

Form 5500-SF

Department of the Treasury Internal Revenue Service

Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation

Short Form Annual Return/Report of Small Employee Benefit Plan

This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code).

Complete all entries in accordance with the instructions to the Form 5500-SF.

OMB Nos. 1210-0110 1210-0089

2024

This Form is Open to Public Inspection

Part I Annual Report Identification Information

For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

- A This return/report is for: [X] a single-employer plan [] a multiple-employer plan (not multiemployer) (Pension Plan filers checking this box must attach Schedule MEP. Other plans must attach a list of participating employer information in accordance with the form instructions.)
B This return/report is [] the first return/report [X] the final return/report [] an amended return/report [] a short plan year return/report (less than 12 months)
C Check box if filing under: [] Form 5558 [] automatic extension [] DFVC program [] special extension (enter description)
D If the plan is a collectively-bargained plan, check here []
E If this is a retroactively adopted plan permitted by SECURE Act section 201, check here []

Part II Basic Plan Information—enter all requested information

1a Name of plan: PENSION PLAN FOR UNION EE OF VANDERBILT MINERALS, LLC DIXIE CLAY DIVISION
1b Three-digit plan number (PN): 009
1c Effective date of plan: 01/01/1964
2a Plan sponsor's name (employer, if for a single-employer plan): VANDERBILT MINERALS, LLC DONALD ORPILLA
2b Employer Identification Number (EIN): 13-1432885
2c Sponsor's telephone number: 203-853-1400
2d Business code (see instructions): 327900
3a Plan administrator's name and address: RICHARD COMBATTI, 30 WINFIELD STREET NORWALK, CT 06855
3b Administrator's EIN: 13-1432885
3c Administrator's telephone number: 203-295-2143
4b EIN:
4d PN:
5a Total number of participants at the beginning of the plan year: 17
5b Total number of participants at the end of the plan year: 0
5c(1) Number of participants with account balances as of the beginning of the plan year (only defined contribution plans complete this item):
5c(2) Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item):
5d(1) Total number of active participants at the beginning of the plan year: 9
5d(2) Total number of active participants at the end of the plan year: 0
5e Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested: 0

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established. Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

Table with 4 columns: SIGN HERE, Signature of plan administrator, Date, Enter name of individual signing as plan administrator. Row 1: Filed with authorized/valid electronic signature, 02/24/2025, RICHARD COMBATTI. Row 2: Signature of employer/plan sponsor, Date, Enter name of individual signing as employer or plan sponsor.

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) Yes No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) Yes No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? Yes No Not determined
- If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year 538865. (See instructions.)

Part III Financial Information			
7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	665551	0
b Total plan liabilities	7b		
c Net plan assets (subtract line 7b from line 7a)	7c	665551	0
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)	1000	
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	-41230	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		-40230
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	545320	
e Certain deemed and/or corrective distributions (see instructions) .	8e		
f Administrative service providers (salaries, fees, commissions)	8f	80001	
g Other expenses	8g		
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		625321
i Net income (loss) (subtract line 8h from line 8c)	8i		-665551
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics	
9a	If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions: 1B 1H 1I 3D 3H
b	If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions				
10 During the plan year:		Yes	No	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X	
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X	
c Was the plan covered by a fidelity bond?	10c	X		3000000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X	
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X	
f Has the plan failed to provide any benefit when due under the plan?	10f		X	
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X	
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h		X	
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i			

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and lines 11a and b below.) If this is a defined contribution pension plan, leave line 11 blank and complete line 12 below. Yes No

a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40 **11a**

b PBGC missed contribution reporting requirements. If the plan is covered by PBGC and the amount reported on line 11a is greater than \$0, has PBGC been notified as required by ERISA sections 4043(c)(5) and/or 303(k)(4)? Check the applicable box:

Yes.

No. Reporting was waived under 29 CFR 4043.25(c)(2) because contributions equal to or exceeding the unpaid minimum required contribution were made by the 30th day after the due date.

No. The 30-day period referenced in 29 CFR 4043.25(c)(2) has not yet ended, and the sponsor intends to make a contribution equal to or exceeding the unpaid minimum required contribution by the 30th day after the due date.

