

State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

RECEIVED
Office of Oil and Gas

AUG 07 2026

WV Department of
Environmental Protection

API 47 - 033 - 06085 County Harrison District Simpson
Quad Rosemont Pad Name J Osborn Field/Pool Name _____
Farm name Judy M Osborn (LE) Well Number 212
Operator (as registered with the OOG) Arsenal Resources
Address 6031 Wallace Road Ext., Ste. 200 City Wexford State PA Zip 15090

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4346638.179 Easting 567446.255
Landing Point of Curve Northing 4347362.031 Easting 566362.812
Bottom Hole Northing 4350083.863 Easting 565356.178

Elevation (ft) 1163.99 GL Type of Well ☒ New ☐ Existing Type of Report ☐ Interim ☒ Final
Permit Type ☐ Deviated ☐ Horizontal ☒ Horizontal 6A ☐ Vertical Depth Type ☐ Deep ☒ Shallow
Type of Operation ☐ Convert ☐ Deepen ☒ Drill ☐ Plug Back ☐ Redrilling ☐ Rework ☐ Stimulate
Well Type ☐ Brine Disposal ☐ CBM ☒ Gas ☐ Oil ☐ Secondary Recovery ☐ Solution Mining ☐ Storage ☐ Other _____
Type of Completion ☐ Single ☒ Multiple Fluids Produced ☐ Brine ☒ Gas ☐ NGL ☐ Oil ☐ Other _____
Drilled with ☐ Cable ☒ Rotary

Drilling Media Surface hole ☐ Air ☐ Mud ☒ Fresh Water Intermediate hole ☐ Air ☐ Mud ☒ Fresh Water ☐ Brine
Production hole ☐ Air ☒ Mud ☐ Fresh Water ☐ Brine

Mud Type(s) and Additive(s)
Synthetic Oil Based Mud

Date permit issued 03/12/2025 Date drilling commenced 03/27/2025 Date drilling ceased 10/12/2025
Date completion activities began 11/07/2025 Date completion activities ceased 12/26/2025
Verbal plugging (Y/N) N Date permission granted NA Granted by NA

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft none reported Open mine(s) (Y/N) depths N
Salt water depth(s) ft none reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft none reported Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Jeff Pugh

8-13-2026
08/28/2026

Reviewed
approved

API 47- 033 - 06085 Farm name Judy M Osborn (LE) Well number 212

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	30"	24"	100' GL	New	94	NA	Y
Surface	17.5"	13 3/8"	813' GL	New	54.50	94'	Y
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	12 1/4"	9 5/8"	1,519' GL	New	40	NA	Y
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	8 1/2"	5 1/2"	20,602' GL	New	20	NA	Y
Tubing	NA	NA	NA	NA	NA	NA	NA
Packer type and depth set		NA					

Comment Details Cement to surface on Conductor, Surface, Intermediate. Lap onto intermediate on production.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	A	195	15.60	1.18	230	Surface	8+
Surface	A	720	15.60	1.2	867	Surface	8+
Coal	NA	NA	NA	NA	NA	NA	NA
Intermediate 1	A	510	15.6	1.19	605	Surface	8+
Intermediate 2	NA	NA	NA	NA	NA	NA	NA
Intermediate 3	NA	NA	NA	NA	NA	NA	NA
Production	A	1070/3010	14.5/15.0	1.291/1.142	1381/3438	Surface	8+
Tubing	NA	NA	NA	NA	NA	NA	NA

Drillers TD (ft) 20,628' (GL) Loggers TD (ft) NA
 Deepest formation penetrated Marcellus Plug back to (ft) NA
 Plug back procedure NA

RECEIVED
Office of Oil and Gas

AUG 07 2026

Kick off depth (ft) 7,033' (GL)

WV Department of
Environmental Protection

Check all wireline logs run ☐ caliper ☐ density ☐ deviated/directional ☐ induction
☐ neutron ☐ resistivity ☐ gamma ray ☐ temperature ☐ sonic

Well cored ☐ Yes ☒ No Conventional Sidewall Were cuttings collected ☒ Yes ☐ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING _____

24" - No centralizers
 13 3/8" - One (1) bow spring centralizer on every joint to Surface
 9 5/8" - One (1) bow spring centralizer every joint from TD to surface
 5 1/2" - One (1) Non-Weld Bowspring centralizer on every joint from TD of casing to end of curve. Then every other joint to KOP. Every third joint from KOP to TOC; there were no centralizers from TOC to surface.

WAS WELL COMPLETED AS SHOT HOLE ☐ Yes ☒ No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? ☐ Yes ☒ No DETAILS _____

WERE TRACERS USED ☐ Yes ☒ No TYPE OF TRACER(S) USED _____

08/28/2026

PERFORATION RECORD

Please insert additional pages as applicable.

Complete a separate record for each stimulation stage.

Please insert additional pages as applicable.

RECEIVED
Office of Oil and Gas
AUG 07 2026
U.S. Department of
Environmental Protection

08/28/2026

API 47- 033 - 06085

Farm name Judy M Osborn (LE)

Well number 212

PRODUCING FORMATION(S)

