



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 25, 2025
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

ARSENAL RESOURCES LLC
6031 WALLACE RD EXT., SUITE 101

WEXFORD, PA 15090

Re: Permit Modification Approval for J Osborn 212
47-033-06085-00-00

Lateral Extension with Forced Pooling

ARSENAL RESOURCES LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: J Osborn 212
Farm Name: Judy M Osborn (LE) (Judy M Osborn Irrevocable Trust)
U.S. WELL NUMBER: 47-033-06085-00-00
Horizontal 6A New Drill
Date Modification Issued: 08/25/2025

Promoting a healthy environment.

09/12/2025

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

- 1) Well Operator: Arsenal Resources 494519412 Harrison Simpson Rosemont
Operator ID County District Quadrangle
- 2) Operator's Well Number: 212 Well Pad Name: J Osborn
- 3) Farm Name/Surface Owner: Judy M Osborn (LE) Public Road Access: 77/4 Moss Run (Coplin Run)
- 4) Elevation, current ground: 1164 ft Elevation, proposed post-construction: 1164 ft
- 5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b) If Gas Shallow X Deep _____
Horizontal X
- 6) Existing Pad: Yes or No Yes
- 7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale, Top 7130ft, Base 7230 ft, Anticipated Thickness 100 ft, Associated Pressure 0.5 psi/ft
- 8) Proposed Total Vertical Depth: 7,220 ft
- 9) Formation at Total Vertical Depth: Marcellus Shale
- 10) Proposed Total Measured Depth: 23,164 ft
- 11) Proposed Horizontal Leg Length: 14,983 ft
- 12) Approximate Fresh Water Strata Depths: 174', 232', 260', 372', 488', 609', 680'
- 13) Method to Determine Fresh Water Depths: Offsetting well reported water depths (033-05931, 033-05941, 033-5949, 033-05950)
- 14) Approximate Saltwater Depths: None expected
- 15) Approximate Coal Seam Depths: Bakerstown - 226', Brush Creek - 326', U Freeport - 401', L Freeport - 441', U Kittanning - 531', M Kittanning - 596', L Kittanning - 616'
- 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 X
- (a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

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WW-6B
(04/15)

API NO. 47- 033 - 06085

OPERATOR WELL NO. 212

Well Pad Name: J Osborn

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	94	80	80 ✓	CTS
Fresh Water	13.375	New	J-55	54.5	800	800 ✓	CTS
Coal							
Intermediate	9.625	New	J-55	40	1,500	1,500 ✓	CTS ✓
Production	5.5	New	P-110	23	23,164	23,164 ✓	TOC @ 1,350
Tubing							
Liners							

Jeff A Probst 6/16/2025 ✓

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	1,500	Class A/L, 3% CaCl ₂	1.29
Production	5.5	8.5-8.75	0.415	14,520	9,500	Class A/L, Poz	1.29/1.34
Tubing							
Liners							

Jeff A Probst 6/16/2025

PACKERS

Kind:				JUN 18 2025
Sizes:				WV Department of Environmental Protection
Depths Set:				

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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.

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21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 17.26

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22) Area to be disturbed for well pad only, less access road (acres): 6.63

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 1,700'; there will be no centralizers from 1,700' 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% CaCl₂ (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 wellbore. 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.