No. Other. Provide explanation _____

12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA? (If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.) If this is a defined benefit pension plan, leave line 12 blank and complete line 11 above. Yes No

a If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month _____ Day _____ Year _____

If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.

b Enter the minimum required contribution for this plan year **12b**

c Enter the amount contributed by the employer to the plan for this plan year **12c**

d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount) **12d**

e Will the minimum funding amount reported on line 12d be met by the funding deadline? Yes No N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year? Yes No

a If "Yes," enter the amount of any plan assets that reverted to the employer this year. **13a** 47083

b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC? Yes No

c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

13c(1) Name of plan(s):	13c(2) EIN(s)	13c(3) PN(s)

Part VIII IRS Compliance Questions

14a Does the plan satisfy the coverage and nondiscrimination tests of Code sections 410(b) and 401(a)(4) by combining this plan with any other plans under the permissive aggregation rules? Yes No

14b If this is a Code section 401(k) plan, check all boxes that apply to indicate how the plan is intended to satisfy the nondiscrimination requirements for employee deferrals and employer matching contributions (as applicable) under Code sections 401(k)(3) and 401(m)(2).

Design-based safe harbor method

"Prior year" ADP test

"Current year" ADP test

N/A

15 If the plan sponsor is an adopter of a pre-approved plan that received a favorable IRS Opinion Letter, enter the date of the Opinion Letter 03 / 30 / 2018 (MM/DD/YYYY) and the Opinion Letter serial number J501167A.

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

▶ **Round off amounts to nearest dollar.**
 ▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>PENSION PLAN FOR UNION EE OF VANDERBILT MINERALS, LLC DIXIE CLAY DIVISION</u>	B Three-digit plan number (PN) ▶	<u>009</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>VANDERBILT MINERALS, LLC</u>	D Employer Identification Number (EIN) <u>13-1432885</u>	
E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	F Prior year plan size: <input type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input checked="" type="checkbox"/> More than 500	

Part I Basic Information

1 Enter the valuation date:	Month <u>01</u>	Day <u>01</u>	Year <u>2024</u>	
2 Assets:				
a Market value	2a	<u>665551</u>		
b Actuarial value	2b	<u>665551</u>		
3 Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target	
a For retired participants and beneficiaries receiving payment	<u>1</u>	<u>40441</u>	<u>40441</u>	
b For terminated vested participants	<u>7</u>	<u>166348</u>	<u>166348</u>	
c For active participants	<u>9</u>	<u>389536</u>	<u>389536</u>	
d Total	<u>17</u>	<u>596325</u>	<u>596325</u>	
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>				
a Funding target disregarding prescribed at-risk assumptions	4a			
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b			
5 Effective interest rate	5	<u>5.14 %</u>		
6 Target normal cost				
a Present value of current plan year accruals	6a	<u>0</u>		
b Expected plan-related expenses	6b	<u>1717</u>		
c Target normal cost	6c	<u>1717</u>		

Statement by Enrolled Actuary
 To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE Signature of actuary <u>MICHAEL C. MIKHITARIAN, FSA, CFA</u> Type or print name of actuary <u>MILLIMAN, INC.</u> Firm name <u>3 WINNERS CIRCLE SUITE 300 ALBANY, NY 12205</u> Address of the firm	<u>02/12/2025</u> Date <u>23-05834</u> Most recent enrollment number <u>518-514-7100</u> Telephone number (including area code)
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If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions

Part II Beginning of Year Carryover and Prefunding Balances		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	42404	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	42404	0
10	Interest on line 9 using prior year's actual return of <u>3.76</u> %	1594	0
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		4094
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.22</u> %		214
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c	Total available at beginning of current plan year to add to prefunding balance		4308
d	Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	43998	0

Part III Funding Percentages			
14	Funding target attainment percentage	14	104.23 %
15	Adjusted funding target attainment percentage	15	109.93 %
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	107.28 %
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV Contributions and Liquidity Shortfalls		18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees		
05/02/2024	1000						
			Totals ▶	18(b)	1000	18(c)	0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a	Contributions allocated toward unpaid minimum required contributions from prior years	19a	0
b	Contributions made to avoid restrictions adjusted to valuation date	19b	0
c	Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	983