DEPTHS

Marcellus Shale 7,198 - 7,393' TVD 7,887 - 20,582' MD

RECEIVED
Office of Oil and Gas

AUG 07 2026

WV Department of
Environmental Protection

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ☒ Open Flow

OIL TEST ☐ Flow ☐ Pump

SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 15,546 mcfpd Oil 0 bpd NGL 0 bpd Water 802 bpd
GAS MEASURED BY ☐ Estimated ☒ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
Sand/Silt	0	220	0	220	No water reported.
Sand/Silt/Coal	220	1325	220	1325	Coal @ 225', 325', 400', 440', 530', 595', 615'; WVGES
Big Lime	1325	1506	1325	1506	Limestone
Sand/Silt/Shale	1506	2970	1506	2970	Sandstone, Siltstone, Shale
Balltown	2970	3020	2970	3020	Sandstone
Sand/Silt/Shale	3020	4300	3020	4300	Sandstone, Siltstone, Shale
Benson	4300	4370	4300	4370	Sandstone
Sand/Silt/Shale	4370	6907	4370	7457	Sandstone, Siltstone, Shale
Burkett	6907	6924	7457	7482	Shale
Tully	6924	6973	7482	7554	Limestone
Mahantango	6973	7131	7554	7891	Shale
Marcellus	7131	7183	7891	8092	Shale
Lower Marcellus	7183	7221*	8092	20625	Shale - Gas shows through lateral
Onondaga	7221*	NA	NA	NA	Limestone, *Onondaga not penetrated - top est. based on 033-05933

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling

Address 10350 Richmond Ave. Suite 700 City Houston State TX Zip 77042

Logging Company NA

Address _____ City _____ State _____ Zip _____

Cementing Company Halliburton

Address 4999 E Pointe Drive City Zanesville State OH Zip 43701

Stimulating Company ProFrac

Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Arsenal Resources

Telephone 724-940-1100

Signature [Signature] Title Geologist & Permitting Specialist Date 07/28/2026

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

08/28/2026

Well Header
Well Name: Osborn 312
Orig Elev (ft): 1,151.00
County: Harrison
Datum:
Job Cat: Completion/Workover

AP/JULI: 47-033-00065
Water Depth (ft):
District:
Latitude (°): 39° 15' 59.328" N Longitude (°): 90° 13' 5.565" W UTM E (m):
UTM N (m):

Lease
Lic Date
Division:
Duration Code:
Operator: Arroyo Resources
Well Type:
Well Subtype:

Prod Name: J Osborn
Sold Date: 10/5/2015
End Date: 10/12/2015

Perforations
Date
Top (ft)(b)
Bit (ft)(b)
Entered Shot Total
Zone

Date	Top (ft)(b)	Bit (ft)(b)	Entered Shot Total	Zone
12/26/2015	7,387.00	8,045.00	40 Marcellus	
12/26/2015	8,087.00	8,249.00	40 Marcellus	
12/26/2015	8,287.00	8,449.00	40 Marcellus	
12/26/2015	8,487.00	8,649.00	40 Marcellus	
12/26/2015	8,687.00	8,849.00	40 Marcellus	
12/26/2015	8,887.00	9,049.00	40 Marcellus	
12/26/2015	9,087.00	9,249.00	40 Marcellus	
12/26/2015	9,287.00	9,449.00	40 Marcellus	
12/26/2015	9,487.00	9,649.00	40 Marcellus	
12/26/2015	9,687.00	9,849.00	40 Marcellus	
12/26/2015	9,887.00	10,049.00	40 Marcellus	
12/26/2015	10,087.00	10,249.00	40 Marcellus	
12/26/2015	10,287.00	10,449.00	40 Marcellus	
12/26/2015	10,487.00	10,649.00	40 Marcellus	
12/26/2015	10,687.00	11,051.00	40 Marcellus	
12/26/2015	10,887.00	11,249.00	40 Marcellus	
12/26/2015	11,087.00	11,449.00	40 Marcellus	
12/26/2015	11,287.00	11,649.00	40 Marcellus	
12/26/2015	11,487.00	11,849.00	40 Marcellus	
12/26/2015	11,687.00	12,049.00	40 Marcellus	
12/26/2015	11,887.00	12,249.00	40 Marcellus	
12/26/2015	12,087.00	12,449.00	40 Marcellus	
12/26/2015	12,287.00	12,649.00	40 Marcellus	
12/26/2015	12,487.00	12,849.00	40 Marcellus	
12/26/2015	12,687.00	13,049.00	40 Marcellus	
12/26/2015	12,887.00	13,249.00	40 Marcellus	
12/26/2015	13,087.00	13,449.00	40 Marcellus	
12/26/2015	13,287.00	13,649.00	40 Marcellus	
12/26/2015	13,487.00	13,849.00	40 Marcellus	
12/26/2015	13,687.00	14,049.00	40 Marcellus	
12/26/2015	13,887.00	14,249.00	40 Marcellus	
12/26/2015	14,087.00	14,449.00	40 Marcellus	
12/26/2015	14,287.00	14,649.00	40 Marcellus	
12/26/2015	14,487.00	14,849.00	40 Marcellus	
12/26/2015	14,687.00	15,049.00	40 Marcellus	
12/26/2015	14,887.00	15,249.00	40 Marcellus	
12/26/2015	15,087.00	15,449.00	40 Marcellus	
12/26/2015	15,287.00	15,649.00	40 Marcellus	
12/26/2015	15,487.00	15,849.00	40 Marcellus	
12/26/2015	15,687.00	16,049.00	40 Marcellus	
12/26/2015	15,887.00	16,249.00	40 Marcellus	
12/26/2015	16,087.00	16,449.00	40 Marcellus	
12/26/2015	16,287.00	16,649.00	40 Marcellus	
12/26/2015	16,487.00	16,849.00	40 Marcellus	
12/26/2015	16,687.00	17,049.00	40 Marcellus	
12/26/2015	16,887.00	17,249.00	40 Marcellus	
12/26/2015	17,087.00	17,449.00	40 Marcellus	
12/26/2015	17,287.00	17,649.00	40 Marcellus	
12/26/2015	17,487.00	17,849.00	40 Marcellus	
12/26/2015	17,687.00	18,049.00	40 Marcellus	
12/26/2015	17,887.00	18,249.00	40 Marcellus	
12/26/2015	18,087.00	18,449.00	40 Marcellus	
12/26/2015	18,287.00	18,649.00	40 Marcellus	
12/26/2015	18,487.00	18,849.00	40 Marcellus	
12/26/2015	18,687.00	19,049.00	40 Marcellus	
12/26/2015	18,887.00	19,249.00	40 Marcellus	
12/26/2015	19,087.00	19,449.00	40 Marcellus	
12/26/2015	19,287.00	19,649.00	40 Marcellus	
12/26/2015	19,487.00	19,849.00	40 Marcellus	
12/26/2015	19,687.00	20,049.00	40 Marcellus	
12/26/2015	19,887.00	20,249.00	40 Marcellus	
12/26/2015	20,087.00	20,449.00	40 Marcellus	
12/26/2015	20,287.00	20,649.00	30 Marcellus	

