

**BEFORE THE VIRGINIA GAS AND OIL BOARD**

**APPLICANT: Keyrock Energy, LLC**

**DIVISION OF GAS AND OIL  
DOCKET NO: VGOB 22-1115-4252**

**RELIEF SOUGHT: Creation of sealed gob drilling unit and Pooling**

**LOCATION: See "Exhibit A"**

**HEARING DATE: 12-20-22**

**UNIT NUMBER: 5**

**IN DICKENSON COUNTY, VIRGINIA**

**APPLICATION**

- 1) **Parties:** Applicant is Keyrock Energy, LLC, 207 East Main Street, Suite 2-D, PO Box 2223, Johnson City, TN 37605. Respondents are listed on "Exhibit B", attached hereto and made a part hereof. Set forth in "Exhibit B" are the names and last-known addresses of each owner of record identified by the Applicant as having or claiming an interest in the coalbed methane gas underlying the drilling unit sought to be created and pooled herein. Each of the individuals named in "Exhibit B" if living, is made a party hereto. If any such individual is deceased, then the known and unknown heirs, executors, administrators, devisees, trustees and assigns, both immediate and remote, of any such deceased individual are made parties hereto. Each of the legal entities named in "Exhibit B", if such entity continues to have legal existence, is made a party hereto. If any such legal entity is dissolved, then the known and unknown successors, trustees, and assigns, both immediate and remote, of such entity are made parties hereto.
  
- 2) **Facts:**
  - a) Applicant owns or claims to own oil and gas leases, coalbed methane gas leases, and/or coal leases and claims the right thereunder to explore for, develop and produce coalbed methane gas from the Mined Out Jawbone Coal Seam (hereinafter "Subject Formation") in the Contura Deep Mine 41 in Dickenson County, Virginia (hereinafter "Subject Lands"), which Subject Lands are more particularly described in "Exhibit A" attached hereto and made a part hereof. The purpose of this endeavor is to combust the coalbed methane gas to generate carbon credits for marketing purposes. To further this purpose, Applicant has entered into a lease, which is attached to the applicant as "Exhibit N", with Enervest XIV-A Nora LLC, Enervest Energy Institutional Fund XIV-A1, LP, and Enervest IV-WIC Nora LLC, to develop and produce coalbed methane in the area shown on "Exhibit A". "Exhibit A" is a map certified by licensed professional engineer showing the size and shape of the drilling unit to be created and pooled, as well as Applicant's interest in the subject drilling unit. Applicant attests to the fact that it believes said map conforms to existing orders issued by the Board. The undersigned certifies that the matters set forth in this application, to the best of his knowledge, information and belief, are true and correct.
  
  - b) On "Exhibit A", "Exhibit B", and the Tract Identification Page, Applicant has shown 1) the percentage of ownership in the drilling unit of each acreage (tract) being pooled, 2) the status of ownership of each acreage (tract) being pooled (including a description of the interest of each owner or claimant as disclosed by the examination of record title), i.e. whether leased to Applicant, leased to another person or unleased, and 3) the approximate percentage of interest in the drilling unit to be escrowed, if any, under Va. Code 45.2-1620(D) for each unidentifiable owner or claimant of a conflicting interest, if any.
  
  - c) The Virginia Gas and Oil Board (hereinafter "Board") heretofore has established drilling units in the Nora Gas Field underlying and comprised of the Subject Lands pursuant to its Orders and those of the Virginia Oil and Gas Conservation Board. However, said Field Rules and orders specifically provide that they do not apply to production of coalbed methane gas from sealed gob areas which production is contemplated by this application. Annexed hereto as "Exhibit L" which is an Underground Mine Map.
  
  - d) It is estimated by applicant that the total amount of recoverable gas is 586 mmcf.

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- e) Applicant has proposed 1 well bore as shown on "Exhibit A" for production of coalbed methane from the sealed gob and "Subject Formation." The estimated costs for development contemplated by this Application are as set forth in "Exhibit C" attached hereto and made part hereof which are Applicant's Estimate of Allowable Costs.
  - f) Applicant has exercised diligence to locate each person owning or claiming an interest in coalbed methane gas in the subject drilling unit underlying the Subject Lands. It is necessary to prevent waste, to protect correlative rights and to ensure the safe and efficient development and production of gas and oil resources in the Commonwealth that the Board hear this matter and adjudicate the rights and equities as between Applicant and the herein named persons.
  - g) Simultaneously with filing of this application pursuant to Va. Code § 45.2-1618(A). Applicant is providing notice by certified mail, return receipt requested to each person named as a Respondent in the Notice of Hearing having or claiming an interest in the coalbed methane gas, underlying the Subject Lands pooled herein. Applicant hereby notifies Board that where the identity or location of any person is shown as "unknown" on "Exhibit B", then Applicant is unable to provide said person with written notice of the application herein by mail.
  - g) Applicant does not request the Board establish an escrow account pursuant to Va. Code Ann. § 45.2- 1622(A), Board Rules, and prior Orders of the Board, into which the payment of costs or proceeds attributable to conflicting interests (to the extent they are subject to escrow) shall be deposited and held for the interests of the claimants.
- 3) **Legal Authority:** Va. Code § 45.2-1600, *et seq.* 4 VAC 25-160-10, *et seq.* and such other regulations promulgated pursuant to law.
- 4) **Relief Sought:** Applicant requests the Board issue an order providing as follows:  
 Creating a sealed gob drilling unit consisting of **234.30** +/- acres for the drilling, development, and production of coalbed methane gas from the sealed gob sometimes referred to herein as the "Subject Formation", which drilling unit is further described and depicted in "Exhibit A" annexed hereto and which drilling unit is described as follows: BEGINNING at a point having Virginia State Plane NAD 83 coordinates of N: 3,580,800.21 AND E: 10,360,452.96. Thence N 59°06'14" E 161.63 feet to a point; thence N 40°19'17" W 1975.58 feet to a point; thence N 45°00'16" E 73.52 feet to a point; thence N 41°14'57" W 1229.04 feet to a point; thence S 58°54'44" W 212.55 feet to a point; thence N 39°02'59" W 91.25 feet to a point; thence N 53°05'25" E 2153.94 feet to a point; thence S 41°32'23" E 644.70 feet to a point; thence N 59°13'26" E 488.70 feet to a point; thence S 41°09'16" E 311.31 feet to a point; thence N 78°24'22" E 173.07 feet to a point; thence N 49°04'08" E 387.09 feet to a point; thence S 42°11'56" E 2457.53 feet to a point; thence S 48°45'15" W 3270.86 feet to a point; thence N 40°52'20" W 443.80 feet to the point of BEGINNING, containing +/- 234.30 acres.
- a) Voluntary pooling interest of Respondents named in Exhibit B.
  - b) Establishing the percentages for division of interest for production, revenue and costs for all Respondents in accordance with those percentages as are set forth at "Exhibit B".
  - c) Designating Keyrock Energy, LLC, as Unit Operator; providing that the operator shall have the right to drill, develop, produce, market and sell coalbed methane gas from the subject drilling unit and shall further have the right to generate and market carbon credits; granting the operator the right to market and sell the coalbed methane gas from the subject drilling unit which is attributable to the conflicting claims and interests pooled herein; providing that the operator shall have an operator's lien on the coalbed methane gas estate and rights owned or claimed by the persons named herein in the subject drilling unit; and granting the operator the right to drill at any legal or specially permitted location on subject drilling unit; and granting the operator the right to drill wells at any legal or specially permitted location on the subject drilling unit.
  - d) Providing that the order to be entered herein shall expire two (2) years from the date of its issuance if operations have not commenced by said date; but further providing that if operations have commenced

during said two year period, then said order shall remain in effect for so long as operations continue on the subject drilling unit. However, in the event an appeal is taken from the order issued, the time between the mailing of the notice of appeal and the final order of the Circuit Court shall be excluded in calculating the two year period referred to herein.

- e) With respect to separately owned tracts and separately owned interests in the drilling unit, joining all the interests within the drilling unit to produce coalbed methane gas so that each owner in the drilling unit will share in all production and costs regarding the drilling unit in the proportion that the acreage owned by each owner bears to the entire acreage in the unit.
- f) Granting such other relief as is merited by the evidence and is just and equitable, whether or not such relief has been specifically requested herein.