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? Yes No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner? Yes No

c If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost			
21 Discount rate:			
a Segment rates:	1st segment: 4.75 %	2nd segment: 4.96 %	<input type="checkbox"/> N/A, full yield curve used
b Applicable month (enter code)			21b 0
22 Weighted average retirement age			22 65
23 Mortality table(s) (see instructions)	<input checked="" type="checkbox"/> Prescribed - combined	<input type="checkbox"/> Prescribed - separate	<input type="checkbox"/> Substitute

Part VI Miscellaneous Items			
24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
26 Demographic and benefit information			
a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment ...			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....			27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years			
28 Unpaid minimum required contributions for all prior years			28
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....			29 0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29).....			30 0

Part VIII Minimum Required Contribution For Current Year			
31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6c)	31a	1717	
b Excess assets, if applicable, but not greater than line 31a	31b	1717	
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment	0	0	
b Waiver amortization installment			
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	0	
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement			0
36 Additional cash requirement (line 34 minus line 35)	36	0	
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	983	
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a	983	
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0	
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0	
40 Unpaid minimum required contributions for all years	40	0	

Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)			
41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input type="checkbox"/> 2021			

Pension Plan for Union Employees of Vanderbilt Minerals, LLC - Dixie Clay Division

EIN/PN: 13-1432885/9

Attachment to 2024 Form 5500

Schedule SB, Line 19 – Discounted Employer Contributions

Line 19a. – Contribution Allocated Toward Unpaid Minimum Required Contribution from Prior Plan Years

None

Line 19b. - Contributions Made To Avoid Benefit Restrictions

None

Line 19c. - Contributions Allocated Toward Minimum Required Contribution for Current Year

Date	Plan Year to Apply Contribution	Effective Interest Date	Late Quarterly Interest Rate	Contribution Amount	Discounted Value as of 1/1/2024
5/2/2024	2024	5.14%		\$ 1,000.00	\$ 983.00
Total				\$ 1,000.00	\$ 983.00

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009

**Schedule SB Attachment, line 22 –
Description of Weighted Average Retirement Age**

The weighted average retirement age is equal to the normal retirement age of 65

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009

Schedule SB, line 26 – Schedule of Active Participant Data

The number of active participants summarized by attained age and years of credited service as of January 1, 2024 is shown below.

Age	Years of Credited Service										Total	
	0	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+		
0-24	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-
35-39	-	-	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-	-	-
45-49	-	-	1	-	-	-	-	-	-	-	-	1
50-54	-	-	2	-	-	-	-	-	-	-	-	2
55-59	-	-	-	1	-	-	-	-	-	-	-	1
60-64	-	-	-	1	-	2	-	-	-	-	-	3
65-69	-	-	1	-	-	-	-	-	-	-	-	1
70+	-	-	-	-	-	-	1	-	-	-	-	1
Total	-	-	4	2	-	2	1	-	-	-	-	9

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009
Schedule SB, Part V –
Statement of Actuarial Assumptions/Methods

Appendix A – Summary of Actuarial Methods

The ultimate cost of a pension plan is the excess of actual benefits and administrative expenses paid over actual net investment return on plan assets during the plan's existence until the last payment has been made to the last participant. A plan's "actuarial cost method" determines the expected incidence of actuarial costs by allocating portions of the ultimate cost to each plan year. The cost method is thus a budgeting tool to help ensure that a plan will be adequately and systematically funded. Annual contributions are also affected by a plan's "asset valuation method" (as well as plan provisions, actuarial assumptions, and actual plan demographic and investment experience each year).

Actuarial Cost Method

The actuarial cost method used for determining the Plan's ERISA funding requirements and the FASB ASC Topic 960 values is the Unit Credit method. Under this method, an accrued benefit is determined at each active participant's assumed retirement age based on compensation and service at both the beginning and the end of the current year. The Plan's normal cost is the sum of the present value of the excess of each active participant's accrued benefit at the end of the current year over that at the beginning of the current year. The Plan's accrued liability is the sum of (a) the present value of each active participant's accrued benefit at the beginning of the current year plus (b) the present value of each inactive participant's benefits.