RECEIVED

Office of Oil and Gas

2016 07 2026

WV Department of

Environmental Protection

Simulations Summary
Start Date
Simulation Interval
Interval Number

R Treat Avg (bbl/mn) P Treat Avg (psi) Mass Prop Tot (lb) 32.09%054.0 Vol Clean Total (bbl) 605.675.00 Free-Grav Avg (bbl/ft): 1.24

Start Date
Surry Date Avg (bbl/mn) P Treat Avg (psi) P Breakdown (psi) (SIP (psi) P Report Total OR (lb) Vol Clean Total (bbl)

1	11/26/2015	78.00	10,326.00	11,045.00	5,439.00	250,940.00	7,280.00
2	11/26/2015	90.90	10,314.00	7,070.00	5,465.00	514,880.00	9,854.00
3	11/26/2015	90.30	8,933.00	6,138.00	5,539.00	505,280.00	9,706.00
4	11/27/2015	90.00	8,708.00	5,825.00	5,643.00	507,860.00	9,721.00
5	11/27/2015	89.60	8,618.00	5,432.00	5,220.00	513,680.00	9,738.00
6	11/28/2015	90.70	8,706.00	5,647.00	5,646.00	499,620.00	9,598.00
7	11/28/2015	90.00	9,011.00	6,745.00	5,685.00	499,800.00	9,748.00
8	11/29/2015	89.90	8,821.00	5,825.00	5,686.00	505,500.00	9,452.00
9	11/29/2015	90.00	8,883.00	6,595.00	5,644.00	506,780.00	9,500.00
10	11/30/2015	90.00	8,802.00	6,265.00	5,795.00	505,400.00	9,350.00
11	12/1/2015	90.10	8,825.00	7,109.00	6,306.00	509,040.00	9,557.00
12	12/2/2015	90.10	8,946.00	6,046.00	5,914.00	507,160.00	9,610.00
13	12/2/2015	90.10	8,746.00	6,510.00	6,248.00	508,660.00	11,321.00
14	12/4/2015	90.40	8,957.00	6,710.00	6,057.00	516,220.00	9,679.00
15	12/4/2015	89.80	8,837.00	6,689.00	5,801.00	516,480.00	9,700.00
17	12/4/2015	89.70	8,570.00	6,591.00	5,480.00	499,880.00	9,771.00

RECEIVED
Office of Oil and Gas
2016 07 2026
NO Department of
Environmental Protection

18	11/5/2025	90.40	8,721.00	6,380.00	6,369.00	514,580.00	9,501.00
19	12/6/2025	89.60	8,385.00	6,740.00	5,853.00	507,680.00	9,638.00
20	12/6/2025	90.30	8,791.00	6,740.00	5,853.00	500,800.00	9,541.00
21	12/7/2025	90.10	8,566.00	6,303.00	6,049.00	507,440.00	9,815.00
22	12/7/2025	90.20	8,562.00	6,699.00	5,389.00	502,160.00	9,430.00
23	12/8/2025	89.80	8,340.00	5,204.00	5,656.00	516,370.00	9,414.00
24	12/8/2025	90.70	8,527.00	6,717.00	5,569.00	502,380.00	9,490.00
25	12/9/2025	89.90	8,348.00	5,828.00	5,628.00	506,620.00	9,535.00
26	12/9/2025	89.70	8,384.00	5,492.00	5,937.00	520,200.00	9,608.00
27	12/10/2025	89.50	8,356.00	6,479.00	5,820.00	504,720.00	9,514.00
28	12/10/2025	89.50	8,663.00	6,628.00	6,090.00	500,380.00	9,223.00
29	12/10/2025	90.20	8,711.00	7,513.00	6,237.00	511,580.00	11,181.00
30	12/10/2025	89.70	8,970.00	7,042.00	6,386.00	514,860.00	9,551.00
31	12/12/2025	90.10	8,816.00	6,613.00	6,177.00	506,500.00	9,474.00
32	12/12/2025	89.90	8,103.00	6,190.00	5,827.00	506,700.00	9,341.00
33	12/12/2025	89.80	8,236.00	6,105.00	5,653.00	507,060.00	9,610.00
34	12/12/2025	90.30	8,292.00	6,249.00	5,333.00	500,380.00	9,351.00
35	12/13/2025	90.40	8,451.00	6,409.00	5,699.00	514,240.00	9,597.00
36	12/13/2025	90.00	8,394.00	7,464.00	6,546.00	508,880.00	9,399.00
37	12/13/2025	89.40	8,025.00	6,563.00	6,340.00	500,860.00	9,442.00
38	12/13/2025	89.70	8,590.00	6,705.00	6,300.00	508,140.00	9,516.00
39	12/15/2025	89.90	8,376.00	6,899.00	6,324.00	500,500.00	9,535.00
40	12/16/2025	89.70	8,254.00	6,475.00	6,318.00	491,000.00	9,501.00
41	12/17/2025	89.90	8,383.00	5,905.00	6,028.00	504,210.00	9,373.00
42	12/17/2025	88.80	8,383.00	7,087.00	6,133.00	507,180.00	10,457.00
43	12/17/2025	89.90	8,767.00	4,301.00	5,105.00	507,180.00	9,432.00
44	12/18/2025	89.90	8,756.00	7,118.00	5,864.00	498,380.00	9,445.00
45	12/18/2025	90.10	8,386.00	5,764.00	5,456.00	509,360.00	9,478.00
46	12/19/2025	90.10	7,926.00	6,659.00	5,911.00	505,480.00	9,430.00
47	12/19/2025	90.00	7,863.00	5,935.00	5,875.00	503,180.00	9,332.00
48	12/20/2025	90.20	7,929.00	5,506.00	5,932.00	506,540.00	9,583.00
49	12/20/2025	89.50	7,664.00	5,441.00	5,737.00	503,900.00	9,491.00
50	12/20/2025	90.30	8,078.00	6,582.00	5,081.00	515,460.00	9,284.00
51	12/21/2025	90.30	7,382.00	6,658.00	5,321.00	508,460.00	9,137.00
52	12/21/2025	89.70	7,245.00	6,278.00	5,486.00	501,700.00	9,171.00
53	12/22/2025	89.70	7,566.00	5,978.00	5,980.00	506,340.00	9,105.00
54	12/22/2025	90.00	8,207.00	6,785.00	6,187.00	506,650.00	9,141.00
55	12/23/2025	89.80	8,851.00	7,351.00	6,461.00	512,420.00	9,171.00
56	12/23/2025	89.80	7,859.00	6,574.00	5,457.00	494,840.00	9,042.00
57	12/24/2025	90.20	7,822.00	6,186.00	5,414.00	498,680.00	9,294.00
58	12/24/2025	90.60	7,468.00	5,248.00	6,557.00	503,860.00	8,955.00
59	12/25/2025	90.10	8,003.00	7,011.00	6,802.00	507,750.00	8,894.00
60	12/25/2025	90.10	7,488.00	6,900.00	6,027.00	490,060.00	8,974.00
61	12/25/2025	87.50	7,825.00	7,488.00	5,307.00	500,340.00	9,103.00
62	12/26/2025	88.80	7,394.00	7,443.00	5,386.00	495,360.00	8,793.00
63	12/26/2025	88.80	7,356.00	6,937.00	5,386.00	475,234.00	9,531.00
64	12/27/2025	90.50	7,443.00	7,432.00	5,269.00		

