# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# **FORM 10-K/A**

(Amendment No. 1)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 19

For the fiscal year ended December 31, 2022

or

□ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT ( 1934

For the transition period from \_\_\_\_\_\_ to \_\_\_\_\_



**Commission File Number: 001-38061** 

# Warrior Met Coal, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 81-0706839 (I.R.S. Employer Identification No.)

16243 Highway 216

Brookwood

od Alabama (Address of Principal Executive Offices) 35444 (Zip Code)

(205) 554-6150 (Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

	Trading	Name of each exchange
Title of each class	Symbol(s)	on which registered
Common Stock, par value \$0.01 per share	НСС	New York Stock Exchange
<b>Rights to Purchase Series A Junior Participating</b>	—	New York Stock Exchange
Preferred Stock, par value \$0.01 per share		

#### Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes 🛛 No 🗆

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes 🗆 No 🗵

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Ac 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Ru 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to subn such files). Yes  $\boxtimes$  No  $\square$ 

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer  $\Box$ 

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying w any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C 7262(b)) by the registered public accounting firm that prepared or issued its audit report.  $\square$ 

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant inclus in the filing reflect the correction of an error to previously issued financial statements. Yes  $\Box$  No  $\boxtimes$ 

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensat received by any of the registrant's executive officers during the relevant recovery period pursuant to \$240.10D-1(b). Yes  $\square$  No  $\boxtimes$ 

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes 🗆 No 🗵

The aggregate market value of voting stock held by non-affiliates of the registrant, based on the closing price of the common stock on June 30 2022, the registrant's most recently completed second fiscal quarter, as reported by the New York Stock Exchange, was approximately \$1.9 billion.

Number of shares of common stock outstanding as of February 13, 2023: 51,923,478

Auditor Firm Id: PCAOB ID: 0042 Auditor Name: Ernst & Young LLP Auditor Location: Birmingham, Alabama

# **Documents Incorporated By Reference**

The following documents (or parts thereof) are incorporated by reference into the following parts of this Form 10-K/A: None.

# **EXPLANATORY NOTE**

This Amendment No. 1 on Form 10-K/A (this "Amendment") to the Annual Report on Form 10-K of Warrior Met Coal, Inc. (the "Company") for th fiscal year ended December 31, 2022, filed with the Securities and Exchange Commission (the "Commission") on February 15, 2023 (the "Original Filing") is being filed solely to file (i) a revised Exhibit 96.1, Technical Report Summary for Mine No. 7 - S-K 1300 Report, (ii) a revised Exhibit 96 Technical Report Summary for Mine No. 4 - S-K 1300 Report, and (ii) a revised Exhibit 96.3, Technical Report Summary for Blue Creek - S-K 1300 Report. No other changes have been made to the Original Filing or any other exhibit. This Amendment speaks as of the filing date of the Original Fil and does not reflect events occurring after the filing date of the Original Filing or modify or update any disclosures that may be affected by subseque events.

Except as described above, this Amendment does not alter or update any other information contained in the Original Filing. The Original Filing continues to speak as of the date of the Original Filing, and the Company has not updated the disclosures contained therein to reflect any events that have occurred as of a date subsequent to the date of the Original Filing. Accordingly, this Amendment should be read in conjunction with the Origina Filing, and the Commission subsequent to the filing of the Original Filing.

Pursuant to Rule 12b-15 under the Securities Exchange Act of 1934, as amended, this Amendment also contains new certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, which are attached hereto. Paragraphs 3, 4, and 5 of the certifications have been omitted since no financial statements have been included in this Amendment and it does not contain or amend any disclosure with respect to Items 307 and 308 of Regulation S-K. This Amendment does not contain new certifications pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as these certifications were included as exhibits to the Original Filing.

### (a) (1) Financial Statements

Our consolidated financial statements are included in the Original Filing beginning on page F-1 thereof.

# (a) (2) Financial Statement Schedules

All schedules have been omitted because they are either not applicable, not required or the information called for therein appears in the consolidated financial statements or notes thereto.

# (a) (3) Exhibits

Exhibit <u>Number</u>	Description
2.1#	Amended and Restated Asset Purchase Agreement, dated as of March 31, 2016, by and among Warrior Met Coal, LLC and the other purchasers party thereto, as buyers, and Walter Energy, Inc. and certain subsidiaries of Walter Energy, Inc., as sellers (incorporated b reference to Exhibit 2.1 to the Registrant's Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission or March 7, 2017).
2.2	Form of Certificate of Conversion of Warrior Met Coal, LLC (incorporated by reference to Exhibit 2.2 to the Registrant's Amendme No. 2 to the Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission on April 3, 2017).
3.1	Certificate of Incorporation of Warrior Met Coal, Inc. (incorporated by reference to Exhibit 3.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-217389) filed with the Commission on April 19, 2017).
3.2	Certificate of Amendment of the Certificate of Incorporation of Warrior Met Coal, Inc. (incorporated by reference to Exhibit 3.1 to t Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on March 20, 2020).
3.3	Second Certificate of Amendment of the Certificate of Incorporation of Warrior Met Coal, Inc. (incorporated by reference to Exhibit to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on April 26, 2022).
3.4	Bylaws of Warrior Met Coal, Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (File No. 001-380619 filed with the Commission on December 7, 2022).
3.5	Certificate of Designations of Series A Junior Participating Preferred Stock of Warrior Met Coal, Inc., as filed with the Secretary of 5 of the State of Delaware on February 14, 2020 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form (File No. 001-38061) filed with the Commission on February 14, 2020).
4.1	Indenture, dated as of December 6, 2021, by and among Warrior Met Coal, Inc. the Subsidiary Guarantors party thereto from time to time and Wilmington Trust, National Association, as trustee and as priority lien collateral trustee (incorporated by reference to Exhib 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on December 7, 2021).
4.2	Specimen Certificate for shares of common stock, par value \$0.01 per share, of the Company (incorporated by reference to Exhibit 4 to the Registrant's Amendment No. 2 to the Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission of April 3, 2017).
4.3	Rights Agreement, dated as of February 14, 2020, between Warrior Met Coal, Inc. and Computershare Trust Company, N.A., as righ agent (including the form of Certificate of Designations of Series A Junior Participating Preferred Stock attached thereto as Exhibit A the form of Right Certificate attached thereto as Exhibit B and the Summary of Rights to Purchase Preferred Shares attached thereto Exhibit C (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with Commission on February 14, 2020)).
4.4	Amendment No. 1 to the Rights Agreement dated as of March 4, 2022 between Warrior Met Coal, Inc. and Computershare Trust Compa N.A. (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on March 4, 2022).
4.5	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to Exhibit to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 19, 2020).
10.1#	Second Amended and Restated Asset-Based Revolving Credit Agreement, dated as of December 6, 2021, by and among Warrior Met Co Inc. and certain of its subsidiaries, as borrower, the guarantors party thereto, the lenders party thereto and Citibank, N.A., as administrati agent (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on December 7, 2021).
10.2	Intercreditor Agreement, dated as of December 6, 2021, among Citibank, N.A., initial ABL agent, Wilmington Trust, National Association initial term agent and initial term representative, and each additional term agent and additional term representative from time to time part thereto (incorporated by reference to Exhibit 10.2 to the Registrant's Form 10-K (File No. 001-38061) filed with the Commission on February 22, 2022).
10.3	Registration Rights Agreement, dated as of April 19, 2017, among Warrior Met Coal, Inc. and certain of its equity holders party thereto (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-38061) filed with the Commission on August 3, 2017).
10.4†	Warrior Met Coal, Inc. 2017 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on April 19, 2017).
10.5†	Warrior Met Coal, LLC 2016 Equity Incentive Plan (incorporated by reference to Exhibit 10.11 to the Registrant's Amendment No. 1 to Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission on March 27, 2017).

- 10.6<sup>†</sup> Form of Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report o Form 8-K (File No. 001-38061) filed with the Commission on April 19, 2017).
- 10.7† Employment Agreement, dated March 31, 2016 by and between Warrior Met Coal, LLC and Walter J. Scheller, III (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission on March 7, 2017).
- 10.8<sup>†</sup> Employment Agreement, dated March 31, 2016 by and between Warrior Met Coal, LLC and Jack K. Richardson (incorporated by refere to Exhibit 10.9 to the Registrant's Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission on March 7, 20
- 10.9<sup>†</sup> Employment Agreement, dated January 1, 2017, by and between Warrior Met Coal, LLC and Dale W. Boyles (incorporated by reference Exhibit 10.10 to the Registrant's Registration Statement on Form S-1 (File No. 333-216499) filed with the Commission on March 7, 201
- 10.10<sup>†</sup> Employment Agreement, dated March 31, 2016, by and between Warrior Met Coal, LLC and Kelli K. Gant (incorporated by reference to Exhibit 10.15 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 14, 2018).
- 10.11<sup>†</sup> Employment Agreement, dated March 31, 2016, by and between Warrior Met Coal, LLC and Brian M. Chopin (incorporated by reference Exhibit 10.11 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 19, 2020.)
- 10.12<sup>†</sup> Employment Agreement, dated March 1, 2020, by and between Warrior Met Coal, Inc. and Charles Lussier (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-38061) filed with the Commission on April 29, 2020.)
- 10.13<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Incentive Plan Restricted Stock Unit Award Agreement (incorporated by reference to Exhib 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-38061) filed with the Commission on June 5, 2017).
- 10.14<sup>†</sup> Restricted Unit Award Agreement, dated March 31, 2016, by and between Warrior Met Coal, LLC and Walter J. Scheller, III (incorporat by reference to Exhibit 10.13 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) fil with the Commission April 10, 2017).
- 10.15<sup>†</sup> Restricted Unit Award Agreement, dated April 20, 2016, by and between Warrior Met Coal, LLC and Jack K. Richardson (incorporated reference to Exhibit 10.15 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) filed the Commission on April 10, 2017).
- 10.16<sup>†</sup> Restricted Unit Award Agreement, dated January 1, 2017, by and between Warrior Met Coal, LLC and Dale W. Boyles (incorporated by reference to Exhibit 10.16 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) filed the Commission on April 10, 2017).
- 10.17<sup>†</sup> Restricted Unit Award Agreement, dated March 31, 2016, by and between Warrior Met Coal, LLC and Stephen D. Williams (incorporate by reference to Exhibit 10.17 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) fil with the Commission on April 10, 2017).
- 10.18<sup>†</sup> Restricted Unit Award Agreement, dated February 24, 2017, by and between Warrior Met Coal, LLC and Stephen D. Williams (incorpor by reference to Exhibit 10.18 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) fil with the Commission on April 10, 2017).
- 10.19<sup>†</sup> Phantom Unit Award Agreement, dated March 31, 2016, by and between Warrior Met Coal, LLC and Stephen D. Williams (incorporated reference to Exhibit 10.19 to the Registrant's Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-216499) filed the Commission on April 10, 2017).
- 10.20<sup>†</sup> Restricted Stock Unit Award Agreement, dated April 19, 2017, by and between Warrior Met Coal, Inc. and Stephen D. Williams (incorporated by reference to Exhibit 10.23 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2019).
- 10.21<sup>†</sup> Form of Restricted Stock Unit Award Agreement (for non-employee directors), dated April 27, 2017 (incorporated by reference to Exhibit 10.24 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2019).
- 10.22<sup>†</sup> Form of Restricted Stock Unit Award Agreement (for non-employee directors) (incorporated by reference to Exhibit 10.25 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2019).
- 10.23<sup>†</sup> Form of Amendment to Restricted Stock Unit Award Agreement (for non-employee directors) (incorporated by reference to Exhibit 10.2 the Registrant's Form 10-K (File No. 001-38061) filed with the Commission on February 22, 2022).
- 10.24<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Incentive Plan Restricted Stock Unit Award Agreement (Time-Based Vesting Award) (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-38061) filed with the Commission on May 2, 2018).
- 10.25<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Incentive Plan Restricted Stock Unit Award Agreement (Performance-Based Vesting Award (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q (File No. 001-38061) filed with the Commission on May 2, 2018).
- 10.26<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Plan Restricted Stock Unit Award Agreement (Performance-Based Vesting Award 2019 Retention Grant) (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2020).
- 10.27<sup>†</sup> Form of Amendment to Restricted Stock Unit Award Agreements (for executive officers), effective January 1, 2020 (incorporated by reference to Exhibit 10.27 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2020).

- 10.28<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Plan Restricted Stock Unit Award Agreement (Time-Based Vesting Award Revised) (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2020).
- 10.29<sup>†</sup> Form of Warrior Met Coal, Inc. 2017 Equity Plan Restricted Stock Unit Award Agreement (Performance-Based Vesting Award Revisec (incorporated by reference to Exhibit 10.26 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 21, 2020).
- 21.1 List of Subsidiaries of the Company (incorporated by reference to Exhibit 21.1 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 13, 2023).
- 23.1 Consent of Ernst & Young LLP (incorporated by reference to Exhibit 23.1 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the Commission on February 13, 2023).
- 23.2\* Consent of Marshall Miller & Associates, Inc.
- 23.3 Consent of McGehee Engineering Corp. (incorporated by reference to Exhibit 23.3 to the Registrant's Annual Report on Form 10-K (Fil No. 001-38061) filed with the Commission on February 13, 2023).
- 31.1\* Certification of Chief Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 31.2\* Certification of Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 32.1 Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18. U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (incorporated by reference to Exhibit 32.1 to the Registrant's Annual Report on Form 10 (File No. 001-38061) filed with the Commission on February 13, 2023).
- 95 Mine Safety Disclosures Pursuant to Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 10 Regulation S-K (17 CFR 299.104) (incorporated by reference to Exhibit 95 to the Registrant's Annual Report on Form 10-K (File No. 001-38061) filed with the commission on February 13, 2023).
- 96.1\* Technical Report Summary for Mine No. 7 S-K 1300 Report.
- 96.2\* Technical Report Summary for Mine No. 4 S-K 1300 Report.
- 96.3\* Technical Report Summary for Blue Creek S-K 1300 Report.
- 101.INS\* XBRL Instance Document the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
- 101.SCH\* Inline XBRL Taxonomy Extension Schema Document
- 101.CAL\* Inline XBRL Taxonomy Extension Calculation LinkBase Document
- 101.DEF\* Inline XBRL Taxonomy Extension Definition LinkBase Document
- 101.LAB\* Inline XBRL Taxonomy Extension Label LinkBase Document
- 101.PRE\* Inline XBRL Taxonomy Extension Presentation LinkBase Document
- 104\* Cover Page Interactive Data File (formatted Inline XBRL and included in the Interactive Data Files submitted under Exhibit 101).
- Filed herewith.
- \*\* Furnished herewith.
- † Management contract, compensatory plan or arrangement.
- # The schedules to this agreement have been omitted for this filing pursuant to Item 601(b)(2) of Regulation S-K. The Company will furnish cop of such schedules to the Commission upon request.

## SIGNATURES

Pursuant to the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

#### Warrior Met Coal, Inc.

By: /s/ Dale W. Boyles Dale W. Boyles Chief Financial Officer (on behalf of the registrant)

Date: May 18, 2023

# CONSENT OF MARSHALL MILLER & ASSOCIATES, INC.

Marshall Miller & Associates, Inc. hereby consents to the use by Warrior Met Coal, Inc. (the "Company") in connection with the Company's Annual Report on Form 10-K/A for the year ended December 31, 2022 (the "Annual Report"), and any amendments thereto, and to the incorporation by reference in the Company's Registration Statement on Form S-8 (No. 333-217389), the Company's Registration Statement on Form S-8 (No. 333-223049), and the Company's Registration Statement on Form S-3ASR (No. 333-267688) of information contained in our report dated May 17, 2 relating to estimates of certain coal reserves in the Annual Report. We hereby further consent to the reference to Marshall Miller & Associates, Inc. i those filings and any amendments thereto.

Marshall Miller & Associates, Inc.

By: /s/ Steven A. Keim

Name: Steven A. Keim Title: President

Dated: May 18, 2023

#### CERTIFICATIONS

I, Walter J. Scheller, III, Chief Executive Officer, certify that:

- 1. I have reviewed this Annual Report on Form 10-K/A of Warrior Met Coal, Inc. (the "registrant"); and
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary t make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the pe covered by this report.

# WARRIOR MET COAL, INC.

By: /s/ Walter J. Scheller, III

Walter J. Scheller, III Chief Executive Officer

Date: May 18, 2023

# CERTIFICATIONS

I, Dale W. Boyles, Chief Financial Officer, certify that:

- 1. I have reviewed this Annual Report on Form 10-K/A of Warrior Met Coal, Inc. (the "registrant"); and
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary t make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the pe covered by this report.

# WARRIOR MET COAL, INC.

By: /s/ Dale W. Boyles

Dale W. Boyles Chief Financial Officer

Date: May 18, 2023





Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

May 17, 2023

Prepared for: Warrior Met Coal, Inc. 16243 Highway 216 Brookwood, Alabama 35444 Prepared by: MARSHALL MILLER & ASSOCIATES, INC. 582 Industrial Park Road Bluefield, Virginia 24605 www.mma1.com

Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary May 17, 2023 Prepared for: Prepared by: Warrior Met ( Inc. MARSHALL MILLER & ASSOCIATES, INC. 16243 Highway 216 582 Industrial Park Road Brookwood, Alabama 35444 Bluefield, Virginia 246 www.mmal.com

# Statement of Use and Preparation

This Technical Report Summary (*TRS*) was prepared for the sole use of **Warrior Met Coal, Inc.** (*Warrior Met*) and its affiliated and subsidiary companies and advisors. Copies or references to information in this report may not be used without the written permission of Warrior.

The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC).

The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & Associates, Inc. (MM&A).

MM&A professionals who contributed to the drafting of this report meet the definition of *Qualified Persons* (*QPs*), consistent with the requirements of the SEC.

The information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporting, MM&A's QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as a QP as defined by the SEC.

Certain information set forth in this report contains "forward-looking information", including production, productivity, operating costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance and undue reliance should not be placed on them. The assumptions used to develop forward-looking information and the risks that could cause the actual results to differ materially are detailed in the body of this report.

MM&A hereby consents to: (i) the use of the information contained in this report dated December 31, 2022, relating to estimates of coal resources and coal reserves controlled by Warrior Met, (ii) to the use of MM&A's name, any quotation from or summarization of this TRS in Warrior Met's SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met's SEC filings.

This report was prepared by:

Qualified Person:

/s/ Marshall Miller & Associates, Inc.

May 17, 2023

#### MARSHALL MILLER & ASSOCIATES, INC.

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary Statement of Use and Preparation This Technical Repor Summary (TRS) was prepared for the sole use of Warrior Met Coal, Inc. (Warrior Met) and its affiliated and subsidiary companies and advisors. Copies references to information in this report may not be used without the written permission of Warrior. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC). The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & Associates, Inc. (MM&A). MM&A professionals who contrib to the drafting of this report meet the definition of Qualified Persons (QPs), consistent with the requirements of the SEC. The information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporting, MM&A's QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as QP as defined by the SEC. Certain information set forth in this report contains "forward-looking information", including production, productivity, opera costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance and undue reliance should not be play on them. The assumptions used to develop forward-looking information contained in this report dated December 31, 2022, relating to estimates coal resources and coal reserves controlled by Warrior Met, (ii) to the use of MM&A's name, any quotation from or summarization of this TRS in Warri Met's SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met's SEC filings. This report was prepared by: Qualified Person: /s/ Marsh Miller & Associates, Inc. May 17, 2023 MARSHALL MILLER & ASSOCIATES, INC. 1



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# 1 Executive Summary

# 1.1 Property Description

Warrior Met Coal, Inc. (Warrior Met) authorized Marshall Miller & Associates, Inc. (MM&A) to prepare this Technical Report Summary (TRS) of its controlled coal reserves, located at its Mine No. 7 property in Jefferson and Tuscaloosa Counties, Alabama (the *Property*). The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of tonnes (*Mt*).

The Mine No. 7 Complex is located in Jefferson and Tuscaloosa Counties in central Alabama. The Property is approximately 20 miles east of the town of Tuscaloosa, Alabama and 30 miles southwest of Birmingham, Alabama. The nearest major population centers are Tuscaloosa and Birmingham (see Figure 1-1). The Property, inclusive of depleted mine works and future reserve areas, is composed of approximately 43,000 total acres. Of the 43,000 acres, approximately 10,100 are associated with future mining areas. Future mining areas include 10,000 acres of leased mineral holdings, 100 acres of owned mineral holdings and 300 acres of uncontrolled mineral holdings. Subject to Warrior Met's exercising its renewal rights thereunder, all the leases expire upon exhaustion of the relevant longwall coal reserves, which is expected to occur in 2035 based upon the longwall mine plan presented in this TRS. This TRS does not consider significant contiguous uncontrolled tonnages which Warrior Met may pursue in the future. As such, the reserve exhaustion date presented in this TRS is subject to extension should Warrior increase its coal reserves via acquisition of contiguous properties. Further, Warrior Met and MM&A are also considering the addition of resources and reserves associated with areas not conducive to longwall mining methods due to control or geological constraints which could be recovered with standard continuous mining methods. Warrior and MM&A expect that continuous mining only methods could yield profitable economics in advantageous market conditions. MM&A and Warrior Met plan to consider additional continuous mining-only resource and/or reserve areas in subsequent reporting years. Such potential resources and/or reserves are not considered in this TRS. The future inclusion of such tons as reserve could extend the life of the mine beyond what is presented in this document.

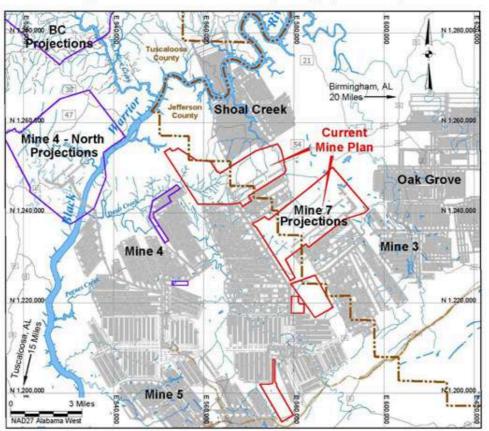
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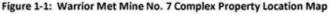
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1 Executive Summary 1.1 Property Description Warrior Met Coal, Inc. (Warrior Met) authorized Marshall Miller & Associates, Inc. (MM&A) to preparthis Technical Report Summary (TRS) of its controlled coal reserves, located at its Mine No. 7 property in Jefferson and Tuscaloosa Counties, Alabama Property). The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchan Commission (SEC) standards. Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of tonnes (Mt). The Mine No. 7 Complex is located in Jefferson and Tuscaloosa Counties in central Alabama. The Property is approximately 20 miles east of the t of Tuscaloosa, Alabama and 30 miles southwest of Birmingham, Alabama. The nearest major population centers are Tuscaloosa and Birmingham (see Figure 1-1). The Property, inclusive of depleted mine works and future reserve areas, is composed of approximately 43,000 total acres. Of the 43,000 ac approximately 10,100 are associated with future mining areas. Future mining areas include 10,000 acres of leased mineral holdings, 100 acres of owned mineral holdings and 300 acres of uncontrolled mineral holdings. Subject to Warrior Met's exercising its renewal rights thereunder, all the leases expire upon exhaustion of the relevant longwall coal reserves, which is expected to occur in 2035 based upon the longwall mine plan presented in this TRS. Th TRS does not consider significant contiguous uncontrolled tonnages which Warrior Met may pursue in the future. As such, the reserve exhaustion date presented in this TRS is subject to extension should Warrior increase its coal reserves via acquisition of contiguous properties. Further, Warrior Met and MM&A are also considering the addition of resources and reserves associated with areas not conducive to longwall mining methods due to control or geological constraints which could be recovered with standard continuous mining methods. Warrior Me resource and/or reserve areas in subsequent reporting years. Such potential resources and/or reserves are not considered in this TRS. The future inclusion such tons as reserve could extend the life of the mine beyond what is presented in this document. MARSHALL MILLER & ASSOCIATES, INC. 7



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary





Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system.

### 1.2 Ownership

The Property was formerly controlled by Jim Walter Resources (Walter), the predecessor company of Warrior Met. Warrior Met acquired its mineral rights for the Mine No. 7 property in 2016 through purchase of the Walter Energy (Walter)-owned coal assets located in Alabama, following Walter's bankruptcy in 2015. In addition to the Mine No. 7 assets, Warrior Met also acquired various other significant assets, including the Mine No. 4 and Blue Creek (BC) properties.

Reserves and resources associated with these adjacent properties are not included in this report but are issued under separate cover. *Figure 1-1* outlines the location of the Property in relation to Warrior's adjacent properties.

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Figure 1-1: Warrior Met Mine No. 7 Complex Property Location Map Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system. 1.2 Ownership The Property was formerly controlled by Jim Walter Resources (Walter), the predecessor company of Warrior Met. Warrior Met acquired its mineral rights for the Mine No. 7 property in 2016 through purchase of the Walter Energy (Walter)-owned coal assets located in Alabama, following Walter's bankruptcy in 2015. In addition to the Mine No. 7 assets, Warrior Met also acquired various other significant assets, including the Mi No. 4 and Blue Creek (BC) properties. Reserves and resources associated with these adjacent properties are not included in this report but are issued unc separate cover. Figure 1-1 outlines the location of the Property in relation to Warrior's adjacent properties. MARSHALL MILLER & ASSOCIATES, IN



# 1.3 Geology

Operations at the Mine No. 7 Complex extract the Mary Lee and Blue Creek coal beds by longwall mining methods. The strata of economic interest for this TRS belong to the Pennsylvanian-age Mary Lee Coal Group or Zone (see *Figure 1-3*), and the subject seams are the principal coal seams of interest within that formation for the present evaluation. High-angle normal faults located within the Property have a direct impact upon mine layout and design. Due to the high value of this coal, it has been extensively mined in the region.

Warrior Met reports that current market placement at Mine No. 7 is generally based on the Premium Low-Volatile Indices (*PLV*). Mine projections suggest that Mine No. 7's volatiles could gradually increase through reserve exhaustion, though Warrior Met anticipates that the degree to which this will impact derivation from the PLV will be minimal. The utilization of two longwalls at Mine No. 7 allows Warrior Met to strategically sequence the operation to blend coals of various volatiles. While this exercise was beyond MM&A's scope for reserve definition, the flexibility of two producing longwalls is notable. MM&A, with support from Warrior Met, has used the PLV for pricing of coals throughout the life of the operation in the prefeasibility economic analysis presented herein.

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1.3 Geology Operations at the Mine No. 7 Complex extract the Mary Lee and Blue Creek coal beds by longwall mining methods. The strata of economiinterest for this TRS belong to the Pennsylvanian-age Mary Lee Coal Group or Zone (see Figure 1-3), and the subject seams are the principal coal seams interest within that formation for the present evaluation. High-angle normal faults located within the Property have a direct impact upon mine layout and design. Due to the high value of this coal, it has been extensively mined in the region. Warrior Met reports that current market placement at Mine No. 7 generally based on the Premium Low-Volatile Indices (PLV). Mine projections suggest that Mine No. 7's volatiles could gradually increase through rese exhaustion, though Warrior Met anticipates that the degree to which this will impact derivation from the PLV will be minimal. The utilization of two longwalls at Mine No. 7 allows Warrior Met to strategically sequence the operation to blend coals of various volatiles. While this exercise was beyond MM&A's scope for reserve definition, the flexibility of two producing longwalls is notable. MM&A, with support from Warrior Met, has used the PLV 4 pricing of coals throughout the life of the operation in the prefeasibility economic analysis presented herein. MARSHALL MILLER & ASSOCIATES, I 9



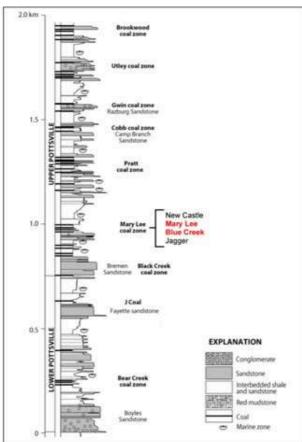


Figure 1-2: Generalized Stratigraphic Column of Warrior Basin Sequence with Mary Lee Coal Zone Highlighted in red (after Pashin, 2005)

# 1.4 Exploration Status

Since as early as 1916, the Property has been extensively explored by means of: continuous coring and analytic testing; rotary drilling, and ongoing development associated with coalbed methane (*CBM*) production; by downhole geophysical logging of gas wells; and by in-seam channel sampling during mining. The majority of the data was acquired or generated by previous owners of the Property but has been supplemented by exploration drilling conducted by Warrior Met over the past 5 years (as recently as 2022). These sources comprise the primary data used in the evaluation of the coal resources and coal reserves identified on the Property. MM&A examined the data available for the evaluation and incorporated all pertinent information into this TRS. Where data appeared to be anomalous or not representative, that data was excluded (or not honored) from the digital databases and subsequent processing by MM&A.

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Figure 1-2: Generalized Stratigraphic Column of Warrior Basin Sequence with Mary Lee Coal Zone Highlighted in red (after Pashin, 2005) 1.4 Explorat Status Since as early as 1916, the Property has been extensively explored by means of: continuous coring and analytic testing; rotary drilling, and ongoin development associated with coalbed methane (CBM) production; by downhole geophysical logging of gas wells; and by in-seam channel sampling dur mining. The majority of the data was acquired or generated by previous owners of the Property but has been supplemented by exploration drilling condu by Warrior Met over the past 5 years (as recently as 2022). These sources comprise the primary data used in the evaluation of the coal resources and coa reserves identified on the Property. MM&A examined the data available for the evaluation and incorporated all pertinent information into this TRS. Whe data appeared to be anomalous or not representative, that data was excluded (or not honored) from the digital databases and subsequent processing by MM&A. MARSHALL MILLER & ASSOCIATES, INC. 10



# 1.5 Operations and Development

Due to its coal reserve and seam characteristics, the Property utilizes longwall mining methods with continuous miner units to support two longwall production units.

Run-of-mine coal is transported to the surface via a skip system which transports coal to the surface vertically. Adjacent to the skip shaft is a service shaft for the transportation of workers, supplies and equipment to the coal mine. In addition to the portal located adjacent to the preparation plant, Warrior utilizes a second portal to staff works and transport employees to the second longwall unit and support sections. Bleeder shafts are installed at each longwall district.

There are two preparation plants associated with the No. 7 Mine production. The No. 7 Mine Preparation Plant has a capacity to process 1,400 raw tons per hour (1,260 raw tonnes per hour). The second plant is located at the No. 5 Mine portal site and coal is transported to that location via an overland conveyor belt installed specifically to access the No. 5 Preparation Plant. The No. 5 Plant has a capacity to process 1,000 raw tons per hour (900 raw tonnes per hour). Both plants are capable of cleaning with cyclones, spirals/reflux classifiers, and flotation circuits. Each plant location has its own unit train loadout and individual track loops.

In 2022, the operation produced an average product with the following quality characteristics (dry basis): Ash, 10.29%; Sulfur, 0.66%, Volatile Matter, 20.82%. Typical moisture contents for Warrior Met's shipments are in the 10-percent range.

For financial modeling purposes, in typical years, the mine produces approximately 4-4.5 million tonnes (*Mt*) of coal annually and is assumed to employ around 700 workers.

# 1.6 Mineral Resource

A coal resource estimate was prepared as of December 31, 2022, for the Property, summarized in *Table 1-1*. Resources presented in *Table 1-1* represent those resources associated with mine planning and reserves. Resources are presented *inclusive* of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages *exclusive* of interburden, but inclusive of any high-ash material resident within the Mary Lee and Blue Creek coal seams As such, in-situ tonnages and quality as presented in *Table 1-1* reflect the inclusion of high-ash material which is ultimately removed after mining during coal preparation. As reflected in the table below, no resources exclusive of reserves have been considered or analyzed in this TRS.

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1.5 Operations and Development Due to its coal reserve and seam characteristics, the Property utilizes longwall mining methods with continuous miner units to support two longwall production units. Run-of-mine coal is transported to the surface via a skip system which transports coal to the surface vertically. Adjacent to the skip shaft is a service shaft for the transportation of workers, supplies and equipment to the coal mine. In addition to the portal located adjacent to the preparation plant, Warrior utilizes a second portal to staff works and transport employees to the second longwall unit and support sections. Bleeder shafts are installed at each longwall district. There are two preparation plants associated with the No. 7 Mine production. The No. 7 Mi Preparation Plant has a capacity to process 1,400 raw tons per hour (1,260 raw tonnes per hour). The second plant is located at the No. 5 Plant has a capace to process 1,000 raw tons per hour (900 raw tonnes per hour). Both plants are capable of cleaning with cyclones, spirals/reflux classifiers, and flotation circuits. Each plant location has its own unit train loadout and individual track loops. In 2022, the operation produced an average product with the follow quality characteristics (dry basis): Ash, 10.29%; Sulfur, 0.66%, Volatile Matter, 20.82%. Typical moisture contents for Warrior Met's shipments are in th 10-percent range. For financial modeling purposes, in typical years, the mine produces approximately 4-4.5 million tonnes (Mt) of coal annually and is assumed to employ around 700 workers. 1.6 Mineral Resource A coal resource estimate was prepared as of December 31, 2022, for the Property, summarized in Table 1-1. Resources presented in Table 1-1 represent those resources associated with mine planning and reserves. Resources are present inclusive of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages exclusive of interburden, but inclusive of any high material resident within the Mary Lee and Blue Creek coal

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

#### Table 1-1: Coal Resources Summary as of December 31, 2022

	Coal R	lesource (Dry T	1	Resource Quality (Dry)			
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%
Inclusive of Reserves			1			1	
Mary Lee	16.0	3.8	0.0	19.8	- 14		6
Blue Creek	52.3	16.0	0.0	68.3	19	93 (F	3
Total	68.3	19.8	0.0	88.1	19.9	0.9	20
Exclusive of Reserves			0.0				
Mary Lee	0.0	0.0	0.0	0.0	12		
Blue Creek	0.0	0.0	0.0	0.0	34		-
Total	0.0	0.0	0.0	0.0	0.0	0.0	0
Grand Total			1				
	68.3	19.8	0.0	88.1		2	

Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Totals may not add due to rounding.

#### 1.7 Mineral Reserve

Resource modeling and estimates are used as the basis for the Property's reserve calculation and is based on a reasonable Pre-Feasibility level, life-of-mine (*LOM*) mine plan and practical recovery factors. Such factors include a mine recovery of 74 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 43 percent and the consideration of moisture factors. Proven and probable coal reserves were derived from the defined in-situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmental, socioeconomic, and regulatory factors. The proven and probable coal reserves on the Property are summarized below in *Table 1-2*.

Seam	- Burnere	nstrated Coa Washed or D			nes,						
	By Rel	iability Catego	By Cont	trol Type	Quality (Dry Basis)			Wash			
	Proven	Probable	Total	Owned	Leased	Ash%	Sulfur%	VM%			
Mary Lee	4.4	1.3	5.7	0.0	5.7	-					
Blue Creek	34.0	10.0	44.0	0.3	43.7		1.0		43%		
Total	38.4	11.3	49.7	0.3	49.5	10.2	0.7	22			

Table 1-2: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022

Note 1: Marketable reserve tons are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are generally mined together; in some instances, the Blue Creek Seam is extracted without the Mary Lee Seam – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-byseam basis, absent dilution assumptions.

Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$133.04 per tonne (FOB-mine) in 2023, increasing to a long-term price of approximately \$164.98/tonne. See Chapter 16 for further details on marketing assumptions.

Totals may not add due to rounding.

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Table 1-1: Coal Resources Summary as of December 31, 2022 Coal Resource (Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indicat Inferred Total Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 16.0 3.8 0.0 19.8 — Blue Creek 52.3 16.0 0.0 68.3 — Total 68.3 19.8 0.0 88.1 0.9 20 Exclusive of Reserves 0.0 Mary Lee 0.0 0.0 0.0 0.0 — Blue Creek 0.0 0.0 0.0 0.0 — Total 0.0 0.0 0.0 0.0 0.0 0.0 Grand Total 68.3 19.8 0.0 88.1 — Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surfa moisture and inherent moisture are excluded. Totals may not add due to rounding. 1.7 Mineral Reserve Resource modeling and estimates are used as the basis for the Property's reserve calculation and is based on a reasonable Pre-Feasibility level, life-of-mine (LOM) mine plan and practical recovery fact Such factors include a mine recovery of 74 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution materia an effective a wash recovery of 43 percent and the consideration of moisture factors. Proven and probable coal reserves were derived from the defined ir situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmenta socioeconomic, and regulatory factors. The proven and probable coal reserves (Wet Tonnes, Washed or Direct Shipped, Mt) By Reliability Category By Control Type Quality (Dry Basis) Wash Seam Proven Probable Total Owned Leased Ash% Sulfur% VM% Recovery% Mary Lee 4.4 1.3 5.

0.0 5.7 — Blue Creek 34.0 10.0 44.0 0.3 43.7 — 43% Total 38.4 11.3 49.7 0.3 49.5 10.2 0.7 22 Note 1: Marketable reserve tons are reported on a m basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications. Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. W recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are generally mined together; in some instances, the Blue Creek S is extracted without the Mary Lee Seam – allocation of dilution material on a seam-by-seam basis, absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices o approximately \$133.04 per tonne (FOB-mine) in 2023, increasing to a long-term price of approximately \$164.98/tonne. See Chapter 16 for further detai marketing assumptions. Totals may not add due to rounding. MARSHALL MILLER & ASSOCIATES, INC. 12



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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In summary, the Property includes a total of 49.7 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 77 percent are proven, and 23 percent are probable. All the reserves are leased and are considered suitable for the metallurgical coal market.

# 1.8 Capital Summary

MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect more typical spending patterns, as production winds down, sustaining capital is reduced to 75% in 2033, 25% in 2034, the penultimate year of production and eliminated in the final year.

# 1.9 Operating Costs

MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 1-3* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers						
Labor	3.0%					
Benefits	3.0%					
Fuel & Lube	100.0%					
Parts	14.5%					
Surface Contractors	17.5%					
Capital	16.0%					

Table 1-3:	Inflation Factors	
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Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 1-3*.

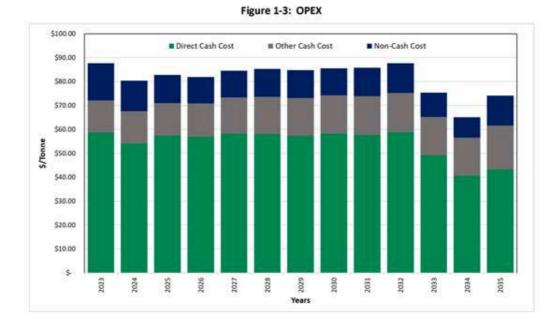
MARSHALL MILLER & ASSOCIATES, INC.

In summary, the Property includes a total of 49.7 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 77 percent are pro and 23 percent are probable. All the reserves are leased and are considered suitable for the metallurgical coal market. 1.8 Capital Summary MM&A assu that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximat Warrior Met's history increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior expenditure so it has not been included in this study. To reflect more typical spending patterns, as production winds down, sustaining capital is reduced t 75% in 2033, 25% in 2034, the penultimate year of production and eliminated in the final year. 1.9 Operating Costs MM&A used a combination of histo information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fring benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconic casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for ro control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other facto were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs. Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. Table 1-3 provides the inflation factors used to escalate the costs from 2022 to 2023. Table 1-3: Inflation Factors Multipliers Labor 3.0% Benefits 3.0% Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Capital 16.0% Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loadin These were also subject to the multipliers in Table 1-3. MARSHALL MILLER & ASSOCIATES, INC. 13



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.



A summary of the operating costs for the Property is provided in Figure 1-3.

# 1.10 Economic Evaluation

The pre-feasibility financial model prepared for this TRS was developed to test the economic viability of the coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contemplated for the Warrior Met property, but are intended to establish the economic viability of the estimated coal reserves. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. Cash flows are simulated on an annual basis based on projected production from the coal reserves. The discounted cash flow analysis presented herein is based on an effective date of January 1, 2023.

On an un-levered basis, the NPV of the real cash flow after taxes represents the Enterprise Value of the Property. The cash flow, excluding debt service, is calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, reclamation and general and administrative costs. Indirect costs include

Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal land and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees. A summary of operating costs for the Property is provided in Figure 1-3. Figure 1-3: OPEX 1.10 Economic Evaluation The pre-feasibility financial model prepared for TRS was developed to test the economic viability of the coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contemplated for the Warrior Met property, but are intended to establi the economic viability of the estimated coal reserves. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. flows are simulated on an annual basis based on projected production from the coal reserves. The discounted cash flow analysis presented herein is base an effective date of January 1, 2023. On an un-levered basis, the NPV of the real cash flow after taxes represents the Enterprise Value of the Property. TI cash flow, excluding debt service, is calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, reclama and general and administrative costs. Indirect costs include MARSHALL MILLER & ASSOCIATES, INC. 14



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the Federal black lung tax, Federal and State reclamation taxes, property taxes, coal production royalties, and income taxes.

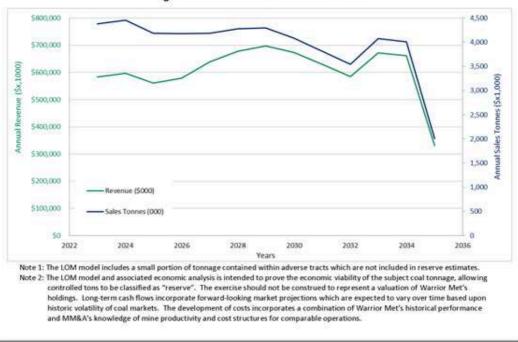
Table 1.4: Life of Mine Tonnage D&L before Tay and FRITDA

Table 1-4 shows LOM tonnage, P&L, and EBITDA for Mine No. 7.

	Tonnes	Pre-Tax P&L	P&L	EBITDA	EBITDA
	(000)	(\$000)	per Tonne	(\$000)	per Tonne
Mine #7	51,491	\$3,654,830	\$70.98	\$4,259,543	\$82.72

and MM&A's knowledge of mine productivity and cost structures for comparable operations. As shown in *Table 1-4*, Mine No. 7 shows positive EBITDA over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$3.7 billion and \$4.3 billion, respectively.

Warrior Met's Mine No. 7 annual production and revenue are shown in *Figure 1-4* and the Mine's aftertax cash flow summary in constant dollars, excluding debt service, is shown in *Figure 1-5* below.

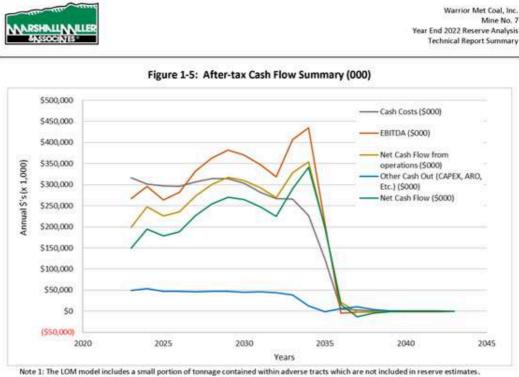




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statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the Federal black lung tax, Federal and State reclamation taxes, property taxes, coal production royalties, and income taxes. Table 1-4 shows LOM tonnage, P&L, and EBITDA for Mine No. 7. Table 4: Life-of-Mine Tonnage, P&L before Tax, and EBITDA Tonnes Pre-Tax P&L P&L EBITDA EBITDA (000) (\$000) per Tonne (\$000) per Tonne Mine #

51,491 \$3,654,830 \$70.98 \$4,259,543 \$82.72 Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are no included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. As shown in Table 1-4, Mine No. 7 shows positive EBITDA over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$3.7 billion and \$4.3 billion, respectively. Warrior Met's Mine No. 7 annual production and revenu are shown in Figure 1-4 and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, is shown in Figure 1-5 below. Figure 1-Mine 7 Production and Revenue Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-tern cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost struct for comparable operations. MARSHALL MILLER & ASSOCIATES, INC. 15



Note 2: The LOM model and associated economic internage contained within above tacts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is interned to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

Consolidated cash flows are driven by annual sales tonnage, which averages 4.1 million tonnes per year from 2023 to 2034 before the longwalls begin to ramp down, finishing in 2035. Projected revenue averages approximately \$630 million per year during the period 2023 to 2034. Revenue totals \$7.9 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately \$236 million from 2023 to 2034 and totals \$3.0 billion over the mine life. Capital expenditures total \$500 million over the property's life.

## 1.10.1 Cash Flow Analysis

Cash flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$1.73 billion. The pre-feasibility financial model prepared for the TRS was developed to test the economic viability of each coal resource area. The NPV estimate was made for the purpose of confirming the economics for classification of coal reserves and <u>not</u> for purposes of valuing Warrior Met or its Mine No. 7 assets. The

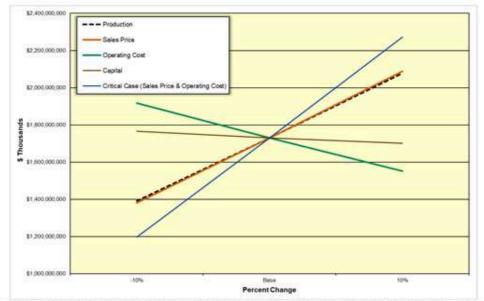
Figure 1-5: After-tax Cash Flow Summary (000) Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. Consolidated cash flows are driven by annual sales tonnage, which averages 4.1 million tonnes per year from 2022 2034 before the longwalls begin to ramp down, finishing in 2035. Projected revenue averages approximately \$630 million per year during the period 20? to 2034. Revenue totals \$7.9 billion for the property's life. Consolidated cash flow from the operation is positive throughout the projected operating peri with the exception of post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximate \$236 million from 2023 to 2034 and totals \$3.0 billion over the mine life. Capital expenditures total \$500 million over the property's life. 1.10.1 Cash F. Analysis Cash flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represe Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$1. billion. The pre-feasibility financial model prepared for the TRS was developed to test the economic viability of each coal resource area. The NPV estim was made for the purpose of confirming the economics for classification of coal res



mine plan was not optimized, and actual results of the operation may be different, but in all cases, the mine production plan assumes the property is under competent management.

#### 1.10.2 Sensitivity Analysis

Sensitivity of the NPV results to changes in the key drivers is presented in *Figure 1-6*. The sensitivity study shows the NPV at the 9% discount rate when Base Case sales prices, operating costs, production, plant yield and capital costs are increased and decreased +/- 10%. A critical case combining Sales price and operating cost was also done reflecting the combined effect of plus 10% operating cost with -10% sales price to -10% operating cost and +10% sales price.





Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings.

## 1.11 Permitting

Warrior Met has obtained all mining and discharge permits to operate its mine and processing, loadout, or related support facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits. Future permits will be required to secure additional fine and coarse refuse capacities. Mine No. 7, along with all coal producers, is subject to a level of uncertainty regarding future clean water permits due to **United States Environmental Protection Agency (EPA)** involvement with state programs.

#### MARSHALL MILLER & ASSOCIATES, INC.

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# 1.12 Conclusion and Recommendations

Sufficient data has been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on Mine No. 7 property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and preliminary feasibility study, which consider the mining plan, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

This geologic evaluation conducted in conjunction with the preliminary feasibility study concludes that the 49.7 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of future market prices for metallurgical coal products, estimated operation costs, and capital expenditures.

# 2 Introduction

# 2.1 Registrant and Terms of Reference

This report was prepared for the sole use of Warrior Met Coal, Inc. and its affiliated and subsidiary companies and advisors. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

The report provides a statement of coal reserves for Warrior Met. Exploration results and resource calculations were used as the basis for the mine planning and the preliminary feasibility study completed to determine the extent and viability of the reserve.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of metric tonnes (*Mt*).

# 2.2 Information Sources

The technical report is based on information provided by Warrior Met and reviewed by MM&A's professionals, including geologists, mining engineers, civil engineers, and environmental scientists. MM&A's professionals hold professional registrations and memberships which qualify them as Qualified Persons in accordance with SEC guidelines. Sources of data and information are listed below in *Table 2-1*:

#### MARSHALL MILLER & ASSOCIATES, INC.

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Category	Information Provided by Warrior Met	Report Section
Geological	Geologic data including digital databases and original source data including geologist logs, driller's logs, geophysical logs.	9.1
Coal Quality	Database of coal quality information supplemented with original source laboratory sheets where available.	10.1
Mining	Historical productivities and manpower projections.	13
Coal Preparation	Flow Sheet descriptions information related to coal processing.	14
Costs	Historical and budgetary operating cost information used to derive cost drivers for reserve financial modeling	18

#### Table 2-1: Information Provided to MM&A by Warrior Met

Note: While the sources of data listed in *Table 2-1* are not exhaustive, they represent a significant portion of information which supports this TRS. MM&A reviewed the provided data and found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forward-looking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, coals sales price forecasts, the assumption that Warrior Met will continue to acquire necessary permits, and other assumptions. The TRS statements and conclusions are not a guarantee of future performance and undue reliance should not be placed on them. The ability of Warrior Met to recover the estimated coal reserves is dependent on multiple factors beyond the control of MM&A including, but not limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management.

Warrior Met engaged MM&A to conduct a coal reserve evaluation of the Mine No. 7 coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed:

- Process the information supporting the estimation of coal resources and reserves into geological models;
- > Develop life-of-reserve mine (LOM) plans and financial model;
- > Hold discussions with Warrior Met company management; and
- > Prepare and issue a Technical Report Summary providing a statement of coal reserves which would include:
  - A description of the mines and facilities.
  - A description of the evaluation process.
  - An estimation of coal resources and reserves with compliance elements as stated under the new SEC Guidelines which became effective for the first fiscal year that commenced on or after January 1, 2022.

#### 2.3 Personal Inspections

MM&A is well acquainted with the Mine No. 7 property, having provided a variety of services in recent years. Qualified Persons involved in this TRS have conducted multiple site visits since Warrior's acquisition of the Walter assets.

### MARSHALL MALLER & ASSOCIATES, INC.

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Table 2-1: Information Provided to MM&A by Warrior Met Report Category Information Provided by Warrior Met Section Geologic data including digi databases and original source data including Geological geologist logs, driller's logs, geophysical logs. 9.1 Database of coal quality information supplemented with original source Coal Quality laboratory sheets where available. 10.1 Mining Historical productivities and manpower projections. 13 (Preparation Flow Sheet descriptions information related to coal processing. 14 Historical and budgetary operating cost information used to derive cost drivers Costs for reserve financial modeling 18 Note: While the sources of data listed in Table 2-1 are not exhaustive, they represent a significant portior information which supports this TRS. MM&A reviewed the provided data and found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forward-looking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, coals sales price forecasts, the assumption that Warrior Met will continue to acquire necessary permits, and other assumptions. The TRS statements and conclusions not a guarantee of future performance and undue reliance should not be placed on them. The ability of Warrior Met to recover the estimated coal reserve dependent on multiple factors beyond the control of MM&A including, but not limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management. Warrior Met engaged MM&A to conduct a coal reserve evaluation of the Mine No. 7 coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed: > Process the information supporting the estimation of coal resources and reserves into geological models; > Develop life-of-reserve mine (LOM) plans and financial model; > Hold discussions with Warrior Met company management; and > Prepare and issue a Technical R

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

# 2.4 Updates to Previous TRS

This TRS reflects an update to a TRS, published in early 2022 to reflect resources and reserves as of December 31, 2021. Material revisions reflected in this TRS include:

- Pre-feasibility level financial model updates to reflect inflationary driven cost (operating and capital) increases;
- 2. Updated market analysis; and
- Incorporation of exploration drilling information and mine channel samples obtained in calendar year 2022 and subsequent updates to geological models.

# 3 Property Description

# 3.1 Location

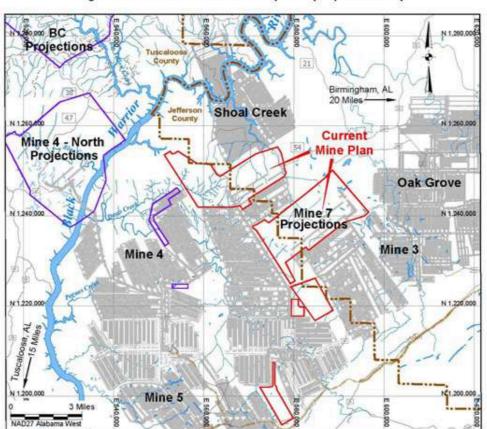
The Property is located in Jefferson and Tuscaloosa Counties in central Alabama, approximately 20 miles east of the city of Tuscaloosa and 30 miles southwest of the city of Birmingham in the southern region of the US. *Figure 3-1* displays the Property's location.

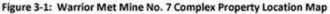
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Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system.

Mine No. 7 is adjoined by five (5) nearby longwall mining operations (both active and inactive) that have extracted coal from the same Mary Lee and Blue Creek seams:

- > Shoal Creek on the north
- > Oak Grove on the east/northeast
- > Mine No. 3 on the east
- > Mine No. 4 on the west
- > Mine No. 5 on the south

Mine No. 7 reserve areas are located in five (5) principal areas with the following projected mineable seam configurations:

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Figure 3-1: Warrior Met Mine No. 7 Complex Property Location Map Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system. Mine No. 7 is adjoined by five (5) nearby long wall mining operations (both active and inactive) that have extracted coal from the same Mary L and Blue Creek seams: > Shoal Creek on the north > Oak Grove on the east/northeast > Mine No. 3 on the east > Mine No. 4 on the west > Mine No. 5 of the south Mine No. 7 reserve areas are located in five (5) principal areas with the following projected mineable seam configurations: MARSHALL MILLER & ASSOCIATES, INC. 21



- > North West; Mary Lee and Blue Creek longwall mining area
- > North Central; Mary Lee and Blue Creek longwall mining area
- > North East; Blue Creek only longwall mining area
- > Central; Blue Creek only longwall mining area
- > South; Blue Creek only longwall mining area

## 3.2 Titles, Claims or Leases

MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or other property control instruments pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves as shown on its property maps, and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met.

### 3.3 Mineral Rights

Warrior Met, through its acquisition of the Walter's assets in 2016, acquired mineral rights for the Mine No. 7 property. At the time of purchase, this acquisition also notably included Mine No. 4 and BC Properties. Currently, Warrior Met has mineral rights on approximately 10,100 acres associated with the remaining resource and controls the surface rights where facilities are located. Life-of-mine plans reported herein require the acquisition of approximately 300 acres of additional mineral control.

It is of important note that tracts categorized as "owned" represent those in which Warrior Met owns a percentage of tract's mineral rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral rights. Additionally, the "leased" category includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights.

By assignment, as part of the Study, MM&A has not completed a review of the major leases. Due to confidentiality, only general facts related to the major leases are noted.

The majority of the coal leases have an identical initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the coal leases have 10-year term extensions. Certain leases have performance terms related to mining execution.

The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced by the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under the coal leases on a lease-by-lease basis. The royalty rates for Mine No. 7 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel. By

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> North West; Mary Lee and Blue Creek long wall mining area > North Central; Mary Lee and Blue Creek long wall mining area > North East; Blue Cru only long wall mining area > Central; Blue Creek only long wall mining area > South; Blue Creek only long wall mining area 3.2 Titles, Claims or Le MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or other property control instrume pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves as shown on its property maps and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met. 3.3 Mineral Rights Warrior Met, through its acquisition of the Walter's assets in 2016, acquired mineral rights for the Mine No. 7 property. At the time of purchase, this acquisition also notably included Mine No. 4 and BC Properties. Currently, Warrior Met has mineral rights on approximately 10,100 acres associated with the remaining resource and controls the surface rights where facilities are located. Life-of-mine plans reported herein require the acquisition of approximately 300 acre additional mineral control. It is of important note that tracts categorized as "owned" represent those in which Warrior Met owns a percentage of tract's mineral rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral rights. Additionally, the "leased" category includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights. By assignment, as part of the Study, MM&A has no completed a review of the major leases. Due to confidentiality, only general facts related to the major leases are noted. The majority of the coal leases have an identical initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the coal leases have 10-year term extensions. Certain leases have performance terms related to mining execution. The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced b the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under coal leases on a lease-by-lease basis. The royalty rates for Mine No. 7 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel. By MARSHALL MILLER & ASSOCIATES, INC. 22



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

assignment, MM&A has not independently verified property boundaries specific to each lease; however, MM&A has reviewed Warrior Met-supplied boundary mapping.

## 3.4 Encumbrances

No Title Encumbrances are known. By assignment, MM&A did not complete a query related to Title Encumbrances.

# 3.5 Other Risks

There is always risk involved in property control. Warrior Met has had their legal teams examine the deeds and title control in order to minimize the risk. Historically, property control has not posed any challenges related to Mine No. 7's operations. A portion of uncontrolled tracts which must be obtained by Warrior Met in order to execute the mine plan presented herein are owned by the Federal Government's **Bureau of Land Management (BLM)**. Regionally, operators (including Warrior Met's predecessors) have experienced a successful track record of obtaining mining rights to BLM properties. Warrior Met actively pursues uncontrolled properties critical for short and long term mine planning.

# 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

## 4.1 Topography, Elevation, and Vegetation

The Property is located in the physiographic region of central Alabama within the Black Warrior Basin (*BWB*) region of the US. The area is rugged upland of moderate topography with more than 200 feet of relief adjacent to major streams. The area is dissected by streams that flow to the northwest and eventually to the Black Warrior River. Two major drainages are within the Property. Centrally located is Davis Creek and its tributaries. To the north is Shoal Creek and its tributaries. The upland topographic features are controlled by lithology, with large flat surfaces formed by underlying sandstone with steeper slopes formed by weathered shale and siltstones. Maximum relief within the Property is approximately 430 feet with elevation ranging from 270 feet above mean sea level (*MSL*) along the banks of the Davis Creek to 700 feet along the top of the flat ridges.

#### 4.2 Access and Transport

General access to the Property complex is very good via Hannah Creek Rd. Hannah Creek Rd is a well maintained, paved, two-lane road with Interstate access in close proximity to the south via Lock 17 Road. Interstates 59 and 20 are approximately 13 miles to the south with Tuscaloosa about 15 miles to the west and Birmingham about 40 miles to the east.

Direct access to the preparation and coal handling facilities, as well as the deep mine's West portal, shaft facilities and supply yard is approximately one-quarter mile off of Hannah Creek Road which runs

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assignment, MM&A has not independently verified property boundaries specific to each lease; however, MM&A has reviewed Warrior Met-supplied boundary mapping. 3.4 Encumbrances No Title Encumbrances are known. By assignment, MM&A did not complete a query related to Title Encumbrances. 3.5 Other Risks There is always risk involved in property control. Warrior Met has had their legal teams examine the deeds and title control in order to minimize the risk. Historically, property control has not posed any challenges related to Mine No. 7's operations. A portion of uncontrolled tracts which must be obtained by Warrior Met in order to execute the mine plan presented herein are owned by the Federal Government's Bureau of Land Management (BLM). Regionally, operators (including Warrior Met's predecessors) have experienced a successful track record of obtain mining rights to BLM properties. Warrior Met actively pursues uncontrolled properties critical for short and long term mine planning. 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography 4.1 Topography, Elevation, and Vegetation The Property is located in the physiographic regio of central Alabama within the Black Warrior Basin (BWB) region of the US. The area is rugged upland of moderate topography with more than 200 feet relief adjacent to major streams. The area is dissected by streams that flow to the northwest and eventually to the Black Warrior River. Two major draina are within the Property. Centrally located is Davis Creek and its tributaries. To the north is Shoal Creek and its tributaries. The upland topographic featu are controlled by lithology, with large flat surfaces formed by underlying sandstone with steeper slopes formed by weathered shale and siltstones. Maxir relief within the Property is approximately 430 feet with elevation ranging from 270 feet above mean sea level (MSL) along the banks of the Davis Cree 700 feet along the top of the flat ridges. 4.2 Access and Transport General access to the Property complex is very good via Hannah Creek Rd. Hannah C Rd is a well maintained, paved, two-lane road with Interstate access in close proximity to the south via Lock 17 Road. Interstates 59 and 20 are approximately 13 miles to the south with Tuscaloosa about 15 miles to the west and Birmingham about 40 miles to the east. Direct access to the prepara and coal handling facilities, as well as the deep mine's West portal, shaft facilities and supply yard is approximately one-quarter mile off of Hannah Cree Road which runs MARSHALL MILLER & ASSOCIATES, INC. 23



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

southwest to northeast through the Property from Lock 17 Road. All facilities are in close proximity to high quality, public roads and lie within 3 miles of each other with the exclusion of East and North portals which are approximately 3.7 miles to the northeast and 5 miles to the northwest respectively. A multitude of coalbed methane (*CBM*) and gas well roads bisect the Property providing exceptional surface access to areas overlying the mineral boundaries.

Rail transport for the mine sites utilizes a rail line that is located on the east side of the Property which runs along Davis Creek. River transport is available approximately 7 miles to the west of the plant facilities on the Black Warrior River.

# 4.3 Proximity to Population Centers

The Property lies in close proximity to two large population centers. The city of Tuscaloosa lies approximately 20 miles west and Birmingham lies about 30 miles northeast of the mine sites. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 235 thousand and 1.1 million respectively (as of 2022). Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in the area. The city of Birmingham is home to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually.

# 4.4 Climate and Length of Operating Season

The typical climate in this portion of Alabama is rather humid but temperate. The average annual temperature is 66 degrees Fahrenheit. The climate is hot during the summer when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally January. Alabama receives on average 56 inches of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity and the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface and preparation plant operations on a very limited basis.

# 4.5 Infrastructure

Infrastructure in the area surrounding the Property is very diverse, well established and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birmingham and Tuscaloosa. All of the primary infrastructure that the mine needs to operate (power, water, transportation/roads) is available with reasonable access requirements.

Below is a list of the regional infrastructure near the Mine No. 7 operation:

#### MARSHALL MILLER & ASSOCIATES, INC.

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southwest to northeast through the Property from Lock 17 Road. All facilities are in close proximity to high quality, public roads and lie within 3 miles c each other with the exclusion of East and North portals which are approximately 3.7 miles to the northeast and 5 miles to the northwest respectively. A multitude of coalbed methane (CBM) and gas well roads bisect the Property providing exceptional surface access to areas overlying the mineral boundar Rail transport for the mine sites utilizes a rail line that is located on the east side of the Property which runs along Davis Creek. River transport is availat approximately 7 miles to the west of the plant facilities on the Black Warrior River. 4.3 Proximity to Population Centers The Property lies in close proximity to two large population centers. The city of Tuscaloosa lies approximately 20 miles west and Birmingham lies about 30 miles northeast of the mine sites. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 235 thousand and 1.1 million respectively (as of 202 Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in th area. The city of Birmingham is home to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually. 4.4 Climate and Length of Operating Season The typical climate in this portion of Alabama is rather humid but temperate. The average annual temperature i degrees Fahrenheit. The climate is hot during the summer when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally Janua Alabama receives on average 56 inches of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface and preparation plant operations on a very limited basis. 4.5 Infrastructure Infrastructure in the area surrounding the Property is very diverse, well established and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birmingham and Tuscaloosa. All of the primary infrastructure that the mine needs to operate (power, water, transportation/roads) i available with reasonable access requirements. Below is a list of the regional infrastructure near the Mine No. 7 operation: MARSHALL MILLER & ASSOCIATES, INC. 24

MARSHALLMULER Associates	Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary
Electrical Power	The immediate area contains numerous coal-fired power plants producing base-load electricity. Major transmission and distribution lines are located within the area of interest. Alabama Power is the local utility which provides electricity for the Property.
Water and Sewer	Water is sourced from local municipalities and various freshwater pumps
Roads	The area is serviced by an extensive network of well-maintained, federal, state and county highways in close proximity to the mine site.
Railroads	A major commercial railroad is located along the edge of the area. Contractual requirements dictate that the railroad is utilized to transport a significant portion of saleable production.
Barge	A barge facility on the Black Warrior River is also utilized to transport coal to port facilities for seaborne export shipments.
Airports	Birmingham-Shuttlesworth International Airport is located approximately 30 miles to the east.
Mining Service Providers, Equipment Manufacturers and Supply Companies	The Property is well serviced by major mining equipment manufacturers, rebuild facilities, and mine supply vendors. Specialized mining service providers including slope, shaft, and preparation plant construction companies are located in the immediate area.
Hospitals – Ambulance, Med Flights	There are numerous fully functioning hospitals (including major trauma centers) within a 50-mile radius of the area. The area is serviced by a network of public and private ambulance and helicopter medical flight providers.
Emergency Services – Fire, Police	There are numerous fire departments and emergency medical service (EMS) providers within a 50-mile radius of the mine sites.
	The area is well serviced by a large network of federal, state and local law enforcement agencies with central dispatch and communications systems, including emergency 911 services.
Schools	The region has a well-developed public education network consisting of federal, state and local government-backed schools as well as privately funded schools. These include elementary, middle, and high schools, as well as technical and vocational schools.
College/University	The region contains numerous colleges and universities as well as well- established mining universities and training centers. Namely, the University of Alabama is located in the city of Tuscaloosa and offers scientific and engineering degrees.

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the east. Mining Service Providers, The Property is well serviced by major mining equipment manufacturers, Equipment Manufacturers rebuild facilities and mine supply vendors. Specialized mining service and Supply Companies providers including slope, shaft, and preparation plant construction comparate located in the immediate area. Hospitals – Ambulance, There are numerous fully functioning hospitals (including major trauma Med Flights centers) within a 50-mile radius of the area. The area is serviced by a network of public and private ambulance and helicopter medical flight providers. Emergence Services – Fire, There are numerous fire departments and emergency medical service (EMS) Police providers within a 50-mile radius of the mine sites. ' area is well serviced by a large network of federal, state and local law enforcement agencies with central dispatch and communications systems, includir emergency 911 services. Schools The region has a well-developed public education network consisting of federal, state and local government-backed schools as well as privately funded schools. These include elementary, middle, and high schools, as well as technical and vocational schools. College/University The region contains numerous colleges and universities as well as well-established mining universities and training centers. Namely, University of Alabama is located in the city of Tuscaloosa and offers scientific and engineering degrees. MARSHALL MILLER & ASSOCIATES, INC. 25



# 5 History

# 5.1 Previous Operation

Mine No. 7 was opened by Walter in 1974. Following the bankruptcy of Walter in 2015, Warrior Met acquired the assets of Walter in 2016.

# 5.2 Previous Exploration

The Property has been extensively explored as early as 1916 and as recently as 2022 by subsurface drilling efforts carried out by numerous entities, the majority of which were completed prior to acquisition by Warrior Met including: **U.S. Steel**; **Tennessee Coal**, **Iron & Railroad Company**; and Walter. The majority of drilling was accomplished by means of (1) air rotary drilling with geophysical logging for CBM wells and (2) conventional core hole exploration (without geophysical logs).

# 6 Geological Setting, Mineralization and Deposit

# 6.1 Regional, Local and Property Geology

The Black Warrior coal basin (*BWB*), which encompasses the subject Property, is a foreland basin covering approximately 23,000 square miles (59,570 square kilometers) of northwestern and central Alabama. The basin extends approximately 230 miles from west to east and 188 miles from north to south. The BWB lies within the Cumberland Plateau portion of the Appalachian Highlands and contains Pennsylvanian System (300 million years) sedimentary coal-bearing strata of the Upper Pottsville Formation. Metallurgical coal deposits in northern Alabama are divided into three coal fields; the Black Warrior, the Cahaba, and the Coosa, of which the Black Warrior is the largest in both size and productivity.

Of the coal groups within the BWB, historically the most dominant is the Mary Lee group (see *Figure 6-1*). This sequence is "tagged" or identified with a 4-digit numeric system that typically includes the following strata (in descending stratigraphic order):

- > 7200 / 7300 New Castle (typically present as Upper and Lower benches), 30 to 50 feet above the Mary Lee seam
- > 7400 Mary Lee seam
- > 7450 Middleman (rock parting)
- > 7480 Rider seam (not always present) included as part of the Middleman
- > 7490 Parting between the Rider and Blue Creek seams (not always present) included as part of the Middleman
- > 7500 Blue Creek seam

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5 History 5.1 Previous Operation Mine No. 7 was opened by Walter in 1974. Following the bankruptcy of Walter in 2015, Warrior Met acquired the asse Walter in 2016. 5.2 Previous Exploration The Property has been extensively explored as early as 1916 and as recently as 2022 by subsurface drilling efforts carried out by numerous entities, the majority of which were completed prior to acquisition by Warrior Met including: U.S. Steel; Tennessee Coa Iron & Railroad Company; and Walter. The majority of drilling was accomplished by means of (1) air rotary drilling with geophysical logging for CBM

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> 7600 – Jagger seam, where present, typically a few feet to tens of feet below the Blue Creek; however, may locally become part of the mineable section with the overlying Blue Creek seam.

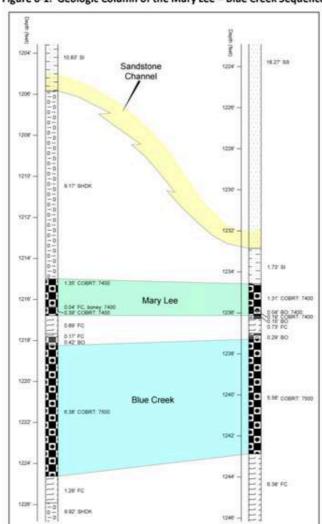


Figure 6-1: Geologic Column of the Mary Lee - Blue Creek Sequence

The BWB is bound by the Alabama Valley and Ridge, Highland Rim, and East Gulf Coastal Plain physiographic providences. The southwestern and southeastern margins of the basin are terminated by frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceous and Tertiary age deposits.

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frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceous a Tertiary age deposits. MARSHALL MILLER & ASSOCIATES, INC. 27



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The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend has locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (with relief of several hundreds of feet), which is present to the northwest of the Mine No. 4 reserves, and adjacent to the BC property.

Faulting is widespread across the basin with high-angle, scissor-type normal faults and fault grabens common, which are typically oriented in a southeast to northwest alignment. Vertical displacement typically varies from only a few feet to as much as 350 feet. Exploration programs by Warrior Met attempt to pinpoint exact fault locations and displacements prior to mineral extraction in a given mining district. At times, non-detected faults have deemed panels unmineable. Such instances are rare, and Warrior Met mitigates such risks by maintaining favorable longwall panel float times.

Warrior Met and MM&A are also considering the addition of resources and reserves associated with areas not conducive to longwall mining methods due to geological constraints (i.e., faulting) which could be recovered with standard continuous mining methods. Warrior and MM&A expect that continuous mining only methods could yield profitable economics in advantageous market conditions. MM&A and Warrior Met plan to consider additional continuous mining-only resource and/or reserve areas in subsequent reporting years. Such potential resources and/or reserves are not considered in this TRS.

## 6.2 Mineralization

Regional coal rank in the BWB generally ranges from a low-volatile coal in the southeastern portion of the basin to a high-volatile coal to the northwest. Due to the value of the Mary Lee and Blue Creek seams in the metallurgical coking coal market at the Mine No. 7 operation (and adjoining mines) to the south and east of the Property, the subject coal seams have been extensively mined in the region. Laboratory data for the Property on a dry, clean coal (1.50 - 1.55 float) basis indicates a typically low-to medium-volatile bituminous coal product. The utilization of two longwall mining units allows Warrior to sequence the mine plan at Mine No. 7 to produce a consistent volatile product.

## 6.3 Coal Rank

## 6.3.1 ASTM Method for Defining Coal Rank

The principal parameters examined in the ASTM method for the determination of rank include (but are not limited to) the following: Fixed Carbon (FC), Volatile Matter (VM), Ash, Sulfur, and Calorific content (typically in Btu/lb.), as well as Moisture content. (It should be noted that sulfur trioxide (SO<sub>3</sub>) in coal ash, if analyzed, can also be factored in; however, this data is typically unavailable.

As shown below, results of regional coal rank trends indicate that coals ranging from Low volatile to High volatile Bituminous coal rank are found within the BWB, according to ASTM criteria:

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The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (with relief of several hundreds of fe which is present to the northwest of the Mine No. 4 reserves, and adjacent to the BC property. Faulting is widespread across the basin with high-angle, scissor-type normal faults and fault grabens common, which are typically oriented in a southeast to northwest alignment. Vertical displacement typically varies from only a few feet to as much as 350 feet. Exploration programs by Warrior Met attempt to pinpoint exact fault locations and displacements primineral extraction in a given mining district. At times, non-detected faults have deemed panels unmineable. Such instances are rare, and Warrior Met mitigates such risks by maintaining favorable longwall panel float times. Warrior Met and MM&A are also considering the addition of resources and reserves associated with areas not conducive to longwall mining methods due to geological constraints (i.e., faulting) which could be recovered with standard continuous mining methods. Warrior and MM&A expect that continuous mining only methods could yield profitable economics in advantageou market conditions. MM&A and Warrior Met plan to consider additional continuous mining-only resource and/or reserve areas in subsequent reporting you such as the southeastern portion of the basin to a high-volatile coal to the northwest. Due to the value of the Mary Lee and Blue Creek seam

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- Low Volatile Bituminous, or LV<sub>ASTM</sub> (VM greater than or equal to 14% and less than 22% on a drymineral-matter-free basis, or DMMF)
- Medium Volatile Bituminous, or MV<sub>ASTM</sub> (VM greater than or equal to 22% and less than 31% on a dry-mineral-matter-free basis, or DMMF)
- > High Volatile A Bituminous, or HVA<sub>ASTM</sub> (VM greater than 31% on a dry-mineral-matter-free basis, or DMMF, and calorific content greater than or equal to 14,000 Btu/lb. on a moist-mineral-matter-free basis)

Furthermore, utilizing ASTM criteria, coal rank for the coals sampled on the Property range from Low Volatile to Medium Volatile bituminous.

			Fixed Ca	rbon Limits	Volatile M	atter Limita		lorific Value loist <sup>e</sup> MMF)
				IMF") %		MF) %	В	tu/lb
		Class/Group	* or >	Less Than	< 10 ×	Less Than	* or >	Less Than
021		I. Anthracitic		_				
₼		Meta-anthracite	56	0.3334	575	2	0.5330	1772
1		Anthracte	92	98	2	8	1.000	100
L	Gas Content	Semianthracite <sup>0</sup>	86	92	8		1000	
	Con	II. Bituminous						
	S	Low volatile	78	86	14	22	( <del>1111</del>	( <del>111</del>
	Ga	Medium volatile	69	78	22	31	1944	1441
		High volatile A	- 11	69	31		14,000	-
	len	High volatile B		0.000	0 Het		13,000	14,000
	ő	High volatile C	1111	2.996	1.000		11,500	13,000
	Thermogenic						10,500	11,500
	£	III. Subbituminous						
	p	Subbituminous A	772	1779	172	1100	10,500	11,500
L	Sir	Subbituminous B	100	1.000	1986	1000	9,500	10,500
L	Increasing	Subbituminous C		100	0.000		8,300	9,500
I	oul	IV. Lignitic						
L		Lignite A		298	lee.		6,300 *	8,300
L	3	Lignite B	117	522	1.122	- 222	1222	6,300

#### Figure 6-2: Classification of Coals by Rank (as per ASTM Standard D 388)

#### 6.3.2 Coal Quality Parameters Associated with Market-based Coal Rank

It is important to note that market-based parameters are significantly different from definitions defined by ASTM for coal rank. ASTM rank is *not* defined by favorability in the marketplace. Coal quality parameters analyzed to define the market-based coal rank typically include, but are not limited to:

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> Volatile Matter% (dry basis)

> Low Volatile Bituminous, or LVASTM (VM greater than or equal to 14% and less than 22% on a dry-mineral-matter-free basis, or DMMF) > Medium Volatile Bituminous, or MVASTM (VM greater than or equal to 22% and less than 31% on a dry-mineral-matter-free basis, or DMMF) > High Volatile 2 Bituminous, or HVAASTM (VM greater than 31% on a dry-mineral-matter-free basis, or DMMF, and calorific content greater than or equal to 14,000 Btu/lb. on a moist-mineral-matter-free basis) Furthermore, utilizing ASTM criteria, coal rank for the coals sampled on the Property range from Low Volto Medium Volatile bituminous. Figure 6-2: Classification of Coals by Rank (as per ASTM Standard D 388) 6.3.2 Coal Quality Parameters Associated with Market-based Coal Rank It is important to note that market-based parameters are significantly different from definitions defined by ASTM for coal

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rank. ASTM rank is not defined by favorability in the marketplace. Coal quality parameters analyzed to define the market-based coal rank typically inclubut are not limited to: > Volatile Matter% (dry basis) MARSHALL MILLER & ASSOCIATES, INC. 29



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- > Ash% (dry basis)
   > Sulfur% (dry basis)
- > Fluidity (ddpm)
- > Vitrinoid Reflectance%
- > Moisture%

Moreover, ASTM rank should *not* vary with time. However, as market conditions and requirements change, the levels (of ash, sulfur, etc.) considered to be "favorable", "fair", or "unfavorable" will vary over time. Furthermore, many coals will meet the requirements for one parameter (ash, sulfur, fluidity, etc.), fall short on another, and exceed the guideline on other parameters. It then becomes a matter of judgement as to where the coal should be placed. Ultimately, various coke makers will value a particular coal differently, depending on the quality of the other coals in their blend and the coke specifications they have to meet. Determination of the market rank of the Property coals is beyond the scope of this investigation.

## 6.3.2.1 Warrior Met Market Placement

Warrior Met reports that current market placement at Mine No. 7 is generally based on the Premium Low-Volatile Indices (*PLV*). Mine projections suggest that Mine No. 7's volatiles could gradually increase through reserve exhaustion, though Warrior Met anticipates that the degree to which this will impact derivation from the PLV will be minimal. The utilization of two longwalls at Mine No. 7 allows Warrior Met to strategically sequence the operation to blend coals of various volatiles. While this exercise was beyond MM&A's scope for reserve definition, the flexibility of two producing longwalls is notable. MM&A, with support from Warrior Met, has used the PLV for pricing of coals throughout the life of the operation in the prefeasibility economic analysis presented herein.

## 6.4 Deposits

Sediments of the Upper Pottsville Mary Lee coal zone are Lower Pennsylvanian in age and comprised of cyclic sequences that include sandstone, siltstone, shale, and coal. Located within the middle of the Black Warrior Basin stratigraphic sequence, the Mary Lee and Blue Creek horizon is situated below drainage throughout the Property and is accessed by shafts.

The lithologic variability of the Mary Lee – Blue Creek sequence and enclosing strata is illustrated on *Figures 6-3* and *6-4*, as discussed below:

- > The New Castle seam is present approximately 20 to 80 feet above the Mary Lee seam.
- > Lithologic composition of the roof strata varies throughout the Property, consisting primarily of a coarsening-upward sequence of shale or sandy shale, with occasional sandstone channels located within the immediate or main roof of the Mary Lee seam.

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> Ash% (dry basis) > Sulfur% (dry basis) > Fluidity (ddpm) > Vitrinoid Reflectance% > Moisture% Moreover, ASTM rank should not vary with tim However, as market conditions and requirements change, the levels (of ash, sulfur, etc.) considered to be "favorable", "fair", or "unfavorable" will vary time. Furthermore, many coals will meet the requirements for one parameter (ash, sulfur, fluidity, etc.), fall short on another, and exceed the guideline or other parameters. It then becomes a matter of judgement as to where the coal should be placed. Ultimately, various coke makers will value a particular c differently, depending on the quality of the other coals in their blend and the coke specifications they have to meet. Determination of the market rank of Property coals is beyond the scope of this investigation. 6.3.2.1 Warrior Met Market Placement Warrior Met reports that current market placement at Mi No. 7 is generally based on the Premium Low-Volatile Indices (PLV). Mine projections suggest that Mine No. 7's volatiles could gradually increase thro reserve exhaustion, though Warrior Met anticipates that the degree to which this will impact derivation from the PLV will be minimal. The utilization of longwalls at Mine No. 7 allows Warrior Met to strategically sequence the operation to blend coals of various volatiles. While this exercise was beyond MM&A's scope for reserve definition, the flexibility of two producing longwalls is notable. MM&A, with support from Warrior Met, has used the PLV pricing of coals throughout the life of the operation in the prefeasibility economic analysis presented herein. 6.4 Deposits Sediments of the Upper Pottsv Mary Lee coal zone are Lower Pennsylvanian in age and comprised of cyclic sequences that include sandstone, siltstone, shale, and coal. Located withir middle of the Black Warrior Basin stratigraphic sequence, the Mary Lee and Blue Creek horizon is situated below drainage throughout the Property and

accessed by shafts. The lithologic variability of the Mary Lee – Blue Creek sequence and enclosing strata is illustrated on Figures 6-3 and 6-4, as discussed below: > The New Castle seam is present approximately 20 to 80 feet above the Mary Lee seam. > Lithologic composition of the roof stra varies throughout the Property, consisting primarily of a coarsening-upward sequence of shale or sandy shale, with occasional sandstone channels locate within the immediate or main roof of the Mary Lee seam. MARSHALL MILLER & ASSOCIATES, INC. 30



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- In areas where sandstone occupies the immediate roof of the Mary Lee seam, seam scouring may locally occur. Where sandstone channels are present within 4 to 6 feet above the Mary Lee (roof bolt horizon), there is potential for increased drawrock conditions and roof instability beneath the sandstone/shale contact.
- > Thickness and composition of the stratum comprising the Middleman are variable, ranging from: shale, carbonaceous shale, or fireclay, to sandy shale.
- > Areas where the combined thickness of the Mary Lee Blue Creek horizon is less than a minimum continuous miner cutting height (7.0 feet) are generally rare, and where this occurs, roof (and/or floor) strata are expected to be excavated as out-of-seam dilution (OSD).
- > Areas where the thickness of the Blue Creek seam is less than a minimum longwall cutting height (5.0 feet), and only the Blue Creek seam is planned to be longwall mined (see Figure 6-4), occur in the Northeast and Central areas.
- Compositional variability and thickness of the floor strata of the Blue Creek seam in a fining-upward sequence varying from: very soft, thick fireclay within the immediate floor, to sandy fireclay, shale, sandy shale, and finally sandstone within the first three feet below the seam. Fireclay varies in thickness, from less than a foot to more than 10 feet. Due to inherently high clay content, this stratum is typically moisture-sensitive and may degrade when exposed to water accumulation on the mine floor.

