000	Well 203
204	12/28/23	12/28/23	1.00	1000	Well 204

GENERAL DESCRIPTION
 THE LGD WELL PAD IS BEING CONSTRUCTED TO ADD IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

LIST OF DRAWINGS

- COVER SHEET
- 2-4 NOTES
- UTILITY SHEET
- OVERALL SITE PLAN
- WELL PAD, STOCKPILE #1, & WELL PAD ACCESS ROAD #2
- WELL PAD ACCESS ROAD #1 & STOCKPILE #2
- WELL PAD ACCESS ROAD #2 AND BURIED ELECTRIC RELOCATION
- WELL PAD ACCESS ROAD #1 PROFILE
- AST ACCESS ROAD PROFILE
- WELL PAD ACCESS ROAD #1 SECTIONS
- WELL PAD ACCESS ROAD #2 SECTIONS
- STOCKPILE #2 ACCESS ROAD PROFILE AND SECTIONS
- 17AST PAD ACCESS ROAD SECTIONS
- 1610 CULVERT & TRENCH DRAIN DETAILS
- 2011 WELL PAD PROFILES
- 2213 STOCKPILES PROFILES
- 2418T PAD PROFILES
- 2508 RECLAMATION PLAN
- 2703 CONSTRUCTION DETAILS

LEGEND	
EXISTING	PROPOSED
INDEX CONTOUR	INDEX CONTOUR
INTERMEDIATE CONTOUR	INTERMEDIATE CONTOUR
BOUNDARY LINE	CUT
ROAD EDGE OF GRAVELEBURT	FILL
ROAD EDGE OF PAVEMENT	CUT/FILL LINE
ROAD CENTERLINE	LIMITS OF DISTURBANCE
CULVERT	WELL HEAD
FENCELINE	4" PVC DRAIN PIPE
GATE	BUMP DRAIN
OVERHEAD ELECTRIC	CONTAINMENT BERM
POWER POLE	4" PVC TIE KEY DRAIN & OUTLET
TELEPHONE LINE	PROTECTION
GASLINE	18" VAD DITCH
WATERLINE	ROAD EDGE OF GRAVEL
TRAILING	ROAD CENTERLINE
DELINEATED STREAM	PAD UNDERDRAIN
DELINEATED WETLAND	DITCH RELIEF CULVERT (D&C)
BUILDING	18" VAD OUTLET PROTECTION
100' WETLAND/STREAM BUFFER	12" COMPOST FILTER SOCK
ALLIANCE AREA OF INTEREST	18" COMPOST FILTER SOCK
	18" TRIPLE STACK COMPOST FILTER SOCK
	GRAVEL SAFETY FENCE
	PROFILE LINE
	SECTION GRID INDEX
	PROPOSED GRADE
	EXISTING GRADE
	BURIED ELEVATION
	SUBGRADE SLOPE
	FINISH GRADE ELEVATION
	BLIND DITCH
	SEW BLOCKS
	GUARD RAIL

OPERATOR
 ARSENAL RESOURCES
 631 WALLACE ROAD EXT.
 SUITE 201
 WESTFORD, PA 16060
 PHONE: (724) 940-1137

ENGINEER/SURVEYOR
 SLS LAND & ENERGY DEVELOPMENT
 12 VANHORN DRIVE
 P.O. BOX 150
 GLENVILLE, WV 26034
 PHONE: (204) 482-5654

ARSENAL RESOURCES

SLS
 FOR THE BESTING OF

COVER SHEET
 LGD WELL PAD
 FINAL SITE PLAN
 CLARK DISTRICT
 HARRISON COUNTY, WV

DATE: 11-06-2023
 SCALE: AS SHOWN
 DESIGNED BY: C.P.M.
 FILE NO.: 0423
 SHEET 1 OF 20
 REV.