RECEIVED
Office of Oil and Gas

11/17/2026

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/25/2025
Job End Date:	12/27/2025
State:	West Virginia
County:	Harrison
API Number:	47-033-06085-00-00
Operator Name:	Arsenal Resources
Well Name and Number:	J Osborn 212
Latitude:	39.266463
Longitude:	-80.218165
Datum:	NAD27
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	7257
Total Base Water Volume (gal)*:	27353634
Total Base Non Water Volume:	0



Water Source	Percent
Other, > 1000TDS	100.00%

RECEIVED
Office of Oil and Gas

AUG 07 2026

WV Department of
Environmental Protection

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	87.28627	None
Sand (100 Mesh Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.14342	None
Sand (40/70 White Proppant)	ProFrac	Proppant					
			Crystalline Silica (quartz)	14808-60-7	100.00000	6.11854	None
Hydrochloric Acid (7.5%)	Cooper Natural	Acidizing					
			Water	7732-18-5	92.50000	0.38252	None
			Hydrochloric Acid	7647-01-0	7.50000	0.03102	None
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	92.50000	0.38252	None

08/28/2026

			Water	7732-18-5	85.00000	0.01171	None
			Ammonium chloride	12125-02-9	5.00000	0.00308	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00308	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00308	None
			Ethylene glycol	107-21-1	42.00000	0.00085	None
			Quaternary ammonium compounds.benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00061	None
			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00051	None
			Ciric Acid	77-92-9	10.00000	0.00020	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00016	None
			Water	7732-18-5	5.00000	0.00010	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00008	None
			Methanol	67-56-1	2.00000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProSlick 773	ProFrac	Friction Reducer					
			Petroleum distillates, hydrotreated light	64742-47-8	30.00000	0.01851	None
			Ammonium chloride	12125-02-9	5.00000	0.00308	None
			Tall Oil fatty amide	68155-20-4	5.00000	0.00308	None
			Alcohols, C11-14-iso, C-13-rich, ethoxylated	78330-21-9	5.00000	0.00308	None
Hydrochloric Acid (15%)	Cooper Natural	Acidizing					
			Water	7732-18-5	85.00000	0.01171	None
			Hydrochloric Acid	7647-01-0	15.00000	0.00207	None
BioSuiteGQ123X	ProFrac	Biocide					
			glutaral	111-30-8	15.00000	0.00182	None
			Quaternary ammonium compounds.benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.00000	0.00061	None
Acid Pack Pro LT	ProFrac	Acid Inhibitor					
			Ethylene glycol	107-21-1	42.00000	0.00085	None

08/28/2026

			Pyridinium, 1-(phenylmethyl)-, Et Me derivs, chloride	68909-18-2	25.00000	0.00051	None
			Ciric Acid	77-92-9	10.00000	0.00020	None
			Alcohols, C12 - 14 secondary, ethoxylated	84133-50-6	8.00000	0.00016	None
			Water	7732-18-5	5.00000	0.00010	None
			2-Propenal, 3-phenyl	104-55-2	4.00000	0.00008	None
			Methanol	67-56-1	2.00000	0.00004	None
			Isotridecanol, ethoxylated	69011-36-5	1.80000	0.00004	None
			Methyl 9-decenoate	25601-41-6	1.00000	0.00002	None
			Methyl 9-dedecenoate	39202-17-0	1.00000	0.00002	None
			Sodium xylene sulfonate	1300-72-7	0.30000	0.00001	None
ProChek 170	ProFrac	Scale Inhibitor					
			Methyl alcohol	67-56-1	5.00000	0.00059	None

Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

RECEIVED
Office of Oil and Gas
AUG 07 2026
WV Department of
Environmental Protection

08/28/2026

WR-36
Rev. 5/08

Date: 7/28/2026
Operators Well Number: J Osborn 212
API Well No: 47-033 - 06085

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

Well Operator's Report of
Initial Gas-Oil Ratio

Well Operator Aresenal Resources LLC
Address 6031 Wallace Road Ext. Suite 200
Wexford, PA 15090

Designated Agent Eric Morris
Address 633 West Main Street
Bridgeport, WV 26330

Geological Target Formation: Marcellus Depth 7,891 feet
Perforation Interval 7,887 - 20,582 feet

Guidelines for testing:

1. A minimum of gas vented or flared.
2. A 24 hour pre-flow into pipelines or tanks.
3. Uniform producing rate during the 24 hour test per test period.
4. Measurement standards as for Form WR-39, "Report of Annual Production" (see 35CSR4-15)
5. Separate Form WR-36 for each producing formation in a multiple completion.