Dated: November 10, 2022

**Keyrock Energy, LLC**  
Applicant

By:   
Morgan Pate, Geologist  
Keyrock Energy, LLC  
207 East Main St., Suite 2-D  
PO Box 2223  
Johnson City, TN 37605

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**APPLICANT: Keyrock Energy, LLC**

**DIVISION OF GAS AND OIL  
DOCKET NO: VGOB 22-1115-4252**

**RELIEF SOUGHT: Creation of sealed gob drilling unit and Pooling**

**LOCATION: See "Exhibit A"**

**HEARING DATE: 12-20-22**

**UNIT NUMBER: 5**

**IN DICKENSON COUNTY, VIRGINIA**

**HEARING DATE: December 20, 2022**

**PLACE: Virginia Dept. of Energy  
3405 Mountain Empire Rd.  
Big Stone Gap, VA 24219**

**TIME: 10:00 a.m.**

**NOTICE OF HEARING**

**COMMONWEAL TH OF VIRGINIA:** To all persons owning or claiming an interest in oil and gas, coalbed methane gas, coal or other minerals and to all other persons who have or claim to have an interest in the coalbed methane underlying and within the Keyrock Energy, LLC Unit #4 and the lands described on "Exhibit A" to the Application, which is attached to this Notice, in the Ervinton District of Dickenson County, Virginia (hereinafter "Subject Lands") and adjacent lands, and in particular to the following persons, their known and unknown heirs, executors, administrators, devisees, assigns and successors, both immediate and remote:

**NOTICE IS HEREBY GIVEN** that Applicant is requesting that the Virginia Gas and Oil Board (hereinafter "Board") issue an order creating a sealed gob unit and pooling all the rights, interests, and estates of the above named persons pursuant to Virginia Code Ann. § 45.2-1600, et seq., in regard to the drilling, development and production of coalbed methane gas from said drilling Unit #5 containing approximately 234.30 acres, for the mined-out Jawbone Coal Seam (hereinafter "Subject Formation"). Applicant requests that the Board issue an order providing as follows:

- a) Creating a sealed gob drilling unit consisting of 234.30 +/- acres for the drilling, development and production of coalbed methane gas from the sealed gob sometimes referred to herein as the "Subject Formation", which drilling unit is further described and depicted in Exhibit "A" annexed hereto and which drilling unit is described as follows: BEGINNING at a point having Virginia State Plane NAD 83 coordinates of N: 3,580,800.21 AND E: 10,360,452.96. Thence N 59°06'14" E 161.63 feet to a point; thence N 40°19'17" W 1975.58 feet to a point; thence N 45°00'16" E 73.52 feet to a point; thence N 41°14'57" W 1229.04 feet to a point; thence S 58°54'44" W 212.55 feet to a point; thence N 39°02'59" W 91.25 feet to a point; thence N 53°05'25" E 2153.94 feet to a point; thence S 41°32'23" E 644.70 feet to a point; thence N 59°13'26" E 488.70 feet to a point; thence S 41°09'16" E 311.31 feet to a point; thence N 78°24'22" E 173.07 feet to a point; thence N 49°04'08" E 387.09 feet to a point; thence S 42°11'56" E 2457.53 feet to a point; thence S 48°45'15" W 3270.86 feet to a point; thence N 40°52'20" W 443.80 feet to the point of BEGINNING, containing 234.30 acres, more or less.
- b) Voluntary pooling interest of Respondents named in Exhibit B.
- c) Establishing the percentages for division of interest for production, revenue and costs for all Respondents in accordance with those percentages as are set forth at "Exhibit B".

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- d) Designating Keyrock Energy, LLC, as Unit Operator; providing that the operator shall have the right to drill, develop, produce, market and sell coalbed methane gas from the subject drilling unit; and shall further have the right to generate and market carbon credits; granting the operator the right to market and sell the coalbed methane gas from the subject drilling unit which is attributable to the conflicting claims and interests pooled herein; providing that the operator shall have an operator's lien on the coalbed methane gas estate and rights owned or claimed by the persons named herein in the subject drilling unit; and granting the operator the right to drill at any legal or specially permitted location on subject drilling unit; and granting the operator the right to drill wells at any legal or specially permitted location on the subject drilling unit.
- e) Providing that the order to be entered herein shall expire two (2) years from the date of its issuance if operations have not commenced by said date; but further providing that if operations have commenced during said two year period, then said order shall remain in effect for so long as operations continue on the subject drilling unit. However, in the event an appeal is taken from the order issued, the time between the mailing of the notice of appeal and the final order of the Circuit Court shall be excluded in calculating the two year period referred to herein.
- f) With respect to separately owned tracts and separately owned interests in the drilling unit, joining all the interests within the drilling unit for the production of coalbed methane gas so that each owner in the drilling unit will share in all production and costs regarding the drilling unit in the proportion that the acreage owned by each owner bears to the entire acreage in the unit.
- g) Granting such other relief as is merited by the evidence and is just and equitable, whether or not such relief has been specifically requested herein.

**NOTICE IS FURTHER GIVEN** that this cause has been set for hearing and the taking of evidence before the Board at 10:00 AM, on December 20, 2022, at the offices of the Virginia Department of Energy at 3405 Mountain Empire Road, Big Stone Gap, VA 24219, and that notice will be published as required by law and the rules of the Board.

**NOTICE IS FURTHER GIVEN** that you may attend this hearing, with or without an attorney, and offer evidence or state any comments you have. For further information or a copy of the application and exhibits, either contact the Virginia Gas and Oil Board, State Oil and Gas Inspector, Department of Mines, Minerals and Energy, Division of Gas and Oil, P. O. Box 159, Lebanon, Virginia 24266, 276/415-9650 or the Applicant at the address shown below.

Dated: November 8, 2022

**Keyrock Energy, LLC**  
Applicant

By: 

Morgan Pate, Geologist  
Keyrock Energy, LLC  
207 East Main St., Suite 2-D  
PO Box 2223  
Johnson City, TN 37605

# EXHIBIT A

LATITUDE 37° 05' 00"

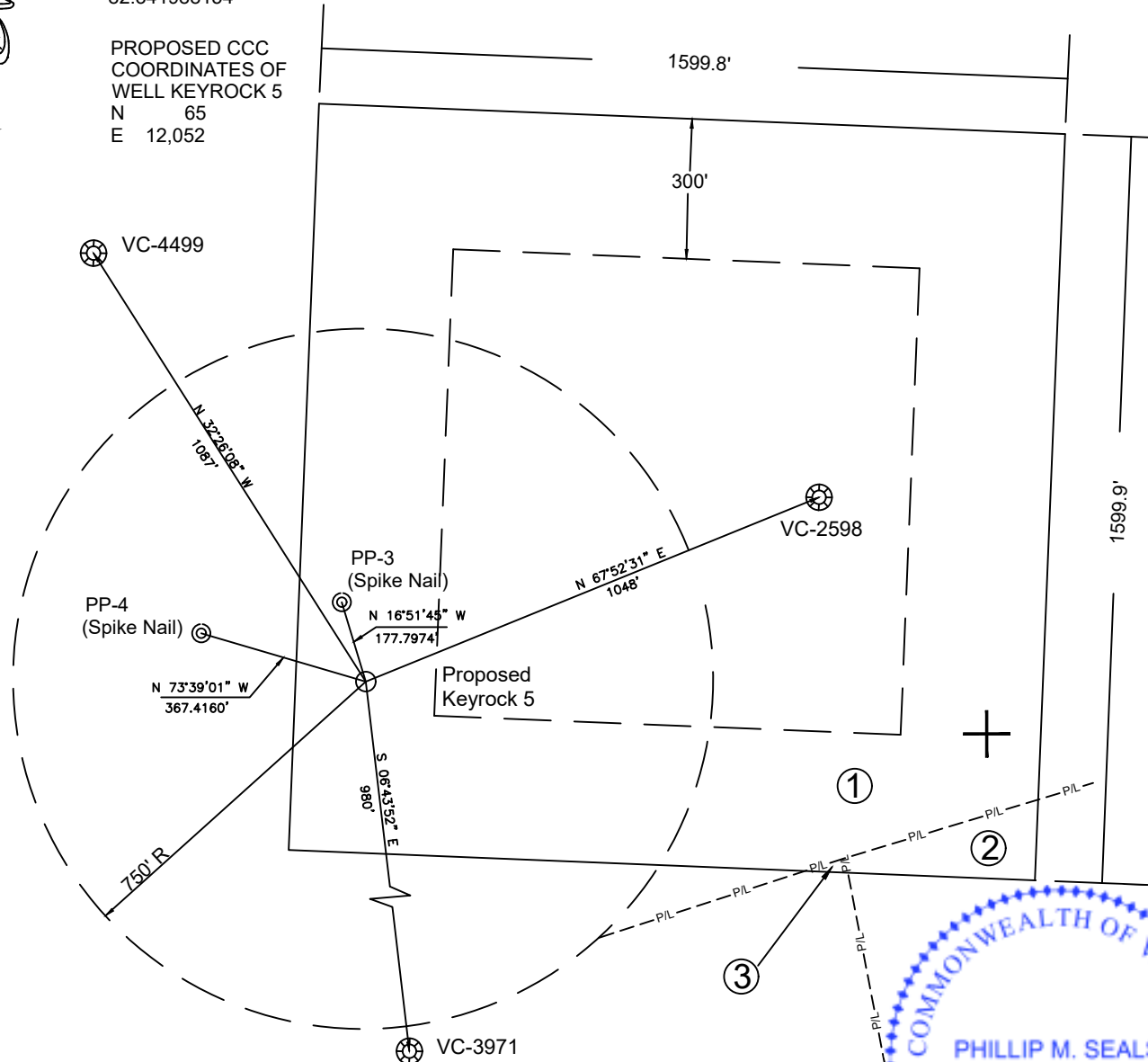
2,563'

LONGITUDE 82° 20' 00"

9,061'

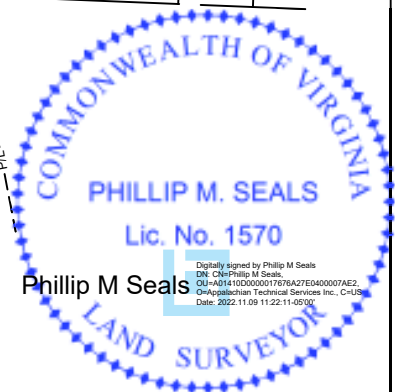
PROPOSED LAT. & LONG.  
(NAD 83 DECIMAL DEGREES)  
OF KEYROCK 5  
37.100233538  
82.341988154

PROPOSED CCC  
COORDINATES OF  
WELL KEYROCK 5  
N 65  
E 12,052



**NOTE:**

ELEVATIONS WERE DETERMINED BY GPS & TRIGONOMETRIC METHODS BASED ON CORS STATION VABG.  
THE BOUNDARY LINES SHOWN HEREON ARE BASED ON DEEDS, PLATS, AND MAPS OF RECORD OR SURVEYS BY OTHERS, AND DO NOT DEPICT A CURRENT BOUNDARY SURVEY.  
PROPERTY INFORMATION PROVIDED BY KEYROCK ENERGY, LLC  
THE WELL WILL BE DRILLED WITHIN 10 (TEN) FEET OF THE PERMITTED COORDINATES.  
THE POSITIONS OF EXISTING OFFSET WELLS WERE TAKEN FROM PLATS IN THE DGO FILES.