Jeff A Probst 6/16/2025

Well Location Plat Page 4 Cross Section

Arsenal Resources
Applicant / Well Operator Name

DEP ID#

J Osborn HSOP 16 Pad
Harrison County, WV
GL 1164' & 27' KB @ 1191.00usft

Well #
212



WELL PLAN

Operator Name: **Arsenal Resources**
Well/Farm Name: **J Osborn HSOP 16 Pad**

DEP
Use
Only

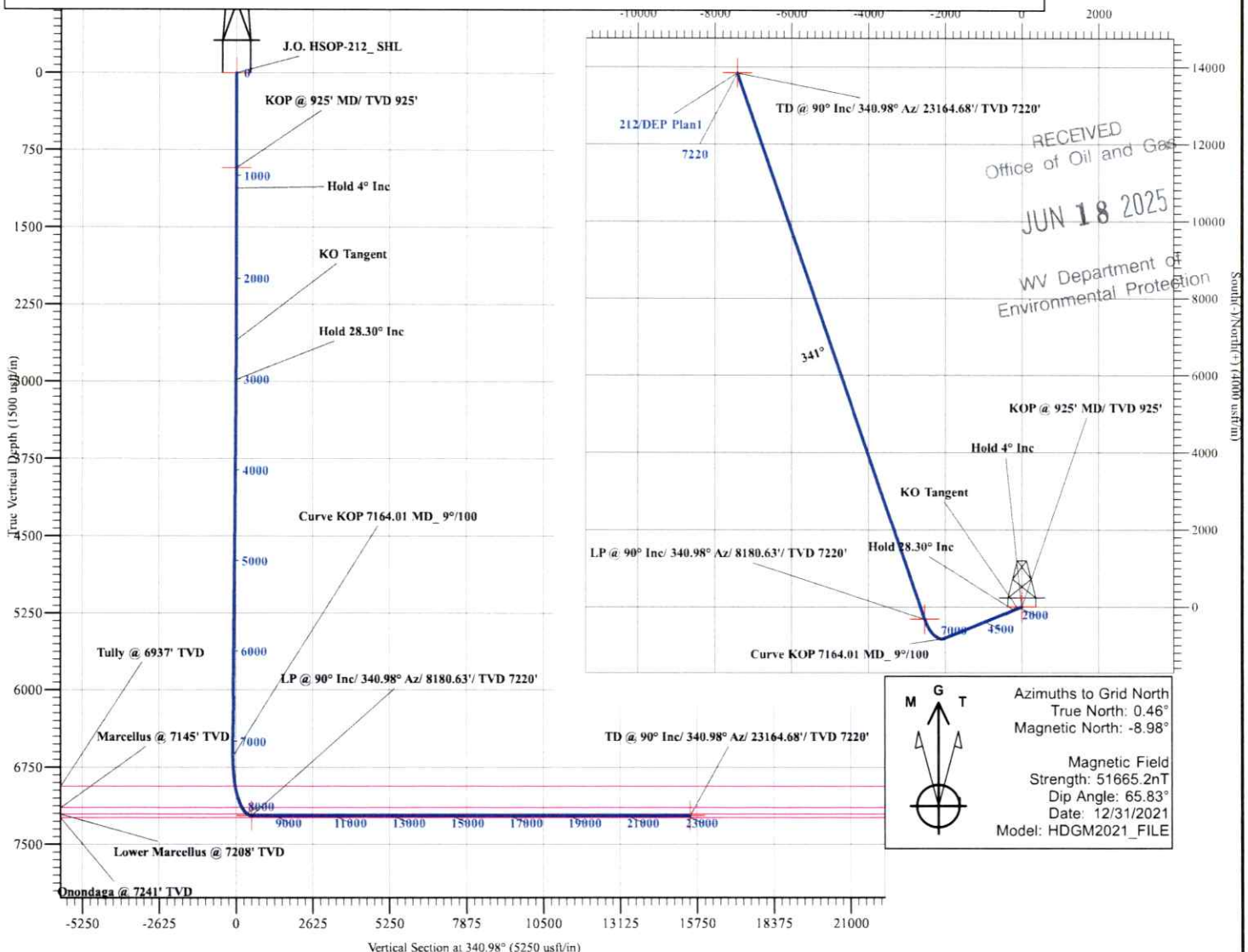
Permit #

NOTES:

Name	TVD	Latitude	Longitude	TMD
J.O. HSOP-212_SHL	0.00	39.26646268	-80.21816464	0.00
J.O. HSOP-212_KOP	925.00	39.26646268	-80.21816464	925.00
J.O. HSOP-212_LP	7220.00	39.26552199	-80.22709600	8180.63
J.O. HSOP-212_PBHL	7220.00	39.30430099	-80.24475900	23163.68

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V/Sect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
925.00	0.00	0.00	925.00	0.00	0.00	0.00	0.00	0.00	KOP @ 925' MD/ TVD 925'
1125.00	4.00	250.00	1124.84	-2.39	-6.56	2.00	250.00	-0.12	Hold 4° Inc
2603.76	4.00	250.00	2600.00	-37.67	-103.49	0.00	0.00	-1.88	KO Tangent
3008.85	28.30	247.82	2986.19	-79.38	-207.25	6.00	-2.51	-7.50	Hold 28.30° Inc
7164.01	28.30	247.82	6644.66	-823.08	-2031.50	0.00	0.00	-116.08	Curve KOP 7164.01 MD_ 9°/100
8180.63	90.00	340.98	7220.00	-322.27	-2531.40	9.00	92.78	520.30	LP @ 90° Inc/ 340.98° Az/ 8180.63' TVD 7220'
23163.68	90.00	340.98	7220.00	13842.53	-7415.07	0.00	0.00	15503.35	TD @ 90° Inc/ 340.98° Az/ 23164.68' TVD 7220'