TEST DATA

Start of Test Date 2/15/2026	Time 5:00 AM	End of Test Date 2/16/2026	Time 6:00 AM	Duration of Test 24 Hrs
Tubing Pressure NA	Casing Pressure 1502	Separator Pressure 342	Separator Temperature 70	
Oil Production During Test 0 BBLs	Gas Production During Test 15,546 MCF	Water Production During Test 802 BBLs	37456	-Salinity
Oil Gravity NA	API	Flowing	Producing Method (flowing, pumping, gas lift etc.)	

GAS PRODUCTION

Measurement Method Flange Tap ☒ Pipe Tap ☐ L-10 ☐	Positive Choke ☐	Positive flow prover ☒
Orifice diameter	Pipe Diameter (inside)	Nominal Choke Size inches 48/64"
Differential Pressure range	Max. Static pressure range	Prover and Orifice diameter - inches 4.0" run with 3.0" orifice
Differential 140	Static	
Gas Gravity (Air = 1.0) Measured .572 Estimated	Flowing Temperature 70	Gas Temperature 99
24 Hour Coefficient	24 Hour coefficient pressure PSIA	

TEST RESULTS

Daily Oil 0	Daily Water 802 BBLs	Daily Gas 15,546 MCF	Gas-Oil Ratio NA
----------------	-------------------------	-------------------------	---------------------

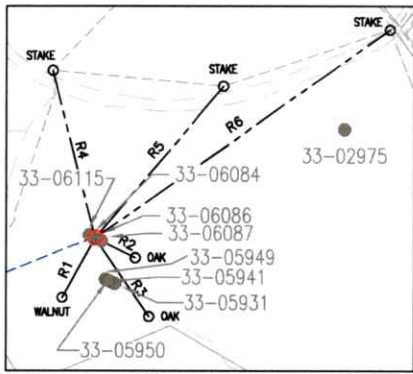
Aresenal Resources LLC

BY Eric Morris Well Operator

ITS: Geologist & Permitting Specialist

08/28/2026

BHL is located on topo map 12,988 feet south of Latitude: 39°20'00"
SHL is located on topo map 9,158 feet south of Latitude: 39°17'30"



REFERENCE DETAIL
SCALE 1" = 800'

LINE	BEARING	DISTANCE
R1	S 28°35'29" W	301.79'
R2	S 63°30'29" E	197.59'
R3	S 34°06'25" E	422.61'
R4	N 14°12'27" W	765.17'
R5	N 40°03'03" E	878.11'
R6	N 54°39'54" E	1591.16'

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- There are no existing buildings within 625' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
- Well Spot Circle & Topo Mark Scale is 1"=2000'.

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108



AS-DRILLED PLAT

J OSBORN HSOP 16 212 PERMITTED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346638.178	NORTHING: 279979.477	LAT-(N) 39.266463
EASTING: 567446.254	EASTING: 1765170.737	LONG-(W) 80.218165
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346527.340	NORTHING: 279657.788	LAT-(N) 39.265523
EASTING: 566676.475	EASTING: 1762638.749	LONG-(W) 80.227098
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350162.121	NORTHING: 291657.004	LAT-(N) 39.298374
EASTING: 565355.441	EASTING: 1758502.364	LONG-(W) 80.242057

J OSBORN HSOP 16 212 AS-DRILLED		
SURFACE HOLE LOCATION (SHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346638.179	NORTHING: 279979.480	LAT-(N) 39.266463
EASTING: 567446.255	EASTING: 1765170.740	LONG-(W) 80.218164
LANDING POINT LOCATION (LPL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4346540.636	NORTHING: 2979702.242	LAT-(N) 39.265645
EASTING: 566661.400	EASTING: 1762590.010	LONG-(W) 80.227272
BOTTOM HOLE LOCATION (BHL)		
UTM 17-NAD83 (M):	NAD83, WV NORTH (FT)	NAD83, GEOGRAPHIC
NORTHING: 4350083.863	NORTHING: 291400.170	LAT-(N) 39.297669
EASTING: 565356.178	EASTING: 1758500.510	LONG-(W) 80.242056



RECEIVED
Office of Oil and Gas

AUG 07 2026

WV Department of
Environmental Protection

SEE PAGES 2-3 FOR PLAT AND INSETS DUE TO PARCEL SIZE

SEE PAGES 4-5 FOR SURFACE OWNER TABLES

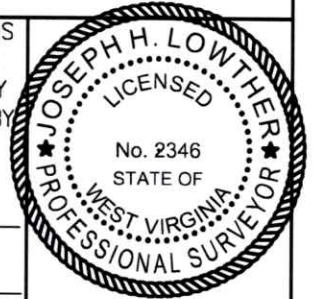
FILE #: J OSBORN HSOP 16 212
DRAWING #: J OSBORN HSOP 16 212
SCALE: AS SHOWN
MINIMUM DEGREE
OF ACCURACY: 1/2500
PROVEN SOURCE
OF ELEVATION: U.S.G.S. MONUMENT
THOMAS 1498.81'