## WELL LOCATION PLAT (Nora Grid BA-45)

COMPANY Keyrock Energy LLC WELL NAME OR NUMBER KEYROCK 5  
TRACT NO. T-101 QUADRANGLE NORA  
DISTRICT Ervinton  
WELL COORDINATES (VIRGINIA STATE PLANE 83) N 3,582,849.29 E 10,362,764.22  
ELEVATION 1,989.69 METHOD USED TO DETERMINE ELEVATION: GPS & TRIG.  
COUNTY Dickenson SCALE: 1" = 400' DATE 9-19-2022  
THIS PLAT IS A NEW PLAT  ; AN UPDATED PLAT  ; OR A FINAL LOCATION PLAT

+ DENOTES THE LOCATION OF A WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 24,000, LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

*Phillip M. Seals*  
\_\_\_\_\_  
LICENSED LAND SURVEYOR

(AFFIX SEAL)

EXHIBIT PL-1

Property Ownership Information for Well # KEYROCK 5

TRACT IDENTIFICATION

①

T-101  
JOSHUA PRESSLEY  
951.73 AC.  
CF HIGHLANDS LLC -Surface  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
1/4 interest oil, gas (cbm)  
GAS 57.77AC. 98.31 %

②

TRACT NO. T-7  
G. M. BLAIR  
280.00 ACRES  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
1/4 interest oil, gas (cbm)  
GAS 0.97AC. 1.64 %

③

T-186  
NOAH A. SKEEN  
327.39 ACRES  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
1/4 interest oil, gas (cbm)  
GAS 0.03 AC. 0.05 %

LATITUDE 37° 05' 00"

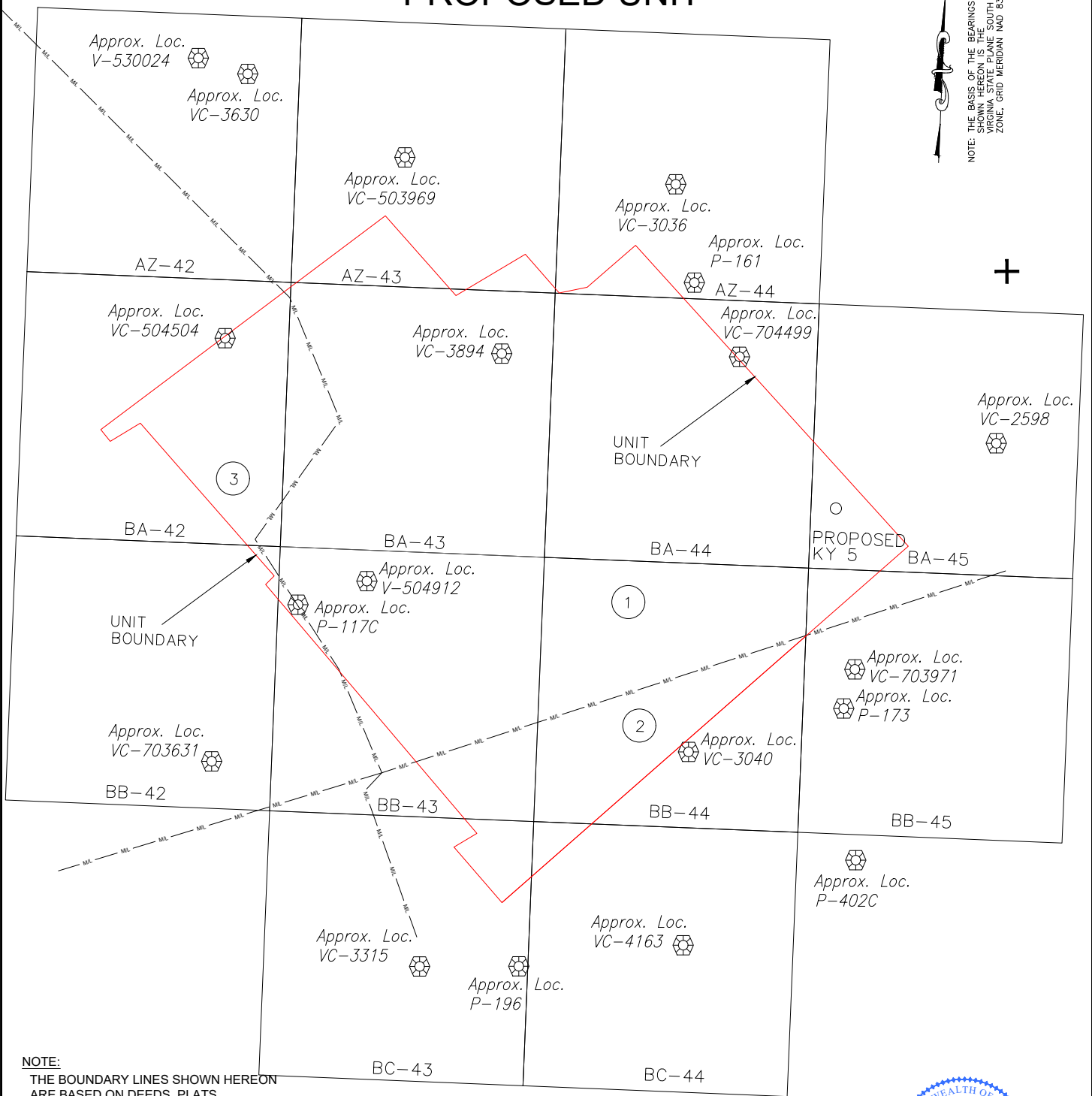
2,563'

# PROPOSED UNIT

9,061'

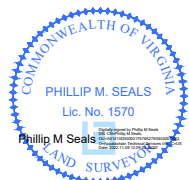
LONGITUDE 82° 20' 00"

NOTE: THE BASIS OF THE BEARINGS  
WAS THE VIRGINIA STATE PLANE  
VIRGINIA STATE PLANE SOUTH  
ZONE, GRID MERIDIAN NAD 83



**NOTE:**  
 THE BOUNDARY LINES SHOWN HEREON ARE BASED ON DEEDS, PLATS, AND MAPS OF RECORD OR SURVEYS BY OTHERS, AND DO NOT DEPICT A CURRENT BOUNDARY SURVEY. PROPERTY INFORMATION PROVIDED BY KEYROCK ENERGY LLC.  
 THE WELL WILL BE DRILLED WITHIN 10 (TEN) FEET OF THE PERMITTED COORDINATES. EXISTING WELL POSITIONS WERE TAKEN FROM PLATS IN THE DGO FILES. SEE ATTACHED EXHIBIT PL-1 FOR TRACT OWNERSHIP SCHEDULE.

TOTAL UNIT AREA  
 = 234.30 ACRES



**WELL LOCATION PLAT (Nora Grid N/A) DGO FILE NO.: Unknown At This Time**

COMPANY Keyrock Energy LLC WELL NAME OR NUMBER KY 5  
 TRACT NO. T2-101 QUADRANGLE Nora  
 DISTRICT Ervington  
 WELL COORDINATES (VIRGINIA STATE PLANE 83) N 3,582.89.29 E 10,362.764.22  
 ELEVATION 1,989.69 METHOD USED TO DETERMINE ELEVATION: GPS & TRIG.  
 COUNTY Dickenson SCALE: 1" = 400' DATE 9-19-2022  
 THIS PLAT IS A NEW PLAT ; AN UPDATED PLAT ; OR A FINAL LOCATION PLAT   
 + DENOTES THE LOCATION OF A WELL ON UNITED STATES TOPOGRAPHIC MAPS, SCALE 1 TO 24,000,  
 + LATITUDE AND LONGITUDE LINES BEING REPRESENTED BY BORDER LINES AS SHOWN.