09/12/2025

4703306085

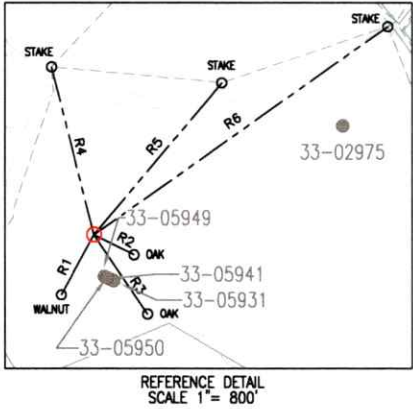
Area of Review Report - J Osborn Pad, 212 Lateral, Harrison County, WV

Well Name	API Number	Operator Name / Address	Well Type	Latitude	Longitude	Total Depth	Perforated Formation(s)	Producing Zones not Perforated
J Osborn HSOP 16 204	033-05931	Arsenal Resources, LLC	Existing	39.265907	-80.217852	24662	Marcellus Shale	NA
J Osborn HSOP 16 203	033-05941	Arsenal Resources, LLC	Existing	39.265924	-80.2179	24873	Marcellus Shale	NA
J Osborn HSOP 16 201	033-05949	Arsenal Resources, LLC	Existing	39.265958	-80.217997	25871	Marcellus Shale	NA
J Osborn HSOP 16 202	033-05950	Arsenal Resources, LLC	Existing	39.265941	-80.217949	25505	Marcellus Shale	NA
C. S. Harron 40	033-05426	Petroleum Development Corp	Cancelled	39.263556	-80.223861	NA	NA	NA
V. Guckes 37	033-03578	Diversified Production, LLC	Existing	39.266235	-80.225491	4552	Benson	NA
G. T. Faris Etc. 6	033-00239	Union Carbide, Olefins Div.	Abandoned	39.266794	-80.228115	2414	Fifth	Big Injun, Berea
Douglas Whyte 2	033-03131	Diversified Production, LLC	Existing	39.270005	-80.228663	4350	Benson	NA
Sam & Mary Faris 23	033-03034	Diversified Production, LLC	Existing	39.276385	-80.23165	4505	Benson	NA
William Callison et al 5	033-03777	Petroleum Development Corp.	Plugged	39.280001	-80.235395	Unknown	Unknown	NA
James Alfred et ux 1	033-03052	Diversified Production, LLC	Existing	39.287406	-80.236506	4480	Benson	NA
Belasco Mobile Home 3	033-03600	Diversified Production, LLC	Existing	39.294381	-80.238943	4435	Greenland Gap Fm, Fifth, Benson	Gordon

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BHL is located on topo map 12,731 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"



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'

J OSBORN HSOP 16 212		
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

- NOTES:
1. There are no water wells or developed springs within 250' of proposed well.
 2. There are no existing buildings within 625' of proposed well.
 3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 4. There are no native trout streams within 300' of proposed well.
 5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
 6. 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.
 7. 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



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: *Joseph H. Lowther*
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: JUNE 11, 2025
OPERATOR'S WELL #: J OSBORN HSOP 16 212
API WELL #: 47 33 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):