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 DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed:

R.P.E.:

L.L.S.: P.S. No. 2346



(+) DENOTES LOCATION OF WELL ON
UNITED STATES TOPOGRAPHIC MAPS
WVDEP

OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



DATE: JULY 27, 2026

OPERATOR'S WELL #: J OSBORN HSOP 16 212

API WELL #: 47 033 06085
STATE COUNTY PERMIT

Well Type: ☐ Oil ☐ Waste Disposal ☒ Production ☐ Deep
☒ Gas ☐ Liquid Injection ☐ Storage ☒ Shallow

WATERSHED: SIMPSON CREEK

ELEVATION: 1163.99'±

COUNTY/DISTRICT: HARRISON / SIMPSON

QUADRANGLE: ROSEMONT, WV 7.5'

SURFACE OWNER: JUDY M OSBORN (LE) (JUDY M OSBORN IRREVOCABLE TRUST)

ACREAGE: 70.00±

OIL & GAS ROYALTY OWNER: GOBEL OSBORN, ET AL

ACREAGE: 1,399.52±

DRILL ☒ CONVERT ☐ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR STIMULATE ☒

PLUG OFF OLD FORMATION ☐ PERFORATE NEW FORMATION ☐ PLUG & ABANDON ☐

CLEAN OUT & REPLUG ☐ OTHER CHANGE ☐ (SPECIFY):

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: 7393.5'± TWD / 20,655' TMD

WELL OPERATOR ARSENAL RESOURCES

DESIGNATED AGENT ERIC MORRIS

Address 6031 WALLACE ROAD EXTENSION, SUITE 200

Address 633 WEST MAIN ST.

City WEXFORD State PA Zip Code 15090

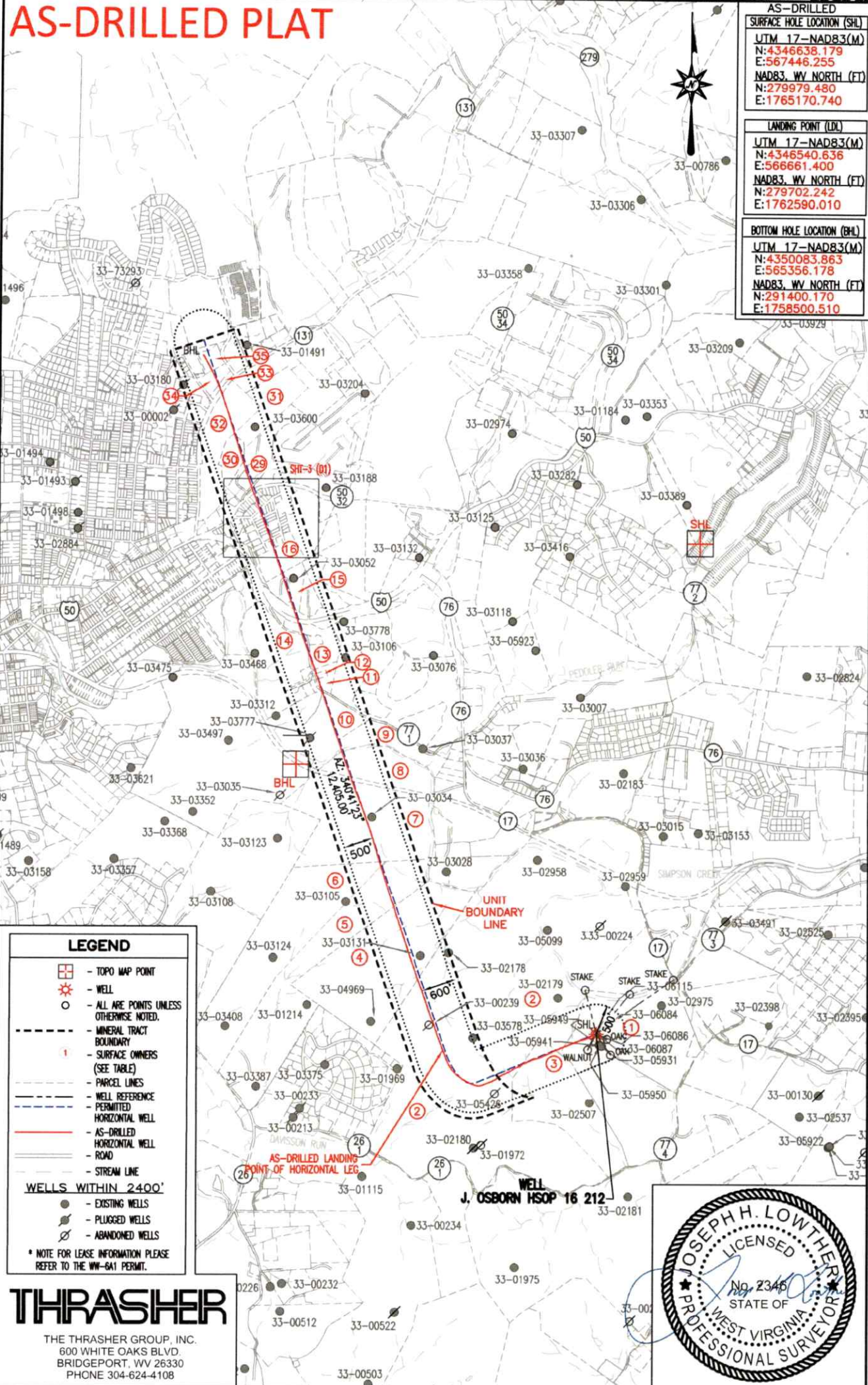
City BRIDGEPORT State WV Zip Code 26330

08/28/2026

BHL is located on topo map 12,988 feet south of Latitude: 39°20'00"
SHL is located on topo map 9,158 feet south of Latitude: 39°17'30"