Ky Willett 11/8/23

PROJECT INFORMATION

SURFACE OWNERS
 LAURA GOFF DAVIS
 IM 326 PAR 37
 CLARK DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA 161.22 ACRES
 DISTURBANCE AREA 15.36 ACRES

BLACKSTAR TRADING COMPANY LLC
 IM 326 PAR 37.2
 CLARK DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA 4.27 ACRES
 DISTURBANCE AREA 1.97 ACRES

MONONGAHELI POWER COMPANY
 IM 326 PAR 37.11
 CLARKSBURG CORPORATION DISTRICT
 HARRISON COUNTY, WV
 TOTAL PROPERTY AREA 5.224 ACRES
 DISTURBANCE AREA 0.24 ACRES

SITE LOCATION
 THE LOD WELL PAD IS LOCATED ON THE NORTH SIDE OF THE WEST FORK RIVER, WEST OF HARRISON COUNTY ROUTE 1937 AND HAVING AN ENTRANCE OFF COUNTY ROUTE 1937 THAT IS APPROXIMATELY 0.9 MILES SOUTH OF THE INTERSECTION OF U.S. ROUTE 19

LOCATION COORDINATES

WELL PAD ACCESS ROAD .1
 LATITUDE: 39.260597 LONGITUDE: -80.363595 NAD 83:

WELL PAD ACCESS ROAD .2
 LATITUDE: 39.264926 LONGITUDE: -80.363563 NAD 83:

CENTER OF WELL PAD
 LATITUDE: 39.263610 LONGITUDE: -80.365413 NAD 83:

CENTER OF AST
 LATITUDE: 39.261545 LONGITUDE: -80.365086 NAD 83:

AST ACCESS ROAD
 LATITUDE: 39.262727 LONGITUDE: -80.363211 NAD 83:

STOCKPILE .2 ACCESS ROAD
 LATITUDE: 39.261315 LONGITUDE: -80.365687 NAD 83:

SITE DISTURBANCE COMPUTATIONS

WELL PAD AREA	= 6.54 ± ACRES
ACCESS ROADS	= 7.44 ± ACRES
AST AREA	= 2.09 ± ACRES
BURIED ELECTRIC RELOCATION	= 0.24 ± ACRES
EXCESS TOPSOIL, STOCKPILE AREAS	= 5.76 ± ACRES
STORAGE AREAS	= 17.57 ± ACRES
TOTAL SITE DISTURBANCE	= 47.64 ± ACRES
TREE CLEARING AREA	= 4.15 ± ACRES

ENTRANCE PERMIT

ARSENAL RESOURCES WILL OBTAIN ENCROACHMENT PERMITS FORM MV-109 FROM THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS, PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

MISS UTILITY STATEMENT

MISS UTILITY OF WEST VIRGINIA WAS NOTIFIED FOR THE LOCATING OF UTILITIES PRIOR TO THIS PROJECT DESIGN. TICKET # 2022143913, 2027158870 AND 202725858.

FLOODPLAIN NOTE

THE PROPOSED LIMITS OF DISTURBANCE FOR THIS PROJECT IS NOT LOCATED WITHIN DELINEATED FLOOD HAZARD ZONE PER FLOOD INSURANCE RATE MAP NUMBER 54033C01630 DATED OCTOBER 2, 2012

GEOTECHNICAL NOTE

A SUBSURFACE INVESTIGATION WAS NOT PERFORMED DURING THE INITIAL DESIGN. A SUBSURFACE INVESTIGATION WILL BE PERFORMED AT A LATER DATE.

ENVIRONMENTAL NOTE

A WETLAND STREAM DELINEATION WAS PERFORMED ON 09-06-2023 AND 10-12-2023 BY ALL STAR ECOLOGY TO REVIEW THE SITE FOR WATERS AND WETLANDS THAT ARE MOST LIKELY WITHIN THE REGULATORY PURVIEW OF THE U.S. ARMY CORPS OF ENGINEERS (USACE). THIS DELINEATION DOES NOT, IN ANY WAY, REPRESENT A JURISDICTIONAL DETERMINATION OF THE UPSTREAM LIMITS OF WATERS AND WETLANDS WHICH MAY BE REGULATED BY THE USACE. IT IS STRONGLY RECOMMENDED THAT THE USACE BE CONSULTED IN AN EFFORT TO GAIN WRITTEN CONFIRMATION OF THE DELINEATION DESCRIBED BY THIS REPORT PRIOR TO ENGAGING IN CONSTRUCTION ON THE PROPERTY DESCRIBED HEREIN. THE DEVELOPER SHALL OBTAIN THE APPROPRIATE PERMITS FROM THE FEDERAL AND/OR STATE REGULATORY AGENCIES PRIOR TO ANY PROPOSED IMPACTS TO WATERS OF THE U.S. INCLUDING WETLAND FILLS AND STREAM CROSSINGS.