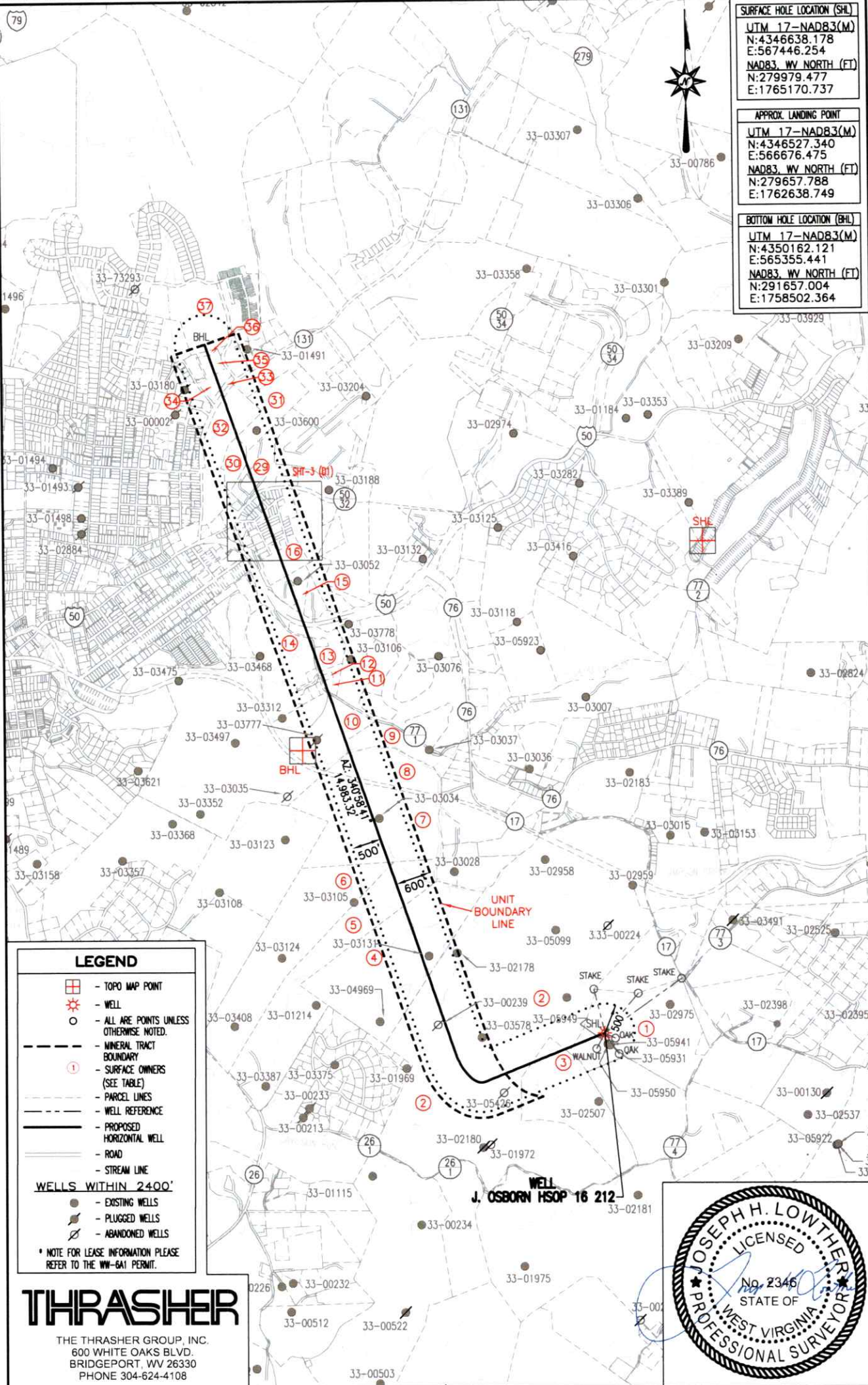
TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 7220'± TVD / 23,164' TMD

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

09/12/2025

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LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- MINERAL TRACT BOUNDARY
- SURFACE OWNERS (SEE TABLE)
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- ROAD
- STREAM LINE

WELLS WITHIN 2400'

- EXISTING WELLS
- PLUGGED WELLS
- ABANDONED WELLS

* NOTE FOR LEASE INFORMATION PLEASE REFER TO THE WM-6A1 PERMIT.

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THE THRASHER GROUP, INC.
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PHONE 304-624-4108