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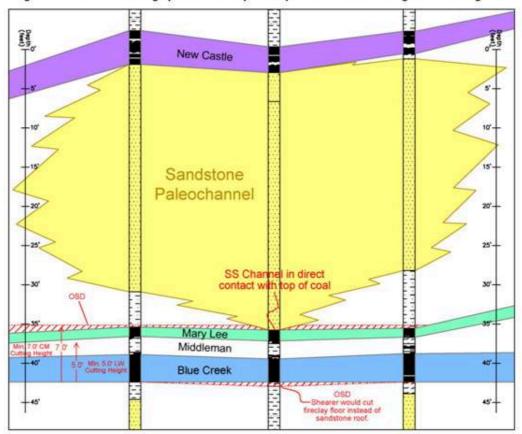


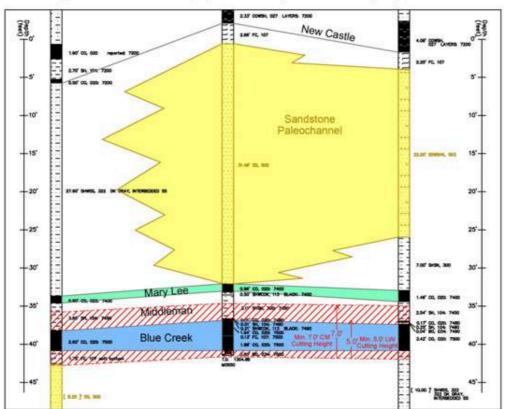
Figure 6-3: Mine No. 7 Stratigraphic Relationships - Mary Lee and Blue Creek Longwall Mined Together

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Figure 6-3: Mine No. 7 Stratigraphic Relationships – Mary Lee and Blue Creek Longwall Mined Together MARSHALL MILLER & ASSOCIATES, INC. 32







## 6.4.1 Mineable Seam Thickness Configurations

The mineable seam configuration of Mine No. 7 consists of the Mary Lee, Middleman, and Blue Creek seams, also referred to as "twin seam" mining, with the following thickness ranges.

- > The Mary Lee typically averages 1.5 feet throughout the mine plan area. Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.
- > Between the two seams, the "Middleman" parting averages approximately 2.5 feet within areas where the Mary Lee and Blue Creek seams are projected to be longwall mined together; the parting generally thickens to the south.
- > The Blue Creek seam, which typically represents the better metallurgical quality than the overlying Mary Lee seam, averages approximately 3.5 feet in thickness within the current resource areas. (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.)

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Figure 6-4: Mine No. 7 Stratigraphic Relationships –Blue Creek Only Longwall Mined 6.4.1 Mineable Seam Thickness Configurations The mineabl seam configuration of Mine No. 7 consists of the Mary Lee, Middleman, and Blue Creek seams, also referred to as "twin seam" mining, with the follow thickness ranges. > The Mary Lee typically averages 1.5 feet throughout the mine plan area. Detailed seam mapping exhibits are retained in MM&A's but are not included with this report. > Between the two seams, the "Middleman" parting averages approximately 2.5 feet within areas where the Mary Lee and Blue Creek seams are projected to be longwall mined together; the parting generally thickens to the south. > The Blue Creek seam, which typically represents the better metallurgical quality than the overlying Mary Lee seam, averages approximately 3.5 feet in thickness within the current resource areas. (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.) MARSHALL MILLER & ASSOCIATES, INC. 33



However, in the southern area, the Blue Creek seam thickens substantially, averaging 7.0 feet in thickness.

> The combined thickness of the Mary Lee through Blue Creek interval averages approximately 7.5feet within areas where both seams are projected to be longwall mined together. (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.)

As noted from prior studies on the Property, the Blue Creek seam regionally is subject to somewhat more erratic thickness variation than the overlying Mary Lee seam. Reasons for this are not entirely clear, but may be the result of channel incision, differential compaction, presence of contemporaneous ("growth") faults, or other paleographic factors present during or subsequent to deposition of the Blue Creek paleoswamp.

# 7 Exploration

# 7.1 Nature and Extent of Exploration

Exploration information has largely been collected, analyzed, and summarized by personnel from previous owners of the Property, Warrior Met, and their consultants. Vertical drilling has been the main method of collecting exploration information along with in-seam samples since the seam does not outcrop within or near the Property. Spacing and quantity of exploratory drill holes is generally sufficient to define the coal resource within the Property.

Initial exploration on the Property was entirely by drilling to collect data for delineation of coal and CBM resources. As a general practice, continuous core hole exploration is visually logged by a driller or professional geologist, whereas CBM holes are geophysically logged. Geophysical information from CBM wells was obtained from the **Geological Survey of Alabama Oil and Gas Board (GSA)** which were interpreted by Warrior Met's predecessor to define seam thickness and elevation.

## 7.1.1 Summary of Exploration Data

MM&A was provided with the core hole records (with 8 additional core holes drilled in 2022), or summary information from geophysical logs, as summarized below. Summaries of data related to these holes were initially provided to MM&A in the form of Microsoft<sup>\*</sup> Excel spreadsheets:

- > Total number of holes: 468 drill holes utilized for mapping purposes.
- > Total footage: 865,000 feet.
- > Hole depths: ranging from 710 feet to 2,680 feet, averaging 1,848 feet.
- > Depth to top of Mary Lee seam: ranging from 675 feet to 2,275 feet, averaging 1,595 feet.
- > An additional group of drilling records was identified and categorized as "not honored" for various reasons, and as such were ignored for mapping purposes:

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- possessing poor or suspect core recovery; or
- thickness impacted by the influence of tectonic faulting; or
- seam thickness information was interpreted from older vintage and/or lower resolution geophysical logs; or
- original records were unavailable from which to confirm suspect information.

Much of the coal quality information provided to MM&A consisted of previously summarized data in the form of Microsoft<sup>®</sup> Excel spreadsheets in an Adobe<sup>®</sup> PDF (*PDF*) format. Where available, scanned copies of coal quality sheets and summary reports were also provided. The most recent drill hole quality data (2022) was derived from activity in the northern and northeastern portions of the reserve area.

Extensive exploration in the form of subsurface drilling has been carried out on the Property by numerous entities, most of whose efforts were completed prior to acquisition by Warrior Met. Diamond core, rotary, and CBM drilling are the three primary types of exploration on the Property. Data for correlation and mining conditions are derived from core descriptions and geophysical logging (e-logging). The location of the drilling is shown on the maps included within this report.

The concentration of exploration varies across the Property, with the future underground mining areas having acceptable drill hole distributions for resource and reserve modeling. Drilling on the Property is typically sufficient for delineation of potential underground mineable benches. Mapping of future mining conditions is derived from data compiled from a variety of past and present exploration programs, but projections and assumptions can be made within a reasonable degree of certainty.

Due to the long history of exploration by various parties on the Property, a wide variety of survey techniques exist for documentation of data point locations. Many of the older exploration drill holes appear to have been located by survey. However, some holes appear to have been approximately located using USGS topography maps or other methods which are less accurate.

The coordinate system utilized for mapping of the Property is the: Alabama West State Plane Coordinate System (Alabama West), North American Datum of 1927 (NAD 27).

Figure 7-1 displays the location of drillholes for the property.

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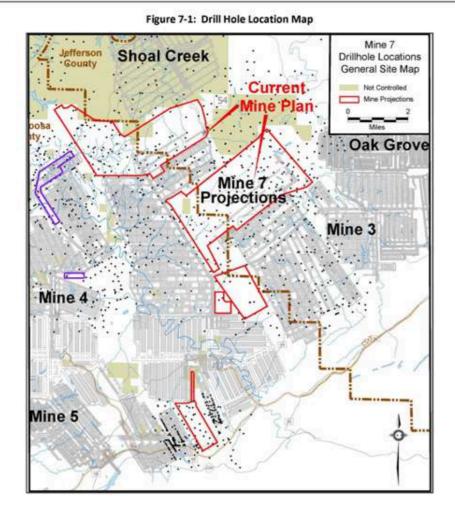
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## 7.2 Non-Drilling Procedures and Parameters

Some analyses, such as rheological and petrographic properties, and sulfur types, are not as prevalent as others in the testing done on samples recovered by drilling. To supplement the information database, samples have been collected from mine stockpiles and either truck or train shipment samples. Additionally, Warrior Met conducts regular channel sampling in its active underground workings as a means of predicting coal quality and tonnages. Channel samples are typically obtained in headgate and tailgate development sections prior to longwall mining.

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Figure 7-1: Drill Hole Location Map 7.2 Non-Drilling Procedures and Parameters Some analyses, such as rheological and petrographic properties, and sulfur types, are not as prevalent as others in the testing done on samples recovered by drilling. To supplement the information database, samples have b collected from mine stockpiles and either truck or train shipment samples. Additionally, Warrior Met conducts regular channel sampling in its active underground workings as a means of predicting coal quality and tonnages. Channel samples are typically obtained in headgate and tailgate development sections prior to longwall mining. MARSHALL MILLER & ASSOCIATES, INC. 36



# 7.3 Drilling Procedures

Core drilling methods utilize NX-size (2<sup>1</sup>/<sub>8</sub> inch) or similar-sized core cylinders to recover core samples, which can be used to delineate geologic characteristics, and for coal quality testing and geotechnical logging. In addition to the core holes, rotary drilled holes also exist on most of the Property. Data for the rotary drilled holes are mainly derived from downhole geophysical logs, which are used to interpret coal and rock thickness and depth since logging of the drill cuttings is not reliable. CBM holes are always logged geophysically, and the resulting interpreted data are incorporated into the geological model. Exploratory drilling generally requires drilling to depths from 1,140 to 1,900 feet to penetrate the target coal seams on the Property.

A wide variety of core-logging techniques exist for the Property. For many of the core holes, the primary data source is a generalized lithology description by the driller, which may be supplemented by a more detailed core log completed by a geologist. These drilling logs were provided to MM&A as a geological database. MM&A geologists were not involved in the production of original core logs but did perform a basic check of information within the provided database.

# 7.4 Hydrology

Mine No. 7 is an active mine and Warrior Met reports that it has experienced minimal hydrologic concerns or material issues. Notably, Mine No. 4, a sister operation to Mine No. 7, recently completed development under the Black Warrior River to access its northern reserve areas. Future mining is projected to occur in areas exhibiting similar hydrogeological conditions as past mining including stream undermining, undermining of aquifers, and mining through hydraulically fractured (frac'd) coalbed methane wells. Based upon the successful history of the operation with regards to hydrogeological features, MM&A assumes that the operation will not be hindered by such issues in the future.

# 7.5 Geotechnical Data

The general mining plan for this underground mine was developed by Warrior Met. Section layouts, pillar sizes, and panel dimensions largely mimic what Warrior Met has recently utilized in its active sections. Depths of cover should not significantly change over the life of the operation in comparison to current and historic values. Warrior Met and its predecessor have successfully mined adjacent to and through faults without significant geotechnical issues. MM&A does not anticipate that geotechnical issues will significantly hinder development or longwall mining activity for the mine plan presented in this TRS.

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# 8 Sample Preparation Analyses and Security

## 8.1 Prior to Sending to the Lab

Most of the coal samples have been obtained from the Property by subsurface exploration using core drilling techniques. The protocol for preparing and testing the samples has varied over time and is not well documented for the older holes drilled on the Property. Typical core-drilling sampling methods for coal in the United States involves drilling through the seam, removing the core from the barrel, describing the lithology, wrapping the sample in a sealed plastic sleeve and placing it lengthwise into a covered core box, and carefully marking hole ID and depth intervals on each box and lid, allowing the core to be delivered to a laboratory in correct stratigraphic order, and with original moisture content. This process has been the norm for both historical and ongoing exploration activities at the Property.

This work is typically performed by the supervising driller, geologist, or company personnel. Samples are most often delivered to the company by the driller after each shift or acquired by company personnel or representatives. Most of the coal core samples were obtained by previous or current operators on the Property. MM&A did not participate in the collection, sampling, and analysis of the core samples. However, it is reasonable to assume, given the consistency of quality from previous operators, that these samples were generally collected and processed under industry best practices. This assumption is based on MM&A's familiarity with the operating companies and the companies used to perform the analyses.

## 8.2 Lab Procedures

Coal-quality testing has been performed over many years by operating companies using different laboratories and testing regimens. Some of the samples have raw analyses and washabilities on the full seam (with coal and rock parting layers co-mingled) and are mainly useful for characterizing the coal quality for projected production from underground mining. Other samples have coal and rock analyzed separately, the results of which can be manipulated to forecast underground mining quality. Care has been taken to use only those analyses that are representative of the coal quality parameters for the appropriate mining type for each sample.

Standard procedure upon receipt of core samples by the testing laboratory is to: 1) log the depth and thickness of the sample; then 2) perform testing as specified by a representative of the operating company. Each sample is then analyzed in accordance with procedures defined under **American Society for Testing and Materials (ASTM)** standards including, but not limited to washability (ASTM D4371); ash (ASTM D3174); sulfur (ASTM D4239); Btu/lb. (ASTM D5865); volatile matter (ASTM D3175); Free Swell Index (*FSI*) (ASTM D720). While not confirmed by MM&A, it is assumed that best practices and ASTM (or equivalent standards at the time of testing) were utilized in laboratory quality testing.

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## 8.3 Opinion of Qualified Person

Based upon the consistency of quality information derived from multiple historical and ongoing exploration campaigns, MM&A finds the security protocols of past an ongoing exploration to be sufficient for resource and reserve documentation. Warrior Met's geology staff reports that it currently manages all exploration-based logistics, including core/channel sampling logging, transportation of material to the requisite laboratories, and the population/security of samples and appropriate laboratory forms. Currently, **Central Lab** handles the majority of coal analytical procedures related to exploration. Occasionally, **Coal Tech** (Pittsburgh, PA) will also analyze samples.]

Procedures utilized by Warrior Met are aligned with typical protocols used in the coal industry.

# 9 Data Verification

## 9.1 Procedures of Qualified Person

MM&A reviewed the Warrior Met supplied digital geologic database. The database consists of data records, which include drill hole information for holes that lie within and adjacent to the Property and records for supplemental underground coal seam thickness measurements. Geophysical logs were used wherever available to assist in confirming the seam correlation and to verify proper seam thickness measurements and recovery of coal samples. Upon completion of the database verification, copies of each entry were printed on a test case basis, and cross referenced to the original document (where available) for verification. Once the initial integrity of the database was established, stratigraphic columnar sections were generated using cross-sectional analysis to establish or confirm coal-seam correlations.

After establishing and/or verifying proper seam correlation, seam data-control maps and geological cross-sections were generated and again used to verify seam correlations and data integrity. Once the database was fully vetted, seam thickness, base-of-seam elevation, roof and floor lithology, and overburden maps were independently generated for use in the mine planning process.

## 9.2 Limitations

As with any exploration program, localized anomalies cannot always be discovered. The greater the density of the samples taken, the less the risk. Once an area is identified as being of interest for inclusion in the mine plan, additional samples are taken to help reduce the risk in those specific areas. In general, provision is made in the mine planning portion of the study to allow for localized anomalies that are typically classed more as a nuisance than a hinderance.

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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## 9.3 Opinion of Qualified Person

Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

# 10 Mineral Processing and Metallurgical Testing

## 10.1 Testing Procedures

Separate tabulations have been compiled for basic chemical analyses (both raw and washed quality), petrographic data, rheological data and chlorine, ash, ultimate and sulfur analysis. The latter two data types are not as prevalent and have been supplemented by samples collected from mine stockpiles and either truck- or train-shipment samples.

Available coal-quality data were tabulated by resource area in a Microsoft® EXCEL workbook and the details of that work are maintained on file at the offices of Warrior Met and MM&A. These tables also provide basic statistical analyses of the coal quality data sets, including average value; maximum and minimum values; and the number of samples available to represent each quality parameter of the seam. Coal samples that were deemed by MM&A geologists to be unrepresentative were not used for statistical analysis of coal quality, as documented in the tabulations. A representative group of drill hole samples from the Property were then checked against the original drill laboratory reports to verify accuracy and correctness.

The amount and areal extent of coal sampling for geological data is generally sufficient to represent the quality characteristics of the coal horizons and allow for proper market placement of the subject coal seams. For some of the coal deposits there are considerable laboratory data from core samples that are representative of full extent of the resource area; and for others there are more limited data to represent the resource area. For example, in the active operation with considerable previous mining, there may be limited quality data within some of the remaining resource area; however, in those cases the core sampling data can be supplemented with operational data from mining and shipped quality samples representative of the resource area.

MM&A extrapolated exploration-based quality information, generally summarized at a 1.50 or 1.55 float gravity, to determine yields which would correspond to a 10.2-ash product (dry basis) currently produced at the mine. Furthermore, MM&A conducted plant simulations based upon Warrior Met's processing plant circuitry to determine yields that would be practically achievable for a 10.2-ash product. MM&A utilized its regional knowledge of the Mary Lee and Blue Creek horizons and its processing expertise gained from projects completed for Warrior Met, including typical washability (multiple gravities) and sizing information. Organic efficiencies were considered to account for

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9.3 Opinion of Qualified Person Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data are of sufficient quantity and reliability reasonably support the coal resource and coal reserve estimates in this TRS. 10 Mineral Processing and Metallurgical Testing 10.1 Testing Procedures Separate tabulations have been compiled for basic chemical analyses (both raw and washed quality), petrographic data, rheological data and chlorine, as ultimate and sulfur analysis. The latter two data types are not as prevalent and have been supplemented by samples collected from mine stockpiles and e truck- or train-shipment samples. Available coal-quality data were tabulated by resource area in a Microsoft® EXCEL workbook and the details of that v

are maintained on file at the offices of Warrior Met and MM&A. These tables also provide basic statistical analyses of the coal quality data sets, includir average value; maximum and minimum values; and the number of samples available to represent each quality parameter of the seam. Coal samples that were deemed by MM&A geologists to be unrepresentative were not used for statistical analysis of coal quality, as documented in the tabulations. A representative group of drill hole samples from the Property were then checked against the original drill laboratory reports to verify accuracy and correctness. The amount and areal extent of coal sampling for geological data is generally sufficient to represent the quality characteristics of the coal horizons and allow for proper market placement of the subject coal seams. For some of the coal deposits there are considerable laboratory data from corr samples that are representative of full extent of the resource area; and for others there are more limited data to represent the resource area. For example, the active operation with considerable previous mining, there may be limited quality data within some of the remaining resource areas; however, in those cases the core sampling data can be supplemented with operational data from mining and shipped quality samples representative of the resource area. MM&A extrapolated exploration-based quality information, generally summarized at a 1.50 or 1.55 float gravity, to determine yields which would correspond to a 10.2-ash product (dry basis) currently produced at the mine. Furthermore, MM&A conducted plant simulations based upon Warrior Met processing plant circuitry to determine yields that would be practically achievable for a 10.2-ash product. MM&A utilized its regional knowledge of the Mary Lee and Blue Creek horizons and its processing expertise gained from projects completed for Warrior Met, including typical washability (multiple gravities) and sizing information. Organic efficiencies were considered to account for MARSHA



misplaced coal and reject material. After considering typical processing inefficiencies, in general, the 1.50 float yield data obtained from exploration data roughly corresponds to a 10.2-ash product. However, in some areas, yields were further reduced from those obtained by 1.50 float averages to produce a 10.2-ash product.

# 10.2 Relationship of Tests to the Whole

The extensive sampling and testing procedures typically followed in the coal industry result in an excellent correlation between samples and marketable products. As shipped analyses of the coal from the Property were reviewed to verify that the coal quality and characteristics were as expected. The Property has a long history of saleable production within the mid-volatile metallurgical markets, which is expected to change to high-volatile placement as development and longwall mining continue in the North reserve area. Degradation of coking coal characteristics over time is not anticipated to be an issue.

## 10.3 Lab Information

Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brookwood, Alabama. MM&A assumes that it operates in accordance with procedures defined under ASTM standards including, but not limited to:

- > ASTM D 4371 Test Method for Determining Washability Characteristics of Coal
- > ASTM D 3174 Method for Ash in the Analysis Sample of Coal and Coke
- > ASTM D 5865 Test Method for Gross Calorific Value of Coal and Coke
- > ASTM D 3175 Test Method for Volatile Matter in the Analysis Sample of Coal and Coke
- > ASTM D 720 Test Method for Free-Swelling Index (FSI) of Coal
- > ASTM D 5515 Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arnu)
- > ASTM D 2639 Test Method for Plastic Properties of Coal (Gieseler)
- > ASTM D 1857 Standard Test Method for Fusibility of Coal and Coke Ash
- > ASTM D 2798 Microscopical Determination of the Reflectance of Vitrinite in a Polished Specimen of Coal

MM&A was not able to confirm that exact ASTM standards were used on older coal quality samples. Consistency in coal quality data suggests that similar parameters were likely utilized for quality analysis. misplaced coal and reject material. After considering typical processing inefficiencies, in general, the 1.50 float yield data obtained from exploration dat roughly corresponds to a 10.2-ash product. However, in some areas, yields were further reduced from those obtained by 1.50 float averages to produce 10.2-ash product. 10.2 Relationship of Tests to the Whole The extensive sampling and testing procedures typically followed in the coal industry result an excellent correlation between samples and marketable products. As shipped analyses of the coal from the Property were reviewed to verify that the cc quality and characteristics were as expected. The Property has a long history of saleable production within the mid-volatile metallurgical markets, which expected to change to high-volatile placement as development and longwall mining continue in the North reserve area. Degradation of coking coal characteristics over time is not anticipated to be an issue. 10.3 Lab Information Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brookwood, Alabama. MM&A assumes that it operates in accordance with procedures defined under ASTM standards including, b not limited to: > ASTM D 4371 - Test Method for Determining Washability Characteristics of Coal > ASTM D 3174 - Method for Ash in the Analysis Sample of Coal and Coke > ASTM D 5865 - Test Method for Gross Calorific Value of Coal and Coke > ASTM D 3175 - Test Method for Volatile Matt the Analysis Sample of Coal and Coke > ASTM D 720 - Test Method for Free-Swelling Index (FSI) of Coal > ASTM D 5515 - Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arnu) > ASTM D 2639 - Test Method for Plastic Properties of Coal (Gieseler) > ASTM D 1857 - Standard Test Method for Fusibility of Coal and Coke Ash > ASTM D 2798 - Microscopical Determination of the Reflecta of Vitrinite in a Polished Specimen of Coal MM&A was not able to confirm that exact ASTM standards were used on older coal quality samples. Consistency in coal quality data suggests that similar parameters were likely utilized for quality analysis. MARSHALL MILLER & ASSOCIATES, INC. 41



# 10.4 Relevant Results

No critical factors have been found that would adversely affect the recovery of the reserve. Any quality issues that occur, either localized or generally, are accounted for in the marketing study done for this TRS.

# 10.5 Pertinent Results and Opinion of the Qualified Person

Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarized in the table below. Additionally, wash recovery estimates on a LOM basis are included, reflective of dilution material.

Seam	Basis	Wash Recovery (%)
Area 1/Northwest (Twin Seam)		
Mary Lee	Simulations to Achieve 10.2% Ash Product	63.9%
Blue Creek		72.3%
Area 2/North Central (Twin Seam)		l.
Mary Lee	Simulations to Achieve 10.2% Ash Product	73.5%
Blue Creek		82.9%
Area 3/Northeast (Blue Creek Onl	y LW; CM Twin Seam)	i a a a a a a a a a a a a a a a a a a a
Mary Lee	Simulations to Achieve 10.2% Ash Product	85.7%
Blue Creek		84.9%
Area 4/South (Blue Creek Only)		
Blue Creek	Simulations to Achieve 10.2% Ash Product	57.6%
Area 7 South (Blue Creek Only)	N	
Blue Creek	Simulations to Achieve 10.2% Ash Product	82.4%
Area 8 South (Blue Creek Only)		
Blue Creek	Simulations to Achieve 10.2% Ash Product	92.4%
LOM		1
Mary Lee + Blue Creek + Dilution	Above Assumptions + Consideration of Dilution	44.1%

### Table 10-1: Summary of Wash Recovery Assumptions

The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongoing exploration campaigns is adequate to document mineral resources and reserves presented herein. The distribution of quality information has been considered in measured and indicated resource status, and subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addressing short-term and long-term quality projections.

# 11 Mineral Resource Estimates

MM&A independently created a geologic model to define the coal resources at the Property. Coal resources were estimated as of December 31, 2022. Resources are reported *inclusive* of coal reserves

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10.4 Relevant Results No critical factors have been found that would adversely affect the recovery of the reserve. Any quality issues that occur, either localized or generally, are accounted for in the marketing study done for this TRS. 10.5 Pertinent Results and Opinion of the Qualified Person Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarized in the table below. Additionally, wash recovery estimates on a L basis are included, reflective of dilution material. Table 10-1: Summary of Wash Recovery Assumptions Seam Basis Wash Recovery (%) Area 1/Northwest (Twin Seam) Mary Lee Simulations to Achieve 10.2% Ash Product 63.9% Blue Creek 72.3% Area 2/North Central (Twin Seam) Mary Simulations to Achieve 10.2% Ash Product 73.5% Blue Creek 82.9% Area 3/Northeast (Blue Creek Only LW; CM Twin Seam) Mary Lee Simulations to Achieve 10.2% Ash Product 82.4% Area 8 South (Blue Creek Only) Blue Creek Simulations to Achieve 10.2% Ash Product 82.4% Area 8 South (Blue Creek Only) Blue Creek Simulations to Achieve 10.2% Ash Product 73.6% Ash Product 92.4% LOM Mary Lee + Blue Creek + Dilution Above Assumptions + Consideration of Dilution 44.1% The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongoing exploration campaigns is adequate to docum mineral resources and reserves presented herein. The distribution of quality information has been considered in measured and indicated resource status, subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addressing short-term and long-term quality projectio 11 Mineral Resource Estimates MM&A independently created a geologic model to define the coal resources at the Property. Coal resources were estima as of December 31, 2022. Resources are reported inclusive of coal reserves MARSHALL MILLER & ASSOCIATES, INC. 42



for Mine No. 7. The resources presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Resources are <u>not</u> reported in addition to coal reserves. There are <u>no</u> resources <u>exclusive</u> of reserves included in this TRS. Due to constraints imposed by differences in coal quality testing methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interburden between the Mary Lee and Blue Creek seams (a.k.a. *Middleman*). Ash bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the property's resource. Pertinent definitions related to mineral resources are shown below.

- Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.
- Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve. No inferred mineral resources are considered as part of this exercise.
- Indicated Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.
- Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an

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for Mine No. 7. The resources presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Resources are not reported addition to coal reserves. There are no resources exclusive of reserves included in this TRS. Due to constraints imposed by differences in coal quality ter methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interburden between the Mary Lee and Blue Creek se (a.k.a. Middleman). Ash bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the proper resource. Pertinent definitions related to mineral resources are shown below. > Mineral Resource is a concentration or occurrence of material of econom interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral reso is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, the with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely a inventory of all mineralization drilled or sampled. > Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is to high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of econo viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of t modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the econo viability of a mining project and may not be converted to a mineral reserve. No inferred mineral resources are considered as part of this exercise. > Indic Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence an sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying fac

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

## 11.1 Assumptions, Parameters and Methodology

Geological data was imported into Carlson Mining<sup>\*</sup> (formerly SurvCADD<sup>\*</sup>) geological modelling software in the form of Microsoft<sup>\*</sup> Excel files incorporating drill hole collars, seam and thickness picks, bottom seam elevations and raw and washed coal quality. These data files were validated prior to importing into the software. Once imported, a geologic model was created, reviewed, and verified with a key element being a gridded model of coal seam thickness. Resource tonnes were estimated by using the seam thickness grid based on each valid point of observation and by defining resource confidence arcs around the points of observation. Points of observation for Measured and Indicated confidence arcs were defined for all valid drill holes that intersected the seam using standards deemed acceptable by MM&A based on a detailed geologic evaluation and a statistical analysis of all drill holes within the projected reserve areas as described in *Section 11.1.1*. The geological evaluation incorporated an analysis of seam thickness related to depositional environments, enclosing roof and floor lithologies, and structural influences.

After validating coal seam data and establishing correlations, the thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the relative structural simplicity of the deposits and the reasonable continuity of the tabular coal beds, the principal geological interpretation necessary to define the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coal thickness and quality data are deemed by MM&A to be reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confidence in the geologic interpretations required for coal resource determination based on the available data and the techniques applied to the data.

Table 11-1 below provides the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters have been developed by MM&A based on its experience with the Warrior Met property and are typical of mining operations in the Black Warrior coal basin. This experience includes technical and economic evaluations of numerous properties in the region for the purposes of determining the economic viability of the subject coal reserves.

ltem	Parameters	Technical Notes & Exceptions*				
General Reserve Criteria						
Reserve Classification	Reserve and Resource					
Reliability Categories	Reserve (Proven and Probable) Resource (Measured and Indicated)	Measured Resources and Proven Reserves Only Considered if located with 0.75 miles of a quality location or 0.25 miles of an active mining section. Further, Measured Resources and Proven Reserves Must be Located with 0.25 miles of a point of observation or active section.				

#### Table 11-1: General Reserve and Resource Criteria

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indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve. 11.1 Assumptions, Parameters and Methodology Geological data was imported into Carlson Mining® (formerly SurvCADD®) geological modelling software in the form of Microsoft® Excel files incorporating drill hole collars, seam and thickness picks, bottom seam elevations a raw and washed coal quality. These data files were validated prior to importing into the software. Once imported, a geologic model was created, reviewe and verified with a key element being a gridded model of coal seam thickness. Resource tonnes were estimated by using the seam thickness grid based c each valid point of observation and by defining resource confidence arcs around the points of observation. Points of observation for Measured and Indic confidence arcs were defined for all valid drill holes that intersected the seam using standards deemed acceptable by MM&A based on a detailed geolog evaluation and a statistical analysis of all drill holes within the projected reserve areas as described in Section 11.1.1. The geological evaluation incorpor an analysis of seam thickness related to depositional environments, enclosing roof and floor lithologies, and structural influences. After validating coal seam data and establishing correlations, the thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the relative structural simplicity of the deposits and the reasonable continuity of the tabular coal beds, the principal geological interpretation necessary to de the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coal thickness and quality data are deemed by MM&A to reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confidence in the geologic interpretations required for coal resou determination based on the available data and the techniques applied to the data. Table 11-1 below provides the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters have been developed by MM&A based on its experience v the Warrior Met property and are typical of mining operations in the Black Warrior coal basin. This experience includes technical and economic evaluati of numerous properties in the region for the purposes of determining the economic viability of the subject coal reserves. Table 11-1: General Reserve a Resource Criteria Item Parameters Technical Notes & Exceptions\* • General Reserve Criteria Reserve Classification Reserve and Resource Reliability Categories Reserve (Proven and Probable) Measured Resources and Proven Reserves Only Resource (Measured and Indicated) Considered if located with 0.75 miles of a quality location or 0.25 miles of an active mining section. Further, Measured Resources and Proven Reserves Must be Located with 0.25 miles of a point of observation or active section. MARSHALL MILLER & ASSOCIATES, INC. 44



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Item	Parameters	Technical Notes & Exceptions*
Effective Date of Resource Estimate	December 31, 2022	Coal resources were updated for depletion based on information from Warrior Met. Effective date for coal resources is as of December 31, 2022.
Effective Date of Reserve Estimate	December 31, 2022	Coal reserves were updated for depletion based on information from Warrior Met. Effective date for coal reserves is as of December 31, 2022.
Seam Density	Variable, dependent upon seam characteristics (based on available drill hole quality).	
Underground-Mineable Criteria		
Map Thickness	Total seam thickness	
Minimum Seam Thickness	4.5 feet	
Minimum Mining Thickness	5.0 Feet for Longwall 7.0 Feet for Continuous Mining	[
Minimum In-Seam Wash Recovery	Accounted for in seam thickness cutoffs. Minimum Annual Wash Recovery (inclusive of dilution) of approximately 30%. LOM Average = 47%.	
Wash Recovery Applied to Coal Reserves	Based on average yield for drill holes within reserve area and simulated plant models to produce a 10.2-percent ash product.	
Out-of-Seam Dilution Thickness for Run-of-Mine Tonnes Applied to Coal Reserves	Minimum of 3 inches or delta between mining height and total seam (Mary Lee + Blue Creek + Middleman) height.	2.3 SG used for dilution tonnage estimate
Mine Barrier	Not Applicable – Reserves Not Adjacent to Abandoned Works	
CBM Wells	CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resource reductions considered.	
Adjustments Applied to Coal Reserves	10 percent moisture increase	

Note: Exceptions for application of these criteria to reserve estimation are made as warranted and demonstrated by either actual mining experience or detailed data that allows for empirical evaluation of mining conditions. Final classification of coal reserve is made based on the pre-feasibility evaluation.

## 11.1.1 Geostatistical Analysis for Classification

MM&A completed a geostatistical analysis on the Blue Creek seam's supporting drill holes within the reserve boundaries to determine the applicability of the common United States classification system for measured and indicated coal resources. Warrior Met's exploration dataset is unique in that a significant portion of data is sourced from geophysical logs associated with coalbed methane wells. Commonly, geophysical data from some of the earlier-vintage gas well log exhibits (with low-resolution definition) allow identification of coal seams but hinder one's ability to accurately define precise coal thicknesses and in-seam parting thickness measurements. As such, geological modeling of the subject coal seams excluded low-resolution geophysical thickness interpretations from gas wells; however, seam thicknesses which were derived from higher resolution geophysical logs were utilized. The geostatistical analysis presented herein only includes information utilized for resource and reserve modeling.

Historically, the United States has assumed that coal within 0.25 miles of a point of observation represents a measured resource whereas coal between 0.25 miles and 0.75 miles from a point of observation is classified as indicated. Inferred resources are commonly assumed to be located between 0.75 miles and 3 miles from a point of observation. Per SEC regulations, only measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves.

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Item Parameters Technical Notes & Exceptions\* Effective Date of Resource Estimate December 31, 2022 Coal resources were updated for depletion bas on information from Warrior Met. Effective date for coal resources is as of December 31, 2022. Effective Date of Reserve Estimate December 31, 2022

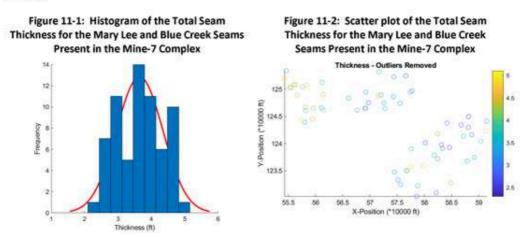
Coal reserves were updated for depletion based on information from Warrior Met. Effective date for coal reserves is as of December 31, 2022. Seam De Variable, dependent upon seam characteristics (based on available drill hole quality). • Underground-Mineable Criteria Map Thickness Total seam thickness Minimum Seam Thickness 4.5 feet Minimum Mining Thickness 5.0 Feet for Longwall 7.0 Feet for Continuous Mining Minimum In-Seam V Recovery Accounted for in seam thickness cutoffs. Minimum Annual Wash Recovery (inclusive of dilution) of approximately 30%. LOM Average = 47%. Wash Recovery Applied to Coal Based on average yield for drill holes within Reserves reserve area and simulated plant models to produce a 10.2-percent ash product. Out-of-Seam Dilution Thickness for Minimum of 3 inches or delta between mining 2.3 SG used for dilution tonnage estimate Run-of-Mine Tonnes Applied to Coal height and total seam (Mary Lee + Blue Creek + Reserves Middleman) height. Mine Barrier Not Applicable -Reserves Not Adjacent to Abandoned Works CBM Wells CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resourc reductions considered. Adjustments Applied to Coal Reserves 10 percent moisture increase Note: Exceptions for application of these criteria to reserve estimation are made as warranted and demonstrated by either actual mining experience or detailed data that allows for empirical evaluation of mining conditions. Final classification of coal reserve is made based on the pre-feasibility evaluation. 11.1.1 Geostatistical Analysis for Classification MM&A completed a geostatistical analysis on the Blue Creek seam's supporting drill holes within the reserve boundaries to determine the applicability of the common United States classification system for measured and indicated coal resources. Warrior Met's exploration dataset is unique in that a significant portion of data is sourced from geophysical logs associated with coalbed methane wells. Commonly, geophysical data from some of the earlier-vintage s well log exhibits (with low-resolution definition) allow identification of coal seams but hinder one's ability to accurately define precise coal thicknesses in-seam parting thickness measurements. As such, geological modeling of the subject coal seams excluded low-resolution geophysical thickness interpretations from gas wells; however, seam thicknesses which were derived from higher resolution geophysical logs were utilized. The geostatistical analysis presented herein only includes information utilized for resource and reserve modeling. Historically, the United States has assumed that coal with 0.25 miles of a point of observation represents a measured resource whereas coal between 0.25 miles and 0.75 miles from a point of observation is class as indicated. Inferred resources are commonly assumed to be located between 0.75 miles and 3 miles from a point of observation. Per SEC regulations, of measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves. MARSHALL MILLER & ASSOCIATES, INC. 45



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MM&A performed a geostatistical analysis of the Warrior Met data set using the Drill Hole Spacing Analysis (DHSA) method. This method attempts to quantify the uncertainty of applying a measurement from a central location to increasingly larger square blocks and provides recommendations for determining the distances between drill holes for measured, indicated, and inferred resources.

To perform DHSA the data set was processed to remove any erroneous data points, clustered data points, as well as directional trends. This was achieved through the use of histograms, as seen in *Figure 11-1*, color coded scatter plots showing the geospatial positioning of the borings, *Figure 11-2*, and trend analysis.



Following the completion of data processing, a variogram of the data set was created, *Figure 11-3*. The variogram plots average square difference against the separation distance between the data pairs. The separation distance is broken up into separate bins defined by a uniform lag distance (e.g., for a lag distance of 499 feet the bins would be 0 - 499 feet, 502 - 1,000 feet, etc.). Each pair of data points that are less than one lag distance apart are reported in the first bin. If the data pair is further apart than one lag distance but less than two lag distances apart, then the variance is reported in the second bin. The numerical average for differences reported for each bin is then plotted on the variogram. Care was taken to define the lag distance in such a way as to not overestimate any nugget effect present in the data set. Lastly, modeled equations, often spherical, gaussian, or exponential, are applied to the variogram in order to represent the data set across a continuous spectrum.

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MM&A performed a geostatistical analysis of the Warrior Met data set using the Drill Hole Spacing Analysis (DHSA) method. This method attempts to quantify the uncertainty of applying a measurement from a central location to increasingly larger square blocks and provides recommendations for determining the distances between drill holes for measured, indicated, and inferred resources. To perform DHSA the data set was processed to remove a erroneous data points, clustered data points, as well as directional trends. This was achieved through the use of histograms, as seen in Figure 11-1, color coded scatter plots showing the geospatial positioning of the borings, Figure 11-2, and trend analysis. Figure 11-1: Histogram of the Total Seam Figure 1 Scatter plot of the Total Seam Thickness for the Mary Lee and Blue Creek Seams Thickness for the Mary Lee and Blue Creek Present in the Mine-7 Complex Seams Present in the Mine-7 Complex Following the completion of data processing, a variogram of the data set was created, Figure 11-3. The variogram plots average square difference against the separation distance between the data pairs. The separation distance is broken up into separate bins defined by a uniform lag distance (e.g., for a lag distance of 499 feet the bins would be 0 – 499 feet, 502 – 1,000 feet, etc.). Each pair of data points that less than one lag distance apart are reported in the first bin. If the data pair is further apart than one lag distance but less than two lag distances apart, the the variance is reported in the second bin. The numerical average for differences reported for each bin is then plotted on the variogram. Care was taken t define the lag distance in such a way as to not overestimate any nugget effect present in the data set. Lastly, modeled equations, often spherical, gaussiar exponential, are applied to the variogram in order to represent the data set across a continuous spectrum. MARSHALL MILLER & ASSOCIATES, INC. 46



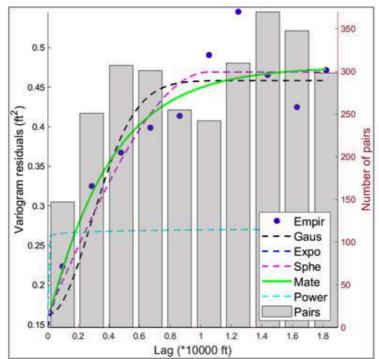


Figure 11-3: Variogram of the Total Seam Thickness for the Mary Lee and Blue Creek Seams Present in the Mine-7 Complex

The estimation variance is then calculated using information from the modeled variogram as well as charts published by Journel and Huijbregts (1978). This value estimates the variance from applying a single central measurement to increasingly larger square blocks. Care was taken to ensure any nugget effect present was added back into the data. This process was repeated for each test block size.

The final step of the process is to calculate the global estimation variance. In this step the number square blocks that would fit inside the selected study area is determined for each block size that was investigated in the previous step. The estimation variance is then divided by the number of blocks that would fit inside the study area for each test block size. Following this determination, the data is then transformed back to represent the relative error in the 95<sup>th</sup>-percentile range.

Figure 11-4 shows the results of the DHSA performed on the Blue Creek seam data for Mine No. 7. DHSA provides hole to hole spacing values, these distances need to be converted to radius from a central point in order to compare to the historical standards. A summary of the radius data is shown below in *Table 11-2*. DHSA prescribes measured, indicated, and inferred drill hole spacings be determined at the 10-percent, 20-percent, and 50-percent levels of relative error, respectively.

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Figure 11-3: Variogram of the Total Seam Thickness for the Mary Lee and Blue Creek Seams Present in the Mine-7 Complex The estimation variance is then calculated using information from the modeled variogram as well as charts published by Journel and Huijbregts (1978). This value estimates the variance from applying a single central measurement to increasingly larger square blocks. Care was taken to ensure any nugget effect present was added back into the data. This process was repeated for each test block size. The final step of the process is to calculate the global estimation variance. In this s the number square blocks that would fit inside the selected study area is determined for each block size that was investigated in the previous step. The estimation variance is then divided by the number of blocks that would fit inside the study area for each test block size. Following this determination, the data is then transformed back to represent the relative error in the 95th-percentile range. Figure 11-4 shows the results of the DHSA performed on the BI Creek seam data for Mine No. 7. DHSA provides hole to hole spacing values, these distances need to be converted to radius from a central point in order compare to the historical standards. A summary of the radius data is shown below in Table 11-2. DHSA prescribes measured, indicated, and inferred dril hole spacings be determined at the 10-percent, 20-percent, and 50-percent levels of relative error, respectively. MARSHALL MILLER & ASSOCIATES INC. 47



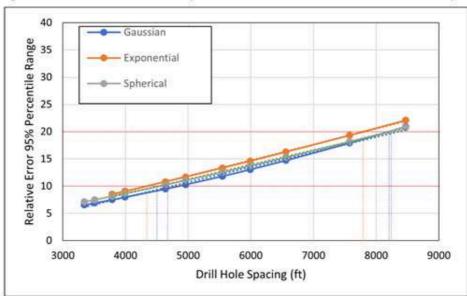


Figure 11-4: Result of DHSA for the Mary Lee and Blue Creek Seams Present in the Mine-7 Complex



Model:	Measured Radial Distance (10% Relative Error)	Indicated Radial Distance (20% Relative Error)	Inferred Radial Distance (50% Relative Error)
	(mi)	(mi)	(mi)
Gaussian:	0.44	0.78	1.80
Spherical:	0.43	0.78	1.83
Exponential:	0.41	0.74	1.72

Comparing the results of the DHSA to the historical standards, it is evident that the historical standards are more conservative than even the most conservative DHSA model with regards to determining measured resources. The Exponential model recommends using a radius of 0.41 miles for measured resources compared to the historical value of 0.25 miles. With respect to indicated resources the DHSA falls in line closely with the historical standards. The Gaussian and Spherical models recommend using a radius of 0.78 miles, while the Exponential model recommends a radius of 0.74 miles. These values align closely with the historical radius of 0.75 miles. These results have led the QP's to report the data following the historical classification standards, rather than use the results of the DHSA.

### 11.1.1.1 Additional Commentary on Measured and Indicated Breakdowns

As previously mentioned, Warrior Met's exploration dataset is unique in that it includes data derived from low-resolution and higher-resolution geophysical logs. Although the low-resolution data is not used for geological modeling to support resource and reserve calculations, it is valuable to confirm the presence or absence of the subject coal beds. To account for the unique combination of data available

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Figure 11-4: Result of DHSA for the Mary Lee and Blue Creek Seams Present in the Mine-7 Complex Table 11-2: DHSA Results Summary for Radius f a Central Point Measured Radial Distance Indicated Radial Distance Inferred Radial Distance Model: (10% Relative Error) (20% Relative Error) (50% Relative Error) (mi) (mi) (mi) Gaussian: 0.44 0.78 1.80 Spherical: 0.43 0.78 1.83 Exponential: 0.41 0.74 1.72 Comparing the results of the DHSA to the historical standards, it is evident that the historical standards are more conservative than even the most conservative DHSA model with regards to determining measured resources. The Exponential model recommends using a radius of 0.41 miles for measured resources compared to the historical va of 0.25 miles. With respect to indicated resources the DHSA falls in line closely with the historical standards. The Gaussian and Spherical models recommend using a radius of 0.75 miles. These results have led the QP's to report the data following the historical classification standards, rather than use the results of the DHSA. 11.1.1.1 Additional Commentary on Measured and Indicated Breakdowns As previously mentioned, Warrior Met's exploration dataset is unique that it includes data derived from low-resolution and higher-resolution geophysical logs. Although the low-resolution data is not used for geological modeling to support resource and reserve calculations, it is valuable to confirm the presence or absence of the subject coal beds. To account for the uniq combination of data available MARSHALL MILLER & ASSOCIATES, INC. 48



for geological modeling and reserve definitions, the following assumptions have been made by the report authors to derive Measured and Indicated resource (and subsequently, Proven and Probable reserve) criteria.

- Coal tonnes must be located within ¼ mile (3,960-feet) of an exploration drillhole with quality information <u>or</u> ¼ mile (1,320 feet) from active mine workings to be considered for "Measured" (and "Proven") status. Coal tonnes located outside of this ¼ mile buffer are only considered for "Indicated" (and "Probable") status.
- Once applying a ¼ mile (3,960-feet) buffer to quality-based data and mine works, coal tonnes must be located with ¼ mile of <u>any</u> point of observation to have "Measured" (and "Proven") status, including gas wells.
- "Indicated" (and "Probable") coal tonnes represent those tonnes located within the ¼-mile buffer from quality-based information yet are located between ¼ and ¼ mile from any point of observation, including gas wells.
- "Indicated" (and "Probable") coal tonnes also reflect those tonnes located outside of the ¾-mile buffer from quality-based points and are located within ¾ mile from any point of observation.
- Inferred tonnes are not applicable to this exercise, as all tonnes meet the aforementioned "Measured" and "Indicated" criteria.

## 11.2 Qualified Person's Estimates

Mineral resources, representing in-situ coal in which a portion of reserves are derived, are presented below. Based on the work described and detailed modelling of the areas considering all the parameters defined, a coal resource estimate, summarized in *Table 11-3*, was prepared as of December 31, 2022, for property controlled by Warrior Met. Resources are presented *inclusive* of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages *exclusive* of the interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in *Table 1-1* reflect the inclusion of high-ash partings which are ultimately removed after mining during coal preparation. As reflected in the table below, no resources exclusive of reserves have been considered or analyzed in this TRS.

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for geological modeling and reserve definitions, the following assumptions have been made by the report authors to derive Measured and Indicated reso (and subsequently, Proven and Probable reserve) criteria. 1. Coal tonnes must be located within 3/4 mile (3,960-feet) of an exploration drillhole with qua information or 1/4 mile (1,320 feet) from active mine workings to be considered for "Measured" (and "Proven") status. Coal tonnes located outside of th 3/4 mile buffer are only considered for "Indicated" (and "Probable") status. 2. Once applying a 3/4 mile (3,960-feet) buffer to quality-based data and mir works, coal tonnes must be located with 1/4 mile of any point of observation to have "Measured" (and "Proven") status, including gas wells. 3. "Indicate (and "Probable") coal tonnes represent those tonnes located within the 3/4-mile buffer from quality-based information yet are located between 1/4 and 3/ mile from any point of observation, including gas wells. 4. "Indicated" (and "Probable") coal tonnes also reflect those tonnes located outside of the 3/4 mile buffer from quality-based points and are located within 3/4 mile from any point of observation. 5. Inferred tonnes are not applicable to this exerci as all tonnes meet the aforementioned "Measured" and "Indicated" criteria. 11.2 Qualified Person's Estimates Mineral resources, representing in-situ cos which a portion of reserves are derived, are presented below. Based on the work described and detailed modelling of the areas considering all the parami defined, a coal resource estimate, summarized in Table 11-3, was prepared as of December 31, 2022, for property controlled by Warrior Met. Resources presented inclusive of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages exclusive of the interburden, but inclusi of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in Table 1-1 reflect the inclusion of high-ash partings which are ultimately removed



## Table 11-3: Coal Resources Summary as of December 31, 2022

	Coal R	lesource (Dry T	Resource Quality (Dry)				
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%
Inclusive of Reserves			1				
Mary Lee	16.0	3.8	0.0	19.8	- 14		6
Blue Creek	52.3	16.0	0.0	68.3	19	93	3
Total	68.3	19.8	0.0	88.1	19.9	0.9	20
Exclusive of Reserves			0.0				
Mary Lee	0.0	0.0	0.0	0.0	19		
Blue Creek	0.0	0.0	0.0	0.0	34		
Total	0.0	0.0	0.0	0.0	0.0	0.0	0
Grand Total			1				
	68.3	19.8	0.0	88.1	22	1 N N	

Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Totals may not add due to rounding.

# 12 Mineral Reserve Estimates

## 12.1 Assumptions, Parameters and Methodology

Coal Reserves are classified as proven or probable considering "modifying factors" including mining, metallurgical, economic, marketing, legal, environmental, social, and governmental factors.

- Mineral Reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.
- Proven Coal Reserves are the economically mineable part of a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.
- Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.

Upon completion of delineation and calculation of coal resources, MM&A generated a LOM plan for the Property based upon LOM Projections provided by Warrior Met. The footprint of the LOM plan is shown on the resource maps in *Figure 7-1*. The mine plan was generated based on the forecasted mine plans and permit plans provided by Warrior Met with modifications by MM&A where necessary due to

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Table 11-3: Coal Resources Summary as of December 31, 2022 Coal Resource (Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indicated Inferred Total Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 16.0 3.8 0.0 19.8 — -Blue Creek 52.3 16.0 0.0 68.3 - Tota 68.3 19.8 0.0 88.1 19.9 0.9 20 Exclusive of Reserves 0.0 Mary Lee 0.0 0.0 0.0 0.0 – - Total 0.0 0.0 0.0 0.0 0.0 0 Grand Total 68.3 19.8 0.0 88.1 —— Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimate removed during coal preparation. Surface moisture and inherent moisture are excluded. Totals may not add due to rounding. 12 Mineral Reserve Estimation 12.1 Assumptions, Parameters and Methodology Coal Reserves are classified as proven or probable considering "modifying factors" including mining, metallurgical, economic, marketing, legal, environmental, social, and governmental factors. > Mineral Reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losse that may occur when the material is mined or extracted. > Proven Coal Reserves are the economically mineable part of a measured coal resource, adjust for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting. Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured coal resource, adjusted diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjuste for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting. Upon completion of delineation and calculation of coal resources, MM&A generated a LOM plan for the Property based upon LOM Projections provided by

Warrior Met. The footprint of the LOM plan is shown on the resource maps in Figure 7-1. The mine plan was generated based on the forecasted mine pland permit plans provided by Warrior Met with modifications by MM&A where necessary due to MARSHALL MILLER & ASSOCIATES, INC. 50



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current property control limits, modifications to geologic mapping, or other factors determined during the evaluation.

Carlson Mining software was used to generate the LOM plan for Mine No. 7. The mine plan was sequenced based on productivity schedules provided by Warrior Met. MM&A judged the productivity estimates and plans to be reasonable based on experience and current industry practice and Warrior Met's historical performance at Mine No. 7.

At Mine No. 7, a minimum mining height of 5-feet was used for longwall mining methods and 7-feet for continuous mining methods. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height consists of OSD. Mine recovery generally varies between 30 and 40 percent for continuous mining panels, and 100 percent for longwall. Plant recovery is a function of in-seam recovery, OSD and adjustments to produce a 10.2-ash product. Typical entry width is 20 feet.

Raw, ROM production data outputs from LOM plan sequencing were processed into Microsoft<sup>®</sup> EXCEL spreadsheets and summarized on an annual basis for processing into the economic model. Average seam densities were estimated to determine raw coal tonnes produced from the LOM plan. Average mine recovery and wash recovery factors were applied to determine coal reserve tonnes.

Coal reserve tonnes in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property.

Pricing data as provided by Warrior Met is described in *Section 16.2*. The pricing data assumes an FOB Railcar or barge price of approximately \$133 per metric tonne for calendar year 2023. The price increases to approximately \$165 per metric tonne through 2030 based on the most recent supply and demand forecast utilized in developing sales realization estimates.

The coal resource mapping and estimation process, described in the report, was used as a basis for the coal reserve estimate. Proven and probable coal reserves were derived from the defined coal resource considering relevant processing, economic (including technical estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors and are presented on a moist, recoverable basis.

As is customary in the US, the categories for proven and probable coal reserves are based on the distances from valid points of measurement as determined by the QP for the area under consideration. For this evaluation, measured resource, which may convert to a proven reserve, is based on a 0.25-mile radius from a valid point of observation.

Points of observation include exploration drill holes, degas holes, and mine measurements which have been fully vetted and processed into a geologic model. The geologic model is based on seam depositional modeling, the interrelationship of overlying and underlying strata on seam mineability,

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current property control limits, modifications to geologic mapping, or other factors determined during the evaluation. Carlson Mining software was used generate the LOM plan for Mine No. 7. The mine plan was sequenced based on productivity schedules provided by Warrior Met. MM&A judged the productivity estimates and plans to be reasonable based on experience and current industry practice and Warrior Met's historical performance at Mine N At Mine No. 7, a minimum mining height of 5-feet was used for longwall mining methods and 7-feet for continuous mining methods. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height consists of OSD. Mine recovery genera varies between 30 and 40 percent for continuous mining panels, and 100 percent for longwall. Plant recovery is a function of in-seam recovery, OSD an adjustments to produce a 10.2-ash product. Typical entry width is 20 feet. Raw, ROM production data outputs from LOM plan sequencing were processing into Microsoft® EXCEL spreadsheets and summarized on an annual basis for processing into the economic model. Average seam densities were estimat to determine raw coal tonnes produced from the LOM plan. Average mine recovery and wash recovery factors were applied to determine coal reserve tonnes. Coal reserve tonnes in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property. Pricing data a provided by Warrior Met is described in Section 16.2. The pricing data assumes an FOB Railcar or barge price of approximately \$133 per metric tonne f calendar year 2023. The price increases to approximately \$165 per metric tonne through 2030 based on the most recent supply and demand forecast utili in developing sales realization estimates. The coal resource mapping and estimation process, described in the report, was used as a basis for the coal reserve

estimate. Proven and probable coal reserves were derived from the defined coal resource considering relevant processing, economic (including technical estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors and are presented on a moist, recoverab basis. As is customary in the US, the categories for proven and probable coal reserves are based on the distances from valid points of measurement as determined by the QP for the area under consideration. For this evaluation, measured resource, which may convert to a proven reserve, is based on a 0.2 mile radius from a valid point of observation. Points of observation include exploration drill holes, degas holes, and mine measurements which have bee fully vetted and processed into a geologic model. The geologic model is based on seam depositional modeling, the interrelationship of overlying and underlying strata on seam mineability, MARSHALL MILLER & ASSOCIATES, INC. 51



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seam thickness trends, the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in *Section 11.1.1* was conducted and a 0.25-mile radius from a valid point of observation was selected to define Measured Resources.

Likewise, the distance between 0.25 and 0.75 of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves.

There are no Inferred Resources (greater than a 0.75-mile radius from a valid point of observation) at Mine No. 7.

## 12.2 Qualified Person's Estimates

Reserve tonnage estimates provided herein report coal reserves derived from the in-situ resource tonnes presented in *Table 11-3*, and <u>not</u> in addition to coal resources. Proven and probable coal reserves were derived from the defined coal resource considering relevant mining, processing, infrastructure, economic (including estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic and regulatory factors. Such factors include a mine recovery of 74 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 43 percent and the consideration of moisture factors. The coal reserves, as shown in *Table 12-1*, are based on a technical evaluation of the geology and a preliminary feasibility study of the coal deposits. The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or other relevant issues has been reviewed rigorously. Similarly, the extent to which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been considered.

	A des la service	nstrated Coa Washed or D			nes,				
	By Rel	eliability Category		By Control Type Qu		Quality (Dry Basis)		Wash	
Seam	Proven	Probable	Total	Owned	Leased	Ash%	Sulfur%	VM%	Recovery%
Mary Lee	4.4	1.3	5.7	0.0	5.7	-		-	
Blue Creek	34.0	10.0	44.0	0.3	43.7		1	-	43%
Total	38.4	11.3	49.7	0.3	49.5	10.2	0.7	22	

Table 12-1: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022
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Note 1: Marketable reserve tons are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are generally mined together; in some instances, the Blue Creek Seam is extracted without the Mary Lee Seam – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by seam basis, absent dilution assumptions.

Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$133.04 per tonne (FOB-mine) in 2023, increasing to a long-term price of approximately \$164.98/tonne. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding.

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seam thickness trends, the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in Section 11.1.1 was conducted and a 0.25-mile radius from a valid point of observation was selected to define Measured Resources Likewise, the distance between 0.25 and 0.75 of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves. There are no Inferred Resources (greater than a 0.75-mile radius from a valid point of observation) at Mine No. 7. 12.2 Qualified Person's Estimates Reserve tonnage estimates provided herein report coal reserves derived from the in-situ resource tonnes presented in Table 11-3, and not in addition to coal resources. Proven and probable coal reserves were derived from the defined coal resource considering relevant mining, processing, infrastructure, economic (including estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic and regulatory factors. Suc

factors include a mine recovery of 74 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 43 percent and the consideration of moisture factors. The coal reserves, as shown in Table 12-1, are based on a technical evaluation of the geology and a preliminary feasibility study of the coal deposits. The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or other relevant issues has been reviewed rigorously. Similarly, the extent t which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been consider Table 12-1: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022 Demonstrated Coal Reserves (Wet Tonnes, Washed or Direct Shipped, Mt) By Reliability Category By Control Type Quality (Dry Basis) Wash Seam Proven Probable Total Owned Leased Ash% Sulfur% VM% Recovery% Mary Lee 4.4 1.3 5.7 0.0 5.7 — Blue Creek 34.0 10.0 44.0 0.3 43.7 — 43% Total 38.4 11.3 49.7 0.3 49.5 10.2 0.7 22 Note 1: Marketabl reserve tons are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture i modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications. Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are generally mined together; in some instances, the Blue Creek Seam is extracted without the Mary Lee Seam - allocation of dilution material on a seam-by-seam basis wou introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by -seam b absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$133.04 per tonne (FOB-mine) in 2023, increasing to a long-term price of approximately \$164.98/tonne. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding. MARSHALL MILLER & ASSOCIAT INC. 52



As shown below, coal shipments during 2022 (primarily from the northeastern portion of the Property) exhibit a weight-averaged quality comparable to quality projected from core samples (refer to *Table 12-1* above).

- > Moisture content: 10.5%
- > Ash content: 10.3% (db)
- > Sulfur content: 0.7% (db)
- > VM content: 21% (db)

The results of this TRS define an estimated 49.7 Mt of proven and probable marketable coal reserves. Of that total, 77 percent are proven, and 23 percent are probable. A majority of the Mine No. 7 reserves are leased (with approximately one percent owned), and are considered suitable for the metallurgical coal market, and all of the reserves are assigned.

## 12.3 Qualified Person's Opinion

The estimate of coal reserves was determined in accordance with SEC standards.

The LOM mining plan for Mine No. 7 was prepared to the level of preliminary feasibility. Mine projections were prepared with a timing schedule to match production with coal seam characteristics. Production timing was carried out from current locations to depletion of the coal reserve area. Coal reserve estimates could be materially affected by the risk factors described in *Section 22.2*.

Based on the preliminary feasibility study and the attendant economic review, MM&A believes this is a fair and accurate estimation of Mine No. 7 coal reserves.

# 13 Mining Methods

## 13.1 Geotechnical and Hydrologic Issues

The mining plan for Mine No. 7 was developed by Warrior Met and modified by MM&A to fit property constraints. Mine geometry, including pillar sizing and panel sizing is typical of ranges currently utilized by Warrior Met in its active operations. Mine recoveries in engineering mining projections are typical of those currently achieved by Warrior Met. MM&A does not anticipate insurmountable challenges with regards to geotechnical issue at the operations based upon 1) Warrior's (and predecessor's) historic success in high resource recovery; 2) Consistent geological criteria in future mining areas and 3) ongoing exploration programs to mitigate risks related to geological and geotechnical (fault) issues.

Pillar stability was tested by MM&A using the Analysis of Coal Pillar Stability (ACPS) program that was developed by the National Institute for Occupational Safety and Health (NIOSH). MM&A reviewed the results from the ACPS analysis and considered them in the development of the LOM plan.

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As shown below, coal shipments during 2022 (primarily from the northeastern portion of the Property) exhibit a weight-averaged quality comparable to quality projected from core samples (refer to Table 12-1 above). > Moisture content: 10.5% > Ash content: 10.3% (db.) > Sulfur content: 0.7% (db.) > V content: 21% (db.) The results of this TRS define an estimated 49.7 Mt of proven and probable marketable coal reserves. Of that total, 77 percent are proven, and 23 percent are probable. A majority of the Mine No. 7 reserves are leased (with approximately one percent owned), and are considered suita for the metallurgical coal market, and all of the reserves are assigned. 12.3 Qualified Person's Opinion The estimate of coal reserves was determined in accordance with SEC standards. The LOM mining plan for Mine No. 7 was prepared to the level of preliminary feasibility. Mine projections were prepa with a timing schedule to match production with coal seam characteristics. Production timing was carried out from current locations to depletion of the c reserve area. Coal reserve estimates could be materially affected by the risk factors described in Section 22.2. Based on the preliminary feasibility study the attendant economic review, MM&A believes this is a fair and accurate estimation of Mine No. 7 coal reserves. 13 Mining Methods 13.1 Geotechnica and Hydrologic Issues The mining plan for Mine No. 7 was developed by Warrior Met and modified by MM&A to fit property constraints. Mine geome including pillar sizing and panel sizing is typical of ranges currently utilized by Warrior Met in its active operations. Mine recoveries in engineering min projections are typical of those currently achieved by Warrior Met. MM&A does not anticipate insurmountable challenges with regards to geotechnical i at the operations based upon 1) Warrior's (and predecessor's) historic success in high resource recovery; 2) Consistent geological criteria in future minin areas and 3) ongoing exploration programs to mitigate risks related to geological and geotechnical (fault) issues. Pillar stability was tested by MM&A us the Analysis of Coal Pillar Stability (ACPS) program that was developed by the National Institute for Occupational Safety and Health (NIOSH). MM&A reviewed the results from the ACPS analysis and considered them in the development of the LOM plan. MARSHALL MILLER & ASSOCIATES, INC.



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Hydrology has not been a material issue of concern at Mine No. 7. Mining of future reserves is projected to occur in areas which exhibit similar hydrogeological characteristics as those formerly mined areas.

## 13.2 Production Rates

Mine No. 7 is currently active with two longwalls supported by continuous mining units. The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to reflect future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine development and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves.

Productivity for continuous mining sections and continuous miner sections reflect typical rates incurred in the region. At a steady state, the mine produces approximately 4.0 to 4.5 million clean tonnes per year.

Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coal seams. The mine plan was sequenced based on productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological models as constructed by MM&A's team of geologists and mining engineers. *Table 13-1* below summarizes the production forecast for Mine No. 7 mine illustrating the clean production tonnes and tonnage breakdowns by controlled (reserve) and adverse status. Adverse tonnages represent a risk to the project, as mineral rights must be acquired ahead of mining. Such tons are relatively minimal and only represent approximately 3-percent of the LOM project tonnages.

(Tonnes x1,000,000)	Total LOM	Q1 23	Q2 23	Q3 23	-Q4 23	Q1 24	Q2 24	Q3 24	Q424	2025
In Seam Tonnes, (ML + BC)	65.9	1.41	1.35	1.20	1.33	1.41	1.34	1.37	1.33	5.06
Dilution Tonnes, Raw	50.8	1.12	1.34	1.28	1.35	1.25	1.14	1.19	1,16	4.76
Total Raw Tonnes	116.7	2.52	2.69	2.48	2.67	2.66	2.48	2.57	2.50	9.82
Total Clean Tonnes	51.5	1.17	1.12	0.99	1.10	1.16	1.09	1.12	1.09	4.18
Clean Tonnes - Reserve	49.7	1.17	1.12	0.99	1.10	1.13	1.05	1,08	1.05	4.12
Clean Tonnes - Adverse	1.8	0.00	0.00	0.00	0.00	0.03	0.05	0.04	0.04	0.06
Percentage Controlled, %	97%	100%	100%	100%	100%	98%	96%	96%	96%	98%
(Tonnes x1,000,000)	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
In Seam Tonnes, (ML + BC)	5.1	5.12	5.23	5.26	5.23	5.17	4.78	6.29	5,41	2.57
Dilution Tonnes, Raw	4.8	5.12	5.21	5.07	4.48	3.41	3.00	2.01	2.04	1.09
Total Raw Tonnes	9.8	10.24	10.45	10.32	9.71	8.57	7.77	8.30	7.44	3.66
Total Clean Tonnes	4.2	4.19	4.28	4.30	4.09	3.82	3.54	4.07	4.01	2.00
Clean Tonnes - Reserve	4.2	4.19	4.24	3.51	3.63	3.82	3.54	3.82	4.01	2.00
Clean Tonnes - Adverse	0.0	0.00	0.04	0.79	0.46	0.00	0,00	0.26	0.00	0.00
Percentage Controlled, %	100%	100%	99%	82%	89%	100%	100%	94%	100%	100%

#### Table 13-1: Mine No. 7 Production Forecast Summary

## 13.3 Mining Related Requirements

Although the continuous miner sections are significantly more expensive to operate on a cost-pertonne basis, they are necessary to open up areas of the mine by developing main entries and gate roads

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Hydrology has not been a material issue of concern at Mine No. 7. Mining of future reserves is projected to occur in areas which exhibit similar hydrogeological characteristics as those formerly mined areas. 13.2 Production Rates Mine No. 7 is currently active with two long walls supported by continuous mining units. The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to ref future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine developm and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves. Productivity for continuous mining sections and continuous miner sections reflect typical rates incurred in the region. At a steady state, the mine produces approximately 4.0 to 4.5 million clean tonnes per year. Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coal seams. The mine plan was sequenced based productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological models as constructed by MM&A's team of geologists and mining engineers. Table 13-1 below summarizes the production forecast for Mine No. 7 mine illustrating the clean production tonnes and tonnage breakdowns by controlled (reserve) and adverse status. Adverse tonna represent a risk to the project, as mineral rights must be acquired ahead of mining. Such tons are relatively minimal and only represent approximately 3percent of the LOM project tonnages. Table 13-1: Mine No. 7 Production Forecast Summary Total (Tonnes x1,000,000) LOM Q1 23 Q2 23 Q3 23 Q4 2. 24 Q2 24 Q3 24 Q4 24 2025 In Seam Tonnes, (ML + BC) 65.9 1.41 1.35 1.20 1.33 1.41 1.34 1.37 1.33 5.06 Dilution Tonnes, Raw 50.8 1.12 1.34 1.28 1 1.25 1.14 1.19 1.16 4.76 Total Raw Tonnes 116.7 2.52 2.69 2.48 2.67 2.66 2.48 2.57 2.50 9.82 Total Clean Tonnes 51.5 1.17 1.12 0.99 1.10 1.16 1.09 1.1 1.09 4.18 Clean Tonnes-Reserve 49.7 1.17 1.12 0.99 1.10 1.13 1.05 1.08 1.05 4.12 Clean Tonnes-Adverse 1.8 0.00 0.00 0.00 0.00 0.03 0.05 0.04 0.04 0.06 Percentage Controlled, % 97% 100% 100% 100% 100% 98% 96% 96% 96% 98% (Tonnes x1,000,000) 2026 2027 2028 2029 2030 2031 2032 2032 2034 2035 In Seam Tonnes, (ML + BC) 5.1 5.12 5.23 5.26 5.23 5.17 4.78 6.29 5.41 2.57 Dilution Tonnes, Raw 4.8 5.12 5.21 5.07 4.48 3.41 3.00 2.01 2. 1.09 Total Raw Tonnes 9.8 10.24 10.45 10.32 9.71 8.57 7.77 8.30 7.44 3.66 Total Clean Tonnes 4.2 4.19 4.28 4.30 4.09 3.82 3.54 4.07 4.01 2.00 Clean Tonnes. Reserve 4.2 4.19 4.24 3.51 3.63 3.82 3.54 3.82 4.01 2.00 Clean Tonnes. Adverse 0.0 0.00 0.04 0.79 0.46 0.00 0.00 0.26 0.00 0.00 Percentage Controlled, % 100% 100% 99% 82% 89% 100% 100% 94% 100% 100% 13.3 Mining Related Requirements Although the continuous miner sections ar significantly more expensive to operate on a cost-per-tonne basis, they are necessary to open up areas of the mine by developing main entries and gate rc MARSHALL MILLER & ASSOCIATES, INC. 54



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

in preparation for the longwall. The LOM plan included in this TRS requires five continuous mining support sections operating until 2024, then sections gradually reduce until the last section finishes development in 2034.

## 13.4 Required Equipment and Personnel

Mine No. 7, along with Mine No. 4, are currently Warrior Met's only longwall mining operations. The longwall shearing machines are used for extraction of coal at the production face. A chain conveyor is used to remove coal from the longwall face for discharge onto the conveyor belt which then ultimately delivers it to the skip system. Development for the longwalls is conducted by the extraction of coal from the production faces using continuous miners and haulage using shuttle cars to a feeder-breaker located at the tail of the section conveyor belt. The feeder-breaker crushes large pieces of coal and rock and regulates coal feed onto the mine conveyor. Roof-bolting machines are used to support the roof on the development sections of the longwall mine and battery scoops are available to clean the mine entries and assist in delivery of mine supplies to work areas. Other supplemental equipment such as personnel carriers, supply vehicles, etc., are also used daily.

Mine conveyors typically range in width up to 6 feet. Multiple belt flights are arranged in series to deliver raw coal to the underground storage. Along the main and sub-main entries and panels, a travel way is provided for personnel and materials by rubber-tired equipment or on rail. A skip system is used to transport ROM coal from the underground storage bunker to the surface where the coal may be sampled, crushed and washed in the preparation plant and stockpiled to await shipment.

Surface ventilation fans are installed as needed to provide a sufficient volume of air to ventilate production sections, coal haulage and transport entries, battery charging stations, and transformers in accordance with approved plans. High-voltage cables deliver power throughout the mine where transformers reduce voltage for specific equipment requirements. *The Mine Improvement and New Emergency Response Act of 2006 (MINER Act)* requires that carbon monoxide detection systems be installed along mine conveyor belts and that electronic two-way tracking and communications systems be installed throughout the underground mine. Water is required to control dust at production sections and along conveyor belts, and to cool electric motors. Water is available from nearby sources and is distributed within the mine by pipelines as required. At a steady state, the mine is projected to employ approximately 700 employees.

When needed, Warrior Met utilizes contractors to conduct in-mine horizontal drilling for degasification ahead of mining. Locally, coalbed methane has been produced extensively from surface-based degasification wells.

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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# 14 Processing and Recovery Methods

# 14.1 Description or Flowsheet

There are two preparation plants associated with the No. 7 Mine production. The No. 7 Mine Preparation Plant has a capacity to process 1,260 raw tonnes per hour. The second plant is located at the No. 5 Mine portal site and coal is transported to that location via an overland conveyor belt installed specifically to access the No. 5 Preparation Plant. The No. 5 Plant has a capacity to process 900 raw tonnes per hour. Both plants are capable of cleaning with cyclones, spirals/reflux classifiers, and flotation circuits. Warrior's No. 7 Plant includes ultrafine coal cleaning technologies, namely those developed by **Somerset** and **MRC**, for additional recovery of coal fines. *Table 14-1* below shows 5 years of historical and the projected average wash yields for Mine No. 5 and Mine No. 7 plant.

Total LOM	Basis	Projected Yield% (Combination of Plant No. 5 + Plant No. 7)
2018	Historical	50%
2019	Historical	51%
2020	Historical	48%
2021	Historical	45%
2022	Historical	51%
2023	Projected	42%
2024	Projected	44%
2025	Projected	43%
2026	Projected	43%
2027	Projected	41%
LOM	Projected	43%

Table 14-1: 5 Years of Historical and Projected Wash Yields for Mine No. 7

## 14.2 Requirements for Energy, Water, Material and Personnel

Personnel have historically been sourced from the surrounding communities in Tuscaloosa, Jefferson, and Bibb Counties, and have proven to be adequate in numbers and experience to operate the mine. As mining is common in the surrounding areas, the workforce is generally familiar with mining practices, and many are experienced miners.

The Mine No. 7 Complex has sources of water, power, personnel, and supplies readily available for use. Water is sourced locally from a combination of municipal and freshwater sources. Electricity is sourced from Alabama Power. The service industry in the areas surrounding the mine complex has historically provided supplies, equipment repairs and fabrication, etc. tonnes per hour. Both plants are capable of cleaning with cyclones, spirals/reflux classifiers, and flotation circuits. Warrior's No. 7 Plant includes ultrafic coal cleaning technologies, namely those developed by Somerset and MRC, for additional recovery of coal fines. Table 14-1 below shows 5 years of historical and the projected average wash yields for Mine No. 5 and Mine No. 7 plant. Table 14-1: 5 Years of Historical and Projected Wash Yields for N No. 7 Projected Yield% (Combination of Total LOM Basis Plant No. 5 + Plant No. 7) 2018 Historical 50% 2019 Historical 51% 2020 Historical 48% 20 Historical 45% 2022 Historical 51% 2023 Projected 42% 2024 Projected 44% 2025 Projected 43% 2026 Projected 43% 2027 Projected 41% LOM Projected 43% 14.2 Requirements for Energy, Water, Material and Personnel have historically been sourced from the surrounding communities in Tuscaloosa, Jefferson, and Bibb Counties, and have proven to be adequate in numbers and experience to operate the mine. As mining is common in the surrounding areas, the workforce is generally familiar with mining practices, and many are experienced miners. The Mine No. 7 Complex has sources or water, power, personnel, and supplies readily available for use. Water is sourced locally from a combination of municipal and freshwater sources. Electri is sourced from Alabama Power. The service industry in the areas surrounding the mine complex has historically provided supplies, equipment repairs a fabrication, etc. MARSHALL MILLER & ASSOCIATES, INC. 56



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

# 15 Infrastructure

The Warrior Met-owned Mine No. 7 Preparation Plant receives coal from the mine via a skip hoist system which transports extracted coal from an underground bunker to the surface facility. The No. 5 preparation plant is also used to process coal which is transported from the No. 7 plant via an overland conveyor. Rail and barges serve as the primary means of transportation from the plants.

As an active operation, the necessary support infrastructure for Mine No. 7 is in place. In addition to the plant and loadout, there are also portal facilities, including personnel access to the mine and ventilation fans. A photo of the existing facilities is shown in *Figure 15-1*.

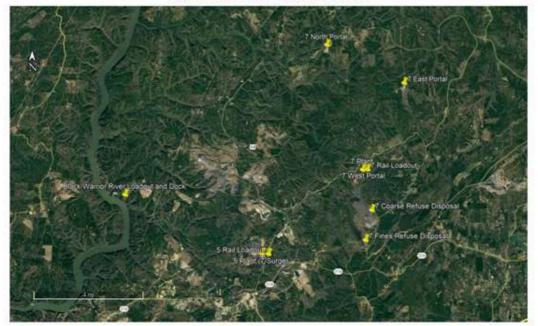


Figure 15-1: Mine No. 7 Surface Facilities

# 16 Market Studies

# 16.1 Market Description

The quality characteristics for the subject coal resources and coal reserves have been reviewed in detail by MM&A. The drill hole data was utilized to develop average coal quality characteristics for the mine site.

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15 Infrastructure The Warrior Met-owned Mine No. 7 Preparation Plant receives coal from the mine via a skip hoist system which transports extracted c from an underground bunker to the surface facility. The No. 5 preparation plant is also used to process coal which is transported from the No. 7 plant via overland conveyor. Rail and barges serve as the primary means of transportation from the plants. As an active operation, the necessary support infrastruc for Mine No. 7 is in place. In addition to the plant and loadout, there are also portal facilities, including personnel access to the mine and ventilation fans photo of the existing facilities is shown in Figure 15-1. Figure 15-1: Mine No. 7 Surface Facilities 16 Market Studies 16.1 Market Description The quali characteristics for the subject coal resources and coal reserves have been reviewed in detail by MM&A. The drill hole data was utilized to develop avera coal quality characteristics for the mine site. MARSHALL MILLER & ASSOCIATES, INC. 57



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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Current typical quality specifications for Mine No. 7 products are as shown in *Table 16-1*. This information was provided by Warrior Met and reflects average shipment quality for 2022.

Table 16-1:	2022	Average	Product	Quality
-------------	------	---------	---------	---------

	Mine No. 7
Moisture (%)	10.47%
Ash (%, dry basis)	10.29%
Sulfur (%, dry basis)	0.66%
Volatile Matter (%, dry basis)	20.82%

All of the mine's production serves the metallurgical markets, which is currently marketed as a metallurgical product and priced according to the PLV.

## 16.2 Price Forecasts

Warrior Met provided MM&A with the most recent IHS coking coal forecast through 2030 as the basis of the pricing assumptions. Pricing was held constant beyond that date. Warrior Met also provided MM&A with appropriate transportation adjustments to derive FOB-mine realized sales prices from the **IHS Markit Ltd.** (*IHS*) forecast.

Mine 7 incorporates a slight, conservative discount of 2% on the prices for low-vol to account for any quality adjustments that can occur. The mine produces coal which has a very strong CSR quality as compared to the top-quality similar coals from Australia. Historically, these indices have accurately reflected sales prices for Mine-7 coals.

Historically, the price received for this coal has reportedly varied plus or minus several percent from the PLV pricing depending on short-term demand or quality adjustments; for the purpose of this study, 98 percent of the PLV was used. To develop the Price received FOB the Barge or Railcar, transportation and loading were backed out of the FOB vessel price. The adjusted pricing is detailed in *Table 16-2*. As noted in discussions of coal quality, volatile percentages are anticipated to slightly increase over time at Mine No. 7. Warrior Met does not anticipate such variations to be of material significance to modify the PLV price basis.

Although most of the coal is shipped to the port by rail, historically some is barged. For the market pricing it has been assumed that 93% of the coal will go by rail and 7% by barge. Barge pricing and Port handling and loading costs remain constant, but Rail costs increase as Sales pricing increases above \$175/tonne FOB the Vessel

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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÷	LOM	2023:	2024	2025	2026
Price FOB Vessel	\$178.08	\$156.00	\$157.00	\$157.00	\$162.00
Transportation	\$24.94	\$22.96	\$23.07	\$23.07	\$23.60
Revenue FOB Rail or Barge	\$153.13	\$133.04	\$133.93	\$133.93	\$138.40
	2027	2028	2029	2030	2031
Price FOB Vessel	\$178.00	\$184.00	\$188.00	\$191.00	\$191.00
Transportation	\$25.17	\$25.56	\$25.82	\$26.02	\$26.02
Revenue FOB Rail or Barge	\$152.83	\$158.44	\$162.18	\$164.98	\$164.98
	2032	2033	2034	2035	
Price FOB Vessel	\$191.00	\$191.00	\$191.00	\$191.00	
Transportation	\$26.02	\$26.02	\$26.02	\$26.02	
Revenue FOB Rail or Barge	\$164.98	\$164.98	\$164.98	\$164.98	

## Table 16-2: Adjusted Pricing (per tonne)

Note: Actual realized sales revenues in January 2023 for Mine No. 7 indicate more favorable prices than those reflected in the table above as incorporated in financial modeling. While not fully indicative of 2023, it is noted that current market conditions suggest some potential conservatism in prices estimated for this calendar year, pending continued favorable market conditions.

IHS is a well-recognized source of such data. IHS is a global diversified provider of critical information, analytics, and solutions. It offers next-generation information, analytics, and solutions to customers in business, finance, and government, improving their operational efficiency and providing deep insights. IHS serves business and government customers worldwide.

## 16.3 Contract Requirements

Some contracts are necessary for successful marketing of the coal. For Mine No. 7, since all mining, preparation and marketing is done in-house, the remaining contracts required include:

- > Transportation The mine's contracts with the railroad and transportation companies for barges on the Black Warrior River to transport the coal to either the domestic customers or to the Mobile export terminal for overseas shipment.
- > Handling Contracts for loading vessels for export sales are necessary. These are typically handled by annual negotiations based on projected shipments.
- > Sales Sales contracts are a mix of spot and contract sales.

# 17 Environmental Studies, Permitting and Plans, Negotiations or Agreements with Local Individuals

## 17.1 Results of Studies

MM&A has not conducted environmentally based services or studies for Warrior Met. Permitting activities are managed internally by Warrior Met.