BHL is located on topo map 9,544 feet west of Longitude: 80°12'30"
SHL is located on topo map 2,856 feet west of Longitude: 80°12'30"

AS-DRILLED PLAT



THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

DATE: JULY 27, 2026
OPERATOR'S WELL #: J OSBORN HSOP 16 212
API WELL #: 47 033 06085
STATE COUNTY PERMIT

WELL OPERATOR ARSENAL RESOURCES
Address 6031 WALLACE ROAD EXTENSION, SUITE 200
City WEXFORD State PA Zip Code 15090



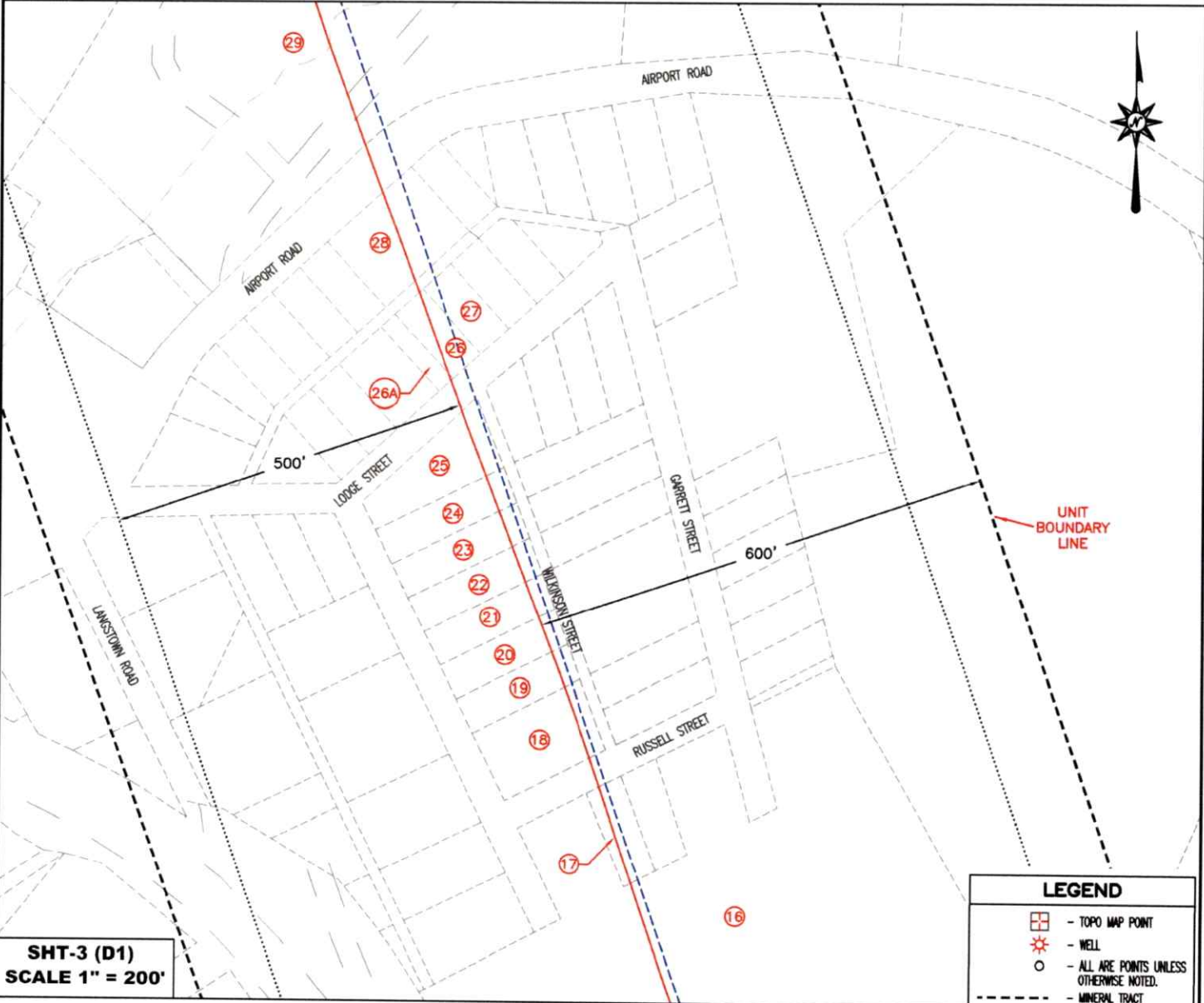
STATE OF WEST VIRGINIA
DIVISION OF
ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

FILE #: J OSBORN HSOP 16 212
DRAWING #: J OSBORN HSOP 16 212
SCALE: 1" = 2000'

DESIGNATED AGENT ERIC MORRIS
Address 633 WEST MAIN ST.
City BRIDGEPORT State WV Zip Code 26330

AS-DRILLED PLAT

AS-DRILLED	
SURFACE HOLE LOCATION (SHL)	
UTM 17-NAD83(M)	
N:4346638.179	
E:567446.255	
NAD83_WV NORTH (FT)	
N:279979.480	
E:1765170.740	
LANDING POINT (LDL)	
UTM 17-NAD83(M)	
N:4346540.636	
E:566661.400	
NAD83_WV NORTH (FT)	
N:279702.242	
E:1762590.010	
BOTTOM HOLE LOCATION (BHL)	
UTM 17-NAD83(M)	
N:4350083.863	
E:565356.178	
NAD83_WV NORTH (FT)	
N:291400.170	
E:1758500.510	



SHT-3 (D1)
SCALE 1" = 200'

LEGEND	
	- TOPO MAP POINT
	- WELL
	- ALL ARE POINTS UNLESS OTHERWISE NOTED.
	- MINERAL TRACT BOUNDARY
	- SURFACE OWNERS (SEE TABLE)
	- PARCEL LINES
	- WELL REFERENCE PERMITTED
	- AS-DRILLED HORIZONTAL WELL
	- ROAD
	- STREAM LINE
WELLS WITHIN 2400'	
	- EXISTING WELLS
	- PLUGGED WELLS
	- ABANDONED WELLS
* NOTE FOR LEASE INFORMATION PLEASE REFER TO THE WW-6A1 PERMIT.	