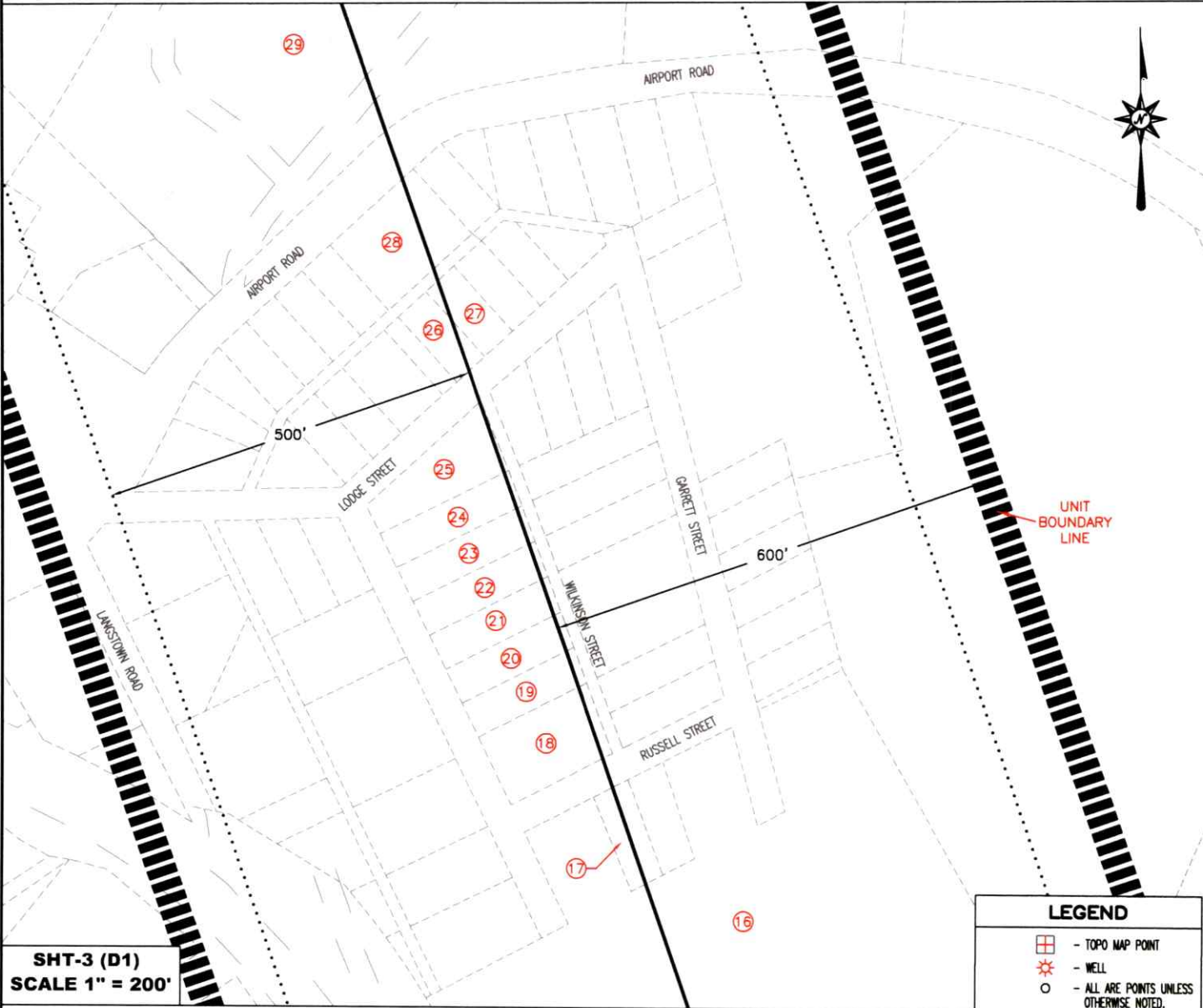
JOSEPH H. LOWTHERY
LICENSED
No. 2346
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

DATE: JUNE 11, 2025	 STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	FILE #: J OSBORN HSOP 16 212
OPERATOR'S WELL #: J OSBORN HSOP 16 212		DRAWING #: J OSBORN HSOP 16 212
API WELL #: 47 33 06085		SCALE: 1" = 2000'
STATE COUNTY PERMIT	DESIGNATED AGENT ERIC MORRIS	
WELL OPERATOR ARSENAL RESOURCES	Address 633 WEST MAIN ST.	
Address 6031 WALLACE ROAD EXTENSION, SUITE 200	City BRIDGEPORT State WV Zip Code 26330	
City WEXFORD State PA Zip Code 15090		

SURFACE HOLE LOCATION (SHL)
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E:565355.441
NAD83_WV NORTH (FT)
N:291657.004
E:1758502.364



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

LEGEND	
	- TOPO MAP POINT
	- WELL
	- ALL ARE POINTS UNLESS OTHERWISE NOTED.
	- MINERAL TRACT BOUNDARY
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WELLS WITHIN 2400'	
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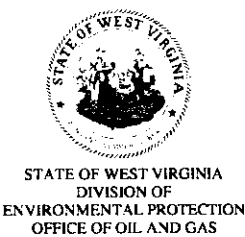