EXHIBIT PL-1

Property Ownership Information for Keyrock 5  
09-19-2022

TRACT IDENTIFICATION

①

T-101  
Joshua Pressley  
951.73 ACRES  
C. F. Highlands - Surface  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
oil, gas & cbm

Keyrock Energy - cbm lessee

GAS 182.20 AC. 77.76%

②

T-186  
Noah A. Skeen  
327.39 ACRES  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
oil, gas & cbm

Keyrock Energy - cbm lessee

GAS 27.50 AC. 11.74%

③

T-129  
Jasper Sutherland  
641 ACRES  
ACIN LLC - coal  
PARAMONT CONTURA, LLC - coal lessee  
WBRD LLC - coal  
DICKENSON-RUSSELL CONTURA, LLC- coal lessee  
ENERVEST XIV-A NORA LLC  
ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. &  
ENERVEST XIV-WIC NORA LLC  
oil, gas & cbm

Keyrock Energy - cbm lessee

GAS 24.60 AC. 10.50%

**Exhibit B  
Unit # 5  
VGOB Docket # 22-1115-4252  
List of all Owners/Claimants  
(234.30 Acre Unit)**

	<b>Acres in Unit</b>	<b>Interest in Unit</b>
<b><u>Tract #T-101; Joshua Presley (951.73 Acres)</u></b>		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM 1001 Fannin Street Ste 800 Houston, TX 77002	<b>182.20 acres</b>	<b>77.76 %</b>
<b><u>Tract #T-186; Noah A. Skeen (327.39 Acres)</u></b>		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM - 1001 Fannin Street Ste 800 Houston, TX 77002	<b>27.50 acres</b>	<b>11.74 %</b>
<b><u>Tract #T-129; Jasper Sutherland (641 Acres)</u></b>		
(1) ENERVEST XIV-A NORA LLC ENERVEST ENERGY INSTITUTIONAL FUND XIV-1A, L.P. ENERVEST XIV-WIC NORA LLC - Oil, Gas & CBM - 1001 Fannin Street Ste 800 Houston, TX 77002	<b>24.60 acres</b>	<b>10.50 %</b>

# EXHIBIT C

## Authorization For Expenditure (AFE)


AFE # 1002	Property #	Version #
Well Name: Keyrock No. 5	Field:	Completed By: I Morgan Pate
Location: N 3,582,849.29 E 10,362,764.22	Operator: Keyrock Energy	Date: 9/23/2022
Expected Pay Zones: Mined-out Jawbone Coal Seam	Estimated Total Depth: 804 ft	AAPG Class:
Proposed Work: Drill Gob well into mined-out Jawbone Seam	Participant: None	W.I. Amount
		\$0

Gen	Sub	Description	Casing Point	Completion	Total Cost
		Leasehold Costs	\$0	\$0	\$25,900
		Permit / Title Opinion / Survey / Insurance	\$0	\$0	\$15,000
		Building Location	\$0	\$0	\$30,000
		Roads / Stone / Culverts	\$0	\$0	\$5,000
		Surface Damages	\$0	\$0	\$0
		Drilling - Footage	\$0	\$0	\$17,550
		Drilling - Mobilization	\$0	\$0	\$7,000
		Drilling - Dayrate	\$0	\$0	\$19,800
		Mud & Chemicals (Drilling)	\$0	\$0	\$0
		Fuel	\$0	\$0	\$4,500
		Cement Surface casing	\$0	\$0	\$0
		Cement Intermediate casing	\$0	\$0	\$7,000
		Open Hole Logging & Testing	\$0	\$0	\$3,406
		Trucking / Dozer (Drilling)	\$0	\$0	\$0
		Rental Tools & Equipment (Drilling)	\$0	\$0	\$0
		Drilling - Bits	\$0	\$0	\$0
		Technical Supervision (Drilling)	\$0	\$0	\$0
		Fresh Water Hauling (Drilling)	\$0	\$0	\$1,460
		Overhead Rate	\$0	\$0	\$0
		Misc. & Contingencies	\$0	\$0	\$5,000
		Location Rds/Stone/Culverts	\$0	\$0	\$4,000
		Trucking / Dozer (Completion)	\$0	\$0	\$0
		Technical Supervision (Completion)	\$0	\$0	\$0
		Cased Hole Logging / Perforating	\$0	\$0	\$0
		Stimulation / Fracturing	\$0	\$0	\$0
		Completion Rig	\$0	\$0	\$0
		Reclamation & Damages	\$0	\$0	\$1,000
		Haul Pit Water / Disposal	\$0	\$0	\$2,280
		Cement Production Casing	\$0	\$0	\$8,400
		Rental Tools & Equipment (Completion)	\$0	\$0	\$0
		Fresh Water Hauling (Completion)	\$0	\$0	\$540
		Roustabout Labor	\$0	\$0	\$0
		<b>TOTAL INTANGIBLES</b>	<b>\$0</b>	<b>\$0</b>	<b>\$157,836</b>
Code	Code		Casing Point	Completion	Total Cost
		13 3/8" Surface Casing	\$50	\$4,750	\$4,800
		7" R1 T&C Black Steel Csg	\$700	\$24,500	\$25,200
		Wellhead Equipment / Fittings	\$0	\$0	\$2,500
		Tank Battery	\$0	\$0	\$0
		Separator / Heater / Treater	\$0	\$0	\$0
		Gas Lift Equipment	\$0	\$0	\$4,000
		Rods / Stuffing Box	\$0	\$0	\$0
		Downhole Pump	\$0	\$0	\$0
		Pumping Unit / Motor	\$0	\$0	\$0
		SS EQT-Packer, PF, FC, Nip	\$0	\$0	\$0
		Valves & Fittings	\$0	\$0	\$800
		Flow Line labor/material	\$0	\$0	\$0
		Sales line labor/material	\$0	\$0	\$0
		<b>TOTAL TANGIBLES</b>	<b>\$0</b>	<b>\$0</b>	<b>\$37,300</b>
<b>GRAND TOTAL WELL COST</b>			<b>\$0</b>	<b>\$0</b>	<b>\$195,136</b>
153	115	Plugging & Abandonment	\$0		
			<b>Production Costs :</b>	<b>\$195,136</b>	<b>Dry Hole Costs :</b>
					<b>\$0</b>

Operations \_\_\_\_\_ Bruce Horman \_\_\_\_\_ Date 9/23/2022 \_\_\_\_\_ Geology \_\_\_\_\_ Morgan Pate \_\_\_\_\_ Date: 9/23/2022

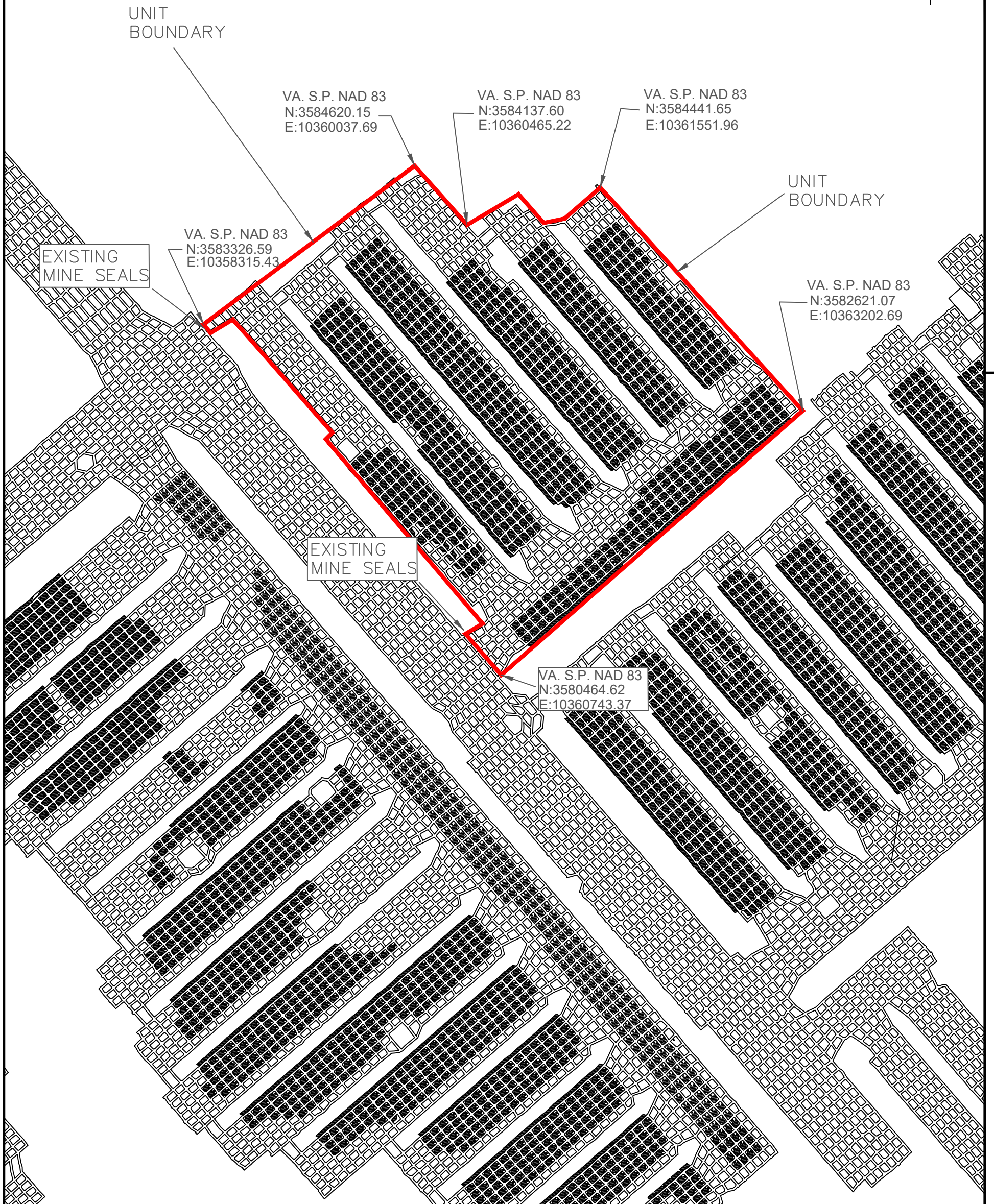
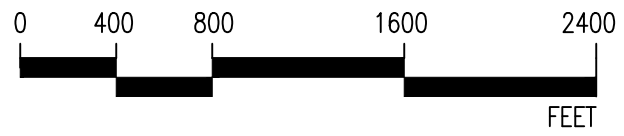
Engineering \_\_\_\_\_ Bruce Horman \_\_\_\_\_ Date 9/23/2022 \_\_\_\_\_ Land \_\_\_\_\_ Morgan Pate \_\_\_\_\_ Date: 9/23/2022


Management Approval Approved by: \_\_\_\_\_ Title Operations Manager \_\_\_\_\_ Date \_\_\_\_\_

Management Approval Approved by:  Title Senior Geologist \_\_\_\_\_ Date: 11/5/22

THIS IS AN ESTIMATE OF PROJECTED WELL DRILLING, COMPLETION, EQUIPMENT AND PIPELINE COSTS. THESE ESTIMATES ARE PROJECTIONS ONLY AND ACTUAL BILLED COSTS MAY VARY FROM WELL TO WELL DEPENDING UPON ACTUAL FINAL DEPTH AND OTHER FACTORS INCLUDING, BUT NOT LIMITED TO, SEASONAL MATERIAL COSTS, WEATHER CONDITIONS, AND UNFORESEEN RIGHT-OF-WAY PROBLEMS.