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Table 16-2: Adjusted Pricing (per tonne) LOM 20231 2024 2025 2026 Price FOB Vessel \$178.08 \$156.00 \$157.00 \$162.00 Transportation \$24. \$22.96 \$23.07 \$23.07 \$23.06 Revenue FOB Rail or Barge \$153.13 \$133.04 \$133.93 \$138.40 2027 2028 2029 2030 2031 Price FOB Vessel \$178.00 \$184.00 \$188.00 \$191.00 \$191.00 Transportation \$25.17 \$25.56 \$25.82 \$26.02 \$26.02 Revenue FOB Rail or Barge \$152.83 \$158.44 \$162.18 \$164.98 \$164.98 2032 2033 2034 2035 Price FOB Vessel \$191.00 \$191.00 \$191.00 \$191.00 Transportation \$26.02 \$26

overseas shipment. > Handling – Contracts for loading vessels for export sales are necessary. These are typically handled by annual negotiations based c projected shipments. > Sales – Sales contracts are a mix of spot and contract sales. 17 Environmental Studies, Permitting and Plans, Negotiations or Agreements with Local Individuals 17.1 Results of Studies MM&A has not conducted environmentally based services or studies for Warrior Met. Permitting activities are managed internally by Warrior Met. MARSHALL MILLER & ASSOCIATES, INC. 59



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## 17.2 Requirements and Plans for Waste Disposal

Based on data provided by Warrior Met, the current Mine No. 7 coarse refuse disposal has a remaining capacity of 5.8 million cubic yards as currently designed. Warrior Met projects that the current coarse impoundment has a remaining life of 2.8 years. A coarse refuse expansion is currently being designed and will be submitted for approval from necessary regulatory agencies in Q2 2023. This planned expansion will extend the life of the current refuse disposal area by an estimated 8 million yards and 4 years. A larger expansion is also being designed which would extend the potential capacity of the refuse disposal area by up to 43-million cubic yards and 20.6 years.

Additionally, Warrior Met reports that the currently active and permitted fines disposal sites have a remaining potential capacity of 3,900 acre-foot, equivalent to 6.6 years of capacity.

Warrior Met reports that Mine 5 Plant currently has a coarse refuse capacity of approximately 9.5million yards, which equates to 10 years of current capacity. Mine No. 5's remaining fines capacity is approximately 2,500 acre-feet, equal to approximately 7 years.

## 17.3 Permit Requirements and Status

All mining operations are subject to federal and state laws and must obtain permits to operate mines, coal preparation and related facilities, haul roads, and other incidental surface disturbances necessary for mining to occur. Permits generally require that the permittee post a performance bond in an amount established by the regulatory program to provide assurance that any disturbance or liability created during mining operations is properly restored to an approved post-mining land use and that all regulations and requirements of the permits are fully satisfied before the bond is returned to the permittee. Significant penalties exist for any permittee who fails to meet the obligations of the permits including cessation of mining operations, which can lead to potential forfeiture of the bond. Any company, and its directors, owners and officers, which are subject to bond forfeiture can be denied future permits under the program.<sup>1</sup>

New permits or permit revisions will occasionally be necessary to facilitate the expansion or addition of new mining areas on the property, such as amendments to existing permits and new permits for mining of reserve areas. Exploration permits are also required. Property under lease includes provisions for exploration among the terms of the lease. New or modified mining permits are subject to a public advertisement process and comment period, and the public is provided an opportunity to raise objections to any proposed mining operation. MM&A is not aware of any specific prohibition of mining on the subject property and given sufficient time and planning, Warrior Met should be able to secure new permits to maintain its active mining operation within the context of current regulations. Necessary permits are in place to support current production on the Property. Portions of the Property are located near local communities.

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17.2 Requirements and Plans for Waste Disposal Based on data provided by Warrior Met, the current Mine No. 7 coarse refuse disposal has a remaining capacity of 5.8 million cubic yards as currently designed. Warrior Met projects that the current coarse impoundment has a remaining life of 2.8 years. A coarse refuse expansion is currently being designed and will be submitted for approval from necessary regulatory agencies in Q2 2023. This planned expansion will extend the life of the current refuse disposal area by an estimated 8 million yards and 4 years. A larger expansion is also being designed which would extend the potential capacity of the refuse disposal area by up to 43-million cubic yards and 20.6 years. Additionally, Warrior Met reports t the currently active and permitted fines disposal sites have a remaining potential capacity of 3,900 acre-foot, equivalent to 6.6 years of capacity. Warrior reports that Mine 5 Plant currently has a coarse refuse capacity of approximately 9.5-million yards, which equates to 10 years of current capacity. Mine No. 5's remaining fines capacity is approximately 2,500 acre-feet, equal to approximately 7 years. 17.3 Permit Requirements and Status All mining operations are subject to federal and state laws and must obtain permits to operate mines, coal preparation and related facilities, haul roads, and other incidental surface disturbances necessary for mining to occur. Permits generally require that the permittee post a performance bond in an amount establic by the regulatory program to provide assurance that any disturbance or liability created during mining operations is properly restored to an approved pos

<sup>&</sup>lt;sup>1</sup> Monitored under the Applicant Violator System (AVS) by the Federal Office of Surface Mining.

mining land use and that all regulations and requirements of the permits are fully satisfied before the bond is returned to the permittee. Significant penalt exist for any permittee who fails to meet the obligations of the permits including cessation of mining operations, which can lead to potential forfeiture of bond. Any company, and its directors, owners and officers, which are subject to bond forfeiture can be denied future permits under the program.1 New permits or permit revisions will occasionally be necessary to facilitate the expansion or addition of new mining areas on the property, such as amendmer to existing permits and new permits for mining of reserve areas. Exploration permits are also required. Property under lease includes provisions for exploration among the terms of the lease. New or modified mining permits are subject to a public advertisement process and comment period, and the pi is provided an opportunity to raise objections to any proposed mining operation. MM&A is not aware of any specific prohibition of mining on the subject property and given sufficient time and planning, Warrior Met should be able to secure new permits to maintain its active mining operation within the cor of current regulations. Necessary permits are in place to support current production on the Property. Portions of the Property are located near local communities. 1 Monitored under the Applicant Violator System (AVS) by the Federal Office of Surface Mining. MARSHALL MILLER & ASSOCIATE INC. 60



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

Warrior Met has obtained all mining and discharge permits to operate the mine and processing, loadout, or related facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits or permit revisions. Mine No. 7, along with all coal producers, is subject to a level of uncertainty regarding future clean water permits due to **United States Environmental Protection Agency (EPA)** involvement with state programs.

Future permitting activities will be required for additional refuse expansion as summarized in the preceding report section. A portion of these permits are underway, but additional permitting will be required to secure ample refuse storage capacity to mine and process all future reserves on the property.

The active mining permits currently held by Warrior Met are shown in Table 17-1.

## Table 17-1: Mine No. 7 Mining Permits

Facility Name	Issuing Agency	Permit No.	Permit Type	Approval Date	Expiration Date
East Brookwood Mine <sub>1</sub>	ADEM	AL0074349	NPDES - Individual Permit		7/31/2022
Hannah Creek Road Borrow Pits	ADEM	ALG890520	NPDES General (<5 Acre Small Mining)	()	1/31/2023
Stanley Road Borrow Pits	ADEM	ALG890613	NPDES General ( <s acre="" mining)<="" small="" td=""><td>1</td><td>1/31/2023</td></s>	1	1/31/2023
Mine No. 5	ASMC	P-3256	Mining	-	3/1/2023
Mine No. 7	ASMC	P-3247	Mining		3/1/2023
Panther Mine No. 4	ADEM	AL0074420	NPDES - Individual Permit		8/31/2023
Mine No. 7	ADEM	AL0029181	NPDES - Individual Permit		2/28/2026
Mine No. 7	ADECA	1274	Water Withdrawal Permit (WWP)	4/13/2018	1/1/2028
Mine No. 5	ADEM	AL0029475	NPDES - Individual Permit		

Note 1: Permit renewals have been submitted with approvals pending regulatory review.

# 17.4 Local Plans, Negotiations or Agreements

The workforce at Mine No. 7 is represented by the **United Mine Workers of America (UMWA)**. As of the effective date of this report, the unionized labor force at Mine No. 7 is on strike. This TRS makes no attempt to estimate the remaining duration of the strike, as MM&A is not privy to the status of negotiations between the UMWA and Warrior Met. Production rates and schedules expressed in this TRS are generalized and are intended to reflect reasonable expectations of performance through the utilization of a well-trained workforce.

# 17.5 Mine Closure Plans

Applicable regulations require that mines be properly closed, and reclamation commenced immediately upon abandonment. In general, site reclamation includes removal of structures, backfilling, regrading, and revegetation of disturbed areas. Sediment control is required during the establishment of vegetation, and bond release generally requires a minimum five-year period of site maintenance, water sampling, and sediment control following mine completion and rough grading. For most mines, unless special issues arise, reclamation and monitoring costs continue for about 7 years after cessation of production. Reclamation of underground mines includes closure and sealing of mine openings such as portals and shafts in addition to the items listed above.

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Warrior Met has obtained all mining and discharge permits to operate the mine and processing, loadout, or related facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits or permit revisions. Mine No. 7, along with coal producers, is subject to a level of uncertainty regarding future clean water permits due to United States Environmental Protection Agency (EPA) involvement with state programs. Future permitting activities will be required for additional refuse expansion as summarized in the preceding report sec

A portion of these permits are underway, but additional permitting will be required to secure ample refuse storage capacity to mine and process all future reserves on the property. The active mining permits currently held by Warrior Met are shown in Table 17-1. Table 17-1: Mine No. 7 Mining Permits Issu Approval Expiration Facility Name Agency Permit No. Permit Type Date Date East Brookwood Mine1 ADEM AL0074349 NPDES-Individual Permit 7/31/2022 Hannah Creek Road Borrow Pit1 ADEM ALG890520 NPDES — General (<5 Acre Small Mining) 1/31/2023 Stanley Road Borrow Pit1 ADI ALG890613 NPDES — General (<5 Acre Small Mining) 1/31/2023 Mine No. 5 ASMC P-3256 Mining 3/1/2023 Mine No. 7 ASMC P-3247 Mining 3/1/2023 Panther Mine No. 4 ADEM AL0074420 NPDES—Individual Permit 8/31/2023 Mine No. 7 ADEM AL0029181 NPDES—Individual Permit 2/28/2026 Mine No. 7 ADECA 1274 Water Withdrawal Permit (WWP) 4/13/2018 1/1/2028 Mine No. 5 ADEM AL0029475 NPDES-Individual Permit Note 1: Permit renewals have been submitted with approvals pending regulatory review. 17.4 Local Plans, Negotiations or Agreements The workforce a Mine No. 7 is represented by the United Mine Workers of America (UMWA). As of the effective date of this report, the unionized labor force at Mine N is on strike. This TRS makes no attempt to estimate the remaining duration of the strike, as MM&A is not privy to the status of negotiations between the UMWA and Warrior Met. Production rates and schedules expressed in this TRS are generalized and are intended to reflect reasonable expectations of performance through the utilization of a well-trained workforce. 17.5 Mine Closure Plans Applicable regulations require that mines be properly closed, a reclamation commenced immediately upon abandonment. In general, site reclamation includes removal of structures, backfilling, regrading, and revegetation of disturbed areas. Sediment control is required during the establishment of vegetation, and bond release generally requires a minimum five year period of site maintenance, water sampling, and sediment control following mine completion and rough grading. For most mines, unless special iss arise, reclamation and monitoring costs continue for about 7 years after cessation of production. Reclamation of underground mines includes closure and sealing of mine openings such as portals and shafts in addition to the items listed above. MARSHALL MILLER & ASSOCIATES, INC. 61



Estimated costs for mine closure for all the Mine No. 7 facilities plus the Mine No. 5 Preparation Plant and overland conveyor, including water quality monitoring during site reclamation, are included in the financial model. As with all mining companies, an accretion calculation is performed annually so the necessary Asset Retirement Obligations (*ARO*) can be shown as a liability on the balance sheet.

Costs have been included for the closure of some existing facilities prior to the exhaustion of the mine. As Bleeder shafts are determined to no longer be needed, they are sealed and as refuse disposal areas are filled and replaced, reclamation is done. The costs for this non-ARO reclamation work have been accrued on a per-tonne basis in the model.

# 17.6 Qualified Person's Opinion

Mine No. 7 is an operating facility; all necessary permits for current production have been obtained. MM&A knows of no reason that any permit revisions that may be required cannot be obtained.

Estimated expenditures for site closure and reclamation are included in the financial model for this site.

# 18 Capital and Operating Costs

# 18.1 Capital Cost Estimate

The production sequence selected for a property must consider the proximity of each reserve area to coal preparation plants, river docks and railroad loading points, along with suitability of production equipment to coal seam conditions. Future needs were accounted for by utilizing a \$/tonne estimate for future mining.

MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect more typical spending patterns, as production winds down, sustaining capital is reduced to 75% in 2033, 25% in 2034, the penultimate year of production and eliminated in the final year.

For the purpose of calculating tax liability, it is necessary to forecast Depreciation. Sustaining Capital as it is purchased has been assumed to have an average depreciable life of 5 years. The current Asset inventory is assumed to depreciate on a decreasing basis by 2026.

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Estimated costs for mine closure for all the Mine No. 7 facilities plus the Mine No. 5 Preparation Plant and overland conveyor, including water quality monitoring during site reclamation, are included in the financial model. As with all mining companies, an accretion calculation is performed annually so necessary Asset Retirement Obligations (ARO) can be shown as a liability on the balance sheet. Costs have been included for the closure of some existir facilities prior to the exhaustion of the mine. As Bleeder shafts are determined to no longer be needed, they are sealed and as refuse disposal areas are fil and replaced, reclamation is done. The costs for this non-ARO reclamation work have been accrued on a per-tonne basis in the model. 17.6 Qualified Person's Opinion Mine No. 7 is an operating facility; all necessary permits for current production have been obtained. MM&A knows of no reason that a permit revisions that may be required cannot be obtained. Estimated expenditures for site closure and reclamation are included in the financial model for site. 18 Capital and Operating Costs 18.1 Capital Cost Estimate The production sequence selected for a property must consider the proximity of each res area to coal preparation plants, river docks and railroad loading points, along with suitability of production equipment to coal seam conditions. Future ne were accounted for by utilizing a \$/tonne estimate for future mining. MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history increased by 16% to reflect recent infla trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect more typical spending patterns, as production winds down, sustaining

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

## 18.2 Operating Cost Estimate

MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 18-1* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers	
Labor	3.0%
Benefits	3.0%
Fuel & Lube	100.0%
Parts	14.5%
Surface Contractors	17.5%
Capital	16.0%

Table	18-1:	Inflati	ion Factors
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Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 18-1*.

Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.

Mandated sales related costs such as black lung excise tax are summarized in Table 18-2.

Table 1	18-2:	Estimated	Coal	Production	Taxes and	Sales	Costs

Description of Tax or Sales Cost	Basis of Assessment	Cost
Federal Black Lung Excise Tax - Underground	Per Tonne	\$1.21
Federal Reclamation Fees – Underground	Per Tonne (Moisture Adjusted)	\$0.123
Alabama Severance Tax	Per Tonne (Moisture Adjusted)	\$0.344
Royalties	Percentage of Revenue (FOB Mine)	8%

 Federal black lung excise tax is paid only on coal sold domestically. MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below.

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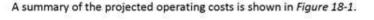
18.2 Operating Cost Estimate MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to fact such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine pow outside services and other direct mining costs. Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multiplier were applied to each category. Table 18-1 provides the inflation factors used to escalate the costs from 2022 to 2023. Table 18-1: Inflation Factors Multipliers Labor 3.0% Benefits 3.0% Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Capital 16.0% Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in Table 18-1. Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sal related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees. Mandated sales related c such as black lung excise tax are summarized in Table 18-2. Table 18-2: Estimated Coal Production Taxes and Sales Costs Description of Tax or Sales C

Basis of Assessment Cost Federal Black Lung Excise Tax—Underground Per Tonne \$1.21 Federal Reclamation Fees – Underground Per Tonne (Moistu Adjusted) \$0.123 Alabama Severance Tax Per Tonne (Moisture Adjusted) \$0.344 Royalties Percentage of Revenue (FOB Mine) 8% Notes: 1. Federal bl lung excise tax is paid only on coal sold domestically. MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below MARSHALL MILLER & ASSOCIATES, INC. 63



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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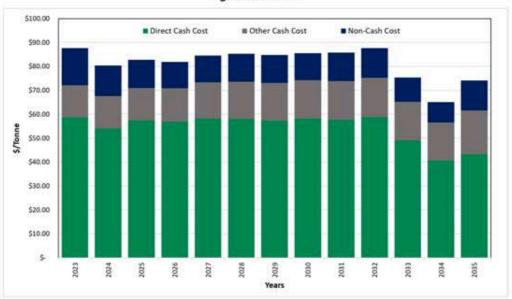


Figure 18-1: OPEX

# 18.3 Capex & Opex Summary Tables

Table 18-3 shows the projected LOM major cost line items for Mine No. 7. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 percent. Cost estimations use historical costs from Mine No. 7 as a basis to project costs forward with appropriate adjustments based on geological and economic factors.

(000)	LOM Total	2023	2024	2025	2026	2027	2028	2029
ROM Tonnes Produced	116,701	10,367	10,206	9,824	9,830	10,239	10,447	10,325
Clean Tonnes Produced	51,491	4,382	4,453	4,184	4,178	4,186	4,277	4,297
Mining Costs	\$2,363,764	\$216,477	\$200,604	\$200,508	\$198,106	\$202,683	\$206,594	\$205,031
Preparation and Loading	\$469,807	\$40,691	\$40,263	\$39,720	\$39,732	\$41,005	\$41,737	\$41,378
General & Administrative	\$124,326	\$9,005	\$12,505	\$8,973	\$8,973	\$8,973	\$8,973	\$8,973
Royalties	\$626,844	\$46,304	\$47,376	\$44,507	\$45,939	\$50,857	\$53,884	\$55,422
Property and Sales Related Taxes	\$44,201	\$3,507	\$3,554	\$3,379	\$3,375	\$3,380	\$3,439	\$3,452
Capital and Land Expenditures	\$504,588	\$49,329	\$50,113	\$47,147	\$47,083	\$46,045	\$47,048	\$47,268
Total	\$4,133,531	\$365,312	\$354,414	\$344,235	\$343,208	\$352,943	\$361,675	\$361,524

Table 18-3: Project LOM Major Cost Line Items - Opex

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A summary of the projected operating costs is shown in Figure 18-1. Figure 18-1: OPEX 18.3 Capex & Opex Summary Tables Table 18-3 shows the projected LOM major cost line items for Mine No. 7. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 percent. Cost estimations use historical costs from Mine No. 7 as a basis to project costs forward with appropriate adjustments based on geological and economic facture Table 18-3: Project LOM Major Cost Line Items – Opex (000) LOM Total 2023 2024 2025 2026 2027 2028 2029 ROM Tonnes Produced 116,701 10,300 10,206 9,824 9,830 10,239 10,447 10,325 Clean Tonnes Produced 51,491 4,382 4,453 4,184 4,178 4,186 4,277 4,297 Mining Costs \$2,363,764 \$216,47 \$200,604 \$200,508 \$198,106 \$202,683 \$206,594 \$205,031 Preparation and Loading \$469,807 \$40,691 \$40,263 \$39,720 \$39,732 \$41,005 \$41,737 \$41, General & Administrative \$124,326 \$9,005 \$12,505 \$8,973 \$8,973 \$8,973 \$8,973 \$8,973 Royalties \$626,844 \$46,304 \$47,376 \$44,507 \$45,939 \$50,85 \$53,884 \$55,422 Property and Sales Related Taxes \$44,201 \$3,507 \$3,554 \$3,379 \$3,375 \$3,380 \$3,439 \$3,452 Capital and Land Expenditures \$504,58 \$49,329 \$50,113 \$47,147 \$47,083 \$46,045 \$47,048 \$47,268 Total \$4,133,531 \$365,312 \$354,414 \$344,235 \$343,208 \$352,943 \$361,675 \$361,524 MARSHALL MILLER & ASSOCIATES, INC. 64



(000)	2030	2031	2032	2033	2034	2035	2036	2037
ROM Tonnes Produced	9,708	8,575	7,773	8,301	7,442	3,664	0	(
Clean Tonnes Produced	4,085	3,818	3,543	4,075	4,008	2,003	0	
Mining Costs	\$198,154	\$186,495	\$177,215	\$167,314	\$132,241	\$69,250	\$767	\$522
Preparation and Loading	\$39,264	\$33,897	\$31,361	\$33,091	\$30,308	\$17,359	\$0	50
General & Administrative	\$8,973	\$8,398	\$8,398	\$8,398	\$8,398	\$8,398	\$3,211	\$1,768
Royalties	\$53,606	\$50,102	\$46,497	\$53,470	\$52,595	\$26,287	\$0	\$0
Property and Sales Related Taxes	\$3,315	\$3,141	\$2,963	\$3,308	\$3,265	\$1,964	\$664	\$332
Capital and Land Expenditures	\$44,937	\$42,000	\$38,978	\$33,618	\$11,022	\$0	\$0	\$0
Total	\$348,250	\$324,034	\$305,413	\$299,200	\$237,830	\$123,258	\$4,642	\$2,622
(000)	2038	2039	2040	2041	2042			
ROM Tonnes Produced	0	0	0	0	0			
Clean Tonnes Produced	0	0	0	0	0			
Mining Costs	\$361	\$361	\$361	\$361	\$361			
Preparation and Loading	\$0	\$0	\$0	\$0	\$0			
General & Administrative	\$438	\$436	\$377	\$377	\$377			
Royalties	\$0	\$0	\$0	\$0	\$0			
Property and Sales Related Taxes	\$332	\$332	\$166	\$166	\$166			
Capital and Land Expenditures	\$0	\$0	\$0	\$0	\$0			
Total	\$1,131	\$1,129	\$903	\$903	\$903			

Notes

Insurance Costs are included in G&A

Cash Bonds Posted have been added to G&A

Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation.

# 19 Economic Analysis

## 19.1 Assumptions, Parameters and Methods

A pre-feasibility LOM plan was prepared by MM&A for the Mine No. 7 operation. MM&A prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustion) of the coal reserve areas, which is projected for the year 2035.

The mine plan, productivity expectations and cost estimates generally reflect historical performance by Warrior Met and efforts have been made to adjust plans and costs to reflect future conditions. MM&A is confident that the mine plan and financial model are reasonably representative to provide an accurate estimation of coal reserves.

A capital forecast was developed by MM&A for mine development, infrastructure, and on-going capital requirements for the life of the mine. Staffing levels were prepared, and operating costs estimated by MM&A. MM&A utilized historical cost data provided by Warrior Met and its own knowledge and experience to estimate direct and indirect operating costs.

The preliminary feasibility financial model, prepared for this TRS, was developed to test the economic viability of the coal reserve areas. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations, but are

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(000) 2030 2031 2032 2033 2034 2035 2036 2037 ROM Tonnes Produced 9,708 8,575 7,773 8,301 7,442 3,664 0 0 Clean Tonnes Produced 4,085 3,818 3,543 4,075 4,008 2,003 0 0 Mining Costs \$198,154 \$186,495 \$177,215 \$167,314 \$132,241 \$69,250 \$767 \$522 Preparation and Loading \$39,264 \$33,8 \$31.361 \$33,091 \$30,308 \$17,359 \$0 \$0 General & Administrative \$8,973 \$8,398 \$8,398 \$8,398 \$8,398 \$8,398 \$3,211 \$1,768 Royalties \$53,606 \$50,1 \$46,497 \$53,470 \$52,595 \$26,287 \$0 \$0 Property and Sales Related Taxes \$3,315 \$3,141 \$2,963 \$3,308 \$3,265 \$1,964 \$664 \$332 Capital and Land Expenditures \$44,937 \$42,000 \$38,978 \$33,618 \$11,022 \$0 \$0 \$0 Total \$348,250 \$324,034 \$305,413 \$299,200 \$237,830 \$123,258 \$4,642 \$2,622 (000 2038 2039 2040 2041 2042 ROM Tonnes Produced 0 0 0 0 0 Clean Tonnes Produced 0 0 0 0 0 Mining Costs \$361 \$361 \$361 \$361 \$361 Preparation an Loading \$0 \$0 \$0 \$0 \$0 General & Administrative \$438 \$436 \$377 \$377 \$377 Royalties \$0 \$0 \$0 \$0 Property and Sales Related Taxes \$332 \$332 \$1 \$166 \$166 Capital and Land Expenditures \$0 \$0 \$0 \$0 \$0 Total \$1,131 \$1,129 \$903 \$903 Notes Insurance Costs are included in G&A Cash Bonds Posted have been added to G&A Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation. 1 Economic Analysis 19.1 Assumptions, Parameters and Methods A pre-feasibility LOM plan was prepared by MM&A for the Mine No. 7 operation. MM prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustio of the coal reserve areas, which is projected for the year 2035. The mine plan, productivity expectations and cost estimates generally reflect historical performance by Warrior Met and efforts have been made to adjust plans and costs to reflect future conditions. MM&A is confident that the mine plan an financial model are reasonably representative to provide an accurate estimation of coal reserves. A capital forecast was developed by MM&A for mine development, infrastructure, and on-going capital requirements for the life of the mine. Staffing levels were prepared, and operating costs estimated by MM&A. MM&A utilized historical cost data provided by Warrior Met and its own knowledge and experience to estimate direct and indirect operating c

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Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

intended to prove the economic viability of the estimated coal reserves. All costs and prices are based on 2023 constant United States dollars.

On an unlevered basis, the NPV of the real cash flows after taxes was estimated for the purpose of classifying coal reserves. The cash flows, excluding debt service, are calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, sampling and analysis services, reclamation and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the federal black lung tax, federal reclamation taxes, property taxes, local transportation prior to delivery at rail or barge loading sites, coal production royalties, sales and use taxes, income taxes and State severance taxes. Warrior Met's historical costs provided a useful reference for MM&A's cost estimates.

Sales revenue is based on the metallurgical coal price information provided to MM&A by Warrior Met, based on the Platt's forecast.

Projected debt service is excluded from the P&L and cash flow model to determine enterprise value.

The financial model expresses coal sales prices, operating costs, and capital expenditures in current day dollars without adjustment for inflation. Capital expenditures and reclamation costs are included based on estimates for the mine by year.

Warrior Met will pay royalties for the various current and projected operations. The royalty rates vary by mining method and location. The royalty rates for Mine No. 7 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel.

The projection model also includes consolidated income tax calculations at the Warrior Met level, incorporating federal and state income taxes with an overall effective rate of 19%. To the extent the mine generates net operating losses for tax purposes, the losses are assumed offset other corporate taxable income. The term "cash flows" is used in this report refer to after tax cash flows.

Consolidated cash flows are driven by annual sales tonnage, which averages 4.1 million tonnes per year from 2023 to 2034 before the longwalls begin to ramp down, finishing in 2035. Projected revenue averages approximately \$630 million per year during the period 2023 to 2034. Revenue totals \$7.9 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately \$236 million from 2023 to 2034 and totals \$3.0 billion

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intended to prove the economic viability of the estimated coal reserves. All costs and prices are based on 2023 constant United States dollars. On an unlevered basis, the NPV of the real cash flows after taxes was estimated for the purpose of classifying coal reserves. The cash flows, excluding debt service, are calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, sampling and analysis services, reclamation and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. indirect costs are the federal black lung tax, federal reclamation taxes, property taxes, local transportation prior to delivery at rail or barge loading sites, production royalties, sales and use taxes, income taxes and State severance taxes. Warrior Met's historical costs provided a useful reference for MM&A' cost estimates. Sales revenue is based on the metallurgical coal price information provided to MM&A by Warrior Met, based on the Platt's forecast. Projected debt service is excluded from the P&L and cash flow model to determine enterprise value. The financial model expresses coal sales prices, operating costs, and capital expenditures in current day dollars without adjustment for inflation. Capital expenditures and reclamation costs are included based on estimates for the mine by year. Warrior Met will pay royalties for the various current and projected operations. The royalty rates vary by minin method and location. The royalty rates for Mine No. 7 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation a

loading costs between the mine and the vessel. The projection model also includes consolidated income tax calculations at the Warrior Met level, incorporating federal and state income taxes with an overall effective rate of 19%. To the extent the mine generates net operating losses for tax purposes losses are assumed offset other corporate taxable income. The term "cash flows" is used in this report refer to after tax cash flows. Consolidated cash flo are driven by annual sales tonnage, which averages 4.1 million tonnes per year from 2023 to 2034 before the longwalls begin to ramp down, finishing in 2035. Projected revenue averages approximately \$630 million per year during the period 2023 to 2034. Revenue totals \$7.9 billion for the property's life Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end mine reclamation spending. Consolidated cash flow from the operation averages approximately \$236 million from 2023 to 2034 and totals \$3.0 billion MARSHALL MILLER & ASSOCIATES, INC. 66

Warrior Met Coal, Inc.
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over the mine life. Capital expenditures total \$500 million over the property's life. Table 19-1 shows the project LOM after-tax cash flows for Mine No. 7.

Table 19-1:	Mine No.	7 Project LC	OM After-tax Cash Flow
-------------	----------	--------------	------------------------

(000)	LOM Total	2023	2024	2025	2026	2027	2028	2029
Tonnes Produced	51,491	4,382	4,453	4,184	4,178	4,186	4,277	4,297
Tonnes Sold	51,491	4,382	4,453	4,184	4,178	4,186	4,277	4,297
Revenue	\$7,884,985	\$583,002	\$596,470	\$560,356	\$578,247	\$639,731	\$677,659	\$696,896
Price (\$/tonne FOB Mine)	\$153.13	\$133.04	\$133.93	\$133.93	\$138.40	\$152.83	\$158.44	\$162.18
Mining Costs	\$2,363,764	\$216,477	\$200,604	\$200,508	\$198,106	\$202,683	\$206,594	\$205,031
Preparation and Loading	\$469,807	\$40,691	\$40,263	\$39,720	\$39,732	\$41,005	\$41,737	\$41,378
Royalties & non-income taxes	\$671,045	\$49,811	\$50,929	\$47,886	\$49,314	\$54,237	\$\$7,323	\$58,874
General & Administrative	\$124,326	\$9,005	\$12,505	\$8,973	\$8,973	\$8,973	\$8,973	\$8,973
Income Taxes	\$694,418	\$37,772	\$45,307	\$40,646	\$44,841	\$54,300	\$59,412	\$63,184
Capital and Land Expenditures	\$504,588	\$80,055	\$52,498	\$44,299	\$49,042	\$51,303	\$50,062	\$49,315
Reclamation and Closing Costs	\$34,683	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total After Tax Cash Flow	\$3,022,354	\$149,190	\$194,364	\$178,324	\$188,237	\$227,231	\$253,558	\$270,141
NPV at 9% Discount Factor	\$1,730,621							
(000)	2030	2031	2032	2033	2034	2035	2036	2037
Tonnes Produced	4,085	3,818	3,543	4,075	4,008	2,003	0	0
Tonnes Sold	4,085	3,818	3,543	4,075	4,008	2,003	0	0
Revenue	\$673,995	\$629,943	\$584,614	\$672,286	\$661,282	\$330,505	\$0	\$0
Price (\$/tonne FOB Mine)	\$164.98	\$164.98	\$164.98	\$164.98	\$164.98	\$164.98	\$0.00	\$0.00
Mining Costs	\$198,154	\$186,495	\$177,215	\$167,314	\$132,241	\$69,250	\$767	\$522
Preparation and Loading	\$39,264	\$33,897	\$31,361	\$33,091	\$30,308	\$17,359	\$0	\$0
Royalties & non-income taxes	\$56,921	\$53,244	\$49,460	\$56,778	\$55,859	\$28,251	\$664	\$332
General & Administrative	\$8,973	\$8,398	\$8,398	\$8,398	\$8,398	\$8,398	\$3,211	\$1,768
Income Taxes	\$61,642	\$57,465	\$52,085	\$69,415	\$76,069	\$34,604	(\$882)	(\$498)
Capital and Land Expenditures	\$43,996	\$39,844	\$36,254	\$42,179	\$15,134	(\$23,988)	(\$25,448)	\$15
Reclamation and Closing Costs	\$0	\$3,525	\$4,700	\$4,700	\$2,056	(\$1,870)	\$6,238	\$10,604
Total After Tax Cash Flow	\$265,044	\$247,074	\$225,140	\$290,409	\$341,215	\$198,502	\$15,450	(\$12,744)
(000)	2038	2039	2040	2041	2042	2043		
Tonnes Produced	0	0	0	0	0	0		
Tonnes Sold	0	0	0	0	0	0		
Revenue	50	\$0	50	so	50	50		
Price (\$/tonne FOB Mine)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		
Mining Costs	\$361	\$361	\$361	\$361	\$361	\$0		
Preparation and Loading	\$501	\$0	50	\$0	\$501	\$0		
Royalties & non-income taxes	\$332	\$332	\$166	\$166	\$166	\$0		
General & Administrative	\$438	\$436	\$377	\$377	\$377	\$0 \$0		
Income Taxes	(\$215)	(\$214)	(\$172)	(\$172)	(\$172)	50		
Capital and Land Expenditures	\$11	\$0	\$6	\$0	50	\$10		
		50	50	50	30	\$10		
Reclamation and Closing Costs	\$4,142	\$470	\$59	529	\$29	\$0		

Notes:

G&A costs include Insurance premiums and Cash Bonds posted.

Capital and Land Expenditures include annual Working Capital adjustments.

Reclamation and Closing Costs include an adjustment for the projected residual value of Equipment.

### 19.2 Results

The pre-feasibility financial model, prepared by MM&A for this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining

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over the mine life. Capital expenditures total \$500 million over the property's life. Table 19-1 shows the project LOM after-tax cash flows for Mine No. Table 19-1: Mine No. 7 Project LOM After-tax Cash Flow (000) LOM Total 2023 2024 2025 2026 2027 2028 2029 Tonnes Produced 51,491 4,382 4,45 4,184 4,178 4,186 4,277 4,297 Tonnes Sold 51,491 4,382 4,453 4,184 4,178 4,186 4,277 4,297 Revenue \$7,884,985 \$583,002 \$596,470 \$560,356 \$578, \$639,731 \$677,659 \$696,896 Price (\$/tonne FOB Mine) \$153.13 \$133.04 \$133.93 \$133.93 \$138.40 \$152.83 \$158.44 \$162.18 Mining Costs \$2,363,764 \$216,477 \$200,604 \$200,508 \$198,106 \$202,683 \$206,594 \$205,031 Preparation and Loading \$469,807 \$40,691 \$40,263 \$39,720 \$39,732 \$41,005 \$41,737 \$41,378 Royalties & non-income taxes \$671,045 \$49,811 \$50,929 \$47,886 \$49,314 \$54,237 \$57,323 \$58,874 General & Administrative \$124,. \$9,005 \$12,505 \$8,973 \$8,973 \$8,973 \$8,973 Income Taxes \$694,418 \$37,772 \$45,307 \$40,646 \$44,841 \$54,300 \$59,412 \$63,184 Capital and I

Expenditures \$504,588 \$80,055 \$52,498 \$44,299 \$49,042 \$51,303 \$50,062 \$49,315 Reclamation and Closing Costs \$34,683 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 Tota After Tax Cash Flow \$3,022,354 \$149,190 \$194,364 \$178,324 \$188,237 \$227,231 \$253,558 \$270,141 NPV at 9% Discount Factor \$1,730,621 (000) 20 2031 2032 2033 2034 2035 2036 2037 Tonnes Produced 4,085 3,818 3,543 4,075 4,008 2,003 0 0 Tonnes Sold 4,085 3,818 3,543 4,075 4,008 2,003 0 0 Revenue \$673,995 \$629,943 \$584,614 \$672,286 \$661,282 \$330,505 \$0 \$0 Price (\$/tonne FOB Mine) \$164.98 \$166.98 \$ \$0.00 \$0.00 Mining Costs \$198,154 \$186,495 \$177,215 \$167,314 \$132,241 \$69,250 \$767 \$522 Preparation and Loading \$39,264 \$33,897 \$31,361 \$33 \$30,308 \$17,359 \$0 \$0 Royalties & non-income taxes \$56,921 \$53,244 \$49,460 \$56,778 \$55,859 \$28,251 \$664 \$332 General & Administrative \$8,973 \$8,398 \$8,398 \$8,398 \$8,398 \$8,398 \$3,211 \$1,768 Income Taxes \$61,642 \$57,465 \$52,085 \$69,415 \$76,069 \$34,604 (\$882) (\$498) Capital and Land Expenditures \$43,996 \$39,844 \$36,254 \$42,179 \$15,134 (\$23,988) (\$25,448) \$15 Reclamation and Closing Costs \$0 \$3,525 \$4,700 \$4,700 \$2,056 (\$1,-\$6,238 \$10,604 Total After Tax Cash Flow \$265,044 \$247,074 \$225,140 \$290,409 \$341,215 \$198,502 \$15,450 (\$12,744) (000) 2038 2039 2040 2041 2 2043 Tonnes Produced 0 0 0 0 0 0 0 Tonnes Sold 0 0 0 0 0 0 Revenue \$0 \$0 \$0 \$0 \$0 Price (\$/tonne FOB Mine) \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Mining Costs \$361 \$361 \$361 \$361 \$361 \$0 Preparation and Loading \$0 \$0 \$0 \$0 \$0 \$0 \$0 Royalties & non-income taxes \$332 \$332 \$166 \$166 \$166 \$0 General & Administrative \$438 \$436 \$377 \$377 \$377 \$0 Income Taxes (\$215) (\$214) (\$172) (\$172) (\$172) \$0 Capital and Land Expenditures \$11 \$0 \$ \$0 \$10 Reclamation and Closing Costs \$4,142 \$470 \$59 \$29 \$29 \$0 Total After Tax Cash Flow (\$5,069) (\$1,385) (\$797) (\$761) (\$761) (\$10) Notes: Gé costs include Insurance premiums and Cash Bonds posted. Capital and Land Expenditures include annual Working Capital adjustments. Reclamation an Closing Costs include an adjustment for the projected residual value of Equipment. 19.2 Results The pre-feasibility financial model, prepared by MM& this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining MARSHALL MILLER & ASSOCIATES, INC. 67



operations contemplated but are intended to prove the economic viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement.

#### Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA

	Tonnes (000)	Pre-Tax P&L (\$000)	P&L per Tonne	EBITDA (\$000)	EBITDA per Tonne
Mine #7	51,491	\$3,654,830	\$70.98	\$4,259,543	\$82.72
1: The LOM model inclu				the second se	

and MM&A's knowledge of mine productivity and cost structures for comparable operations.

As shown in *Table 19-1*, Mine No. 7 shows positive EBITDA over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$3.7 billion and \$4.3 billion, respectively.

Warrior Met's Mine No. 7 annual production and revenue are shown in *Figure 19-1* and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, is shown in *Figure 19-2* below.

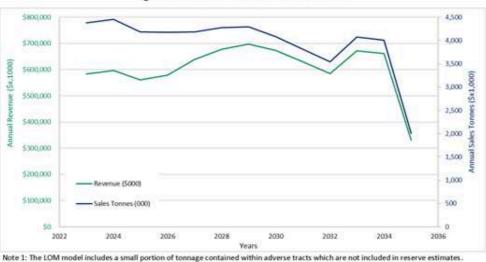


Figure 19-1: Mine 7 Production and Revenue

Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

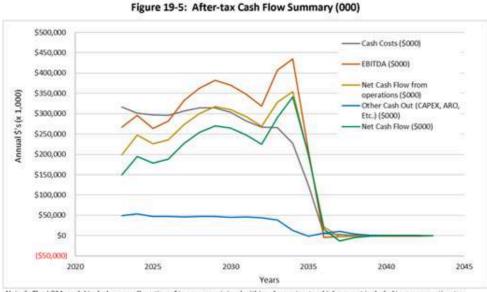
#### MARSHALL MALLER & ASSOCIATES, INC.

operations contemplated but are intended to prove the economic viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement. Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA Tonnes Pre-Tax P&L P&L EBITDA (000) (\$000) Tonne (\$000) per Tonne Mine #7 51,491 \$3,654,830 \$70.98 \$4,259,543 \$82.72 Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. As shown in Table 19-1, Mine No. 7 shows positive EBITDA over the L Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$3.7 billion and \$4.3 billion, respectively. Warrior Met's Mi No. 7 annual production and revenue are shown in Figure 19-1 and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, i shown in Figure 19-2 below. Figure 19-1: Mine 7 Production and Revenue Note 1: The LOM model includes a small portion of tonnage contained withi adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mi productivity and cost structures for comparable operations. MARSHALL MILLER & ASSOCIATES, INC. 68

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Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-fooking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

# 19.3 Sensitivity

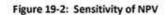
Sensitivity of the NPV results to changes in the key drivers is presented in *Figure 19-3*. The sensitivity study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased within a +/- 10% range.

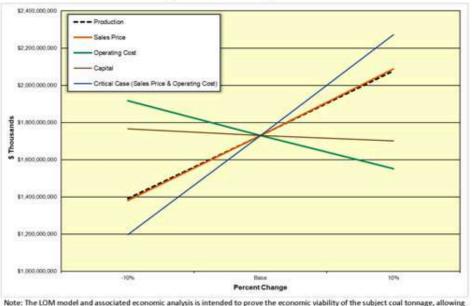
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Figure 19-5: After-tax Cash Flow Summary (000) Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which ar not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject c tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 19.3 Sensitivity Sensitivity of the NPV results to changes in the key drivers is presented in Figure 19-3. The sensit study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased within a +/- 10% range. MARSHALL MILLER & ASSOCIATES, INC. 69







Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings.

# 20 Adjacent Properties

# 20.1 Information Used

Warrior Met's Mine No. 7 is located immediately adjacent (east) of Mine No. 4 and southeast of the Blue Creek Property. Exploration databases encompass all three of these holdings and serve as the basis for geological modeling.

# 21 Other Relevant Data and Information

MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this former work as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geological and mining-based studies in the Black Warrior Basin, with specific projects conducted for Warrior Met in several adjacent areas to the Property during due diligence activities. This experience was utilized in the development of this TRS.

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Figure 19-2: Sensitivity of NPV Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Adjacent Properties 20.1 Information Used Warrior Met's Mine No. 7 is located immediately adjacent (east) of Mine No. 4 and southeast of the Blue Cr Property. Exploration databases encompass all three of these holdings and serve as the basis for geological modeling. 21 Other Relevant Data and Information MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this former work as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geological and mining-base studies in the Black Warrior Basin, with specific projects conducted for Warrior Met in several adjacent areas to the Property during due diligence activi This experience was utilized in the development of this TRS. MARSHALL MILLER & ASSOCIATES, INC. 70



# 22 Interpretation and Conclusions

# 22.1 Conclusion

Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data is of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and preliminary feasibility study, which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

This geologic evaluation conducted conjunction with the preliminary feasibility study is sufficient to conclude that the 49.7 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of market prices for metallurgical coal products, estimated operation costs, and capital expenditures.

# 22.2 Risk Factors

Risks have been identified for operational, technical, and administrative subjects addressed in the Pre-Feasibility Study. A risk matrix has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessment process.

The purpose of the characterization of the risk components is to inform the stakeholders of key aspects of the Warrior Met property that can be impacted by events whose consequences can affect the success of the venture. The significance of an impacted aspect of the operation is directly related to both the probability of occurrence and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potential impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor is herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual risk can be quantified numerically, derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

The probability and consequence parameters are subjective numerical estimates made by practiced mine engineers and managers. Both are assigned values from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products, which define the Risk Level, are classified from very low to very high.

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22 Interpretation and Conclusions 22.1 Conclusion Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data is of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS. The geological data and preliminary feasibility stu which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herei This geologic evaluation conducted conjunction with the preliminary feasibility study is sufficient to conclude that the 49.7 Mt of marketable undergrou coal reserves identified on the Property are economically mineable under reasonable expectations of market prices for metallurgical coal products, estim operation costs, and capital expenditures. 22.2 Risk Factors Risks have been identified for operational, technical, and administrative subjects addressed i the Pre-Feasibility Study. A risk matrix has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessm process. The purpose of the characterization of the risk components is to inform the stakeholders of key aspects of the Warrior Met property that can be impacted by events whose consequences can affect the success of the venture. The significance of an impacted aspect of the operation is directly related both the probability of occurrence and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potent impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor i herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual risk can be quantified numerically, derived by the product of values assigned to probability and consequence ranging from very 1 risk to very high risk. The probability and consequence parameters are subjective numerical estimates made by practiced mine engineers and managers. Both are assigned values from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highes

probability and greatest consequence. The products, which define the Risk Level, are classified from very low to very high. MARSHALL MILLER & ASSOCIATES, INC. 71



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary



Risk aspects identified and evaluated during this assignment total 12. No residual risks are rated Very High. Two (2) residual risks are rated High. Four (4) of the risk aspects could be associated with Moderate residual risk. Six (6) of the risk aspects were attributed Low or Very Low residual risks.

## 22.2.1 Governing Assumptions

The listing of the aspects is not presumed to be exhaustive. Instead that listing is presented based on the experiences of the contributors to the TRS.

- The probability and consequence ratings are subjectively assigned, and it is assumed that this subjectivity reasonably reflects the condition of the active and projected mine operations.
- The control measures shown in the matrices presented in this chapter are not exhaustive. They
  represent a condensed collection of activities that the author of the risk assessment section has
  observed to be effective in coal mining scenarios.
- Mitigation measures listed for each risk factor of the operation are not exhaustive. The measures
  listed, however, have been observed by the author to be effective.
- The monetary values used in ranking the consequences are generally accepted quantities for the coal mining industry.

## 22.2.2 Limitations

The risk assessment proposed in this report is subject to the limitations of the information currently collected, tested, and interpreted at the time of the writing of the report.

### 22.2.3 Methodology

The numerical quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

Where:	R = Risk Level
	P = Probability of Occurrence
	C = Consequence of Occurrence

The Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by practiced mine engineers and managers. Both P and C are assigned integer values

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Risk Level Table ( $R = P \ge C$ ) Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25) Risk aspects identi and evaluated during this assignment total 12. No residual risks are rated Very High. Two (2) residual risks are rated High. Four (4) of the risk aspects cc be associated with Moderate residual risk. Six (6) of the risk aspects were attributed Low or Very Low residual risks. 22.2.1 Governing Assumptions Thlisting of the aspects is not presumed to be exhaustive. Instead that listing is presented based on the experiences of the contributors to the TRS. 1. The probability and consequence ratings are subjectively assigned, and it is assumed that this subjectivity reasonably reflects the condition of the active and projected mine operations. 2. The control measures shown in the matrices presented in this chapter are not exhaustive. They represent a condensed collection of activities that the author of the risk assessment section has observed to be effective in coal mining scenarios. 3. Mitigation measures listed + each risk factor of the operation are not exhaustive. The measures listed, however, have been observed by the author to be effective. 4. The monetary val used in ranking the consequences are generally accepted quantities for the coal mining industry. 22.2.2 Limitations The risk assessment proposed in this report is subject to the limitations of the information currently collected, tested, and interpreted at the time of the writing of the report. 22.2.3 Methodolo The numerical quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability at consequence ranging from very low risk to very high risk.  $R = P \ge C$  Where: R = Risk Level P = Probability of Occurrence C = Consequence of Occurre the Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by practiced mine engineers and managers. Both P and C are assigned integer values MARSHALL MILLER & ASSOCIATES, INC. 72



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ranging from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products ( $R = P \times C$ ) which define the Risk Level, are thereafter classified from very low to very high.



Very high initial risks are considered to be unacceptable and require corrective action well in advance of development. In short, measures must be applied to reduce very high initial risks to a tolerable level.

As shown and discussed above, after taking into account the operational, technical, and administrative actions that have been applied or are available for action when required, the residual risk can be determined. The residual risk provides a basis for the management team to determine if the residual risk level is acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the operation.

### 22.2.4 Development of the Risk Matrix

Risks have been identified for the technical, operational, and administrative subjects addressed in the TRS.

#### 22.2.4.1 Probability Level Table

Table 22-1:	Probability	Level Table

Category	Probability Level (P)							
1	Remote	Not likely to occur except in exceptional circumstances.	<10%					
2	Unlikely	Not likely to occur; small in degree.	10 - 30%					
3	Possible	Capable of occurring.	30 - 60%					
4	Likely	High chance of occurring in most circumstances.	60 - 90%					
5	Almost Certain	Event is expected under most circumstances; impossible to avoid.	>90%					

The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihood of occurrence of less than 2 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5 assigned to incidents considered to be almost certain to occur.

#### 22.2.4.2 Consequence Level Table

Table 22-2 lists the consequence levels.

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ranging from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products ( $R = P \ge C$ ) which define the Risk Level, are thereafter classified from very low to very high. Risk Level Table Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25) Very high initial risks are considered to be unacceptal and require corrective action well in advance of development. In short, measures must be applied to reduce very high initial risks to a tolerable level. As shown and discussed above, after taking into account the operational, technical, and administrative actions that have been applied or are available for act when required, the residual risk can be determined. The residual risk provides a basis for the management team to determine if the residual risk to acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the operation. 22.2.4 Development of the Risk Matrix Risks have been identified for the techr operational, and administrative subjects addressed in the TRS. 22.2.4.1 Probability Level Table Table 22-1: Probability Level Table Category Probability Level (P) 1 Remote Not likely to occur except in exceptional circumstances. <10% 2 Unlikely Not likely to occur; small in degree. 10—30% 3 Possible Capable of occurring. 30—60% 4 Likely High chance of occurring in most circumstances. 60-90% 5 Almost Certain Event is expected under most circumstances; impossible to avoid. >90% The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihoc

occurrence of less than 2 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5 assigned to incidents considered to be almost certain to occur. 22.2.4.2 Consequence Level Table Table 22-2 lists the consequence levels. MARSHALL MILLER & ASSOCIATES, INC. 73



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			Correlation	of Events in Key Elemen	ts of the Program to Event Severity	Category	
Category	Severity of the Event	Financial Impact of the Event	Unplanned Loss of Production (Impact on Commercial Operations)	Events Impacting	Events Affecting the Program's Social and Community Relations	Resultant Regulatory / Sovereign Risk	Events Affecting Occu Health & Safet
1	Insignificant	< USD \$0.5 million	≤ 12 hours	Insignificant loss of habitat; no irreversible effects on water, soil and the environment.	Occasional nuisance impact on travel.	14	Event recurrence avoi corrective action thr established proced (Engineering, guarding,
2	Minor	USD \$0.5 million to \$2.0 million	≤1 day	No significant change to species populations; short- term reversible perturbation to ecosystem function.	Persistent nuisance impact on travel. Transient adverse media coverage.		First aid – lost time. recurrence avoided by c action thought estab procedures.
3	Moderate	USD \$2.0 million	≤1 week	Appreciable change to species population;	Measurable impact on travel and water/air quality.	Uncertainty securing or retaining essential approval / license.	Medical Treatment – pe incapacitation Avoidin
3	Moderate	to \$10.0 million	SIWeek	medium-term (≤10 years) detriment to ecosystem function.	Significant adverse media coverage / transient public outrage.	Change to regulations (tax; bonds; standards).	recurrence requires mod to established correctiv procedures.
		USD \$10.0		Change to species population threatening	Long-term, serious impact on travel and use of water	Suspension / long-delay in securing essential approval / license.	Fatality. Avoiding e recurrence requires more
4	Major	million to \$50.0 million	1 to 2 weeks	viability; long-term (>10 years) detriment to ecosystem function.	resources; degradation of air quality; sustained and effective public opposition.	Change to laws (tax; bonds; standards).	to established correctiv procedures and staff rel
5	Critical	>USD \$50.0 million	>1 month	Species extinction; irreversible damage to ecosystem function.	Loss of social license.	Withdraw / failure to secure essential approval / license.	Multiple fatalities. Av event recurrence require overhaul of policies procedures.

### Table 22-2: Consequence Level Table

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Table 22-2: Consequence Level Table Correlation of Events in Key Elements of the Program to Event Severity Category Unplanned Loss of Production (Impact on Events Affecting the Program's Severity of Financial Impact Commercial Events Impacting Social and Community Resultant Regulatory / Events Affecting Occupational Category the Event of the Event Operations) on the Environment Relations Sovereign Risk Health & Safety Insignificant loss of Event recurrence avoided by habitat; no < USD \$0.5 Occasional nuisance impact on corrective action through 1 Insignificant ? 12 hours irreversi effects- million travel. established procedures on water, soil and (Engineering, guarding, training). the environment. No significant change to species F aid - lost time. Event Persistent nuisance impact on USD \$0.5 million populations; short- recurrence avoided by corrective 2 Minor ? 1 day travel. Trans adverse media- to \$2.0 million term reversible action thought established coverage. perturbation to procedures. ecosystem function. Appreciable change Uncertainty securing or Measurable impact on travel Medical Treatment - permanent to species retaining essential and water/air quality. incapacitation Avoiding event USD \$2.0 million population; approval / license. 3 Moderate ? 1 week Significant adverse media recurrence requires modification to \$1( million medium-term (?10 coverage / transient public Change to regulations to established corrective action years) detriment to outrage. (tax; bonds; standards). procedures. ecosystem function. Change to species Suspension / long-delay population Long-term, serious impact on in securing essential Fatality. Avoiding event USD \$10.0 threatening travel and use of water approval / license. recurrence requires modification 4 Major million to \$50.0 1 tc weeks viability; long-term resources; degradation of air to established corrective action million (>10 years) quality; sustained and effective Change to la (tax; procedures and staff retraining, detriment to public opposition, bonds; standards), ecosystem function. Species extinction; Multiple fatalities. Avoid Withdraw / failure to >USD \$50.0 irreversible damage event recurrence requires major 5 Critical >1 month Loss of social license. secure essential millic ecosystem overhaul of policies and approval / license. function. procedures. MARSHALL MILLER & ASSOCIATES, INC. 74



The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incidents with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than USD \$0.5 million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include multiple-fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than USD \$50.0 million.

## Composite Risk Matrix R = P x C and Color-Code Convention

The risk level, defined as the product of probability of occurrence and consequence, ranges in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the highest risk aspects.

					Consequence (C)		
	P x C = R		Insignificant	Minor	Moderate	Major	Critica
			1	2	2 3		5
	Remote	1	1	2	3	4	5
vel (P)	Unlikely	2	2	4	6	8	10
Probability Level (P)	Possible	3	3	6	9	12	15
Probat	Likely	4	4	8	12	16	20
	Almost Certain	5	5	10	15	20	25

Table	22-3:	Risk	Matrix

# 22.2.5 Categorization of Risk Levels and Color Code Convention

Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level.

## 22.2.6 Description of the Coal Property

The Mine No. 7 Complex is located in Jefferson and Tuscaloosa Counties, Alabama and operates a longwall section with supporting continuous mining sections. The operation is projected to continue in the present mode until reserves are depleted in 2035.

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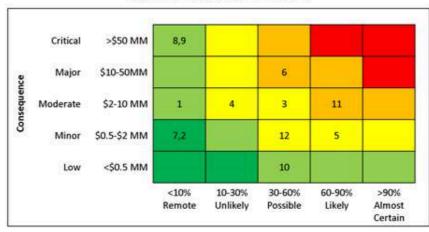
75

The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incident with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than USD \$0.5 million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include multiple-fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than U \$50.0 million. Composite Risk Matrix R = P x C and Color-Code Convention The risk level, defined as the product of probability of occurrence and consequence, ranges in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the high risk aspects. Table 22-3: Risk Matrix Consequence (C) P x C = R Insignificant Minor Moderate Major Critical 1 2 3 4 5 Remote 1 1 2 3 4 5 (P) Level Unlikely 2 2 4 6 8 10 Possible 3 3 6 9 12 15 Probability Likely 4 4 8 12 16 20 Almost 5 5 10 15 20 25 Certain 22.2.5 Categorization of Risk Levels and Color Code Convention Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level. 22.2.6 Description of the Coal Property The Mine No. 7 Complex is located in Jefferson and Tuscaloosa Counties, Alabama and operates a longwall section with supporting continuous mining sections. The operation is projected to continue in the present mode until reserves are depleted in 2035. MARSHALL MILLER & ASSOCIATES, INC. 75



# 22.2.7 Summary of Residual Risk Ratings

Each risk factor is numbered, and a risk level for each is determined by multiplying the assigned probability by the assigned consequence. The risk levels are plotted on a risk matrix to provide a composite view of the Warrior Met risk profile. The average risk level is 6.1, which is defined as Moderate.





# 22.2.8 Risk Factors

A high-level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. Risk factors that are unique to a specific operation or are particularly noteworthy are addressed individually.

## 22.2.8.1 Geological and Coal Resource

Coal mining is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource to be uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets.

Offsetting the geological and coal resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from areas where coal quality and/or mineability may be less favorable. This flexibility, combined with the extensive work done to define the reserve, reduces the risk at Mine No. 7 below that of other mine properties.

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22.2.7 Summary of Residual Risk Ratings Each risk factor is numbered, and a risk level for each is determined by multiplying the assigned probability t the assigned consequence. The risk levels are plotted on a risk matrix to provide a composite view of the Warrior Met risk profile. The average risk level 6.1, which is defined as Moderate. Table 22-4: Risk Assessment Matrix Critical >\$50 MM 8,9 Major \$10-50MM 6 Moderate \$2-10 MM 1 4 3 11 Consequence Minor \$0.5-\$2 MM 7,2 12 5 Low <\$0.5 MM 10 <10% 10-30% 30-60% 60-90% >90% Remote Unlikely Possible Likely Almost Certain 22.2.8 Risk Factors A high-level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. Risk factors that are unique to a specific operation or are particularly noteworthy are addressed individually. 22.2.8.1 Geologica and Coal Resource Coal mining is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource to be uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets. Offsetting the geological and coal resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from areas where coal quality and/or mineability may be less favorable. This flexibility, combined with the exten work done to define the reserve, reduces the risk at Mine No. 7 below that of other mine properties. MARSHALL MILLER & ASSOCIATES, INC. 76



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Aspect	Impact	Control Measures	Initi	lal Risk Le	rvel	Mitigation Measures	Residual Risk Level			
			P	C	R	1	Р	C	R	
Recoverable coal tonnes recognized to be significantly less than previously estimated	Reserve base is adequate to serve market commitments and respond to opportunities for many years. Local adverse conditions may increase frequency and cost of production unit relocations.	Previous and ongoing exploration and extensive regional mining history provide a high level of confidence of coal seam correlation, continuity of the coal seams, and coal resource tonnes	2	3	6	Optimize mine plan to increase resource recovery, develop mine plan to provide afternate mining locations to sustain expected production level	1	3	3	
Ceal quality locally proves to be lower than initially projected.	If uncontrolled, production and sale of coal that is out of specification can result in rejection of deliveries, cancellation of coal sales agreements and damage to reputation.	Exploration and vast experience and history in local coal seams provide confidence in coal quality, limited excursions can be managed with careful product segregation and blending.	2	3:	6	Develop mine plan to provide readily available alternate mining locators to sustain expected production level; modify coal sales agreements to reflect coal quality. Conduct additional drilling to lower risk associated with quality concerns in suspect areas.	3	2	2	

Table 22-5:	Geological and	<b>Coal Resource Risk</b>	Assessment (Ri	sks 1 and 2)
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## 22.2.8.2 Environmental

Water quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to meet modified standards or to receive new permits and modifications to existing permits. Permit protests may result in delays or denials to permit applications.

Environmental standards and permit requirements have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements.

Aspect Impact			Initial Risk Level				Residual Risk Level		
	Impact	Control Measures	P	C	R	Mitigation Measures	P	C	R
Environmental performance standards are modified in the future.	Delays in receiving new permits and modifications to existing permits, cost of testing and treatment of water and soils	Work with regulatory agencies to understand and influence final standards; implement testing, treatment and other actions to comply with new standards.	3	4	12	Modify mining and reclamation plans to improve compliance with new standards while reducing cost of compliance.	3	3	9
New permits and permit modifications are increasingly delayed or denied.	Interruption of production and delayed implementation of replacement production from new mining areas.	Comply quickly with testing, treatment and other actions required, continue excellent compliance performance within existing permits.	2	4	8	Establish and maintain close and constructive working relationships with regulatory agencies, local communities and community action groups. Prepare and submit permits well in advance of needs.	2	3	6

#### Table 22-6: Environmental (Risks 3 and 4)

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Table 22-5: Geological and Coal Resource Risk Assessment (Risks 1 and 2) Initial Risk Level Residual Risk Level Aspect Impact Control Measures Mitigation Measures P C R P C R Recoverable Coal Reserve base is adequate to Previous and ongoing 2 3 6 Optimize mine plan to 1 3 3 tonnes recogni to serve market commitments exploration and extensive increase resource be significantly less and respond to opportunities regional mining history recovery; develop than previously for many years. Local provide a high level of mine plan to provide estimated. adverse conditions may confidence of c seam readily available increase frequency and cost correlation, continuity of alternate mining of production unit the coal seams, and coal locations to sus relocations, resource tonnes, expected production level. Coal quality locally If uncontrolled, production Exploration and vast 2 3 6 Develop mine plan tc 2 proves to be lower and sale of coal that is out of experience and history in provide readily than initially projected, specification can result in local coal seams provide available alternate rejection of deliveries, confidence in coal quality; mining locations to cancellation of coal sales limited excursions can sustaining expected agreements and damage to managed with careful production level; reputation, product segregation and modify coal sales blending. agreements to reflect coal quality. Conduct additional drilling to lower risk associated with quality concerns in suspect areas. 22.2.8.2 Environmental Wa quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to mee modified standards or to receive new permits and modifications to existing permits. Permit protests may result in delays or denials to permit applications Environmental standards and permit requirements have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements. Table 22-6: Environmental (Risks 3 and 4) Residual Risk Initial Risk Leve Level Aspect Impact Control Measures P C R Mitigation Measures P C R Environmental Delays in receiving new Work with regulatory 3 4 12 Modify mining and 3 3 9 performance standards permits and modifications to agencies to understand and reclamation plans to improve are modified in the existi

permits; cost of influence final standards; compliance with new future. testing and treatment of water implement testing, treatment standards while reduc and soils and other actions to comply cost of compliance. with new standards. New permits and permit Interruption of production and Comply quickly v testing, 2 4 8 Establish and maintain close 2 3 6 modifications are delayed implementation of treatment and other actions and constructive working increasingly delayed or replacement production from required; continue excellent relationships with regulatory denied. new mining areas. compliance performance agencies, local communities within existing permits. and community action groups. Prepare and submit permits well in advance of needs. MARSHALL MILLER & ASSOCIATES, INC. 77



Warrior Met Coal, Inc. Mine No. 7 Year End 2022 Reserve Analysis Technical Report Summary

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## 22.2.8.3 Regulatory Requirements

Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The impact is industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements.

## Table 22-7: Regulatory Requirements (Risk 5)

Aspect	Impact	Control Measures	Initial Risk Level			Mitigation Measures	Residual Risk Level		
Federal and state mine safety and health regulatory agencies amend mine laws and regulations	Cost of training, materials, supplies and equipment, modification of mine examination and production procedures; modification of mining plans.	Participate in hearings and workshops when possible to faolitate understanding and implementation, work cooperatively with agencies and employees to faolitate implementation of new laws and regulations.	4	3	12	Familiantly and experience with new laws and regulations results in reduced impact to operations and productivity and improved supplies and equipment options	4	2	8

## 22.2.8.4 Market and Transportation

Most of the current and future production is expected to be directed to domestic and international metallurgical markets. Historically the metallurgical markets have been cyclical and highly volatile. Warrior's Mine No. 7 produces a low-volatile product with a favorable CSR which has minimal domestic or international competition, somewhat mitigating extreme market risk.

#### Table 22-8: Market (Risk 6)

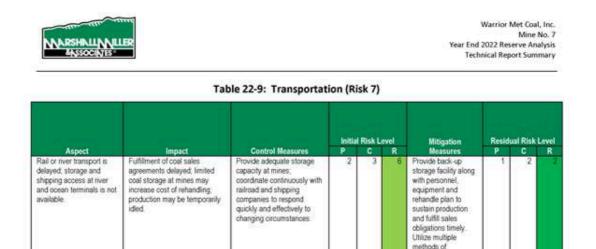
			Initia	l Risk Li	evel	Mitigation	Reside	Jal Risk	Level
Aspect	Impact	Control Measures	Ρ.	C	R	Measures	P	C	R
Volatile coal prices drop precipitously	Loss of revenue adversely affects profitability; reduced cash flow may disrupt capital expenditures plan.	Cost control measures implemented; capital spending deferred	3	5	15	High-cost operations closed, and employees temporarity furloughed	3	4	12

Occasional delay or interruption of rail, river and terminals service may be expected. The operator can possibly minimize the impact of delays by being a preferred customer by fulfilling shipment obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk.

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22.2.8.3 Regulatory Requirements Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The impact is industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements. Table 22-7: Regulatory Requirements (Risk 5) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Federal an state mine Cost of training, materials, Participate in hearings and 4 3 12 Familiarity and 4 2 8 safety and health supplies and equipment; workshops whe possible to experience with new regulatory agencies modification of mine facilitate understanding and laws and regulations amend mine laws and examination and production implementation; work results in reduced regulations. procedures; modification of cooperatively with agencies impact to operations mining plans. and employees to facilitate and productivity and implementation of new laws improved supplies and regulations. and equipmer options. 22.2.8.4 Market and Transportation Most of the current and future production is expected to be directed to domestic and international metallurg

markets. Historically the metallurgical markets have been cyclical and highly volatile. Warrior's Mine No. 7 produces a low-volatile product with a favorable CSR which has minimal domestic or international competition, somewhat mitigating extreme market risk. Table 22-8: Market (Risk 6) Initial Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Volatile coal prices drop Loss of revenue adversely Cost control measures 3 5 15 High-cost operations 3 4 12 precipitously. affects profitability; reduced implemented; capital closed, and cash flow may disrupt capital spending deferred. employees expenditures plan. temporarily furloughed. Occasional delay or interruption of rail, river and terminals service may expected. The operator can possibly minimize the impact of delays by being a preferred customer by fulfilling shipment obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk. MARSHALL MILLER & ASSOCIATES, IN 78



## 22.2.8.5 Mining Plan

Occupational health and safety risks are inherent in mining operations. Comprehensive training and retraining programs, internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce health risks to miners.

transportation (rail & barge)

As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads to modification of mine plans and procedures to enable safe work within the mine environment.

Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations.

#### 22.2.8.5.1 Methane Management

Coalbed methane is present in coal operations below drainage. Often the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee and Blue Creek seams at the Mine No. 7 Complex in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Mine No. 7 has operated safely for many years in one of the most intense methane environments in the United States through careful management of coal seam methane via multiple practices. These practices include degasification ahead of mining, gob degasification and mineventilation procedures. Additionally, Warrior Met reports that it utilizes combustion units on gob wells to reduce methane emissions. Warrior Met captures a significant amount of gob gas which is sold directly or upgraded to saleable quality through the use of a gas processing facility. These capturing practices eliminate a portion of the operation's direct methane emissions via the combustion of methane and the generation of pipeline quality gas.

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Table 22-9: Transportation (Risk 7) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Rail or ritransport is Fulfillment of coal sales Provide adequate storage 2 3 6 Provide back-up 1 2 2 delayed; storage and agreements delayed; limited capacity at mines; storage facility along shipping access at river coal storage at mines may coordinate continuously with with personnel, and ocean terminals is not increase cost of rehandling; railroad and shipping equipment and available. production may be temporarily companies to respond rehandle plan to idled. quickly and effectively to sustain production changing circumstances. and fulfill sales obligations timely. Utilize multiple methods of transportation (rail barge) 22.2.8.5 Mining Plan Occupational health and safety risks are inherent in mining operations. Comprehensive training and retraining programs,

internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce health risks to miners. As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads modification of mine plans and procedures to enable safe work within the mine environment. Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations. 22.2.8.5.1 Methane Management Coalbed methane is present in coal operations below drainage. Oft the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee and Blue Creek seams at th Mine No. 7 Complex in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Mine No. 7 has oper safely for many years in one of the most intense methane environments in the United States through careful management of coal seam methane via mult practices. These practices include degasification ahead of mining, gob degasification and mine-ventilation procedures. Additionally, Warrior Met reports it utilizes combustion units on gob wells to reduce methane emissions. Warrior Met captures a significant amount of gob gas which is sold directly or upgraded to saleable quality through the use of a gas processing facility. These capturing practices eliminate a portion of the operation's direct methane emissions via the combustion of methane and the generation of pipeline quality gas. MARSHALL MILLER & ASSOCIATES, INC. 79



### Table 22-10: Methane Management (Risk 8)

Aspect	Impact	Control Measures	Initia P	I Risk L C	evel R	Mitigation	Residu	al Risk C	Level
Methane hazard is present in mines operating below drainage.	Injury or loss of life, possible ignition of gas and mine explosion, potential loss of mine and equipment temporarity or permanently, additional mine fan, mine power, ventilation, monitoring and examination requirements.	Low to moderate levels can be managed with frequent examinations, testing and monitoring within the mine ventilation system. Excellent rock dust maintenance minimizes explosion propagation mix should an ignition occur	2	5	10	Very high-level methane concentrations may require coal seam degasification and gob degasification and gob degasification if longwall or pillar extraction methods are employed.	1	5	5

### 22.2.8.5.2 Mine Fires

Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, reduce mine fire risks. Crew training and fire brigade support and training improve response for containment and control if a fire occurs. Spontaneous combustion within coal mines, which is the source of most fires that occur today, is not expected to occur at Mine No. 7.

#### Table 22-11: Mine Fires (Risk 9)

Aspect			Initial Risk Level				Residual Risk Level		
	Impact	Control Measures	P	C	R	Mitigation Measures	P	C	R
Mine fire at underground or operation.	Injury or loss of life; potential loss of mine temporanily or permanently; damage to equipment and mine infrastructure.	Inspection and maintenance of mine power, equipment and mine infrastructure, good housekeeping, frequent examination of conveyor belt entries, prompt removal of accumulations of combustible materials.	1	5	5	If spontaneous combustion conditions are present, enhanced monitoring and examination procedures will be implemented, mine design will incorporate features to facilitate isolation, containment and extinguishment of spontaneous combustion locations.	1	5	5

## 22.2.8.5.3 Availability of Supplies and Equipment

The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to be temporary with limited impact on production.

Table 22-10: Methane Management (Risk 8) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Methane hazard is present Injury or loss of life; possible Low to moderate levels can 2 5 10 Very high-level 1 5 5 in mines operating below ignition of g and mine be managed with frequent methane drainage. explosion; potential loss of examinations, testing and concentrations may mine and equipment monitoring within the mine require coal seam temporarily or permanently; ventilation system. degasification and additional mine fan, mine Excellent roo dust gob degasification if power, ventilation, monitoring maintenance minimizes longwall or pillar and examination requirements. explosion propagation risk extraction methods should an ignition occur. are employed. 22.2.8.5.2 Mine Fires Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, redu mine fire risks. Crew training and fire brigade support and training improve response for containment and control if a fire occurs. Spontaneous combusti within coal mines, which is the source of most fires that occur today, is not expected to occur at Mine No. 7. Table 22-11: Mine Fires (Risk 9) Initial Ris Level Residual Risk Level Aspect Impact Control Measures P C R Mitigation Measures P C R Mine fire at underground Injury or loss of life; Inspectior maintenance 1 5 5 If spontaneous 1 5 5 or operation, potential loss of mine of mine power, equipment combustion conditions temporarily or permanently and mine infrastructure; are present, enhanced damage to equipment and good housekeeping; monitoring and mine infrastructure. frequent examination examination procedures conveyor belt entries; will be implemented; prompt removal of mine design will accumulations of incorporate features to combustible materials. facilitate isolation, containment and extinguishment of spontaneous combustion locations. 22.2.8.5.3 Availability of Supplies and Equipment The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to be temporary with limited impact on production. MARSHALL MILLER & ASSOCIATES, INC. 80



Table 22-12:	Availability of	Supplies and	Equipment	(Risk 10)
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			Initia	ıl Risk L	and the second	Mitigation	Residual Risk Level		
Aspect	Impact	Control Measures	P	C	R	Measures	P	C	R
Disruption of availability for supplies and equipment.	Temporary interruption of production.	Force majeure provision in coal sales agreements to limit lability for delayed or lost sales	3	2	6	Work closely with customers to assure delayed coal delivery rather than cancelled sales, monitor external conditions and increase inventory of critical supplies, accelerate delivery of equipment when possible.	3	1	3

# 22.2.8.5.4 Labor

Work stoppage due to labor protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; the impact can be lessened with succession planning and training and training and mentorship of new employees.

### Table 22-13: Labor - Work Stoppage (Risk 11)

		Destinantion of	Initia	ıl Risk L	evel	Mitigation	Residual Risk Level		
Aspect Work stoppage due to	Impact Loss of production and coal	Control Measures Maintain excellent employee	P 4	C 4	R 16	Measures Develop plan for	P	С 3	R 12
strikes, slowdowns or secondary boycott activity.	sales, damaged customer and employee relations, reputation loss.	relations and communications, maintain frequent customer communications Train salary employees for hourty tasks in case of long-term strike.				employee communications and legal support to minimize impact of secondary boycott activities	46		

## Table 22-14: Labor - Retirement (Risk 12)

Aspect	Impact	Control Measures	Initia P	l Risk L C	evel R	Mitigation	Resid	ual Risk C	Leve
Retirement of supervisors and skilled employees.	Loss of leadership and critical skills to sustain high levels of safety, maintenance and productivity.	Monitor demographics closely and maintain communications with employees who are approaching retirement age; maintain employee selection and training programs.	3	3	9	Mantain selection of candidates and implementation of in- house or third-party training for electricians and mechanics, develop employee mentoring program.	3	2	6

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Table 22-12: Availability of Supplies and Equipment (Risk 10) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C F Measures P C R Disruption of availability Temporary interruption of Force majeure provision in 3 2 6 Work closely with 3 1 3 for supplies and productiv coal sales agreements to customers to assure equipment. limit liability for delayed or delayed coal delivery lost sales, rather than cancelled sales; monito external conditions and increase inventory of critical supplies; accelerate delivery of equipment when possible. 22.2.8.5.4 Labor Work stoppage due to la protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; the impact can be lessened with succession plannin and training and training and mentorship of new employees. Table 22-13: Labor - Work Stoppage (Risk 11) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Work stoppage due to Loss of production and coal Maintain excellent employee 4 4 16 Develop plan for 4.3.12 strikes, slowdowns or sales; damaged customer and relations and employee secondary boycott activity, employee relations; reputation communications; maintain communications and loss. frequent customer legal support to communications. Train minimize impact of salary employees for hourly secondary boycott tasks in case of long-term activities. strike. Table 22-14: Labor - Retirement (Risk 12) Initial Risk Level Mitiga Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Retirement of supervisors Loss of leadership and critical Monitor demographics 3 3 9 Maintain selection of 3 2 6 and skilled employees. skills to sustain high levels of closely and maintain candidates and safety, maintenance and communications with implementation of in-productivity, employees who are house or third-party approaching retirement age; training maintain employee selection electricians and and training programs. mechanics; develop employee mentoring program. MARSHALL MILLER & ASSOCIATES, INC. 81



# 23 Recommendations

Warrior Met is continuing to work both internally and with outside assistance to further define their resource base and to optimize the LOM plan. MM&A recommends continued exploration to better define thickness, mineability and quality trends. Continued lease and property acquisition is recommended to further increase the coal reserve base and potentially increase the LOM plan.

# 24 References

- Various sources of geological information, including a digital exploration database, coal quality laboratory information, drillers' logs, geologists' logs, and geophysical logs.
- 2. Various engineering, permitting and mine plans as presented to MM&A by Warrior Met.
- 3. Various previous engineering and reserve reports conducted on behalf of Warrior Met by MM&A.
- 4. Publicly available information from various State and Federal agencies.
- 5. Various sources of mapping information obtained via the public domain.

# 25 Reliance on Information Provided by Registrant

The qualified persons responsible for the development of this TRS have relied upon information provide by Warrior Met, including:

- 1. Marketing Information, including sales forecasts coal and transportation costs.
- 2. Legal Matters, including mineral and surface-based land and tenure.
- Environmental Matters, including permit status and refuse disposal plans and associated volumes.