J OSBORN WELL 212			
ID	SURFACE OWNER	DIST-TM-PAR	ACREAGE
1	OSBORN JUDY M (LE) (JUDY M OSBORN IRREVOCABLE)	15-0330-0005	56.67
2	HARRON CAROLYN S	15-0330-0003	355.02
3	DAVIS CHARLES THOMAS II	15-0330-0004	41.84
2	HARRON CAROLYN S	15-0330-0003	355.02
4	WHYTE KAREN SUE	15-0330-0001	79.43
5	EBERT JOHN & 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

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600 WHITE OAKS BLVD.
BRIDGEPORT, WV 26330
PHONE 304-624-4108

DATE: JUNE 11, 2025
OPERATOR'S WELL #: J OSBORN HSOP 16 212
API WELL #: 47 33 06085
STATE COUNTY PERMIT



FILE #: J OSBORN HSOP 16 212 09/12/2025
DRAWING #: J OSBORN HSOP 16 212
SCALE: N/A

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

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

J OSBORN WELL 212			
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
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
36	SVR ONE LLC	15-0289-0024-0022	0.51
37	SVR ONE LLC	16-0289-0014-0002	20.90

THRASHER

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

DATE: JUNE 11, 2025		FILE #: J OSBORN HSOP 16 212 09/12/2025
OPERATOR'S WELL #: J OSBORN HSOP 16 212		DRAWING #: J OSBORN HSOP 16 212
API WELL #: 47 33 06085 STATE COUNTY PERMIT		SCALE: N/A
WELL OPERATOR ARSENAL RESOURCES	STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS	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

**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:

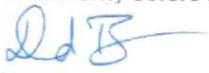
Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See attached				

**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

4703306085

Attachment to WW-6A1, J OSBORN HSOP 212

Letter Designation/ Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
✓ 1(00003703) 15-330-5	J. Earl Teter, Widower; Irvin D. Teter and Vera Teter, his wife	Petro-Lewis Corp.	12.5+%	1062/405	116
	Petro-Lewis Corp.	Partnership Properties Co.		1072/213	
	Partnership Properties Co.	Eastern American Energy Corporation		1124/449	
	Eastern American Energy Corporation	Energy Corporation of America		59/879	
	Energy Corporation of America	Greylock Production, LLC		1603/1121	
	Greylock Production, LLC	Mar Key, LLC		1607/855	
✓ 1 (00003704) 15-330-5	Gobel Osborn and Audrey Osborn, his wife and Judy Nicholson and Gary Nicholson, her husband	Petroleum Development Corporation	12.5+%	1074/420	72
	Petroleum Development Corporation	PDC Mountaineer, LLC		1440/364	
	PDC Mountaineer, LLC	River Ridge Energy, LLC		59/1263	
✓ 2,7 (00008352) 15-330-3 15-310-41	George T. Faris ET AL	Delaware Gas Company	12.5+%	820/128	1,529
	Delaware Gas Company	Creslenn Oil Company		897/279	
	Creslenn Oil Company	Deminex Oil Corporation		see Delaware Secretary of State site for name change documents	
	Deminex Oil Corporation	Deminex U.S. Oil Company		see Delaware Secretary of State site for name change documents	

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	Deminex U.S. Oil Company	Southwest Exploration And Acquisition Company		see Delaware Secretary of State site for name change documents	
	Southwest Exploration And Acquisition Company	Southwest Royalties Inc		see Delaware Secretary of State site for name change documents	
	Southwest Royalties Inc	HG Energy II Appalachia		1605/194	
	HG Energy II Appalachia	Mar Key, LLC		1611/595	
✓ 3 (00008232) 15-330-4	G Lester Douglas	NRM PRODUCTION CORPORATION	12.5+%	1097/77	46.83
	NRM PETROLEUM CORPORATION	NRM 80-2 LTD		1159/9	
	NRM 80-2 LTD	NRM OPERATING COMPANY		1165/229	
	NRM OPERATING COMPANY ET AL	EASTERN AMERICAN ENERGY CORPORATION		1216/558	
	EASTERN AMERICAN ENERGY CORPORATION	ENERGY CORPORATION OF AMERICA		1441/1003	
	ENERGY CORPORATION OF AMERICA	GREYLOCK PRODUCTION LLC		1603/1121	
	GREYLOCK PRODUCTION LLC	MAR KEY LLC		1607/0855	
✓ 3 (00008233) 15-330-4	Charles Thomas Davis ET UX	NRM Petroleum Corporation	12.5+%	1097/75	46
	NRM PETROLEUM CORPORATION	NRM 80-2 LTD		1159/9	
	NRM 80-2 LTD	NRM OPERATING COMPANY		1165/229	
	NRM OPERATING COMPANY ET AL	EASTERN AMERICAN ENERGY CORPORATION		1216/558	
	EASTERN AMERICAN ENERGY CORPORATION	ENERGY CORPORATION OF AMERICA		1441/1003	
	ENERGY CORPORATION OF AMERICA	GREYLOCK PRODUCTION LLC		1603/1121	