Asset Valuation Method

The Actuarial Value of Assets used for determining the Plan's ERISA funding requirements is based on the Market Value of Assets.

PBGC Variable-Rate Premium Method

The standard method is used for PBGC variable-rate premium calculation (adopted January 1, 2023).

Amortization Method

For the Plan's ERISA funding requirements, incremental Funding Shortfall amounts are amortized over a fifteen-year period, and related shortfall amortization payment is determined on the first valuation date following the Plan Year in which it arises based on the segment rates used for ERISA minimum funding purposes on that date, as prescribed under IRC Section 430. All prior shortfall amortizations were eliminated effective with the 2021 valuation as the Plan Sponsor elected to apply the provisions of Section 9705 of the American Rescue Plan Act of 2021 for the 2021 plan year.

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009
Schedule SB, Part V –
Statement of Actuarial Assumptions/Methods

Appendix B – Summary of Actuarial Assumptions

Each of the assumptions used in this valuation with the exception of those set by law was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgement regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

ECONOMIC ASSUMPTIONS

Interest Rates

The current funding and PBGC interest rates are as follows. The funding interest rates are prescribed under IRS regulations based on the Plan Sponsor's interest rate election. The PBGC interest rates are based on the Plan Sponsor's elected method for determining the premium funding target.

	Minimum Funding	Maximum Deductible	PBGC Premium
Segment 1 (0–5 years)	4.75%	4.37%	5.01%
Segment 2 (5–20 years)	4.96%	4.96%	5.13%
Segment 3 (20+ years)	5.59%	4.95%	4.15%
Effective Interest Rate	5.14%	4.93%	5.13%

ERISA minimum funding purposes: 24-month average segment rates, using a zero-month lookback period adjusted to reflect the applicable segment rate stabilization corridor.

Maximum Deductible Contribution purposes: 24-month average segment rates, using a zero-month lookback period, but not adjusted to reflect segment rate stabilization.

PBGC premium purposes: Spot segment rates for the month preceding the valuation date. The standard method (adopted January 1, 2023) is used for the PBGC variable rate premium calculation.

For FASB ASC Topic 960 purposes: 5.00% per year. It is based on the Plan Sponsor's best estimate of the trust returns over the 10-20 year horizon based on current market conditions.

Administrative Expenses

Expected expenses payable from the trust are explicitly loaded to the normal cost. Expenses are expected to \$1,717 which is equal to the prior year's actual expense (excluding the 2023 PBGC premium) plus the estimated 2024 PBGC premium.

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009
Schedule SB, Part V –
Statement of Actuarial Assumptions/Methods

DEMOGRAPHIC ASSUMPTIONS

Except where noted, all demographic assumptions are based on the actuary's judgment and continual review of experience.

Mortality

ERISA minimum funding and Maximum Deductible Contribution: IRC Section 430 Static 2024 tables for small plans as prescribed by PPA.

FASB ASC Topic 960: PRI-2012 Mortality Table with Projection Scale MP-2021, applied generationally, with employee rates before benefit commencement and retiree and contingent survivor rates after benefit commencement.

Disability: Revenue Ruling 96-7 Post 94 for Males and Females.

Retirement

Active and terminated vested participants are assumed to retire at their Normal Retirement Age. Retroactive missed payments are valued for terminated vested participants past their Normal Retirement Age.

Termination

None.

Disability

Active employees are assumed to become disabled according to the rates from the 1952 Disability Table, Period 2, Benefit 5, with six month waiting period.

Decrement Timing

Decrements are assumed to occur at the beginning of the year.

Form of Payment

100% of the active and terminated vested participants are assumed to elect the Single Life Annuity option.

Marital Characteristics

For participants not in pay status: 80% of participants are assumed to be married to a spouse of the opposite sex. Males are assumed to be 3 years older than females.

For participants in pay status: Actual birth dates of spouses are included in the census data, where relevant.

Participant Data: As of January 1, 2024

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009

**Schedule SB, Part V –
Summary of Plan Provisions**

Appendix C – Summary of Principal Plan Provisions

The actuarial valuation was prepared in accordance with the provisions of the plan, a summary of which is presented below. The summary describes the principal provisions only and is not intended to be authoritative. For questions about specific benefits, please refer to the plan document. This summary of plan provisions is intended to only describe the essential features of the plan.