NOTE:  
 Mine Works shown as  
 provided by Alpha  
 Metallurgical Resources



 <b>Appalachian Technical Services, Inc.</b> <small>Engineering, Architecture, Surveying, Ecology &amp; Environmental Science</small> <small>Abingdon Office          P.O. Box 1897          475 West Main Street          Abingdon, VA 24212          (276) 676-4262</small>	<b>KEYROCK ENERGY LLC</b>		Designed By: JMC	Drawn By: JMC	Checked By: PMS	Date: 10/14/22
	<b>DEEP MINE 41 UNDERGROUND MINE MAP KY5 EXHIBIT L</b>		Project Number: 1892.01	Scale: 1" = 800'	Quadrangle: NORA	
			Coordinate System: VA Nad 83 South Zone			
	Drawing Name: Mineworks Only 24x36 With Well Units 10-14-22					<b>01</b>
Sheet/Layout: KY5 EXHIBIT L 11X17					<b>01</b>	



**Exhibit D  
Unit # 5  
VGOB Docket # 22-1115-4252  
Leased Parties in a Sealed Gob  
(234.30 Acre Unit)**

**Acres in Unit                      Interest in Unit**

**Tract #T-186; Noah A. Skeen (327.39 Acres)**

- |  |   |                           |                      |
|--|---|---------------------------|----------------------|
| <p>(1) ACIN LLC – Coal<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St.<br/>Ste 1400<br/>Roanoke, VA 24011</p> <p>(2) Paramount Contura, LLC - Coal Lessee<br/>Corporation Service Company<br/>100 Shockoe Slip<br/>FL 2<br/>Richmond, VA, 23219-4100</p> <p>(3) WBRD LLC - Coal<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St<br/>Ste. 1400<br/>Roanoke, VA 24011</p> <p>(4) Dickenson-Russell Contura, LLC - Coal Lessee<br/>Corporation Service Company<br/>100 Shockoe Slip<br/>FL 2<br/>Richmond, VA 23219-4100</p> | <p>(5) ENERVEST XIV-A NORA LLC<br/>ENERVEST ENERGY INSTITUTIONAL<br/>FUND XIV-1A, L.P.<br/>ENERVEST XIV-WIC NORA LLC<br/>- Oil, Gas &amp; CBM -<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St.<br/>Ste 1400<br/>Roanoke, VA, 24011</p> | <p><b>27.50 acres</b></p> | <p><b>11.74%</b></p> |
| <p>(6) Keyrock Energy - CBM Lessee<br/>Corporate Creations Network Inc.<br/>425 W Washington St.<br/>Ste 4<br/>Suffolk, VA, 23434 - 5320</p>   |   |                           |                      |

**Exhibit D  
Unit # 5  
VGOB Docket # 22-1115-4252  
Leased Parties in a Sealed Gob  
(234.30 Acre Unit)**

**Acres in Unit                      Interest in Unit**

**Tract #T-129; Jasper Sutherland (641 Acres)**

- |  |   |                           |                      |
|--|---|---------------------------|----------------------|
| <p>(1) ACIN LLC – Coal<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St.<br/>Ste 1400<br/>Roanoke, VA 24011</p> <p>(2) Paramount Contura, LLC - Coal Lessee<br/>Corporation Service Company<br/>100 Shockoe Slip<br/>FL 2<br/>Richmond, VA, 23219-4100</p> <p>(3) WBRD LLC - Coal<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St<br/>Ste. 1400<br/>Roanoke, VA 24011</p> <p>(4) Dickenson-Russell Contura, LLC - Coal Lessee<br/>Corporation Service Company<br/>100 Shockoe Slip<br/>FL 2<br/>Richmond, VA 23219-4100</p> | <p>(5) ENERVEST XIV-A NORA LLC<br/>ENERVEST ENERGY INSTITUTIONAL<br/>FUND XIV-1A, L.P.<br/>ENERVEST XIV-WIC NORA LLC<br/>- Oil, Gas &amp; CBM -<br/>Capitol Corporate Services, Inc.<br/>10 South Jefferson St.<br/>Ste 1400<br/>Roanoke, VA, 24011</p> | <p><b>24.60 acres</b></p> | <p><b>10.50%</b></p> |
| <p>(6) Keyrock Energy - CBM Lessee<br/>Corporate Creations Network Inc.<br/>425 W Washington St.<br/>Ste 4<br/>Suffolk, VA, 23434 - 5320</p>   |   |                           |                      |

		Exhibit I		
		Unit # 5		
		VGOB Docket # 22-115-4252		
		List of all Wells Incl. the Sealed Gob		
		(234.30 Acre Unit)		
<b><u>UNIT NUMBER</u></b>	<b><u>WELL NUMBER</u></b>	<b><u>DGO FILE NUMBER</u></b>	<b><u>STATUS</u></b>	<b><u>TYPE WELL</u></b>
AZ-42	V- 530024	DI-2119	Producing	Conventional
AZ-42	VC-3630	DI-0832	Producing	Coalbed Methane
AZ-43	VC- 503969	DI-1470	Producing	Coalbed Methane
AZ-44	VC- 3036	DI-0735	Producing	Coalbed Methane
AZ-44	P-161	DI-0226	Producing	Conventional
BA-42	VC- 504504	DI-1040	Producing	Coalbed Methane
BA-43	VC- 3894	DI-0903	Producing	Coalbed Methane
BA-44	VC- 704499	DI-1013	Producing	Coalbed Methane
BA-45	VC- 2598	DI-0666	Producing	Coalbed Methane
BB-42	VC- 703631	DI-0939	Producing	Coalbed Methane
BB-43	P- 117C	DI-0005	Producing	Coalbed Methane
BB-43	V- 504912	DI-1081	Producing	Conventional
BB-44	VC- 3040	DI-0736	Producing	Coalbed Methane
BB-45	VC- 703971	DI-0933	Producing	Coalbed Methane
BB-45	P- 173	DI-0229	Producing	Conventional
BC-43	VC-3315	DI-0907	Producing	Coalbed Methane
BC-43	P- 196	DI-0242	Producing	Conventional
BC-43	VC- 4163	DI-0965	Producing	Coalbed Methane

RE: KY 5 Exhibit I

Boyd, Bradley (Energy) <Brad.Boyd@energy.virginia.gov>

Wed 11/30/2022 10:30 PM

To: Gilmer, Sarah (Energy) <Sarah.Gilmer@energy.virginia.gov>

Sarah,

The wells DI-0903 and DI-1470 were shown to be producing Jawbone Gas before mining took place in the area near them. There were temporary plugs placed in these wells across the Jawbone seam to allow mining in the area (see attached plugging affidavits). The perforations in the Jawbone seam were cemented during the temporary plugging operations. We have no record that they were opened back up after the mining operations took place in the area. It does not appear that these wells are producing gas from the Jawbone seam now.

Just let me know if you have any questions.

Thank you,

Brad

Brad Boyd | Gas and Oil Programs Manager

Virginia Department of Energy

[brad.boyd@energy.virginia.gov](mailto:brad.boyd@energy.virginia.gov)

Office: 276-415-9700 | Cell: 276-639-6095



---

**From:** Gilmer, Sarah (Energy) <Sarah.Gilmer@energy.virginia.gov>

**Sent:** Wednesday, November 30, 2022 9:51 AM

**To:** Boyd, Bradley (Energy) <Brad.Boyd@energy.virginia.gov>

**Subject:** KY 5 Exhibit I

Brad,

Have you reviewed attached exhibit? I am thinking that you did. Just doublechecking.