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23 Recommendations Warrior Met is continuing to work both internally and with outside assistance to further define their resource base and to optimize LOM plan. MM&A recommends continued exploration to better define thickness, mineability and quality trends. Continued lease and property acquisiti is recommended to further increase the coal reserve base and potentially increase the LOM plan. 24 References 1. Various sources of geological informa including a digital exploration database, coal quality laboratory information, drillers' logs, geologists' logs, and geophysical logs. 2. Various engineering permitting and mine plans as presented to MM&A by Warrior Met. 3. Various previous engineering and reserve reports conducted on behalf of Warrior I by MM&A. 4. Publicly available information from various State and Federal agencies. 5. Various sources of mapping information obtained via the publi domain. 25 Reliance on Information Provided by Registrant The qualified persons responsible for the development of this TRS have relied upon information provide by Warrior Met, including: 1. Marketing Information, including sales forecasts coal and transportation costs. 2. Legal Matters, including mineral and surface-based land and tenure. 3. Environmental Matters, including permit status and refuse disposal plans and associated volumes. MARSHALL MILLER & ASSOCIATES, INC. 82





APPENDIX A TABLE



### Warrior Met Coal, LLC Mine #7 Evaluation

# Underground Mineable Reserves as of December 31, 2022

						Table 7 fine	rtric Tonnes)						
Molisture Preparation Plant Efficiency		10% 100%	Washed recovera Included in Wash	ible tons shown on 10. Recovery*	0% molsture basis								
		Tons/	Wash	Resource T	hickness	R	source Acres	1	In	Clean, Moist, Demor			
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Mine #7													
Area 1 Northwest (Leas	ed)												
Continuous Mining	ML	2,039	63.85%	1.25	1.26	1,540	490	2,030	3,560,746	1,143,289	4,704,035	348,787	93,2
Longwall Mining	ML	2,039	63.85%	4.2.5	4.20	1,340	450	21030	3,300,740	1,143,203	411041033	1,208,040	489,
<b>Continuous Mining</b>	BC	1,971	72.33%	4.08	4.04	1,540	490	2,030	11 345 131	3 6 43 433	14,786,553	1,256,398	329,3
Longwall Mining	BC.	1,971	72.33%	4.08	4,04	1,540	490	2,030	11,245,121	3,541,433	14,780,555	4,273,422	1,701,3
Total									14,805,867	4,684,721	19,490,588	7,086,647	2,613,2
Adverse													
Continuous Mining	PAIL.	2,039	63.85%		10.000	1.1.1.1						3,376	
Longwall Mining	ML	2,039	63.85%	1.26	0.00	6	0	6	14,832	0	14,832	1,327	
Continuous Mining	BC	1.971	72.33%									12,388	
Longwall Mining	BC	1,971	72.33%	4,24	0.00	6	0	0	48,126	0	48,126	4,936	
Total									62,959	0	62,959	22,026	
Area Z North Central (L	eased)	2	12					10	6			3	
Continuous Mining	ML	2,011	73.50%	265	33221	2010	1930	0.2010		1000	202233	136,282	59,0
Longwall Mining	ML	2,011	73.50%	1.13	1.23	1,496	343	1,839	3,095,569	766,834	3,862,404	2,044,053	423.6
Continuous Mining	BC	1,903	82,93%	149320	1205-0	1000	2003	1912/021	302023235	0.5755/0755/0	12231622310	428,867	190.9
Longwall Mining	BC	1,903	82.93%	3.42	3.69	1,496	343	1,839	8,846,233	2,181,181	11,027,414	6,732,296	1,370,8
Total	000								11,941,802	2,948,016	14,889,818	9,341,498	2,044,4
Adverse													
Continuous Mining	ML	2,011	73.50%		00/51/		1922	1000	CONTRACT.	1001001002	Station of the second	11,665	24,3
Longwall Mining	ML	2,011	73.50%	1.21	1.21	95	124	219	209,623	275,058	484,682	135,988	150,4
Continuous Mining	BC	1,903	82.93%		-thread						Annes - Service	36,640	77.5
Longwall Mining	BC	1,903	82,93%	3.55	3.62	95	124	219	579,945	776,587	1,356,532	427,608	482.7
Total									789,568	1,051,645	1,841,214	611,902	734,9
Area 3 North East (Leas	ed)												
Continuous Mining	ML	1,957	85.68%			2024	0.01	4.970	0.072.010	4 643 636		706,364	208,1
Longwall Mining	ML	1,957	85.68%	1.34	1.30	3,934	805	4,739	9,372,818	1,863,930	11,236,747	0	10.00
Continuous Mining	BC	1,903	84.85%									1,681,045	\$20.5
Longwall Mining	BC	1,903	84.85%	3.36	3.39	3,934	805	4,739	22,788,551	4,706,621	27,495,172	15,506,409	2,474,1
Total									32,161,368	6,570,550	38,731,919	17,893,819	3,202,7
Adverse													
Continuous Mining	ML	1,957	85.68%									7,836	14.6
Longwall Mining	ML	1,957	85.68%	1.78	1.43	23	59	81	71,096	148,860	219,956	0	
Continuous Mining	BC	1,903	84.85%		200			1.00			2200 32	14,797	35.0
Longwall Mining	BC	1,903	84.85%	3.53	3,70	23	59	81	137,429	375,375	512,804	58,204	190,8
Total	Mrk.	4,000	0100375						208,526	524,235	732,761	the second s	240.5

WARM120 - Mine 7 Tables (2023-02-03) xisx • Mine 7 Metric Tonnes • 2/7/2023

Warrior Met Coal, LLC Mine #7 Evaluation Underground Mineable Reserves as of December 31, 2022 Table 1 (Metric Tonnes) Moisture 10% Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickness Reso Acres In Place Tonnes Clean, Moist, Demonstrated Tons Seam Acre-ft, Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Mine #7 Area 1 Northwest (Leased) Continuous Mining ML 2,039 63.85% 348,787 93,229 442,016 Longwall Mining ML 2,039 63.85% 1.25 1.26 1,540 490 2,030 3,560,746 1,143,289 4,704,035 1,208,040 489,349 1,697,389 Continuous Mining BC 1,971 72.33% 1,256,398 329,3 1,585,774 4.08 4.04 1,540 490 2,030 11,245,121 3,541,433 14,786,553 Longwall Mining BC 1,971 72.33% 4,273,422 1,701,327 5,974,749 Total 14,805,867 4,684,721 19,490,588 7,086,647 2,613,280 9,699,928 Adverse Continuous Mining ML 2,039 63.85% 3,376 0 3,376 Longwall Mining ML 2 63.85% 1.26 0.00 6 0 6 14,832 0 14,832 1,327 0 1,327 Continuous Mining BC 1,971 72.33% 12,388 0 12,388 4.24 0.00 6 0 6 48,126 0 48,126 Longwal Mining BC 1,971 72.33% 4,936 0 4,936 Total 62,959 0 62,959 22,026 0 22,026 Area 2 North Central (Leased) Continuous Mining ML 2,011 73.50% 136,282 59,071 195,353 Longwall Mining ML 2,011 73.50% 1.13 1.23 1,496 343 1,839 3,095,569 766,834 3,862,404 2,044,053 423,686 2,467,739 Continuous Mining BC 1,903 82.93% 428,867 190,913 619,780 3.42 3.69 1,496 343 1,839 8,846,233 2,181,181 11,027,414 Longwall Mining BC 1,903 82.93% 6.732.296 1.370.825 8.103.121 Total 11.941.802 2.948.016 14.889.818 9.341.498 2.044.495 11.385.993 Adverse Continuous Mining ML 2.011 73.50% 11,665 24,179 35,844 Longwall Mining ML 2,011 73.50% 1.21 1.21 95 124 219 209,623 275,058 484,682 135,988 150,433 286,421 Continuou Mining BC 1,903 82.93% 36,640 77,583 114,224 3.55 3.62 95 124 219 579,945 776,587 1,356,532 Longwall Mining BC 1,903 82.93% 427,608 482,74 910,356 Total 789,568 1,051,645 1,841,214 611,902 734,944 1,346,845 Area 3 North East (Leased) Continuous Mining ML 1,957 85.68% 706,364 208. 914,469 Longwall Mining ML 1,957 85.68% 1.34 1.30 3,934 805 4,739 9,372,818 1,863,930 11,236,747 0 0 0 Continuous Mining BC 1,903 84.85% 1,681,045 520,515 2,201,560 3.36 3.39 3,934 805 4,739 22,788,551 4,706,621 27,495,172 Longwall Mining BC 1,903 84.85% 15,506,409 2,474,170 17,980,580 Total 32,161,368 6,570,550 38,731,919 17,893,819 3,202,790 21,096,609 Adverse Continuous Mining ML 1,957 85.68% 7,836 14,646 22,4 Longwall Mining ML 1.957 85.68% 1.78 1.43 23 59 81 71,096 148,860 219,956 0 0 0 Continuous Mining BC 1,903 84.85% 14,797 35,038 49,835 3.53 3.70 23 59 81 137,429 375,375 512,804 Longwall Mining BC 1,903 84.85% 58,204 190,829 249,033 208,526 524,235 732,761 80,838 240,513 321,35 (2023-02-03).xlsx • Mine 7 Metric Tonnes • 2/7/2023 Page 1 of 2



### Warrior Met Coal, LLC Mine #7 Evaluation

# Underground Mineable Reserves as of December 31, 2022

		1	1								. 92	81	
	Seam	Tons/ Acre-ft.	Wash Recovery*	Resource 1 Measured	hickness Indicated	R Measured	esource Acres Indicated	Total	Ir Measured	Place Tonnes Indicated	Total	Clean, M Proven	loist, Demon Probable
Area 4 South (Leased)	seam	ALTE-IL.	necovery	measured	maicated	measured	indicateo	Total	measured	moleated	rotat	Proven	Probable
Restoration and an other sectors and and		0	0.00%		1944				1			0	
Continuous Mining Longwall Mining	ML	0	0.00%	2.12	2.00	598	27	625	0	0	0	0	
Continuous Mining	BC	2,107	57.60%									737 520	44,3
Longwall Mining	BC	2,107	\$7.60%	7.06	7.14	598	27	625	8,061,645	367,473	8,429,118	2,485,603	111.2
Total	DC:	2,107	37.0076				a 694		8,061,645	367,473	8,429,118		155,63
Total									0,001,043	307,473	0,423,110	3,224,222	133,0.
Adverse													
Continuous Mining	ML	0	0.00%	10.000	10.000	10.00		100	1	14		0	
Longwall Mining	ML	0	0.00%	1.75	0.00	27	0	27	0	0	0	0	
Continuous Mining	BC	2,107	57.60%						Contraction of the second		101010101	79,416	
Longwall Mining	BC	2,107	57,60%	6.75	0.00	27	0	27	346,318	0	346,318	0	
Total									346,318	0	346,318	79,416	
Area 7 Central (Leased)	1										11		
Continuous Mining	ML	0	0.00%	1.83	1.72	165	614	780	0	0	0	0	
Longwall Mining	ML	0	0.00%	1.03	-4+54	105	014	780		.0	0	0	
Continuous Mining	BC	2,107	57.60%	4.34	4.07	165	614	780	1,369,305	4,776,129	6.145.434	128,274	558,09
Longwall Mining	BC	2,107	57,60%	4,34	4.07	105	014	780	1'203'202	9,770,129	0,145,434	743,341	2,473,84
Total									1,369,305	4,776,129	6,145,434	871,615	3,031,96
Area 7 Central (Owned)	1	8		-	7			13	8		8	0	
Continuous Mining	ML	0	0,00%	0.00	1.84	0	48	48	0	0	0	0	
Longwall Mining	ML	0	0.00%	1000	4.0.*		40	40			°.	0	
Continuous Mining	BC	2,107	\$7.60%	0.00	4.75	0	48	48	0	439,504	439,504	0	46,4
Longwall Mining	BC	2,107	57.60%	- Contraction	65Mg		1		시 33	635325.1	3.539.152	0	208,7
Total									0	439,504	439,504	0	255,17
Grand Total		8						2	6			Concernance of	
Continuous Mining - ML	Only					7,734	2,327	10,061	16,029,133	3,774,053	19,803,186	1,191,434	360,40
Longwall Mining - ML_C	Indy					1.1.1.1.1.1	10,000 P	10,004	10,020,833	21114/030	\$9,009,800	3,252,093	913,0
Continuous Mining - BC	Only					12220	10.000	10000	02939333	1211121	1223200	4,232,104	1,689,74
Longwall Mining - BC O	200242					7,734	2,327	10,061	52,310,854	16,012,341	68,323,196	29,742,071	8,340,14
Total									68,339,988	19,786,394	88,126,382	38,417,701	11,303,32
						122	1000	200	12	430 551			
Owned						0	97	97	0	439,504	439,504		255,1
Leased						15,467	4,558	20,025	68,339,988	19,346,890	87,686,878	38,417,701	11,048,15
Total			n in					1	68,339,988	19,786,394	88,126,382	38,417,701	11,303,32
Adverse						301	366	667	1,407,371	1,575,880	2,983,251	794,182	975,45

WARM120 - Mine 7 Tables (2023-02-03) xisx • Mine 7 Metric Tonnes • 2/7/2023

Warrior Met Coal, LLC Mine #7 Evaluation Underground Mineable Reserves as of December 31, 2022 Table 1 (Metric Tonnes) Moisture 10% Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickness Reso Acres In Place Tonnes Clean, Moist, Demonstrated Tons Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Area 4 South (Leased) Continuous Mining ML 0 0.00% 0 0 0 Longwall Mining ML 0 0.00% 2.12 2.00 598 27 625 0 0 0 0 0 0 Continuous Mining BC 2,107 57.60% 737,520 44,385 781,904 7.06 7.14 598 27 625 8,061,645 367,473 8,429,118 Longwall Mining BC 2,107 57.60% 2,486,603 111,234 2,597,837 Total 8,061,645 367,473 8,429,118 3,224,122 155,619 3,379,741 Adverse Continuous Mining ML 0 0.00% 0 0 0 Longwal Mining ML 0 0.00% 1.75 0.00 27 0 27 0 20 0 0 0 0 0 Continuous Mining BC 2,107 57.60% 79,416 0 79,416 6.75 0.00 27 0 27 346,318 0 346,318 Longwal Mining BC 2,107 57.60% 0 0 0 Total 346,318 0 346,318 79,416 0 79,416 Area 7 Central (Leased) Continuous Mining ML 0 0.00% 0 0 0 Longwall Min ML 0 0.00% 1.83 1.72 165 614 780 0 0 0 0 0 0 0 Continuous Mining BC 2,107 57.60% 128,274 558,099 686,373 4.34 4.07 165 614 780 1,369,305 4,776. 6,145,434 Longwall Mining BC 2,107 57.60% 743,341 2,473,869 3,217,210 Total 1,369,305 4,776,129 6,145,434 871,615 3,031,968 3,903,583 Area 7 Central (Owned) Continuous Mining ML 0 0.00% 0 0 0 Longwall Mining ML 0 0.00% 0.00 1.84 0 48 48 0 0 0 0 0 0 Continuous Mining BC 2,107 57.6 0 46,453 46,453 0.00 4.75 0 48 48 0 439,504 439,504 Longwall Mining BC 2,107 57.60% 0 208,717 208,717 Total 0 439,504 439,504 0 255,170 255,17 Grand Total Continuous Mining—ML Only 1,191,434 360,404 1,551,838 Longwall Mining—ML Only 7,734 2,327 10,061 16,029,133 3,774,053 19,803,186 3,252,093 913,035 4,165,128 Continuous Mining-BC\_Only 4,232,104 1,689,740 5,921,844 Longwall Mining-BC\_Only 7,734 2,327 10,0 52,310,854 16,012,341 68,323,196 29,742,071 8,340,143 38,082,214 Total 68,339,988 19,786,394 88,126,382 38,417,701 11,303,323 49,721,024 Own 97 97 0 439,504 439,504 0 255,170 255,170 Leased 15,467 4,558 20,025 68,339,988 19,346,890 87,686,878 38,417,701 11,048,153 49,465,854 Total 68,339,988 19,786,394 88,126,382 38,417,701 11,303,323 49,721,024 Adverse 301 366 667 1,407,371 1,575,880 2,983,251 794,182 975,456 1,769,638 (2023-02-03).xlsx • Mine 7 Metric Tonnes • 2/7/2023 Page 2 of 2





APPENDIX B MARKET MEMORANDUM PROVIDED BY WARRIOR MET

ALCO IN TABLES	e expectations (nominal	03 dusiars)	Q1 2022											
Price	Description	Basis	average	Q2 2022	Q3 2022	Q4 2022	2022	2023	2024	2025	2026	2027	2028	2025
MCC1	Low vol PHCC	FOB Australia	412	303	234	180	281	159	160	160	165	182	188	192
MCCT	Upside case			403	284	230	230	179	170	170	175	192	198	202
MCC1	Downside case			293	224	170	172	149	150	150	155	172	178	182
MCC2	Mid vol PHCC	FOB Australia	416	306	238	184	285	153	154	154	159	176	182	186
MCC3	2nd tier HCC	FOB Australia	368	270	209	161	251	139	140	140	145	162	168	172
MCC4	Low vol PHCC	CFR China	375	326	254	194	287	174	175	175	180	197	203	207
MCC5	Mid vol PHCC	CFR China	370	321	249	191	282	168	169	169	174	191	197	201
MCC6	2nd tier HCC	CFR China	353	305	237	182	268	159	160	160	165	182	188	192
MCC7	US high vol 8	FOB USEC	340	273	220	165	249	134	135	135	140	157	163	167
MCC8	US high vol A	FOB USEC	377	300.	241	176	273	150	151	151	156	173	179	187
MCC9	US mid vol	FOB USEC	370	298	236	177	270	151	152	152	157	174	180	184
MCC10	US low vol	FOB USEC	362	297	231	174	278	153	154	154	159	176	182	185
	Australian low-vol PCI	FOB Australia	288	207	160	133	196	118	118	118	122	132	136	138
	Australian SSCC	FOB Australia	261	188	145	124	179	111	113	113	118	128	133	135
	Coke Rizhao	FOB China	521	427	366	318	407	299	300	300	305	320	325	329

Note: This including a savet of Chreeke institutions in Auditatio care continuing brough the and 2022, an earter or later set will reading by plange sur action, with type CHR and texes FUE (

#### Appendix B 1815 Coking soal price forecast also

Appendix B Market Projections Provided by Warrior Met Key price expectations (nominal US dollars) Q1 2022 Price Description Basis average Q2 202 Q3 2022 Q22 2023 2024 2025 2026 2027 2028 2029 2030 MCC1 Low vol PHCC FOB Australia 412 303 234 180 281 159 160 160 165 182 192 195 MCC1 Upside case 403 284 230 230 179 170 170 175 192 198 202 205 MCC1 Downside case 293 224 170 172 149 150 150 155 172 178 182 MCC2 Mid vol PHCC FOB Australia 416 306 238 184 285 153 154 154 159 176 182 186 189 MCC3 2nd tier HCC FOB Australia 368 270 209 161 25 139 140 140 145 162 168 172 175 MCC4 Low vol PHCC CFR China 375 326 254 194 287 174 175 175 180 197 203 207 210 MCC5 Mid vol PHCC C C China 370 321 249 191 282 168 169 169 174 191 197 201 204 MCC6 2nd tier HCC CFR China 353 305 237 182 268 159 160 160 165 182 188 192 19. MCC7 US high vol B FOB USEC 340 273 220 165 249 134 135 135 140 157 163 167 170 MCC8 US high vol A FOB USEC 377 300 241 176 273 150 151 156 173 179 183 186 MCC9 US mid vol FOB USEC 370 298 236 177 270 151 152 152 157 174 180 184 187 MCC10 US low vol FOB USEC 362 231 174 278 153 154 154 159 176 182 186 189 Australian low-vol PCI FOB Australia 288 207 160 133 196 118 118 118 122 132 136 138 140 Australia SSCC FOB Australia 261 188 145 124 179 111 113 113 118 128 133 135 137 Coke Rizhao FOB China 521 427 366 318 407 299 300 300 305 320 325 331 Note: This modeling is based on Chinese restrictions on Australian coal continuing through the end of 2022; an earlier or later end will meaningfully change our outlook, with higher CFR and lower FOB prices. PHCC = Prime hard coking coal, HCC = Hard coking coal; PCI = Pulverized coal injectior SSCC = Semi-soft coking coal; quarterly prices are quarter averages, including current quarter. Appendix B IHS Coking coal price forecast.xlsx





Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

May 17, 2023

Prepared for: Warrior Met Coal, Inc. 16243 Highway 216 Brookwood, Alabama 35444 Prepared by: MARSHALL MILLER & Associates, Inc. 582 Industrial Park Road Bluefield, Virginia 24605 www.mma1.com

Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary May 17, 2023 Prepared for: Prepared by: Warrior Met ( Inc. MARSHALL MILLER & ASSOCIATES, INC. 16243 Highway 216 582 Industrial Park Road Brookwood, Alabama 35444 Bluefield, Virginia 246 www.mma1.com

# Statement of Use and Preparation

This Technical Report Summary (*TRS*) was prepared for the sole use of **Warrior Met Coal, Inc.** (*Warrior Met*) and its affiliated and subsidiary companies and advisors. Copies or references to information in this report may not be used without the written permission of Warrior.

The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC).

The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & Associates, Inc. (MM&A).

MM&A professionals who contributed to the drafting of this report meet the definition of *Qualified Persons* (*QPs*), consistent with the requirements of the SEC.

The information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporting, MM&A's QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as a QP as defined by the SEC.

Certain information set forth in this report contains "forward-looking information", including production, productivity, operating costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance and undue reliance should not be placed on them. The assumptions used to develop forward-looking information and the risks that could cause the actual results to differ materially are detailed in the body of this report.

MM&A hereby consents: (i) to the use of the information contained in this report dated December 31, 2022, relating to estimates of coal resources and coal reserves controlled by Warrior Met,(ii) to the use of MM&A's name, any quotation from or summarization of this TRS in Warrior Met's SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met's SEC filings.

This report was prepared by:

Qualified Person:

/s/ Marshall Miller & Associates, Inc.

May 17, 2023

#### MARSHALL MILLER & ASSOCIATES, INC.

1

Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary Statement of Use and Preparation This Technical Repor Summary (TRS) was prepared for the sole use of Warrior Met Coal, Inc. (Warrior Met) and its affiliated and subsidiary companies and advisors. Copies references to information in this report may not be used without the written permission of Warrior. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC). The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & Associates, Inc. (MM&A). MM&A professionals who contrib to the drafting of this report meet the definition of Qualified Persons (QPs), consistent with the requirements of the SEC. The information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporting, MM&A's QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as QP as defined by the SEC. Certain information set forth in this report contains "forward-looking information", including production, productivity, opera costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance and undue reliance should not be play on them. The assumptions used to develop forward-looking information contained in this report dated December 31, 2022, relating to estimates coal resources and coal reserves controlled by Warrior Met,(ii) to the use of MM&A's name, any quotation from or summarization of this TRS in Warrio Met's SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met's SEC filings. This report was prepared by: Qualified Person: /s/ Marsh Miller & Associates, Inc. May 17, 2023 MARSHALL MILLER & ASSOCIATES, INC. 1



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### MARSHALL MALLER & ASSOCIATES, INC.

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# 1 Executive Summary

# 1.1 Property Description

Warrior Met Coal, Inc. (Warrior Met) authorized Marshall Miller & Associates, Inc. (MM&A) to prepare this Technical Report Summary (TRS) of its controlled coal reserves, located at its Mine No. 4 property in Tuscaloosa County, Alabama (the Property). The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of tonnes (*Mt*).

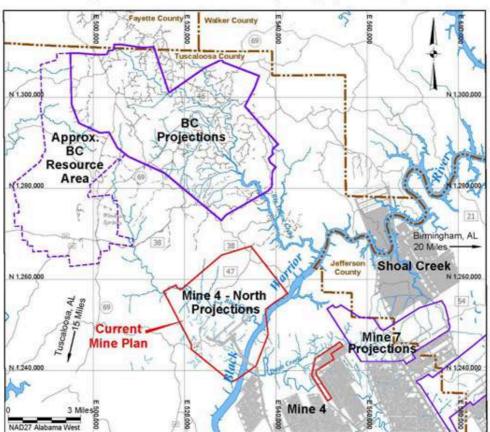
The Mine No. 4 Complex is located in Tuscaloosa County in central Alabama. The Property is approximately 20 miles east of the town of Tuscaloosa, Alabama and 30 miles southwest of Birmingham, Alabama. The nearest major population centers are Tuscaloosa and Birmingham (see *Figure 1-1*). The Property, inclusive of depleted mine works and future reserve areas, is composed of approximately 46,000 total acres. Of the 46,000 acres, approximately 7,200 are associated with future mining areas. Future mining areas include approximately 6,100 acres of leased mineral holdings and approximately 1,000 acres of uncontrolled mineral holdings. Subject to Warrior Met's exercising its renewal rights thereunder, all the leases expire upon exhaustion of the relevant coal reserves, which is expected to occur in 2045 based upon the mine plan presented in this TRS. This TRS does not consider significant contiguous uncontrolled tonnages which Warrior Met may pursue in the future. As such, the reserve exhaustion date presented in this TRS is subject to extension should Warrior increase its coal reserves via acquisition of contiguous properties.

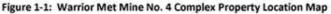
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Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system.

# 1.2 Ownership

The Property was formerly controlled by Jim Walter Resources (Walter), the predecessor company of Warrior Met. Warrior Met acquired its mineral rights for the Mine No. 4 property in 2016 through purchase of the Walter Energy (Walter)-owned coal assets located in Alabama, following Walter's bankruptcy in 2015. In addition to the Mine No. 4 assets, Warrior Met also acquired various other significant assets, including the Mine No. 7 and Blue Creek (BC) properties.

Reserves and resources associated with these adjacent properties are not included in this report but are issued under separate cover. *Figure 1-1* outlines the location of the Property in relation to Warrior's adjacent properties.

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Figure 1-1: Warrior Met Mine No. 4 Complex Property Location Map Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system. 1.2 Ownership The Property was formerly controlled by Jim Walter Resources (Walter), the predecessor company of Warrior Met. Warrior Met acquired its mineral rights for the Mine No. 4 property in 2016 through purchase of the Walter Energy (Walter)-owned coal assets located in Alabama, following Walter's bankruptcy in 2015. In addition to the Mine No. 4 assets, Warrior Met also acquired various other significant assets, including the Mi No. 7 and Blue Creek (BC) properties. Reserves and resources associated with these adjacent properties are not included in this report but are issued unc separate cover. Figure 1-1 outlines the location of the Property in relation to Warrior's adjacent properties. MARSHALL MILLER & ASSOCIATES, IN



# 1.3 Geology

Operations at the Mine No. 4 Complex extract the Mary Lee and Blue Creek coal beds by longwall mining methods. The strata of economic interest for this TRS belong to the Pennsylvanian-age Mary Lee Coal Group or Zone (see *Figure 1-3*), and the subject seams are the principal coal seams of interest within that formation for the present evaluation. High-angle normal faults located within the Property have a direct impact upon mine layout and design. Due to the high value of this coal, it has been extensively mined in the region.

Warrior Met reports that current market placement at Mine No. 4 is generally an average of the Premium Low-Volatile Indices (*PLV*) and the Mid-Volatile Indices (*MV*), this average will be referenced as Premium Low-Mid-Vol Average (*PLMV*). Mine projections suggest that Warrior Met will continue to produce coal in the current "East" district for less than one year before transitioning to the western reserve areas.

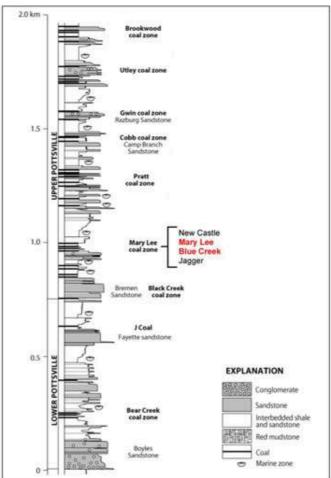
As development activities continue to transition to the "North" district and the longwall mines out the "East" district, coal produced from Mine No. 4 will likely incur an increase in volatile matter. Based on regional trends and laboratory data, volatile matter contents for the subject coals in the western area will gradually edge upward. Since the potential exists for pricing to change as the volatiles vary in future areas as they are developed, MM&A, with support from Warrior Met, has used the PLMV as a basis for pricing.

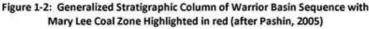
#### MARSHALL MILLER & ASSOCIATES, INC.

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## 1.4 Exploration Status

Since as early as 1916, the Property has been extensively explored by means of: continuous coring and analytic testing; rotary drilling, and ongoing development associated with coalbed methane (*CBM*) production; by downhole geophysical logging of gas wells; and by in-seam channel sampling during mining. The majority of the data was acquired or generated by previous owners of the Property but has been supplemented by exploration drilling conducted by Warrior Met over the past 6 years (as recently as 2022). These sources comprise the primary data used in the evaluation of the coal resources and coal reserves identified on the Property. MM&A examined the data available for the evaluation

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Figure 1-2: Generalized Stratigraphic Column of Warrior Basin Sequence with Mary Lee Coal Zone Highlighted in red (after Pashin, 2005) 1.4 Explorat Status Since as early as 1916, the Property has been extensively explored by means of: continuous coring and analytic testing; rotary drilling, and ongoin development associated with coalbed methane (CBM) production; by downhole geophysical logging of gas wells; and by in-seam channel sampling dur mining. The majority of the data was acquired or generated by previous owners of the Property but has been supplemented by exploration drilling condu by Warrior Met over the past 6 years (as recently as 2022). These sources comprise the primary data used in the evaluation of the coal resources and coa reserves identified on the Property. MM&A examined the data available for the evaluation MARSHALL MILLER & ASSOCIATES, INC. 11



and incorporated all pertinent information into this TRS. Where data appeared to be anomalous or not representative, that data was excluded (or not honored) from the digital databases and subsequent processing by MM&A.

## 1.5 Operations and Development

Due to its coal reserve and seam characteristics, the Property utilizes longwall mining methods with continuous miner units to support the longwall production unit.

Run-of-mine coal is transported to the surface via a skip system which transports coal to the surface vertically. Adjacent to the skip shaft is a service shaft for the transportation of workers, supplies and equipment to the coal mine. Warrior Met is nearing the completion of a new portal site, closer to active faces and future mining reserve areas, which is currently being utilized in a partial capacity prior to serving longwall needs. Bleeder shafts are installed at each longwall district.

Run-of-mine coal is processed in a preparation plant with a capacity of 1,300 raw tons-per-hour (1,180 tonnes/hour). In 2022, the operation produced an average product with the following quality characteristics (dry basis): Ash, 10.18%; Sulfur, 0.76%, Volatile Matter, 27.06%. Typical moisture contents for Warrior Met's shipments are in the 10-percent range.

In typical years, the mine produces approximately 2 million tonnes (*Mt*) of coal annually and employs around 400 workers.

## 1.6 Mineral Resource

A coal resource estimate was prepared as of December 31, 2022, for the Property, summarized in *Table 1-1*. Resources presented in *Table 1-1* represent those resources associated with mine planning and reserves. Resources are presented *inclusive* of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages *exclusive* of the interburden, but inclusive of any high-ash material resident within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in *Table 1-1* reflect the inclusion of high-ash material which is ultimately removed after mining during coal preparation. As reflected in the table below, no resources exclusive of reserves have been considered or analyzed in this TRS.

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and incorporated all pertinent information into this TRS. Where data appeared to be anomalous or not representative, that data was excluded (or not honored) from the digital databases and subsequent processing by MM&A. 1.5 Operations and Development Due to its coal reserve and seam characteristics, the Property utilizes longwall mining methods with continuous miner units to support the longwall production unit. Run-of-mine coal is transported to the surface via a skip system which transports coal to the surface vertically. Adjacent to the skip shaft is a service shaft for the transportati of workers, supplies and equipment to the coal mine. Warrior Met is nearing the completion of a new portal site, closer to active faces and future mining reserve areas, which is currently being utilized in a partial capacity prior to serving longwall needs. Bleeder shafts are installed at each longwall district. Run-of-mine coal is processed in a preparation plant with a capacity of 1,300 raw tons-per-hour (1,180 tonnes/hour). In 2022, the operation produced an average product with the following quality characteristics (dry basis): Ash, 10.18%; Sulfur, 0.76%, Volatile Matter, 27.06%. Typical moisture contents for Warrior Met's shipments are in the 10-percent range. In typical years, the mine produces approximately 2 million tonnes (Mt) of coal annually and empl around 400 workers. 1.6 Mineral Resource A coal resource estimate was prepared as of December 31, 2022, for the Property, summarized in Table 1-1. Resources presented in Table 1-1 represent those resources associated with mine planning and reserves. Resources are presented inclusive of coal reserv not in addition to coal reserves. Resources represent in-place coal tonnages exclusive of the interburden, but inclusive of any high-ash material resident within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in Table 1-1 reflect the inclusion of high-ash materia which is ultimately removed after mining during coal preparation. As re



	Coal R	esource (Dry T	onnes, In Situ, N	att)	R	ry)	
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%
Inclusive of Rese	rves						1
Mary Lee	16.5	0.3	0.0	16.7	÷.		1.85
Blue Creek	42.4	0.6	0.0	43.0	÷		
Total	58.9	0.8	0.0	59.7	16.5	0.9	28
<b>Exclusive of Rese</b>	rves						
Mary Lee	0.0	0.0	0.0	0.0	63		- 83
Blue Creek	0.0	0.0	0.0	0.0			
Total	0.0	0.0	0.0	0.0	0.0	0.0	0
Grand Total	- 8			-			
	58.9	0.8	0.0	59.7	16.5	0.9	28

#### Table 1-1: Coal Resources Summary as of December 31, 2022

Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Totals may not add due to rounding.

# 1.7 Mineral Reserve

Resource modeling and estimates are used as the basis for the Property's reserve calculation and is based on a reasonable Pre-Feasibility level, life-of-mine (*LOM*) mine plan and practical recovery factors. Such factors include a mine recovery of 72 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 49 percent and the consideration of moisture factors. Proven and probable coal reserves were derived from the defined in-situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmental, socioeconomic, and regulatory factors. The proven and probable coal reserves on the Property are summarized below in *Table 1-2*.

### Table 1-2: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022

	(Wet	Demonstra Tonnes, Was	ated Coal R hed or Dire						
	By Reliability Category		By Control Type		Quality (Dry Basis)			Wash	
Seam	Proven	Probable	Total	Owned	Leased	Ash%	Sulfur%	VM%	Recovery
Mary Lee	11.3	0.2	11.5	0.0	11.5	20			49%
Blue Creek	27.4	0.4	27.8	0.0	27.8	2	- 32) -	- 2	
Total	38.7	0.5	39.2	0.0	39.2	10.2	0.8	30	

Note 1: Marketable reserve tonnes are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recovery is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by-seam basis, absent dilution assumptions.

Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$129.46/ tonne (FOB-mine) in 2023, increasing to a long-term price of approximately \$161.24/tonne. See Chapter 16 for further details on marketing assumptions.

Totals may not add due to rounding.

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Table 1-1: Coal Resources Summary as of December 31, 2022 Coal Resource (Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indicat Inferred Total Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 16.5 0.3 0.0 16.7 ——Blue Creek 42.4 0.6 0.0 43.0 — - Total 58.9 0.8 0.0 59.7 16 0.9 28 Exclusive of Reserves Mary Lee 0.0 0.0 0.0 0.0 ----Blue Creek 0.0 0.0 0.0 0.0 ---- Total 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Grand Total 58.9 0.8 0.0 59.7 16.5 0.9 28 Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surf moisture and inherent moisture are excluded. Totals may not add due to rounding. 1.7 Mineral Reserve Resource modeling and estimates are used as the basis for the Property's reserve calculation and is based on a reasonable Pre-Feasibility level, life-of-mine (LOM) mine plan and practical recovery factor Such factors include a mine recovery of 72 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution materia an effective a wash recovery of 49 percent and the consideration of moisture factors. Proven and probable coal reserves were derived from the defined in situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmenta socioeconomic, and regulatory factors. The proven and probable coal reserves on the Property are summarized below in Table 1-2. Table 1-2: Coal Rese Summary (Marketable Sales Basis) as of December 31, 2022 Demonstrated Coal Reserves (Wet Tonnes, Washed or Direct Shipped, Mt) By Reliability Category By Control Type Quality (Dry Basis) Wash Seam Proven Probable Total Owned Leased Ash% Sulfur% VM% Recovery Mary Lee 11.3 0.2 11 -49% Total 38.7 0.5 39.2 0.0 39.2 10.2 0.8 30 Note 1: Marketable reserve tonnes are reported on a 0.011.5 -– Blue Creek 27.4 0.4 27.8 0.0 27.8 moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications. Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-ofseam dilution. Wash recovery is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-su wash recovery on a seam-by -seam basis, absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$129.46/ tonne (FOB-mine) in 2023, increasing to long-term price of approximately \$161.24/tonne. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding. MARSHALL MILLER & ASSOCIATES, INC. 13



Warrior Met Coal, Inc. Mine No. 4 ear End 2022 Reserve Analysis Technical Report Summary

In summary, the Property includes a total of 39.2 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 99 percent are proven, and 1 percent are probable. All the reserves are leased and are considered suitable for the metallurgical coal market.

## 1.8 Capital Summary

MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history, increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect typical spending patterns, sustaining capital is reduced to 25% in the penultimate year of production and eliminated in the final year.

# 1.9 Operating Costs

MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 1-3* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers	
Labor	3.0%
Benefits	3.0%
Fuel & Lube	100.0%
Parts	14.5%
Surface Contractors	17.5%
Capital	16.0%

Table 1-3: Inf	lation Factors
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Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 1-3*.

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In summary, the Property includes a total of 39.2 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 99 percent are pro and 1 percent are probable. All the reserves are leased and are considered suitable for the metallurgical coal market. 1.8 Capital Summary MM&A assun that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximat Warrior Met's history, increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior expenditure so it has not been included in this study. To reflect typical spending patterns, sustaining capital is reduced to 25% in the penultimate year of production and eliminated in the final year. 1.9 Operating Costs MM&A used a combination of historical information and detailed operating cost estima from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation a

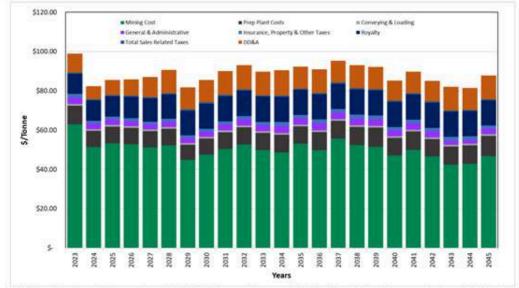
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holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, an bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs at typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and rep costs, rentals, mine power, outside services and other direct mining costs. Utilizing this process costs were calculated at 2022 levels, then to reflect recer inflation trends multipliers were applied to each category. Table 1-3 provides the inflation factors used to escalate the costs from 2022 to 2023. Table 1-3 Inflation Factors Multipliers Labor 3.0% Benefits 3.0% Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Capital 16.0% Operating costs fac were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in Table 1-3. MARSHALL MILLER & ASSOCIATES, INC. 14



Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.

A summary of the operating costs for the Property is provided in Figure 1-3.



#### Figure 1-3: OPEX

\*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

#### 1.10 Economic Evaluation

The pre-feasibility financial model prepared for this TRS was developed to test the economic viability of the coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contemplated for the Warrior Met property, but are intended to establish the economic viability of the estimated coal reserves. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. Cash flows are simulated on an annual basis based on projected production from the coal reserves. The discounted cash flow analysis presented herein is based on an effective date of January 1, 2023.

On an un-levered basis, the NPV of the real cash flow after taxes represents the Enterprise Value of the Property. The cash flow, excluding debt service, is calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse

Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal land and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees. A summary of operating costs for the Property is provided in Figure 1-3. Figure 1-3: OPEX \*The LOM model and associated economic analysis is intended to prove th economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combinati of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 1.10 Economic Evaluation The pre-feasibility financial model prepared for this TRS was developed to test the economic viability of the coal resource area. The results c this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contempt

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Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

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disposal, coal loading, reclamation and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the Federal black lung tax, Federal and State reclamation taxes, property taxes, coal production royalties, and income taxes.

Table 1-4 shows LOM tonnage, P&L, and EBITDA for Mine No. 4.

#### Table 1-4: Life-of-Mine Tonnage, P&L before Tax, and EBITDA

	Tonnes	Pre-Tax P&L	P&L	EBITDA	EBITDA
	(000)	(\$000)	per Tonne	(\$000)	per Tonne
Mine #4	44,700	\$2,936,114	\$65.69	\$3,416,521	\$76.44

Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

As shown in *Table 1-4*, Mine No. 4 shows positive EBITDA over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$2.9 billion and \$3.4 billion, respectively.

Warrior Met's Mine No. 4 annual production and revenue are shown in *Figure 1-4* and the Mine's aftertax cash flow summary in constant dollars, excluding debt service, is shown in *Figure 1-5* below.

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Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

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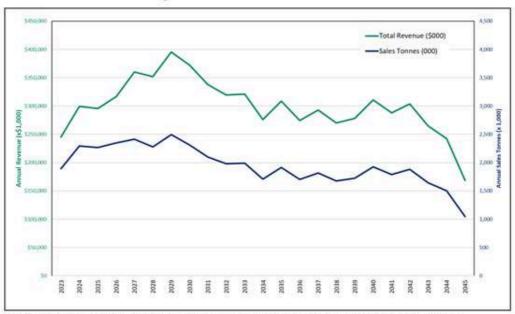


Figure 1-4: Mine 4 Production and Revenue

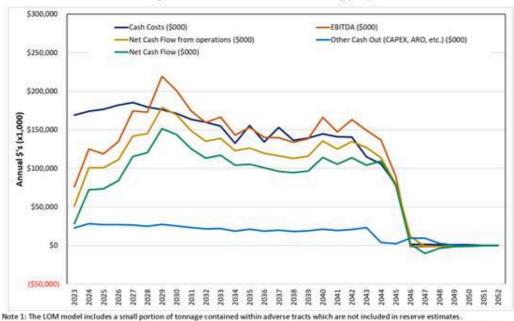
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Figure 1-4: Mine 4 Production and Revenue Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. MARSHALL MILLER & ASSOCIATES, INC. 17







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Consolidated cash flows are driven by annual sales tonnage, which average approximately 2.0 million tonnes per year until dropping in 2045, the final year. Projected consolidated revenue averages just over \$306 million per year, excluding the final year. Revenue totals \$6.9 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation totals \$2.86 billion over the mine life. Capital expenditures total \$468 million over the property's life.

### 1.10.1 Cash Flow Analysis

Cash flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$979 million. The pre-feasibility financial model prepared for the TRS was developed to test the economic viability of each coal resource area. The NPV estimate was made for the purpose of confirming the economics for classification of coal reserves and <u>not</u> for purposes of valuing Warrior Met or its Mine No. 4 assets. The

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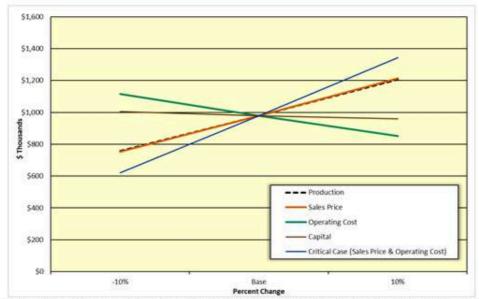
Figure 1-5: After-tax Cash Flow Summary (000) Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. Consolidated cash flows are driven by annual sales tonnage, which average approximately 2.0 million tonnes per y until dropping in 2045, the final year. Projected consolidated revenue averages just over \$306 million per year, excluding the final year. Revenue totals \$ billion for the property's life. Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of pos production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation totals \$2.86 billion over the mine life. Capital expenditures total \$468 million over the property's life. 1.10.1 Cash Flow Analysis Cash flow after tax, but before debt service, generated over the life o property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$979 million. The pre-feasibility financial model prepared for the TRS was develop to test the economic viability of each coal resource area. The NPV estimate was made for the purpose of confirming the economics for classification of c reserves and not for purposes of valuing Warrior Met or its Mine No. 4 assets.



mine plan was not optimized, and actual results of the operation may be different, but in all cases, the mine production plan assumes the property is under competent management.

### 1.10.2 Sensitivity Analysis

Sensitivity of the NPV results to changes in the key drivers is presented in *Figure 1-6*. The sensitivity study shows the NPV at the 9% discount rate when Base Case sales prices, operating costs, production, plant yield and capital costs are increased and decreased +/- 10%. A critical case combining Sales price and operating cost was also done reflecting the combined effect of plus 10% operating cost with -10% sales price to -10% operating cost and +10% sales price.





Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings.

## 1.11 Permitting

Warrior Met has obtained all mining and discharge permits to operate its mine and processing, loadout, or related support facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits. Future permits will be required to secure additional fine and coarse refuse capacities. Mine No. 4, along with all coal producers, is subject to a level of uncertainty regarding future clean water permits due to **United States Environmental Protection Agency (EPA)** involvement with state programs.

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mine plan was not optimized, and actual results of the operation may be different, but in all cases, the mine production plan assumes the property is undecompetent management. 1.10.2 Sensitivity Analysis Sensitivity of the NPV results to changes in the key drivers is presented in Figure 1-6. The sensitivit study shows the NPV at the 9% discount rate when Base Case sales prices, operating costs, production, plant yield and capital costs are increased and decreased +/- 10%. A critical case combining Sales price and operating cost was also done reflecting the combined effect of plus 10% operating cost wit -10% sales price to -10% operating cost and +10% sales price. Figure 1-6: Sensitivity of NPV Note: The LOM model and associated economic analysis intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. 1.11 Permitting Warrior Met has obtained all mining and discharge permits to operate its m and processing, loadout, or related support facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits. Future permits will be required to secure additional fine and coarse refuse capacities. Mine No. 4, along with all c producers, is subject to a level of uncertainty regarding future clean water permits due to United States Environmental Protection Agency (EPA) involvement with state programs. MARSHALL MILLER & ASSOCIATES, INC. 19



# 1.12 Conclusion and Recommendations

Sufficient data has been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Mine No. 4 property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and preliminary feasibility study, which consider the mining plan, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

This geologic evaluation conducted in conjunction with the preliminary feasibility study concludes that the 39.2 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of future market prices for metallurgical coal products, estimated operation costs, and capital expenditures.

# 2 Introduction

# 2.1 Registrant and Terms of Reference

This report was prepared for the sole use of Warrior Met Coal, Inc. and its affiliated and subsidiary companies and advisors. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

The report provides a statement of coal reserves for Warrior Met. Exploration results and resource calculations were used as the basis for the mine planning and the preliminary feasibility study completed to determine the extent and viability of the reserve.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of metric tonnes (Mt).

## 2.2 Information Sources

The technical report is based on information provided by Warrior Met and reviewed by MM&A's professionals, including geologists, mining engineers, civil engineers, and environmental scientists. MM&A's professionals hold professional registrations and memberships which qualify them as Qualified Persons in accordance with SEC guidelines. Sources of data and information are listed below in *Table 2-1*:

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1.12 Conclusion and Recommendations Sufficient data has been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Mine No. 4 property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS. The geological data and preliminary feasibility stu which consider the mining plan, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided he This geologic evaluation conducted in conjunction with the preliminary feasibility study concludes that the 39.2 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of future market prices for metallurgical coal products, estimated operation costs, and capital expenditures. 2 Introduction 2.1 Registrant and Terms of Reference This report was prepared for the sole use of Warrior Met Coal, Inc. and its affiliated and subsidiary companies and advisors. The report provides a statement of coal reserves for Warrior Met, defined under the United States Securities and Exchange Commission (SEC) standards. The report provides a statement of coal reserves for Warrior Met extent and viability of the reserve. Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of m tonnes (Mt). 2.2 Information Sources The technical report is based on information provided by Warrior Met and reviewed by MM&A's professionals, including geologists, mining engineers, civil engineers, and environmental scientists. MM&A's professionals hold professional registrations and memberships which qualify them as Qualified Persons in accordance with SEC guidelines. Sources of data and information are listed below in Table 2-1 MARSHALL MILLER & ASSOCIATES, INC. 20



#### Table 2-1: Information Provided to MM&A by Warrior Met

Category	Information Provided by Warrior Met	Report Section
Geological	Geologic data including digital databases and original source data including geologist logs, driller's logs, geophysical logs.	9.1
Coal Quality	Database of coal quality information supplemented with original source laboratory sheets where available.	10.1
Mining	Historical productivities and manpower projections.	13
Coal Preparation	Flow Sheet descriptions information related to coal processing.	14
Costs	Historical and budgetary operating cost information used to derive cost drivers for reserve financial modeling	18

Note: While the sources of data listed in Table 2-1 are not exhaustive, they represent a significant portion of information which supports this TRS. MM&A reviewed the provided data and found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forwardlooking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, coals sales price forecasts, the assumption that Warrior Met will continue to acquire necessary permits, and other assumptions. The TRS statements and conclusions are not a guarantee of future performance and undue reliance should not be placed on them. The ability of Warrior Met to recover the estimated coal reserves is dependent on multiple factors beyond the control of MM&A including, but not limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management.

Warrior Met engaged MM&A to conduct a coal reserve evaluation of the Mine No. 4 coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed:

- Process the information supporting the estimation of coal resources and reserves into geological models;
- > Develop life-of-reserve mine (LOM) plans and financial model;
- > Hold discussions with Warrior Met company management; and
- > Prepare and issue a Technical Report Summary providing a statement of coal reserves which would include:
  - A description of the mines and facilities.
  - A description of the evaluation process.
  - An estimation of coal resources and reserves with compliance elements as stated under the new SEC Guidelines which became effective for the first fiscal year that commenced on or after January 1, 2022.

### 2.3 Personal Inspections

MM&A is well acquainted with the Mine No. 4 property, having provided a variety of services in recent years. Qualified Persons involved in this TRS have conducted multiple site visits since Warrior's acquisition of the Walter assets.

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Table 2-1: Information Provided to MM&A by Warrior Met Report Category Information Provided by Warrior Met Section Geologic data including digi databases and original source data including Geological geologist logs, driller's logs, geophysical logs. 9.1 Database of coal quality information supplemented with original source Coal Quality laboratory sheets where available. 10.1 Mining Historical productivities and manpower projections. 13 ( Preparation Flow Sheet descriptions information related to coal processing. 14 Historical and budgetary operating cost information used to derive cost drivers Costs for reserve financial modeling 18 Note: While the sources of data listed in Table 2-1 are not exhaustive, they represent a significant portion information which supports this TRS. MM&A reviewed the provided data and found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forward-looking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, co als sales price forecasts, the assumption that Warrior Met will continue to acquire necessary permits, and other assumptions. The TRS statements and conclusions not a guarantee of future performance and undue reliance should not be placed on them. The ability of Warrior Met to recover the estimated coal reserve dependent on multiple factors beyond the control of MM&A including, but not limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management. Warrior Met engaged MM&A to conduct a coal rese evaluation of the Mine No. 4 coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed: > Process the information supporting the estimation of coal resources and reserves into geological models; > Develop life-of-reserve mine (LOM) plans and financial model; > Hold discussions with Warrior Met company management; and > Prepare and issue a Technical Report Summary providing a statement of coal reserves with compliance elements as stated under the new SEC Guidelines which became effective for the first fiscal year that commenced on or after

January 1, 2022. 2.3 Personal Inspections MM&A is well acquainted with the Mine No. 4 property, having provided a variety of services in recent years Qualified Persons involved in this TRS have conducted multiple site visits since Warrior's acquisition of the Walter assets. MARSHALL MILLER & ASSOCIATES, INC. 21



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

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# 2.4 Updates to Previous TRS

This TRS reflects an update to a TRS, published in early 2022 to reflect resources and reserves as of December 31, 2021. Material revisions reflected in this TRS include:

- Pre-feasibility level financial model updates to reflect inflationary driven cost (operating and capital) increases;
- 2. Updated market analysis; and
- Incorporation of exploration drilling information and mine channel samples obtained in calendar year 2022 and subsequent updates to geological models.

# 3 Property Description

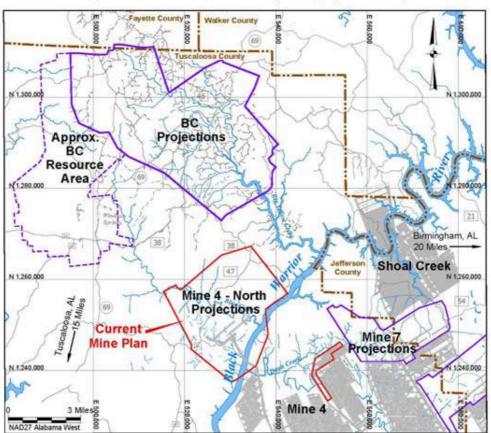
# 3.1 Location

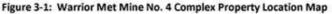
The Property is located in Tuscaloosa County in central Alabama, approximately 20 miles east of the city of Tuscaloosa and 30 miles southwest of the city of Birmingham in the southern region of the US. *Figure 3-1* displays the Property's location.

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2.4 Updates to Previous TRS This TRS reflects an update to a TRS, published in early 2022 to reflect resources and reserves as of December 31, 2021. Material revisions reflected in this TRS include: 1. Pre-feasibility level financial model updates to reflect inflationary driven cost (operating and capital) increases; 2. Updated market analysis; and 3. Incorporation of exploration drilling information and mine channel samples obtained in calendar year 2022 and subsequent updates to geological models. 3 Property Description 3.1 Location The Property is located in Tuscaloosa County in central Alabama, approximately 20 miles east of the city of Tuscaloosa and 30 miles southwest of the city of Birmingham in the southern region of the US. Figure 3-1 displays the Property's location. MARSHALL MILLER & ASSOCIATES, INC. 22







Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system

Adjoined on the east by Mine No. 7, Mine No. 4 reserve areas are located in two principal areas in relation to the Black Warrior River, which serves as a surface boundary between them:

- > East Reserves are located east of the Black Warrior River, where mining is nearing completion.
- > North Reserves are located west of the Black Warrior River, where underground access from the East has been driven beneath the river. A new portal site has been developed west of the Black Warrior River to support mining of remaining reserves through exhaustion.

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Figure 3-1: Warrior Met Mine No. 4 Complex Property Location Map Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system. Adjoined on the east by Mine No. 7, Mine No. 4 reserve areas are located in two principal areas in relation to the Black Warrior River, which see as a surface boundary between them: > East Reserves are located east of the Black Warrior River, where mining is nearing completion. > North Reserve located west of the Black Warrior River, where underground access from the East has been driven beneath the river. A new portal site has been develope west of the Black Warrior River to support mining of remaining reserves through exhaustion. MARSHALL MILLER & ASSOCIATES, INC. 23



# 3.2 Titles, Claims or Leases

MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or other property control instruments pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves as shown on its property maps, and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met.

# 3.3 Mineral Rights

Warrior Met, through its acquisition of the Walter's assets in 2016, acquired mineral rights for the Mine No. 4 property. At the time of purchase, this acquisition also notably included Mine No. 7 and BC Properties. Currently, Warrior Met has mineral rights on approximately 7,200 acres associated with the remaining resource and controls the surface rights where facilities are located. Life-of-mine plans reported herein require the acquisition of approximately 1,000 acres of additional mineral control.

It is of important note that tracts categorized as "owned" represent those in which Warrior Met owns a percentage of tract's mineral rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral rights. Additionally, the "leased" category includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights.

By assignment, as part of the Study, MM&A has not completed a review of the major leases. Due to confidentiality, only general facts related to the major leases are noted.

The majority of the coal leases have an identical initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the coal leases have 10-year term extensions. Certain leases have performance terms related to mining execution.

The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced by the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under the coal leases on a lease-by-lease basis. The royalty rates for Mine No. 4 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel. By assignment, MM&A has not independently verified property boundaries specific to each lease; however, MM&A has reviewed Warrior Met-supplied boundary mapping.

## 3.4 Encumbrances

No Title Encumbrances are known. By assignment, MM&A did not complete a query related to Title Encumbrances.

#### MARSHALL MILLER & ASSOCIATES, INC.

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3.2 Titles, Claims or Leases MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or ot property control instruments pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves a shown on its property maps, and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met. 3.3 Mineral Rights Warrior Met, through its acquisition of the Walter's assets in 2016, acquired mineral rights for the Mine No. 4 property. At the time of purchase, this acquisition also notably included Mine No. 7 and BC Properties. Currently, Warrior Met has mineral rights on approximately 7,200 acres associated with the remaining resource and controls the surface rights where facilities are located. Life-of-mine plans reported herein require the acquisi of approximately 1,000 acres of additional mineral control. It is of important note that tracts categorized as "owned" represent those in which Warrior M owns a percentage of tract's mineral rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral right Additionally, the "leased" category includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights. By assignment, as part of Study, MM&A has not completed a review of the major leases. Due to confidentiality, only general facts related to the major leases are noted. The major of the coal leases have an identical initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the co leases have 10-year term extensions. Certain leases have performance terms related to mining execution. The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced by the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any ear royalty due under the coal leases on a lease-by-lease basis. The royalty rates for Mine No. 4 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel. By assignment, MM&A has not independently verified property

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Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

## 3.5 Other Risks

There is always risk involved in property control. Warrior Met has had their legal teams examine the deeds and title control in order to minimize the risk. Historically, property control has not posed any challenges related to Mine No. 4's operations. A significant portion of uncontrolled tracts which must be obtained by Warrior Met in order to execute the mine plan presented herein are owned by the Federal Government's **Bureau of Land Management (BLM)**. Regionally, operators (including Warrior Met's predecessors) have experienced a successful track record of obtaining mining rights to BLM properties. Warrior actively pursues uncontrolled properties critical for short and long term mine planning.

# 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

## 4.1 Topography, Elevation, and Vegetation

The Property is located in the physiographic region of central Alabama within the Black Warrior Basin (*BWB*) region of the US. The area is rugged upland of moderate topography with more than 200 feet of relief adjacent to major streams.

The property east of the Black Warrior River is dissected by streams that flow to the west and eventually to the Black Warrior River. Two major drainage basins lie east of the Black Warrior River and consist of Davis Creek and its tributaries towards the northern boundary and Pegues Creek and its tributaries towards the southern boundary.

The property west of the Black Warrior River is dissected by Blue Creek and its tributaries which flow to the east and eventually to The Black Warrior River.

The upland topographic features are controlled by lithology, with large flat surfaces formed by underlying sandstone with steeper slopes formed by weathered shale and siltstones. Maximum relief within the Property is approximately 525 feet with elevation ranging from 185 feet above mean sea level (*MSL*) along banks of the Black Warrior River to 710 feet along the top of the flat ridges.

#### 4.2 Access and Transport

General access to the Property complex is very good via State Route 59 (Lock 17 Road). Lock 17 Road is a well maintained, paved, two-lane road with Interstate access in close proximity to the south. Interstates 59 and 20 are approximately 12 miles to the south with Tuscaloosa about 15 miles to the west and Birmingham about 40 miles to the east.

Access to the preparation and coal handling facilities, as well as the supply yard at the mine slope is directly off of Lock 17 Road. which runs south to north through the Property. The deep mine's portal and shaft facilities lie along an unimproved road approximately one-half mile off of Lock 17 Road. All

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Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

of the facilities are in close proximity to high quality, public roads and lie within 2 miles of each other. A multitude of coalbed methane (*CBM*) and gas well roads bisect the Property providing exceptional surface access to areas overlying the mineral boundaries.

Rail transport for the mine sites utilizes a rail line that is located on the east side of the Property southwest of the intersection of Lock 17 Road and Davis Road. River transport is available approximately 4 miles to the west of the plant facilities on the Black Warrior River.

Coal is being shipped into the seaborne metallurgical markets. As part of a commercial real estate transaction with Alabama State Port Authority in 2014, Warrior Met secured expansion capacity of the McDuffie Terminal to accommodate planned production.

# 4.3 Proximity to Population Centers

The Property lies in close proximity to two large population centers. The city of Tuscaloosa lies approximately 20 miles west and Birmingham lies about 30 miles northeast of the mine sites. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 235 thousand and 1.1 million respectively (as of 2022). Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in the area. The city of Birmingham is home to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually.

## 4.4 Climate and Length of Operating Season

The typical climate in this portion of Alabama is rather humid but temperate. The average annual temperature is 66 degrees Fahrenheit. The climate is hot during the summer when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally January. Alabama receives on average 56 inches of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity and the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface and preparation plant operations on a very limited basis.

# 4.5 Infrastructure

Infrastructure in the area surrounding the Property is very diverse, well established and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birmingham and Tuscaloosa. All of the primary infrastructure that the mine needs to operate (power, water, transportation/roads) is available with reasonable access requirements.

Below is a list of the regional infrastructure near the Mine No. 4 operation:

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of the facilities are in close proximity to high quality, public roads and lie within 2 miles of each other. A multitude of coalbed methane (CBM) and gas v roads bisect the Property providing exceptional surface access to areas overlying the mineral boundaries. Rail transport for the mine sites utilizes a rail li that is located on the east side of the Property southwest of the intersection of Lock 17 Road and Davis Road. River transport is available approximately miles to the west of the plant facilities on the Black Warrior River. Coal is being shipped into the seaborne metallurgical markets. As part of a commerci real estate transaction with Alabama State Port Authority in 2014, Warrior Met secured expansion capacity of the McDuffie Terminal to accommodate planned production. 4.3 Proximity to Population Centers The Property lies in close proximity to two large population centers. The city of Tuscaloosa lie: approximately 20 miles west and Birmingham lies about 30 miles northeast of the mine sites. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 235 thousand and 1.1 million respectively (as of 2022). Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in the area. The city of Birmingham is home to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually. 4.4 Climate and Length of Operating Season The typical clima in this portion of Alabama is rather humid but temperate. The average annual temperature is 66 degrees Fahrenheit. The climate is hot during the summe when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally January. Alabama receives on average 56 inches of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity and the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface a preparation plant operations on a very limited basis. 4.5 Infrastructure Infrastructure in the area surrounding the Property is very diverse, well establishe and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birmingham and Tuscaloosa. All of the primary infrastructure that the mine needs to operate (power, water, transportation/roads) is available with reasonable access requirements. Below is a lis the regional infrastructure near the Mine No. 4 operation: MARSHALL MILLER & ASSOCIATES, INC. 26

MARSHALLIN ILLER AASSOCINES	Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary
Electrical Power	The immediate area contains numerous coal-fired power plants producing base-load electricity. Major transmission and distribution lines are located within the area of interest. Alabama Power is the local utility which provides electricity for the Property.
Water and Sewer	Water is sourced from local municipalities and various freshwater pumps.
Roads	The area is serviced by an extensive network of well-maintained, federal, state and county highways in close proximity to the mine site.
Railroads	A major commercial railroad is located along the edge of the area. Contractual requirements dictate that the railroad is utilized to transport a significant portion of saleable production.
Barge	A barge facility on the Black Warrior River is also utilized to transport coal to port facilities for seaborne export shipments.
Airports	Birmingham-Shuttlesworth International Airport is located approximately 30 miles to the east.
Mining Service Providers, Equipment Manufacturers and Supply Companies	The Property is well serviced by major mining equipment manufacturers, rebuild facilities, and mine supply vendors. Specialized mining service providers including slope, shaft, and preparation plant construction companies are located in the immediate area.
Hospitals – Ambulance, Med Flights	There are numerous fully functioning hospitals (including major trauma centers) within a 50-mile radius of the area. The area is serviced by a network of public and private ambulance and helicopter medical flight providers.
Emergency Services – Fire, Police	There are numerous fire departments and emergency medical service (EMS) providers within a 50-mile radius of the mine sites.
	The area is well serviced by a large network of federal, state and local law enforcement agencies with central dispatch and communications systems, including emergency 911 services.
Schools	The region has a well-developed public education network consisting of federal, state and local government-backed schools as well as privately funded schools. These include elementary, middle, and high schools, as well as technical and vocational schools.
College/University	The region contains numerous colleges and universities as well as well- established mining universities and training centers. Namely, the University of Alabama is located in the city of Tuscaloosa and offers scientific and engineering degrees.

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# 5 History

# 5.1 Previous Operation

Mine No. 4 was opened by Walter in 1974. Following the bankruptcy of Walter in 2015, Warrior Met acquired the assets of Walter in 2016.

# 5.2 Previous Exploration

The Property has been extensively explored as early as 1916 and as recently as 2022 by subsurface drilling efforts carried out by numerous entities, the majority of which were completed prior to acquisition by Warrior Met including: Tennessee Coal, Iron & Railroad Company; U.S. Steel; The Pittsburgh & Midway (P&M) Coal Mining Company/Chevron; and Walter. The majority of the drilling was accomplished by means of conventional core hole exploration and air rotary drilling with geophysical logging for CBM wells.

# 6 Geological Setting, Mineralization and Deposit

# 6.1 Regional, Local and Property Geology

The Black Warrior coal basin (*BWB*), which encompasses the subject Property, is a foreland basin covering approximately 23,000 square miles (59,570 square kilometers) of northwestern and central Alabama. The basin extends approximately 230 miles from west to east and 188 miles from north to south. The BWB lies within the Cumberland Plateau portion of the Appalachian Highlands and contains Pennsylvanian System (300 million years) sedimentary coal-bearing strata of the Upper Pottsville Formation. Metallurgical coal deposits in northern Alabama are divided into three coal fields; the Black Warrior, the Cahaba, and the Coosa, of which the Black Warrior is the largest in both size and productivity.

Of the coal groups within the BWB, historically the most dominant is the Mary Lee group (see Figure 6-1). This sequence is "tagged" or identified with a 4-digit numeric system that typically includes the following strata (in descending stratigraphic order):

- > 7200 / 7300 New Castle (typically present as Upper and Lower benches), 30 to 50 feet above the Mary Lee seam
- > 7400 Mary Lee seam
- > 7450 Middleman (rock parting)
- > 7480 Rider seam (not always present) included as part of the Middleman
- > 7490 Parting between the Rider and Blue Creek seams (not always present) included as part of the Middleman

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5 History 5.1 Previous Operation Mine No. 4 was opened by Walter in 1974. Following the bankruptcy of Walter in 2015, Warrior Met acquired the asse Walter in 2016. 5.2 Previous Exploration The Property has been extensively explored as early as 1916 and as recently as 2022 by subsurface drilling effecarried out by numerous entities, the majority of which were completed prior to acquisition by Warrior Met including: Tennessee Coal, Iron & Railroad Company; U.S. Steel; The Pittsburgh & Midway (P&M) Coal Mining Company/Chevron; and Walter. The majority of the drilling was accomplished by means of conventional core hole exploration and air rotary drilling with geophysical logging for CBM wells. 6 Geological Setting, Mineralization and

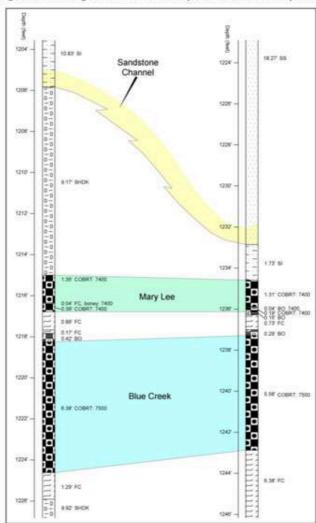
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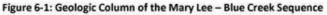
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> 7500 - Blue Creek seam

> 7600 – Jagger seam, where present, typically a few feet to tens of feet below the Blue Creek; however, may locally become part of the mineable section with the overlying Blue Creek seam.





The BWB is bound by the Alabama Valley and Ridge, Highland Rim, and East Gulf Coastal Plain physiographic providences. The southwestern and southeastern margins of the basin are terminated

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by frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceous and Tertiary age deposits.

The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend has locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (with relief of several hundreds of feet), which is present to the northwest of the Mine No. 4 reserves, and adjacent to the BC property.

Faulting is widespread across the basin with high-angle, scissor-type normal faults and fault grabens common, which are typically (but not exclusively) oriented in a southeast to northwest alignment. Vertical displacement typically varies from only a few feet to as much as 350 feet. Exploration programs by Warrior Met attempt to pinpoint exact fault locations and displacements prior to mineral extraction in a given mining district. At times, non-detected faults have deemed panels unmineable. Such instances are rare, and Warrior Met mitigates such risks by maintaining favorable longwall panel float times.

# 6.2 Mineralization

Regional coal rank in the BWB generally ranges from a low-volatile coal in the southeastern portion of the basin to a high-volatile coal to the northwest. Due to the value of the Mary Lee and Blue Creek seams in the metallurgical coking coal market at the Mine No. 4 operation (and adjoining mines) to the south and east of the Property, the subject coal seams have been extensively mined in the region. Laboratory data for the Property on a dry, clean coal basis indicates an average volatile matter (*VM*) content of approximately 31% in the northwestern area; whereas, the eastern portion of the Property has a VM content of approximately 27%.

## 6.3 Coal Rank

## 6.3.1 ASTM Method for Defining Coal Rank

The principal parameters examined in the ASTM method for the determination of rank include (but are not limited to) the following: Fixed Carbon (FC), Volatile Matter (VM), Ash, Sulfur, and Calorific content (typically in Btu/lb.), as well as Moisture content. (It should be noted that sulfur trioxide (SO<sub>3</sub>) in coal ash, if analyzed, can also be factored in; however, this data is typically unavailable.

As shown below, results of regional trends indicate that coals ranging from Low volatile to High volatile Bituminous coal rank are found in the region, according to ASTM criteria:

Low Volatile Bituminous, or LV<sub>ASTM</sub> (VM greater than or equal to 14% and less than 22% on a drymineral-matter-free basis, or DMMF)

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by frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceou and Tertiary age deposits. The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend has locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (wit relief of several hundreds of feet), which is present to the northwest of the Mine No. 4 reserves, and adjacent to the BC property. Faulting is widespread across the basin with high-angle, scissor-type normal faults and fault grabens common, which are typically (but not exclusively) oriented in a southeast t northwest alignment. Vertical displacement typically varies from only a few feet to as much as 350 feet. Exploration programs by Warrior Met attempt to pinpoint exact fault locations and displacements prior to mineral extraction in a given mining district. At times, non-detected faults have deemed panels unmineable. Such instances are rare, and Warrior Met mitigates such risks by maintaining favorable longwall panel float times. 6.2 Mineralization Regic coal rank in the BWB generally ranges from a low-volatile coal in the southeastern portion of the basin to a high-volatile coal to the northwest. Due to the value of the Mary Lee and Blue Creek seams in the metallurgical coking coal market at the Mine No. 4 operation (and adjoining mines) to the south and of the Property, the subject coal seams have been extensively mined in the region. Laboratory data for the Property on a dry, clean coal basis indicates an average volatile matter (VM) content of approximately 31% in the northwestern area; whereas, the eastern portion of the Property has a VM content of approximately 27%. 6.3 Coal Rank 6.3.1 ASTM Method for Defining Coal Rank The principal parameters examined in the ASTM method for the determination of rank include (but are not limited to) the following: Fixed Carbon (FC), Volatile Matter (VM), Ash, Sulfur, and Calorific content (typica in Btu/lb.), as well as Moisture content. (It should be noted that sulfur trioxide (SO3) in coal ash, if analyzed, can also be factored in; however, this data

typically unavailable. As shown below, results of regional trends indicate that coals ranging from Low volatile to High volatile Bituminous coal rank are found in the region, according to ASTM criteria: > Low Volatile Bituminous, or LVASTM (VM greater than or equal to 14% and less than 22% on a dry mineral-matter-free basis, or DMMF) MARSHALL MILLER & ASSOCIATES, INC. 30

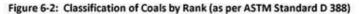


Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

- Medium Volatile Bituminous, or MV<sub>ASTM</sub> (VM greater than or equal to 22% and less than 31% on a dry-mineral-matter-free basis, or DMMF)
- > High Volatile A Bituminous, or HVA<sub>ASTM</sub> (VM greater than 31% on a dry-mineral-matter-free basis, or DMMF, and calorific content greater than or equal to 14,000 Btu/lb. on a moist-mineral-matter-free basis)
- > High Volatile B Bituminous, or HVBASTM (greater than or equal to 13,000 and less than 14,000 Btu/lb.)

Furthermore, utilizing ASTM criteria, coal rank for the coals sampled on the Property range from Medium Volatile to High Volatile bituminous.

		Class/Group	Fixed Carbon Limits (DMMF") %		Volatile Matter Limits (DMMF) %		Gross Calorific Value Limits (Moist <sup>®</sup> MMF) Btu/lb	
			* or >	Less Than	< or >	Less Than	* or >	Less Than
	1	I. Anthracitic				1		
		Meta-anthracite	56	0.3334	575	2	07330	1272
		Anthracte	92	98	2	8	1.772	3000
	ten I	Semianthracite <sup>o</sup>	86	92	8	14	1000	
I	Content	II. Bituminous						
		Low volatile	78	86	14	22	( <del>111)</del>	( <del>111</del> )
¥	Gas	Medium volatile	69	78	22	31	1993	1443
Kank		High volatile A	11	69	31		14,000	-
B	le	High volatile B		0.000	Det		13,000	14,000
Increasing	io i	High volatile C	111	2.995	0.00	100	11,500	13,000
ea	Thermogenic						10,500	11,500
LC L	£	III. Subbituminous						
-1	p	Subbituminous A	777	0.779	1077	1777	10,500	11,500
	Sir	Subbituminous B	111	1. <del>111</del>	1986	100	9,500	10,500
	Increasing	Subbituminous C		1000	1044		8,300	9,500
	line	IV. Lignitic						
1		Lignite A	44	298	100		6,300 *	8,300
	]	Lignite B	117	522	1.022	- 222	1222	6,300



# 6.3.2 Coal Quality Parameters Associated with Market-based Coal Rank

It is important to note that market-based parameters are significantly different from definitions defined by ASTM for coal rank. ASTM rank is *not* defined by favorability in the marketplace. Coal quality parameters analyzed to define the market-based coal rank typically include, but are not limited to:

> Volatile Matter% (dry basis)

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> Medium Volatile Bituminous, or MVASTM (VM greater than or equal to 22% and less than 31% on a dry-mineral-matter-free basis, or DMMF) > Hig Volatile A Bituminous, or HVAASTM (VM greater than 31% on a dry-mineral-matter-free basis, or DMMF, and calorific content greater than or equal to 14,000 Btu/lb. on a moist-mineral-matter-free basis) > High Volatile B Bituminous, or HVBASTM (greater than or equal to 13,000 and less than 14,000 Btu/lb.) Furthermore, utilizing ASTM criteria, coal rank for the coals sampled on the Property range from Medium Volatile to High Volatile bituminous. Figure 6-2: Classification of Coals by Rank (as per ASTM Standard D 388) 6.3.2 Coal Quality Parameters Associated with Market-based Coal Rank It is important to note that market-based parameters are significantly different from definitions defined by ASTM for coal rank. ASTM rank is not defined by favorability in the marketplace. Coal quality parameters analyzed to define the market-based coal rank typically include, but are not limited to: > Volatile Matter% (dry basis) MARSHALL MILLER & ASSOCIATES, INC. 31



- > Ash% (dry basis)
- > Sulfur% (dry basis)
- > Fluidity (ddpm)
- > Vitrinoid Reflectance%
- > Moisture%

Moreover, ASTM rank should *not* vary with time. However, as market conditions and requirements change, the levels (of ash, sulfur, etc.) considered to be "favorable", "fair", or "unfavorable" will vary over time. Furthermore, many coals will meet the requirements for one parameter (ash, sulfur, fluidity, etc.), fall short on another, and exceed the guideline on other parameters. It then becomes a matter of judgement as to where the coal should be placed. Ultimately, various coke makers will value a particular coal differently, depending on the quality of the other coals in their blend and the coke specifications they have to meet. Determination of the market rank of the Property coals is beyond the scope of this investigation.

## 6.3.2.1 Warrior Met Market Placement

Warrior Met reports that current market placement at Mine No. 4 is generally an average of the Premium Low-Volatile Indices (*PLV*) and the Mid-Volatile Indices (*MV*), this average will be referenced as Premium Low-Mid-Vol Average (*PLMV*). Mine projections suggest that Warrior Met will continue to produce coal in the current "East" district for less than one year before transitioning to the western reserve areas.

As development activities continue to transition to the "North" district and the longwall mines out the "East" district, coal produced from Mine No. 4 will likely incur an increase in volatile matter. Based on regional trends and laboratory data, volatile matter contents for the subject coals in the western area will gradually edge upward. Although the potential exists for pricing to change as the volatiles vary in future areas as they are developed, MM&A, with support from Warrior Met, has used the PLMV as a basis for pricing.

## 6.4 Deposits

Sediments of the Upper Pottsville Mary Lee coal zone are Lower Pennsylvanian in age and comprised of cyclic sequences that include sandstone, siltstone, shale, and coal. Located within the middle of the Black Warrior Basin stratigraphic sequence, the Mary Lee and Blue Creek horizon is situated below drainage throughout the Property and is accessed by shafts.

The lithologic variability of the Mary Lee – Blue Creek sequence and enclosing strata is illustrated on Figure 6-3, as discussed below:

> The New Castle seam is present approximately 20 to 50 feet above the Mary Lee seam.

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> Ash% (dry basis) > Sulfur% (dry basis) > Fluidity (ddpm) > Vitrinoid Reflectance% > Moisture% Moreover, ASTM rank should not vary with time. However, as market conditions and requirements change, the levels (of ash, sulfur, etc.) considered to be "favorable", "fair", or "unfavorable"will vary c time. Furthermore, many coals will meet the requirements for one parameter (ash, sulfur, fluidity, etc.), fall short on another, and exceed the guideline or other parameters. It then becomes a matter of judgement as to where the coal should be placed. Ultimately, various coke makers will value a particular c differently, depending on the quality of the other coals in their blend and the coke specifications they have to meet. Determination of the market rank of Property coals is beyond the scope of this investigation. 6.3.2.1 Warrior Met Market Placement Warrior Met reports that current market placement at Mi No. 4 is generally an average of the Premium Low-Volatile Indices (PLV) and the Mid-Volatile Indices (MV), this average will be referenced as Premiu Low-Mid-Vol Average (PLMV). Mine projections suggest that Warrior Met will continue to produce coal in the current "East" district for less than one before transitioning to the western reserve areas. As development activities continue to transition to the "North" district and the longwall mines out the "East" district, coal produced from Mine No. 4 will likely incur an increase in volatile matter. Based on regional trends and laboratory data, volatile mat contents for the subject coals in the western area will gradually edge upward. Although the potential exists for pricing to change as the volatiles vary in future areas as they are developed, MM&A, with support from Warrior Met, has used the PLMV as a basis for pricing. 6.4 Deposits Sediments of the UI Pottsville Mary Lee coal zone are Lower Pennsylvanian in age and comprised of cyclic sequences that include sandstone, siltstone, shale, and coal. Loca within the middle of the Black Warrior Basin stratigraphic sequence discussed below: > The New Castle seam is present approximately 20 to 50 feet above the Mary Lee seam. MARSHALL MILLER & ASSOCIATES, IN 32



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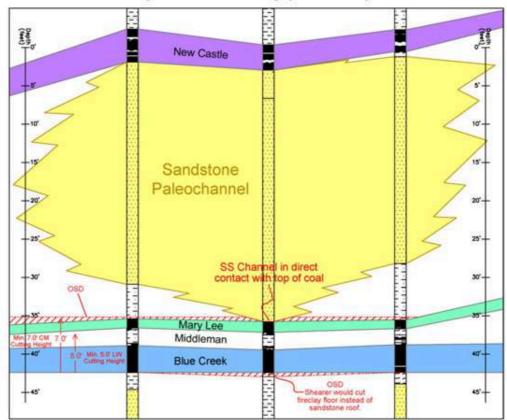
- > Lithologic composition of the roof strata varies throughout the Property but consists primarily of a coarsening-upward sequence of shale or sandy shale, with occasional sandstone channels located within the immediate or main roof of the Mary Lee seam.
- In areas where sandstone occupies the immediate roof of the Mary Lee seam, seam scouring may locally occur. Where sandstone channels are present within 4 to 6 feet above the Mary Lee (roof bolt horizon), there is potential for increased drawrock conditions and roof instability beneath the sandstone/shale contact.
- > Areas where the combined thickness of the Mary Lee Blue Creek horizon is less than a minimum continuous miner cutting height (7.0 feet) are shown, which as a result, roof (and/or floor) strata are expected to be excavated as out-of-seam dilution (OSD).
- > Thickness and composition (shale, carbonaceous shale, fireclay, and sandy shale) of the stratum comprising the Middleman is variable.
- > Areas where the thickness of the Blue Creek horizon is less than a minimum longwall cutting height (5.0 feet) are rare; only along the northern edge of the North area.
- Compositional variability and thickness of the floor strata of the Blue Creek seam in a finingupward sequence varying from: very soft, thick fireclay within the immediate floor, to sandy fireclay, shale, sandy shale, and finally sandstone within the first three feet below the seam. Fireclay varies in thickness, from less than a foot to more than 10 feet. Due to inherently high clay content, this stratum is typically moisture-sensitive and may degrade when exposed to water accumulation on the mine floor.

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### 6.4.1 Mineable Seam Thickness Configurations

The mineable seam configuration of Mine No. 4 consists of the Mary Lee, Middleman, and Blue Creek seams, also referred to as "twin seam" mining, with the following thickness ranges.

- > The Mary Lee averages approximately 1.3-feet throughout the mine plan area. Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.
- > Between the two seams, the "Middleman" parting averages around 1.6-feet; the parting generally thickens to the southeast.
- > The Blue Creek seam, which typically represents the better metallurgical quality than the overlying Mary Lee seam, typically averages around 3.5-feet (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.)

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Figure 6-3: Mine No. 4 Stratigraphic Relationships 6.4.1 Mineable Seam Thickness Configurations The mineable seam configuration of Mine No. 4 con of the Mary Lee, Middleman, and Blue Creek seams, also referred to as "twin seam" mining, with the following thickness ranges. > The Mary Lee avera approximately 1.3-feet throughout the mine plan area. Detailed seam mapping exhibits are retained in MM&A's files but are not included with this repor Between the two seams, the "Middleman" parting averages around 1.6-feet; the parting generally thickness to the southeast. > The Blue Creek seam, whi typically represents the better metallurgical quality than the overlying Mary Lee seam, typically averages around 3.5-feet (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report.) MARSHALL MILLER & ASSOCIATES, INC. 34



> The combined thickness of the Mary Lee through Blue Creek interval ranges from 5.0 to 10.0 feet, averaging approximately 6-feet (Detailed seam mapping exhibits are retained in MM&A's files but are not included with this report) across the mine plan area.

As noted from prior studies on the Property, the Blue Creek seam is subject to somewhat more erratic thickness variation than the overlying Mary Lee seam. Reasons for this are not entirely clear, but may be the result of channel incision, differential compaction, presence of contemporaneous ("growth") faults, or other paleographic factors present during or subsequent to deposition of the Blue Creek paleoswamp.

# 7 Exploration

# 7.1 Nature and Extent of Exploration

Exploration information has largely been collected, analyzed, and summarized by personnel from previous owners of the Property, Warrior Met, and their consultants. Vertical drilling has been the main method of collecting exploration information along with in-seam samples since the seam does not outcrop within or near the Property. Spacing and quantity of exploratory drill holes is generally sufficient to define the coal resource within the Property.

Initial exploration on the Property was entirely by drilling to collect data for delineation of coal and CBM resources. As a general practice, continuous core hole exploration is visually logged by a driller or professional geologist, whereas CBM holes are geophysically logged. Geophysical information from CBM wells was obtained from the **Geological Survey of Alabama Oil and Gas Board (GSA)** which were interpreted by Warrior Met's predecessor to define seam thickness and elevation.

## 7.1.1 Summary of Exploration Data

MM&A was provided with the core hole records (with 12 additional core holes drilled in 2022), or summary information from geophysical logs, as summarized below. Summaries of data related to these holes were initially provided to MM&A in the form of Microsoft<sup>\*</sup> Excel spreadsheets:

- > Total number of holes: 375 drill holes utilized for mapping purposes
- > Total footage: 708,000 feet
- > Hole depths: ranging from 1,148 feet to 2,469 feet, averaging 1,888 feet
- > Depth to top of Mary Lee seam: ranging from 1,140 feet to 1,900 feet, averaging 1,590 feet
- > An additional group of drilling records was identified and categorized as "not honored" for various reasons, and as such were ignored for mapping purposes:
  - possessing poor or suspect core recovery; or
  - thickness impacted by the influence of tectonic faulting; or

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 seam thickness information was interpreted from older vintage and/or lower resolution geophysical logs.

Much of the coal quality information provided to MM&A consisted of previously summarized data in the form of Microsoft<sup>\*</sup> Excel spreadsheets in an Adobe<sup>\*</sup> PDF (*PDF*) format. Where available, scanned copies of coal quality sheets and summary reports were also provided. The most recent drill hole quality data from the 2022 exploration program was derived from activity in the northern portions of the reserve area.

Extensive exploration in the form of subsurface drilling has been carried out on the Property by numerous entities, most of whose efforts were completed prior to acquisition by Warrior Met. Diamond core, rotary, and CBM drilling are the three primary types of exploration on the Property. Data for correlation and mining conditions are derived from core descriptions and geophysical logging (e-logging). The location of the drilling is shown on the maps included within this report.

The concentration of exploration varies across the Property, with the future underground mining areas having acceptable drill hole distributions for resource and reserve modeling. Drilling on the Property is typically sufficient for delineation of potential underground mineable benches. Mapping of future mining conditions is derived from data compiled from a variety of past and present exploration programs, but projections and assumptions can be made within a reasonable degree of certainty.

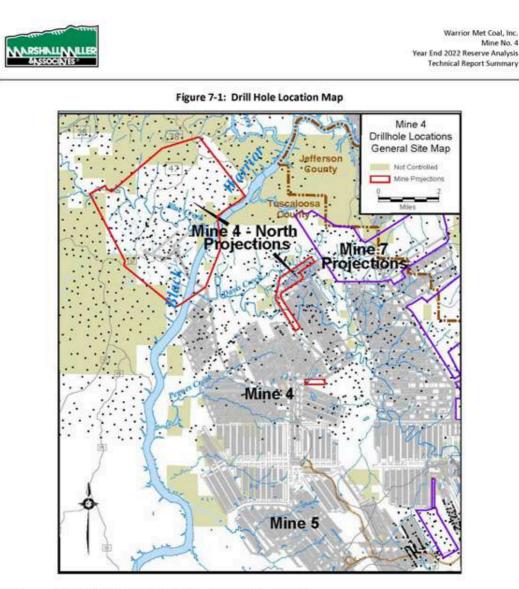
Due to the long history of exploration by various parties on the Property, a wide variety of survey techniques exist for documentation of data point locations. Many of the older exploration drill holes appear to have been located by survey. However, some holes appear to have been approximately located using USGS topography maps or other methods which are less accurate. *Figure 7-1* displays the location of drillholes for the property.

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## 7.2 Non-Drilling Procedures and Parameters

Some analyses, such as rheological and petrographic properties, and sulfur types, are not as prevalent as others in the testing done on samples recovered by drilling. To supplement the information database, samples have been collected from mine stockpiles and either truck or train shipment samples. Additionally, Warrior Met conducts regular channel sampling in its active underground works as a means of predicting coal quality and tonnages. Channel samples are generally obtained in headgate and tailgate development sections prior to longwall mining.