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	GREYLOCK PRODUCTION LLC	MAR KEY LLC		1607/0855	
4 (00004068) 15-330-1	Alden C. Rogers and Betty J. Rogers	PETROLEUM DEVELOPMENT CORP.	12.5+%	1059/946	82
	PETROLEUM DEVELOPMENT CORP.	PDC Mountaineer LLC		1440/364	
	PDC Mountaineer LLC	River Ridge Energy, LLC		59/1263	
5,6 (00003643) 15-329-38 15-329-38.1	SALLIE FARIS	Hope Natural Gas Company	12.5+%	347/441	376
	Hope Natural Gas Company	Consolidation Gas Supply Corp		903/179	
	Hope Natural Gas Company (MERGER)	Consolidation Gas Supply Corp		1567/262	
	Consolidation Gas Supply Corp	Hope Gas Inc		see ww secretary of state site	
	Hope Gas Inc	CNG Producing Company		1277/699	
	CNG Producing Company (name change)	Dominion Exploration & Production		589/366	
	Dominion Exploration & Production	Antero Resources Appalachian Corp		1423/1068	
	Antero Resources Appalachian Corp (name change)	Antero Resources Corporation		2/914	
	Antero Resources Corporation	Mar Key LLC		1785/1112	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003596)	WILLIAM G TETRICK JR ET AL	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/27	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003597)	VIRGINIA LONG HARTSOCK	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1150/725	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003598)	CECELE GRAHAM	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/11	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003599)	MARY LEE GRIFFITH TRUST	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1157/303	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003600)	MARGUERITE L BROWN	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1157/110	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003601)	RAYMOND A LAWSON JR ET UX	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/654	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003602)	KATHRYN E PAYNE ET AL	SHELDON & SHELDON INC	12.5+%	1137/946	376
	SHELDON & SHELDON INC	PETROLEUM DEVELOPMENT CORPORATION		1149/738	
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003603)	SHIRLEY GRIFFIN	SHELDON & SHELDON INC	12.5+%	1144/642	376
	SHELDON & SHELDON INC	PETROLEUM DEVELOPMENT CORPORATION		1149/738	

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003604)	JEAN HAWKER AND FRANK M. HAWKER	SHELDON & SHELDON INC	12.5+%	1144/644	376
	SHELDON & SHELDON INC	PETROLEUM DEVELOPMENT CORPORATION		1149/738	
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003605)	FRANCIS WATKINS	SHELDON & SHELDON INC	12.5+%	1144/646	376
	SHELDON & SHELDON INC	PETROLEUM DEVELOPMENT CORPORATION		1149/738	
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003606)	JAMES A PAYNE & BEVERLY D PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1177/70	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003607)	RACHEL NICKELL & ROY NICKELL	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1155/524	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003608)	RUTH HANNAH & SYLVESTER R HANNAH	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1153/236	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003609)	KATHRYN CONRAD & CHARLES R CONRAD	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1155/856	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 4 (00003610)	ROBERT E PAYNE & KAREN PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1152/519	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003611)	THEODORE PAYNE & JUDY PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1152/684	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003612)	JEANNE GLASPELL & LEON GLASPELL	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1155/520	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003613)	HELEN PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1155/528	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003614)	W M KESTER ET AL	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1158/575	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003615)	MARY LEE WATSON & BETH J SUTTON	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/31	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003616)	BETTY JANE SUTTON	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/23	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003617)	LEOMA CHANDLER	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/342	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003618)	MARY B FITTRO	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/7	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003619)	ERNESTINE WHITE & JOHN J WHITE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/35	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24 ,25,26,27,28 (00003620)	DULCIE STARKEY	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1149/401	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003621)	TERRY H BUTTS	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/338	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003622)	MARTHA ROBERTS	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/350	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003623)	ELLENOR LAWSON WHITEMAN ET VIR	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/39	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003624)	JO ANN ROSE AND DONALD ROSE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1153/282	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003625)	RUTH STANHOPE & GLENN R STANHOPE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/666	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003626)	ROBERT LAWSON & LENORE H LAWSON	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1140/1073	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003627)	NANCY LEE MUNN & JAMES R MUNN	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1139/16	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003628)	ELIZABETH A JOHNSON ET AL	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1148/547	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003629)	C GARNETT RITTER	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1150/717	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003630)	VESTA PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1151/355	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003631)	W HOBERT PAYNE & MAVA PAYNE	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1150/935	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003632)	ROXIE A WHITEMAN & ROY E WHITEMAN	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1150/721	376