RESTRICTIONS NOTES

1. THERE IS ONE (1) WETLAND WITHIN 100 FEET OF THE WELL PAD LOD. WAIVER TO BE OBTAINED.
2. THERE ARE TWO (2) EPHEMERAL STREAM IMPACTS WITHIN THE TOTAL SITE LOD.
3. THERE IS ONE (1) INTERMITTENT STREAM IMPACT WITHIN THE TOTAL SITE LOD.
4. THERE IS ONE (1) PERENNIAL STREAM IMPACT WITHIN 100 FEET OF THE WELL PAD LOD.
5. THERE ARE NO NATURALLY PRODUCING TROUT STREAMS WITHIN 300 FEET OF THE WELL PAD AND LOD.
6. THERE ARE NO GROUNDWATER INTAKE OR PUBLIC WATER SUPPLY FACILITIES WITHIN 1000 FEET OF THE WELL PAD AND LOD.
7. THERE ARE NO APPARENT EXISTING WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF THE WELLS BEING DRILLED.
8. THERE ARE NO DWELLINGS WITHIN 825 FEET OF THE CENTER OF THE WELL PAD.
9. THERE ARE NO AGRICULTURAL BUILDINGS LARGER THAN 2,500 SQUARE FEET WITHIN 825 FEET OF THE CENTER OF THE WELL PAD.

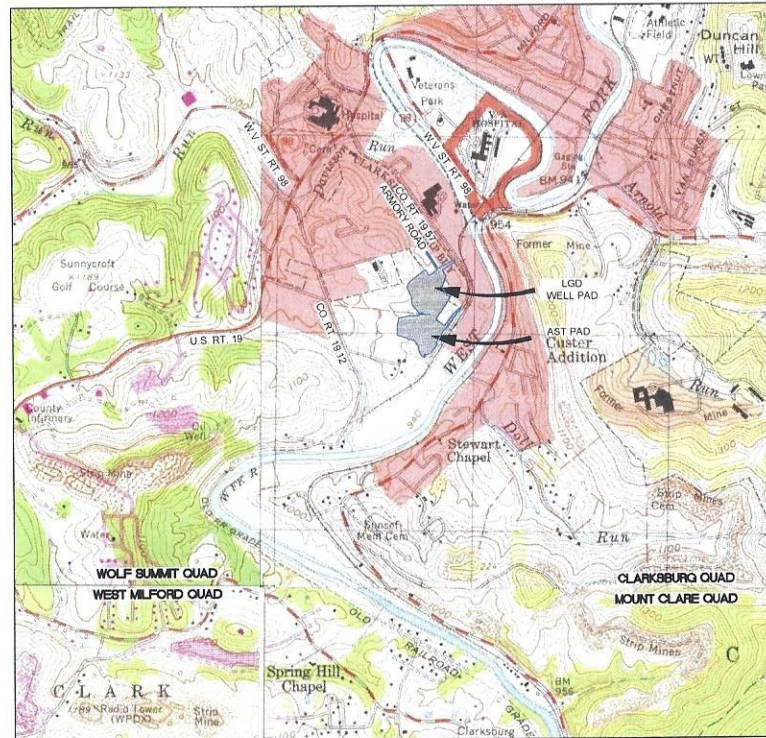
GRID NORTH, NAD 83 AND SURVEYED ELEVATIONS (MVD) ESTABLISHED BY 2008 SURVEY GRADE EQUIPMENT

LGD WELL PAD FINAL SITE PLAN

ARSENAL RESOURCES

PROPOSED WELL NO.'S 201, 202, 203, 204

SITUATE ON THE WATERS OF WEST FORK RIVER IN CLARK DISTRICT, HARRISON COUNTY, WEST VIRGINIA.