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Figure 7-1: Drill Hole Location Map 7.2 Non-Drilling Procedures and Parameters Some analyses, such as rheological and petrographic properties, and sulfur types, are not as prevalent as others in the testing done on samples recovered by drilling. To supplement the information database, samples have b collected from mine stockpiles and either truck or train shipment samples. Additionally, Warrior Met conducts regular channel sampling in its active underground works as a means of predicting coal quality and tonnages. Channel samples are generally obtained in headgate and tailgate development sections prior to longwall mining. MARSHALL MILLER & ASSOCIATES, INC. 37

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# 7.3 Drilling Procedures

Core drilling methods utilize NX-size (2<sup>1</sup>/<sub>8</sub> inch) or similar-sized core cylinders to recover core samples, which can be used to delineate geologic characteristics, and for coal quality testing and geotechnical logging. In addition to the core holes, rotary drilled holes also exist on most of the Property. Data for the rotary drilled holes are mainly derived from downhole geophysical logs, which are used to interpret coal and rock thickness and depth since logging of the drill cuttings is not reliable. CBM holes are always logged geophysically, and the resulting interpreted data are incorporated into the geological model. Exploratory drilling generally requires drilling to depths from 1,140 to 1,900 feet to penetrate the target coal seams on the Property.

A wide variety of core-logging techniques exist for the Property. For many of the core holes, the primary data source is a generalized lithology description by the driller, which may be supplemented by a more detailed core log completed by a geologist. These drilling logs were provided to MM&A as a geological database. MM&A geologists were not involved in the production of original core logs but did perform a basic check of information within the provided database.

# 7.4 Hydrology

Mine No. 4 is an active mine and Warrior Met reports that it has experienced minimal hydrologic concerns or material issues. Notably, the operation recently completed development under the Black Warrior River to access its northern reserve areas. Future mining is projected to occur in areas exhibiting similar hydrogeological conditions as past mining including stream undermining, undermining of aquifers and mining through hydraulically fractured (frac'd) coalbed methane wells. Based upon the successful history of the operation with regards to hydrogeological features, MM&A assumes that the operation will not be hindered by such issues in the future.

# 7.5 Geotechnical Data

The general mining plan for this underground mine was developed by Warrior Met. Section layouts, pillar sizes, and panel dimensions largely mimic what Warrior Met has recently utilized in its active sections. Depths of cover should not significantly change over the life of the operation in comparison to current and historic values. Warrior Met and its predecessor have successfully mined adjacent to and through faults without significant geotechnical issues. MM&A does not anticipate that geotechnical issues will significantly hinder development or longwall mining activity for the mine plan presented in this TRS.

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7.3 Drilling Procedures Core drilling methods utilize NX-size (21/ inch) or similar-sized core cylinders to recover core samples, 8 which can be used to delineate geologic characteristics, and for coal quality testing and geotechnical logging. In addition to the core holes, rotary drilled holes also exist on m of the Property. Data for the rotary drilled holes are mainly derived from downhole geophysical logs, which are used to interpret coal and rock thickness depth since logging of the drill cuttings is not reliable. CBM holes are always logged geophysically, and the resulting interpreted data are incorporated in the geological model. Exploratory drilling generally requires drilling to depths from 1,140 to 1,900 feet to penetrate the target coal seams on the Propert wide variety of core-logging techniques exist for the Property. For many of the core holes, the primary data source is a generalized lithology description the driller, which may be supplemented by a more detailed core log completed by a geologist. These drilling logs were provided to MM&A as a geologi database. MM&A geologists were not involved in the production of original core logs but did perform a basic check of information within the provided database. 7.4 Hydrology Mine No. 4 is an active mine and Warrior Met reports that it has experienced minimal hydrologic concerns or material issues. Notably, the operation recently completed development under the Black Warrior River to access its northern reserve areas. Future mining is projected to occur in areas exhibiting similar hydrogeological conditions as past mining including stream undermining, undermining of aquifers and mining through hydraulically fractured (frac'd) coalbed methane wells. Based upon the successful history of the operation with regards to hydrogeological features, MM assumes that the operation will not be hindered by such issues in the future. 7.5 Geotechnical Data The general mining plan for this underground mine w developed by Warrior Met. Section layouts, pillar sizes, and

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# 8 Sample Preparation Analyses and Security

## 8.1 Prior to Sending to the Lab

Most of the coal samples have been obtained from the Property by subsurface exploration using core drilling techniques. The protocol for preparing and testing the samples has varied over time and is not well documented for the older holes drilled on the Property. Typical core-drilling sampling methods for coal in the United States involves drilling through the seam, removing the core from the barrel, describing the lithology, wrapping the sample in a sealed plastic sleeve and placing it lengthwise into a covered core box, and carefully marking hole ID and depth intervals on each box and lid, allowing the core to be delivered to a laboratory in correct stratigraphic order, and with original moisture content. This process has been the norm for both historical and ongoing exploration activities at the Property.

This work is typically performed by the supervising driller, geologist, or company personnel. Samples are most often delivered to the company by the driller after each shift or acquired by company personnel or representatives. Most of the coal core samples were obtained by previous or current operators on the Property. MM&A did not participate in the collection, sampling, and analysis of the core samples. However, it is reasonable to assume, given the consistency of quality from previous operators, that these samples were generally collected and processed under industry best practices. This assumption is based on MM&A's familiarity with the operating companies and the companies used to perform the analyses.

## 8.2 Lab Procedures

Coal-quality testing has been performed over many years by operating companies using different laboratories and testing regimens. Some of the samples have raw analyses and washabilities on the full seam (with coal and rock parting layers co-mingled) and are mainly useful for characterizing the coal quality for projected production from underground mining. Other samples have coal and rock analyzed separately, the results of which can be manipulated to forecast underground mining quality. Care has been taken to use only those analyses that are representative of the coal quality parameters for the appropriate mining type for each sample.

Standard procedure upon receipt of core samples by the testing laboratory is to: 1) log the depth and thickness of the sample; then 2) perform testing as specified by a representative of the operating company. Each sample is then analyzed in accordance with procedures defined under **American Society for Testing and Materials (***ASTM***)** standards including, but not limited to washability (ASTM D4371); ash (ASTM D3174); sulfur (ASTM D4239); Btu/lb. (ASTM D5865); volatile matter (ASTM D3175); Free Swell Index (*FSI*) (ASTM D720). While not confirmed by MM&A, it is assumed that best practices and ASTM (or equivalent standards at the time of testing) were utilized in laboratory quality testing.

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8 Sample Preparation Analyses and Security 8.1 Prior to Sending to the Lab Most of the coal samples have been obtained from the Property by subsurfa exploration using core drilling techniques. The protocol for preparing and testing the samples has varied over time and is not well documented for the ol holes drilled on the Property. Typical core-drilling sampling methods for coal in the United States involves drilling through the seam, removing the core from the barrel, describing the lithology, wrapping the sample in a sealed plastic sleeve and placing it lengthwise into a covered core box, and carefully marking hole ID and depth intervals on each box and lid, allowing the core to be delivered to a laboratory in correct stratigraphic order, and with origina moisture content. This process has been the norm for both historical and ongoing exploration activities at the Property. This work is typically performed the supervising driller, geologist, or company personnel. Samples are most often delivered to the company by the driller after each shift or acquired by company personnel or representatives. Most of the core samples were obtained by previous or current operators on the Property. MM&A did not participate in the collection, sampling, and analysis of the core samples. However, it is reasonable to assume, given the consistency of quality from previous operating companies and the companies used to perform the analyses. 8.2 Lab Procedures Coal-quality testing has been performed over many years operating companies using different laboratories and testing regimens. Some of the samples have raw analyses and washabilities on the full seam (with c and rock parting layers co-mingled) and are mainly useful for characterizing the coal quality for projected production from underground mining. Other

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# 8.3 Opinion of Qualified Person

Based upon the consistency of quality information derived from multiple historical and ongoing exploration campaigns, MM&A finds the security protocols of past an ongoing exploration to be sufficient for resource and reserve documentation. Warrior Met's geology staff reports that it currently manages all exploration-based logistics, including core/channel sampling logging, transportation of material to the requisite laboratories, and the population/security of samples and appropriate laboratory forms. Currently, **Central Lab** handles the majority of coal analytical procedures related to exploration. Occasionally, **Coal Tech** (Pittsburgh, PA) will also analyze samples.]

# 9 Procedures utilized by Warrior Met are aligned with typical protocols used in the coal industry. Data Verification

# 9.1 Procedures of Qualified Person

MM&A reviewed the Warrior Met supplied digital geologic database. The database consists of data records, which include drill hole information for holes that lie within and adjacent to the Property and records for supplemental underground coal seam thickness measurements. Upon completion of the database verification, copies of each entry were printed on a test case basis, and cross referenced to the original document for verification. Once the initial integrity of the database was established, stratigraphic columnar sections were generated using cross-sectional analysis to establish or confirm coal-seam correlations. Geophysical logs were used wherever available to assist in confirming the seam correlation and to verify proper seam thickness measurements and recovery of coal samples.

After establishing and/or verifying proper seam correlation, seam data-control maps and geological cross-sections were generated and again used to verify seam correlations and data integrity. Once the database was fully vetted, seam thickness, base-of-seam elevation, roof and floor lithology, and overburden maps were independently generated for use in the mine planning process.

## 9.2 Limitations

As with any exploration program, localized anomalies cannot always be discovered. The greater the density of the samples taken, the less the risk. Once an area is identified as being of interest for inclusion in the mine plan, additional samples are taken to help reduce the risk in those specific areas. In general, provision is made in the mine planning portion of the study to allow for localized anomalies that are typically classed more as a nuisance than a hinderance.

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8.3 Opinion of Qualified Person Based upon the consistency of quality information derived from multiple historical and ongoing exploration campaigns MM&A finds the security protocols of past an ongoing exploration to be sufficient for resource and reserve documentation. Warrior Met's geology staff reports that it currently manages all exploration-based logistics, including core/channel sampling logging, transportation of material to the requisite laboratories, and the population/security of samples and appropriate laboratory forms. Currently, Central Lab handles the majority of coal analytical procedures related to exploration. Occasionally, Coal Tech (Pittsburgh, PA) will also analyze samples.] 9 Procedures utilized by Warrior Met are aligned with typical protocols used in the coal industry. Data Verification 9.1 Procedures of Qualified Person MM&A reviewed the Warrior Met supplied digital geologic database. The database consists of data records, which include drill hole information for holes that lie within and adjacent to the Property and records for supplemental underground coal seam thickness measurements. Upon completion of the database verification, copies of each entry were print

on a test case basis, and cross referenced to the original document for verification. Once the initial integrity of the database was established, stratigraphic columnar sections were generated using cross-sectional analysis to establish or confirm coal-seam correlations. Geophysical logs were used wherever available to assist in confirming the seam correlation and to verify proper seam thickness measurements and recovery of coal samples. After establishing and/or verifying proper seam correlation, seam data-control maps and geological cross-sections were generated and again used to verify seam correlation and data integrity. Once the database was fully vetted, seam thickness, base-of-seam elevation, roof and floor lithology, and overburden maps were independently generated for use in the mine planning process. 9.2 Limitations as with any exploration program, localized anomalies cannot always be discovered. The greater the density of the samples taken, the less the risk. Once an area is identified as being of interest for inclusion in the mine plan, additional samples are taken to help reduce the risk in those specific areas. In general, provision is made in the mine planning portion of the study to allc for localized anomalies that are typically classed more as a nuisance than a hindrance. MARSHALL MILLER & ASSOCIATES, INC. 40



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## 9.3 Opinion of Qualified Person

Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

## 10 Mineral Processing and Metallurgical Testing

## 10.1 Testing Procedures

Separate tabulations have been compiled for basic chemical analyses (both raw and washed quality), petrographic data, rheological data and chlorine, ash, ultimate and sulfur analysis. The latter two data types are not as prevalent and have been supplemented by samples collected from mine stockpiles and either truck- or train-shipment samples.

Available coal-quality data were tabulated by resource area in a Microsoft® EXCEL workbook and the details of that work are maintained on file at the offices of Warrior Met and MM&A. These tables also provide basic statistical analyses of the coal quality data sets, including average value; maximum and minimum values; and the number of samples available to represent each quality parameter of the seam. Coal samples that were deemed by MM&A geologists to be unrepresentative were not used for statistical analysis of coal quality, as documented in the tabulations. A representative group of drill hole samples from the Property were then checked against the original drill laboratory reports to verify accuracy and correctness.

The amount and areal extent of coal sampling for geological data is generally sufficient to represent the quality characteristics of the coal horizons and allow for proper market placement of the subject coal seams. For some of the coal deposits there are considerable laboratory data from core samples that are representative of full extent of the resource area; and for others there are more limited data to represent the resource area. For example, in the active operation with considerable previous mining, there may be limited quality data within some of the remaining resource area; however, in those cases the core sampling data can be supplemented with operational data from mining and shipped quality samples representative of the resource area.

MM&A extrapolated exploration-based quality information, generally summarized at a 1.50 or 1.55 float gravity, to determine yields which would correspond to a 10.2-ash product (dry basis). MM&A conducted plant simulations based upon Warrior Met's processing plant circuitry to determine yields that would be practically achievable for a 10.2-ash product specification. MM&A utilized its regional knowledge of the Mary Lee and Blue Creek horizons and its processing expertise gained from projects completed for Warrior Met, including typical washability (multiple gravities) and sizing information. Organic efficiencies were considered to account for misplaced coal and reject material. After

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9.3 Opinion of Qualified Person Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data are of sufficient quantity and reliability reasonably support the coal resource and coal reserve estimates in this TRS. 10 Mineral Processing and Metallurgical Testing 10.1 Testing Procedures Separate tabulations have been compiled for basic chemical analyses (both raw and washed quality), petrographic data, rheological data and chlorine, as ultimate and sulfur analysis. The latter two data types are not as prevalent and have been supplemented by samples collected from mine stockpiles and e truck- or train-shipment samples. Available coal-quality data were tabulated by resource area in a Microsoft® EXCEL workbook and the details of that v

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considering typical processing inefficiencies, in general, the 1.50 float yield data obtained from exploration data roughly corresponds to a 10.2-ash product. In some areas, yields were further reduced from those obtained by 1.50 float averages to produce a 10.2-ash product.

## 10.2 Relationship of Tests to the Whole

The extensive sampling and testing procedures typically followed in the coal industry result in an excellent correlation between samples and marketable products. As shipped analyses of the coal from the Property were reviewed to verify that the coal quality and characteristics were as expected. The Property has a long history of saleable production within the mid-volatile metallurgical markets, which is expected to change to high-volatile placement as development and longwall mining continue in the North reserve area. Degradation of coking coal characteristics over time is not anticipated to be an issue.

## 10.3 Lab Information

Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brookwood, Alabama. MM&A assumes that it operates in accordance with procedures defined under ASTM standards including, but not limited to:

- > ASTM D 4371 Test Method for Determining Washability Characteristics of Coal
- > ASTM D 3174 Method for Ash in the Analysis Sample of Coal and Coke
- > ASTM D 5865 Test Method for Gross Calorific Value of Coal and Coke
- > ASTM D 3175 Test Method for Volatile Matter in the Analysis Sample of Coal and Coke
- > ASTM D 720 Test Method for Free-Swelling Index (FSI) of Coal
- ASTM D 5515 Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arnu)
- > ASTM D 2639 Test Method for Plastic Properties of Coal (Gieseler)
- > ASTM D 1857 Standard Test Method for Fusibility of Coal and Coke Ash
- > ASTM D 2798 Microscopical Determination of the Reflectance of Vitrinite in a Polished Specimen of Coal

MM&A was not able to confirm that exact ASTM standards were used on older coal quality samples. Consistency in coal quality data suggests that similar parameters were likely utilized for quality analysis.

## 10.4 Relevant Results

No critical factors have been found that would adversely affect the recovery of the reserve. Any quality issues that occur, either localized or generally, are accounted for in the marketing study done for this TRS.

considering typical processing inefficiencies, in general, the 1.50 float yield data obtained from exploration data roughly corresponds to a 10.2-ash produ In some areas, yields were further reduced from those obtained by 1.50 float averages to produce a 10.2-ash product. 10.2 Relationship of Tests to the W The extensive sampling and testing procedures typically followed in the coal industry result in an excellent correlation between samples and marketable products. As shipped analyses of the coal from the Property were reviewed to verify that the coal quality and characteristics were as expected. The Property were reviewed to verify that the coal quality and characteristics were as expected. has a long history of saleable production within the mid-volatile metallurgical markets, which is expected to change to high-volatile placement as development and long wall mining continue in the North reserve area. Degradation of coking coal characteristics over time is not anticipated to be an iss 10.3 Lab Information Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brook wood, Alabama. MM&A assumes it operates in accordance with procedures defined under ASTM standards including, but not limited to: > ASTM D 4371 - Test Method for Determining Wash ability Characteristics of Coal > ASTM D 3174 - Method for Ash in the Analysis Sample of Coal and Coke > ASTM D 5865 - Test Method for G Calorific Value of Coal and Coke > ASTM D 3175 – Test Method for Volatile Matter in the Analysis Sample of Coal and Coke > ASTM D 720 – Test Method for Free-Swelling Index (FSI) of Coal > ASTM D 5515 - Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arno) > ASTM D 2639 - Test Method for Plastic Properties of Coal (Gisele) > ASTM D 1857 - Standard Test Method for Fusibility of Coa and Coke Ash > ASTM D 2798 – Microscopically Determination of the Reflectance of Vitrine in a Polished Specimen of Coal MM&A was not able to confirm that exact ASTM standards were used on older coal quality samples. Consistency in coal quality data suggests that similar parameters were likely utilized for quality analysis. 10.4 Relevant Results No critical factors have been found that would adversely affect the recovery of the reserve. Any quali issues that occur, either localized or generally, are accounted for in the marketing study done for this TRS. MARSHALL MILLER & ASSOCIATES, IN 42



## 10.5 Pertinent Results and Opinion of the Qualified Person

Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarized in the table below. Additionally, wash recovery estimates on a LOM basis are included, reflective of dilution material.

Seam	Basis	Wash Recovery (%)
Area 5/East		
Mary Lee & Blue Creek	Simulations to Achieve 10.2% Ash Product	78.9%
Area 6/North		
Mary Lee	Simulations to Achieve 10.2% Ash Product	83.8%
Blue Creek	Simulations to Achieve 10.2% Ash Product	78.5%
LOM		
Mary Lee + Blue Creek + Dilution	Above Assumptions + Consideration of Dilution	49.2%

### Table 10-1: Summary of Wash Recovery Assumptions (Mine 4)

The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongoing exploration campaigns is adequate to document mineral resources and reserves presented herein. The distribution of quality information has been considered in measured and indicated resource status, and subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addressing short-term and long-term quality projections.

## 11 Mineral Resource Estimates

MM&A independently created a geologic model to define the coal resources at the Property. Coal resources were estimated as of December 31, 2022. Resources are reported <u>inclusive</u> of coal reserves for Mine No. 4. The resources presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Resources are <u>not</u> reported in addition to coal reserves. There are <u>no</u> resources <u>exclusive</u> of reserves included in this TRS. Due to constraints imposed by differences in coal quality testing methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interburden between the Mary Lee and Blue Creek seams (a.k.a. *Middleman*). Ash bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the property's resource. Pertinent definitions related to mineral resources are shown below.

Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in

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10.5 Pertinent Results and Opinion of the Qualified Person Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarize the table below. Additionally, wash recovery estimates on a LOM basis are included, reflective of dilution material. Table 10-1: Summary of Wash Reco Assumptions (Mine 4) Seam Basis Wash Recovery (%) Area 5/East Mary Lee & Blue Creek Simulations to Achieve 10.2% Ash Product 78.9% Area 6/North Mary Lee Simulations to Achieve 10.2% Ash Product 83.8% Blue Creek 78.5% LOM Mary Lee + Blue Creek + Dilution Above Assumptions + Consideration of Dilution 49.2% The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongo exploration campaigns is adequate to document mineral resources and reserves presented herein. The distribution of quality information has been consid in measured and indicated resource status, and subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addres short-term and long-term quality projections. 11 Mineral Resource Estimates MM&A independently created a geologic model to define the coal resource the Property. Coal resources were estimated as of December 31, 2022. Resources are reported inclusive of coal reserves for Mine No. 4. The resources presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Resources are not reported in addition to coal reserves. Th are no resources exclusive of reserves included in this TRS. Due to constraints imposed by differences in coal quality testing methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interbred between the Mary Lee and Blue Creek seams (a.k.a. Middleman). A bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the property's resource. Pertinent definitions related to mineral resources are shown below. > Mineral Resource is a concentration or occurrence of ma

estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in MARSHALL MILLER & ASSOCIATES, INC. 43



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part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.

- Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve. No inferred mineral resources are considered as part of this exercise.
- Indicated Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.
- Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

### 11.1 Assumptions, Parameters and Methodology

Geological data was imported into Carlson Mining<sup>\*</sup> (formerly SurvCADD<sup>\*</sup>) geological modelling software in the form of Microsoft<sup>\*</sup> Excel files incorporating drill hole collars, seam and thickness picks, bottom seam elevations and raw and washed coal quality. These data files were validated prior to importing into the software. Once imported, a geologic model was created, reviewed and verified with a key element being a gridded model of coal seam thickness. Resource tonnes were estimated by using the seam thickness grid based on each valid point of observation and by defining resource confidence arcs around the points of observation. Points of observation for Measured and Indicated confidence arcs were defined for all valid drill holes that intersected the seam using standards deemed acceptable by MM&A based on a detailed geologic evaluation and a statistical analysis of all drill holes within the projected reserve areas as described in *Section 11.1.1*. The geological evaluation incorporated an

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part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled. > Inferred Mineral Resource is that part of mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral resource. No inferred mineral resources are considered as part of this exercise. > Indicated Mineral Resource is that part of a mineral resource for which quantity a grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a mineral resource of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certa associated with a mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support mine planning. The level of geological certa associated with a measured mineral resource is that part of a mineral resource for which quantity and grade or quality are estimate

to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve. 11.1 Assumptions, Parameters and Methodology Geological data was imported in Carlson Mining® (formerly SurvCADD®) geological modelling software in the form of Microsoft® Excel files incorporating drill hole collars, seam an thickness picks, bottom seam elevations and raw and washed coal quality. These data files were validated prior to importing into the software. Once imported, a geologic model was created, reviewed and verified with a key element being a gridded model of coal seam thickness. Resource tones were estimated by using the seam thickness grid based on each valid point of observation and by defining resource confidence arcs around the points of observation. Points of observation for Measured and Indicated confidence arcs were defined for all valid drill holes that intersected the seam using stand deemed acceptable by MM&A based on a detailed geologic evaluation and a statistical analysis of all drill holes within the projected reserve areas as described in Section 11.1.1. The geological evaluation incorporated an MARSHALL MILLER & ASSOCIATES, INC. 44



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analysis of seam thickness related to depositional environments, adjacent roof and floor lithologies, and structural influences.

After validating coal seam data and establishing correlations, the thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the relative structural simplicity of the deposits and the reasonable continuity of the tabular coal beds, the principal geological interpretation necessary to define the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coal thickness and quality data are deemed by MM&A to be reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confidence in the geologic interpretations required for coal resource determination based on the available data and the techniques applied to the data.

Table 11-1 below provides the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters have been developed by MM&A based on its experience with the Warrior Met property and are typical of mining operations in the Black Warrior coal basin. This experience includes technical and economic evaluations of numerous properties in the region for the purposes of determining the economic viability of the subject coal reserves.

Item	Parameters	Technical Notes & Exceptions*
General Reserve Criteria		
Reserve Classification	Reserve and Resource	the maximum and an announced a
Reliability Categories	Reserve (Proven and Probable) Resource (Measured and Indicated)	Measured Resources and Proven Reserves Only Considered if located with 0.75 miles of a quality location or 0.25 miles of an active mining section. Further, Measured Resources and Proven Reserves Must be Located with 0.25 miles of a point of observation or active section.
Effective Date of Resource Estimate	December 31, 2022	Coal resources were updated for depletion based on information from Warrior Met. Effective date for coal resources is as of December 31, 2022.
Effective Date of Reserve Estimate	December 31, 2022	Coal reserves were updated for depletion based on information from Warrior Met. Effective date for coal reserves is as of December 31, 2022.
Seam Density	Variable, dependent upon seam characteristics (based on available drill hole quality).	
Underground-Mineable Criteria	talen eta zutez han dar bezenin eta bizten da biz. T	
Map Thickness	Total seam thickness	
Minimum Seam Thickness	4.5 feet	
Minimum Mining Thickness	5.0 Feet for Longwall 7.0 Feet for Continuous Mining	
Minimum In-Seam Wash Recovery	Accounted for in seam thickness cutoffs. Minimum Annual Wash Recovery (inclusive of dilution) of approximately 30%. LOM Average = 47%.	-
Wash Recovery Applied to Coal Reserves	Based on average yield for drill holes within reserve area and simulated plant models to produce a 10.2-percent ash product.	
Out-of-Seam Dilution Thickness for Run- of-Mine Tonnes Applied to Coal Reserves	Minimum of 3 inches or delta between mining height and total seam (Mary Lee + Blue Creek + Middleman) height.	2.3 SG used for dilution tonnage estimate
Mine Barrier	Not Applicable – Reserves Not Adjacent to Abandoned Works	

### Table 11-1: General Reserve and Resource Criteria

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analysis of seam thickness related to depositional environments, adjacent roof and floor lithology's, and structural influences. After validating coal seam data and establishing correlations, the thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the relative structural simplicity of the deposits and the reasonable continuity of the tabular coal beds, the principal geological interpretation necessary to define the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coal thickness and quality data are deemed by MM&A to be reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confidence in the geologic interpretations required for coal resource areas.

determination based on the available data and the techniques applied to the data. Table 11-1 below provides the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters have been developed by MM&A based on its experience v the Warrior Met property and are typical of mining operations in the Black Warrior coal basin. This experience includes technical and economic evaluati of numerous properties in the region for the purposes of determining the economic viability of the subject coal reserves. Table 11-1: General Reserve an Resource Criteria Item Parameters Technical Notes & Exceptions\* • General Reserve Criteria Reserve Classification Reserve and Resource Reliability Categories Reserve (Proven and Probable) Measured Resources and Proven Reserves Only Considered Resource (Measured and Indicated) if located wi 0.75 miles of a quality location or 0.25 miles of an active mining section. Further, Measured Resources and Proven Reserves Must Be Located with 0.25 miles of a point of observation or active section. Effective Date of Resource Estimate December 31, 2022 Coal resources were updated for depletion bas on information from Warrior Met. Effective date for coal resources is as of December 31, 2022. Effective Date of Reserve Estimate December 31, 2022 Coal reserves were updated for depletion based on information from Warrior Met. Effective date for coal reserves is as of December 31, 2022. Seam Del Variable, dependent upon seam characteristics (based on available drill hole quality). • Underground-Mineable Criteria Map Thickness Total seam thick Minimum Seam Thickness 4.5 feet Minimum Mining Thickness 5.0 Feet for Long wall 7.0 Feet for Continuous Mining Minimum In-Seam Wash Recov Accounted for in seam thickness cutoffs. Minimum Annual Wash Recovery (inclusive of dilution) of approximately 30%. LOM Average = 47%. Wash Recovery Applied to Coal Reserves Based on average yield for drill holes within reserve area and simulated plant models to produce a 10.2-percent ash product. Out-of-Seam Dilution Thickness for Run- Minimum of 3 inches or delta between mining 2.3 SG used for dilution tonnage estimate of-Mine To Applied to Coal Reserves height and total seam (Mary Lee + Blue Creek + Middleman) height. Mine Barrier Not Applicable - Reserves Not Adjacent to Abandoned Works MARSHALL MILLER & ASSOCIATES, INC. 45



Item	Parameters	Technical Notes & Exceptions*
CBM Wells	CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resource reductions considered.	
Adjustments Applied to Coal Reserves	10 percent moisture increase	

Note: Exceptions for application of these criteria to reserve estimation are made as warranted and demonstrated by either actual mining experience or detailed data that allows for empirical evaluation of mining conditions. Final classification of coal reserve is made based on the pre-feasibility evaluation.

### 11.1.1 Geostatistical Analysis for Classification

MM&A completed a geostatistical analysis on the Blue Creek's supporting drill holes within the reserve boundaries to determine the applicability of the common United States classification system for measured and indicated coal resources. Warrior Met's exploration dataset is unique in that a significant portion of data is sourced from geophysical logs associated with coalbed methane wells. Commonly, geophysical data from some of the earlier-vintage gas well log exhibits (with low-resolution definition) allow identification of coal seams but hinder one's ability to accurately define precise coal thicknesses and in-seam parting thickness measurements. As such, geological modeling of the subject coal seams excluded low-resolution geophysical thickness interpretations from gas wells; however, seam thicknesses which were derived from higher resolution geophysical logs were utilized. The geostatistical analysis presented herein only includes information utilized for resource and reserve modeling.

Historically, the United States has assumed that coal within 0.25 miles of a point of observation represents a measured resource whereas coal between 0.25 miles and 0.75 miles from a point of observation is classified as indicated. Inferred resources are commonly assumed to be located between 0.75 miles and 3 miles from a point of observation. Per SEC regulations, only measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves.

MM&A performed a geostatistical analysis of the Warrior Met data set using the Drill Hole Spacing Analysis (DHSA) method. This method attempts to quantify the uncertainty of applying a measurement from a central location to increasingly larger square blocks and provides recommendations for determining the distances between drill holes for measured, indicated, and inferred resources.

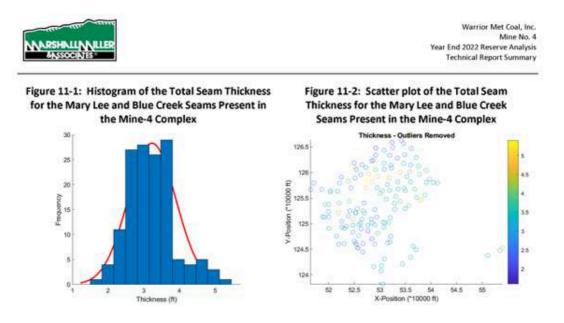
To perform DHSA the data set was processed to remove any erroneous data points, clustered data points, as well as directional trends. This was achieved through the use of histograms, as seen in *Figure 11-1*, color coded scatter plots showing the geospatial positioning of the borings, *Figure 11-2*, and trend analysis.

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Item Parameters Technical Notes & Exceptions\* CBM Wells CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resource reductions considered. Adjustments Applied to Coal Reserves 10 percent moisture increase Note: Exceptions for application of these criteria to reserve estimation are made as warranted and demonstrated by either actual mining experience or detailed data that allows for empirical evaluation of mining conditions. Final classification of coal reserve is made based on the pre-feasibility evaluation. 11.1.1 Geostatistical Analysis for Classification MM&A completed a geostatistical analysis on the Blue Creek's supporting drill holes within the reserve boundaries to determine the applicability of the common United States classification system for measured and indicated coal resources. Warrior Met's exploration dataset is unique i that a significant portion of data is sourced from geophysical logs associated with coalbed methane wells. Commonly, geophysical data from some of the earlier-vintage gas well log exhibits (with low-resolution definition) allow identification of coal seams but hinder one's ability to accurately define preci coal thicknesses and in-seam parting thickness measurements. As such, geological modeling of the subject coal seams excluded low-resolution geophysi thickness interpretations from gas wells; however, seam thicknesses which were derived from higher resolution geophysical logs were utilized. The geostatistical analysis presented herein only includes information utilized for resource and reserve modeling. Historically, the United States has assumed that coal within 0.25 miles of a point of observation represents a measured resource whereas coal between 0.25 miles and 0.75 miles from a point of observation is classified as indicated. Inferred resources are commonly assumed to be located between 0.75 miles and 3 miles from a point of observatio Per SEC regulations, only measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves. MM&A performed a geostatistical analysis of the Warrior Met data set using the Drill Hole Spacing Analysis (DHSA) method. This method attempts to quantify the uncertainty of applying a measurement from a central location to increasingly larger square blocks and provides recommendations for

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Following the completion of data processing, a variogram of the data set was created, *Figure 11-3*. The variogram plots average square difference against the separation distance between the data pairs. The separation distance is broken up into separate bins defined by a uniform lag distance (e.g., for a lag distance of 499 feet the bins would be 0 - 499 feet, 502 - 1,000 feet, etc.). Each pair of data points that are less than one lag distance apart are reported in the first bin. If the data pair is further apart than one lag distance but less than two lag distances apart, then the variance is reported in the second bin. The numerical average for differences reported for each bin is then plotted on the variogram. Care was taken to define the lag distance in such a way as to not overestimate any nugget effect present in the data set. Lastly, modeled equations, often spherical, gaussian, or exponential, are applied to the variogram in order to represent the data set across a continuous spectrum.

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Figure 11-1: Histogram of the Total Seam Thickness Figure 11-2: Scatter plot of the Total Seam for the Mary Lee and Blue Creek Seams Present in Thickness for the Mary Lee and Blue Creek the Mine-4 Complex Seams Present in the Mine-4 Complex Following the completion of data processing, a variogram of the data set was created, Figure 11-3. The variogram plots average square difference against the separation distance between the data pairs. The separation distance is broken up into separate bins defined by a uniform lag distance (e.g., for a lag distance of 499 feet the bins would be 0 - 499 fc 502 - 1,000 feet, etc.). Each pair of data points that are less than one lag distance apart are reported in the first bin. If the data pair is further apart than or lag distance but less than two lag distances apart, then the variance is reported in the second bin. The numerical average for differences reported for each is then plotted on the variogram. Care was taken to define the lag distance in such a way as to not overestimate any nugget effect present in the data set. Lastly, modeled equations, often spherical, gaussian, or exponential, are applied to the variogram in order to represent the data set across a continuous spectrum. MARSHALL MILLER & ASSOCIATES, INC. 47

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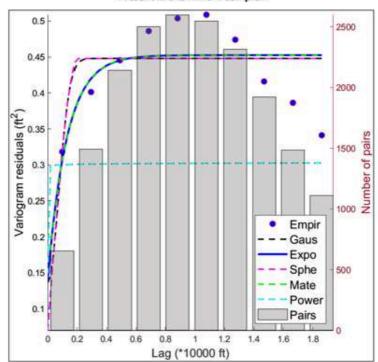


Figure 11-3: Variogram of the Total Seam Thickness for the Mary Lee and Blue Creek Seams Present in the Mine-4 Complex

The estimation variance is then calculated using information from the modeled variogram as well as charts published by Journel and Huijbregts (1978). This value estimates the variance from applying a single central measurement to increasingly larger square blocks. Care was taken to ensure any nugget effect present was added back into the data. This process was repeated for each test block size.

The final step of the process is to calculate the global estimation variance. In this step the number square blocks that would fit inside the selected study area is determined for each block size that was investigated in the previous step. The estimation variance is then divided by the number of blocks that would fit inside the study area for each test block size. Following this determination, the data is then transformed back to represent the relative error in the 95<sup>th</sup>-percentile range.

Figure 11-4 shows the results of the DHSA performed on the Blue Creek seam data for Mine No. 4. DHSA provides hole to hole spacing values, these distances need to be converted to radius from a central point in order to compare to the historical standards. A summary of the radius data is shown in *Table 11-2*. DHSA prescribes measured, indicated, and inferred drill hole spacings be determined at the 10-percent, 20-percent, and 50-percent levels of relative error, respectively.

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Figure 11-3: Variogram of the Total Seam Thickness for the Mary Lee and Blue Creek Seams Present in the Mine-4 Complex The estimation variance is then calculated using information from the modeled variogram as well as charts published by Journel and Huijbregts (1978). This value estimates the variance from applying a single central measurement to increasingly larger square blocks. Care was taken to ensure any nugget effect present was added back into the data. This process was repeated for each test block size. The final step of the process is to calculate the global estimation variance. In this s the number square blocks that would fit inside the selected study area is determined for each block size that was investigated in the previous step. The estimation variance is then divided by the number of blocks that would fit inside the study area for each test block size. Following this determination, the data is then transformed back to represent the relative error in the 95th-percentile range. Figure 11-4 shows the results of the DHSA performed on the BI Creek seam data for Mine No. 4. DHSA provides hole to hole spacing values, these distances need to be converted to radius from a central point in order compare to the historical standards. A summary of the radius data is shown in Table 11-2. DHSA prescribes measured, indicated, and inferred drill hole spacings be determined at the 10-percent, 20-percent, and 50-percent levels of relative error, respectively. MARSHALL MILLER & ASSOCIATES, INC



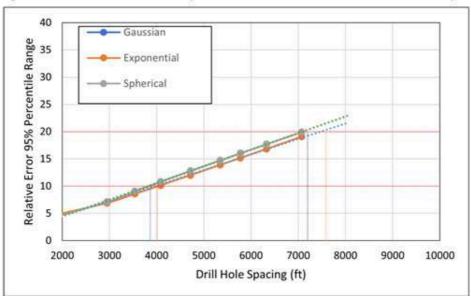


Figure 11-4: Result of DHSA for the Mary Lee and Blue Creek Seams Present in the Mine-4 Complex



Model:	Measured Radial Distance (10% Relative Error)	Indicated Radial Distance (20% Relative Error)	Inferred Radial Distance (50% Relative Error)		
	(mi)	(mi)	(mi)		
Gaussian:	0.37	0.68	1.63		
Spherical:	0.37	0.68	1.63		
Exponential:	0.38	0.72	1.73		

Comparing the results of the DHSA to the historical standards, it is evident that the historical standards are more conservative than even the most conservative DHSA model with regards to determining measured resources. The Gaussian and Spherical models recommend using a radius of 0.37 miles for measured resources compared to the historical value of 0.25 miles. With respect to indicated resources the DHSA falls in line closely with the historical standards. The Gaussian and Spherical models recommend using a radius of 0.68 miles, while the Exponential model recommends a radius of 0.72 miles. These values align closely with the historical radius of 0.75 miles. These results have led the QP's to report the data following the historical classification standards, rather than use the results of the DHSA.

### 11.1.1.1 Additional Commentary on Measured and Indicated Breakdowns

As previously mentioned, Warrior Met's exploration dataset is unique in that it includes data derived from low-resolution and higher-resolution geophysical logs. Although the low-resolution data is not used for geological modeling to support resource and reserve calculations, it is valuable to confirm the

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Figure 11-4: Result of DHSA for the Mary Lee and Blue Creek Seams Present in the Mine-4 Complex Table 11-2: DHSA Results Summary for Radius f a Central Point Measured Radial Distance Indicated Radial Distance Inferred Radial Distance Model: (10% Relative Error) (20% Relative Error) (50% Relative Error) (mi) (mi) (mi) Gaussian: 0.37 0.68 1.63 Spherical: 0.37 0.68 1.63 Exponential: 0.38 0.72 1.73 Comparing the results of the DHSA to the historical standards, it is evident that the historical standards are more conservative than even the most conservative DHSA model with regards to determining measured resources. The Gaussian and Spherical models recommend using a radius of 0.37 miles for measured resources compared to the historical value of 0.25 miles. With respect to indicated resources the DHSA falls in line closely with the historical standards. The Gaussian and Spheric models recommend using a radius of 0.72 miles. These values align closely with the historical radius of 0.75 miles. These results have led the QP's to report the data following the historical classification standards, rather than use the resu of the DHSA. 11.1.1.1 Additional Commentary on Measured and Indicated Breakdowns As previously mentioned, Warrior Met's exploration dataset is unique in that it includes data derived from low-resolution and higher-resolution geophysical logs. Although the low-resolution data is not used for geological modeling to support resource and reserve calculations, it is valuable to confirm the MARSHALL MILLER & ASSOCIATES, INC. 49



presence or absence of the subject coal beds. To account for the unique combination of data available for geological modeling and reserve definitions, the following assumptions have been made by the report authors to derive Measured and Indicated resource (and subsequently, Proven and Probable reserve) criteria.

- Coal tonnes must be located within ¼ mile (3,960-feet) of an exploration drillhole with quality information <u>or</u> ¼ mile (1,320 feet) from active mine workings to be considered for "Measured" (and "Proven") status. Coal tonnes located outside of this ¼ mile buffer are only considered for "Indicated" (and "Probable") status.
- Once applying a % mile (3,960-feet) buffer to quality-based data and mine works, coal tonnes must be located with % mile of <u>any</u> point of observation to have "Measured" (and "Proven") status, including gas wells.
- "Indicated" (and "Probable") tonnes represent those tonnes located within the %-mile buffer from quality-based information yet are located between % and % mile from any point of observation, including gas wells.
- "Indicated" (and "Probable") tonnes also reflect those tons located outside of the <sup>3</sup>-mile buffer from quality-based points <u>and</u> are located within <sup>3</sup>/<sub>4</sub> mile from any point of observation.
- Inferred tonnes are not applicable to this exercise, as all tonnes meet the aforementioned "Measured" and "Indicated" criteria.

## 11.2 Qualified Person's Estimates

Mineral resources, representing in-situ coal in which a portion of reserves are derived, are presented below. Based on the work described and detailed modelling of the areas considering all the parameters defined, a coal resource estimate, summarized in *Table 11-3*, was prepared as of December 31, 2022, for property controlled by Warrior Met. Resources are presented *inclusive* of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages *exclusive* of interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in *Table 1-1* reflect the inclusion of high-ash partings which are ultimately removed after mining during coal preparation. As reflected in the table below, no resources exclusive of reserves have been considered or analyzed in this TRS.

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presence or absence of the subject coal beds. To account for the unique combination of data available for geological modeling and reserve definitions, th following assumptions have been made by the report authors to derive Measured and Indicated resource (and subsequently, Proven and Probable reserve criteria. 1. Coal tones must be located within 3/4 mile (3,960-feet) of an exploration drillhole with quality information or 1/4 mile (1,320 feet) from activ mine workings to be considered for "Measured" (and "Proven") status. Coal tones located outside of this 3/4 mile buffer are only considered for "Indicat (and "Probable") status. 2. Once applying a 3/4 mile (3,960-feet) buffer to quality-based data and mine works, coal tones must be located with 1/4 mile c any point of observation to have "Measured" (and "Proven") status, including gas wells. 3. "Indicated" (and "Probable") tones represent those tones loca within the 3/4-mile buffer from quality-based information yet are located between 1/4 and 3/4 mile from any point of observation, including gas wells, 4. "Indicated" (and "Probable") tones also reflect those tons located outside of the 3/4-mile buffer from quality-based points and are located within 3/4 mile from any point of observation. 5. Inferred tones are not applicable to this exercise, as all tones meet the aforementioned "Measured" and "Indicated" crit 11.2 Qualified Person's Estimates Mineral resources, representing in-situ coal in which a portion of reserves are derived, are presented below. Based on work described and detailed modelling of the areas considering all the parameters defined, a coal resource estimate, summarized in Table 11-3, was prep as of December 31, 2022, for property controlled by Warrior Met. Resources are presented inclusive of coal reserves, not in addition to coal reserves. Resources represent in-place coal tonnages exclusive of interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal sea As such, in-situ tonnages and quality as presented in Table 1-1 reflect the inclusion of high-ash partings which are ultimately removed after mining durin coal preparation. As reflected in the table below, no resources exclusive of reserves have been considered or analyzed in this TRS. MARSHALL MILLE ASSOCIATES, INC. 50



### Table 11-3: Coal Resources Summary as of December 31, 2022

	Coal R	esource (Dry T	onnes, In Situ, I	Resource Quality (Dry)				
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%	
Inclusive of Rese	rves							
Mary Lee	16.5	0.3	0.0	16.7	20		20	
Blue Creek	42.4	0.6	0.0	43.0	÷	(F)	÷	
Total	58.9	0.8	0.0	59.7	16.5	0.9	28	
Exclusive of Rese	rves							
Mary Lee	0.0	0.0	0.0	0.0	÷.		20	
Blue Creek	0.0	0.0	0.0	0.0				
Total	0.0	0.0	0.0	0.0	0.0	0.0	0	
Grand Total	- (e).							
	58.9	0.8	0.0	59.7	16.5	0.9	28	

Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Totals may not add due to rounding.

# 12 Mineral Reserve Estimates

## 12.1 Assumptions, Parameters and Methodology

Coal Reserves are classified as proven or probable considering "modifying factors" including mining, metallurgical, economic, marketing, legal, environmental, social, and governmental factors.

- Mineral Reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.
- Proven Coal Reserves are the economically mineable part of a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.
- Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.

Upon completion of delineation and calculation of coal resources, MM&A generated a LOM plan for the Property based upon LOM Projections provided by Warrior Met. The footprint of the LOM plan is shown on the resource maps in *Figure 7-1*. The mine plan was generated based on the forecasted mine plans and permit plans provided by Warrior Met with modifications by MM&A where necessary due to

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Table 11-3: Coal Resource Summary as of December 31, 2022 Coal Resource (Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indica Inferred Total Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 16.5 0.3 0.0 16.7 ——Blue Creek 42.4 0.6 0.0 43.0 —— Total 58.9 0.8 0.0 59.7 16 0.9 28 Exclusive of Reserves Mary Lee 0.0 0.0 0.0 0.0 ----Blue Creek 0.0 0.0 0.0 0.0 ---- Total 0.0 0.0 0.0 0.0 0.0 0.0 0 Grand Total 58.9 0.8 0.0 59.7 16.5 0.9 28 Note 1: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Sur moisture and inherent moisture are excluded. Totals may not add due to rounding. 12 Mineral Reserve Estimates 12.1 Assumptions, Parameters and Methodology Coal Reserves are classified as proven or probable considering "modifying factors" including mining, metallurgical, economic, marketing legal, environmental, social, and governmental factors. > Mineral Reserve is an estimate of tonnage and grade or quality of indicated and measured mine resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineat part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined extracted. > Proven Coal Reserves are the economically mineable part of a measured coal resource, adjusted for diluting materials and allowances for lo when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors These assessments demonstrate that extraction could be reasonably justified at the time of reporting. > Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured coal resource, adjusted for diluting materials and allowances for loss when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors These assessments demonstrate that extraction could be reasonably justified at the time of reporting. Upon completion of delineation and calculation of c resources, MM&A generated a LOM plan for the Property based upon LOM Projections provided by Warrior Met. The footprint of the LOM plan is sho

on the resource maps in Figure 7-1. The mine plan was generated based on the forecasted mine plans and permit plans provided by Warrior Met with modifications by MM&A where necessary due to MARSHALL MILLER & ASSOCIATES, INC. 51



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

current property control limits, modifications to geologic mapping, or other factors determined during the evaluation.

Carlson Mining software was used to generate the LOM plan for Mine No. 4. The mine plan was sequenced based on productivity schedules provided by Warrior Met. MM&A judged the productivity estimates and plans to be reasonable based on experience and current industry practice and Warrior Met's historical performance at Mine No. 4.

At Mine No. 4, a minimum mining height of 5-feet was used for longwall mining methods and 7-feet for continuous mining methods. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height consists of OSD. Mine recovery generally varies between 30 and 40 percent for continuous mining panels, and 100 percent for longwall. Plant recovery is a function of in-seam recovery, OSD and adjustments to produce a 10.2-ash product. Typical entry width is 20 feet.

Raw, ROM production data outputs from LOM plan sequencing were processed into Microsoft<sup>®</sup> EXCEL spreadsheets and summarized on an annual basis for processing into the economic model. Average seam densities were estimated to determine raw coal tonnes produced from the LOM plan. Average mine recovery and wash recovery factors were applied to determine coal reserve tonnes.

Coal reserve tonnes in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property.

Pricing data as provided by Warrior Met is described in *Section 16.2*. The pricing data assumes an FOB Railcar or barge price of approximately \$129 per metric tonne for calendar year 2022. The price gradually increases to approximately \$161 per metric tonne through 2030 where it is assumed to stay constant through the depletion of the reserves.

The coal resource mapping and estimation process, described in the report, was used as a basis for the coal reserve estimate. Proven and probable coal reserves were derived from the defined coal resource considering relevant processing, economic (including technical estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors and are presented on a moist, recoverable basis.

As is customary in the US, the categories for proven and probable coal reserves are based on the distances from valid points of measurement as determined by the QP for the area under consideration. For this evaluation, measured resource, which may convert to a proven reserve, is based on a 0.25-mile radius from a valid point of observation.

Points of observation include exploration drill holes, degas holes, and mine measurements which have been fully vetted and processed into a geologic model. The geologic model is based on seam depositional modeling, the interrelationship of overlying and underlying strata on seam mineability,

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current property control limits, modifications to geologic mapping, or other factors determined during the evaluation. Carlson Mining software was used generate the LOM plan for Mine No. 4. The mine plan was sequenced based on productivity schedules provided by Warrior Met. MM&A judged the productivity estimates and plans to be reasonable based on experience and current industry practice and Warrior Met's historical performance at Mine N At Mine No. 4, a minimum mining height of 5-feet was used for long wall mining methods and 7-feet for continuous mining methods. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height consists of OSD. Mine recovery genera varies between 30 and 40 percent for continuous mining panels, and 100 percent for long wall. Plant recovery is a function of in-seam recovery, OSD an adjustments to produce a 10.2-ash product. Typical entry width is 20 feet. Raw, ROM production data outputs from LOM plan sequencing were processing into Microsoft® EXCEL spreadsheets and summarized on an annual basis for processing into the economic model. Average seam densities were estimat to determine raw coal tones produced from the LOM plan. Average mine recovery and wash recovery factors were applied to determine coal reserve tom Coal reserve tones in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property. Pricing data as provide by Warrior Met is described in Section 16.2. The pricing data assumes an FOB Railcar or barge price of approximately \$129 per metric ton for calendar 2022. The price gradually increases to approximately \$161 per metric ton through 2030 where it is assumed to stay constant through the depletion of the reserves. The coal resource mapping and estimation process, described in the report, was used as a basis for the coal reserve estimate. Proven and probal

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seam thickness trends, the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in *Section 11.1.1* was conducted and a 0.25-mile radius from a valid point of observation was selected to define Measured Resources.

Likewise, the distance between 0.25 and 0.75 of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves.

There are no Inferred Resources (greater than a 0.75-mile radius from a valid point of observation) at Mine No. 4.

## 12.2 Qualified Person's Estimates

Reserve tonnage estimates provided herein report coal reserves derived from the in-situ resource tonnes presented in *Table 11-3*, and <u>not</u> in addition to coal resources. Proven and probable coal reserves were derived from the defined coal resource considering relevant mining, processing, infrastructure, economic (including estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic and regulatory factors. Such factors include a mine recovery of 72 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 49 percent and the consideration of moisture factors. The coal reserves, as shown in *Table 12-1*, are based on a technical evaluation of the geology and a preliminary feasibility study of the coal deposits. The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or other relevant issues has been reviewed rigorously. Similarly, the extent to which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been considered.

	(Wet	Demonstra Tonnes, Was	ated Coal R hed or Dire						
	By Re	eliability Categ	gory	By Cont	rol Type	Quality (Dry Basis)			Wash
Seam	Proven	Probable	Total	Owned	Leased	Ash%	Sulfur%	VM%	Recovery
Mary Lee	11.3	0.2	11.5	0.0	11.5	- 22	100	2	
Blue Creek	27.4	0.4	27.8	0.0	27.8	1		<u> </u>	49%
Total	38.7	0.5	39.2	0.0	39.2	10.2	0.8	30	100000

Table 12-1: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022

Note 1: Marketable reserve tonnes are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recovery is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by seam basis, absent dilution assumptions.

Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$129.46/ tonne {FOB-mine} in 2023, increasing to a long-term price of approximately \$161.24/tonne. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding.

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seam thickness trends, the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in Section 11.1.1 was conducted and a 0.25-mile radius from a valid point of observation was selected to define Measured Resources Likewise, the distance between 0.25 and 0.75 of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves. There are no Inferred Resources (greater than a 0.75-mile radius from a valid point of observation) at Mine No. 4. 12.2 Qualified Person's Estimates Reserve tonnage estimates provided herein report coal reserves derived from the in-situ resource tones presented in Table 11-3, and not in add to coal resources. Proven and probable coal reserves were derived from the defined coal resource considering relevant mining, processing, infrastructure economic (including estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic and regulatory factors. Such factors inclu mine recovery of 72 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash

recovery of 49 percent and the consideration of moisture factors. The coal reserves, as shown in Table 12-1, are based on a technical evaluation of the geology and a preliminary feasibility study of the coal deposits. The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or other relevant issues has been reviewed rigorously. Similarly, the extent to which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been considered. Table 1: Coal Reserve Summary (Marketable Sales Basis) as of December 31, 2022 Demonstrated Coal Reserves (Wet Tonnes, Washed or Direct Shipped, Mt Reliability Category By Control Type Quality (Dry Basis) Wash Seam Proven Probable Total Owned Leased Ash% Sulfur% VM% Recovery Mary Lee - Blue Creek 27.4 0.4 27.8 0.0 27.8 - 49% Total 38.7 0.5 39.2 0.0 39.2 10.2 0.8 30 Note 1: Marketable reserve tones are reporte 0.2 11.5 0.0 11.5 a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications. Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-ofseam dilution. Wash recovery is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together - allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-se wash recovery on a seam-by -seam basis, absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$129.46/ ton (FOB-mine) in 2023, increasing to a l term price of approximately \$161.24/ton. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding. MARSHAL MILLER & ASSOCIATES, INC. 53



As shown below, coal shipments during 2022 (primarily from the eastern portion of the Property) exhibited a weight-averaged quality very similar to quality projected from core samples (refer to *Table 12-1* above).

- > Moisture content: 9.7%
- > Ash content: 10.2% (db)
- > Sulfur content: 0.8% (db)
- > VM content: 27% (db)

The results of this TRS define an estimated 39.2 Mt of proven and probable marketable coal reserves. Of that total, 99 percent are proven, and 1 percent are probable. All of the Mine No. 4 reserves are leased and are considered suitable for the metallurgical coal market, and all of the reserves are assigned.

### 12.3 Qualified Person's Opinion

The estimate of coal reserves was determined in accordance with SEC standards.

The LOM mining plan for Mine No. 4 was prepared to the level of preliminary feasibility. Mine projections were prepared with a timing schedule to match production with coal seam characteristics. Production timing was carried out from current locations to depletion of the coal reserve area. Coal reserve estimates could be materially affected by the risk factors described in *Section 22.2*.

Based on the preliminary feasibility study and the attendant economic review, MM&A believes this is a fair and accurate estimation of Mine No. 4 coal reserves.

## 13 Mining Methods

### 13.1 Geotechnical and Hydrologic Issues

The mining plan for Mine No. 4 was developed by Warrior Met and modified by MM&A to fit property constraints. Mine geometry, including pillar sizing and panel sizing is typical of ranges currently utilized by Warrior Met in its active operations. Mine recoveries in engineering mining projections are typical of those currently achieved by Warrior Met. MM&A does not anticipate insurmountable challenges with regards to geotechnical issue at the operations based upon 1) Warrior's (and predecessor's) historic success in high resource recovery; 2) Consistent geological criteria in future mining areas and 3) ongoing exploration programs to mitigate risks related to geological and geotechnical (fault) issues.

Pillar stability was tested by MM&A using the Analysis of Coal Pillar Stability (ACPS) program that was developed by the National Institute for Occupational Safety and Health (NIOSH). MM&A reviewed the results from the ACPS analysis and considered them in the development of the LOM plan.

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As shown below, coal shipments during 2022 (primarily from the eastern portion of the Property) exhibited a weight-averaged quality very similar to qu projected from core samples (refer to Table 12-1 above). > Moisture content: 9.7% > Ash content: 10.2% (db.) > Sulfur content: 0.8% (db.) > VM content: 27% (db.) The results of this TRS define an estimated 39.2 Mt of proven and probable marketable coal reserves. Of that total, 99 percent are proven, and percent are probable. All of the Mine No. 4 reserves are leased and are considered suitable for the metallurgical coal market, and all of the reserves are assigned. 12.3 Qualified Person's Opinion The estimate of coal reserves was determined in accordance with SEC standards. The LOM mining plan for M No. 4 was prepared to the level of preliminary feasibility. Mine projections were prepared with a timing schedule to match production with coal seam characteristics. Production timing was carried out from current locations to depletion of the coal reserve area. Coal reserve estimates could be materially affected by the risk factors described in Section 22.2. Based on the preliminary feasibility study and the attendant economic review, MM&A believes thi a fair and accurate estimation of Mine No. 4 coal reserves. 13 Mining Methods 13.1 Geotechnical and Hydrologic Issues The mining plan for Mine No. was developed by Warrior Met and modified by MM&A to fit property constraints. Mine geometry, including pillar sizing and panel sizing is typical of ranges currently utilized by Warrior Met in its active operations. Mine recoveries in engineering mining projections are typical of those currently achieve by Warrior Met. MM&A does not anticipate insurmountable challenges with regards to geotechnical issue at the operations based upon 1) Warrior's (and predecessor's) historic success in high resource recovery; 2) Consistent geological criteria in future mining areas and 3) ongoing exploration programs to mitigate risks related to geological and geotechnical (fault) issues. Pillar stability was tested by MM&A using the Analysis of Coal Pillar Stability (ACP program that was developed by the National Institute for Occupational Safety and Health (NIOSH). MM&A reviewed the results from the ACPS analys and considered them in the development of the LOM plan. MARSHALL MILLER & ASSOCIATES, INC. 54



Hydrology has not been a material issue of concern at Mine No. 4. Mining of future reserves is projected to occur in areas which exhibit similar hydrogeological characteristics as those formerly mined areas.

### 13.2 Production Rates

Mine No. 4 is a single longwall operation which is supported by continuous mining units. The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to reflect future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine development and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves.

Productivity for continuous mining sections and continuous miner sections reflect typical rates incurred in the region. At steady state, the mine produces approximately 2 million clean tonnes per year with variations attributed to changes in clean coal thickness.

Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coal seams. The mine plan was sequenced based on productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological models as constructed by MM&A's team of geologists and mining engineers. *Table 13-1* below summarizes the production forecast for Mine No. 4 illustrating the clean production tonnes and tonnage breakdowns by controlled (reserve) and adverse status. Adverse tonnages represent a risk to the project, as mineral rights must be acquired ahead of mining. Such tons are relatively minimal and only represent approximately 12-percent of the LOM projected tonnages.

(Tonnes x 1,000,000)	Total	Q1 23	02 23	Q3 23	Q423	Q1 24	Q2 24	Q3 24	Q424	2025
In Seam Tonnes, (ML + BC)	55.9	0.54	0.64	0.58	0.62	0.77	0.71	0.67	0.72	2.83
Dilution Tonnes, Baw	34.9	0.44	0.53	0.48	0.40	0.49	0.48	0.41	0.42	1.79
Total Raw Tonnes	90.8	0.99	1.16	1.06	1.02	1.26	1.18	1.08	1.14	4.62
Total Clean Tonnes	44.7	0.43	0.50	0,46	0.49	0.62	0.57	0.54	0.57	2.27
Clean Tonnes - Reserve	39.2	0.43	0.49	0.46	0.49	0.62	0.57	0.52	0.57	2.27
Clean Tonnes - Adverse	5.5	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Percentage Controlled, %	88%	100%	97%	99%	100%	100%	100%	97%	100%	100%
	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
In Seam Tonnes, (ML + BC)	2.9	3.02	2.85	3.12	2.89	2.62	2.47	2.49	2.14	2.40
Dilution Tonnes, Raw	1.8	1.81	1.78	1.51	1.56	1.50	1.53	1.54	1.26	1.39
Total Raw Tonnes	4.7	4.83	4.63	4.63	4.45	4.13	4.00	4.03	3.40	3.78
Total Clean Tonnes	2.3	2.41	2.28	2.50	2.31	2.10	1.98	1.99	1.71	1.91
Clean Tonnes - Reserve		2.29	2.14	2.40	2.16	2.04	1.78	1.55	1.34	1.75
vitenti i outries - mesterve	2.2	- 6.16.0								
Clean Tonnes - Adverse	0.1	0.12	0.14	0.10	0.15	0.06	0.20	0.44	0.37	0.16

### Table 13-1: Mine No. 4 Production Forecast Summary

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Hydrology has not been a material issue of concern at Mine No. 4. Mining of future reserves is projected to occur in areas which exhibit similar hydrogeological characteristics as those formerly mined areas. 13.2 Production Rates Mine No. 4 is a single long wall operation which is supported by continuous mining units. The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to ref future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine developm and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves. Productivity for continuous mining sections and continuous miner sections reflect typical rates incurred in the region. At steady state, the mine produces approximately 2 million clean tones per year with variations attributed to changes in clean coal thickness. Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coa seams. The mine plan was sequenced based on productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological models as constructed by MM&A's team of geologists and mining enginee Table 13-1 below summarizes the production forecast for Mine No. 4 illustrating the clean production tones and tonnage breakdowns by controlled (rese and adverse status. Adverse tonnages represent a risk to the project, as mineral rights must be acquired ahead of mining. Such tons are relatively minima and only represent approximately 12-percent of the LOM projected tonnages. Table 13-1: Mine No. 4 Production Forecast Summary Total (Tonnes x 1,000,000) LOM Q1 23 Q2 23 Q3 23 Q4 23 Q1 24 Q2 24 Q3 24 Q4 24 2025 In Seam Tonnes, (ML + BC) 55.9 0.54 0.64 0.58 0.62 0.77 0.71 0.67 0.72 Dilution Tonnes, Raw 34.9 0.44 0.53 0.48 0.40 0.49 0.48 0.41 0.42 1.79 Total Raw Tonnes 90.8 0.99 1.16 1.06 1.02 1.26 1.18 1.08 1.14 4.62 Total Clear Tonnes 44.7 0.43 0.50 0.46 0.49 0.62 0.57 0.54 0.57 2.27 Clean Tonnes—Reserve 39.2 0.43 0.49 0.46 0.49 0.62 0.57 0.52 0.57 2.27 Clean Tonnes—

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Adverse 5.5 0.00 0.02 0.00 0.00 0.00 0.00 0.02 0.00 0.00 Percentage Controlled, % 88% 100% 97% 99% 100% 100% 100% 97% 100% 100% 2026 202 2028 2029 2030 2031 2032 2033 2034 2035 In Seam Tonnes, (ML + BC) 2.9 3.02 2.85 3.12 2.89 2.62 2.47 2.49 2.14 2.40 Dilution Tonnes, Raw 1.8 1.8 1.78 1.51 1.56 1.50 1.53 1.54 1.26 1.39 Total Raw Tonnes 4.7 4.83 4.63 4.63 4.45 4.13 4.00 4.03 3.40 3.78 Total Clean Tonnes 2.3 2.41 2.28 2.50 2.31 2 1.98 1.99 1.71 1.91 Clean Tonnes—Reserve 2.2 2.29 2.14 2.40 2.16 2.04 1.78 1.55 1.34 1.75 Clean Tonnes—Adverse 0.1 0.12 0.14 0.10 0.15 0.06 0.20 0.37 0.16 Percentage Controlled, % 95% 95% 94% 96% 94% 97% 90% 78% 79% 92% MARSHALL MILLER & ASSOCIATES, INC. 55



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
In Seam Tonnes, (ML + BC)	2.1	2.27	2.09	2.15	2.41	2.23	2.35	2.05	1.88	1.32
Dilution Tonnes, Raw	1.3	1.43	1.31	1.65	1.52	1.54	1.49	1.42	1.30	0.82
Total Raw Tonnes	3.4	3.70	3.40	3.81	3.93	3,78	3.84	3.47	3.18	2.14
Total Clean Tonnes	1.7	1.82	1.68	1.72	1.93	1.79	1.88	1.64	1.50	1.05
Clean Tonnes - Reserve	1.2	1.23	1.28	1.04	1.90	1.10	1.69	1.42	1.50	0.81
Clean Tonnes - Adverse	0.5	0.59	0,40	0.68	0.03	0.69	0.19	0.22	0,00	0.24
Percentage Controlled, %	68%	68%	76%	60%	99%	61%	90%	87%	100%	77%

### 13.3 Mining-Related Requirements

Although the continuous miner sections are significantly more expensive to operate on a cost-pertonne basis, they are necessary to open up areas of the mine by developing main entries and gate roads in preparation for the longwall. At steady state, the LOM plan included in this TRS requires two to three continuous mining support sections until the last few years of mining.

## 13.4 Required Equipment and Personnel

Mine No. 4, along with Mine No. 7, are currently Warrior Met's only longwall operations. The longwall shearing machine is used for extraction of coal at the production face. A chain conveyor is used to remove coal from the longwall face for discharge onto the conveyor belt which then ultimately delivers it to the skip systems. Development for the longwall is conducted by the extraction of coal from the production faces using continuous miners and haulage using shuttle cars to a feeder-breaker located at the tail of the section conveyor belt. The feeder-breaker crushes large pieces of coal and rock and regulates coal feed onto the mine conveyor. Roof-bolting machines are used to support the roof on the development sections of the longwall mine. Roof-bolting machines are used to install roof bolts, and battery scoops are available to clean the mine entries and assist in delivery of mine supplies to work areas. Other supplemental equipment such as personnel carriers, supply vehicles, etc., are also used daily.

Mine conveyors typically range in width up to 6 feet. Multiple belt flights are arranged in series to deliver raw coal to the underground storage. Along the main and sub-main entries and panels, a travel way is provided for personnel and materials by rubber-tired equipment or on rail. A skip system is used to transport ROM coal from the underground storage bunker to the surface where the coal may be sampled, crushed and washed in the preparation plant and stockpiled to await shipment.

Surface ventilation fans are installed as needed to provide a sufficient volume of air to ventilate production sections, coal haulage and transport entries, battery charging stations, and transformers in accordance with approved plans. High-voltage cables deliver power throughout the mine where transformers reduce voltage for specific equipment requirements. *The Mine Improvement and New Emergency Response Act of 2006 (MINER Act)* requires that carbon monoxide detection systems be installed along mine conveyor belts and that electronic two-way tracking and communications systems be installed throughout the underground mine. Water is required to control dust at production sections and along conveyor belts, and to cool electric motors. Water is available from nearby sources and is

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2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 In Seam Tonnes, (ML + BC) 2.1 2.27 2.09 2.15 2.41 2.23 2.35 2.05 1.88 1.32 Dilution Tonnes, I 1.3 1.43 1.31 1.65 1.52 1.54 1.49 1.42 1.30 0.82 Total Raw Tonnes 3.4 3.70 3.40 3.81 3.93 3.78 3.84 3.47 3.18 2.14 Total Clean Tonnes 1.7 1.82 1.68 1.' 1.93 1.79 1.88 1.64 1.50 1.05 Clean Tonnes—Reserve 1.2 1.23 1.28 1.04 1.90 1.10 1.69 1.42 1.50 0.81 Clean Tonnes—Adverse 0.5 0.59 0.40 0.68 0.03 0.19 0.22 0.00 0.24 Percentage Controlled, % 68% 68% 76% 60% 99% 61% 90% 87% 100% 77% 13.3 Mining-Related Requirements Although the continuous miner sections are significantly more expensive to operate on a cost-per-ton basis, they are necessary to open up areas of the mine by develop main entries and gate roads in preparation for the long wall. At steady state, the LOM plan included in this TRS requires two to three continuous mining support sections until the last few years of mining. 13.4 Required Equipment and Personnel Mine No. 4, along with Mine No. 7, are currently Warrior M only long wall operations. The long wall shearing machine is used for extraction of coal at the production face. A chain conveyor is used to remove coal from the long wall face for discharge onto the conveyor belt which then ultimately delivers it to the skip systems. Development for the long wall is conducted by the extraction of coal from the production faces using continuous miners and haulage using shuttle cars to a feeder-breaker located at the t

of the section conveyor belt. The feeder-breaker crushes large pieces of coal and rock and regulates coal feed onto the mine conveyor. Roof-bolting machines are used to support the roof on the development sections of the long wall mine. Roof-bolting machines are used to install roof bolts, and batter scoops are available to clean the mine entries and assist in delivery of mine supplies to work areas. Other supplemental equipment such as personnel carriers, supply vehicles, etc., are also used daily. Mine conveyors typically range in width up to 6 feet. Multiple belt flights are arranged in series to deli raw coal to the underground storage. Along the main and sub-main entries and panels, a travel way is provided for personnel and materials by rubber-trir equipment or on rail. A skip system is used to transport ROM coal from the underground storage bunker to the surface where the coal may be sampled, crushed and washed in the preparation plant and stockpiled to await shipment. Surface ventilation fans are installed as needed to provide a sufficient vol of air to ventilate production sections, coal haulage and transport entries, battery charging stations, and transformers in accordance with approved plans. High-voltage cables deliver power throughout the mine where transformers reduce voltage for specific equipment requirements. The Mine Improvement New Emergency Response Act of 2006 (MINER Act) requires that carbon monoxide detection systems be installed along mine conveyor belts and that electronic two-way tracking and communications systems be installed throughout the underground mine. Water is required to control dust at production sections and along conveyor belts, and to cool electric motors. Water is available from nearby sources and is MARSHALL MILLER & ASSOCIATES, 1 56



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

distributed within the mine by pipelines as required. At a steady state, the mine is projected to employ approximately 400 employees.

## 14 Processing and Recovery Methods

## 14.1 Description or Flowsheet

Warrior Met currently operates a coal preparation plant at the Property. The Mine No. 4 Plant operates at a feed rate of approximately 1,180 raw tonnes per hour (*tph*). Coarse material is washed in a heavy media vessel, the intermediate-size material is washed in heavy media cyclones. Fine material is washed using reflux classifiers, and ultrafine material is cleaned by froth flotation. These processes are supported by the requisite screens, centrifuges, vacuum filters, sumps, pumps, and distribution systems. Processes and equipment are typical of those used in the coal industry and are in use in nearly all plants in the Black Warrior Basin. Warrior's No. 4 Plant includes an ultrafine coal cleaning technology, namely that developed by **Somerset**, for additional recovery of coal fines. *Table 14-1* below shows 5 years of historical, and the projected wash yields for the Mine No. 4 plant.

Year	Basis	Projected Yield %
2018	Historical	41%
2019	Historical	40%
2020	Historical	38%
2021	Historical	44%
2022	Historical	40%
2023	Projected	45%
2024	Projected	49%
2025	Projected	49%
2026	Projected	50%
2027	Projected	50%
LOM	Projected	49%

Note—Increase in Projected Wash Recovery Attributed to Thickness Increases Suggested by Exploration Information in North Reserve Area.

## 14.2 Requirements for Energy, Water, Material and Personnel

Personnel have historically been sourced from the surrounding communities in Tuscaloosa, Jefferson and Bibb Counties, and have proven to be adequate in numbers to operate the mine. As mining is common in the surrounding areas, the workforce is generally familiar with mining practices, and many are experienced miners.

The Mine No. 4 Complex has sources of water, power, personnel, and supplies readily available for use. Water is sourced locally by a combination of municipal and freshwater sources. Electricity is sourced

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distributed within the mine by pipelines as required. At a steady state, the mine is projected to employ approximately 400 employees. 14 Processing and Recovery Methods 14.1 Description or Flowsheet Warrior Met currently operates a coal preparation plant at the Property. The Mine No. 4 Plant operates

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Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

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from Alabama Power. The service industry in the areas surrounding the mine complex has historically provided supplies, equipment repairs and fabrication, etc.

## 15 Infrastructure

The Warrior Met-owned Mine No. 4 Preparation Plant services the mine via skip system which transports extracted coal from an underground bunker to the surface facility. A nearby rail line and the Black Warrior River serve as the primary means of transport from the mine.

As an active operation, the necessary support infrastructure for Mine No. 4 is in place. In addition to the plant and loadout, there are also portal facilities, including personnel access to the mine and ventilation fans. A photo of the existing facilities is *Figure 15-1*.

Additionally, Warrior Met is nearing the completion of a new portal for access to its northern reserve areas west of the Black Warrior River. This portal is currently being used to support continuous miner development. The new portal includes a 40-ton hoist for supplies and equipment. Water and emulsion systems at the portal are currently being constructed and will be completed ahead of longwall mining in west of the Black Warrior River.



Figure 15-1: Mine No. 4 Surface Facilities

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from Alabama Power. The service industry in the areas surrounding the mine complex has historically provided supplies, equipment repairs and fabricatiet. 15 Infrastructure The Warrior Met-owned Mine No. 4 Preparation Plant services the mine via skip system which transports extracted coal from an

underground bunker to the surface facility. A nearby rail line and the Black Warrior River serve as the primary means of transport from the mine. As an active operation, the necessary support infrastructure for Mine No. 4 is in place. In addition to the plant and loadout, there are also portal facilities, inclu personnel access to the mine and ventilation fans. A photo of the existing facilities is Figure 15-1. Additionally, Warrior Met is nearing the completion of new portal for access to its northern reserve areas west of the Black Warrior River. This portal is currently being used to support continuous miner development. The new portal includes a 40-ton hoist for supplies and equipment. Water and emulsion systems at the portal are currently being construct and will be completed ahead of longwall mining in west of the Black Warrior River. Figure 15-1: Mine No. 4 Surface Facilities MARSHALL MILLER ASSOCIATES, INC. 58



## 16 Market Studies

## 16.1 Market Description

The quality characteristics for the subject coal resources and coal reserves have been reviewed in detail by MM&A. The drill hole data was utilized to develop average coal quality characteristics for the mine site.

Current typical quality specifications for the Mine No. 4 products are as shown in *Table 16-1*. This information was provided by Warrior Met and reflects average shipment quality for 2022.

	Mine No. 4
Moisture (%)	9.69%
Ash (%, dry basis)	10.18%
Sulfur (%, dry basis)	0.79%
Volatile Matter (%, dry basis)	27.06%

Table 16-1: 2022 Average Product Quality

All of the mine's production serves the metallurgical markets. Metallurgical coal is currently generally marketed as a mid-volatile product and is priced in accordance with a combination of low-volatile and mid-volatile price indices. As the mine progresses into the North reserve area, volatiles are expected to increase. For the purpose of this study, the average of mid- and low-vol pricing has been used as a basis for forward looking revenue projections.

## 16.2 Price Forecasts

Warrior Met provided MM&A with the most recent IHS Markit Ltd. (IHS) coking coal forecast through 2030 as the basis of the pricing assumptions. Pricing was held constant beyond that date. Warrior Met also provided MM&A with appropriate transportation adjustments to derive FOB-mine realized sales prices from the IHS forecast.

Mine 4 incorporates a slight, conservative discount of 2% on the prices for mid-vol to account for any quality adjustments that can occur. The mine produces coal which has a very strong CSR quality as compared to the top-quality similar coals from Australia. Historically, these indices have accurately reflected sales prices for the Mine-4 coal.

Due to the projected increase in volatile percentages over time, an average of Low and Mid Volatile pricing was used for Mine 4 referenced as PLMV. For the purpose of this study, 98 percent of the PLMV was used. To develop the Price received FOB the Barge or Railcar, transportation and loading were backed out of the FOB vessel price. The adjusted pricing is detailed in *Table 16-2*.

Although most of the coal is shipped to the port by rail, historically some is barged. For the market pricing it has been assumed that 93% of the coal will go by rail and 7% by barge. Barge pricing and Port

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16 Market Studies 16.1 Market Description The quality characteristics for the subject coal resources and coal reserves have been reviewed in detail by MM&A. The drill hole data was utilized to develop average coal quality characteristics for the mine site. Current typical quality specifications for the M No. 4 products are as shown in Table 16-1. This information was provided by Warrior Met and reflects average shipment quality for 2022. Table 16-1: 2<sup>1</sup> Average Product Quality Mine No. 4 Moisture (%) 9.69% Ash (%, dry basis) 10.18% Sulfur (%, dry basis) 0.79% Volatile Matter (%, dry basis) 27.06% of the mine's production serves the metallurgical markets. Metallurgical coal is currently generally marketed as a mid-volatile product and is priced in accordance with a combination of low-volatile and mid-volatile price indices. As the mine progresses into the North reserve area, volatiles are expected increase. For the purpose of this study, the average of mid- and low-vol pricing has been used as a basis for forward looking revenue projections. 16.2 Pi Forecasts Warrior Met provided MM&A with the most recent IHS Markit Ltd. (IHS) coking coal forecast through 2030 as the basis of the pricing

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handling and loading costs remain constant, but Rail costs increase as Sales pricing increases plus an added premium once pricing is above \$175/tonne FOB the Vessel.

		a day to a faith of a	C. Astronomic State			
	LOM	2023	2024	2025	2026	2027
Price FOB Vessel	\$179.30	\$152.00	\$153.00	\$153.00	\$158.00	\$174.00
Transportation & Loading	\$25.08	\$22.54	\$22.64	\$22.64	\$23.17	\$24.87
Revenue FOB Railcar or Barge	\$154.21	\$129.46	\$130.36	\$130.36	\$134.83	\$149.13
	2028	2029	2030	2031	2032	2033
Barge & Loading	\$180.00	\$184.00	\$187.00	\$187.00	\$187.00	\$187.00
Transportation & Loading	\$25.30	\$25.56	\$25.76	\$25.76	\$25.76	\$25.76
Revenue FOB Railcar or Barge	\$154.70	\$158.44	\$161.24	\$161.24	\$161.24	\$161.24
	2034	2035	2036	2037	2038	2039
FOB Barge	\$187.00	\$187.00	\$187.00	\$187.00	\$187.00	\$187.00
Transportation & Loading	\$25.76	\$25.76	\$25.76	\$25.76	\$25.76	\$25.76
Revenue FOB Railcar or Barge	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24
2018-2	2040	2041	2042	2043	2044	2045
Pricing	\$187.00	\$187.00	\$187.00	\$187.00	\$187.00	\$187.00
Transportation & Loading	\$25.76	\$25.76	\$25.76	\$25.76	\$25.76	\$25.76
Revenue FOB Railcar or Barge	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24

Table 16-2:	Adjusted	Pricing	per	tonne)	

Note: Actual realized sales revenues in January 2023 for Mine No. 4 indicate more favorable prices than those reflected in the table above as incorporated in financial modeling. While not fully indicative of 2023, it is noted that current market conditions suggest some potential conservatism in prices estimated for this calendar year, pending continued favorable market conditions.

IHS is a well-recognized source of such data. IHS is a global diversified provider of critical information, analytics, and solutions. It offers next-generation information, analytics, and solutions to customers in business, finance, and government, improving their operational efficiency and providing deep insights. IHS serves business and government customers worldwide.

### 16.3 Contract Requirements

Some contracts are necessary for successful marketing of the coal. For Mine No. 4, since all mining, preparation and marketing is done in-house, the remaining contracts required are:

- > Transportation The mine's contracts with the railroad and transportation companies for barges on the Black Warrior River to transport the coal to either the domestic customers or to the Mobile export terminal for overseas shipment.
- Handling Contracts for loading vessels for export sales are necessary. These are typically handled by annual negotiations based on projected shipments.
- > Sales Sales contracts are a mix of spot and contract sales.

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handling and loading costs remain constant, but Rail costs increase as Sales pricing increases plus an added premium once pricing is above \$175/tonne F the Vessel. Table 16-2: Adjusted Pricing (per tonne) LOM 2023 2024 2025 2026 2027 Price FOB Vessel \$179.30 \$152.00 \$153.00 \$153.00 \$158.00 \$17 Transportation & Loading \$25.08 \$22.54 \$22.64 \$22.64 \$23.17 \$24.87 Revenue FOB Railcar or Barge \$154.21 \$129.46 \$130.36 \$130.36 \$134.83 \$149 2028 2029 2030 2031 2032 2033 Barge & Loading \$180.00 \$184.00 \$187.00 \$187.00 \$187.00 \$187.00 Transportation & Loading \$25.30 \$25.56 \$25.76 \$25.76 \$25.76 \$25.76 Revenue FOB Railcar or Barge \$154.70 \$158.44 \$161.24 \$161.24 \$161.24 \$2034 2035 2036 2037 2038 2039 FOB Barge \$187.00 \$18

Transportation & Loading \$25.76 \$25.76 \$25.76 \$25.76 \$25.76 \$25.76 Revenue FOB Railcar or Barge \$161.24 \$161.2



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

# 17 Environmental Studies, Permitting and Plans, Negotiations or Agreements with Local Individuals

## 17.1 Results of Studies

MM&A has not conducted environmental based services or studies for Warrior Met. Permitting activities are managed internally by Warrior Met.

## 17.2 Requirements and Plans for Waste Disposal

Based on data provided by Warrior Met, the current Mine No.4 coarse refuse disposal sites have a remaining capacity of 15-million cubic yards as currently designed, which would provide approximately 17 years of capacity at 2022 production rates. Warrior Met has submitted an expansion to the existing coarse refuse disposal site which is currently under review with regulatory agencies. This new expansion is anticipated to provide an additional 5.5-million cubic yards of volume, which equates to an estimated 6 years at 2022 production rates.

Additionally, Warrior Met reports that current active and permitted fines disposal sites have a cumulative remaining capacity of 1,300 acre-foot, equivalent to 5 years at 2022 production rates. A new 1,300-acre-foot fine refuse disposal facility has been designed and is currently under review within multiple regulatory agencies. This new facility is anticipated to be approved in 2023 and should provide 3.5 years of additional fine refuse storage capacity. Warrior Met has also identified additional future fine refuse areas with a total of 3,200 acre-foot, which could potentially add an additional 10 years of capacity.

## 17.3 Permit Requirements and Status

All mining operations are subject to federal and state laws and must obtain permits to operate mines, coal preparation and related facilities, haul roads, and other incidental surface disturbances necessary for mining to occur. Permits generally require that the permittee post a performance bond in an amount established by the regulatory program to provide assurance that any disturbance or liability created during mining operations is properly restored to an approved post-mining land use and that all regulations and requirements of the permits are fully satisfied before the bond is returned to the permittee. Significant penalties exist for any permittee who fails to meet the obligations of the permits including cessation of mining operations, which can lead to potential forfeiture of the bond. Any company, and its directors, owners and officers, which are subject to bond forfeiture can be denied future permits under the program.<sup>1</sup>

New permits or permit revisions will occasionally be necessary to facilitate the expansion or addition of new mining areas on the property, such as amendments to existing permits and new permits for

17 Environmental Studies, Permitting and Plans, Negotiations or Agreements with Local Individuals 17.1 Results of Studies MM&A has not conducted environmental based services or studies for Warrior Met. Permitting activities are managed internally by Warrior Met. 17.2 Requirements and Plans for Waste Disposal Based on data provided by Warrior Met, the current Mine No.4 coarse refuse disposal sites have a remaining capacity of 15-million cubi yards as currently designed, which would provide approximately 17 years of capacity at 2022 production rates. Warrior Met has submitted an expansion

<sup>&</sup>lt;sup>1</sup> Monitored under the Applicant Violator System (AVS) by the Federal Office of Surface Mining.