Basic Information

Plan Name: Pension Plan for Union Employees of Vanderbilt Minerals, LLC - Dixie Clay Division

Effective Date of Plan: January 1, 1964

EIN/PN: 13-1432885/009

Employees: Anyone employed by Vanderbilt Minerals, LLC - Dixie Clay Division and covered by a collective bargaining agreement.

Eligibility: First day of the month which coincides with or next follows the employee's date of hire. Participants hired after December 31, 2006 are not eligible to participate.

Benefit Service: All periods of employment with the Employer from Date of Employment. No additional service will be credited after December 31, 2006.

Vesting Service: All periods of employment with the Employer from Date of Employment.

Benefit Formulas and Eligibilities

Normal Retirement

Normal Retirement Date: Age 65 and 5 years of participation.

Normal Retirement Benefit: Monthly amount equal to:

- Prior to 08-01-2000: \$17.00 times Benefit Service
- As of 08-01-2000: \$18.00 times Benefit Service
- As of 08-01-2001: \$19.00 times Benefit Service
- As of 08-01-2002: \$20.00 times Benefit Service
- As of 08-01-2003: \$21.00 times Benefit Service
- As of 08-01-2004: \$22.00 times Benefit Service

Pension Plan for Union EE of Vanderbilt Minerals, LLC
Dixie Clay Division
EIN 13-1432885 / PN 009

**Schedule SB, Part V –
Summary of Plan Provisions**

Early Retirement

Early Retirement Date: Age 55 and 15 years of service.

Early Retirement Benefit: The actuarial equivalent of the Normal Retirement Benefit based on an interest rate of 6.00% and the 1951 Group Annuity Mortality Table male rates projected to 1970 by scale C with either a five-year or zero-year setback, whichever is better.

Disability Retirement

Disability Retirement Date: 10 years of Benefit Service but no sooner than the start of the Participant's Social Security disability benefit.

Disability Retirement Benefit: The Participant's accrued benefit.

Vested Termination

Termination Eligibility: Vested Percentage is determined in accordance with the following table:

Years of Vesting Service	Vested Percentage
Less than 5	0%
5 or more	100%

Termination Benefit: Accrued benefit payable at Normal Retirement.

Preretirement Surviving Spouse Coverage

Preretirement Surviving Spouse Benefit: Surviving spouse will receive a monthly pension benefit commencing at the earliest retirement date equal to 50% of the vested monthly pension benefit that would have been payable had the participant retired on the day before death and elected a Joint and 50% Contingent Survivor pension.

Forms of Payment

Normal Forms: Single Life Annuity. A participant that is married must take the benefit in the form of a Joint and 50% Survivor benefit unless the spouse provides written consent to waive the Joint & 50% Survivor benefit.

Qualified Joint and Survivor Annuity: Unless elected otherwise in writing at retirement, a married participant will receive his/her benefits as an actuarially equivalent Joint and 50% Survivor Annuity with the spouse as contingent beneficiary.

Optional Forms: Life Annuity, Life Annuity with 10 Years Certain, Joint and Contingent (elective percentage), Social Security Level Income, Lump Sum (if under \$5,000).

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	<small>OMB No. 1210-0110</small> 2024 This Form is Open to Public Inspection
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For calendar plan year 2024 or fiscal plan year beginning 01/01/2024 and ending 12/31/2024

▶ **Round off amounts to nearest dollar.**


▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan Pension Plan for Union EE of Vanderbilt Minerals, LLC Dixie Clay Division	B Three-digit plan number (PN) ▶	009
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF Vanderbilt Minerals, LLC	D Employer Identification Number (EIN) 13-1432885	
E Type of plan: <input checked="" type="checkbox"/> Single <input type="checkbox"/> Multiple-A <input type="checkbox"/> Multiple-B	F Prior year plan size: <input type="checkbox"/> 100 or fewer <input type="checkbox"/> 101-500 <input checked="" type="checkbox"/> More than 500	