Well Number	State Plane (NAD 83) X	State Plane (NAD 83) Y	UTM (Zone 18) Easting (m)	UTM (Zone 18) Northing (m)	Latitude (NAD 83)	Longitude (NAD 83)	Proposed Elevation
201	279286.90	1723440.56	4346235.66	554782.50	39.233552	83.363497	1007.35'
202	279273.11	1723461.04	4346211.19	554789.41	39.233511	83.363487	1007.35'
203	279257.33	1723481.52	4346206.59	554792.74	39.233471	83.363476	1007.35'
204	279243.52	1723502.00	4346202.22	554791.07	39.233430	83.363469	1007.35'

GENERAL DESCRIPTION
 THE LGD WELL PAD IS BEING CONSTRUCTED TO AID IN THE DEVELOPMENT OF INDIVIDUAL MARCELLUS SHALE GAS WELLS.

LIST OF DRAWINGS

- 1 COVER SHEET
- 2-4 NOTES
- 5 UTILITY SHEET
- 6 OVERALL SITE PLAN
- 7 WELL PAD, STOCKPILE .1, WELL PAD ACCESS ROAD .2
- 8 WELL PAD ACCESS ROAD .3, STOCKPILE .2
- 9 WELL PAD ACCESS ROAD .2 AND BURIED ELECTRIC RELOCATION
- 10-11 WELL PAD ACCESS ROAD .3 PROFILE
- 12 AST ACCESS ROAD PROFILE
- 13-14 WELL PAD ACCESS ROAD .1 SECTIONS
- 15 WELL PAD ACCESS ROAD .2 SECTIONS
- 16 STOCKPILE .2 ACCESS ROAD PROFILE AND SECTIONS
- 17 WELL PAD ACCESS ROAD SECTIONS
- 18-19 CULVERT .1 TRENCH DRAIN DETAILS
- 20-21 WELL PAD PROFILES
- 22-23 STOCKPILE PROFILES
- 24 AST PAD PROFILES
- 25-26 RECLAMATION PLAN
- 27-33 CONSTRUCTION DETAILS

LEGEND	
EXISTING	PROPOSED
INDEX CONTOUR	INDEX CONTOUR
INTERMEDIATE CONTOUR	INTERMEDIATE CONTOUR
BOUNDARY LINE	CUT
FILL	FILL
ROAD EDGE OF GRAVEL DIRT	CUT/FILL LINE
ROAD EDGE OF PAVEMENT	LIMITS OF DISTURBANCE
ROAD CENTERLINE	LOD
CULVERT	WELL HEAD
FENCELINE	4" PVC DRAIN PIPE
GATE	SUMP DRAIN
OVERHEAD ELECTRIC	CONTAINMENT BERM
POWER POLE	4" PVC TEE KEY DRAIN (1) OUTLET PROTECTION
TELEPHONE LINE	RIP-RAP DITCH
GAS WELL	ROAD EDGE OF GRAVEL
TREELINE	ROAD CENTERLINE
DELINEATED STREAM	PAD UNDERDRAIN
DELINEATED WETLAND	DITCH RELIEF CULVERT (DRCL)
BUILDING	RIP-RAP OUTLET PROTECTION
100' WETLAND/STREAM BUFFER	12" COMPOST FILTER SOCK
ALL STAR AREA OF INTEREST	18" COMPOST FILTER SOCK
	24" COMPOST FILTER SOCK
	18" TRIPLE STACK COMPOST FILTER SOCK
	ORANGE SAFETY FENCE
	PROFILE LINE
	PROFILE 1
	0.00
	0.00
	X-SECTION GRID INDEX
	X-SECTION PROPOSED GRADE
	X-SECTION EXISTING GRADE
	SUBGRADE ELEVATION
	SURFACE SLOPE
	FINISH GRADE ELEVATION
	100.00
	100.00
	BLIND DITCH
	BIN BLOCKS
	GUARD RAIL

ARSENAL RESOURCES

SLS LAND & ENERGY DEVELOPMENT

COVER SHEET

LGD WELL PAD FINAL SITE PLAN

CLARK DISTRICT
HARRISON COUNTY, WV

DATE: 11-09-2023

SCALE: AS SHOWN

DESIGNED BY: CPM

FILE NO: 9423

SHEET 1 OF 33

REV