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108



AS-DRILLED PLAT

J OSBORN WELL 212 AS-DRILLED			
ID	SURFACE OWNER	DIST-TM-PAR	ACREAGE
1	OSBORN JUDY M (LE) (JUDY M OSBORN IRREVOCABLE TRUST)	15-0330-0005	56.67
2	HARRON CAROLYN S	15-0330-0003	355.02
3	DAVIS CHARLES THOMAS II	15-0330-0004	41.84
2	HARRON CAROLYN S	15-0330-0003	355.02
4	WHYTE KAREN SUE	15-0330-0001	79.43
5	EBERT JOHN & CYNTHIA	15-0329-0038	72.82
6	FARIS DAVID A & TAMMERA L	15-0329-0038-0001	76.33
7	FARIS DAVID A & TAMMERA N	15-0310-0041	58.76
RXR	CSX RAILROAD	N/A	N/A
8	KINGERY SARAH H	15-0310-0018	22.22
9	SNIDER DANNY M & ALESIA J	15-0310-0017	13.06
10	CALLISON WILLIAM CHARLES ET UX	15-0310-0016	27.01
ROAD	LANGTOWN ROAD	N/A	N/A
11	MAXIMUM STORAGE LLC	15-0310-0002-0003	2.62
12	POTTS STEVE W & MARCY L	15-0310-0087	0.56
11	MAXIMUM STORAGE LLC	15-0310-0002-0003	2.62
13	HEFNER JAMES R JR & CYNTHIA HEFNER CLARK & REBECCA S BLAIR	15-0310-0002	8.26
ROAD	LANGTOWN ROAD	N/A	N/A
14	MOORE JACINDA LEIGH	15-0309-0053-0003	30.06
ROAD	LANGTOWN ROAD	N/A	N/A
13	HEFNER JAMES R JR & CYNTHIA HEFNER CLARK & REBECCA S BLAIR	15-0310-0002	8.26
ROAD	US ROUTE 50	N/A	N/A
15	ALFRED JAMES K	15-0310-0002-0002	7.97
16	HARVEST CARE MEDICAL REAL ESTATE LLC	15-0310-0001-0003	8.36
17	COUNTY COMMISSION OF HARRISON COUNTY WEST VIRGINIA	15-2409-0150	0.15
ROAD	RUSSELL STREET	N/A	N/A
18	METHENY JACK D III & NATALIE J SOUTHERN	15-2409-0115	0.35

THRASHER
THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

DATE: JULY 27, 2026

OPERATOR'S WELL #: J OSBORN HSOP 16 212

API WELL #: 47 033 06085

STATE COUNTY PERMIT

WELL OPERATOR ARSENAL RESOURCES

Address 6031 WALLACE ROAD EXTENSION, SUITE 200

City WEXFORD State PA Zip Code 15090



FILE #: J OSBORN HSOP 16 212

DRAWING #: J OSBORN HSOP 16 212

SCALE: N/A

DESIGNATED AGENT ERIC MORRIS

Address 633 WEST MAIN ST.

City BRIDGEPORT State WV Zip Code 26330

AS-DRILLED PLAT

J OSBORN WELL 212 AS-DRILLED			
ID	SURFACE OWNER	DIST-TM-PAR	ACREAGE
19	METHENY JACK D	15-2409-0094	0.19
20	METHENY JACK D	15-2409-0089	0.19
21	METHENY JACK D	15-2409-0084	0.19
22	STALLMAN RODNEY L	15-2409-0075	0.21
23	STALLMAN RODNEY L	15-2409-0066	0.21
24	STALLMAN RODNEY L	15-2409-0060	0.22
25	STALLMAN RODNEY L	15-2409-0044	0.31
ROAD	LODGE STREET	N/A	N/A
26	HYMAN JUDITH A	15-2409-0034	0.14
26A	HYMAN JUDITH	15-2409-0033	0.07
27	STARKEY LUCAS & ANDREA N SPENCER	15-2409-0035	0.14
ROAD	UNNAMED ALLEY	N/A	N/A
28	SANDERS KIMBERLY S	15-2409-0020	0.42
ROAD	AIRPORT ROAD	N/A	N/A
29	BELASCO MOBILE HOME SALES	15-0290-0029	54.25
30	RUSSELL J S ET AL #5 TRUSTEES IOOF	16-0290-0027	3.89
31	CITY OF BRIDGEPORT	16-0290-0028	15.03
32	CITY OF BRIDGEPORT	16-0290-0026	26.26
ROAD	BENEDUM DRIVE	N/A	N/A
33	SVR ONE LLC	16-0289-0024-0013	0.86
34	SVR ONE LLC	16-0289-0024-0012	3.03
35	SVR ONE LLC	15-0289-0024-0001	2.82

RECEIVED
Office of Oil and Gas
AUG 07 2026
WV Department of
Environmental Protection

THRASHER

THE THRASHER GROUP, INC.
600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

DATE: JULY 27, 2026		FILE #: J OSBORN HSOP 16 212
OPERATOR'S WELL #: J OSBORN HSOP 16 212		DRAWING #: J OSBORN HSOP 16 212
API WELL #: 47 033 06085 STATE COUNTY PERMIT		SCALE: N/A
WELL OPERATOR ARSENAL RESOURCES Address 6031 WALLACE ROAD EXTENSION, SUITE 200 City WEXFORD State PA Zip Code 15090	STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	DESIGNATED AGENT ERIC MORRIS Address 633 WEST MAIN ST. City BRIDGEPORT State WV Zip Code 26330

08/28/2026