Part I Basic Information

1	Enter the valuation date: Month <u>1</u> Day <u>1</u> Year <u>2024</u>		
2	Assets:		
	a Market value	2a	665,551
	b Actuarial value	2b	665,551
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target
	a For retired participants and beneficiaries receiving payment	1	40,441
	b For terminated vested participants	7	166,348
	c For active participants	9	389,536
	d Total	17	596,325
4	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... <input type="checkbox"/>		
	a Funding target disregarding prescribed at-risk assumptions	4a	
	b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b	
5	Effective interest rate	5	5.14 %
6	Target normal cost		
	a Present value of current plan year accruals	6a	
	b Expected plan-related expenses	6b	1,717
	c Target normal cost	6c	1,717

Statement by Enrolled Actuary
 To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	 Signature of actuary	<u>02/12/2025</u> Date
	<u>Michael C. Mikhitarian, FSA, CFA</u> Type or print name of actuary	<u>23-05834</u> Most recent enrollment number
	<u>Milliman, Inc.</u> Firm name	<u>(518) 514-7100</u> Telephone number (including area code)
	<u>3 Winners Circle Suite 300 Albany NY 12205</u> Address of the firm	

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions

Part II Beginning of Year Carryover and Prefunding Balances		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	42,404	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	42,404	0
10	Interest on line 9 using prior year's actual return of <u>3.76%</u>	1,594	0
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		4,094
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>5.22%</u>		214
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c	Total available at beginning of current plan year to add to prefunding balance		4,308
d	Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	43,998	0

Part III Funding Percentages			
14	Funding target attainment percentage.....	14	104.23%
15	Adjusted funding target attainment percentage	15	109.93%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement.....	16	107.28%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.....	17	%

Part IV Contributions and Liquidity Shortfalls		18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees		
05/02/2024	1,000						
			Totals ▶	18(b)	1,000	18(c)	0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a	Contributions allocated toward unpaid minimum required contributions from prior years.....	19a	0
b	Contributions made to avoid restrictions adjusted to valuation date	19b	0
c	Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c	983

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year? Yes No

b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?..... Yes No

c If line 20a is "Yes," see instructions and complete the following table as applicable:

Liquidity shortfall as of end of quarter of this plan year			
(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost				
21 Discount rate:				
a Segment rates:	1st segment: 4.75 %	2nd segment: 4.96 %	3rd segment: 5.59 %	<input type="checkbox"/> N/A, full yield curve used
b Applicable month (enter code)				21b 0
22 Weighted average retirement age				22 65
23 Mortality table(s) (see instructions)	<input checked="" type="checkbox"/> Prescribed - combined <input type="checkbox"/> Prescribed - separate <input type="checkbox"/> Substitute			

Part VI Miscellaneous Items				
24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment..... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
26 Demographic and benefit information				
a Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment..... <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
b Is the plan required to provide a projection of expected benefit payments? If "Yes," see instructions regarding required attachment... <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.....				27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years				
28 Unpaid minimum required contributions for all prior years				28
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....				29 0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)				30 0

Part VIII Minimum Required Contribution For Current Year				
31 Target normal cost and excess assets (see instructions):				
a Target normal cost (line 6c)				31a 1,717
b Excess assets, if applicable, but not greater than line 31a				31b 1,717
32 Amortization installments:	Outstanding Balance		Installment	
a Net shortfall amortization installment	0		0	
b Waiver amortization installment				
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount				33
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....				34 0
	Carryover balance	Prefunding balance	Total balance	
35 Balances elected for use to offset funding requirement			0	
36 Additional cash requirement (line 34 minus line 35)				36 0
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)				37 983
38 Present value of excess contributions for current year (see instructions)				
a Total (excess, if any, of line 37 over line 36)				38a 983
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances.....				38b 0
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)				39 0
40 Unpaid minimum required contributions for all years				40 0

Part IX Pension Funding Relief Under the American Rescue Plan Act of 2021 (See Instructions)				
41 If an election was made to use the extended amortization rule for a plan year beginning on or before December 31, 2021, check the box to indicate the first plan year for which the rule applies. <input type="checkbox"/> 2019 <input type="checkbox"/> 2020 <input type="checkbox"/> 2021				