***Sarah Gilmer | Board and Permitting Specialist***

*Virginia Department of Energy | Gas and Oil*

*3405 Mountain Empire RD*

*Big Stone Gap, VA 24219*

*Mobile: 276-393-5507*





**Tracking Number:** 546  
**Company:** EnerVest Operating, LLC  
**File Number:** DI-0903  
**Operations Name:** VC-3894

**PLUGGING AFFIDAVIT (DGO-GO-18)**

<b>Plugging Purpose:</b>	Temporary Plug	
<b>Date Commenced:</b>	5/4/2018	
<b>Date Completed:</b>	5/10/2018	
<b>Depth from:</b>	1205.0	<b>feet</b>
<b>To:</b>	1099.0	<b>feet</b>

**Plugging Details - Types of Materials Used**

Description	FileName
VC-3894 Coal	703894 Coals.xlsx
VC-3894 Final Plugging	Final Plugging Procedure 703894 5 29 18.xlsx
Plugging Schematic	VC-703894 Final Temporary Plugging Schematic.pdf

**Permanent Markers**

Finally, if this affidavit concerns a well that was abandoned after plugging, a permanent marker or permanent offset marker:

has or  has not been erected.

**Signed Affidavit**

Description	FileName
VC-3894 Affidavit	VC-3894 Plugging Affidavit.pdf

**Comments:**

**INTERNAL USE ONLY**

Submit Date: 5/30/2018 3:26:36 PM

Status: \_\_\_\_\_  
Final PDF Date: 6/28/2018

Date: 6/6/2018



Commonwealth of Virginia  
Department of Mines, Minerals and Energy  
Division of Gas and Oil  
P.O. Box 159,135 Highland Drive  
Lebanon, VA 24266  
Telephone: (276) 415-9700

Operations Name: VC-3894

Permit Number: 3817

### PLUGGING AFFIDAVIT

First Signature: C.M. Randolph Date: 5/30/18

Second Signature: Ian Landon Date: 5/30/2018

State of Virginia

County of Washington

Subscribed and sworn before me this 30th Day of May Month, 2018 Year, by

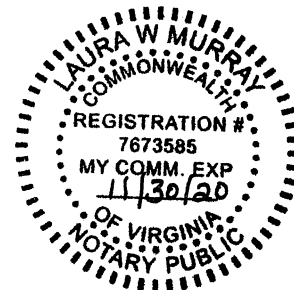
Mike Randolph & Ian Landon

Notary Public Laura W. Murray

SEAL

Notary Registration Number: 7673585

My Commission Expires: November 30, 2020



Coal seams			Well #	703894		
Names	Depth Top	Depth Bottom	Thickness	Mining in Area		Mined Out
				Yes	No	
Aily	869.40	871.40	2.00		No	No
Raven	947.50	949.60	2.10		No	No
Jawbone Rider	1098.80	1099.30	0.50		No	No
Jawbone	1123.00	1127.00	4.00		Yes	No
Tiller	1218.00	1219.40	1.40		No	No
Upper Seaboard A	Not Present				No	No
Upper Seaboard	1348.00	1351.00	3.00		No	No
Greasy Creek	1497.00	1497.50	0.50		No	No
Middle Seaboard	1534.00	1534.90	0.90		No	No
Lower Seaboard	1565.00	1565.90	0.90		No	No
Unnamed A	1629.00	1629.20	0.20		No	No
Unnamed B	Not Present				No	No
Upper Horsepen	1688.00	1689.20	1.20		No	No
Middle Horsepen	1722.00	1723.60	1.60		No	No
C Seam	1793.00	1793.40	0.40		No	No
War Creek Rider	1826.30	1826.40	0.10		No	No
War Creek	1845.00	1847.00	2.00		No	No
Unnamed C	Not Present				No	No
Beckley	1878.00	1878.90	0.90		No	No
Beckley	1893.00	1894.00	1.00		No	No
Lower Horsepen	1953.00	1955.50	2.50		No	No
X Seam	Not Present				No	No
Pocahontas #9	2049.00	2049.30	0.30		No	No
Pocahontas #8	Not Present				No	No
Pocahontas #7	2162.00	2162.50	0.50		No	No



## Final Plugging Procedure

Operation Name: 703894 Permit: 3817 File: DI-0903

Interval From Bottom		Formation(s)	Materials to be Used (Cement Gel, Bridges, Etc.)	Open Hole Diameter	Casing Size
From	To				
2231.0	2162.5	sandy shale	fill		4 ½"
2162.5	2162.0	Poca #7 seam	fill		4 ½"
2162.0	2150.0	sandy shale	fill		4 ½"
2150.0	2049.3	sandy shale			4 ½"
2049.3	2049.0	Poca #9 seam			4 ½"
2049.0	1955.5	sandy shale			4 ½"
1955.5	1953.0	Lower Horsepen seam			4 ½"
1953.0	1894.0	sandy shale			4 ½"
1894.0	1893.0	Beckley seam			4 ½"
1893.0	1878.9	sandy shale			4 ½"
1878.9	1878.0	Beckley seam			4 ½"
1878.0	1847.0	sandy shale			4 ½"
1847.0	1845.0	War Creek seam			4 ½"
1845.0	1826.4	sandy shale			4 ½"
1826.4	1826.3	War Creek Rider seam			4 ½"
1826.3	1793.4	sandy shale			4 ½"
1793.4	1793.0	C seam			4 ½"
1793.0	1723.6	sandy shale			4 ½"
1723.6	1722.0	Middle Horsepen seam			4 ½"
1722.0	1689.2	sandy shale			4 ½"
1689.2	1688.0	Upper Horsepen seam			4 ½"
1688.0	1629.2	sandy shale			4 ½"
1629.2	1629.0	Unnamed A seam			4 ½"
1629.0	1565.9	sandy shale			4 ½"
1565.9	1565.0	Lower Seaboard seam			4 ½"
1565.0	1534.9	sandy shale			4 ½"
1534.9	1534.0	Middle Seaboard seam			4 ½"
1534.0	1497.5	sandy shale			4 ½"
1497.5	1497.0	Greasy Creek seam			4 ½"
1497.0	1351.0	sandy shale			4 ½"
1351.0	1348.0	Upper Seaboard seam			4 ½"
1348.0	1219.4	sandy shale			4 ½"

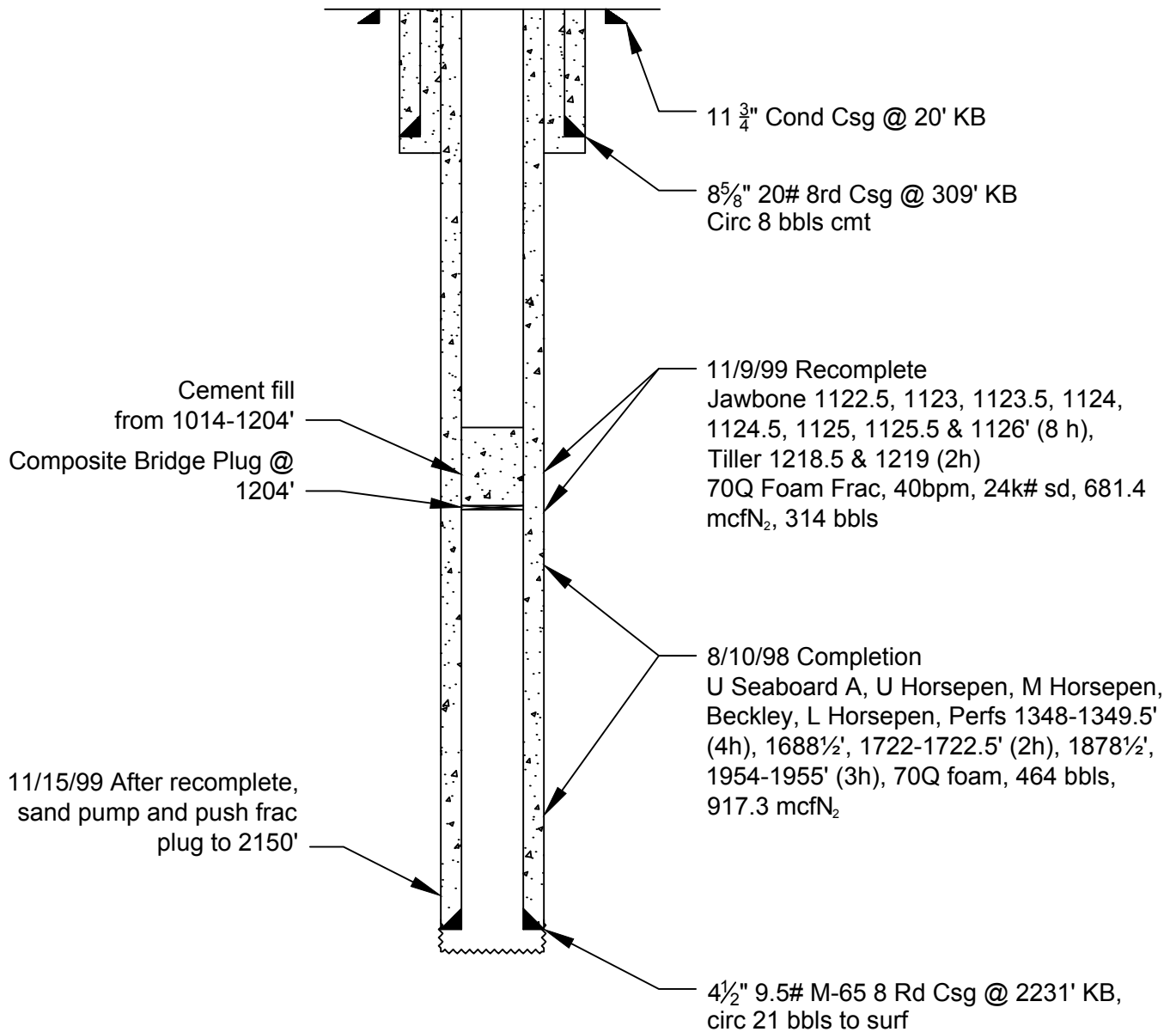
1219.4	1218.0	Tiller seam			4 ½"
1218.0	1205.0	sandy shale			4 ½"
1205.0	1204.0	sandy shale	composite bridge plug		4 ½"
1204.0	1127.0	sandy shale	cement		4 ½"
1127.0	1123.0	Jawbone seam	cement		4 ½"
1123.0	1099.3	sandy shale	cement		4 ½"
1099.3	1098.8	Jawbone Rider Seam	cement		4 ½"
1098.8	1014.0	sandy shale	cement		4 ½"
1014.0	949.6	sandy shale			4 ½"
949.6	947.5	Raven seam			4 ½"
947.5	871.4	sandy shale			4 ½"
871.4	869.4	Aily seam			4 ½"
869.4	0.0	sandy shale			4 ½"