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the existing coarse refuse disposal site which is currently under review with regulatory agencies. This new expansion is anticipated to provide an additio 5.5-million cubic yards of volume, which equates to an estimated 6 years at 2022 production rates. Additionally, Warrior Met reports that current active a permitted fines disposal sites have a cumulative remaining capacity of 1,300 acre-foot, equivalent to 5 years at 2022 production rates. A new 1,300-acre-fine refuse disposal facility has been designed and is currently under review within multiple regulatory agencies. This new facility is anticipated to be approved in 2023 and should provide 3.5 years of additional fine refuse storage capacity. Warrior Met has also identified additional future fine refuse arc with a total of 3,200 acre-foot, which could potentially add an additional 10 years of capacity. 17.3 Permit Requirements and Status All mining operation are subject to federal and state laws and must obtain permits to operate mines, coal preparation and related facilities, haul roads, and other incidental sur disturbances necessary for mining to occur. Permits generally require that the permittee post a performance bond in an amount established by the regulat program to provide assurance that any disturbance or liability created during mining operations is properly restored to an approved post-mining land use that all regulations and requirements of the permits including cessation of mining operations, which can lead to potential forfeiture of the bond. An company, and its directors, owners and officers, which are subject to bond forfeiture can be denied future permits under the program. 1 New permits or permits revisions will occasionally be necessary to facilitate the expansion or addition of new mining areas on the property, such as amendments to existi permits and new permits for 1 Monitored under the Applicant Violator System (AVS) by the Federal Office of Surface Mining. MARSHALL MILLER & ASSOCIATES, INC. 61



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

mining of reserve areas. Exploration permits are also required. Property under lease includes provisions for exploration among the terms of the lease. New or modified mining permits are subject to a public advertisement process and comment period, and the public is provided an opportunity to raise objections to any proposed mining operation. MM&A is not aware of any specific prohibition of mining on the subject property and given sufficient time and planning, Warrior Met should be able to secure new permits to maintain its active mining operation within the context of current regulations. Necessary permits are in place to support current production on the Property. Portions of the Property are located near local communities.

Warrior Met has obtained all mining and discharge permits to operate the mine and processing, loadout, or related facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits. Mine No. 4, along with all coal producers, are subject to a level of uncertainty regarding future clean water permits due to United States Environmental Protection Agency (EPA) involvement with state programs.

Future permitting activities will be required from additional refuse expansion as summarized in the preceding report section. A portion of these permits are underway, but additional permitting will be required to secure ample refuse storage capacity to mine and process all future reserves on the property.

The active mining permits currently held by Warrior Met are shown in Table 17-1.

Facility Name	Issuing Agency	Permit No.	Permit Type	Approval Date	Expiration Date
Mine No. 4	ADECA	1225	Water Withdrawal Permit (WWP)	Annual	Report
Mine No. 4	ASMC	P-3260	Mining		3/1/2023
Mine No. 4	ADEM	AL0026590	NPDES - Individual Permit		7/31/2024
Mine No. 4 (Cassidy Portal)	ADEM	ALR10BCXI	NPDES General Construction	3/26/2021	3/31/2026
Mine No. 4	ACOE	AL90-01938-V	LOP	5/6/2011	Unknown

Table 17-1:	Mine No.	4 Mining	Permits
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### 17.4 Local Plans, Negotiations or Agreements

The workforce at Mine No. 4 is represented by the **United Mine Workers of America (UMWA).** As of the effective date of this report, the unionized labor force at Mine No. 4 is on strike. This TRS makes no attempt to estimate the remaining duration of the strike, as MM&A is not privy to the status of negotiations between the UMWA and Warrior Met. Production rates and schedules expressed in this TRS are generalized and are intended to reflect reasonable expectations of performance through the utilization of a well-trained workforce.

## 17.5 Mine Closure Plans

Applicable regulations require that mines be properly closed, and reclamation commenced immediately upon abandonment. In general, site reclamation includes removal of structures,

mining of reserve areas. Exploration permits are also required. Property under lease includes provisions for exploration among the terms of the lease. Ne or modified mining permits are subject to a public advertisement process and comment period, and the public is provided an opportunity to raise objection to any proposed mining operation. MM&A is not aware of any specific prohibition of mining on the subject property and given sufficient time and plant Warrior Met should be able to secure new permits to maintain its active mining operation within the context of current regulations. Necessary permits ar place to support current production on the Property. Portions of the Property are located near local communities. Warrior Met has obtained all mining an discharge permits to operate the mine and processing, loadout, or related facilities. MM&A is unaware of any obvious or current Warrior Met permitting issues that are expected to prevent the issuance of future permits. Mine No. 4, along with all coal producers, are subject to a level of uncertainty regardir future clean water permits due to United States Environmental Protection Agency (EPA) involvement with state programs. Future permitting activities w be required from additional refuse expansion as summarized in the preceding report section. A portion of these permits are underway, but additional permitting will be required to secure ample refuse storage capacity to mine and process all future reserves on the property. The active mining permits currently held by Warrior Met are shown in Table 17-1. Table 17-1: Mine No. 4 Mining Permits Issuing Approval Expiration Facility Name Agency Per No. Permit Type Date Date Mine No. 4 ADECA 1225 Water Withdrawal Permit (WWP) Annual Report Mine No. 4 ASMC P-3260 Mining 3/1/2023 Mi No. 4 ADEM AL0026590 NPDES—Individual Permit 7/31/2024 Mine No. 4 (Cassidy Portal) ADEM ALR10BCXI NPDES — General Construction 3/26/2021 3/31/2026 Mine No. 4 ACOE AL90-01938-V LOP 5/6/2011 Unknown 17.4 Local Plans, Negotiations or Agreements The workforce at Mine No. 4 is represented by the United Mine Workers of America (UMWA). As of the effective date of this report, the unionized labor force at Mine No. 4 is strike. This TRS makes no attempt to estimate the remaining duration of the strike, as MM&A is not privy to the status of negotiations between the UMV and Warrior Met. Production rates and schedules expressed in this TRS are generalized and are intended to reflect reasonable expectations of performance through the utilization of a well-trained workforce. 17.5 Mine Closure Plans Applicable regulations require that mines be properly closed, and reclamatic commenced immediately upon abandonment. In general, site reclamation includes removal of structures, MARSHALL MILLER & ASSOCIATES, INC



backfilling, regrading, and revegetation of disturbed areas. Sediment control is required during the establishment of vegetation, and bond release generally requires a minimum five-year period of site maintenance, water sampling, and sediment control following mine completion and rough grading. For most mines, unless special issues arise, reclamation and monitoring costs continue for about 7 years after cessation of production. Reclamation of underground mines includes closure and sealing of mine openings such as portals and shafts in addition to the items listed above.

Estimated costs for mine closure, including water quality monitoring during site reclamation, are included in the financial model. As with all mining companies, an accretion calculation is performed annually so the necessary Asset Retirement Obligations (*ARO*) can be shown as a liability on the balance sheet.

Costs have been included for closure of some existing facilities prior to exhaustion of the mine. As Bleeder shafts are no longer needed, they are sealed and as refuse disposal areas are filled and replaced, reclamation is done. The costs for this non-ARO reclamation work have been accrued on a per tonne basis in the model.

## 17.6 Qualified Person's Opinion

Mine No. 4 is an operating facility; all necessary permits for current production have been obtained. MM&A knows of no reason that any permit revisions that may be required cannot be obtained.

Estimated expenditures for site closure and reclamation are included in the financial model for this site.

# 18 Capital and Operating Costs

## 18.1 Capital Cost Estimate

The production sequence selected for a property must consider the proximity of each reserve area to coal preparation plants, river docks and railroad loading points, along with suitability of production equipment to coal seam conditions. Future needs were accounted for by utilizing a \$/tonne estimate for future mining.

MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history, increased by 16% to reflect recent inflation trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect typical spending patterns, sustaining capital is reduced to 25% in the penultimate year of production and eliminated in the final year.

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backfilling, regrading, and revegetation of disturbed areas. Sediment control is required during the establishment of vegetation, and bond release general requires a minimum five-year period of site maintenance, water sampling, and sediment control following mine completion and rough grading. For most mines, unless special issues arise, reclamation and monitoring costs continue for about 7 years after cessation of production. Reclamation of undergroun mines includes closure and sealing of mine openings such as portals and shafts in addition to the items listed above. Estimated costs for mine closure, including water quality monitoring during site reclamation, are included in the financial model. As with all mining companies, an accretion calculation i performed annually so the necessary Asset Retirement Obligations (ARO) can be shown as a liability on the balance sheet. Costs have been included for closure of some existing facilities prior to exhaustion of the mine. As Bleeder shafts are no longer needed, they are sealed and as refuse disposal areas ar filled and replaced, reclamation is done. The costs for this non-ARO reclamation work have been accrued on a per tonne basis in the model. 17.6 Qualifi Person's Opinion Mine No. 4 is an operating facility; all necessary permits for current production have been obtained. MM&A knows of no reason that a permit revisions that may be required cannot be obtained. Estimated expenditures for site closure and reclamation are included in the financial model for site. 18 Capital and Operating Costs 18.1 Capital Cost Estimate The production sequence selected for a property must consider the proximity of each res area to coal preparation plants, river docks and railroad loading points, along with suitability of production equipment to coal seam conditions. Future ne were accounted for by utilizing a \$/tonne estimate for future mining. MM&A assumes that major equipment rebuilds occur in a timely manner over the course of each machine's remaining operating life. Based on detailed studies of similar mines and with guidance from Warrior Met, MM&A has used a value of \$11.00 per saleable tonne mined for sustaining capital. This closely approximates Warrior Met's history, increased by 16% to reflect recent infle trends. Project capital is assumed to be subject to stand-alone economic analysis prior to expenditure so it has not been included in this study. To reflect

typical spending patterns, sustaining capital is reduced to 25% in the penultimate year of production and eliminated in the final year. MARSHALL MILLER & ASSOCIATES, INC. 63



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For the purpose of calculating tax liability, it is necessary to forecast Depreciation. Sustaining Capital as it is purchased has been assumed to have an average depreciable life of 5 years. The current Asset inventory is assumed to depreciate on a decreasing basis by 2026.

### 18.2 Operating Cost Estimate

MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 18-1* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers	
Labor	3.0%
Benefits	3.0%
Fuel & Lube	100.0%
Parts	14.5%
Surface Contractors	17.5%
Capital	16.0%

#### Table 18-1: Inflation Factors

Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 18-1*.

Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.

Mandated sales related costs such as black lung excise tax are summarized in Table 18-2.

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For the purpose of calculating tax liability, it is necessary to forecast Depreciation. Sustaining Capital as it is purchased has been assumed to have an average depreciable life of 5 years. The current Asset inventory is assumed to depreciate on a decreasing basis by 2026. 18.2 Operating Cost Estimate MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a similar property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was develo that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section adva ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other di mining costs. Utilizing this process costs were calculated at 2022 levels, then to reflect recent inflation Factors Multipliers Labor 3.0% Benefits 3.0<sup>6</sup> Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Capital 16.0% Operating costs factors were also developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in Table 18-1. Property taxes and insurance and bonding were estimated based on history. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for sta

severance taxes, the federal black lung excise tax, and federal and state reclamation fees. Mandated sales related costs such as black lung excise tax are summarized in Table 18-2. MARSHALL MILLER & ASSOCIATES, INC. 64



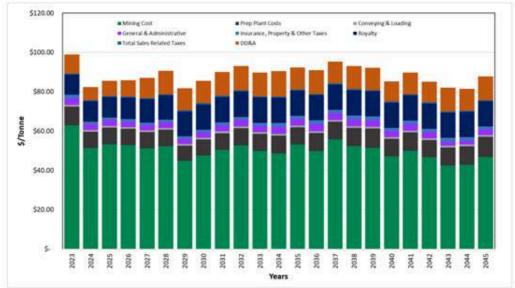
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### Table 18-2: Estimated Coal Production Taxes and Sales Costs

Description of Tax or Sales Cost	Basis of Assessment	Cost
Federal Black Lung Excise Tax - Underground	Per Tonne	\$1.21
Federal Reclamation Fees – Underground	Per Tonne (Moisture Adjusted)	\$0.123
Alabama Severance Tax	Per Tonne (Moisture Adjusted)	\$0.344
Royalties	Percentage of Revenue (FOB Mine)	8%

Federal black lung excise tax is paid only on coal sold domestically. MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below.

A summary of the projected operating costs is shown in Figure 18-1.



### Figure 18-1: OPEX

\*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

### 18.3 Capex & Opex Summary Tables

Table 18-3 shows the projected LOM major cost line items for Mine No. 4. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 percent. Cost estimations use historical costs from Mine No. 4 as a basis to project costs forward with appropriate adjustments based on geological and economic factors.

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Table 18-2: Estimated Coal Production Taxes and Sales Costs Description of Tax or Sales Cost Basis of Assessment Cost Federal Black Lung Excise Ta: Underground Per Tonne \$1.21 Federal Reclamation Fees – Underground Per Tonne (Moisture Adjusted) \$0.123 Alabama Severance Tax Per Tonne (Moisture Adjusted) \$0.344 Royalties Percentage of Revenue (FOB Mine) 8% Notes: 1. Federal black lung excise tax is paid only on coal sold domestic MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below. A summary of the projected operating costs is shown Figure 18-1: OPEX \*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 18.3 Capex & Opex Summary Tables Table 1 shows the projected LOM major cost line items for Mine No. 4. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 per Cost estimations use historical costs from Mine No. 4 as a basis to project costs forward with appropriate adjustments based on geological and economic factors. MARSHALL MILLER & ASSOCIATES, INC. 65



(000)	LOM Total	2023	2024	2025	2026	2027	2028	2029
ROM Tonnes Produced	90,771	4,231	4,663	4,622	4,736	4,831	4,626	4,625
Clean Tonnes Produced	44,695	1,893	2,296	2,267	2,349	2,413	2,277	2,49
Mining Costs	\$2,257,314	\$119,091	\$117,738	\$120,799	\$124,132	\$123,703	\$118,904	\$111,98
Preparation and Loading	\$432,977	\$19,677	\$21,345	\$21,228	\$21,642	\$21,982	\$21,248	\$21,50
General & Administrative	\$196,463	\$10,005	\$11,005	\$9,973	\$8,973	\$8,973	\$8,973	\$8,97
Royalties	\$548,226	\$19,468	\$23,777	\$23,481	\$25,165	\$28,620	\$28,013	\$31,46
Property and Sales Related Taxes	\$45,107	\$1,892	\$2,154	\$2,135	\$2,188	\$2,230	\$2,141	\$2,284
Capital and Land Expenditures	\$472,230	\$21,944	\$26,377	\$26,062	\$26,959	\$26,546	\$25,042	\$27,455
Total	\$3,952,317	\$192,076	\$202,395	\$203,678	\$209,059	\$212,056	\$204,323	\$203,670
(000)	2030	2031	2032	2033	2034	2035	2036	2037
ROM Tonnes Produced	4,452	4,126	4,003	4,026	3,399	3,782	3,408	3,69
Clean Tonnes Produced	2,308	2,096	1,980	1,992	1,710	1,914	1,701	1,81
Mining Costs	\$109,740	\$105,844	\$104,376	\$99,319	\$83,176	\$101,838	\$84,903	\$101,15
Preparation and Loading	\$20,792	\$19,633	\$19,154	\$19,232	\$17,141	\$18,453	\$17,158	\$18,10
General & Administrative	\$8,973	\$8,973	\$8,973	\$8,686	\$8,686	\$8,686	\$8,686	\$8,68
Royalties	\$29,605	\$26,887	\$25,406	\$25,548	\$21,941	\$24,554	\$21,822	\$23,30
Property and Sales Related Taxes	\$2,162	\$2,024	\$1,949	\$1,956	\$1,774	\$1,906	\$1,768	\$1,84
Capital and Land Expenditures	\$25,386	\$23,055	\$21,785	\$21,907	\$18,813	\$21,054	\$18,712	\$19,98
Total	\$196,658	\$186,418	\$181,644	\$176,648	\$151,531	\$176,492	\$153,048	\$173,065
(000)	2038	2039	2040	2041	2042	2043	2044	2045
ROM Tonnes Produced	3,404	3,805	3,929	3,775	3,841	3,468	3,182	2,13
Clean Tonnes Produced	1,676	1,724	1,926	1,788	1,884	1,640	1,504	1,044
Mining Costs	\$87,714	\$88,879	\$90,703	\$89,429	\$87,828	\$69,558	\$64,443	\$49,04
Preparation and Loading	\$17,116	\$18,305	\$18,884	\$18,293	\$18,299	\$16,684	\$15,433	\$11,67
General & Administrative	\$8,398	\$8,398	\$8,398	\$8,398	\$8,398	\$5,967	\$5,021	\$4,16
Royalties	\$21,500	\$22,116	\$24,704	\$22,932	\$24,166	\$21,041	\$19,293	\$13,42
Property and Sales Related Taxes	\$1,752	\$1,783	\$1,914	\$1,824	\$1,886	\$1,728	\$1,640	\$1,01
Capital and Land Expenditures	\$18,436	\$18,964	\$21,183	\$19,663	\$20,721	\$18,043	\$4,136	\$
Total	\$154,917	\$158,445	\$165,786	\$160,539	\$161,299	\$133,021	\$109,967	\$79,31

### Table 18-3: Project LOM Major Cost Line Items - Opex

Insurance Costs are included in G&A

Cash Bonds Posted have been added to G&A

Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation.

#### 19 Economic Analysis

#### 19.1 Assumptions, Parameters and Methods

A pre-feasibility LOM plan was prepared by MM&A for the Mine No. 4 operation. MM&A prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustion) of the coal reserve areas, which is projected for the year 2045.

The mine plan, productivity expectations and cost estimates generally reflect historical performance by Warrior Met and efforts have been made to adjust plans and costs to reflect future conditions. MM&A is confident that the mine plan and financial model are reasonably representative to provide an accurate estimation of coal reserves.

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Table 18-3: Project LOM Major Cost Line Items - Opex (000) LOM Total 2023 2024 2025 2026 2027 2028 2029 ROM Tonnes Produced 90,771 4,231 4,663 4,622 4,736 4,831 4,626 4,629 Clean Tonnes Produced 44,695 1,893 2,296 2,267 2,349 2,413 2,277 2,496 Mining Costs \$2,257,314 \$119,091 \$117,738 \$120,799 \$124,132 \$123,703 \$118,904 \$111,984 Preparation and Loading \$432,977 \$19,677 \$21,345 \$21,228 \$21,642 \$21,982 \$21,248 \$21,. General & Administrative \$196,463 \$10,005 \$11,005 \$9,973 \$8,973 \$8,973 \$8,973 \$8,973 Royalties \$548,226 \$19,468 \$23,777 \$23,481 \$25,165 \$28,6 \$28.013 \$31.463 Property and Sales Related Taxes \$45.107 \$1.892 \$2.154 \$2.135 \$2.188 \$2.230 \$2.141 \$2.284 Capital and Land Expenditures \$472.23 \$21.944 \$26,377 \$26,062 \$26,959 \$26,546 \$25,042 \$27,459 Total \$3,952,317 \$192,076 \$202,395 \$203,678 \$209,059 \$212,056 \$204,323 \$203,670 (00 2030 2031 2032 2033 2034 2035 2036 2037 ROM Tonnes Produced 4,452 4,126 4,003 4,026 3,399 3,782 3,408 3,696 Clean Tonnes Produced 2,308 2,( 1,980 1,992 1,710 1,914 1,701 1,816 Mining Costs \$109,740 \$105,844 \$104,376 \$99,319 \$83,176 \$101,838 \$84,903 \$101,158 Preparation and Loading \$20,792 \$19,633 \$19,154 \$19,232 \$17,141 \$18,453 \$17,158 \$18,100 General & Administrative \$8,973 \$8,973 \$8,973 \$8,686 \$8,686 \$8,686 \$8,686 \$8, Royalties \$29,605 \$26,887 \$25,406 \$25,548 \$21,941 \$24,554 \$21,822 \$23,301 Property and Sales Related Taxes \$2,162 \$2,024 \$1,949 \$1,956 \$1,774 \$1,906 \$1,768 \$1,843 Capital and Land Expenditures \$25,386 \$23,055 \$21,785 \$21,907 \$18,813 \$21,054 \$18,712 \$19,980 Total \$196,658 \$186,418 \$181.644 \$176.648 \$151.531 \$176.492 \$153.048 \$173.069 (000) 2038 2039 2040 2041 2042 2043 2044 2045 ROM Tonnes Produced 3,404 3,805 3,92 3,775 3,841 3,468 3,182 2,136 Clean Tonnes Produced 1,676 1,724 1,926 1,788 1,884 1,640 1,504 1,046 Mining Costs \$87,714 \$88,879 \$90,703 \$89,42 \$87,828 \$69,558 \$64,443 \$49,044 Preparation and Loading \$17,116 \$18,305 \$18,884 \$18,293 \$18,299 \$16,684 \$15,433 \$11,671 General & Administra \$8,398 \$8,398 \$8,398 \$8,398 \$8,398 \$5,967 \$5,021 \$4,168 Royalties \$21,500 \$22,116 \$24,704 \$22,932 \$24,166 \$21,041 \$19,293 \$13,424 Property and Sales Related Taxes \$1,752 \$1,783 \$1,914 \$1,824 \$1,886 \$1,728 \$1,640 \$1,011 Capital and Land Expenditures \$18,436 \$18,964 \$21,183 \$19,663 \$20,7

\$18,043 \$4,136 \$0 Total \$154,917 \$158,445 \$165,786 \$160,539 \$161,299 \$133,021 \$109,967 \$79,318 Notes Insurance Costs are included in G&A Cas Bonds Posted have been added to G&A Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation. 19 Economic Analysis 19.1 Assumptions, Parameters and Methods A pre-feasibility LOM plan was prepared by MM&A for the Mine No. operation. MM&A prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustion) of the coal reserve areas, which is projected for the year 2045. The mine plan, productivity expectations and cost estimates genera reflect historical performance by Warrior Met and efforts have been made to adjust plans and costs to reflect future conditions. MM&A is confident that mine plan and financial model are reasonably representative to provide an accurate estimation of coal reserves. MARSHALL MILLER & ASSOCIATES INC. 66



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

A capital forecast was developed by MM&A for mine development, infrastructure, and on-going capital requirements for the life of the mine. Staffing levels were prepared, and operating costs estimated by MM&A. MM&A utilized historical cost data provided by Warrior Met and its own knowledge and experience to estimate direct and indirect operating costs.

The preliminary feasibility financial model, prepared for this TRS, was developed to test the economic viability of the coal reserve areas. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations, but are intended to prove the economic viability of the estimated coal reserves. All costs and prices are based on 2023 constant United States dollars.

On an unlevered basis, the NPV of the real cash flows after taxes was estimated for the purpose of classifying coal reserves. The cash flows, excluding debt service, are calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, sampling and analysis services, reclamation and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the federal black lung tax, federal reclamation taxes, property taxes, local transportation prior to delivery at rail or barge loading sites, coal production royalties, sales and use taxes, income taxes and State severance taxes. Warrior Met's historical costs provided a useful reference for MM&A's cost estimates.

Sales revenue is based on the metallurgical coal price information provided to MM&A by Warrior Met, based on the Platt's forecast average of Low and Mid Volatile Coals.

Projected debt service is excluded from the P&L and cash flow model to determine enterprise value.

The financial model expresses coal sales prices, operating costs, and capital expenditures in current day dollars without adjustment for inflation. Capital expenditures and reclamation costs are included based on estimates for the mine by year.

Warrior Met will pay royalties for the various current and projected operations. The royalty rates vary by mining method and location. The royalty rates for Mine No. 4 are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel.

The projection model also includes consolidated income tax calculations at the Warrior Met level, incorporating federal and state income taxes with an overall effective rate of 19%. To the extent the mine generates net operating losses for tax purposes, the losses are assumed offset other corporate taxable income. The term "cash flows" is used in this report refer to after tax cash flows.

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Consolidated cash flows are driven by annual sales tonnage, which average approximately 2.0 million tonnes per year until dropping in 2045, the final year. Projected consolidated revenue averages just over \$306 million per year, excluding the final year. Revenue totals \$6.9 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation totals \$2.86 billion over the mine life. Capital expenditures total \$468 million over the property's life. *Table 19-1* below shows the project LOM after-tax cash flows for Mine No. 4.

(000)	LOM Total	2023	2024	2025	2026	2027	2028	2029
Tonnes Produced	44,695	1,893	2,296	2,267	2,349	2,413	2,277	2,496
Tonnes Sold	44,695	1,893	2,296	2,267	2,349	2,413	2,277	2,496
Revenue	\$6,892,608	\$245,031	\$299,256	\$295,526	\$316,649	\$359,901	\$352,188	\$395,508
Price (\$/tonne FOB Mine)	\$154.21	\$129.46	\$130.36	\$130.36	\$134.83	\$149.13	\$154.70	\$158.44
Mining Costs	\$2,257,314	\$119,091	\$117,738	\$120,799	\$124,132	\$123,703	\$118,904	\$111,984
Preparation and Loading	\$432,977	\$19,677	\$21,345	\$21,228	\$21,642	\$21,982	\$21,248	\$21,507
Royalties & non-income taxes	\$593,333	\$21,360	\$25,931	\$25,616	\$27,353	\$30,850	\$30,154	\$33,747
General & Administrative	\$196,463	\$10,005	\$11,005	\$9,973	\$8,973	\$8,973	\$8,973	\$8,973
Income Taxes	\$557,862	\$10,970	\$20,914	\$19,302	\$21,884	\$28,446	\$27,699	\$36,382
Capital and Land Expenditures	\$472,230	\$35,437	\$30,114	\$25,055	\$28,471	\$30,615	\$24,983	\$31,388
Reclamation and Closing Costs	\$29,746	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total After Tax Cash Flow	\$2,352,684	\$28,493	\$72,210	\$73,553	\$84,194	\$115,331	\$120,226	\$151,528
NPV at 9% Discount Factor	\$978,958							
(000)	2030	2031	2032	2033	2034	2035	-2036	2037
Tonnes Produced	2,308	2,096	1,980	1,992	1,710	1,914	1,701	1,816
Tonnes Sold	2,308	2,096	1,980	1,992	1,710	1,914	1,701	1,816
Revenue	\$372,122	\$337,957	\$319,342	\$321,119	\$275,779	\$308,626	\$274,287	\$292,881
Price (\$/tonne FOB Mine)	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24
Mining Costs	\$109,740	\$105,844	\$104,376	\$99,319	\$83,176	\$101,838	\$84,903	\$101,158
Preparation and Loading	\$20,792	\$19,633	\$19,154	\$19,232	\$17,141	\$18,453	\$17,158	\$18,100
Royalties & non-income taxes	\$31,767	\$28,911	\$27,356	\$27,504	\$23,714	\$26,460	\$23,590	\$25,144
General & Administrative	\$8,973	\$8,973	\$8,973	\$8,686	\$8,686	\$8,686	\$8,686	\$8,686
Income Taxes	\$33,211	\$28,328	\$25,638	\$27,067	\$22,966	\$25,054	\$22,704	\$22,743
Capital and Land Expenditures	\$23,719	\$20,611	\$20,367	\$22,244	\$16,055	\$22,917	\$16,531	\$20,873
Reclamation and Closing Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total After Tax Cash Flow	\$143,920	\$125,654	\$113,477	\$117,067	\$104,041	\$105,216	\$100,715	\$96,177
(000)	2038	2039	2040	2041	2042	2043	2044	2045
Tonnes Produced	1,676	1,724	1,926	1,788	1,884	1,640	1,504	1.046
Tonnes Sold	1,676	1,724	1,926	1,788	1.884	1.640	1.504	1.046
Revenue	\$270,248	\$277,980	\$310,512	\$288,236	\$303,747	\$264,478	\$242,502	\$168,733
Price (\$/tonne FOB Mine)	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24	\$161.24
Mining Costs	\$87,714	\$88,879	\$90,703	\$89,429	\$87,828	\$69,558	\$64,443	\$49,044
Preparation and Loading	\$17,116	\$18,305	\$18,884	\$18,293	\$18,299	\$16,684	\$15,433	\$11,671
Royalties & non-income taxes	\$23,252	\$23,898	\$26,618	\$24,756	\$26,052	\$22,770	\$20,933	\$14,435
General & Administrative	\$8,398	\$8,398	\$8,398	\$8,398	\$8,398	\$5,967	\$5,021	\$4,168
Income Taxes	\$21,730	\$22,623	\$27,826	\$24,266	\$27,241	\$24,659	522,785	\$14,611
Capital and Land Expenditures	\$17,431	\$19,162	\$23,768	\$17,917	\$22.147	\$15,631	\$4,258	(\$4,873)
Reclamation and Closing Costs	\$17,451	\$15,162	\$25,766	\$0	50	\$5,071	\$0	\$2,350
Total After Tax Cash Flow	\$94,607	\$96,713	\$114,315	\$105,178	\$113,781	\$104,138	\$109,628	\$77,326

Table 19-1: Mine No. 4 Project LOM After-tax Cas	h Flow
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Consolidated cash flows are driven by annual sales tonnage, which average approximately 2.0 million tonnes per year until dropping in 2045, the final y Projected consolidated revenue averages just over \$306 million per year, excluding the final year. Revenue totals \$6.9 billion for the property's life. Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of post-production years, due to end mine reclamation spending. Consolidated cash flow from the operation totals \$2.86 billion over the mine life. Capital expenditures total \$468 million ov the property's life. Table 19-1 below shows the project LOM after-tax cash flows for Mine No. 4. Table 19-1: Mine No. 4 Project LOM After-tax Cash F (000) LOM Total 2023 2024 2025 2026 2027 2028 2029 Tonnes Produced 44,695 1,893 2,296 2,267 2,349 2,413 2,277 2,496 Tonnes Sold 44,695 1,893 2,296 2,267 2,349 2,413 2,277 2,496 Revenue \$6,892,608 \$245,031 \$299,256 \$295,526 \$316,649 \$359,901 \$352,188 \$395,508 Price (\$/tonne FOB Mi \$154.21 \$129.46 \$130.36 \$130.36 \$134.83 \$149.13 \$154.70 \$158.44 Mining Costs \$2,257,314 \$119,091 \$117,738 \$120,799 \$124,132 \$123,703 \$118.5 \$111,984 Preparation and Loading \$432,977 \$19,677 \$21,345 \$21,228 \$21,642 \$21,982 \$21,248 \$21,507 Royalties & non-income taxes \$593,333 \$21,. \$25.931 \$25.616 \$27.353 \$30.850 \$30.154 \$33.747 General & Administrative \$196.463 \$10.005 \$11.005 \$9.973 \$8.973 \$8.973 \$8.973 \$8.973 Income Taxes \$557,862 \$10,970 \$20,914 \$19,302 \$21,884 \$28,446 \$27,699 \$36,382 Capital and Land Expenditures \$472,230 \$35,437 \$30,114 \$25,055 \$28,47 \$30.615 \$24.983 \$31.388 Reclamation and Closing Costs \$29.746 \$0 \$0 \$0 \$0 \$0 \$0 \$0 Total After Tax Cash Flow \$2,352.684 \$28.493 \$72.210 \$73.55 \$84.194 \$115.331 \$120.226 \$151.528 NPV at 9% Discount Factor \$978,958 (000) 2030 2031 2032 2033 2034 2035 2036 2037 Tonnes Produced 2,308 2,096 1,980 1,992 1,710 1,914 1,701 1,816 Tonnes Sold 2,308 2,096 1,980 1,992 1,710 1,914 1,701 1,816 Revenue \$372,122 \$337,957 \$319,342 \$321,701 1,914 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,701 1,70 \$275,779 \$308,626 \$274,287 \$292,881 Price (\$/tonne FOB Mine) \$161.24 \$ \$109,740 \$105,844 \$104,376 \$99,319 \$83,176 \$101,838 \$84,903 \$101,158 Preparation and Loading \$20,792 \$19,633 \$19,154 \$19,232 \$17,141 \$18,45

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\$17,158 \$18,100 Royalties & non-income taxes \$31,767 \$28,911 \$27,356 \$27,504 \$23,714 \$26,460 \$23,590 \$25,144 General & Administrative \$8,973 \$8,973 \$8,686 \$8,686 \$8,686 \$8,686 \$8,686 Income Taxes \$33,211 \$28,328 \$25,638 \$27,067 \$22,966 \$25,054 \$22,704 \$22,743 Capital and Lat Expenditures \$23,719 \$20,611 \$20,367 \$22,244 \$16,055 \$22,917 \$16,531 \$20,873 Reclamation and Closing Costs \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 Total After Cash Flow \$143,920 \$125,654 \$113,477 \$117,067 \$104,041 \$105,216 \$100,715 \$96,177 (000) 2038 2039 2040 2041 2042 2043 2044 2045 Tonnes Produced 1,676 1,724 1,926 1,788 1,884 1,640 1,504 1,046 Tonnes Sold 1,676 1,724 1,926 1,788 1,884 1,640 1,504 1,046 Revenue \$270,248 \$277,980 \$310,512 \$288,236 \$303,747 \$264,478 \$242,502 \$168,733 Price (\$/tonne FOB Mine) \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$161.24 \$16,518,305 \$18,884 \$18,293 \$18,299 \$16,684 \$15,433 \$11,671 Royalties & non-income taxes \$23,252 \$23,898 \$26,618 \$24,756 \$26,052 \$22,770 \$20,933 \$14,435 General & Administrativ \$8,398 \$8,713 \$12,521 \$105,178 \$113,781 \$104,138 \$109,628 \$77,326 MARSHALL MILLER & ASSOCIATES, INC. (



Warrior Met Coal, Inc. Mine No. 4 Year End 2022 Reserve Analysis Technical Report Summary

(000)	2046	2047	2048	2049	2050	2051	2052	
Tonnes Produced	0	0	0	0	0	0	0	
Tonnes Sold	0	0	0	0	0	0	0	
Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	_
Price (\$/tonne FOB Mine)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	_
Mining Costs	\$522	\$522	\$522	\$361	\$361	\$361	\$361	_
Preparation and Loading	\$0	\$0	\$0	\$0	\$0	\$0	\$0	_
Royalties & non-income taxes	\$332	\$332	\$166	\$166	\$166	\$0	\$0	_
General & Administrative	\$521	\$436	\$377	\$377	\$377	\$0	\$0	_
Income Taxes	(\$261)	(\$245)	(\$202)	(\$172)	(\$172)	(\$69)	(\$69)	_
Capital and Land Expenditures	(\$12,607)	\$0	\$6	\$0	\$0	\$10	\$0	_
Reclamation and Closing Costs	\$9,400	\$9,400	\$2,644	\$529	\$176	\$88	\$88	
Total After Tax Cash Flow	\$2,092	(\$10,445)	(\$3,513)	(\$1,261)	(\$908)	(\$390)	(\$380)	_

## 19.2 Results

The pre-feasibility financial model, prepared by MM&A for this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining operations contemplated but are intended to prove the economic viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement.

Table 19-2 shows LOM tonnage, P&L, and EBITDA for Mine No. 4.

### Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA

	Tonnes (000)	Pre-Tax P&L (\$000)	P&L per Tonne	EBITDA (\$000)	EBITDA per Tonne
Mine #4	44,700	\$2,936,114	\$65.69	\$3,416,521	\$76.44
		of tonnage contained v ic analysis is intended to			
		ve". The exercise shou			
	10.002 Control Cont	rate forward-looking m			
5075070701000000000000000000		evelopment of costs inc tivity and cost structur			s historical perfo

As shown in *Table 19-2*, Mine No. 4 shows positive EBITDA over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$2.9 billion and \$3.4 billion, respectively.

Warrior Met's Mine No. 4 annual production and revenue are shown in Figure 19.1 and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, is shown in Figure 19-2 below.

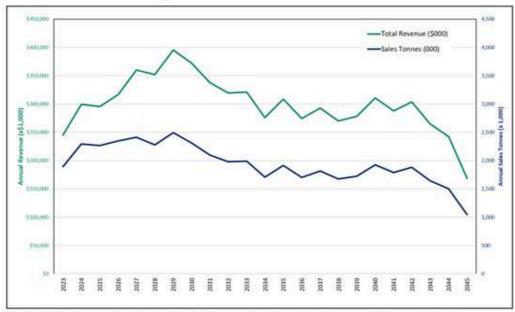
The NPV is estimated to be \$979 million at discount rate of 9%, which represents Warrior's typical WACC.

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(\$202) (\$172) (\$172) (\$69) (\$69) Capital and Land Expenditures (\$12,607) \$0 \$6 \$0 \$0 \$10 \$0 Reclamation and Closing Costs \$9,400 \$9,400 \$2,644 \$: \$176 \$88 \$88 Total After Tax Cash Flow \$2,092 (\$10,445) (\$3,513) (\$1,261) (\$908) (\$390) (\$380) 19.2 Results The pre-feasibility financial model, prepared by MM&A for this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining operations contemplated but are inten to prove the economic viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement. Table 19-2 show LOM tonnage, P&L, and EBITDA for Mine No. 4. Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA Tonnes Pre-Tax P&L P&L EBITE EBITDA (000) (\$000) per Tonne (\$000) per Tonne Mine #4 44,700 \$2,936,114 \$65.69 \$3,416,521 \$76.44 Note 1: The LOM model includes a small por of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performa and MM&A's knowledge of mine productivity and cost structures for comparable operations. As shown in Table 19-2, Mine No. 4 shows positive EBIT over the LOM. Overall, the Warrior Met consolidated operation shows positive LOM P&L and EBITDA of \$2.9 billion and \$3.4 billion, respectively. Warrior Met's Mine No. 4 annual production and revenue are shown in Figure 19.1 and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, is shown in Figure 19-2 below. The NPV is estimated to be \$979 million at discount rate of 9%, which represents Warrior's typic WACC. MARSHALL MILLER & ASSOCIATES, INC. 69







Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

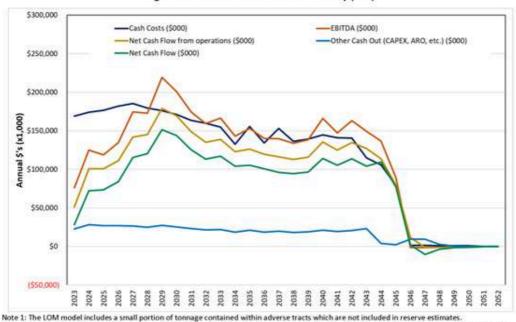
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Figure 19-1: Mine 4 Production and Revenue Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. MARSHALL MILLER & ASSOCIATES, INC. 70







Note 2: The LOM model includes a sinal portion of comage contained within adverse tracts when are not included in the vestice estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic viability of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

# 19.3 Sensitivity

Sensitivity of the NPV results to changes in the key drivers is presented in *Figure 19-3*. The sensitivity study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased within a +/- 10% range.

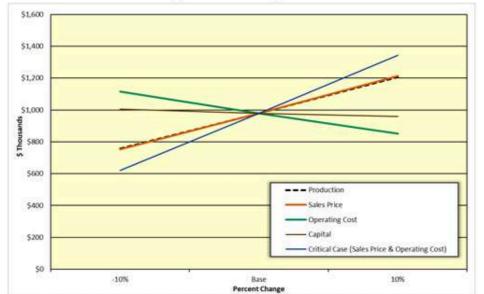
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Figure 19-2: After-tax Cash Flow Summary (000) Note 1: The LOM model includes a small portion of tonnage contained within adverse tracts which ar not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject c tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 19.3 Sensitivity Sensitivity of the NPV results to changes in the key drivers is presented in Figure 19-3. The sensit study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased within a +/- 10% range. MARSHALL MILLER & ASSOCIATES, INC. 71



Figure 19-3: Sensitivity of NPV



Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings.

# 20 Adjacent Properties

# 20.1 Information Used

Warrior Met's Mine No. 7 is located immediately adjacent (east) of Mine No. 4, and Warrior Met's BC property is located to the North of Mine No. 4. Exploration databases encompass all three of these holdings and serve as the basis for geological modeling.

# 21 Other Relevant Data and Information

MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this this former work as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geological and mining-based studies in the Black Warrior Basin, with specific projects conducted for Warrior Met in several adjacent areas to the Property during due diligence activities. This experience was utilized in the development of this TRS.

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Figure 19-3: Sensitivity of NPV Note: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Adjacent Properties 20.1 Information Used Warrior Met's Mine No. 7 is located immediately adjacent (east) of Mine No. 4, and Warrior Met's BC properties located to the North of Mine No. 4. Exploration databases encompass all three of these holdings and serve as the basis for geological modeling. 21 Ot Relevant Data and Information MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this this former w as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geologica and mining-based studies in the Black Warrior Basin, with specific projects conducted for Warrior Met in several adjacent areas to the Property during d diligence activities. This experience was utilized in the development of this TRS. MARSHALL MILLER & ASSOCIATES, INC. 72



# 22 Interpretation and Conclusions

# 22.1 Conclusion

Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data is of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and preliminary feasibility study, which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

This geologic evaluation conducted conjunction with the preliminary feasibility study is sufficient to conclude that the 39.2 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of market prices for metallurgical coal products, estimated operation costs, and capital expenditures.

# 22.2 Risk Factors

Risks have been identified for operational, technical and administrative subjects addressed in the Pre-Feasibility Study. A risk matrix has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessment process.

The purpose of the characterization of the risk components is to inform the stakeholders of key aspects of the Warrior Met property that can be impacted by events whose consequences can affect the success of the venture. The significance of an impacted aspect of the operation is directly related to both the probability of occurrence and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potential impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor is herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual risk can be quantified numerically, derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

The probability and consequence parameters are subjective numerical estimates made by practiced mine engineers and managers. Both are assigned values from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products, which define the Risk Level, are classified from very low to very high.

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22 Interpretation and Conclusions 22.1 Conclusion Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data is of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS. The geological data and preliminary feasibility stu which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herei This geologic evaluation conducted conjunction with the preliminary feasibility study is sufficient to conclude that the 39.2 Mt of marketable undergrou coal reserves identified on the Property are economically mineable under reasonable expectations of market prices for metallurgical coal products, estim operation costs, and capital expenditures. 22.2 Risk Factors Risks have been identified for operational, technical and administrative subjects addressed in Pre-Feasibility Study. A risk matrix has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessment process. The purpose of the characterization of the risk components is to inform the stakeholders of key aspects of the Warrior Met property that can be impacted by events whose consequences can affect the success of the venture. The significance of an impacted aspect of the operation is directly related both the probability of occurrence and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potent impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor i herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual risk can be quantified numerically, derived by the product of values assigned to probability and consequence ranging from very 1 risk to very high risk. The probability and consequence parameters are subjective numerical estimates made by practiced mine engineers and managers. Both are assigned values from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highes

probability and greatest consequence. The products, which define the Risk Level, are classified from very low to very high. MARSHALL MILLER & ASSOCIATES, INC. 73



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Risk aspects identified and evaluated during this assignment total 12. No residual risks are rated Very High. Two (2) residual risks are rated High. Four (4) of the risk aspects could be associated with Moderate residual risk. Six (6) of the risk aspects were attributed Low or Very Low residual risks.

### 22.2.1 Governing Assumptions

The listing of the aspects is not presumed to be exhaustive. Instead that listing is presented based on the experiences of the contributors to the TRS.

- The probability and consequence ratings are subjectively assigned, and it is assumed that this subjectivity reasonably reflects the condition of the active and projected mine operations.
- The control measures shown in the matrices presented in this chapter are not exhaustive. They
  represent a condensed collection of activities that the author of the risk assessment section has
  observed to be effective in coal mining scenarios.
- Mitigation measures listed for each risk factor of the operation are not exhaustive. The measures listed, however, have been observed by the author to be effective.
- The monetary values used in ranking the consequences are generally accepted quantities for the coal mining industry.

### 22.2.2 Limitations

The risk assessment proposed in this report is subject to the limitations of the information currently collected, tested, and interpreted at the time of the writing of the report.

# 22.2.3 Methodology

The numerical quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

Where:	R = Risk Level
	P = Probability of Occurrence
	C = Consequence of Occurrence

The Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by practiced mine engineers and managers. Both P and C are assigned integer values

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Risk Level Table ( $R = P \ge C$ ) Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25) Risk aspects identi and evaluated during this assignment total 12. No residual risks are rated Very High. Two (2) residual risks are rated High. Four (4) of the risk aspects cc be associated with Moderate residual risk. Six (6) of the risk aspects were attributed Low or Very Low residual risks. 22.2.1 Governing Assumptions Thlisting of the aspects is not presumed to be exhaustive. Instead that listing is presented based on the experiences of the contributors to the TRS. 1. The probability and consequence ratings are subjectively assigned, and it is assumed that this subjectivity reasonably reflects the condition of the active and projected mine operations. 2. The control measures shown in the matrices presented in this chapter are not exhaustive. They represent a condensed collection of activities that the author of the risk assessment section has observed to be effective in coal mining scenarios. 3. Mitigation measures listed + each risk factor of the operation are not exhaustive. The measures listed, however, have been observed by the author to be effective. 4. The monetary val used in ranking the consequences are generally accepted quantities for the coal mining industry. 22.2.2 Limitations The risk assessment proposed in this report is subject to the limitations of the information currently collected, tested, and interpreted at the time of the writing of the report. 22.2.3 Methodolo The numerical quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability at consequence ranging from very low risk to very high risk.  $R = P \ge C$  Where: R = Risk Level P = Probability of Occurrence <math>C = Consequence of Occurrence <math>C = Consequence of Occurrence C = Consequence of Occurrence The Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by practiced mine engineers and managers. Both P and C are assigned integer values MARSHALL MILLER & ASSOCIATES, INC. 74



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ranging from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products ( $R = P \times C$ ) which define the Risk Level, are thereafter classified from very low to very high.



Very high initial risks are considered to be unacceptable and require corrective action well in advance of development. In short, measures must be applied to reduce very high initial risks to a tolerable level.

As shown and discussed above, after taking into account the operational, technical, and administrative actions that have been applied or are available for action when required, the residual risk can be determined. The residual risk provides a basis for the management team to determine if the residual risk level is acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the operation.

#### 22.2.4 Development of the Risk Matrix

Risks have been identified for the technical, operational, and administrative subjects addressed in the TRS.

# 22.2.4.1 Probability Level Table

Category		Probability Level (P)							
1	Remote	Not likely to occur except in exceptional circumstances.	<10%						
2	Unlikely	Not likely to occur; small in degree.	10 - 30%						
3	Possible	Capable of occurring.	30 - 60%						
4	Likely	High chance of occurring in most circumstances.	60 - 90%						
5	Almost Certain	Event is expected under most circumstances; impossible to avoid.	>90%						

#### Table 22-1: Probability Level Table

The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihood of occurrence of less than 2 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5 assigned to incidents considered to be almost certain to occur.

### 22.2.4.2 Consequence Level Table

Table 22-2 lists the consequence levels.

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ranging from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products ( $R = P \ge C$ ) which define the Risk Level, are thereafter classified from very low to very high. Risk Level Table Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25) Very high initial risks are considered to be unacceptal and require corrective action well in advance of development. In short, measures must be applied to reduce very high initial risks to a tolerable level. As shown and discussed above, after taking into account the operational, technical, and administrative actions that have been applied or are available for act when required, the residual risk can be determined. The residual risk provides a basis for the management team to determine if the residual risk to acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the operation. 22.2.4 Development of the Risk Matrix Risks have been identified for the techr operational, and administrative subjects addressed in the TRS. 22.2.4.1 Probability Level Table Table 22-1: Probability Level Table Category Probability Level (P) 1 Remote Not likely to occur except in exceptional circumstances. <10% 2 Unlikely Not likely to occur; small in degree. 10—30% 3 Possible Capable of occurring. 30—60% 4 Likely High chance of occurring in most circumstances. 60-90% 5 Almost Certain Event is expected under most circumstances; impossible to avoid. >90% The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihoc

occurrence of less than 2 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5 assigned to incidents considered to be almost certain to occur. 22.2.4.2 Consequence Level Table Table 22-2 lists the consequence levels. MARSHALL MILLER & ASSOCIATES, INC. 75



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			Correlation of	of Events in Key Elemen	ts of the Program to Event Severity	Category	
Category	Severity of the Event	Financial Impact of the Event	Unplanned Loss of Production (Impact on Commercial Operations)	Events Impacting	Events Affecting the Program's Social and Community Relations	Resultant Regulatory / Sovereign Risk	Events Affecting Occu Health & Safet
1	1 Insignificant million 5.12 hours irreversible effects on water, soil and the environment.		Occasional nuisance impact on travel.	14	Event recurrence avoi corrective action thr established proced (Engineering, guarding,		
2	Minor	USD \$0.5 million to \$2.0 million	≤1 day	No significant change to species populations; short- term reversible perturbation to ecosystem function.	change to species populations; short- term reversible perturbation to Persistent nuisance impact on travel. Transient adverse media coverage.		First aid – lost time. recurrence avoided by c action thought estab procedures.
3	Moderate	USD \$2.0 million	≤1 week	Appreciable change to species population;	Measurable impact on travel and water/air quality.	Uncertainty securing or retaining essential approval / license.	Medical Treatment – pe incapacitation Avoiding
3	Moderate	to \$10.0 million	SIWeek	medium-term (≤10 years) detriment to ecosystem function.	Significant adverse media coverage / transient public outrage.	Change to regulations (tax; bonds; standards).	recurrence requires mod to established corrective procedures.
		USD \$10.0		Change to species population threatening	Long-term, serious impact on travel and use of water	Suspension / long-delay in securing essential approval / license.	Fatality. Avoiding e recurrence requires mod
4	Major	million to \$50.0 million	1 to 2 weeks	viability; long-term (>10 years) detriment to ecosystem function.	resources; degradation of air quality; sustained and effective public opposition.	Change to laws (tax; bonds; standards).	to established corrective procedures and staff ret
5	Critical	>USD \$50.0 million	>1 month	Species extinction; irreversible damage to ecosystem function.	Loss of social license.	Withdraw / failure to secure essential approval / license.	Multiple fatalities. Av event recurrence require overhaul of policies procedures.

#### Table 22-2: Consequence Level Table

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Table 22-2: Consequence Level Table Correlation of Events in Key Elements of the Program to Event Severity Category Unplanned Loss of Production (Impact on Events Affecting the Program's Severity of Financial Impact Commercial Events Impacting Social and Community Resultant Regulatory / Events Affecting Occupational Category the Event of the Event Operations) on the Environment Relations Sovereign Risk Health & Safety Insignificant loss of Event recurrence avoided by habitat; no < USD \$0.5 Occasional nuisance impact on corrective action through 1 Insignificant ? 12 hours irreversi effects- million travel. established procedures on water, soil and (Engineering, guarding, training). the environment. No significant change to species F aid - lost time. Event Persistent nuisance impact on USD \$0.5 million populations; short- recurrence avoided by corrective 2 Minor ? 1 day travel. Trans adverse media- to \$2.0 million term reversible action thought established coverage. perturbation to procedures. ecosystem function. Appreciable change Uncertainty securing or Measurable impact on travel Medical Treatment - permanent to species retaining essential and water/air quality. incapacitation Avoiding event USD \$2.0 million population; approval / license. 3 Moderate ? 1 week Significant adverse media recurrence requires modification to \$1( million medium-term (?10 coverage / transient public Change to regulations to established corrective action years) detriment to outrage. (tax; bonds; standards). procedures. ecosystem function. Change to species Suspension / long-delay population Long-term, serious impact on in securing essential Fatality. Avoiding event USD \$10.0 threatening travel and use of water approval / license. recurrence requires modification 4 Major million to \$50.0 1 to weeks viability; long-term resources; degradation of air to established corrective action million (>10 years) quality; sustained and effective Change to la (tax; procedures and staff retraining, detriment to public opposition, bonds; standards), ecosystem function. Species extinction; Multiple fatalities. Avoid Withdraw / failure to >USD \$50.0 irreversible damage event recurrence requires major 5 Critical >1 month Loss of social license. secure essential millic ecosystem overhaul of policies and approval / license. function. procedures. MARSHALL MILLER & ASSOCIATES, INC. 76



The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incidents with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than USD \$0.5 million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include multiple-fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than USD \$50.0 million.

# Composite Risk Matrix R = P x C and Color-Code Convention

The risk level, defined as the product of probability of occurrence and consequence, ranges in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the highest risk aspects.

					Consequence (C)		
	P x C = R		Insignificant	Minor	Moderate	Major	Critica
			1	2	3	4	5
	Remote	1	1	2	3	4	5
vel (P)	Unlikely	2	2	4	6	8	10
Probability Level (P)	Possible	3	3	6	9	12	15
Probat	Likely	4	4	8	12	16	20
	Almost Certain	5	5	10	15	20	25

Table	22-3:	Risk	Matrix

# 22.2.5 Categorization of Risk Levels and Color Code Convention

Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level.

# 22.2.6 Description of the Coal Property

The Mine No. 4 Complex is located in Tuscaloosa County, Alabama and operates a longwall section with supporting continuous mining sections. The operation is projected to continue in the present mode until reserves are depleted in 2045.

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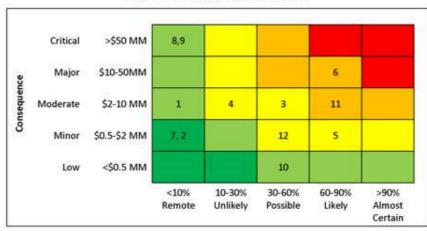
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The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incident with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than USD \$0.5 million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include multiple-fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than U \$50.0 million. Composite Risk Matrix R = P x C and Color-Code Convention The risk level, defined as the product of probability of occurrence and consequence, ranges in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the high risk aspects. Table 22-3: Risk Matrix Consequence (C) P x C = R Insignificant Minor Moderate Major Critical 1 2 3 4 5 Remote 1 1 2 3 4 5 (P) Level Unlikely 2 2 4 6 8 10 Possible 3 3 6 9 12 15 Probability Likely 4 4 8 12 16 20 Almost 5 5 10 15 20 25 Certain 22.2.5 Categorization of Risk Levels and Color Code Convention Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level. 22.2.6 Description of the Coal Property The Mine No. 4 Complex is located in Tuscaloosa County, Alabama and ope a longwall section with supporting continuous mining sections. The operation is projected to continue in the present mode until reserves are depleted in 2045. MARSHALL MILLER & ASSOCIATES, INC. 77



# 22.2.7 Summary of Residual Risk Ratings

Each risk factor is numbered, and a risk level for each is determined by multiplying the assigned probability by the assigned consequence. The risk levels are plotted on a risk matrix to provide a composite view of the Warrior Met risk profile. The average risk level is 6.4, which is defined as Moderate.





# 22.2.8 Risk Factors

A high-level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. Risk factors that are unique to a specific operation or are particularly noteworthy are addressed individually.

### 22.2.8.1 Geological and Coal Resource

Coal mining is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource to be uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets.

Offsetting the geological and coal resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from areas where coal quality and/or mineability may be less favorable. This flexibility, combined with the extensive work done to define the reserve, reduces the risk at Mine No. 4 below that of other mine properties.

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22.2.7 Summary of Residual Risk Ratings Each risk factor is numbered, and a risk level for each is determined by multiplying the assigned probability b the assigned consequence. The risk levels are plotted on a risk matrix to provide a composite view of the Warrior Met risk profile. The average risk level 6.4, which is defined as Moderate. Table 22-4: Risk Assessment Matrix Critical >\$50 MM 8,9 Major \$10-50MM 6 Moderate \$2-10 MM 1 4 3 11 Consequence Minor \$0.5-\$2 MM 7, 2 12 5 Low <\$0.5 MM 10 <10% 10-30% 30-60% 60-90% >90% Remote Unlikely Possible Likely Almost Certain 22.2.8 Risk Factors A high-level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. Risk factors that are unique to a specific operation or are particularly noteworthy are addressed individually. 22.2.8.1 Geologica and Coal Resource Coal mining is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource to be uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets. Offsetting the geological and coal resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from areas where coal quality and/or mineability may be less favorable. This flexibility, combined with the extenwork done to define the reserve, reduces the risk at Mine No. 4 below that of other mine properties. MARSHALL MILLER & ASSOCIATES, INC. 78



Aspect	Impact	Control Measures	Initial Risk Level			Mitigation Measures	Residual Risk Level			
			P	C	R		Р	C	R	
Recoverable coal tonnes recognized to be significantly less than previously estimated	Reserve base is adequate to serve market commitments and respond to opportunities for many years. Local adverse conditions may increase frequency and cost of production unit relocations.	Previous and ongoing exploration and extensive regional mining history provide a high level of confidence of coal seam correlation, continuity of the coal seams, and coal resource tonnes	2	3	6	Optimize mine plan to increase resource recovery, develop mine plan to provide readly available alternate mining locations to sustain expected production level.	1	3	3	
Ceal quality locally proves to be lower than initially projected.	If uncontrolled, production and sale of coal that is out of specification can result in rejection of deliveries, cancellation of coal sales agreements and damage to reputation	Exploration and vast experience and history in local coal seams provide confidence in coal quality, limited excursions can be managed with careful product segregation and blending.	2:	3	6	Develop mine plan to provide readily available alternate mining locators to sustain expected production level; modify coal sales agreements to reflect coal quality. Conduct additional drilling to lower risk associated with quality concerns in suspect areas.	3	2	2	

Table 22-5:	Geological and C	oal Resource Risk	Assessment	(Risks 1 and 2)	
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## 22.2.8.2 Environmental

Water quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to meet modified standards or to receive new permits and modifications to existing permits. Permit protests may result in delays or denials to permit applications.

Environmental standards and permit requirements have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements.

			Initial Risk Level				Residual Risk Level		
Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P	C	R
Environmental performance standards are modified in the future.	Delays in receiving new permits and modifications to existing permits, cost of testing and treatment of water and soils	Work with regulatory agencies to understand and influence final standards; implement testing, treatment and other actions to comply with new standards.	3	4	12	Modify mining and reclamation plans to improve compliance with new standards while reducing cost of compliance.	3	3	9
New permits and permit modifications are increasingly delayed or denied.	Interruption of production and delayed implementation of replacement production from new mining areas.	Comply quickly with testing, treatment and other actions required, continue excellent compliance performance within existing permits.	2	4	8	Establish and maintain close and constructive working relationships with regulatory agencies, local communities and community action groups. Prepare and submit permits well in advance of needs.	2	3	6

#### Table 22-6: Environmental (Risks 3 and 4)

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Table 22-5: Geological and Coal Resource Risk Assessment (Risks 1 and 2) Initial Risk Level Residual Risk Level Aspect Impact Control Measures Mitigation Measures P C R P C R Recoverable coal Reserve base is adequate to Previous and ongoing 2 3 6 Optimize mine plan to 1 3 3 tonnes recogni: to serve market commitments exploration and extensive increase resource be significantly less and respond to opportunities regional mining history recovery; develop than previously for many years. Local provide a high level of mine plan to provide estimated, adverse conditions may confidence of c seam readily available increase frequency and cost correlation, continuity of alternate mining of production unit the coal seams, and coal locations to sus relocations. resource tonnes. expected production level. Coal quality locally If uncontrolled, production Exploration and vast 2 3 6 Develop mine plan tc 2 proves to be lower and sale of coal that is out of experience and history in provide readily than initially projected, specification can result in local coal seams provide available alternate rejection of deliveries, confidence in coal quality; mining locations to cancellation of coal sales limited excursions can sustain expected agreements and damage to managed with careful production level; reputation, product segregation and modify coal sales blending. agreements to reflect coal quality. Conduct additional drilling to lower risk associated with quality concerns in suspect areas. 22.2.8.2 Environmental We quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to mee modified standards or to receive new permits and modifications to existing permits. Permit protests may result in delays or denials to permit applications Environmental standards and permit requirements have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements. Table 22-6: Environmental (Risks 3 and 4) Residual Risk Initial Risk Leve Level Aspect Impact Control Measures P C R Mitigation Measures P C R Environmental Delays in receiving new Work with regulatory 3 4 12 Modify mining and 3 3 9 performance standards permits and modifications to agencies to understand and reclamation plans to improve are modified in the existi

permits; cost of influence final standards; compliance with new future. testing and treatment of water implement testing, treatment standards while reduc and soils and other actions to comply cost of compliance. with new standards. New permits and permit Interruption of production and Comply quickly v testing, 2 4 8 Establish and maintain close 2 3 6 modifications are delayed implementation of treatment and other actions and constructive working increasingly delayed or replacement production from required; continue excellent relationships with regulatory denied. new mining areas. compliance performance agencies, local communities within existing permits. and community action groups. Prepare and submit permits well in advance of needs. MARSHALL MILLER & ASSOCIATES, INC. 79



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# 22.2.8.3 Regulatory Requirements

Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The impact is industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements.

### Table 22-7: Regulatory Requirements (Risk 5)

	A. 1977		Initial Risk Level			Mitigation	Residual Risk Level		
Aspect Federal and state mine safety and health regulatory agencies amend mine laws and regulations	Impact Cost of training, materials, supplies and equipment; modification of mine examination and production procedures; modification of mining plans.	Control Measures Participate in hearings and workshops when possible to facilitate understanding and implementation, work cooperatively with agencies and employees to facilitate implementation of new laws and regulations.	4	3	12	Messures Familiarity and experience with new laws and regulations results in reduced impact to operations and productivity and improved supplies and equipment options	4	2	R 8

# 22.2.8.4 Market and Transportation

Most of the current and future production is expected to be directed to domestic and international metallurgical markets. Historically the metallurgical markets have been cyclical and highly volatile.

#### Table 22-8: Market (Risk 6)

			Initial Risk Level			Mitigation	Residual Risk Level			
Aspect Volatile coal prices drop precipitously	Impact Loss of revenue adversely affects profitability: reduced cash flow may disrupt capital expenditures plan.	Control Measures Cost control measures implemented; capital spending deferred.	4	5	<b>R</b> 20	Measures High-cost operations closed, and employees temporarily furloughed	4	4	R 16	

Occasional delay or interruption of rail, river and terminals service may be expected. The operator can possibly minimize the impact of delays by being a preferred customer by fulfilling shipment obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk.

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22.2.8.3 Regulatory Requirements Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The impact is industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements. Table 22-7: Regulatory Requirements (Risk 5) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Federal an state mine Cost of training, materials, Participate in hearings and 4 3 12 Familiarity and 4 2 8 safety and health supplies and equipment; workshops when possible to experience with new regulatory agencies modification of mine facilitate understanding and laws and regulations amend mine laws and examination and production implementation; work results in reduced regulations. procedures; modification of cooperatively with agencies impact to operations mining plans. and employees to facilitate and productivity and implementation of new laws improved supplies and regulations. and equipmer options. 22.2.8.4 Market and Transportation Most of the current and future production is expected to be directed to domestic and international metallurg

markets. Historically the metallurgical markets have been cyclical and highly volatile. Table 22-8: Market (Risk 6) Initial Risk Level Mitigation Residue Risk Level Aspect Impact Control Measures P C R Measures P C R Volatile coal prices drop Loss of revenue adversely Cost control measures 4 5 20 Hi cost operations 4 4 16 precipitously. affects profitability; reduced implemented; capital closed, and cash flow may disrupt capital spending deferred. employees expenditures plan. temporarily furloughed. Occasional delay or interruption of rail, river and terminals service may be expected. The operato can possibly minimize the impact of delays by being a preferred customer by fulfilling shipment obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk. MARSHALL MILLER & ASSOCIATES, INC. 80



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#### Table 22-9: Transportation (Risk 7)

			Initial	Risk L	evel	Mitigation	Residual Risk Level			
Aspect Rail or river transport is delayed; storage and	Impact Fulfilment of coal sales agreements delayed; limited	Control Measures Provide adequate storage capacity at mines;	2	с 3	R 6	Measures Provide back-up storage facility along	1	2	R	
shipping access at river and ocean terminals is not available	coal storage at mines may increase cost of rehanding, production may be temporarily idled.	coordinate continuously with railroad and shipping companies to respond quickly and effectively to changing circumstances.				with personnel, equipment and rehandle plan to sustain production and fulfif sales obligations timely. Utilize multiple methods of transportation (rail & barge)				

#### 22.2.8.5 Mining Plan

Occupational health and safety risks are inherent in mining operations. Comprehensive training and retraining programs, internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce health risks to miners.

As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads to modification of mine plans and procedures to enable safe work within the mine environment.

Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations.

#### 22.2.8.5.1 Methane Management

Coalbed methane is present in coal operations below drainage. Often the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee and Blue Creek seams at the Mine No. 4 Complex in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Mine No. 4 has operated safely for many years in one of the most intense methane environments in the United States through careful management of coal seam methane via multiple practices. These practices include degasification ahead of mining, gob degasification and mine-ventilation procedures. Additionally, Warrior Met reports that it utilizes combustion units on gob wells to reduce methane emissions. Warrior Met captures a significant amount of gob gas which is sold directly or upgraded to saleable quality through the use of a gas processing facility. These capturing practices eliminate a portion of the operation's direct methane emissions via the combustion of methane and the generation of pipeline quality gas.

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Table 22-9: Transportation (Risk 7) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Rail or ri transport is Fulfillment of coal sales Provide adequate storage 2 3 6 Provide back-up 1 2 2 delayed; storage and agreements delayed; limited capacity at mines; storage facility along shipping access at river coal storage at mines may coordinate continuously with with personnel, and ocean terminals is not increase cost of rehandling; railroad and shipping equipment and available. production may be temporarily companies to respond rehandle plan to idled. quickly and effectively to sustain production changing circumstances. and fulfill sales obligations timely. Utilize multiple methods of transportation (rail barge) 22.2.8.5 Mining Plan Occupational health and safety risks are inherent in mining operations. Comprehensive training and retraining programs, internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce

health risks to miners. As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads modification of mine plans and procedures to enable safe work within the mine environment. Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations. 22.2.8.5.1 Methane Management Coalbed methane is present in coal operations below drainage. Oft the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee and Blue Creek seams at th Mine No. 4 Complex in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Mine No. 4 has oper safely for many years in one of the most intense methane environments in the United States through careful management of coal seam methane via mult practices. These practices include degasification ahead of mining, gob degasification and mine-ventilation procedures. Additionally, Warrior Met reports it utilizes combustion units on gob wells to reduce methane emissions. Warrior Met captures a significant amount of gob gas which is sold directly or upgraded to saleable quality through the use of a gas processing facility. These capturing practices eliminate a portion of the operation's direct methane emissions via the combustion of methane and the generation of pipeline quality gas. MARSHALL MILLER & ASSOCIATES, INC. 81



Warrior Met Coal, Inc. Mine No. 4 fear End 2022 Reserve Analysis Technical Report Summary

#### Table 22-10: Methane Management (Risk 8)

Annart			Initial Risk Level			Mitigation	Residual Risk Level			
Aspect Methane hazard is present in mines operating below drainage	Impact Injury or loss of life, possible ignition of gas and mine explosion; potential loss of mine and equipment temporarily or permanently; additional mine fan, mine power, ventilation, monitoring and examination requirements.	Control Measures Low to moderate levels can be managed with frequent examinations, testing and monitoring within the mine ventilation system. Excellent rock dust maintenance minimizes explosion propagation msk should an ignition occur.	2	5	R 10	Measures Very high-level methane concentrations may require coal seam degasification and gob degasification of longwall or pilar extraction methods are employed.	1	5	R	

#### 22.2.8.5.2 Mine Fires

Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, reduce mine fire risks. Crew training and fire brigade support and training improve response for containment and control if a fire occurs. Spontaneous combustion within coal mines, which is the source of most fires that occur today, is not expected to occur at Mine No. 4.

#### Table 22-11: Mine Fires (Risk 9)

			Initial Risk Level				Residual Risk Level		
Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P	C	R
Mine fire at underground or operation.	Injury or loss of fre; potential loss of mine temporarily or permanently; damage to equipment and mine infrastructure.	Inspection and maintenance of mine power, equipment and mine infinatructure, good housekeeping, frequent examination of conveyor belt entries, prompt removal of accumulations of combustible materials.	1	5	5	If spontaneous combustion conditions are present, enhanced monitoring and examination procedures will be implemented; mine design will incorporate features to facilitate isolation, contisimment and extinguishment of spontaneous combustion locations.	1	5	5

### 22.2.8.5.3 Availability of Supplies and Equipment

The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to be temporary with limited impact on production.

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Table 22-10: Methane Management (Risk 8) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Methane hazard is present Injury or loss of life; possible Low to moderate levels can 2 5 10 Very high-level 1 5 5 in mines operating below ignition of g and mine be managed with frequent methane drainage. explosion; potential loss of examinations, testing and concentrations may mine and equipment

monitoring within the mine require coal seam temporarily or permanently; ventilation system. degasification and additional mine fan, mine Excellent rod dust gob degasification if power, ventilation, monitoring maintenance minimizes longwall or pillar and examination requirements. explosion propagation risk extraction methods should an ignition occur. are employed. 22.2.8.5.2 Mine Fires Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, redu mine fire risks. Crew training and fire brigade support and training improve response for containment and control if a fire occurs. Spontaneous combusti within coal mines, which is the source of most fires that occur today, is not expected to occur at Mine No. 4. Table 22-11: Mine Fires (Risk 9) Initial Ris Level Residual Risk Level Aspect Impact Control Measures P C R Mitigation Measures P C R Mine fire at underground Injury or loss of life; Inspectior maintenance 1 5 5 If spontaneous 1 5 5 or operation. potential loss of mine of mine power, equipment combustion conditions temporarily or permanently and mine infrastructure; are present, enhanced damage to equipment and good housekeeping; monitoring and mine infrastructure. frequent examination examination procedures conveyor belt entries; will be implemented; prompt removal of mine design will accumulations of incorporate features to combustible materials. facilitate isolation, containment and extinguishment of spontaneous combustion locations. 22.2.8.5.3 Availability of Supplies and Equipment The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to be temporary with limited impact on production. MARSHALL MILLER & ASSOCIATES, INC. 82





				ıl Risk L		Mitigation	Residual Risk Level		
Aspect Disruption of availability for supplies and equipment.	Import Temporary interruption of production.	Control Measures Force majeure provision in coal sales agreements to limit lability for delayed or lost sales.	P 3	2	R 6	Measures Work closely with customers to assure delayed coal delivery rather than cancelled sales; monitor external conditions and increase inventory of critical aupplies; accelerate delivery of equipment when possible.	3	1	R 3

# 22.2.8.5.4 Labor

Work stoppage due to labor protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; the impact can be lessened with succession planning and training and training and mentorship of new employees.

#### Table 22-13: Labor - Work Stoppage (Risk 11)

			Initia	ıl Risk L	evei.	Mitigation	Residual Risk Level		
Aspect	Impact	Control Measures	P	C	R	Measures	P	C	R
Work stoppage due to strikes, slowdowns or secondary boycott activity.	Loss of production and coal sales; damaged customer and employee relations; reputation loss.	Maintain excellent employee relations and communications, maintain frequent customer communications. Train salary employees for hourly tasks in case of long-term strike.	4	4	16	Develop plan for employee communications and legal support to minimize impact of secondary boycott activities.	4	3	12

### Table 22-14: Labor - Retirement (Risk 12)

			Initial Risk Level			Mitigation	Residual Risk Level		
Aspect	Impact	Control Measures	P	C	R	Measures	P	C	R
Retirement of supervisors and skilled employees.	Less of leadership and critical skills to sustain high levels of safety, maintenance and productivity.	Monitor demographics closely and maintain communications with employees who are approaching retirement age, maintain employee selection and training programs	3	3	9	Maintain selection of candidates and implementation of in- house or third-party training for electricians and mechanics; develop employee mentioning program.	3	2	6

Table 22-12: Availability of Supplies and Equipment (Risk 10) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C F Measures P C R Disruption of availability Temporary interruption of Force majeure provision in 3 2 6 Work closely with 3 1 3 for supplies and productiv coal sales agreements to customers to assure equipment. limit liability for delayed or delayed coal delivery lost sales. rather than cancelled sales; monito external conditions and increase inventory of critical supplies; accelerate delivery of equipment when possible. 22.2.8.5.4 Labor Work stoppage due to la protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; the impact can be lessened with succession plannin and training and training and mentorship of new employees. Table 22-13: Labor - Work Stoppage (Risk 11) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Work stoppage due to Loss of production and coal Maintain excellent employee 4 4 16 Develop plan for 4 3 12 strikes, slowdowns or sales; damaged customer and relations and employee secondary boycott activity. employee relations; reputation communications; maintain communications and loss. frequent customer legal support to communications. Train minimize impact of salary employees for hourly secondary boycott tasks in case of long-term activities. strike. Table 22-14: Labor - Retirement (Risk 12) Initial Risk Level Mitiga Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Retirement of supervisors Loss of leadership and critical Monitor demographics 3 3 9 Maintain selection of 3 2 6 and skilled employees. skills to sustain high levels of closely and maintain candidates and safety, maintenance and communications with implementation of in-productivity. employees who are house or third-party approaching retirement age; training maintain employee selection electricians and and training programs. mechanics; develop employee mentoring program. MARSHALL MILLER & ASSOCIATES, INC. 83



# 23 Recommendations

Warrior Met is continuing to work both internally and with outside assistance to further define their resource base and to optimize the LOM plan. MM&A recommends continued exploration to better define thickness, mineability and quality trends. Continued lease and property acquisition is recommended to further increase the coal reserve base and potentially increase the LOM plan.

# 24 References

- Various sources of geological information, including a digital exploration database, coal quality laboratory information, drillers' and geologists' logs, and geophysical logs.
- 2. Various engineering, permitting and mine plans as presented to MM&A by Warrior Met.
- Various previous engineering and reserve reports conducted on behalf of Warrior Met by MM&A.
- 4. Publicly available information from various State and Federal agencies.
- 5. Various mapping information obtained via the public domain.

# 25 Reliance on Information Provided by Registrant

The qualified persons responsible for the development of this TRS have relied upon information provide by Warrior Met, including:

- 1. Marketing Information, including sales forecasts coal and transportation costs.
- 2. Legal Matters, including mineral and surface-based land and tenure.
- Environmental Matters, including permit status and refuse disposal plans and associated volumes.

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23 Recommendations Warrior Met is continuing to work both internally and with outside assistance to further define their resource base and to optimize LOM plan. MM&A recommends continued exploration to better define thickness, mineability and quality trends. Continued lease and property acquisiti is recommended to further increase the coal reserve base and potentially increase the LOM plan. 24 References 1. Various sources of geological informa including a digital exploration database, coal quality laboratory information, drillers' and geologists' logs, and geophysical logs. 2. Various engineering, permitting and mine plans as presented to MM&A by Warrior Met. 3. Various previous engineering and reserve reports conducted on behalf of Warrior I by MM&A. 4. Publicly available information from various State and Federal agencies. 5. Various mapping information obtained via the public domain. Reliance on Information Provided by Registrant The qualified persons responsible for the development of this TRS have relied upon information provid Warrior Met, including: 1. Marketing Information, including sales forecasts coal and transportation costs. 2. Legal Matters, including mineral and surfac based land and tenure. 3. Environmental Matters, including permit status and refuse disposal plans and associated volumes. MARSHALL MILLER & ASSOCIATES, INC. 84





APPENDIX A TABLE



### Warrior Met Coal, LLC Mines #4 Evaluation

#### Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource	Thickness	Re	source Acres		ľ	In Place Tonnes	÷	Clean, Moi	st, Demonstrat
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Mine #4													
Area 5 East (Leased)											50		
Continuous Mining	ML+BC	1,930	78.91% 78.91%	5.30	0.00	222	0	222	2,059,637	0	2,059,637	101,125	0
Longwall Mining Total	ML+BC	1,930	78.91%	5.30	0.00	100-5	~~~		2,059,637	0	2,059,637	1,472,445	0
rotal				5.50	0.00				2,039,637	0	2,059,057	1,575,570	•
Area 6 North (Leased)									5		23		
Continuous Mining	ML	1,930	83.75%	1.35	1.50	- 00F	60	7.070	10.003.003	253.154	10 700 507	1,488,958	22,738
Longwall Mining	ML	1,930	83.75%	1.35	1.59	6,986	90	7,076	16,457,443	251,154	16,708,597	9,405,220	146,077
Continuous Mining	BC	1,930	78.51%	3.47	300	6,985	90	7,076	42,409,792	579,274	12 000 000	3,623,555	52,994
Longwall Mining	BC .	1,930	78.51%	3.47	3,66	6,986	90	7,076	42,409,792	5/9,2/4	42,989,066	22,618,765	317,368
Total			1	4,81	5.24				58,867,235	830,428	59,697,663	37,136,499	539,177
Adverse					1.000								
Continuous Mining	ML	1.930	83.75%				117000-1				-	344,836	6,428
Longwall Mining	ML	1,930	83.75%	1,33	1.35	1,238	40	1,278	2,891,815	93,767	2,985,582	1,436,637	59,959
Continuous Mining	BC	1,930	78.51%									675,820	11,062
Longwall Mining	BC	1,930	78.51%	2.74	2,42	1,2.38	40	1,278	5,943,604	168,319	6,111,923	2,840,804	103,154
Total				4.08	3.76				8,835,419	262,086	9,097,505	5,298,097	180,604
Grand Total													
Continuous Mining - ML+	BC					222	0	222	2,059,637	0	2.059.637	101,125	0
Longwall Mining - ML+BO						666	<i>u</i>	~~~~	2,035,037	0	6,039,037	1,472,445	0
Continuous Mining - ML	Only						1000		-	Tabalan Carana		1,488,958	22,738
Longwall Mining - ML Or	nliv					6,986	90	7,076	16,457,443	251,154	16,708,597	9,405,220	146,077
Continuous Mining - BC	SA-191											3,623,555	52,994
Longwall Mining - BC On	10.00					6,986	90	7,076	42,409,792	579,274	42,989,066	22,618,765	317,368
	нy	<u> </u>				SALCOAL			CO 035 034	020 520	C4 353 300		
Total									60,926,871	830,428	61,757,299	38,710,069	539,177
Owned									0	0	0	0	0
Leased									60,926,871	830,428	61,757,299	38,710,069	539,177
Total									60,926,871	830,428	61,757,299	38,710,069	539,177
Adverse		1							8,835,419	262,086	9,097,505	5,298,097	180,604

Definitions: Total seam is the thickness of coal and non-coal partings from the top to the base of the seam, excluding the middleman

Wash recovery is estimated via a plant simulation utilizing multi-gravity data available to target a 10.2% ash product from exploration data and MM&A's experience in the subject coal horizons

#### WARM120 - Mine 4 Tables (2023-02-02) xlsx • Mine 4 Metric Tonnes (Pres) • 2/2/2023

Warrior Met Coal, LLC Mines #4 Evaluation Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moistur 10% Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickness Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Mine #4 Area 5 East (Leased) Continuous Mining ML + BC 1,930 78.91% 101,125 0 101,125 Longwa Mining ML + BC 1,930 78.91% 5.30 0.00 222 0 222 2,059,637 0 2,059,637 1,472,445 0 1,472,445 Total 5.30 0.00 2,059,637 0 2,059,637 1,573,570 0 1,573,570 Area 6 North (Leased) Continuous Mining ML 1,930 83.75% 1,488,958 22,738 1,511,696 Longwall Mining ML 1,930 83.75% 1.35 1.59 6,98 90 7,076 16,457,443 251,154 16,708,597 9,405,220 146,077 9,551,296 Continuous Mining BC 1,930 78.51% 3,623,555 52,994 3,676,549 3.47 3.66 6,9 90 7,076 42,409,792 579,274 42,989,066 Longwall Mining BC 1,930 78.51% 22,618,765 317,368 22,936,133 Total 4.81 5.24 58,867,235 830,428 59,697,663 37,136,499 539,177 37,675,675 Adverse Continuous Mining ML 1,930 83.75% 344,836 6,428 351,264 Longwall Mining ML 1,930 83.75% 1.33 1.35 1,238 40 1,278 2,891,815 93,767 2,985,582 1,436,637 59,959 1,496,597 Continuous Mining BC 1,930 78.51% 675,820 11,062 686,882 2.74 ( 1,238 40 1,278 5,943,604 168,319 6,111,923 Longwall Mining BC 1,930 78.51% 2,840,804 103,154 2,943,958 Total 4.08 3.76 8,835,419 262,086 9,097,505 5,298,097 180,604 5,478,701 Grand Total Continuous Mining-ML+BC 101,125 0 101,125 Longwall Mining-ML+BC 222 0 222 2,059,63 2,059,637 1,472,445 0 1,472,445 Continuous Mining-ML Only 1,488,958 22,738 1,511,696 Longwall Mining-ML Only 6,986 90 7,076 16,457,443 251,154 16,708,597 9,405,220 146,077 9,551,296 Continuous Mining-BC Only 3,623,555 52,994 3,676,549 Longwall Mining-BC Only 6,986 90 7 42,409,792 579,274 42,989,066 22,618,765 317,368 22,936,133 Total 60,926,871 830,428 61,757,299 38,710,069 539,177 39,249,245 Owned 0 0 0 0 0 Leased 60,926,871 830,428 61,757,299 38,710,069 539,177 39,249,245 Total 60,926,871 830,428 61,757,299 38,710,069 539,177 39,249,245 Adverse 8,835,419 262,086 9,097,505 5,298,097 180,604 5,478,701 \*Average total seam thickness by mine Definitions: Total seam is the thickness of coal and r coal partings from the top to the base of the seam, excluding the middleman. Wash recovery is estimated via a plant simulation utilizing multi-gravity da available to target a 10.2% ash product from exploration data and MM&A's experience in the subject coal horizons. (2023-02-02).xlsx • Mine 4 Metric Tonnes (Pres) • 2/2/2023 Page 1 of 1





APPENDIX B MARKET MEMORANDUM PROVIDED BY WARRIOR MET

AND IS MANA	expectations (nominal	Public Robot Annual Party	Q1 2022											
Price	Description	Basis	average	Q2 2022	Q3 2022	Q4 2022	2022	2023	2024	2025	2026	2027	2028	202
MCC1	Low vol PHEC	FOB Australia	412	303	234	180	281	159	160	160	165	182	188	193
MCCT	Upside case			403	284	230	230	179	170	170	175	192	798	202
MCCT	Downside case			293	224	170	172	149	150	150	155	172	178	182
MCC2	Mid vol PHCC	FOB Australia	416	306	238	184	285	153	154	154	-159	176	182	186
MCC3	2nd tier HCC	FOB Australia	368	270	209	161	251	139	140	140	145	162	168	172
MCC4	Low vol PHCC	CFR China	375	326	254	194	287	174	175	175	180	197	203	207
MCCS	Mid vol PHCC	CFR China	370	321	249	191	282	168	169	169	174	191	197	201
MCC6	2nd tier HCC	CFR China	353	305	237	182	268	159	160	160	165	182	188	192
MCC7	US high vol 8	FOB USEC	340	273	220	165	249	134	135	135	140	157	163	167
MCC8	US high vol A	FOB USEC	377	300	241	176	273	150	151	151	156	173	179	18
MCC9	US mid vol	FOB USEC	370	298	236	177	270	151	152	152	157	174	180	184
MCC10	US low vol	FOB USEC	362	297	231	174	278	153	154	154	159	176	182	186
	Australian low-vol PCI	FOB Australia	288	207	160	133	196	118	118	118	122	132	136	138
	Australian SSCC	FOB Australia	261	188	145	124	179	111	113	113	118	128	133	135
	Coke Rizhao	FOB China	521	427	366	318	407	299	300	300	305	320	325	325

Note: This indexed as Diseased and Direction with Automatic conception provides the and at 2022, an owner as used and and analyzing using our advade, with higher DH and times FOB prove. FHGE + Prove hard SDC + Themselve and DAPPy conception provides and analyzing through the and at 2022, and owner and an analyzing using our advade, with higher DH and times FOB prove. FHGE + Prove hard SDC + Themselve and DAPPy conception provides and analyzing through the and at 2022, and owner and an analyzing using our advade, with higher DH and times FOB prove. FHGE + Prove hard SDC + Themselve and DAPPy conception provides and provides and analyzing through the and at 2022, and owner and and analyzing through the provides and the provide

#### Appendix B 1H5 Colong total price forecast also

Appendix B Market Projections Provided by Warrior Met Key price expectations (nominal US dollars) Q1 2022 Price Description Basis average Q2 202 Q3 2022 Q22 2023 2024 2025 2026 2027 2028 2029 2030 MCC1 Low vol PHCC FOB Australia 412 303 234 180 281 159 160 160 165 182 192 195 MCC1 Upside case 403 284 230 230 179 170 170 175 192 198 202 205 MCC1 Downside case 293 224 170 172 149 150 150 155 172 178 182 MCC2 Mid vol PHCC FOB Australia 416 306 238 184 285 153 154 154 159 176 182 186 189 MCC3 2nd tier HCC FOB Australia 368 270 209 161 25 139 140 140 145 162 168 172 175 MCC4 Low vol PHCC CFR China 375 326 254 194 287 174 175 175 180 197 203 207 210 MCC5 Mid vol PHCC C C China 370 321 249 191 282 168 169 169 174 191 197 201 204 MCC6 2nd tier HCC CFR China 353 305 237 182 268 159 160 160 165 182 188 192 19. MCC7 US high vol B FOB USEC 340 273 220 165 249 134 135 135 140 157 163 167 170 MCC8 US high vol A FOB USEC 377 300 241 176 273 150 151 156 173 179 183 186 MCC9 US mid vol FOB USEC 370 298 236 177 270 151 152 152 157 174 180 184 187 MCC10 US low vol FOB USEC 362 231 174 278 153 154 154 159 176 182 186 189 Australian low-vol PCI FOB Australia 288 207 160 133 196 118 118 118 122 132 136 138 140 Australia SSCC FOB Australia 261 188 145 124 179 111 113 113 118 128 133 135 137 Coke Rizhao FOB China 521 427 366 318 407 299 300 300 305 320 325 331 Note: This modeling is based on Chinese restrictions on Australian coal continuing through the end of 2022; an earlier or later end will meaningfully change our outlook, with higher CFR and lower FOB prices. PHCC = Prime hard coking coal, HCC = Hard coking coal; PCI = Pulverized coal injectior SSCC = Semi-soft coking coal; quarterly prices are quarter averages, including current quarter. Appendix B IHS Coking coal price forecast.xlsx



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

May 17, 2023

Prepared for: Warrior Met Coal, Inc. 16243 Highway 216 Brookwood, Alabama 35444 Prepared by: MARSHALL MILLER & Associates, Inc. 582 Industrial Park Road Bluefield, Virginia 24605 www.mma1.com

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary May 17, 2023 Prepared for: Prepared by: Wan Met Coal, Inc. MARSHALL MILLER & amp; ASSOCIATES, INC. 16243 Highway 216 582 Industrial Park Road Brookwood, Alabama 35444 Bluefiel Virginia 24605 www.mma1.com

# Statement of Use and Preparation

This Technical Report Summary (*TRS*) was prepared for the sole use of **Warrior Met Coal, Inc.** (*Warrior Met*) and its affiliated and subsidiary companies and advisors. Copies or references to information in this report may not be used without the written permission of Warrior.