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	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (00003633)	RALPH HOOPER & MARY HOOPER	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1150/1065	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
8,9,10,14,17,18,19,20,21,22,23,24,25,26,27,28 (D0000090)	FRED H GOFF	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1134/1023	376
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
RXR (000009426)	CSX Transportation INC	MAR KEY LLC	12.5+%	1794/1330	22.8
11 (Unleased 15-310-2.3)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
12 (Unleased 15-310-87)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
13 (Unleased 15-310-2)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
15 (00003780) 15-310-2.2	James R. Alfred & Shirlee D. Alfred	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1135/103	7.35
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
16 (15-310-1.3)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
29 (00004026)	Belasco Mobile Home Sales	PETROLEUM DEVELOPMENT CORPORATION	12.5+%	1146/397	69.05
	PETROLEUM DEVELOPMENT CORPORATION	PDC MOUNTAINEER LLC		1440/364	
	PDC MOUNTAINEER LLC	River Ridge Energy, LLC		59/1263	
30 (16-290-27)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A

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Attachment to WW-6A1, J OSBORN HSOP 212

Letter Designation/ Number Designation on Plat	Grantor, Lessor, Assignor, etc.	Grantee, Lessee, Assignee, etc.	Royalty	Book/Page	Acreage
31 (16-290-28)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
32 (16-290-26)	ROYALTY OWNER SUBJECT TO	UNITIZATION FILING	N/A	N/A	N/A
33,34,35,36,37 (00009359)	Olive A Willis & JH Willis	West Fork Oil & Natural Gas	12.5+%	122/431	250
	West Fork Oil & Natural Gas	Bridgeport Natural Gas & Oil Company		140/385	
	Bridgeport Natural Gas & Oil Company	Hope Natural Gas Company		429/526	
	Hope Natural Gas Company	Consolidated Gas Supply Corporation		903/179	
	Consolidated Gas Supply Corporation	Hope Gas, INC		589/366	
	Hope Gas, INC	CNG Producing Company		1277/699	
	CNG Producing Company	Dominion Exploration & Production, Inc.		58/366	
	Dominion Exploration & Production, Inc.	Antero Resources Appalachian Corporation		1423/1068	
	Antero Resources Appalachian Corporation	Antero Resources Corporation		2/914	
	Antero Resources Corporation	Mar Key LLC		1785/1112	

* Horizontal well unit utilization - Subject to unitization filing with the West Virginia Oil and Gas Commission

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June 16, 2025

West Virginia Department of Environmental Protection
Office of Oil and Gas
ATTN: Taylor Brewer
601 57th Street SE
Charleston, WV 25304

RE: J. Osborn #212 (47-033-06085) - Expedited Modification Due to Well Extension

Dear Mr. Brewer,

Enclosed please find the permit modification for the J. Osborn #212 (47-033-06085).

The wellhead location remains the same as the current permit. The well is being extended to the planned lateral length of 14,983 feet.

Revised documents attached include the WW-6B, Wellbore schematic with plan, revised plat, revised WW-6A1, and revised area of review. The expedited modification review fee is also included.

Should you have any questions or need any additional information, please feel free to contact me by phone or email.

Sincerely,

A handwritten signature in blue ink that reads 'Emily Glick'.

Emily Glick
Geologist & Permitting Specialist
(c) 724-759-9612
(e) eglick@arsenalresources.com

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09/12/2025