# VC-703894 FINAL TEMPORARY PLUGGING SCHEMATIC

File # DI-0903 Permit # 3817

4/10/18

COMPLETION DATE 8/10/98



Scale - 1"=400'

Hole & Casing Exaggerated



**Tracking Number:** 545  
**Company:** EnerVest Operating, LLC  
**File Number:** DI-1470  
**Operations Name:** VC-503969 W/PL

**PLUGGING AFFIDAVIT (DGO-GO-18)**

<b>Plugging Purpose:</b>	Temporary Plug	
<b>Date Commenced:</b>	4/23/2018	
<b>Date Completed:</b>	5/3/2018	
<b>Depth from:</b>	1220.0	<b>feet</b>
<b>To:</b>	1038.0	<b>feet</b>

**Plugging Details - Types of Materials Used**

Description	FileName
VC-503969 Coals	503969 Coals version 2.xlsx
Final Plugging Procedure	Final Plugging Procedure 503969 5 14 18.xlsx
Plugging Schematic	VC-503969 Downhole Schematic.pdf

**Permanent Markers**

Finally, if this affidavit concerns a well that was abandoned after plugging, a permanent marker or permanent offset marker:

has or  has not been erected.

**Signed Affidavit**

Description	FileName
VC-503969 Plugging Affidavit	VC-503969 Plugging Affidavit.pdf

**Comments:**

<b>INTERNAL USE ONLY</b>	
Submit Date: 5/30/2018 3:30:24 PM	Date: 6/6/2018
Status: _____	





Commonwealth of Virginia  
Department of Mines, Minerals and Energy  
Division of Gas and Oil  
P.O. Box 159,135 Highland Drive  
Lebanon, VA 24266  
Telephone: (276) 415-9700

Operations Name: VC-503969  
Permit Number: 7107

### PLUGGING AFFIDAVIT

First Signature: C.M. Randolph Date: 5/30/18  
Second Signature: Ian Landon Date: 5/30/2018

State of Virginia

County of Washington

Subscribed and sworn before me this 30th day of May 2018, by  
Day Month Year

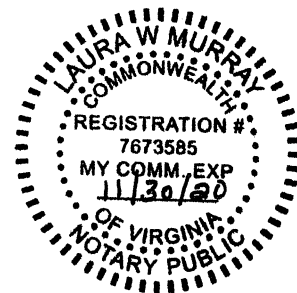
Mike Randolph & Ian Landon

Notary Public Laura W. Murray

Notary Registration Number: 7673585

My Commission Expires: November 30, 2020

SEAL



Coal seams			Well #	503969		
Names	Depth Top	Depth Bottom	Thickness	Mining in Area		Mined Out
				Yes	No	
Aily	879.50	881.40	1.90		No	No
Raven	950.50	951.00	0.50		No	No
Jawbone	1132.00	1135.50	3.50		Yes	No
Tiller	1241.50	1243.00	1.50		No	No
Upper Seaboard	1374.00	1378.00	4.00		No	No
Greasy Creek	1516.50	1517.70	1.20		No	No
Middle Seaboard	1548.00	1549.00	1.00		No	No
Unnamed A	1650.00	1650.20	0.20		No	No
Upper Horsepen	1707.00	1708.30	1.30		No	No
Middle Horsepen	1747.50	1749.50	2.00		No	No
War Creek Rider	1826.30	1826.40	0.10		No	No
War Creek	1845.00	1847.00	2.00		No	No
Beckley	1884.30	1885.00	0.70		No	No
Beckley	1893.00	1894.00	1.00		No	No
Lower Horsepen	1964.00	1966.25	2.25		No	No
Pocahontas #9	2062.00	2062.80	0.80		No	No
Pocahontas #8	2101.00	2101.20	0.20		No	No
Pocahontas #7	2194.00	2195.00	1.00		No	No

Jawbone Rider	Not Present			No	No
Upper Seaboard A	Not Present			No	No
Lower Seaboard	Not Present			No	No
Unnamed B	Not Present			No	No
C Seam	Not Present			No	No
Unnamed C	Not Present			No	No
X Seam	Not Present			No	No
Pocahontas #6	Not Present			No	No
Pocahontas #5	Not Present			No	No
Pocahontas #4	Not Present			No	No
Pocahontas #3	Not Present			No	No
Pocahontas #2	Not Present			No	No
Pocahontas #1	Not Present			No	No

## Final Plugging Procedure

Operation Name: 503969 Permit: 7107 File: DI-1470

Interval From Bottom		Formation(s)	Materials to be Used (Cement Gel, Bridges, Etc.)	Open Hole Diameter	Casing Size
From	To				
2487.0	2463.0	sandy shale	fill		4 ½"
2463.0	2195.0	sandy shale			4 ½"
2195.0	2194.0	Poca #7			4 ½"
2194.0	2101.2	sandy shale			4 ½"
2101.2	2101.0	Poca #8 seam			4 ½"
2101.0	2062.8	sandy shale			4 ½"
2062.8	2062.0	Poca #9 seam			4 ½"
2062.0	1966.2	sandy shale			4 ½"
1966.2	1964.0	Lower Horsepen seam			4 ½"
1964.0	1894.0	sandy shale			4 ½"
1894.0	1893.0	Beckley seam			4 ½"
1893.0	1885.0	sandy shale			4 ½"
1885.0	1884.3	Beckley seam			4 ½"
1884.3	1847.0	sandy shale			4 ½"
1847.0	1845.0	War Creek seam			4 ½"
1845.0	1826.4	sandy shale			4 ½"
1826.4	1826.3	War Creek Rider seam			4 ½"
1826.3	1749.5	sandy shale			4 ½"
1749.5	1747.5	Middle Horsepen seam			4 ½"
1747.5	1708.3	sandy shale			4 ½"
1708.3	1707.0	Upper Horsepen seam			4 ½"
1707.0	1650.2	sandy shale			4 ½"
1650.2	1650.0	Unnamed A seam			4 ½"
1650.0	1549.0	sandy shale			4 ½"
1549.0	1548.0	Middle Seaboard seam			4 ½"
1548.0	1517.7	sandy shale			4 ½"
1517.7	1516.5	Greasy Creek seam			4 ½"
1516.5	1378.0	sandy shale			4 ½"
1378.0	1374.0	Upper Seaboard seam			4 ½"
1374.0	1243.0	sandy shale			4 ½"
1243.0	1241.5	Tiller seam			4 ½"
1241.5	1221.0	sandy shale			4 ½"
1221.0	1220.0	sandy shale	composite bridge plug		4 ½"