The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC).

The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & Associates, Inc. (MM&A).

MM&A professionals who contributed to the drafting of this report meet the definition of *Qualified Persons* (*QPs*), consistent with the requirements of the SEC.

The information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporting, MM&A's QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as a QP as defined by the SEC.

Certain information set forth in this report contains "forward-looking information", including production, productivity, operating costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance and undue reliance should not be placed on them. The assumptions used to develop forward-looking information and the risks that could cause the actual results to differ materially are detailed in the body of this report.

MM&A hereby consents (i) to the use of the information contained in this report dated December 31, 2022, relating to estimates of coal resources and coal reserves controlled by Warrior Met,(ii) to the use of MM&A's name, any quotation from or summarization of this TRS in Warrior Met's SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met's SEC filings.

This report was prepared by:

Qualified Person:

/s/ Marshall Miller & Associates, Inc.

May 17, 2023

#### MARSHALL MILLER & ASSOCIATES, INC.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Statement of Use and Preparation This Techni-Report Summary (TRS) was prepared for the sole use of Warrior Met Coal, Inc. (Warrior Met) and its affiliated and subsidiary companies and advisors. Copies or references to information in this report may not be used without the written permission of Warrior. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC). The statement is based on information provided by Warrior Met and reviewed by various professionals within Marshall Miller & amp; Associates, Inc. (MM& amp;A). MM& amp;A professionals who contributed to the drafting of this report meet the definition of Qualified Persons (QPs), consistent with the requirements of the SEC. information in this TRS related to coal resources and reserves is based on, and fairly represents, information compiled by the QPs. At the time of reporti MM& amp;A?s QPs have sufficient experience relevant to the style of mineralization and type of deposit under consideration and to the activity they are undertaking to qualify as a QP as defined by the SEC. Certain information set forth in this report contains ?forward-looking information?, including production, productivity, operating costs, capital costs, sales prices, and other assumptions. These statements are not guarantees of future performance au undue reliance should not be placed on them. The assumptions used to develop forward-looking information contained in this report dated December 31, 2022, relating to estimates of coal resources and coal reserves controlled by Warrior Met,(ii) to the use of MM& amp;A?s name, any quota from or summarization of this TRS in Warrior Met?s SEC filings, and (iii) to the filing of this TRS as an exhibit to Warrior Met?s SEC filings. This repor was prepared by: Qualified Person: /s/ Marshall Miller & amp; Associates, Inc. May 17, 2023 MARSHALL MI



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# 1 Executive Summary

# 1.1 Property Description

Warrior Met Coal, Inc. (Warrior Met) authorized Marshall Miller & Associates, Inc. (MM&A) to prepare this Technical Report Summary (TRS) of its controlled coal reserves, located at its Blue Creek (BC) property in northern Tuscaloosa County, Alabama (the Property). The mine is currently being developed with seam access (shaft & slope installation) underway. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of tonnes (*Mt*).

The property is located in northwestern Alabama, approximately 27 miles north of the city of Tuscaloosa and 36 miles west of the city of Birmingham in the southern region of the US. Highway 69 North bisects the property controlled by Warrior Met. *Figure 1-1* displays the property's location. Warrior Met currently controls approximately 30,000 total acres of mining rights associated with the Project (the *Property*), approximately 85 percent of which are leased from various entities and individuals. Specific to resource and reserve areas, Warrior Met controls approximately 17,000 acres of property, approximately 82-percent of which is leased from various entities and individuals.

Based upon the current layout of the mine, the acquisition of additional leases will be required in the eastern and western portions of the Property, including leases from private entities and individuals, as well as a significant number of federally owned tracts from the **Bureau of Land Management (BLM)**.

To mitigate risk associated with the BLM tracts, MM&A has assisted Warrior in developing a mine plan for the property which excludes the BLM tracts. This is not presented in the TRS, but it is important to note that financial modeling associated with this alternative mine plan showed favorable economics absent the BLM tracts, albeit at a reduced tonnage.

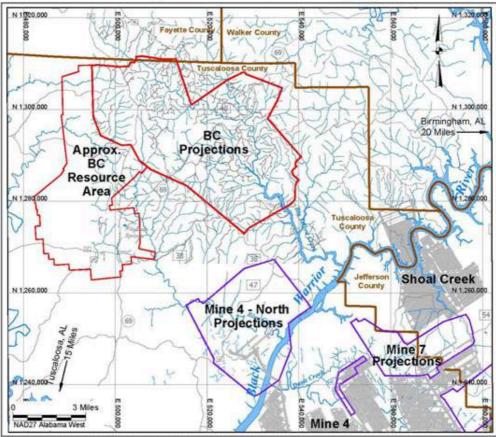
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#### Figure 1-1: Blue Creek Project Location Map



Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system.

# 1.2 Ownership

The Property was formerly controlled by Jim Walter Resources (*Walter*), the predecessor company of Warrior Met. Walter acquired the majority of its mineral rights for the Blue Creek property in 2010 through its purchase of Chevron Mining, Inc. (*Chevron*)-owned coal assets located in Alabama. Warrior Met acquired mineral rights and mining operations from Walter in 2016, including two active operating longwall mines (Mine No. 4 and Mine No. 7), located south and southeast of the Project.

Reserves and resources associated with these adjacent properties are not included in this report but are issued under separate cover. *Figure 1-1* outlines the location of the Property in relation to Warrior's adjacent properties.

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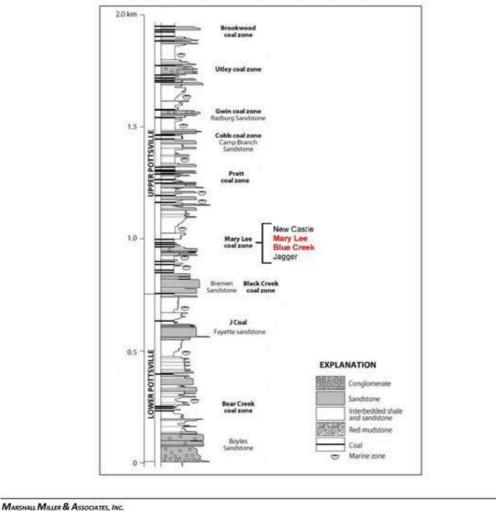
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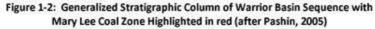
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# 1.3 Geology

Operations at the Blue Creek Mine Complex will extract the Mary Lee and Blue Creek coal beds by longwall mining methods. The strata of economic interest for this TRS belong to the Pennsylvanian-age Mary Lee Coal Group or Zone and the subject seams are the principal coal seams of interest within that formation for the present evaluation. Due to the high value of this coal, it has been extensively mined in the region. The Blue Creek Project is among the first in the region to target the higher volatile portion of the basin, with existing and former operations in the basin generally targeting the low and mid volatile coal zones. The seam is situated below drainage throughout the Property and will be accessed by mine shafts and/or slopes.





Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 1.3 Geology Operations at the Blue Creek Mir Complex will extract the Mary Lee and Blue Creek coal beds by longwall mining methods. The strata of economic interest for this TRS belong to the Pennsylvanian-age Mary Lee Coal Group or Zone and the subject seams are the principal coal seams of interest within that formation for the present evaluation. Due to the high value of this coal, it has been extensively mined in the region. The Blue Creek Project is among the first in the region to targ the higher volatile portion of the basin, with existing and former operations in the basin generally targeting the low and mid volatile coal zones. The sea situated below drainage throughout the Property and will be accessed by mine shafts and/or slopes. Figure 1-2: Generalized Stratigraphic Column of Wa Basin Sequence with Mary Lee Coal Zone Highlighted in red (after Pashin, 2005) MARSHALL MILLER & ASSOCIATES, INC. 10



Warrior Met expects that market placement at BC will largely be based upon the High-Volatile A Indices (*HVA*). The mine's production will fit with high-volatile A parameters, so it is anticipated that market placement will be generally priced according to the HVA.

# 1.4 Exploration Status

Since as early as 1957, the Property has been extensively explored by means of: continuous coring and analytic testing, rotary drilling, ongoing drilling associated with coalbed methane (*CBM*) production, and by downhole geophysical logging methods. The majority of the data was acquired or generated by previous owners of the Property. These sources comprise the primary data used in the evaluation of the coal resources and coal reserves identified on the Property. MM&A examined the data available for the evaluation and incorporated all pertinent information into this TRS. Where data appeared to be anomalous or not representative, that data was excluded (or not honored) from the digital databases and subsequent processing by MM&A.

Ongoing exploration has been carried out by Warrior Met since acquiring the Property, and Warrior Met's recently acquired exploration data (through December 2022) has been consistent with past drilling activities.

# 1.5 Operations and Development

Due to its coal reserve and seam characteristics, the Project will utilize longwall mining methods. The mine plan presented in this TRS utilizes a single longwall supported by continuous mining units. Warrior is considering an alternative mine plan which would increase tonnage via production from two longwall units. This alternative mine plan is not considered as part of this TRS. The mine will produce coal that is suitable for export into the high volatile-A metallurgical coal markets.

Run-of-mine coal will be transported to the surface via a slope, the development of which is currently underway. A service shaft and hoist, both also currently being developed, will serve as the primary means of transportation of miners, supplies, and equipment to the coal mine. An additional fan (exhaust) shaft will be required for mine ventilation, and a third shaft (primary intake) will be required to support longwall production. Bleeder shafts will be installed in each longwall district.

Run-of-mine coal will be processed in a new preparation plant with a capacity of 1,800 raw-tons-perhour (1,633 raw tonnes-per-hour). Final plant design and equipment selection is still underway. MM&A's assessment of coal quality information suggests that the operation will be capable of producing a 10-percent ash, sub-1-percent sulfur, high volatile-A coking coal in Resource and Reserve areas tagged as A through D. Clean coal production will be transported to a newly constructed barge loadout on the Black Warrior River via an overland conveyor.

The development schedule set forth in this TRS allows for initial continuous miner development to start in year 2025, with longwall mining commencing in year 2027. At a steady state, the mine will produce between 3 and 4 million tonnes (*Mt*) of coal annually and employ approximately 375 employees.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Warrior Met expects that market placement at will largely be based upon the High-Volatile A Indices (HVA). The mine's production will fit with high-volatile A parameters, so it is anticipated that ma placement will be generally priced according to the HVA. 1.4 Exploration Status Since as early as 1957, the Property has been extensively explored by means of: continuous coring and analytic testing, rotary drilling, ongoing drilling associated with coalbed methane (CBM) production, and by downhole geophysical logging methods. The majority of the data was acquired or generated by previous owners of the Property. These sources comprise the prima data used in the evaluation of the coal resources and coal reserves identified on the Property. MM&A examined the data available for the evaluation and incorporated all pertinent information into this TRS. Where data appeared to be anomalous or not representative, that data was excluded (or not honored from the digital databases and subsequent processing by MM&A. Ongoing exploration has been carried out by Warrior Met since acquiring the Property and Warrior Met's recently acquired exploration data (through December 2022) has been consistent with past drilling activities. 1.5 Operations and Development Due to its coal reserve and seam characteristics, the Project will utilize longwall mining methods. The mine plan presented in this TRS uti a single longwall supported by continuous mining units. Warrior is considering an alternative mine plan which would increase tonnage via production fr two longwall units. This alternative mine plan is not considered as part of this TRS. The mine will produce coal that is suitable for export into the high volatile-A metallurgical coal markets. Run-of-mine coal will be transported to the surface via a slope, the development of which is currently underway. service shaft and hoist, both also currently being developed, will serve as the primary means of transportation of miners, supplies, and equipment to the mine. An additional fan (exhaust) shaft will be required for mine ventilation, and a third shaft (primary intake) will be required to support longwall production. Bleeder shafts will be installed in each longwall district. Run-of-mine coal will be processed in a new preparation plant with a capacity of 1,

raw-tons-per-hour (1,633 raw tonnes-per-hour). Final plant design and equipment selection is still underway. MM&A's assessment of coal quality information suggests that the operation will be capable of producing a 10-percent ash, sub-1-percent sulfur, high volatile-A coking coal in Resource and Reserve areas tagged as A through D. Clean coal production will be transported to a newly constructed barge loadout on the Black Warrior River via an overland conveyor. The development schedule set forth in this TRS allows for initial continuous miner development to start in year 2025, with longwall mining commencing in year 2027. At a steady state, the mine will produce between 3 and 4 million tonnes (Mt) of coal annually and employ approximal 375 employees. MARSHALL MILLER & ASSOCIATES, INC. 11



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 1.6 Mineral Resource

A coal resource estimate was prepared as of December 31, 2022, for the Blue Creek Project, summarized in *Table 1-1*. Resources presented in *Table 1-1* include both resources inclusive of reserve and resources exclusive of reserve. Resources inclusive of reserve serve (See Areas A, B, C, D and E1 on detailed appendix tables) serve as the basis for the life-of-mine plan and cost model developed at the pre-feasibility level to support reserves which are stated in this report.

Resources exclusive of reserve represent those coal tonnes on the western portion of the property which are not yet considered for reserve status (See "Areas E2 and E3" on detailed table in the Appendix). It is Warrior Met's intention to elevate tonnage within Area E to be compliant with the 2021 SEC Standards in the future via an ongoing exploration drilling campaign. Resources represent in-place coal tonnages *exclusive* of the interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in *Table 1-1* reflect the inclusion of high-ash partings which are ultimately removed after mining during coal preparation.

	Coal I	Resource (Dry Tonn	Resource Quality (Dry)				
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%
Inclusive of Reserves							
Mary Lee	19.0	13.5	0.0	32.5			-
Blue Creek	50.5	28.4	0.0	78.9	2	- 12 - I	100
Total	69.5	41.9	0.0	111.4	13.8	0.8	30
Exclusive of Reserves			0.0		1		
Mary Lee	0.0	12.8	0.0	12.8	- 12 ·		10
Blue Creek	0.0	26.5	0.0	26.5	-		
Total	0.0	39.2	0.0	39.2	19.0	1.5	31
Grand Total			0.0			11	
	69.5	81.1	0.0	150.7			• • •

Table 1-1: Coal Resources Summary as of December 31, 2022

Note 1: For A through E1, Resource tonnes are inclusive of reserve tonnes since they include the in-situ tonnes from which recoverable coal reserves are derived.

Note 2: For E2 and E3, Resource tonnes are exclusive of reserve tonnes since they include the in-situ tonnes for which no recoverable reserve tonnes have been estimated.

Note 3: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Note 4: Coal resource quality reported on a raw, weight-averaged basis. Totals may not add due to rounding.

# 1.7 Mineral Reserve

In areas A through E1, the resource estimate has been used as the basis for this reserve calculation, which utilizes a reasonable pre-feasibility level analysis, a life-of-mine (*LOM*) mine plan and practical recovery factors. Such factors include a mine recovery of 63 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 61 percent and the consideration of moisture factors. Projected mine recovery for Blue Creek in comparison to Warrior's active mines is lower due to faults present in the reserve area which were considered when designing the mine plan. Production modeling was completed with an effective start date of July 1, 2025.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 1.6 Mineral Resource A coal resource estimate was prepared as of December 31, 2022, for the Blue Creek Project, summarized in Table 1-1. Resources presented in Table 1-1 include both resources inclusive of reserve and resources exclusive of reserve. Resources inclusive of reserve serve (See Areas A, B, C, D and E1 on detailed appendix tables) serve as the basis for the life-of-mine plan and cost model developed at the pre-feasibility level to support reserves which are stated in this report. Resources exclusive of reserve represent those coal tonnes on the western portion of the property which are not yet considered for reserve status (See "Areas E2 an E3" on detailed table in the Appendix). It is Warrior Met's intention to elevate tonnage within Area E to be compliant with the 2021 SEC Standards in th future via an ongoing exploration drilling campaign. Resources represent in-place coal tonnages exclusive of the interburden, but inclusive of any high- $\alpha$  partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in Table 1-1 reflect the inclusion of high-asl partings which are ultimately removed after mining during coal preparation. Table 1-1: Coal Resources Summary as of December 31, 2022 Coal Resources

(Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indicated Inferred Total Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 19.0 1 0.0 32.5 — Blue Creek 50.5 28.4 0.0 78.9 — Total 69.5 41.9 0.0 111.4 13.8 0.8 30 Exclusive of Reserves 0.0 Mary Lee 0.0 12.8 0.0 12.8 — Blue Creek 0.0 26.5 0.0 26.5 — Total 0.0 39.2 0.0 39.2 19.0 1.5 31 Grand Total 0.0 69.5 81.1 0.0 150.7 — Note 1: For A through E1, Resource tonnes ar inclusive of reserve tonnes since they include the in-situ tonnes from which recoverable coal reserves are derived. Note 2: For E2 and E3, Resource tonn are exclusive of reserve tonnes since they include the in-situ tonnes for which no recoverable reserve tonnes have been estimated. Note 3: Coal resource reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded. Note 4: Coal resource quality reported on a raw, weight-averaged basis. Totals may not add due to rounding. 1.7 Mineral Reserve In areas A through E1, the resource estimate has been used as the basis for this reserve calculation, which utilizes a reasonable pre-feasibility level analysis, a life-c mine (LOM) mine plan and practical recovery factors. Such factors include a mine recovery of 63 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 61 percent and the consideration of moisture factors. Project mine recovery for Blue Creek in comparison to Warrior's active mines is lower due to faults present in the reserve area which were considered when designing the mine plan. Production modeling was completed with an effective start date of July 1, 2025. MARSHALL MILLER & ASSOCIATES, INC



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

Factors that would typically preclude conversion of a coal resource to coal reserve, include the following: inferred resource classification; absence of coal quality; poor mine recovery; lack of access; geological encumbrances associated with overlying and underlying strata; seam thinning; structural complications; and insufficient exploration have all been considered. Reserve consideration excludes those portions of the resource area which exhibit the aforementioned-geological and operational encumbrances.

Proven and probable coal reserves were derived from the defined in-situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmental, socioeconomic, and regulatory factors. The proven and probable coal reserves on the Property are summarized below in *Table 1-2*.

Table 1-2:	Coal Reserves Summary, Specific to Mining Areas A through E1,
	(Marketable Sales Basis) as of December 31, 2022

				tserves (We tShipped, I						Wash		
Seam	By Reliability Category			By Control Type			Quality (Dry Basis)			Recovery		
	Proven	Probable	Total	Owned	Leased	Option	Ash%	Sulfur%	VM%	*0		
Mary Lee	11.4	7.9	19.3	3,1	13.9	2.3	12.8	0.9	31			
Blue Creek	31.4	17.5	48.9	8.1	35.7	5.1	8.4	0.6	32	61%		
Total	42.8	25.4	68.2	11.1	49.7	7.4	10.2	0.7	32			

Note 1: Marketable reserve tonnes are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture at its operating mines. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by-seam basis, absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial

e.s. Coal reserves are based upon sales assumptions provided to mixed by Winked V Warrow and we're reared upon by Winked. Financia modeling assumes sales prices of approximately \$116.37/tonne (FOB-mine) in 2025, increasing to a long-term price of approximately \$150.37/tonne. See Chapter 16 for further details on marketing assumptions.

Totals may not add due to rounding.

In summary, the Project includes a total of 68.2 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 63 percent are proven, and 37 percent are probable. There are 11.1 Mt of owned coal reserves, 49.7 Mt of leased coal reserves and 7.4 Mt of reserve associated with lease options. All the reserves are considered suitable for the metallurgical coal market.

# 1.8 Capital Summary

Warrior Met and MM&A have collaborated to develop a capital expenditure (CAPEX) forecast. MM&A assumes that major equipment rebuilds occur over the course of each machine's operating life. All the equipment presented for use in the Project is standard well-proven equipment, used in numerous mines throughout the United States. No prototypes or experimental pieces of equipment are included.

The initial investment, defined as the CAPEX from project inception through the first year of longwall production is summarized in *Figure 1-3*.

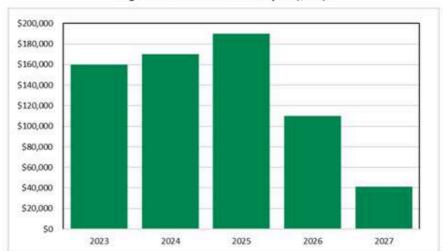
MARSHALL MILLER & ASSOCIATES, INC.

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Factors that would typically preclude conversi of a coal resource to coal reserve, include the following: inferred resource classification; absence of coal quality; poor mine recovery; lack of access; geological encumbrances associated with overlying and underlying strata; seam thinning; structural complications; and insufficient exploration have all

considered. Reserve consideration excludes those portions of the resource area which exhibit the aforementioned-geological and operational encumbran Proven and probable coal reserves were derived from the defined in-situ coal resource considering relevant processing, economic (including technical estimates of capital, revenue and cost), marketing, legal, environmental, socioeconomic, and regulatory factors. The proven and probable coal reserves c the Property are summarized below in Table 1-2. Table 1-2: Coal Reserves Summary, Specific to Mining Areas A through E1, (Marketable Sales Basis) ; December 31, 2022 Demonstrated Coal Reserves (Wet Tonnes, Washed or Direct Shipped, Mt) Wash By Reliability Category By Control Type Quality ( Basis) Recovery Seam Proven Probable Total Owned Leased Option Ash% Sulfur% VM% % Mary Lee 11.4 7.9 19.3 3.1 13.9 2.3 12.8 0.9 31 Blue Cree 31.4 17.5 48.9 8.1 35.7 5.1 8.4 0.6 32 61% Total 42.8 25.4 68.2 11.1 49.7 7.4 10.2 0.7 32 Note 1: Marketable reserve tonnes are reported on a moist basi including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture at its operating mines. Actual product moisture is dependent upon multiple geological factors, operational factor and product contract specifications. Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of ou seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-se wash recovery on a seam-by -seam basis, absent dilution assumptions. Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$116.37/tonne (FOB-mine) in 2025, increasing to a long-term price of approximately \$150.37/tonne. See Chapter 16 for further details on marketing assumptions. Totals may not add due to rounding. In summary, the Project includes a total of 68.2 Mt (moist basis) of marketable coal reserves as of December 31, 2022. Of that total, 63 percent are proven, 37 percent are probable. There are 11.1 Mt of owned coal reserves, 49.7 Mt of leased coal reserves and 7.4 Mt of reserve associated with lease options. A the reserves are considered suitable for the metallurgical coal market. 1.8 Capital Summary Warrior Met and MM&A have collaborated to develop a cap expenditure (CAPEX) forecast. MM&A assumes that major equipment rebuilds occur over the course of each machine's operating life. All the equipment presented for use in the Project is standard well-proven equipment, used in numerous mines throughout the United States. No prototypes or experimenta pieces of equipment are included. The initial investment, defined as the CAPEX from project inception through the first year of longwall production is summarized in Figure 1-3. MARSHALL MILLER & ASSOCIATES, INC. 13



Figure 1-3: Initial Investment Capital (\$000)



Note: Capital figures are based upon MM&A's best estimates and are supported by a combination of MM&A's experience in comparable projects & comparable quotations. Such level is sufficient to meet the criteria of a pre-feasibility level financial assessment. At Warrior Met's request more Capital has been front-loaded into 2023 and 2024 to mitigate the risk of extended lead times impacting timely delivery of the equipment.

Beyond the Initial Investment of \$671 million, excluding sunk cost through December 31, 2022, CAPEX is necessary for sustaining production. This includes rebuilds and replacement of equipment, mine development and multiple bleeder, intake and return shafts. Based on a previous detailed study of a mine in the basin, with pricing increased by 16% to reflect recent inflation trends, and a review of Warrior Met's spending patterns, sustaining capital has been estimated at \$11.00 per tonne. No efficiency or production increase projects have been included as they will be analyzed on a stand-alone basis when considered. To reflect typical spending patterns, based on production winding down, sustaining capital is reduced to 75% in 2052, 50% in 2053 and eliminated in 2054, the final year of production.

## 1.9 Operating Costs

MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a property in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Figure 1-3: Initial Investment Capital (\$000) N Capital figures are based upon MM&A's best estimates and are supported by a combination of MM&A's experience in comparable projects & comparab quotations. Such level is sufficient to meet the criteria of a pre-feasibility level financial assessment. At Warrior Met's request more Capital has been fro loaded into 2023 and 2024 to mitigate the risk of extended lead times impacting timely delivery of the equipment. Beyond the Initial Investment of \$671 million, excluding sunk cost through December 31, 2022, CAPEX is necessary for sustaining production. This includes rebuilds and replacement of equipment, mine development and multiple bleeder, intake and return shafts. Based on a previous detailed study of a mine in the basin, with pricing increased by 16% to reflect recent inflation trends, and a review of Warrior Met's spending patterns, sustaining capital has been estimated at \$11.00 per tonne. No efficiency or production increase projects have been included as they will be analyzed on a stand-alone basis when considered. To reflect typi spending patterns, based on production winding down, sustaining capital is reduced to 75% in 2052, 50% in 2053 and eliminated in 2054, the final year production. 1.9 Operating Costs MM&A used a combination of historical information and detailed operating cost estimates from a recent study of a prot in the region. Where necessary, operating costs were adjusted to reflect differences between this mine and the studied mine. Hourly labor rates and salar were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs. MARSHALL MILLER & ASSOCIATES, INC. 14



Utilizing this process, costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 1-3* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers					
Labor	3.0%				
Benefits	3.0%				
Fuel & Lube	100.0%				
Parts	14.5%				
Surface Contractors	17.5%				
Capital	16.0%				

#### Table 1-3: Inflation Factors

Operating costs factors were developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 1-3*.

Property taxes and insurance and bonding were calculated based on regional information and experience at Warrior Met's other mines. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.

A summary of the operating costs for the Property is provided in Figure 1-4.

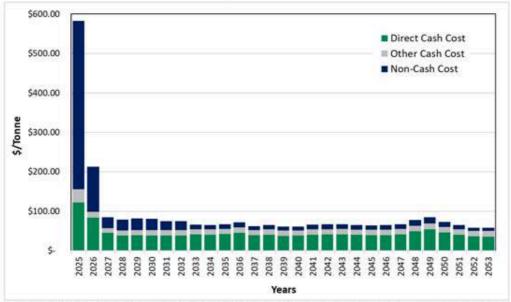
MARSHALL MILLER & ASSOCIATES, INC.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Utilizing this process, costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. Table 1-3 provides the inflation factors used to escalate the c from 2022 to 2023. Table 1-3: Inflation Factors Multipliers Labor 3.0% Benefits 3.0% Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Cag 16.0% Operating costs factors were developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to th multipliers in Table 1-3. Property taxes and insurance and bonding were calculated based on regional information and experience at Warrior Met's other mines. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, th federal black lung excise tax, and federal and state reclamation fees. A summary of the operating costs for the Property is provided in Figure 1-4. MARSHALL MILLER & ASSOCIATES, INC. 15



Figure 1-4: OPEX



\*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

### 1.10 Economic Evaluation

The pre-feasibility financial model prepared for this TRS was developed to test the economic viability of the coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contemplated for the Warrior Met property, but are intended to establish the economic viability of the estimated coal reserves. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. Cash flows are simulated on an annual basis based on projected production from the coal reserves. The discounted cash flow analysis presented herein is based on an effective date of January 1, 2023.

On an un-levered basis, the NPV of the real cash flow after taxes represents the Enterprise Value of the Property. The cash flow, excluding debt service, is calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities, costs for materials handling, coal preparation, refuse disposal, coal loading, reclamation, and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the Federal black lung tax, Federal and State reclamation taxes, property taxes, coal production royalties, and income taxes.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Figure 1-4: OPEX \*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 1.10 Economic Evaluation The pre-feasibility financial model prepared for this TRS was developed to test the economic viability of the coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations contemplated for the Warrior Met property, but are intended to establish the economic viability of the estimated coal reserves. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. Cash flows are simulated on a annual basis based on projected production from the coal reserves. The discounted cash flow analysis presented herein is based on an effective date of January 1, 2023. On an un-levered basis, the NPV of the real cash flow after taxes represents the Enterprise Value of the Property. The cash flow, exclud debt service, is calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operat supplies, maintenance and repairs, facilities, costs for materials handling, coal preparation, refuse disposal, coal loading, reclamation, and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the Federal black lung tax, Federal and State reclamation taxes, property taxes, coal production royalties, and income taxes. MARSHALL MILLER & ASSOCIATES, INC. 16



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Table 1-4 shows LOM tonnage, P&L, and EBITDA for Blue Creek.

Table 1-4:	Life-of-Mine Tonnag	e, P&L before Tax	, and EBITDA
------------	---------------------	-------------------	--------------

	Tonnes (000)	Pre-Tax P&L (\$000)	P&L per Tonne	EBITDA (\$000)	EBITDA per Tonne
Blue Creek	103,824	\$8,126,461	\$78.27	\$9,817,952	\$94.56
				not included in reserve	
e 3: The LOM model llowing controlled t	l and associated eco ons to be classified a	esources exclusive of r nomic analysis is inten as "reserve". The exerc corporate forward-look	eserves on the west ded to prove the eco cise should not be co	ern portion of the pro momic viability of the instrued to represent	operty. subject coal tonna a valuation of War

As shown in *Table 1-4*, Blue Creek has positive EBITDA over the LOM. Overall, the operation shows positive LOM P&L and EBITDA of \$8.1 billion and \$9.8 billion, respectively.

Warrior Met's Blue Creek annual production and revenue are shown in *Figure 1-5* and the Mine's aftertax cash flow summary in constant dollars, excluding debt service, is shown in *Figure 1-6* below.

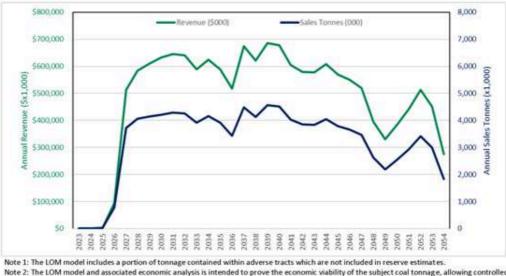
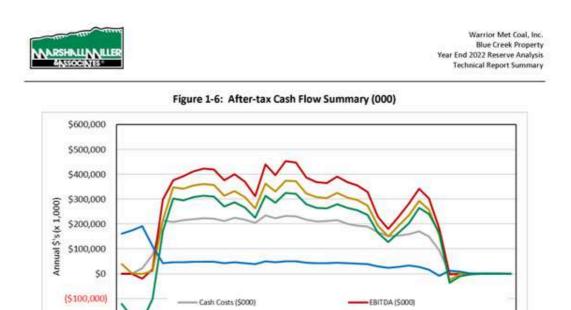


Figure 1-5: Blue Creek Production and Revenue

Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic colatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Table 1-4 shows LOM tonnage, P&L, and EBITDA for Blue Creek. Table 1-4: Life-of-Mine Tonnage, P&L before Tax, and EBITDA Tonnes Pre-Tax P&L P&L EBITDA EBITDA (000) (\$000) p Tonne (\$000) per Tonne Blue Creek 103,824 \$8,126,461 \$78.27 \$9,817,952 \$94.56 Note 1: The LOM model includes tonnages contained within advers tracts which are not included in reserve estimates. Note 2: The LOM model does not consider resources exclusive of reserves on the western portion of t property. Note 3: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flc incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's Blue Creek has positive EBITDA over the LOM. Overall, the operation shows positive LOM P&L and EBITDA of \$ billion and \$9.8 billion, respectively. Warrior Met's Blue Creek annual production and revenue are shown in Figure 1-5 and the Mine's after-tax cash flo summary in constant dollars, excluding debt service, is shown in Figure 1-6 below. Figure 1-5: Blue Creek Production and Revenue Note 1: The LOM model includes a portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projectioc which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporate forward-looking market projectioc which



Note 1: The LOM model includes a portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

2035

2043

204

Years

Net Cash Flow from operations (\$000)

Net Cash Flow (\$000)

203

2033

203

2029

2025

202

Other Cash Out (CAPEX, ARO, Etc.) (\$000)

5

055

2059

2061

049

3

Consolidated cash flows are driven by annual sales tonnage, which starts at 3.73 million tonnes in 2027, the first year of longwall production and averages 3.75 million tonnes per year from 2027 to 2053 the final full year of production. Projected consolidated revenue averages approximately \$560.2 million per year during the period 2027 to 2053. Revenue totals \$15.5 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of mine development years 2022 through 2026 and the post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately \$259.6 million per year from 2027 to 2053 and totals \$6.5 billion over the mine life. Capital expenditures, excluding sunk cost through December 31, 2022, total \$1.7 billion over the property's life.

### 1.10.1 Cash Flow Analysis

(\$200,000)

(\$300,000)

Cash flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$1.5 billion. The pre-feasibility financial model prepared for the TRS was developed to test the economic viability of each coal resource area. The NPV estimate was made for the purpose of confirming the economics for

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Figure 1-6: After-tax Cash Flow Summary (00 Note 1: The LOM model includes a portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM m and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combin of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. Consolidated cash flows are driven by annual sales tonnage, which starts at 3.73 million tonnes in 2027, the first year of longwall production and averages 3.75 million ton per year from 2027 to 2053 the final full year of production. Projected consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of mine development years 2022 through 2026 and the post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately \$259.6 million per year from 2027 to 2053 and totals \$6.5 billion over the mine life. Capital expenditures, excluding sunk cost through December 31, 2022, total \$1.7 billion over the property's life. 1.10.1 Cash Flow Analysis C flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's

typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$1.5 billion. ' pre-feasibility financial model prepared for the TRS was developed to test the economic viability of each coal resource area. The NPV estimate was mac for the purpose of confirming the economics for MARSHALL MILLER & ASSOCIATES, INC. 18



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

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classification of coal reserves and <u>not</u> for purposes of valuing Warrior Met or its BC assets. The mine plan was not optimized, and actual results of the operation may be different, but in all cases, the mine production plan assumes the property is under competent management.

### 1.10.2 Sensitivity Analysis

Sensitivity of the NPV results to changes in the key drivers is presented in the chart below. The sensitivity study shows the NPV at the 9% discount rate when Base Case sales prices, operating costs, production, plant yield and capital costs are increased and decreased +/- 10%. A critical case combining Sales price and operating cost was also done reflecting the combined effect of plus 10% operating cost with -10% sales price to -10% operating cost and +10% sales price.

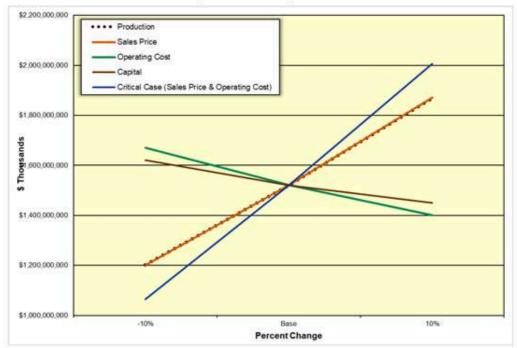


Figure 1-7: Sensitivity of NPV

# 1.11 Permitting

Warrior Met reports that it was successful in obtaining MSHA approval in March 2021 for the Slurry Impoundment No.1 facility. This facility will have approximately 1,200 acre-ft of beginning capacity and will support the mine for the first 4 years of production. An **Army Corps of Engineers (ACOE)** 404 Individual Permit is being prepared for 2023 submittal. Once ACOE review is underway, the SMCRA permit will be updated to reflect the addition of the fine refuse disposal facility.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary classification of coal reserves and not for purp of valuing Warrior Met or its BC assets. The mine plan was not optimized, and actual results of the operation may be different, but in all cases, the mine production plan assumes the property is under competent management. 1.10.2 Sensitivity Analysis Sensitivity of the NPV results to changes in the key drivers is presented in the chart below. The sensitivity study shows the NPV at the 9% discount rate when Base Case sales prices, operating costs, production, plant yield and capital costs are increased and decreased +/- 10%. A critical case combining Sales price and operating cost was also done reflecting the combined effect of plus 10% operating cost with -10% sales price to -10% operating cost and +10% sales price. Figure 1-7: Sensitivity of NPV 1.11 Permitting Warrior Met reports that it was successful in obtaining MSHA approval in March 2021 for the Slurry Impoundment No.1 facility. T facility will have approximately 1,200 acre-ft of beginning capacity and will support the mine for the first 4 years of production. An Army Corps of Engineers (ACOE) 404 Individual Permit is being prepared for 2023 submittal. Once ACOE review is underway, the SMCRA permit will be updated to reflect the addition of the fine refuse disposal facility. MARSHALL MILLER & ASSOCIATES, INC. 19



Warrior Met reports that it has completed the initial design of a coarse refuse disposal area which will provide approximately 10,000,000 cubic yards of initial capacity, which should accommodate up to the first 7 years of production. The coarse refuse area is in the advanced stages of permitting and is anticipated to be fully permitted in mid-2023. If a situation were to arise where the fine refuse disposal facility permitting was delayed, the coarse refuse disposal facility could be converted to a combined coarse refuse storage facility and accept coarse and dewatered tailings.

Additional mine permits which are currently in place include those from: Alabama Surface Mining Commission (ALSMC); Alabama Department of Environmental Management (ADEM); United States Army Corps of Engineers (USACE); and MSHA. All of the currently approved permits have been renewed as needed and remain in good standing. The existing Surface Mine Control and Reclamation Act (SMCRA) permit will require a minor revision to accommodate revised surface infrastructure plans which have changed since the Project's inception.

### 1.12 Conclusion and Recommendations

Sufficient data have been obtained through various exploration and sampling programs to support the geological interpretations of seam structure and thickness for coal horizons situated on the subject. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and pre-feasibility study, which considers mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

As of the writing of this report, Warrior Met is currently conducting core drilling on the Property, and a sustained program of continued exploration is recommended, as well as acquisition of additional geophysical data available from the State Oil & Gas Board of Alabama. Mine development is underway, including the installation of the mine's slope and various shafts. Warrior Met is aware of potential geotechnical and hydrogeological encumbrances related to faulting, including those associated with the slope development.

This geologic evaluation conducted in conjunction with the preliminary feasibility study concludes that the 68.2 Mt of marketable underground coal reserves identified on the Property are economically mineable under reasonable expectations of: continued acquisition of mining rights within future mine plan areas, future market prices for metallurgical coal products, estimated operation costs, and capital expenditures.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Warrior Met reports that it has completed the initial design of a coarse refuse disposal area which will provide approximately 10,000,000 cubic yards of initial capacity, which should accommodate u the first 7 years of production. The coarse refuse area is in the advanced stages of permitting and is anticipated to be fully permitted in mid-2023. If a situation were to arise where the fine refuse disposal facility permitting was delayed, the coarse refuse disposal facility could be converted to a combined coarse refuse storage facility and accept coarse and dewatered tailings. Additional mine permits which are currently in place include those from: Alabam Surface Mining Commission (ALSMC); Alabama Department of Environmental Management (ADEM); United States Army Corps of Engineers (USAC and MSHA. All of the currently approved permits have been renewed as needed and remain in good standing. The existing Surface Mine Control and Reclamation Act (SMCRA) permit will require a minor revision to accommodate revised surface infrastructure plans which have changed since the Proj inception. 1.12 Conclusion and Recommendations Sufficient data have been obtained through various exploration and sampling programs to support the geological interpretations of seam structure and thickness for coal horizons situated on the subject. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS. The geological data and pre-feasibility study, which considers mining plans revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein. As of the writing of this rep Warrior Met is currently conducting core drilling on the Property, and a sustained program of continued exploration is recommended, as well as acquisit of additional geophysical data available from the State Oil & Gas Board of Alabama. Mine development is underway, including the installation of the m slope and various shafts. Warrior Met is aware of potential geotechnical and hydrogeological encumbrances related to faulting, including those associate with the slope development. This geologic evaluation conducted in conjunction with the preliminary feasibility study concludes that the 68.2 Mt of

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 2 Introduction

## 2.1 Registrant, Terms of Reference, and Scope of Work

This report was prepared for the sole use of Warrior Met Coal, Inc. and its affiliated and subsidiary companies and advisors. The report provides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC) standards.

The report provides a statement of coal reserves for Warrior Met. Exploration results and resource calculations were used as the basis for the mine planning and the preliminary feasibility study completed to determine the extent and viability of the reserve.

Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of metric tonnes (*Mt*).

### 2.2 Information Sources

The technical report is based on information provided by Warrior Met and reviewed by MM&A's professionals, including geologists, mining engineers, civil engineers, and environmental scientists. MM&A's professionals hold professional registrations and memberships which qualify them as Qualified Persons in accordance with SEC guidelines. Sources of data and information are listed below in *Table 2-1*:

Category	Information Provided by Warrior Met	Report Section
Geological	Geologic data including digital databases and original source data including geologist logs, driller's logs, geophysical logs.	9.1
Coal Quality	Database of coal quality information supplemented with original source laboratory sheets where available.	10.1
Mining	Historical productivities and manpower projections.	13
Coal Preparation	Flow Sheet descriptions information related to coal processing.	14
Costs	Historical and budgetary operating cost information used to derive cost drivers for reserve financial modeling	18

#### Table 2-1: Information Provided to MM&A by Warrior Met

Note: While the sources of data listed in *Table 2-1* are not exhaustive, they represent a significant portion of information which supports this TRS. MM&A reviewed the provided data and found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forward-looking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, coals sales price forecasts, the assumption that Warrior Met will continue to acquire necessary permits, and other assumptions. The TRS statements and conclusions are not a guarantee of future performance and undue reliance should not be placed on them. The ability of Warrior Met to recover the estimated coal reserves is dependent on multiple factors beyond the control of MM&A including, but not limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 2 Introduction 2.1 Registrant, Terms of Refere and Scope of Work This report was prepared for the sole use of Warrior Met Coal, Inc. and its affiliated and subsidiary companies and advisors. The repprovides a statement of coal resources and coal reserves for Warrior Met, as defined under the United States Securities and Exchange Commission (SEC standards. The report provides a statement of coal reserves for Warrior Met. Exploration results and resource calculations were used as the basis for the 1 planning and the preliminary feasibility study completed to determine the extent and viability of the reserve. Coal resources and coal reserves are herein reported in metric units of measurement and are rounded to millions of metric tonnes (Mt). 2.2 Information Sources The technical report is based on information provided by Warrior Met and reviewed by MM&A's professionals, including geologists, mining engineers, civil engineers, and environment scientists. MM&A's professionals hold professional registrations and memberships which qualify them as Qualified Persons in accordance with SEC guidelines. Sources of data and information are listed below in Table 2-1: Table 2-1: Information Provided to MM&A by Warrior Met Report Category Information Provided by Warrior Met Section Geologic data including digital databases and original source data including Geological geologist logs, driller's logs, geophysical logs. 9.1 Database of coal quality information supplemented with original source Coal Quality laboratory sheets where availal 10.1 Mining Historical productivities and manpower projections. 13 Coal Preparation Flow Sheet descriptions information related to coal processing. 14 Historical and budgetary operating cost information used to derive cost drivers Costs for reserve financial modeling 18 Note: While the sources of data listed in Table 2-1 are not exhaustive, they represent a significant portion of information which supports this TRS. MM&A reviewed the provided data a found it to be reasonable prior to incorporating it into the TRS. The TRS contains "forward-looking information" including forecasts of productivity and annual coal production, operating and capital cost estimates, coals sales price forecasts, the assumption that Warrior Met will continue to acquire necessa permits, and other assumptions. The TRS statements and conclusions are not a guarantee of future performance and undue reliance should not be placed them. The ability of Warrior Met to recover the estimated coal reserves is dependent on multiple factors beyond the control of MM&A including, but no limited to geologic factors, mining conditions, regulatory approvals, and changes in regulations. In all cases, the plans assume the Property is under competent management. MARSHALL MILLER & ASSOCIATES, INC. 21



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

Warrior Met engaged MM&A to conduct a coal reserve evaluation of the BC coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed:

- Process the information supporting the estimation of coal resources and reserves into geological models;
- > Develop life-of-reserve mine (LOM) plans and a financial model;
- > Hold discussions with Warrior Met company management; and
- > Prepare and issue a Technical Report Summary providing a statement of coal reserves which would include:
  - A description of the mines and facilities.
  - A description of the evaluation process.
  - An estimation of coal resources and reserves with compliance elements as stated under the new SEC Guidelines which became effective for the first fiscal year that commenced on or after January 1, 2022.

### 2.3 Personal Inspections

MM&A is very familiar with the Blue Creek property, having provided a variety of services since 1991 (including geophysical logging) to the present, and a QP involved in this TRS has conducted multiple site visits to the property. Most recently, MM&A visited the site in March of 2022.

### 2.4 Updates to Previous TRS

This TRS reflects an update to a TRS, published in early 2022 to reflect resources and reserves as of December 31, 2022. Material revisions reflected in this TRS include:

- Pre-feasibility level financial model updates to reflect inflationary driven cost (operating and capital) increases.
- 2. Updated market analysis.
- Bifurcation of Resources in Area E into Areas E1, E2, and E3 and the conversion of the controlled portions of Area E1 to a probable reserve.
- Incorporation of exploration drilling information obtained in calendar year 2022 and subsequent updates to geological models.

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Warrior Met engaged MM&A to conduct a correserve evaluation of the BC coal property as of December 31, 2022. For the evaluation, the following tasks were to be completed: > Process the information supporting the estimation of coal resources and reserves into geological models; > Develop life-of-reserve mine (LOM) plans and a financia model; > Hold discussions with Warrior Met company management; and > Prepare and issue a Technical Report Summary providing a statement of coal reserves which would include: —A description of the mines and facilities. —A description of the evaluation process. —An estimation of coal resources reserves with compliance elements as stated under the new SEC Guidelines which became effective for the first fiscal year that commenced on or after January 1, 2022. 2.3 Personal Inspections MM&A is very familiar with the Blue Creek property, having provided a variety of services since 1991 (include)

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 3 Property Description

# 3.1 Location

The Project is located in Tuscaloosa County, in northwestern Alabama, approximately 27 miles north of the city of Tuscaloosa and 36 miles west of the city of Birmingham in the southern region of the US. Highway 69 North bisects the Property. *Figure 3-1* displays the Project's location.

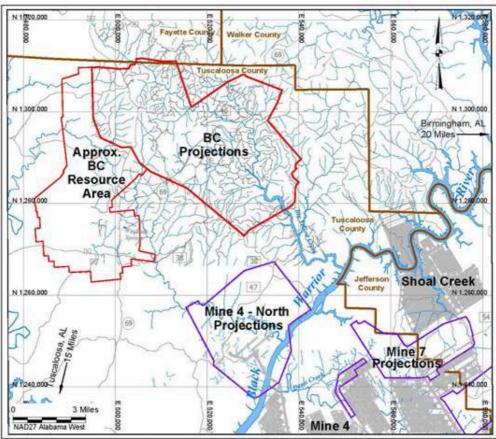


Figure 3-1: Blue Creek Project Location Map

Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 3 Property Description 3.1 Location The Proje located in Tuscaloosa County, in northwestern Alabama, approximately 27 miles north of the city of Tuscaloosa and 36 miles west of the city of Birmingham in the southern region of the US. Highway 69 North bisects the Property. Figure 3-1 displays the Project's location. Figure 3-1: Blue Creek Project Location Map Note: Coordinates/Gridlines are shown in the NAD27 Alabama West coordinate system. MARSHALL MILLER & ASSOCIATES INC. 23 The BC Property is adjoined by two nearby longwall mining operations that have extracted coal from the same Mary Lee and Blue Creek seams:

- > Shoal Creek on the east
- > Mine No. 4 on the south

BC reserves and resources are located in two principal areas and five (5) blocks or areas:

- > Resource (Inclusive of Reserve) & Associated Reserve:
  - Area A
  - Area B
  - Area C
  - Area D
  - Area E1
- > Western Resource (Exclusive of Reserve), No Corresponding Reserve
  - Area E2
  - Area E3

### 3.2 Titles, Claims or Leases

MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or other property control instruments pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves as shown on its property maps, and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met.

### 3.3 Mineral Rights

Warrior Met, through its predecessor Walter, acquired the majority of its mineral rights for the Blue Creek property in 2010 through its purchase of the Chevron-owned coal assets located in Alabama. At the time of purchase, this acquisition included the North River longwall mine operating in the Pratt seam (which has since been divested). Since this acquisition, Warrior Met has strategically purchased and leased mineral and surface rights (and other tracts with options to lease) to further assemble the Project. Currently, Warrior Met has mineral rights on over 17,000 acres associated with the resource and the vast majority of surface rights needed for the planned facilities. Total mineral control, including those tracts not characterized as resource or reserve, is approximately 30,000 acres.

In comparison to its active operations, reserves associated with the BC mine plan include relatively more adverse mineral control parcels, although mineral control acquisitions associated with the initial mining districts at BC are largely complete. Warrior Met has employed a similar strategy of obtaining

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary The BC Property is adjoined by two nearby longwall mining operations that have extracted coal from the same Mary Lee and Blue Creek seams: > Shoal Creek on the east > Mine No. 4 on the sour BC reserves and resources are located in two principal areas and five (5) blocks or areas: > Resource (Inclusive of Reserve) & Associated Reserve: —A A —Area B —Area C —Area D —Area E1 > Western Resource (Exclusive of Reserve), No Corresponding Reserve — Area E2 —Area E3 3.2 Titles, Claims or Leases MM&A has not carried out a separate title verification for the coal property and has not verified leases, deeds, surveys or other propert control instruments pertinent to the subject resources. Warrior Met has represented to MM&A that it controls the mining rights to the reserves as shown its property maps, and MM&A has accepted these as being a true and accurate depiction of the mineral rights controlled by Warrior Met. 3.3 Mineral Ri Warrior Met, through its predecessor Walter, acquired the majority of its mineral rights for the Blue Creek property in 2010 through its purchase of the Chevron-owned coal assets located in Alabama. At the time of purchase, this acquisition included the North River longwall mine operating in the Pratt s (which has since been divested). Since this acquisition, Warrior Met has strategically purchased and leased mineral and surface rights (and other tracts w options to lease) to further assemble the Project. Currently, Warrior Met has mineral rights on over 17,000 acres associated with the resource and the vas majority of surface rights needed for the planned facilities. Total mineral control, including those tracts not characterized as resource or reserve, is approximately 30,000 acres. In comparison to its active operations, reserves associated with the BC mine plan include relatively more adverse mineral control parcels, although mineral control acquisitions associated with the initial mining district



leases as needed to support the near future mining at its active operations —as such, MM&A honored mine planning for controlled reserve delineation in areas with intermittent control at BC. Adverse tons are not included in reserve tabulations but are included in financial modeling under the assumption that their leases will be obtained by Warrior Met.

Some additional coal leases are required to fully assemble the Property; however, with the exception of the Federal Bureau of Land Management (*BLM*), there does not appear to be notable risk to obtaining additional leases in a time frame consistent with the proposed project schedule. To mitigate risk associated with the BLM tracts, MM&A has assisted Warrior in developing a mine plan for the property which excludes the BLM tracts. This is not presented in the TRS, but it is important to note that financial modeling associated with this alternative mine plan showed favorable economics absent the BLM tracts, albeit at a reduced tonnage.

It is of important note that tracts categorized as "owned" represent those in which Warrior Met owns a percentage of tract's mineral rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral rights. Additionally, the "leased" category includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights.

By assignment, as part of the Study, MM&A has not completed a review of the major leases. Due to confidentiality, only general facts related to the major leases are noted.

The majority of the coal leases have an identical initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the coal leases have 10-year term extensions. Certain leases have performance terms related to mining execution.

The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced by the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under the coal leases on a lease-by-lease basis. The royalty rates for the BC project are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel. By assignment, MM&A has not independently verified property boundaries specific to each lease; however, MM&A has reviewed Warrior Met-supplied boundary mapping.

### 3.4 Encumbrances

No Title Encumbrances are known. By assignment, MM&A has not completed query related to Title Encumbrances.

### 3.5 Other Risks

There is always risk involved in property control. Warrior Met has had their legal teams examine the deeds and title control in order to minimize the risk. Historically, property control has not posed any challenges related to Warrior Met's operations. A significant portion of uncontrolled tracts which must

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary leases as needed to support the near future mir at its active operations—as such, MM&A honored mine planning for controlled reserve delineation in areas with intermittent control at BC. Adverse ton not included in reserve tabulations but are included in financial modeling under the assumption that their leases will be obtained by Warrior Met. Some additional coal leases are required to fully assemble the Property; however, with the exception of the Federal Bureau of Land Management (BLM), there does not appear to be notable risk to obtaining additional leases in a time frame consistent with the proposed project schedule. To mitigate risk associate with the BLM tracts, MM&A has assisted Warrior in developing a mine plan for the property which excludes the BLM tracts. This is not presented in th TRS, but it is important to note that financial modeling associated with this alternative mine plan showed favorable economics absent the BLM tracts, al at a reduced tonnage. It is of important note that tracts categorized as "owned" represent those in which Warrior Met owns a percentage of tract's minera rights. In addition to Warrior Met, other parties and entities own various portions of the "owned" tracts mineral rights. Additionally, the "leased" categor includes those tracts in which Warrior Met leases a percentage of the tract's mineral rights. By assignment, as part of the Study, MM&A has not complet review of the major leases. Due to confidentiality, only general facts related to the major leases are noted. The majority of the coal leases have an identic initial term of 20 years from the date of execution with an additional 20-year lease term extension. A portion of the coal leases have 10-year term extension Certain leases have performance terms related to mining execution. The leases can be extended so long as mining operations are being conducted on the leased premises. The leases are then held by a series of earned production royalty payments. The annual minimum royalty is reduced by the amount of earned production royalty paid on mined coal. All annual minimum royalty payments are recoupable against any earned royalty due under the coal lease a lease-by-lease basis. The royalty rates for the BC project are estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportati and loading costs between the mine and the vessel. By assignment, MM&A has not independently verified property boundaries specific to each lease; however, MM&A has reviewed Warrior Met-supplied boundary mapping. 3.4 Encumbrances No Title Encumbrances are known. By assignment, MM& has not completed query related to Title Encumbrances. 3.5 Other Risks There is always risk involved in property control. Warrior Met has had their legteams examine the deeds and title control in order to minimize the risk. Historically, property control has not posed any challenges related to Warrior Mc operations. A significant portion of uncontrolled tracts which must MARSHALL MILLER & ASSOCIATES, INC. 25



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

be obtained by Warrior Met in order to execute the mine plan presented herein are owned by the Federal Government's **Bureau of Land Management (BLM)**. Regionally, operators (including Warrior Met's predecessors) have experienced a successful track record of obtaining mining rights to BLM properties. In comparison to its active operations, the BC project carries an elevated level of risk with regards to property control based upon its intermittent control in areas outside of the initial longwall mining districts.

# 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography

# 4.1 Topography, Elevation, and Vegetation

The Property is located in the physiographic region of northern Alabama within the Black Warrior (*BWB*) Basin region of the US. The area is rugged upland of moderate topography with more than 200 feet of relief adjacent to major streams. The area is dissected by streams that flow to the southeast and eventually to the Black Warrior River. A major drainage within the Property is Big Yellow Creek and its two tributaries, Little Yellow Creek and Four Mile Creek. The upland topographic features are controlled by lithology, with large flat surfaces formed by underlying sandstone with steeper slopes formed by weathered shale and siltstones. Maximum relief within the Property is approximately 460 feet with elevation ranging from 260 feet above mean sea level (*MSL*) along banks of the Big Yellow River to 720 feet along the top of the flat ridges.

### 4.2 Access and Transport

General access to the Project complex is very good via State Route 69 which traverses the central portion of the Property from southwest to northeast. State Route 69 is a well maintained, paved, twolane road with Interstate access in close proximity to both the north and south. SR-69 directly intersects Interstates 59 and 20 approximately 30 miles to the south at Tuscaloosa and intersects Interstate 22 about 23 miles to the north (with Birmingham about 40 miles to the east).

Direct access to the preparation and coal handling facilities, as well as the supply yard at the mine slope is off of County Route 46 (Brandon School Road) which runs southeast to northwest through the Property from State Route 69. Brandon School Road is also a paved two-lane road, and these facilities lie within about 2.5 miles of the intersection with SR-69. The deep mine's portal and shaft facilities lie along an unimproved road approximately one-quarter mile off of SR-69. All of the initial facilities are in close proximity to high quality, public roads and lie within 3 miles of each other. A multitude of coalbed methane (*CBM*) and gas well roads bisect the Property providing exceptional surface access to areas overlying the mineral boundaries.

The closest rail transport for the proposed mine site is a rail line located approximately 8 miles to the northwest at the intersection of Brandon School Road and County Route 30 near the town of Berry.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary be obtained by Warrior Met in order to execut mine plan presented herein are owned by the Federal Government's Bureau of Land Management (BLM). Regionally, operators (including Warrior Met predecessors) have experienced a successful track record of obtaining mining rights to BLM properties. In comparison to its active operations, the BC project carries an elevated level of risk with regards to property control based upon its intermittent control in areas outside of the initial longwall mining districts. 4 Accessibility, Climate, Local Resources, Infrastructure and Physiography 4.1 Topography, Elevation, and Vegetation The Property is located the physiographic region of northern Alabama within the Black Warrior (BWB) Basin region of the US. The area is rugged upland of moderate topograp with more than 200 feet of relief adjacent to major streams. The area is dissected by streams that flow to the southeast and eventually to the Black Warri River. A major drainage within the Property is Big Yellow Creek and its two tributaries, Little Yellow Creek and Four Mile Creek. The upland topograph features are controlled by lithology, with large flat surfaces formed by underlying sandstone with steeper slopes formed by weathered shale and siltstone Maximum relief within the Property is approximately 460 feet with elevation ranging from 260 feet above mean sea level (MSL) along banks of the Big Yellow River to 720 feet along the top of the flat ridges. 4.2 Access and Transport General access to the Project complex is very good via State Route 69 which traverses the central portion of the Property from southwest to northeast. State Route 69 is a well maintained, paved, two-lane road with Interstate access in close proximity to both the north and south. SR-69 directly intersects Interstates 59 and 20 approximately 30 miles to the south at Tuscaloosa a intersects Interstate 22 about 23 miles to the north (with Birmingham about 40 miles to the east). Direct access to the preparation and coal handling facilities, as well as the supply yard at the mine slope is off of County Route 46 (Brandon School Road) which runs southeast to northwest through the Property from State Route 69. Brandon School Road is also a paved two-lane road, and these facilities lie within about 2.5 miles of the initial facilities are i close proximity to high quality, public roads and lie within 3 miles of each other. A multitude of coalbed methane (CBM) and gas well roads bisect the Property providing exceptional surface access to areas overlying the mineral boundaries. The closest rail transport for the proposed mine site is a rail lim located approximately 8 miles to the northwest at the intersection of Brandon School Road and County Route 30 near the town of Berry. MARSHALL MILLER & ASSOCIATES, INC. 26



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

River transport with barge loadout facilities is available approximately 10 miles to the southeast of the proposed plant facilities on the Black Warrior River.

In order to access additional coal markets, a new unit train rail loadout is also being considered. With the aforementioned rail access being at Berry, options are being considered to either bring rail to the preparation plant for on-site train loading or to install an overland conveyor to the existing rail for offsite train loading. The rail project has not been considered in the economic analysis presented in this TRS.

It is anticipated that coal will be shipped into the seaborne metallurgical markets. As part of a commercial real estate transaction with Alabama State Port Authority in 2014, Warrior Met secured expansion capacity of the McDuffie Terminal to accommodate planned production.

## 4.3 Proximity to Population Centers

The Property lies in close proximity to two large population centers. The city of Tuscaloosa lies approximately 27 miles south and Birmingham lies about 36 miles east of the proposed mine site. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 250 thousand and 1.2 million respectively (as of July 2018). Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in the area. The city of Birmingham is home to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually.

### 4.4 Climate and Length of Operating Season

The typical climate in this portion of Alabama is rather humid but temperate. The average annual temperature is 66 degrees Fahrenheit. The climate is hot during the summer when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally January. Alabama receives on average 56 inches of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity and the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface and preparation plant operations on a very limited basis.

### 4.5 Infrastructure

Infrastructure in the area surrounding the Blue Creek site is very diverse, well established and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birmingham and Tuscaloosa. All of the primary infrastructure that the mine will need to operate (power, water, transportation/roads) is available with reasonable access requirements.

Below is a list of the regional infrastructure near the proposed Blue Creek operation:

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary River transport with barge loadout facilities is available approximately 10 miles to the southeast of the proposed plant facilities on the Black Warrior River. In order to access additional coal markets, new unit train rail loadout is also being considered. With the aforementioned rail access being at Berry, options are being considered to either bring rail t the preparation plant for on-site train loading or to install an overland conveyor to the existing rail for off-site train loading. The rail project has not been

considered in the economic analysis presented in this TRS. It is anticipated that coal will be shipped into the seaborne metallurgical markets. As part of a commercial real estate transaction with Alabama State Port Authority in 2014, Warrior Met secured expansion capacity of the McDuffie Terminal to accommodate planned production. 4.3 Proximity to Population Centers The Property lies in close proximity to two large population centers. The city of Tuscaloosa lies approximately 27 miles south and Birmingham lies about 36 miles east of the proposed mine site. The Tuscaloosa and Birmingham metropolitan areas have populations of approximately 250 thousand and 1.2 million respectively (as of July 2018). Both areas have large industrial and manufacturing bases with employers such as Honda, Michelin and Mercedes-Benz having production facilities in the area. The city of Birmingham is ho to the Birmingham-Shuttlesworth International Airport which handles close to 3-million passengers annually. 4.4 Climate and Length of Operating Seas The typical climate in this portion of Alabama is rather humid but temperate. The average annual temperature is 66 degrees Fahrenheit. The climate is he during the summer when temperatures are typically in the 90-degree Fahrenheit range and cool during the winter when temperatures are typically in the upper 40-degree Fahrenheit range. The warmest month is generally July, and the coldest month is generally January. Alabama receives on average 56 inc of rainfall per year. The area is somewhat prone to severe thunderstorms resulting in occasional tornado activity and the inland effects of seasonal hurricanes. Seasonal variations in climate typically do not affect underground mining in the area, however, weather events could potentially impact the efficiency of surface and preparation plant operations on a very limited basis. 4.5 Infrastructure Infrastructure in the area surrounding the Blue Creek site very diverse, well established and robust due to the large populations and current industrial activity in the surrounding metropolitan areas of Birminghan and Tuscaloosa. All of the primary infrastructure that the mine will need to operate (power, water, transportation/roads) is available with reasonable acce requirements. Below is a list of the regional infrastructure near the proposed Blue Creek operation: MARSHALL MILLER & ASSOCIATES, INC. 27



Electrical Power	The immediate area contains numerous coal-fired power plants producing base-load electricity. Major transmission and distribution lines are located within the area of interest. Alabama Power is the local utility which will provide electricity for the Project.
Water and Sewer	Public water is available locally through Oakman Water Works, Inc. No public sewer systems are available.
Roads	The area is serviced by an extensive network of well-maintained, federal, state and county highways in close proximity to the proposed mine site.
Railroads	A major commercial railroad is located along the western edge of the area of interest.
Barge	The Black Warrior River, located east of the Property, provides a means of barge transportation.
Airports	Birmingham-Shuttlesworth International Airport is located approximately 40 miles to the east.
Mining Service Providers, Equipment Manufacturers and Supply Companies	The Property is well serviced by major mining equipment manufacturers, rebuild facilities, and mine supply vendors. Specialized mining service providers including slope, shaft, and preparation plant construction companies are located in the immediate area.
Hospitals – Ambulance, Med Flights	There are numerous fully functioning hospitals (including major trauma centers) within a 50-mile radius of the area of interest. The area is serviced by a network of public and private ambulance and helicopter medical flight providers.
Emergency Services – Fire, Police	There are numerous fire departments and emergency medical service (EMS) providers within a 50-mile radius of the proposed mine site.
	The area is well serviced by a large network of federal, state and local law enforcement agencies with central dispatch and communications systems, including emergency 911 services.
Schools	The region has a well-developed public education network consisting of federal, state and local government-backed schools as well as privately funded schools. These include elementary, middle, and high schools, as well as technical and vocational schools.
College/University	The region contains numerous colleges and universities as well as well- established mining universities and training centers. Namely, the University of Alabama is located in the city of Tuscaloosa and offers scientific and engineering degrees.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Electrical Power The immediate area contains numerous coal-fired power plants producing base-load electricity. Major transmission and distribution lines are located within the area of interest. Alaba Power is the local utility which will provide electricity for the Project. Water and Sewer Public water is available locally through Oakman Water Works, No public sewer systems are available. Roads The area is serviced by an extensive network of well-maintained, federal, state and county highways in cloproximity to the proposed mine site. Railroads A major commercial railroad is located along the western edge of the area of interest. Barge The Black Warrior River, located east of the Property, provides a means of barge transportation. Airports Birmingham-Shuttlesworth International Airport is located approximately 40 miles to the east. Mining Service Providers, The Property is well serviced by major mining equipment manufacturers, Equipment Manufacturers rebuild facilities, and mine supply vendors. Specialized mining service and Supply Companies providers including slope, shaft, and preparation plant construction companies are located in the immediate area. Hospitals – Ambulance, There are numerous fully functioning hospitals (including major trauma Med Flights centers) within a 50-mile radius of the area of interest. The area is serviced by a network of public and private ambulance and helicopter medical flight providers. Emergency Services – Fire, There are numerous fire departments and emergency medical service (El Police providers within a 50-mile radius of the proposed mine site. The area is well serviced by a large network of federal, state and local law enforceme agencies with central dispatch and communications systems, including emergency 911 services. Schools The region has a well-developed public educati network consisting of federal, state and local government-backed schools as well as privately funded sch

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 5 History

## 5.1 Previous Operation

The Property has gone through multiple ownership changes throughout its history. Prior to Warrior Met, the Property was controlled by Walter, which acquired the rights to the Property in 2010 through purchase from Chevron. Exploration and development efforts have been ongoing throughout the tenures of various owners.

Although this particular project site has no operational history of its own, the region in general has a long, successful history of mining similar projects. There are currently four operating underground longwall operations mining the Mary Lee and Blue Creek seams on adjacent properties. Warrior Met operates two of the four mines, one of which utilizes two independent longwalls for coal production.

## 5.2 Previous Exploration

The Property has been extensively explored as early as 1957 by subsurface drilling efforts carried out by numerous entities, most of which were completed prior to acquisition by Warrior Met including: **Tennessee Coal, Iron & Railroad Company; U.S. Steel; The Pittsburgh & Midway (P&M) Coal Mining Company/Chevron;** and Walter. The majority of the drilling was accomplished by means of conventional core hole exploration and air rotary drilling with geophysical logging for CBM wells.

# 6 Geological Setting, Mineralization and Deposit

### 6.1 Regional, Local and Property Geology

The Black Warrior coal basin (*BWB*), which encompasses the subject Property, is a foreland basin covering approximately 23,000 square miles (59,570 square kilometers) of northwestern and central Alabama. The basin extends approximately 230 miles from west to east and 188 miles from north to south. The BWB lies within the Cumberland Plateau portion of the Appalachian Highlands and contains Pennsylvanian System (300 million years) sedimentary coal-bearing strata of the Upper Pottsville Formation. Metallurgical coal deposits in northern Alabama are divided into three coal fields; the Black Warrior, the Cahaba, and the Coosa, of which the Black Warrior is the largest in both size and productivity.

Of the coal groups within the BWB, historically the most dominant is the Mary Lee group (see *Figure 6-1*). This sequence is "tagged" or identified with a 4-digit numeric system that generally includes the following strata (in descending stratigraphic order):

> 7200 / 7300 – New Castle (typically present as Upper and Lower benches), 30 to 50 feet above the Mary Lee seam

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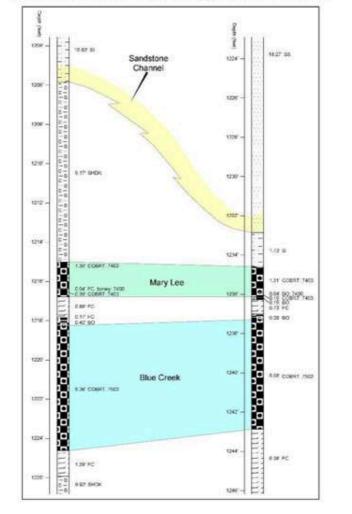
Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 5 History 5.1 Previous Operation The Property gone through multiple ownership changes throughout its history. Prior to Warrior Met, the Property was controlled by Walter, which acquired the rights the Property in 2010 through purchase from Chevron. Exploration and development efforts have been ongoing throughout the tenures of various owners Although this particular project site has no operational history of its own, the region in general has a long, successful history of mining similar projects. There are currently four operating underground longwall operations mining the Mary Lee and Blue Creek seams on adjacent properties. Warrior Met operates two of the four mines, one of which utilizes two independent longwalls for coal production. 5.2 Previous Exploration The Property has been extensively explored as early as 1957 by subsurface drilling efforts carried out by numerous entities, most of which were completed prior to acquisition Warrior Met including: Tennessee Coal, Iron & Railroad Company; U.S. Steel; The Pittsburgh & Midway (P&M) Coal Mining Company/Chevron; and Walter. The majority of the drilling was accomplished by means of conventional core hole exploration and air rotary drilling with geophysical logging fc CBM wells. 6 Geological Setting, Mineralization and Deposit 6.1 Regional, Local and Property Geology The Black Warrior coal basin (BWB), which encompasses the subject Property, is a foreland basin covering approximately 23,000 square miles (59,570 square kilometers) of northwestern and centra Alabama. The basin extends approximately 230 miles from west to east and 188 miles from north to south. The BWB lies within the Cumberland Platea portion of the Appalachian Highlands and contains Pennsylvanian System (300 million years) sedimentary coal-bearing strata of the Upper Pottsville

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

- > 7400 Mary Lee seam
- > 7450 Middleman (rock parting)
- > 7480 Rider seam (not always present) included as part of the Middleman
- > 7490 Parting between the Rider and Blue Creek seams (not always present) included as part of the Middleman
- > 7500 Blue Creek seam
- > 7600 Jagger seam, where present, typically a few feet to tens of feet below the Blue Creek; however, may locally become part of the mineable section with the overlying Blue Creek seam.





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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary > 7400 – Mary Lee seam > 7450 – Middlemar (rock parting) > 7480 – Rider seam (not always present) – included as part of the Middleman > 7490 – Parting between the Rider and Blue Creek seams always present) – included as part of the Middleman > 7500 – Blue Creek seam > 7600 – Jagger seam, where present, typically a few feet to tens of feet below the Blue Creek; however, may locally become part of the mineable section with the overlying Blue Creek seam. Figure 6-1: Geologic Column of Mary Lee – Blue Creek Sequence MARSHALL MILLER & ASSOCIATES, INC. 30



The BWB is bound by the Alabama Valley and Ridge, Highland Rim, and East Gulf Coastal Plain physiographic providences. The southwestern and southeastern margins of the basin are terminated by frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceous and Tertiary age deposits.

The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend has locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (with relief of several hundreds of feet), which is present on the Blue Creek property, between the east and west areas of the mine plan. A smaller scale fold referred to as the Whitson anticline is present north of the Wiley dome.

Faulting is widespread across the basin with high-angle, scissor-type normal faults and fault grabens common, which are typically oriented in a southeast to northwest alignment. Vertical displacement typically varies from only a few feet to as much as 350 feet. Multiple published and in-house reports have been compiled and examined during the course of this evaluation, and subsequently compared with the data shown on the base-of-seam structure for the Blue Creek seam.

While faulting on the subject property generally reflects the same regional southeast to northwest pattern, a zone of inferred low-angle faulting (originally identified from a US Steel 1983 report) has been identified on the Property, nearly perpendicular to the regional fault orientation. The dip of this low-angle fault zone has been estimated at approximately 30 to 35 degrees, in contrast to the nearly vertical faults identified elsewhere in the basin. Prior studies as well as recent exploration on the Property have identified locations where the subject coal beds are locally faulted and replaced by fault gouge. The orientation of the low-angle fault zone is northeast-to-southwest and is located on the north side of the Wiley Dome; mine areas A and B are separated by this fault zone.

### 6.2 Mineralization

Regional coal rank in the BWB generally ranges from a low-volatile coal in the southeastern portion of the basin to a high-volatile coal to the northwest. Due to the value of the Mary Lee and Blue Creek seams in the low- to medium-volatile coking coal market at its active Mine No. 4 and Mine No. 7 operations (and adjoining mines) to the south and east of the Property, the subject coal seams have been extensively mined in the region. Laboratory data for the Blue Creek Project indicates a typically high volatile (greater than 31% volatile matter) bituminous coal product. Based on analysis of coal samples, the Mary Lee and Blue Creek seams on the Property are considered a high-volatile metallurgical-grade coal product.

### 6.3 Deposits

Sediments of the Upper Pottsville Mary Lee coal zone are Lower Pennsylvanian in age and comprised of cyclic sequences (refer to Figures 1-2 above and 6-2 below) including: sandstone, siltstone/sandy

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary The BWB is bound by the Alabama Valley and Ridge, Highland Rim, and East Gulf Coastal Plain physiographic providences. The southwestern and southeastern margins of the basin are terminated by frontal thrust faulting of the Ouachita and Appalachian orogeny. The basin has regionally southwestward dipping strata that are overlain by Cretaceous a Tertiary age deposits. The major structural feature within the basin is the Sequatachie anticline, which trends northeast to southwest between the Arkadelphia and Coalburg synclines. Structurally, coal horizons are typically characterized as gently dipping to the southwest and contain minor folds. However, the regional trend has locally been significantly modified by the presence of a prominent structural feature referred to as the Wiley Dome (wit relief of several hundreds of feet), which is present on the Blue Creek property, between the east and west areas of the mine plan. A smaller scale fold referred to as the Whitson anticline is present north of the Wiley dome. Faulting is widespread across the basin with high-angle, scissor-type normal faul and fault grabens common, which are typically oriented in a southeast to northwest alignment. Vertical displacement typically varies from only a few fee as much as 350 feet. Multiple published and in-house reports have been compiled and examined during the course of this evaluation, and subsequently compared with the data shown on the base-of-seam structure for the Blue Creek seam. While faulting on the subject property generally reflects the same regional southeast to northwest pattern, a zone of inferred low-angle faulting (originally identified from a US Steel 1983 report) has been identified on the Property, nearly perpendicular to the regional fault orientation. The dip of this low-angle fault zone has been estimated at approximately 30 to 35 degree contrast to the nearly vertical faults identified elsewhere in the basin. Prior studies as well as recent exploration on the Property have identified locations where the subject coal beds are locally faulted and replaced by fault gouge. The orientation of the low-angle fault zone is northeast-to-southwest and is located on the north side of the Wiley Dome; mine areas A and B are separated by this fault zone. 6.2 Mineralization Regional coal rank in the BWB

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

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shale, shale (and occasional marine shale zones), and coal. Located within the middle of the Black Warrior Basin stratigraphic sequence, the Mary Lee and Blue Creek horizon is situated below drainage throughout the Property and is accessible by slope and shafts. General lithologic characteristics of the are described below:

- > The New Castle seam is present approximately 15 to 50 feet above the Mary Lee seam.
- > Lithologic composition of the roof strata varies throughout the Property, consisting primarily of a coarsening-upward sequence of shale or sandy shale, with occasional sandstone channels located within the immediate or main roof of the Mary Lee seam.
- > Although rare, areas where sandstone occupies the immediate roof of the Mary Lee seam have been observed from drilling records, where scouring of the seam may occur locally. Where sandstone channels are present within 4 to 6 feet above the Mary Lee (roof bolt horizon), there is potential for increased drawrock conditions and roof instability beneath the sandstone/shale contact.
- > The Mary Lee typically averages 1.75 feet within the eastern mine plan area of the Property; and 1.25 feet in the western area. The Mary Lee seam is the lithologically more consistent of the two seams in terms of thickness; however, it generally thins to the west in Area E. Areas where the Mary Lee seam is absent are inferred to more often be associated with structurally faulted horizons than to depositional factors.
- > The composition of the stratum comprising the Middleman is highly variable and consists of shale, carbonaceous shale, or fireclay, to sandy shale; from a few inches to over 3.0 feet, averaging 1.0 feet to 1.5 feet in thickness.
- > The Blue Creek seam, which represents the better metallurgical quality of the two seams and typically averages 4.35 feet within the eastern mine plan area of the Property; and 2.65 feet in the western area. The Blue Creek seam is subject to more erratic and abrupt thickness variation than the overlying Mary Lee seam. Reasons for this are not entirely clear but may be the result of: seam splitting; channel incision; differential compaction; presence of contemporaneous ("growth") faults; or other paleographic factors present during or subsequent to deposition of the Blue Creek paleoswamp. The Blue Creek is typically thicker in the eastern portions of the Property and thins or splits to the west.
- > The combined thickness of the Mary Lee Blue Creek typically averages 7.0 feet within the eastern mine plan area of the Property; and 5.0 feet in the western area. Areas within mine plan projections where the combined thickness of the Mary Lee – Blue Creek horizon are less than a minimum cutting height are generally rare, and where this occurs, roof (and/or floor) strata are expected to be excavated as out-of-seam dilution (OSD).
- > Compositional variability and thickness of the floor strata underlying the Blue Creek seam typically occurs within a coarsening-downward sequence varying from: very soft, thick fireclay within the immediate floor, to sandy fireclay, shale, sandy shale, and finally sandstone within the first three

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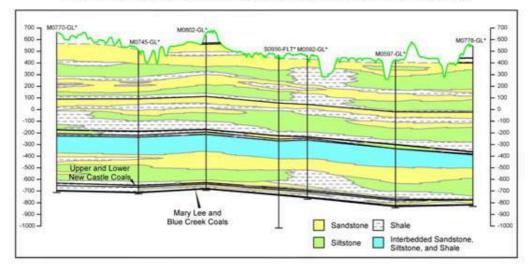
Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary shale, shale (and occasional marine shale zone and coal. Located within the middle of the Black Warrior Basin stratigraphic sequence, the Mary Lee and Blue Creek horizon is situated below drainage throughout the Property and is accessible by slope and shafts. General lithologic characteristics of the are described below: > The New Castle seam is present approximately 15 to 50 feet above the Mary Lee seam. > Lithologic composition of the roof strata varies throughout the Property, consisting primarily of a coarsening-upward sequence of shale or sandy shale, with occasional sandstone channels located within the immediate or main roof of the Mary Lee seam. > Although rare, areas where sandstone occupies the immediate roof of the Mary Lee seam have been observed from drilling records, where scouring of the seam may occur locally. Where sandstone channels are present within 4 to 6 feet above the Mary Lee (roof bolt horizon), there is potential for increased drawrock conditions and roof instability beneath the sandstone/shale contact. > The Mary Lee typically averages 1.75 feet within

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

feet below the seam. Fireclay varies in thickness, from less than a foot to more than 10 feet. Due to inherently high clay content, this stratum is typically moisture-sensitive and may degrade when exposed to water accumulation on the mine floor.