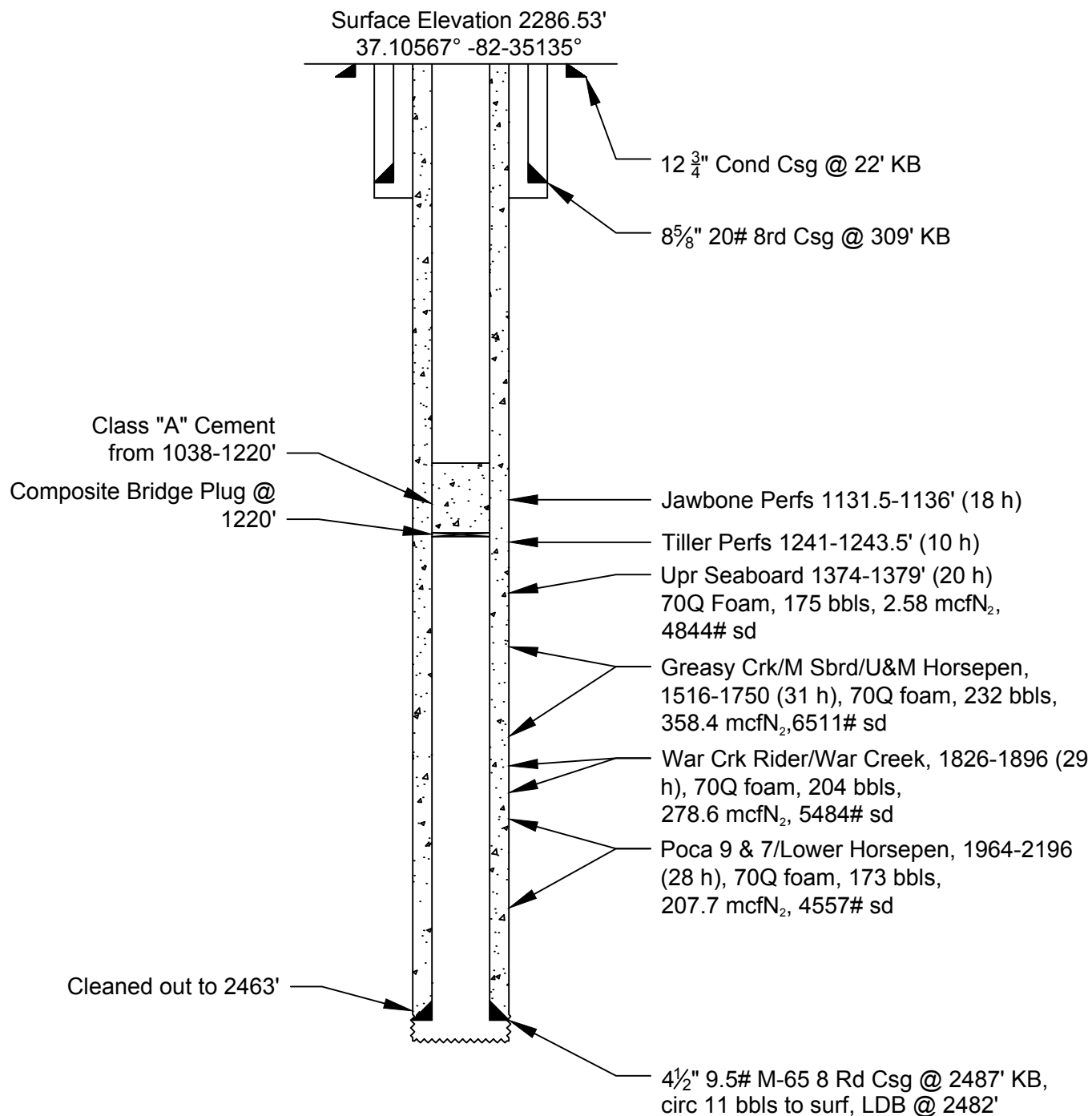
1220.0	1135.0	sandy shale	cement		4 ½"
1135.5	1132.0	Jawbone seam	cement		4 ½"
1132.0	1038.0	sandy shale	cement		4 ½"
1038.0	951.0	sandy shale			4 ½"
951.0	950.5	Raven seam			4 ½"
950.5	881.4	sandy shale			4 ½"
881.4	879.5	Aily seam			4 ½"
879.5	0.0	sandy shale			4 ½"

# VC-503969 DOWNHOLE SCHEMATIC

File # DI-1470 Permit # 7107

4/6/18

COMPLETION DATE 3/2/06



No Rig Work since Original Completion in file

Scale - 1"=400'  
Hole & Casing Exaggerated

**MEMORANDUM OF PAID UP METHANE GAS LEASE**

ENERVEST XIV-A NORA LLC (50.10494%), ENERVEST ENERGY INSTITUTIONAL FUND XIV-A1, LP. (15.00000%) and ENERVEST XIV-W/C NORA LLC (34.89506%), each a Delaware limited partnership c/o EnerVest Operating, LLC. (herein called "Lessor"), whose address is 408 W. Main Street, Abingdon, VA 24210, and Keyrock Energy LLC (herein called "Lessee"), whose address is 207 E. Main Street, Suite 2-D, Johnson City, Tennessee 37605, hereby acknowledge and give notice that Lessor has executed and delivered to Lessee a Paid Up Methane Lease (herein after "Lease") under date of January 12<sup>th</sup>, 2022, covering the premises situated between the waters of the Buffalo Creek and Caney Creeks of Dickenson County, Virginia, commonly known as Deep Mine 41, to wit:

See attached Exhibit A for map of leased premise.

Said Lease provides for a primary term of three (3) years from January 12, 2022, and as long thereafter as CBM is produced in paying quantities from the lands covered by the Lease, or said Lease is maintained in force in any other manner therein provided. An executed copy of said Lease is in the possession of both Lessor and Lessee, and said Lease with all of its terms, covenants and provisions, is incorporated herein by reference and made a part hereof for all purposes.

The purpose of this Memorandum of Paid Up Methane Gas Lease is to evidence the existence of said Lease, and this Memorandum is given in lieu of filing said Lease in full for record with the office of the Recorder in the county or counties in which said Land is located.

This instrument may be executed in counterparts, which can be combined in one or more instruments for recordation.

IN WITNESS WHEREOF this instrument is executed on this 19<sup>th</sup> day of January 2022, but to be effective January 12, 2022.

LESSOR:

LESSEE

**EnerVest Operating, LLC.**

**Keyrock Energy, LLC**

By: *Michael M. Dixon*

*Mark A. [Signature]*

Its: *Vicki R. [Signature]*

*managing Director*



Lessee

**Keyrock Energy LLC**

By: Mark Allaman

Name: Mark Allaman

Title: Managing Director

**ACKNOWLEDGEMENT**

STATE OF PENNSYLVANIA

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COUNTY OF BUTLER

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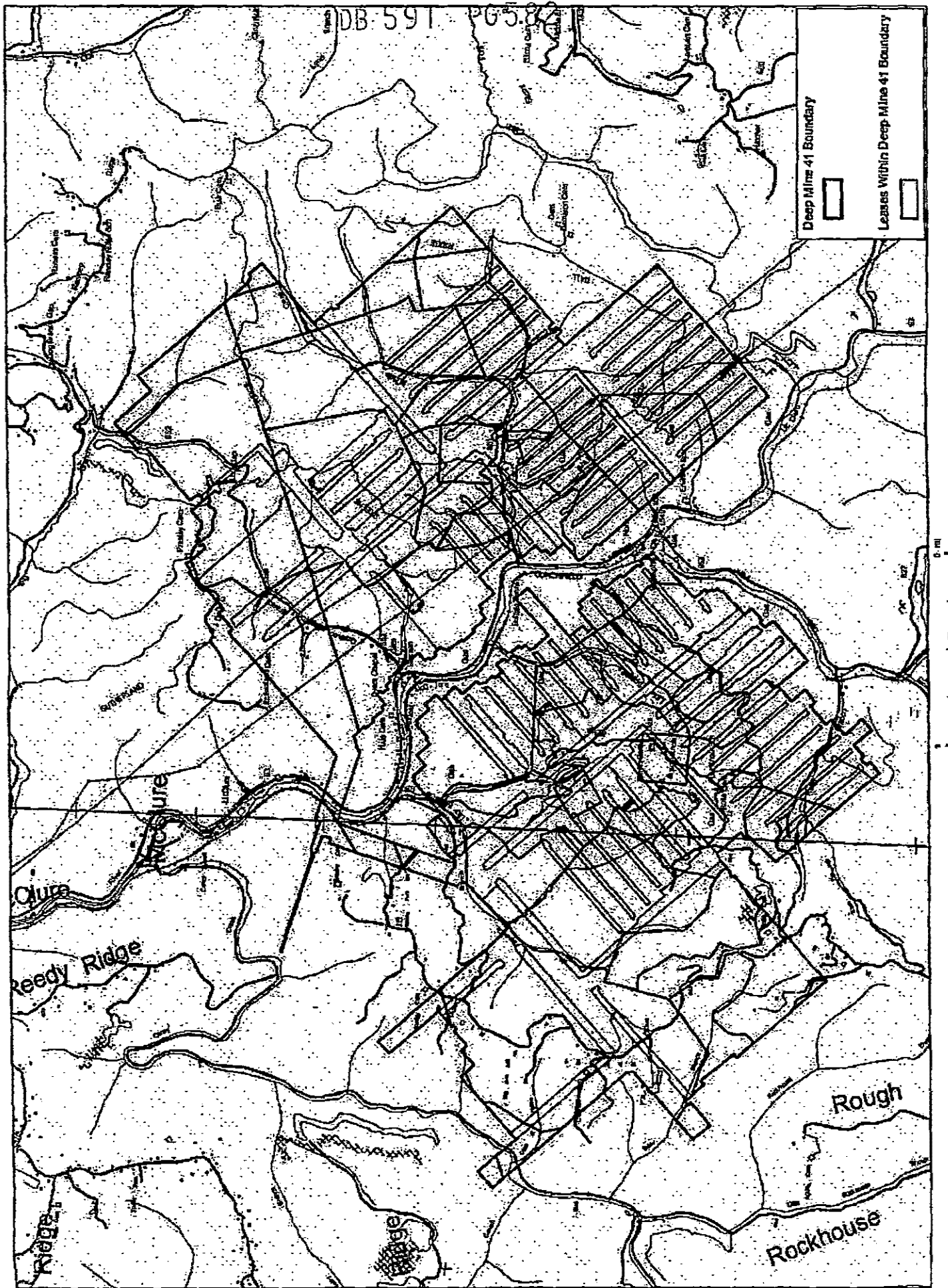
Venango

The foregoing instrument was acknowledged before me this 31<sup>st</sup> day of January, 2022 by Mark Allaman, as Managing Director of KEYROCK ENERGY, LLC, on behalf of the Limited Liability Company.

My Commission Expires: 12.17.22

Commonwealth of Pennsylvania - Notary Seal Katie Marie Sottiaux, Notary Public Venango County My commission expires December 17, 2022 Commission number 1342247 Member, Pennsylvania Association of Notaries
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Exhibit "A"



DB 591 PG583

INSTRUMENT 220000155  
RECORDED IN THE CLERK'S OFFICE OF  
DICKENSON CIRCUIT COURT ON  
FEBRUARY 15, 2022 AT 02:39 PM  
RICHARD W. EDWARDS, CLERK  
RECORDED BY: TJB