# 7 Exploration

# 7.1 Nature and Extent of Exploration

Exploration information has largely been collected, analyzed, and summarized by personnel from previous owners of the Property, Warrior Met, and their consultants. Vertical drilling has been the sole method of collecting exploration information since the seam does not outcrop within or near the Property, and there has been no mining on the Property. Spacing and quantity of exploratory drill holes is generally sufficient to define the coal resource within the Property.

Initial exploration on the Project was entirely by drilling to collect data for delineation of coal and CBM resources. As a general practice, continuous core hole exploration is physically logged by a professional geologist while CBM holes are geophysically logged. Geophysical information from CBM wells was obtained by Warrior Met's predecessor from the **Geological Survey of Alabama Oil and Gas Board** (*GSA*) and used to determine seam thickness and elevation.

# 7.1.1 Summary of Exploration Data

MM&A was provided with the core hole records or summary information from geophysical logs as summarized below as of December 31, 2022.

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary feet below the seam. Fireclay varies in thickne from less than a foot to more than 10 feet. Due to inherently high clay content, this stratum is typically moisture-sensitive and may degrade when expose water accumulation on the mine floor. Figure 6-2: Generalized Geologic Profile Indicating Dominant Overburden Lithologies 7 Exploration 7.1 Nature a Extent of Exploration Exploration information has largely been collected, analyzed, and summarized by personnel from previous owners of the Property Warrior Met, and their consultants. Vertical drilling has been the sole method of collecting exploration information since the seam does not outcrop with near the Property, and there has been no mining on the Property. Spacing and quantity of exploratory drill holes is generally sufficient to define the coal resource within the Property. Initial exploration is physically logged by a professional geologist while CBM holes are geophysically logged. Geophys information from CBM wells was obtained by Warrior Met's predecessor from the Geological Survey of Alabama Oil and Gas Board (GSA) and used tc determine seam thickness and elevation. 7.1.1 Summary of Exploration Data MM&A was provided with the core hole records or summary information formation formation so the CBM was of December 31, 2022. MARSHALL MILLER & ASSOCIATES, INC. 33

> Total number of holes: 1,257 drill holes utilized for mapping purposes.

> Total footage: 1,899,000 feet.

- > Hole depths: ranging from 835 feet to 2,275 feet, averaging 1,525 feet.
- > Depth to top of Mary Lee seam: ranging from 810 feet to 1,615 feet, averaging 1,255 feet.
- > A small group of drilling records was identified and categorized as "not honored" for various reasons (poor recovery, faulted, etc.), and as such were ignored for mapping purposes. Additional discussion is provided below in Section 9.1.

Much of the coal quality information provided to MM&A consisted of previously summarized data in the form of Microsoft<sup>\*</sup> Excel spreadsheets in an Adobe<sup>\*</sup> PDF (*PDF*) format. Where available, scanned copies of coal quality sheets and summary reports were also provided. The most recent drill hole quality data (2022) were derived from exploration activity on the Property. Bulk sample analyses obtained from adjacent mines were made available as was one bulk sample from two combined drill holes from which multiple wedged samples were obtained.

Extensive exploration in the form of subsurface drilling has been carried out on the Property by numerous entities, most of whose efforts were completed prior to acquisition by Warrior Met. Diamond core, rotary, and CBM drilling are the three primary types of exploration on the Property. Data for correlation and mining conditions are derived from core descriptions and geophysical logging (e-logging). The location of the drilling is shown on the maps included within this report.

The concentration of exploration varies across the Property, with the proposed underground mining areas having the highest concentration of drill holes. Drilling on the Property is typically sufficient for delineation of potential underground mineable benches. The M-series and S-series core holes were typically logged by professional geologists, while the remaining core hole data comes from simplified driller's logs, which often lack specific details regarding geotechnical conditions and specific geology, making correlations and floor and roof conditions difficult to determine. Geophysical logging (e-logging) techniques, by contrast, document specific details useful for geologic interpretation and mining conditions. Mapping of future mining conditions is derived from data-compiled from a variety of past and present exploration programs, but projections and assumptions can be made within a reasonable degree of certainty.

Due to the long history of exploration by various parties on the Property, a wide variety of survey techniques exist for documentation of data point locations. Many of the older exploration drill holes appear to have been located by survey. However, some holes appear to have been approximately located using USGS topography maps or other methods which are less accurate. Therefore, discretion had to be used regarding the accuracy for the location and ground surface elevation of some of these older drill holes. In instances where a drill hole location (or associated coal seam elevations) appeared to be inconsistent with the overall structural trend (or surface topography for surface-mineable areas), the data point was not honored for geological modeling. Others with apparently minor variances were

Warrior Met Coal, Inc. Blue Creek Property

Year End 2022 Reserve Analysis Technical Report Summary

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary > Total number of holes: 1,257 drill holes utili for mapping purposes. > Total footage: 1,899,000 feet. > Hole depths: ranging from 835 feet to 2,275 feet, averaging 1,525 feet. > Depth to top of Mary seam: ranging from 810 feet to 1,615 feet, averaging 1,255 feet. > A small group of drilling records was identified and categorized as "not honored" for various reasons (poor recovery, faulted, etc.), and as such were ignored for mapping purposes. Additional discussion is provided below in Section 9.1. M of the coal quality information provided to MM&A consisted of previously summarized data in the form of Microsoft® Excel spreadsheets in an Adobe PDF (PDF) format. Where available, scanned copies of coal quality sheets and summary reports were also provided. The most recent drill hole quality d (2022) were derived from exploration activity on the Property. Bulk sample analyses obtained from adjacent mines were made available as was one bulk sample from two combined drill holes from which multiple wedged samples were obtained. Extensive exploration in the form of subsurface drilling has been carried out on the Property by numerous entities, most of whose efforts were completed prior to acquisition by Warrior Met. Diamond core, rotary, CBM drilling are the three primary types of exploration on the Property. Data for correlation and mining conditions are derived from core descriptions a geophysical logging (e-logging). The location of the drilling is shown on the maps included within this report. The concentration of exploration varies across the Property, with the proposed underground mining areas having the highest concentration of drill holes. Drilling on the Property is typically sufficient for delineation of potential underground mineable benches. The M-series and S-series core holes were typically logged by professional geolog while the remaining core hole data comes from simplified driller's logs, which often lack specific details regarding geotechnical conditions and specific geology, making correlations and floor and roof conditions difficult to determine. Geophysical logging (e-logging) techniques, by contrast, document specific details useful for geologic interpretation and mining conditions. Mapping of future mining conditions is derived from data-compiled from a vari of past and present exploration programs, but projections and assumptions can be made within a reasonable degree of certainty. Due to the long history ( exploration by various parties on the Property, a wide variety of survey techniques exist for documentation of data point locations. Many of the older exploration drill holes appear to have been located by survey. However, some holes appear to have been approximately located using USGS topography maps or other methods which are less accurate. Therefore, discretion had to be used regarding the accuracy for the location and ground surface elevation some of these older drill holes. In instances where a drill hole location (or associated coal seam elevations) appeared to be inconsistent with the overall structural trend (or surface topography for surface-mineable areas), the data point was not honored for geological modeling. Others with apparently mine variances were MARSHALL MILLER & ASSOCIATES, INC. 34



adjusted and then used by MM&A. Moreover, MM&A compiled topographic map files from the USDA website, using 1-meter resolution LIDAR Digital Elevation Models (*DEM's*). Locations of all drill holes on the Property are shown on *Figure 7-1* below.

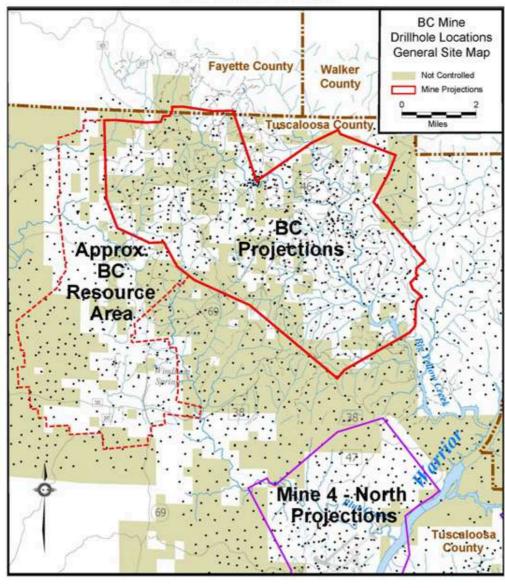


Figure 7-1: Drill Hole Location Map

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# 7.2 Non-Drilling Procedures and Parameters

Aside from exploration-based drilling and drilling associated with gas development, no additional information specific to the subject reserve's thickness and quality characteristics is available. The coal reserve is approximately 1,200 to 1,300 feet below drainage across the Property, eliminating the potential of any outcrop examination. Information from mines on adjacent properties does provide some indication regarding anticipated structural trends and thickness continuity. Such parameters have been considered by MM&A in this TRS.

### 7.3 Drilling Procedures

Core drilling methods utilize NX-size (2<sup>1</sup>/<sub>8</sub> inch) or similar-sized core cylinders to recover core samples, which can be used to delineate geologic characteristics, and for coal quality testing. In addition to the core holes, rotary drilled holes also exist on most of the Property. Data for the rotary drilled holes are mainly derived from downhole geophysical logs, which are used to interpret coal and rock thickness and depth since logging of the drill cuttings is not reliable. CBM holes are always logged geophysically, and the resulting interpreted data are incorporated into the geological model. Exploratory drilling generally requires drilling to depths from 800 to 1,600 feet to penetrate the target coal seams on the Property.

A wide variety of core-logging techniques have been implemented on the Property. For many of the core holes, the primary data source is a generalized lithology description by the driller, while others were logged by a professional geologist. These drilling logs were provided to MM&A as a geological database. MM&A geologists were not involved in the production of original core logs but did perform a basic check of information within the provided database.

## 7.4 Hydrogeology

### 7.4.1 Introduction

The hydrogeologic aspects of the project area have been assessed based on previous hydrogeologic study specific to the area, permitting documents, geologic logging records, and experience from other mines in the region. The assessment focuses on the potential for groundwater inflow to the proposed mine. As the majority of available geologic and hydrogeologic information is contained in Areas A, B, C and D, the current hydrogeological summary is most relevant to these areas but may also be applicable to Area E.

Water quality data associated with the Mary Lee and Blue Creek coal horizons in the project area is not available. As such, water quality expectations specific to groundwater inflow to the mine have not been addressed.

In general, the results of the current evaluation suggest that the quantity of groundwater inflow to the proposed mine is not likely to cause significant concern in most areas. Previous hydrogeologic assessment of the subject area and regional experience identifies that larger and persistent fracture

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 7.2 Non-Drilling Procedures and Parameters A from exploration-based drilling and drilling associated with gas development, no additional information specific to the subject reserve's thickness and quality characteristics is available. The coal reserve is approximately 1,200 to 1,300 feet below drainage across the Property, eliminating the potential of outcrop examination. Information from mines on adjacent properties does provide some indication regarding anticipated structural trends and thickness continuity. Such parameters have been considered by MM&A in this TRS. 7.3 Drilling Procedures Core drilling methods utilize NX-size (21/ inch) or similar-sized core cylinders to recover core samples, 8 which can be used to delineate geologic characteristics, and for coal quality testing. In addition to core holes, rotary drilled holes also exist on most of the Property. Data for the rotary drilled holes are mainly derived from downhole geophysical logs, which are used to interpret coal and rock thickness and depth since logging of the drill cuttings is not reliable. CBM holes are always logged geophysica and the resulting interpreted data are incorporated into the geological model. Exploratory drilling generally requires drilling to depths from 800 to 1,600 to penetrate the target coal seams on the Property. A wide variety of core-logging techniques have been implemented on the Property. For many of the co holes, the primary data source is a generalized lithology description by the driller, while others were logged by a professional geologist. These drilling lo were provided to MM&A as a geological database. MM&A geologists were not involved in the production of original core logs but did perform a basic check of information within the provided database. 7.4 Hydrogeology 7.4.1 Introduction The hydrogeologic aspects of the project area have been assess based on previous hydrogeologic study specific to the area, permitting documents, geologic logging records, and experience from other mines in the reg The assessment focuses on the potential for groundwater inflow to the proposed mine. As the majority of available geologic and hydrogeologic informat is contained in Areas A, B, C and D, the current hydrogeological summary is most relevant to these areas but may also be applicable to Area E. Water

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zones, often those with high angle or vertical faults and fractures, have the greatest potential to convey larger volumes of water into the mine, especially in areas affected by longwall mining subsidence. While there are numerous larger faults and fracture zones identified in the project area, the current mine plan significantly avoids major areas of hydrogeologic concern identified via previous hydrogeologic assessment of the Project.

### 7.4.2 Summary of Hydrogeologic Findings

In general, the proposed mining is not expected to experience mine-wide, extensive water inflow issues, and in fact, most of the mine may be expected to be relatively dry. However, zones of significant faulting and fracturing do exist in the project area, and experiences in other mines in the region do suggest that the potential for significant water inflow via faults and fracture zones coupled with longwall mining-induced fractures does exist, especially where there is potential for interaction with surface water features. The current mine plan layout avoids the majority of potentially problematic areas, as designated by a previous assessment by others.

The available hydrogeologic information for the project area indicates that significant water inflow to the mine is more likely to be associated with areas where longwall mining approaches areas of natural faulting and fracturing. In addition, water inflows in such areas are likely to be enhanced by proximity and connection of the combination of longwall mining-induced fractures and natural fractures to surface water bodies that may recharge water into the system. As a result, future drilling activity (core drilling or rotary bit) should include collection of fracture orientation and fracture frequency data. Data collection should include downhole geophysical techniques that allow for in situ measurement of discontinuity orientations. In addition, any core holes drilled should be logged with specific attention given to fracture characteristics, including frequency, orientation, weathering, and infilling. Given the vertical nature of a significant portion of the known fractures, angled drilling may be required to intersect and define the fracture zones.

As mining approaches known fracture and fault zones, the extent, character, and water-bearing potential of the zones should be investigated. Such investigations may include combinations of angled drilling, downhole geophysics, and hydraulic conductivity testing. While many of the major faults and fracture zones have been identified, the extent to which fracturing extends from the mapped lines is unknown and may vary by area. Previous investigation suggests that relatively intense jointing may extend out to approximately 200 feet on either side of some faults, with the most intense fracturing only extending to approximately five feet on each side of known faults.

As previously mentioned, the current assessment does not address the expected chemical quality of water to be encountered in the proposed mine. Groundwater quality data at the Mary Lee and Blue Creek horizon does not appear to be available. Future exploration activities should consider collection of water samples from the proposed mine horizon, if possible, to provide an initial means for evaluation. Future groundwater quality investigation should include analyses for metals (e.g., iron, manganese, and select "trace" metals), major ions (ex: chloride, sodium, sulfate, magnesium, calcium,

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary zones, often those with high angle or vertical faults and fractures, have the greatest potential to convey larger volumes of water into the mine, especially in areas affected by longwall mining subside. While there are numerous larger faults and fracture zones identified in the project area, the current mine plan significantly avoids major areas of hydrogeologic concern identified via previous hydrogeologic assessment of the Project. 7.4.2 Summary of Hydrogeologic Findings In general, the proper mining is not expected to experience mine-wide, extensive water inflow issues, and in fact, most of the mine may be expected to be relatively dry. Howe zones of significant faulting and fracturing do exist in the project area, and experiences in other mines in the region do suggest that the potential for significant water inflow via faults and fracture zones coupled with longwall mining-induced fractures does exist, especially where there is potential for interaction with surface water features. The current mine plan layout avoids the majority of potentially problematic areas, as designated by a previous assessment by others. The available hydrogeologic information for the project area indicates that significant water inflows in such areas are likely to be enhanced by proximity and connection of the combination of longwall mining-induced fractures and natural fractures to surface water bodies that may

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and potassium), pH, Total Suspended Solids (*TSS*), Total Dissolved Solids (*TDS*), and Specific Conductance (*SC*). Recent guidance from the **United States Environmental Protection Agency (USEPA)** suggests that coal mine operations with discharges having SC values greater than 300 microsiemens per centimeter ( $\mu$ S/cm) should be closely monitored and operations with discharges of greater than 500  $\mu$ S/cm should be required to take mitigative action. The guidance is not law and enforcement of such standards is unknown.

## 7.5 Geotechnical Data

Geotechnical data specific to the expected mine horizon is somewhat limited and has not been systematically collected as part of the mineral exploration drilling process. However, a report completed by Park (1989) contains site-specific laboratory and core logging geotechnical information for seven holes centrally located within the proposed mine area. Available data includes laboratory results for roof and floor rock and coal, for specific gravity, Uniaxial Compressive Strength (UCS), elastic modulus, Poisson's Ratio, angle of internal friction, and cohesion. Core logging geotechnical data includes Rock Quality Designation (RQD) values for the roof and floor of the proposed mine. Additional UCS values, estimated from Point Load Tests (PLT), are also available for one additional hole located along Little Yellow Creek. The available data suggests that the proposed mine area may have the potential for some mine floor instability. Incorporation of additional geotechnical data collection via core drilling and downhole geophysics is recommended.

Pillar sizing and design for the proposed mine is similar to that of Warrior Met's two nearby active mines, and consistent with region-specific design equations initially developed in the 1980's. The stability of the current pillar designs has also been verified using the Analysis of Coal Pillar Stability (*ACPS*) software. The pillar design incorporates a yield pillar concept that may mitigate some of the potential floor heave concerns.

# 8 Sample Preparation Analyses and Security

# 8.1 Prior to Sending to the Lab

All of the coal samples have been obtained from the Property by subsurface exploration using core drilling techniques. The protocol for preparing and testing the samples has varied over time and is not well documented for the older holes drilled on the Property. Typical core-drilling sampling methods for coal in the United States involves drilling through the seam, removing the core from the barrel, describing the lithology, wrapping the sample in a plastic sleeve and placing it lengthwise into a covered core box, marking hole ID and depth intervals on each box and lid, and allowing the core to be delivered to a laboratory in correct stratigraphic order, with original moisture content. This process has been the norm for both historical practices at Warrior Met's active and depleted operations and ongoing exploration activities at the Blue Creek property.

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This work is typically performed by the supervising driller, geologist, or company personnel. Samples are most often delivered to the company after each shift or acquired by company personnel or representatives. Most of the coal core samples were obtained by previous or current operators on the Property. MM&A did not participate in the collection, sampling and analysis of the core samples. However, it is reasonable to assume, given the consistency of quality from previous operators, that these samples were generally collected and processed under industry best practices. This assumption is based on MM&A's familiarity with the operating companies and the companies used to perform the analyses.

## 8.2 Lab Procedures

Coal-quality testing has been performed over many years by operating companies using different laboratories and testing regimens. Some of the samples have raw analyses and washabilities on the full seam (with coal and rock parting layers co-mingled) and are mainly useful for characterizing the coal quality for projected production from underground mining. Other samples have coal and rock analyzed separately, the results of which can be manipulated to forecast underground mining quality. Care has been taken to use only those analyses that are representative of the coal quality parameters for the appropriate mining type for each sample.

Standard procedure upon receipt of core samples by the testing laboratory is to: 1) log the depth and thickness of the sample; then 2) perform testing as specified by a representative of the operating company. Each sample is then analyzed in accordance with procedures defined under American Society for Testing and Materials (ASTM) standards including, but not limited to washability (ASTM D4371); ash (ASTM D3174); sulfur (ASTM D4239); Btu/lb. (ASTM D5865); volatile matter (ASTM D3175); Free Swell Index (FSI) (ASTM D720). While not confirmed by MM&A, it is assumed that best practices and ASTM (or equivalent standards at the time of testing) were utilized in laboratory quality testing.

### 8.3 Opinion of Qualified Person

Based upon the consistency of quality information derived from multiple historical and ongoing exploration campaigns, MM&A finds the security protocols of past an ongoing exploration to be sufficient for resource and reserve documentation. Warrior Met's geology staff reports that it currently manages all exploration-based logistics, including core/channel sampling logging, transportation of material to the requisite laboratories, and the population/security of samples and appropriate laboratory forms. Currently, **Central Lab** handles the majority of coal analytical procedures related to exploration. Occasionally, **Coal Tech** (Pittsburgh, PA) will also analyze samples.

Procedures utilized by Warrior Met are aligned with typical protocols used in the coal industry.

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# 9 Data Verification

## 9.1 Procedures of Qualified Person

MM&A reviewed the Warrior Met supplied digital geologic database, consisting of data records which include drill hole and coal quality information for holes that lie within and adjacent to the Property. To the extent available, scanned copies of original documents were provided for much of the Property (mining areas A, B, C, D, and E1, E2, and E3), and these were reviewed by MM&A on a test case basis.

These sources comprise the primary data utilized in the evaluation of reserves within the Property. Warrior Met maintains copies of geologist field observation logs for each core hole drilled by Warrior Met and those that could be obtained from other entities and has compiled the core hole data into a digital geologic database consisting of approximately 1,257 drill holes, supplemented with additional GSA log data interpreted by MM&A. Of these, there are approximately 775 active CBM wells located in the project area operated by Warrior Met's gas division, with an additional 455 wells operated by Urban Oil and Gas. CBM wells are typically drilled on approximately 40-acre centers, which equates to roughly ¼-mile spacing.

Geophysical logs were used wherever available to assist in confirming seam correlation and to verify seam thickness measurements. These are highly useful tools not only for identification of seam thickness, but also to determine intervals between seams; the relative location and amount of displacement found adjacent to faults as depicted on the maps can also be evaluated with this type of data.

The level of accuracy for geophysical logs can be broadly grouped into one of three categories: lowresolution, intermediate-resolution, and high-resolution, due to: vintage of the logs, quality of scanned images, suite of tools used to log the well, source-to-detector spacing, scale of presentation, and so forth. Geophysical logs on the Property are of two general types:

- > CBM wells from various logging companies, that are publicly available from the GSA and have previously been reviewed and recorded by Warrior Met geologists for entry in the Warrior Met geological database. There are approximately 950 gas well geophysical logs within the Property, for which copies of approximately 750 scanned logs or LAS files (within all areas of the mine) were provided and reviewed on a test case basis by MM&A. Classification of these logs ranges from low- to intermediate-resolution.
- > Core holes drilled for P&M and geophysically logged by MM&A between 1991 and 1995, of which there are 87 high-resolution geophysical logs incorporated into this evaluation, most of which are located in the eastern portion of the Property (with a few scattered in the west). Copies of the MM&A geophysical logs are maintained within its archives located in Bluefield, Virginia. (An additional 23 holes were geophysically logged by MM&A on the Property; however, coordinates are unavailable and consequently have not been utilized in this evaluation.)

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 9 Data Verification 9.1 Procedures of Qualifie-Person MM&A reviewed the Warrior Met supplied digital geologic database, consisting of data records which include drill hole and coal quality informa for holes that lie within and adjacent to the Property. To the extent available, scanned copies of original documents were provided for much of the Prope (mining areas A, B, C, D, and E1, E2, and E3), and these were reviewed by MM&A on a test case basis. These sources comprise the primary data utilize the evaluation of reserves within the Property. Warrior Met maintains copies of geologist field observation logs for each core hole drilled by Warrior Me and those that could be obtained from other entities and has compiled the core hole data into a digital geologic database consisting of approximately 1,2: drill holes, supplemented with additional GSA log data interpreted by MM&A. Of these, there are approximately 775 active CBM wells located in the project area operated by Warrior Met's gas division, with an additional 455 wells operated by Urban Oil and Gas. CBM wells are typically drilled on approximately 40-acre centers, which equates to roughly 1/4-mile spacing. Geophysical logs were used wherever available to assist in confirming seam correlation and to verify seam thickness measurements. These are highly useful tools not only for identification of seam thickness, but also to determine intervals between seams; the relative location and amount of displacement found adjacent to faults as depicted on the maps can also be evaluated with th type of data. The level of accuracy for geophysical logs can be broadly grouped into one of three categories: low-resolution, intermediate-resolution, and high-resolution, due to: vintage of the logs, quality of scanned images, suite of tools used to log the well, source-to-detector spacing, scale of presentatio and so forth. Geophysical logs on the Property are of two general types: > CBM wells from various logging companies, that are publicly available from GSA and have previously been reviewed and recorded by Warrior Met geologists for entry in the Warrior Met geological database. There are approximar 950 gas well geophysical logs within the Property, for which copies of approximately 750 scanned logs or LAS files (within all areas of the mine) were provided and reviewed on a test case basis by MM&A. Classification of these logs ranges from low- to intermediate-resolution. > Core holes drilled for P&M and geophysically logged by MM&A between 1991 and 1995, of which there are 87 high-resolution geophysical logs incorporated into this evaluation, most of which are located in the eastern portion of the Property (with a few scattered in the west). Copies of the MM&A geophysical logs are maintained within its archives located in Bluefield, Virginia. (An additional 23 holes were geophysically logged by MM&A on the Property; however, coordinates are unavailable and consequently have not been utilized in this evaluation.) MARSHALL MILLER & ASSOCIATES, INC. 40



A significant effort was put into verifying the integrity of the database. As noted previously, an additional group of drilling records was identified and categorized as not honored and ignored for mapping purposes for the following reasons:

- possessing poor or suspect core recovery; or
- thickness impacted by the influence of tectonic faulting; or
- seam thickness information was interpreted from older vintage and/or lower resolution geophysical logs.
- original records were unavailable from which to confirm suspect information.

Once this was completed, stratigraphic columnar sections were generated in select areas using crosssectional analysis to establish or confirm coal-seam correlations. Furthermore, reported drill hole collar elevations were checked and verified utilizing a LIDAR topographic model, and adjustments were made as deemed appropriate. When the database was fully vetted, seam thickness, base-of-seam elevation, roof and floor lithology, and overburden maps were finally generated for use in the mine planning process.

#### 9.2 Limitations

As with any exploration program, localized geologic anomalies cannot always be identified; however, the greater the density of samples taken, the lower the risk. Once an area is identified as being of interest for inclusion in the mine plan, additional samples are normally collected to reduce the risk within those specific areas. In general, provision is made in the mine planning portion of the study to allow for localized anomalies that are typically classed more as a nuisance than a hinderance.

### 9.3 Opinion of Qualified Person

In the eastern portion of the Property (Mining Areas A through E1), sufficient data has been obtained through various exploration and sampling programs to support the geological interpretations of seam structure and thickness for the mineable coal horizons. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS, compliant with 2021 SEC Standards.

Acquisition of data (specifically core drilling and coal quality testing) are ongoing within the western and southwestern portions of the Property (mining Areas E2 and E3). Thus, resource tonnage estimates presented herein specific to mining Areas E2 and E3 are based upon preliminary results. It is Warrior Met's and MM&A's intentions to elevate the classification of such resources in Area E2 and E3 to reserves via further geologic analysis and an ongoing exploration program to determine quality characteristics of the subject coal. Similarly, exploration drilling completed in 2022 allowed a portion of the former Area E (E1) to transfer from resource to reserve.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary A significant effort was put into verifying the integrity of the database. As noted previously, an additional group of drilling records was identified and categorized as not honored and ignored for map purposes for the following reasons: —possessing poor or suspect core recovery; or —thickness impacted by the influence of tectonic faulting; or —sean thickness information was interpreted from older vintage and/or lower resolution geophysical logs. —original records were unavailable from which to confirm suspect information. Once this was completed, stratigraphic columnar sections were generated in select areas using cross-sectional analysis to

establish or confirm coal-seam correlations. Furthermore, reported drill hole collar elevations were checked and verified utilizing a LIDAR topographic model, and adjustments were made as deemed appropriate. When the database was fully vetted, seam thickness, base-of-seam elevation, roof and floor lithology, and overburden maps were finally generated for use in the mine planning process. 9.2 Limitations As with any exploration program, localized geologic anomalies cannot always be identified; however, the greater the density of samples taken, the lower the risk. Once an area is identified as being interest for inclusion in the mine plan, additional samples are normally collected to reduce the risk within those specific areas. In general, provision is m in the mine planning portion of the study to allow for localized anomalies that are typically classed more as a nuisance than a hinderance. 9.3 Opinion of Qualified Person In the eastern portion of the Property (Mining Areas A through E1), sufficient data has been obtained through various exploration and sampling programs to support the geological interpretations of seam structure and thickness for the mineable coal horizons. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS, compliant with 2021 SEC Standards. Acquisition data (specifically core drilling and coal quality testing) are ongoing within the western and southwestern portions of the Property (mining Areas E2 and E3 to reserves via further geologic analysis and an ongoing exploration program determine quality characteristics of the subject coal. Similarly, exploration drilling completed in 2022 allowed a portion of the former Area E (E1) to transfer from resource to reserve. MARSHALL MILLER & ASSOCIATES, INC. 41



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# 10 Mineral Processing and Metallurgical Testing

# 10.1 Testing Procedures

Coal quality data was available for coal samples from the legacy core holes within the resource area. Because these samples were obtained by different entities at different times, some variability exists between sampling and/or testing procedures (i.e., variable float gravity, coal only sampling, etc.). Data from three sets of borings have been provided and are referenced as the M-series, NR5-series, and Sseries of holes.

# 10.1.1 M-Series Holes

The M-series of borings were performed by U.S. Steel and the samples were tested by the U.S. Steel's Research Division. The M-Series borings are further sub-divided into two groups based on the reports in which they were issued. Borings M-360 through M-808 were reported in a memorandum from the U.S. Steel Research Division, "Evaluation of Mary Lee/Blue Creek-Seam Coal Drill Cores and Composite Samples from the West-West Wilmington Area, Tuscaloosa County, Alabama, December 1980". From the report, the total seam, including the Middleman, was processed in laboratory analysis. The samples were crushed to minus ¼-inch, and then split for washability and composite analysis. These samples were evaluated at cumulative float specific gravities of 1.35 and 1.55. The resulting samples were tested for Proximate Analysis, Gieseler Plasticity, Free Swelling Index, Hardgrove Grindability, and Petrographic Analysis.

The second set of M-series borings, M-812 through M-817, were reported in a study issued by U.S. Steel, "West Wilmington Coal Project Tuscaloosa County, Alabama, 1983". Again, the total seam was considered in this study, including the Middleman. The samples were crushed to minus ¼-inch and then subjected to washability analysis. The samples were evaluated at a cumulative float specific gravity of 1.55. This sample was then divided, half of which was retained for further analysis. Half of the sample was re-analyzed at a float at a specific gravity of 1.37. The resulting samples were subjected to the following tests: Proximate Analysis, Total Sulfur, Ultimate Analysis, Calorific Value Analysis, Gieseler Plasticity, Free Swelling Index, Ash Composition, Ash Fusion Temperature, and Petrographic Analysis.

# 10.1.2 NR5-Series Holes

The NR5-series of borings were performed by P&M. A report summarizing the NR5 series of borings has not been provided or reviewed by MM&A. Inferences have been made based on the provided laboratory data sheets. The Mary Lee and Blue Creek samples were processed separately for these borings, and no Middleman was included. It is unknown if the samples were crushed prior to the washability analysis. These samples were only floated at a cumulative specific gravity of 1.7. The resulting samples were tested by **Commercial Testing & Engineering Company** with report dates in 1990, 1991, and 1992. The tests performed on these samples include Proximate Analysis, Ultimate Analysis, Ash Fusion Temperature, Forms of Sulfur, Water Soluble Alkalis, Hardgrove Grindability,

Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary 10 Mineral Processing and Metallurgical Testi 10.1 Testing Procedures Coal quality data was available for coal samples from the legacy core holes within the resource area. Because these samples we obtained by different entities at different times, some variability exists between sampling and/or testing procedures (i.e., variable float gravity, coal only sampling, etc.). Data from three sets of borings have been provided and are referenced as the M-series, NR5-series, and S -series of holes. 10.1.1 M-Seri Holes The M-series of borings were performed by U.S. Steel and the samples were tested by the U.S. Steel's Research Division. The M-Series borings a further sub-divided into two groups based on the reports in which they were issued. Borings M-360 through M-808 were reported in a memorandum fro the U.S. Steel Research Division, "Evaluation of Mary Lee/Blue Creek-Seam Coal Drill Cores and Composite Samples from the West-West Wilmington Area, Tuscaloosa County, Alabama, December 1980". From the report, the total seam, including the Middleman, was processed in laboratory analysis. T samples were crushed to minus 1/4-inch, and then split for washability and composite analysis. These samples were evaluated at cumulative float specifi gravities of 1.35 and 1.55. The resulting samples were tested for Proximate Analysis, Gieseler Plasticity, Free Swelling Index, Hardgrove Grindability, a Petrographic Analysis. The second set of M-series borings, M-812 through M-817, were reported in a study issued by U.S. Steel, "West Wilmington Coa Project Tuscaloosa County, Alabama, 1983". Again, the total seam was considered in this study, including the Middleman. The samples were crushed to minus 1/4-inch and then subjected to washability analysis. The samples were evaluated at a cumulative float specific gravity of 1.55. This sample was th divided, half of which was retained for further analysis. Half of the sample was re-analyzed at a float at a specific gravity of 1.37. The resulting samples were subjected to the following tests: Proximate Analysis, Total Sulfur, Ultimate Analysis, Calorific Value Analysis, Gieseler Plasticity, Free Swelling Ir Ash Composition, Ash Fusion Temperature, and Petrographic Analysis. 10.1.2 NR5-Series Holes The NR5-series of borings were performed by P&M. A report summarizing the NR5 series of borings has not been provided or reviewed by MM&A. Inferences have been made based on the provided laborate data sheets. The Mary Lee and Blue Creek samples were processed separately for these borings, and no Middleman was included. It is unknown if the samples were crushed prior to the washability analysis. These samples were only floated at a cumulative specific gravity of 1.7. The resulting samples w tested by Commercial Testing & Engineering Company with report dates in 1990, 1991, and 1992. The tests performed on these samples include Proxim Analysis, Ultimate Analysis, Ash Fusion Temperature, Forms of Sulfur, Water Soluble Alkalis, Hardgrove Grindability, MARSHALL MILLER & ASSOCIATES, INC. 42



Equilibrium Moisture, Free Swelling Index, Ash Composition, Base-Acid Ratio, Fouling Index, and Slagging Index.

### 10.1.3 S-Series Holes

The S-series of borings were performed by Walter. Since property acquisition, Warrior Met has continued to use the S-series designation for core holes. As with the NR5-series holes, no report has been provided summarizing the sampling and testing methods for the S-series borings. Some inferences have been made from the laboratory data sheets that have been provided. The Mary Lee and Blue Creek samples from these borings were processed separately and the Middleman was not included in the analysis. It is unknown if the samples were crushed prior to the washability analysis. These samples were tested at specific gravities of 1.4, 1.5, 1.6, and 1.7.

The resulting samples were tested for ash and sulfur. A composite sample, assumed to be analyzed at a cumulative Float 1.5 specific gravity sample, was tested for a Proximate Analysis and Free Swelling Index. These basic coal quality tests were performed by Warrior Met's in-house lab. Over the years, select samples have been sent to various laboratories including: SGS; Coal Tech Petrographic Associates; and Precision Testing Laboratory (*Precision*) for more specialized testing. These analyses include Ultimate Analysis, Hardgrove Grindability, Ash Fusion Temperature, Ash Composition, Coke Reactivity Index, Coke Strength After Reaction, Gieseler Plasticity, and Petrographic Analysis. Report dates for the S-series borings include data from 2009 through 2021.

### 10.2 Warrior Met's Current Exploration Procedures

During Warrior Met's 2022 exploration program on the Property, three (3) fully cored or spot-cored holes have been drilled. Coal samples for 2 of the 3 holes, located in Area E1, were subsequently delivered to Warrior Met's laboratory for analytical testing, the results of which have been included in this report.

The third hole, located in Area A, is still being drilled for additional wedge samples, which will subsequently be analyzed when the hole has been completed.

### 10.3 Quality Assessment

Coal quality parameters (yield, ash and sulfur) at a cumulative float gravity of 1.55 were used to assess the consistency of the data across the three series described above. MM&A reconstituted a combined Mary Lee, Middleman and Blue Creek section for each honored drill hole. In instances where a float gravity of 1.55 was not tested, appropriate values were determined using graphical interpolation of similar holes. These values were processed using Carlson Software and the grids were generated to contour and assess consistency across the mine property. MM&A determined that in-seam yield and product ash were generally consistent across Areas A through D when assessing the total mineable section. Product sulfur appears to generally increase gradually from the eastern to western portion of the Property. Further exploration is recommended to confirm or dispute this trend.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary Equilibrium Moisture, Free Swelling Index, A Composition, Base-Acid Ratio, Fouling Index, and Slagging Index. 10.1.3 S-Series Holes The S-series of borings were performed by Walter. Since prop acquisition, Warrior Met has continued to use the S-series designation for core holes. As with the NR5-series holes, no report has been provided summarizing the sampling and testing methods for the S-series borings. Some inferences have been made from the laboratory data sheets that have been provided. The Mary Lee and Blue Creek samples from these borings were processed separately and the Middleman was not included in the analysis. It i unknown if the samples were crushed prior to the washability analysis. These samples were tested at specific gravities of 1.4, 1.5, 1.6, and 1.7. The resul samples were tested for ash and sulfur. A composite sample, assumed to be analyzed at a cumulative Float 1.5 specific gravity sample, was tested for a Proximate Analysis and Free Swelling Index. These basic coal quality tests were performed by Warrior Met's in-house lab. Over the years, select sample have been sent to various laboratories including: SGS; Coal Tech Petrographic Associates; and Precision Testing Laboratory (Precision) for more special testing. These analyses include Ultimate Analysis, Hardgrove Grindability, Ash Fusion Temperature, Ash Composition, Coke Reactivity Index, Coke Strength After Reaction, Gieseler Plasticity, and Petrographic Analysis. Report dates for the S-series borings include data from 2009 through 2021. 10.2 Warrior Met's Current Exploration Procedures During Warrior Met's 2022 exploration program on the Property, three (3) fully cored or spot-cored holes have been drilled. Coal samples for 2 of the 3 holes, located in Area E1, were subsequently delivered to Warrior Met's laboratory for analytical testing, t results of which have been included in this report. The third hole, located in Area A, is still being drilled for additional wedge samples, which will subsequently be analyzed when the hole has been completed. 10.3 Quality Assessment Coal quality parameters (yield, ash and sulfur) at a cumulative flo gravity of 1.55 were used to assess the consistency of the data across the three series described above. MM&A reconstituted a combined Mary Lee,

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The results of these exploration programs have been assembled and tabulated in a Microsoft<sup>®</sup> Excel spreadsheet to determine the basic statistical parameters (average, maximum, minimum) of typical chemical and physical coal quality properties. The data has been tabulated for the Mary Lee, Blue Creek, and Total Seam (including the Middleman) by density class.

For Areas A through D, the basic statistical parameters for each seam at a float 1.50 gravity, or nearest available gravity, are shown below in *Table 10-1*. Samples that were deemed to be erroneous were excluded from calculations.

<b>;</b> i	Mary Lee Float 1.5			Blue Creek Float 1.5			Total Seam Float 1.55			
. L	% Rec.	% Ash	% Sulfur	% Rec.	% Ash	% Sulfur	% Rec.	% Ash	% Sulfur	% Vol.
Average	88.15	12.77	0.91	91.90	8.42	0.60	68.53	9.35	0.70	28.10
Maximum	96.26	14.26	1.20	98.01	10.26	0.79	80.30	12.90	1.21	30.10
Minimum	76.09	11.51	0.71	73.50	6.98	0.52	44.60	7.69	0.50	26.10
No. of Samples	18	18	18	19	19	19	59	59	59	58

#### Table 10-1: Yield, Clean Ash and Sulfur (1.5 SG), Eastern Mining Areas A Through D

Coal quality for Area E1 is shown on Table 10-2 below.

#### Table 10-2: Yield, Clean Ash and Sulfur (1.5 SG), Eastern Mining Area E1

	Mary Lee Float 1.5			Blue Creek Float 1.5			Total Seam Float 1.55			
	% Rec.	% Ash	% Sulfur	% Rec.	% Ash	% Sulfur	% Rec.	% Ash	% Sulfur	% Vol.
Average	86,44	13.49	1.39	84,56	10.65	0.88	84.12	11.34	1.21	28.1
Maximum	87.09	13.86	1.85	85.68	10.85	0.93	84.12	11.34	1.21	30.1
Minimum	85.78	13.12	0.93	83.43	10.44	0.83	84.12	11.34	1.21	26.1
No. of Samples	2	2	2	2	2	2	1	1	1	58

As stated previously, the method of sampling, testing, and reporting was not consistent across the different data series. Due to the lack of summary reports describing the testing procedures, observations of the reported data were used to determine when a combined sample (i.e., combination of Mary Lee and Blue Creek horizons) sample did or did not include the middleman parting. This observation was used to exclude data when necessary as well as identify what borings required further data processing for inclusion in MM&A's analysis. Where quality results were deemed not useful or unrepresentative, those results were excluded (not honored) from statistical analyses and coal quality modeling but are included within detailed coal quality tables in MM&A's files for informational purposes with the appropriate qualifying comments.

### 10.4 Derivation of Product Yield

Generalized washabilities (i.e., cumulative float tables at various gravities) were produced for both the Mary Lee and Blue Creek seams. Due to the lack of sizing data, the washabilities are presented on a whole (by zero) basis with top-sizes varying between 2 inches and one-quarter inch, depending on the vintage of the drill hole. Averages were generated for each respective float specific gravity. This introduced some bias, as certain gravities included analysis for more holes, because not all holes were

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The results of these exploration programs have been assembled and tabulated in a Microsoft® Excel spreadsheet to determine the basic statistical param (average, maximum, minimum) of typical chemical and physical coal quality properties. The data has been tabulated for the Mary Lee, Blue Creek, and Total Seam (including the Middleman) by density class. For Areas A through D, the basic statistical parameters for each seam at a float 1.50 gravity, or nearest available gravity, are shown below in Table 10-1. Samples that were deemed to be erroneous were excluded from calculations. Table 10-1: Yield Clean Ash and Sulfur (1.5 SG), Eastern Mining Areas A Through D Mary Lee Blue Creek Total Seam Float 1.5 Float 1.5 Float 1.55 % Rec. % Ash % Su % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % Vol. Average 88.15 12.77 0.91 91.90 8.42 0.60 68.53 9.35 0.70 28.10 Maximum 96.26 14.26 1.20 98 10.26 0.79 80.30 12.90 1.21 30.10 Minimum 76.09 11.51 0.71 73.50 6.98 0.52 44.60 7.69 0.50 26.10 No. of Samples 18 18 19 19 19 59 59 59 58 Co quality for Area E1 is shown on Table 10-2 below. Table 10-2: Yield, Clean Ash and Sulfur (1.5 SG), Eastern Mining Area E1 Mary Lee Blue Creek Tot Seam Float 1.5 Float 1.5 Float 1.55 % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % 1.5 Float 1.5 Float 1.55 % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % 1.5 Float 1.5 Float 1.55 % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % Rec. % Ash % Sulfur % Not. Average 86.44 13.49 1.39 84.56 10 0.88 84.12 11.34 1.21 28.1 Maximum 87.09 13.86 1.85 85.68 10.85 0.93 84.12 11.34 1.21 30.1 Minimum 85.78 13.12 0.93 83.43 10.44 0.83 84.12 11.3

1.21 26.1 No. of Samples 2 2 2 2 2 2 1 1 1 58 As stated previously, the method of sampling, testing, and reporting was not consistent across the different data series. Due to the lack of summary reports describing the testing procedures, observations of the reported data were used to determine when a comb sample (i.e., combination of Mary Lee and Blue Creek horizons) sample did or did not include the middleman parting. This observation was used to exc data when necessary as well as identify what borings required further data processing for inclusion in MM&A's analysis. Where quality results were dee not useful or unrepresentative, those results were excluded (not honored) from statistical analyses and coal quality modeling but are included within deta coal quality tables in MM&A's files for informational purposes with the appropriate qualifying comments. 10.4 Derivation of Product Yield Generalized washabilities (i.e., cumulative float tables at various gravities) were produced for both the Mary Lee and Blue Creek seams. Due to the lack of sizing dat the washabilities are presented on a whole (by zero) basis with top-sizes varying between 2 inches and one-quarter inch, depending on the vintage of the drill hole. Averages were generated for each respective float specific gravity. This introduced some bias, as certain gravities included analysis for more holes, because not all holes were MARSHALL MILLER & ASSOCIATES, INC. 44



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evaluated at the same gravity increments. Efforts were made to include as much of the provided washability data as possible. Data points that were deemed to be erroneous were omitted from the analysis. Likewise, the M-series data was not included in the average because its test work included the parting between the Mary Lee and Blue Creek seams. Due to the thickness variability of the respective Mary Lee and Blue Creek seams, it was determined that yields were to be calculated independently for each seam, with the assumption that all Middleman material reports to reject circuitry.

Generalized washabilities for each seam were produced by averaging the cumulative float data from selected NR5 and S-series boreholes. *Table 10-3* shows the average washabilities of the two seams as well as the average combined washability excluding the middleman. The combined washability was calculated by weight averaging the individual seam washabilities with a ratio of 2.32 tonnes of Blue Creek coal per 1 ton of Mary Lee. This ratio is based on the life-of-mine tonnage model which results in the same ratio of Blue Creek to Mary Lee tonnes.

		Incremental			Cumulative			
	(%) Yield	(%) Ash	(%) Sulfur	(%) Yield	(%) Ash	(%) Sulfur		
Mary Lee								
1.4	77.55	11.75	0.82	77.55	11.75	0.82		
1.5	10.40	20.50	1.51	87.95	12.79	0.90		
1.6	2.73	29.31	2.56	90.67	13.28	0.95		
1.7	1.35	40.02	3.19	92.02	13.67	0.98		
Sink	7.98	66.14	2.16	100.00	17.86	1.08		
Blue Creek	1	A	and and and		in the low set	1		
1.4	82.50	7.42	0.61	82.50	7.42	0.61		
1.5	8,77	17.75	0.62	91.26	8.41	0.61		
1.6	2.64	26.32	0.88	93.90	8.92	0.62		
1.7	1.33	33.98	1.34	95.23	9.27	0.63		
Sink	4.77	65.26	0.83	100.00	11.93	0.64		
Combined	Mary Lee and B	lue Creek, Exclud	ing Middleman	77		<u>,</u>		
1.4	81.01	8.67	0.67	81.01	8,67	0.67		
1.5	9.26	18.68	0.92	90.26	9.70	0.69		
1.6	2.67	27.24	1.40	92.93	10.20	0.71		
1.7	1.34	35.81	1.90	94.27	10.56	0.73		
Sink	5.73	65.63	1.39	100.00	13.72	0.77		

#### Table 10-3: Washability for the Mary Lee, Blue Creek, and Combined Seam (Excluding Middleman), Dry Basis, Mining Areas A Through D

All the provided exploration data was from exploration core testing. Quality evaluations associated with slim core testing (including NX-sized core) tends to produce a cleaner ash and higher yield than is achievable during the mining the process. This is due to the small top-size of the core samples which provide greater coal-ash liberation than what would be expected in a typical run-of-mine product. Additionally, laboratory results are theoretical and do not account for plant inefficiencies or losses. MM&A modified yields and clean ash values as presented in *Table 10-3* above to reflect a 96-percent plant efficiency and a 0.25-percent gain in clean ash. Such values were derived when comparing core sample clean ashes to those associated with channel samples which are more reflective of ROM sizing.

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evaluated at the same gravity increments. Efforts were made to include as much of the provided washability data as possible. Data points that were deen to be erroneous were omitted from the analysis. Likewise, the M-series data was not included in the average because its test work included the parting between the Mary Lee and Blue Creek seams. Due to the thickness variability of the respective Mary Lee and Blue Creek seams, it was determined that yields were to be calculated independently for each seam, with the assumption that all Middleman material reports to reject circuitry. Generalized washabilities for each seam were produced by averaging the cumulative float data from selected NR5 and S-series boreholes. Table 10-3 shows the aver washabilities of the two seams as well as the average combined washability excluding the middleman. The combined washability was calculated by wei averaging the individual seam washabilities with a ratio of 2.32 tonnes of Blue Creek coal per 1 ton of Mary Lee. This ratio is based on the life-of-mine tonnage model which results in the same ratio of Blue Creek to Mary Lee tonnes. Table 10-3: Washability for the Mary Lee, Blue Creek, and Combined Seam (Excluding Middleman), Dry Basis, Mining Areas A Through D Incremental Cumulative (%) (%) (%) (%) (%) (%) (%) Yield Ash Sulfur Yield Ash Su Mary Lee 1.4 77.55 11.75 0.82 77.55 11.75 0.82 1.5 10.40 20.50 1.51 87.95 12.79 0.90 1.6 2.73 29.31 2.56 90.67 13.28 0.95 1.7 1.35 40.02 3.19 92.02 13.67 0.98 Sink 7.98 66.14 2.16 100.00 17.86 1.08 Blue Creek 1.4 82.50 7.42 0.61 82.50 7.42 0.61 1.5 8.77 17.75 0.62 91.26 8.41 0.61 1.6 2.64 26.32 0 93.90 8.92 0.62 1.7 1.33 33.98 1.34 95.23 9.27 0.63 Sink 4.77 65.26 0.83 100.00 11.93 0.64 Combined Mary Lee and Blue Creek, Excluding Middlema 1.4 81.01 8.67 0.67 81.01 8.67 0.67 1.5 9.26 18.68 0.92 90.26 9.70 0.69 1.6 2.67 27.24 1.40 92.93 10.20 0.71 1.7 1.34 35.81 1.90 94.27 10.56 0.73 Sink 5.73 65.63 1.39 100.00 13.72 0.77 All the provided exploration data was from exploration core testing. Quality evaluations associated with slim core tes (including NX-sized core) tends to produce a cleaner ash and higher yield than is achievable during the mining the process. This is due to the small top-4 of the core samples which provide greater coal-ash liberation than what would be expected in a typical run-of-mine product. Additionally, laboratory res are theoretical and do not account for plant inefficiencies or losses. MM&A modified yields and clean ash values as presented in Table 10-3 above to ref a 96-percent plant efficiency and a 0.25-percent gain in clean ash. Such values were derived when comparing core sample clean ashes to those associate with channel samples which are more reflective of ROM sizing. MARSHALL MILLER & ASSOCIATES, INC



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Table 10-4 below shows the average cumulative washability data after an ash modifier of 0.25-percent and an organic efficiency of 96-percent have been applied to the data.

	Cumulative							
Float	(%) Yield	(%) Ash	(%) Sulfur					
lary Lee								
1.4	74.45	12.00	0.82					
1.5	84.43	13.04	0.89					
1.6	87.05	13.53	0.94					
1.7	88.34	13.92	0.97					
Sink	100.00	17.86	1.08					
lue Creek	120	4 - 14						
1.4	79.20	7.67	0.61					
1.5	87.61	8.66	0.61					
1.6	90.15	9.17	0.62					
1.7	91.43	9.52	0.63					
Sink	100.00	11.93	0.64					
lary Lee and Blu	e Creek Combined	N						
1.4	77.77	8.92	0.67					
1.5	86.65	9.95	0.69					
1.6	89.21	10.45	0.71					
1.7	90.50	10.81	0.73					
Sink	100.00	13.72	0.77					

Table 10-4: Washability for the Mary Lee, Blue Creek, and Combined Seam (Excluding Middleman), Dry Basis, After Yield and Ash Adjustment; Mining Areas A Through D

Examining the total seam washability shows that washing the combined coal at a 1.50 specific gravity results in a product ash of 10-percent with yields approaching 87-percent on a dry basis. Projecting this cut point on an individual seam basis suggests respective yields of 88-percent and 85-percent for the Blue Creek and Mary Lee seams, inclusive of a 96-percent plant efficiency factor. Average washabilities suggest individual dry product ashes of 8.7-percent and 13.0-percent for the Blue Creek and Mary Lee seams. As the relative thicknesses and subsequent tonnage ratios vary from the average 2.32 to 1 (Blue Creek to Mary Lee), total clean ash will fluctuate. Production timing as incorporated in financial modeling suggests annual average clean ash variations to be in the range of 0.5-percent. Localized higher ash zones and zones with relatively low percentages of Blue Creek coal will result in higher ash fluctuations. Such fluctuations in quality can be mitigated by stockpiling raw and clean coal and blending.

Due to the minimal drilling associated with Area E1, wash recoveries were reduced by a factor of 10percent in lieu of a detailed washability analysis. Further, all tons associated with Area E1 were defaulted to an "indicated" status, reflective of the amount of supporting coal quality information and information which suggests elevated ash and sulfur.

# 10.5 Relationship of Tests to the Whole

The actual quality of shipped coal will likely vary due to the following factors: 1) particle size of the coal fed to the plant; 2) specific gravity of the float media in use at the preparation plant; 3) type of plant

Year End 2022 Reserve Analysis Technical Report Summary Table 10-4 below shows the average cumulative washability data after an ash modifier of 0 percent and an organic efficiency of 96-percent have been applied to the data. Table 10-4: Washability for the Mary Lee, Blue Creek, and Combined Sea (Excluding Middleman), Dry Basis, After Yield and Ash Adjustment; Mining Areas A Through D Cumulative (%) (%) (%) Float Yield Ash Sulfur Mary 1.4 74.45 12.00 0.82 1.5 84.43 13.04 0.89 1.6 87.05 13.53 0.94 1.7 88.34 13.92 0.97 Sink 100.00 17.86 1.08 Blue Creek 1.4 79.20 7.67 0.61 1.5 87.61 8 0.61 1.6 90.15 9.17 0.62 1.7 91.43 9.52 0.63 Sink 100.00 11.93 0.64 Mary Lee and Blue Creek Combined 1.4 77.77 8.92 0.67 1.5 86.65 9.95 0.69 1.6 85 10.45 0.71 1.7 90.50 10.81 0.73 Sink 100.00 13.72 0.77 Examining the total seam washability shows that washing the combined coal at a 1.50 specific gravity results in a product ash of 10-percent with yields approaching 87-percent on a dry basis. Projecting this cut point on an individual seam basis suggests respective yields of 88-percent and 85-percent for the Blue Creek and Mary Lee seams, inclusive of a 96-percent plant efficiency factor. Average washabilities suggest individual dry product ashes of 8.7-percent and 13.0-percent for the Blue Creek and Mary Lee seams. As the relative thicknesses a subsequent tonnage ratios vary from the average 2.32 to 1 (Blue Creek to Mary Lee), total clean ash will fluctuate. Production timing as incorporated in financial modeling suggests annual average clean ash variations to be in the range of 0.5-percent. Localized higher ash zones and zones with relatively le percentages of Blue Creek coal will result in higher ash fluctuations. Such fluctuations in quality can be mitigated by stockpiling raw and clean coal and blending. Due to the minimal drilling associated with Area E1, wash recoveries were reduced by a factor of 10-percent in lieu of a detailed washability analysis. Further, all tons associated with Area E1 were defaulted to an "indicated" status, reflective of the amount of supporting coal quality information and information which suggests elevated ash and sulfur. 10.5 Relationship of Tests to the Whole The actual quality of shipped coal will likely vary due t the following factors: 1) particle size of the coal fed to the plant; 2) specific gravity of the float media in use at the preparation plant; 3) type of plant MARSHALL MILLER & ASSOCIATES, INC. 46



circuit(s); 4) efficiency of the plant circuit(s); 5) the moisture content of the final product; and 6) customer requirements.

However, once baseline coal quality is established, additional sampling programs and testing procedures can be implemented to assist with: 1) predicting additionally refined plant yields which account for anticipated particle sizes that reflect a typical ROM product and include out-of-seam dilution (*OSD*); 2) assessing optimum specific gravity of preparation plant float media to meet product specifications; and 3) further designing and/or modifying plant circuit(s) if necessary.

In general, the data obtained thus far shows that the quality attributes are reasonably consistent and should allow for predictability of the product coal quality from the subject seams.

#### 10.6 Lab Information

Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brookwood, Alabama. MM&A assumes that laboratory testing has followed appropriate ASTM or equivalent standards, including those defined under ASTM standards including, but not limited to:

- > ASTM D 4371 Test Method for Determining Washability Characteristics of Coal
- > ASTM D 3174 Method for Ash in the Analysis Sample of Coal and Coke
- > ASTM D 5865 Test Method for Gross Calorific Value of Coal and Coke
- > ASTM D 3175 Test Method for Volatile Matter in the Analysis Sample of Coal and Coke
- > ASTM D 720 Test Method for Free-Swelling Index (FSI) of Coal
- ASTM D 5515 Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arnu)
- > ASTM D 2639 Test Method for Plastic Properties of Coal (Gieseler)
- > ASTM D 1857 Standard Test Method for Fusibility of Coal and Coke Ash
- > ASTM D 2798 Microscopical Determination of the Reflectance of Vitrinite in a Polished Specimen of Coal

#### 10.7 Relevant Results, Metallurgical Quality

Table 10-4 presents a summary of the ranges of available metallurgical quality data for the combined seams. This data covers samples from various float gravities as well as the total number of samples analyzed per data set. Data from any erroneous holes were excluded from the reported ranges. Detailed metallurgical quality tables are retained in MM&A's files. Three sets of quality tables provide seam Rheological Information, Petrographic Information, as well as summarize any additional testing. The individual coal sample reports from the various coal testing laboratories are held in the MM&A files and can be provided upon request.

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circuit(s); 4) efficiency of the plant circuit(s); 5) the moisture content of the final product; and 6) customer requirements. However, once baseline coal quality is established, additional sampling programs and testing procedures can be implemented to assist with: 1) predicting additionally refined plant yi which account for anticipated particle sizes that reflect a typical ROM product and include out-of-seam dilution (OSD); 2) assessing optimum specific gravity of preparation plant float media to meet product specifications; and 3) further designing and/or modifying plant circuit(s) if necessary. In general data obtained thus far shows that the quality attributes are reasonably consistent and should allow for predictability of the product coal quality from the subject seams. 10.6 Lab Information Currently, samples are analyzed at a company-operated coal-testing laboratory located in Brookwood, Alabama. MM&A assumes that laboratory testing has followed appropriate ASTM or equivalent standards, including those defined under ASTM standards includi but not limited to: > ASTM D 4371 - Test Method for Determining Washability Characteristics of Coal > ASTM D 3174 - Method for Ash in the Analy. Sample of Coal and Coke > ASTM D 5865 - Test Method for Gross Calorific Value of Coal and Coke > ASTM D 3175 - Test Method for Volatile Matte the Analysis Sample of Coal and Coke > ASTM D 720 - Test Method for Free-Swelling Index (FSI) of Coal > ASTM D 5515-Test Method for Determination of the Swelling Properties of Bituminous Coal Using a Dilatometer (Arnu) > ASTM D 2639 - Test Method for Plastic Properties of Coal (Gieseler) > ASTM D 1857-Standard Test Method for Fusibility of Coal and Coke Ash > ASTM D 2798 - Microscopical Determination of the Reflect of Vitrinite in a Polished Specimen of Coal 10.7 Relevant Results, Metallurgical Quality Table 10-4 presents a summary of the ranges of available metallurgical quality data for the combined seams. This data covers samples from various float gravities as well as the total number of samples analyzed data set. Data from any erroneous holes were excluded from the reported ranges. Detailed metallurgical quality tables are retained in MM&A's files. This sets of quality tables provide seam Rheological Information, Petrographic Information, as well as summarize any additional testing. The individual coal



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#### **Table 10-5: Metallurgical Characteristics**

		Total Sea	am	
Elemental Ash Analysis	Min	Max	No. of Samples	
Na <sub>2</sub> O (Sodium Oxide) + K <sub>2</sub> O (Potassium Oxide)	1.75	3.76	17	
Base / Acid Ratio (in ash)	0.1	0.2	17	
Audibert-Arnu				
Maximum Dilatation	113	180	5	
Maximum Contraction	-27	-22	5	
Gieseler Plasticity				
Max. Fluidity DDPM (dial divisions per minute)	1300	30000	82	
Fluid Temp. (Plastic) Range <sup>9</sup> C	71	117	82	
Petrographic Indices		e		
Hardgrove Grindability Index	54	67	53	
Free Swelling Index (FSI)	8	9	66	
Mean Max Reflectance %	0.95	1.23	127	
Composition Balance Index (CBI)	0.22	1.01	127	
Rank Index (Calculated Strength)	3.22	5.18	127	
Calculated Stability Factor	30	64.5	21	
Coke Reactivity Index (CRI)	31.8	34.5	2	
Coke Strength After Reaction (CSR)	45.2	48	2	

#### 10.8 Pertinent Results and Opinion of the Qualified Person

Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarized in the table below. Additionally, wash recovery estimates on a LOM basis are included, reflective of dilution material.

Seam	Basis	Wash Recovery (%)	
Area A - D			
Mary Lee	Cimulations to Arbitrary 10 207 Arb Broduct	84.4%	
Blue Creek	<ul> <li>Simulations to Achieve 10.2% Ash Product</li> </ul>	87.6%	
Area E1		1	
Mary Lee	10% Reduction to 1.50 Float Lab Data	77.8%	
Blue Creek	10% Reduction to 1.50 Float Lab Data	76.1%	
LOM		I.	
Mary Lee + Blue Creek + Dilution	Above Assumptions + Consideration of Dilution	61.4%	

#### Table 10-6: Summary of Wash Recovery Assumptions

The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongoing exploration campaigns is adequate to document mineral resources and reserves presented herein. The distribution of quality information has been considered in measured and

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Table 10-5: Metallurgical Characteristics Total Seam Elemental Ash Analysis Min Max No. of Samples Na2O (Sodium Oxide) + K2O (Potassium Oxide 1.75 3.76 17 Base / Acid Ratio (in ash) 0.1 0.2 17 Audibert-Arnu Maximum Dilatation 113 180 5 Maximum Contraction -27 -22 5 Gieseler Plasticity M Fluidity DDPM (dial divisions per minute) 1300 30000 82 Fluid Temp. (Plastic) Range °C 71 117 82 Petrographic Indices Hardgrove Grindability Index 67 53 Free Swelling Index (FSI) 8 9 66 Mean Max Reflectance % 0.95 1.23 127 Composition Balance Index (CBI) 0.22 1.01 127 Rank Index (Calculate Strength) 3.22 5.18 127 Calculated Stability Factor 30 64.5 21 Coke Reactivity Index (CRI) 31.8 34.5 2 Coke Strength After Reaction (CSR) 45.2 48 2 Pertinent Results and Opinion of the Qualified Person Wash recovery factors on a seam-by-seam basis, exclusive of dilution material, is summarized in table below. Additionally, wash recovery estimates on a LOM basis are included, reflective of dilution material. Table 10-6: Summary of Wash Recovery Assumptions Seam Basis Wash Recovery (%) Area A—D Mary Lee Simulations to Achieve 10.2% Ash Product 84.4% Blue Creek 87.6% Area E1 Mary Lee 10% Reduction to 1.50 Float Lab Data 77.8% Blue Creek 76.1% LOM Mary Lee + Blue Creek + Dilution Above Assumptions + Consideration of Dilution 61.4% The Qualified Persons finds that the metallurgical and mineral processing information derived from historical and ongoing exploration campaigns is adequate to document mineral resources and reserves presented herein. The distribution of quality information has been considered in measured and MARSHALL MILLER & ASSOCIATES, INC. 48



indicated resource status, and subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addressing short-term and long-term quality projections.

# 11 Mineral Resource Estimates

MM&A independently created a geologic model to define the coal resources at the Property. Coal resources were estimated as of December 31, 2022. Resources are reported <u>inclusive</u> (Areas A through E1) of coal reserves and <u>exclusive</u> of coal reserves (Areas E2 and E3). Resources for Areas A through E1 presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Due to constraints imposed by differences in coal quality testing methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interburden between the Mary Lee and Blue Creek seams (a.k.a. *Middleman*). Ash bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the property's resource. Pertinent definitions related to mineral resources are shown below.

- Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled.
- Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be converted to a mineral reserve. No inferred mineral resources are considered as part of this exercise.
- Indicated Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

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indicated resource status, and subsequently in probable and proven reserve status. Warrior Met's ongoing drilling campaigns are addressing short-term a long-term quality projections. 11 Mineral Resource Estimates MM&A independently created a geologic model to define the coal resources at the Proper Coal resources were estimated as of December 31, 2022. Resources are reported inclusive (Areas A through E1) of coal reserves and exclusive of coal reserves (Areas E2 and E3). Resources for Areas A through E1 presented herein are utilized for mine planning purposes, and subsequently, reserve estimates. Due to constraints imposed by differences in coal quality testing methodology, resources represent in-place coal tonnages and in-place coal quality, exclusive of the interburden between the Mary Lee and Blue Creek seams (a.k.a. Middleman). Ash bands and partings within the Mary Lee and Blue Creek horizons are included in tonnage and quality projections for the property's resource. Pertinent definitions related to mineral resources are sho below. > Mineral Resource is a concentration or occurrence of material of economic interest in or on the Earth's crust in such form, grade or quality, and quantity that there are reasonable prospects for economic extraction. A mineral resource is a reasonable estimate of mineralization, taking into account relevant factors such as cut-off grade, likely mining dimensions, location or continuity, that, with the assumed and justifiable technical and economic conditions, is likely to, in whole or in part, become economically extractable. It is not merely an inventory of all mineralization drilled or sampled. > Inferred Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evide and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factor likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource ha the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluat of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project and may not be

converted to a mineral reserve. No inferred mineral resources are considered as part of this exercise. > Indicated Mineral Resource is that part of a miner resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certain associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine plan and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve. MARSHALL MILLER & ASSOCIATES, INC. 49



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Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

## 11.1 Assumptions, Parameters and Methodology

Geological data were imported into Carlson Mining<sup>\*</sup> (formerly SurvCADD<sup>\*</sup>) geological modelling software in the form of Microsoft<sup>\*</sup> Excel files incorporating drill hole collars, seam and thickness picks, bottom seam elevations and raw and washed coal quality. These data files were validated prior to importing into the software. Once imported, a geologic model was created, reviewed and verified- with a key element being a gridded model of coal seam thickness. Resource tonnes were estimated by using the seam thickness grid based on each valid point of observation and by defining resource confidence arcs around the points of observation. Points of observation for Measured and Indicated confidence arcs were defined for all valid drill holes that intersected the seam using standards deemed acceptable by MM&A based on a detailed geologic evaluation and a statistical analysis of all drill holes within the projected reserve areas as described in *Section 11.1.1*. The geological evaluation incorporated an analysis of seam thickness related to depositional environments, adjacent roof and floor lithologies, and structural influences.

After validating coal seam data and establishing correlations, the thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the reasonable continuity of the coal beds, the principal geological interpretation necessary to define the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coal thickness and quality data are deemed by MM&A to be reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confidence in the geologic interpretations required for coal resource determination based on the available data and the techniques applied to the data.

Table 11-1 below provides the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters were developed by MM&A based on its experience with comparable mining projects. This experience includes technical and economic evaluations of numerous properties in the region for the purposes of determining the economic viability of the subject coal reserves.

#### Table 11-1: General Reserve and Resource Criteria

Item	Parameters	Technical Notes & Exceptions*
General Reserve Criteria		
Reserve Classification	Reserve and Resource	
Reliability Categories	Reserve (Proven and Probable)	To better reflect verified geological information, "arcs
	Resource (Measured and Indicated)	which represent indicated resource (probable reserve

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> Measured Mineral Resource is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geologic evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors, as defined in this section, in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve. 11.1 Assumption Parameters and Methodology Geological data were imported into Carlson Mining® (formerly SurvCADD®) geological modelling software in the form Microsoft® Excel files incorporating drill hole collars, seam and thickness picks, bottom seam elevations and raw and washed coal quality. These data f were validated prior to importing into the software. Once imported, a geologic model was created, reviewed and verified- with a key element being a gridded model of coal seam thickness. Resource tonnes were estimated by using the seam thickness grid based on each valid point of observation and by

defining resource confidence arcs around the points of observation. Points of observation for Measured and Indicated confidence arcs were defined for a valid drill holes that intersected the seam using standards deemed acceptable by MM&A based on a detailed geologic evaluation and a statistical analysi all drill holes within the projected reserve areas as described in Section 11.1.1. The geological evaluation incorporated an analysis of seam thickness rela to depositional environments, adjacent roof and floor lithologies, and structural influences. After validating coal seam data and establishing correlations, thickness and elevation for seams of economic interest were used to generate a geologic model. Due to the reasonable continuity of the coal beds, the principal geological interpretation necessary to define the geometry of the coal deposits is the proper modeling of their thickness and elevation. Both coa thickness and quality data are deemed by MM&A to be reasonably sufficient within the resource areas. Therefore, there is a reasonable level of confider in the geological mapping and coal tonnage estimation criteria used for the coal resource and reserve evaluation. These cut-off parameters were developed by MM&A based on its experience with comparable mining projects. This experience includes technical and economic evaluations of numeror properties in the region for the purposes of determining the economic viability of the subject coal reserves. Table 11-1: General Reserve and Resource Criteria Item Parameters Technical Notes & Exceptions\* • General Reserve Criteria Reserve Classification Reserve and Resource Reliability Categories Reserve (Proven and Probable) To better reflect verified geological information, "arcs" Resource (Measured and Indicated) which represent indicated resource (probable reserve) MARSHALL MILLER & ASSOCIATES, INC. 50



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

Item	Parameters	Technical Notes & Exceptions*				
		and measured resource (proven reserve) are limited to those holes in which MM&A verified source data				
Effective Date of Resource Estimate	December 31, 2022	The Property represents a greenfield area and has not been developed as of the date of this report.				
Effective Date of Reserve Estimate	December 31, 2022	The Property represents a greenfield area and has not been developed as of the date of this report.				
Seam Density	Variable, dependent upon seam characteristics (based on available drill hole quality). Density estimates are based upon the relative thickness of the 3 primary constituents of the mineable section, with the Mary Lee, Middleman and Blue Creek respectively modeled at 89, 140 and 85 pounds per cubic foot.					
Underground-Mineable Criteria						
Map Thickness	Total seam thickness					
Minimum Seam Thickness	Approximately attributed to an equivalent 3-feet of combined coal thickness between the Mary Lee and Blue Creek horizons	In some instances, projections extend beyond 3-ft coal thickness cutoff for contiguous mine plan.				
Minimum Mining Thickness	5-feet for Longwall Mining; 7-feet for Continuous Mining Sections					
Minimum In-Seam Wash Recovery	Driven by 3-feet coal thickness					
Wash Recovery Applied to Coal Reserves	Variable, dependent upon seam characteristics (based on available drill hole quality). Recovery estimates are based upon the relative thickness of the 3 primary constituents of the mineable section, with the Mary Lee, Middleman and Blue Creek respectively modeled at 77, 0 and 80 percent for mining areas A-D. Simulations utilized to achieve a 10-percent ash product.					
Out-of-Seam Dilution Thickness for Run-of-Mine Tonnes Applied to Coal Reserves	0 inches	Dilution assumed to wash-out of ROM product and is not included in saleable reserves. Financial modeling includes assumption of minimum of 3-inches of Out-of- Seam dilution at 140 lb./ft <sup>3</sup> density				
Mine Barrier	Not Applicable—Projections Do Not Border Active or Abandoned Reserves					
CBM Wells	CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resource reductions considered.					
Adjustments Applied to Coal Reserves	10 percent moisture increase; 5 percent preparation plant inefficiency (included in aforementioned wash recovery). Longwall panel tonnages further decreased by 5-percent factor to account for uncertainty associated with faulting.					

## 11.1.1 Statistical Analysis for Classification

MM&A completed a statistical analysis on drill holes within the reserve boundaries to determine the applicability of the common United States classification system for measured and indicated coal resources. Historically, the United States has assumed that coal within ¼ mile of a point of observation represents a measured resource whereas coal between ¼ mile and ¼ mile from a point of observation is classified as indicated. Inferred resources are commonly assumed to be located between ¼ mile and 3 miles from a point of observation. Per SEC regulations, only measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves.

A general acceptable thickness variation for measured resources is approximately 20 percent. Thickness variations for indicated resources are assumed to average less than 30 percent, which is also comparable with historical standards.

Item Parameters Technical Notes & Exceptions\* and measured resource (proven reserve) are limited to those holes in which MM&A verified source dat Effective Date of Resource Estimate December 31, 2022 The Property represents a greenfield area and has not been developed as of the date of this repo Effective Date of Reserve Estimate December 31, 2022 The Property represents a greenfield area and has not been developed as of the date of this repor Seam Density Variable, dependent upon seam characteristics (based on available drill hole quality). Density estimates are based upon the relative thickness of the 3 primary constituents of the mineable section, with the Mary Lee, Middleman and Blue Creek respectively modeled at 89, 140 and 85 pounds per cubic foot. • Underground-Mineable Criteria Map Thickness Total seam thickness Minimum Seam Thickness Approximately attributed to an equivalent feet of combined coal thickness between the Mary Lee In some instances, projections extend beyond 3-ft coal and Blue Creek horizons thickness cutoff contiguous mine plan. Minimum Mining Thickness 5-feet for Longwall Mining; 7-feet for Continuous Mining Sections Minimum In-Seam Wash Recov Driven by 3-feet coal thickness Wash Recovery Applied to Coal Variable, dependent upon seam characteristics Reserves (based on available drill hole quality). Recovery estimates are based upon the relative thickness of the 3 primary constituents of the mineable section, with the Mary Lee, Middleman Blue Creek respectively modeled at 77, 0 and 80 percent for mining areas A-D. Simulations utilized to achieve a 10-percent ash product. Out-of-Seam Dilution Thickness for 0 inches Dilution assumed to wash-out of ROM product and is not Run-of-Mine Tonnes Applied to Coal included in saleable reserves. Financial modeling Reserves includes assumption of minimum of 3-inches of Out-of-Seam dilution at 140 lb./ft3 density Mine Barrier Not Applicable-Projections Do Not Border Active or Abandoned Reserves CBM Wells CBM Wells Assumed to be Plugged Ahead of Mining and Mined Through. No reserve/resource reductions considered. Adjustments Applied to Coal Reserves 10 percent moisture increase; 5 percent preparation plant inefficiency (included in aforementioned wash recovery). Longwall panel tonnages further decreased by 5-percent factor to account for uncertainty associated with faulting. 11.1.1 Statistical Analysis for Classification MM&A completed a statistical analysis on drill holes within the reserve boundarie: determine the applicability of the common United States classification system for measured and indicated coal resources. Historically, the United States assumed that coal within 1/4 mile of a point of observation represents a measured resource whereas coal between 1/4 mile and 3/4 mile from a point of observation is classified as indicated. Inferred resources are commonly assumed to be located between 3/4 mile and 3 miles from a point of observation. SEC regulations, only measured and indicated resources may be considered for reserve classification, respectively as proven and probable reserves. A general acceptable thickness variation for measured resources is approximately 20 percent. Thickness variations for indicated resources are assumed to average less than 30 percent, which is also comparable with historical standards. MARSHALL MILLER & ASSOCIATES, INC. 51



MM&A extracted drill hole information from within projected reserve areas, which included coordinates (northing and easting) and combined Mary Lee and Blue Creek seam thickness. The drill holes included diamond core, rotary, and CBM holes. Those holes which lacked source data (i.e., lacked high resolution geophysical logs or original drillers logs) were fileted separately.

Once the data was extracted, matrices were formed to calculate the distance and percent change in seam thicknesses between each combination of drill holes in the reserve area. Distances were then sorted from smallest to largest and the variation in thicknesses was analyzed as a function of distance between drill holes. Ultimately, the average variation in thicknesses between drill holes at %-, %- and 3-mile intervals were calculated to determine the applicability of common US resource classification systems.

The total number of drill holes used in this study is 517, of which 275 are included as source data. *Table 11-2* is a breakdown of the statistics used in the study with all three bench configurations combined.

Classification:	Measured	Indicated	Inferred
Distance Between Drill holes (miles):	0-14	% - %	%-3
Number of Data Pairs (Source Data Only):	518	4,694	41,192
Number of Data Pairs (All Data):	1,478	10,604	119,622
Average Thickness Variation (Source Data Only):	24%	28%	33%
Average Thickness Variation (All Data):	45%	40%	57%
Percent of Pairs Exhibiting Less Than 20-percent Negative Variability (Source Data Only):	80%	80%	78%
Percent of Pairs Exhibiting Less Than 20-percent Negative Variability (All Data):	73%	75%	69%

Table 11-2: Statistical Analysis of Drill Hole Data Spacing

As is shown, the thickness variation between holes (verified data only) is approximately equivalent to historically accepted standards. Utilizing all of the drill hole information, including that which lacks source data, significant variations exist which would prohibit historically accepted standards. As such, MM&A only utilized those points of observation with source information for indicated and measured status. Of important note, thickness modeling for resource (and subsequently, reserve) estimates included all available thickness information, including the highly variable, non-vetted drill holes which lack source information. MM&A initially computed resource estimates both with and without the highly variable, non-vetted information. Resources estimates were within 1-percent of one-another, despite the highly variable nature of the non-vetted information.

MM&A geologists and engineers modeled the deposit to reflect the realities of mining. This statistical study demonstrates that for each configuration of mineable seams, the classification system of measured (0 to ¼ mile), indicated (¼ to ¼ mile), and inferred (¼ to 3 miles) is reasonably adequate to predict seam thickness variation for modeling and mining purposes, for those drill holes which contain sufficient source exploration to be deemed reliable points of observation for thickness.

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MM&A extracted drill hole information from within projected reserve areas, which included coordinates (northing and easting) and combined Mary Lee Blue Creek seam thickness. The drill holes included diamond core, rotary, and CBM holes. Those holes which lacked source data (i.e., lacked high resolution geophysical logs or original drillers logs) were fileted separately. Once the data was extracted, matrices were formed to calculate the distance percent change in seam thicknesses between each combination of drill holes in the reserve area. Distances were then sorted from smallest to largest and variation in thicknesses was analyzed as a function of distance between drill holes. Ultimately, the average variation in thicknesses between drill holes a 1/4-, 3/4- and 3-mile intervals were calculated to determine the applicability of common US resource classification systems. The total number of drill ho used in this study is 517, of which 275 are included as source data. Table 11-2 is a breakdown of the statistics used in the study with all three bench configurations combined. Table 11-2: Statistical Analysis of Drill Hole Data Spacing Classification: Measured Indicated Inferred Distance Between Dril holes (miles): 0 -1/4 1/4-3/4 3/4-3 Number of Data Pairs (Source Data Only): 518 4,694 41,192 Number of Data Pairs (All Data): 1,478 10,604 119,6 Average Thickness Variation (Source Data Only): 24% 28% 33% Average Thickness Variation (All Data): 45% 40% 57% Percent of Pairs Exhibiting Le Than 20-percent 80% 80% 78% Negative Variability (Source Data Only): Percent of Pairs Exhibiting Less Than 20-percent 73% 75% 69% Negative Variability (All Data): As is shown, the thickness variation between holes (verified data only) is approximately equivalent to historically accepted standa Utilizing all of the drill hole information, including that which lacks source data, significant variations exist which would prohibit historically accepted standards. As such, MM&A only utilized those points of observation with source information for indicated and measured status. Of important note, thickness modeling for resource (and subsequently, reserve) estimates included all available thickness information, including the highly variable, non-ve drill holes which lack source information. MM&A initially computed resource estimates both with and without the highly variable, non-vetted informati

Resources estimates were within 1-percent of one-another, despite the highly variable nature of the non-vetted information. MM&A geologists and engineers modeled the deposit to reflect the realities of mining. This statistical study demonstrates that for each configuration of mineable seams, the classification system of measured (0 to 1/4 mile), indicated (1/4 to 3/4 mile), and inferred (3/4 to 3 miles) is reasonably adequate to predict seam thicknes variation for modeling and mining purposes, for those drill holes which contain sufficient source exploration to be deemed reliable points of observation thickness. MARSHALL MILLER & ASSOCIATES, INC. 52



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

## 11.2 Qualified Person's Estimates

Based on the work described and detailed modelling of the areas considering all the parameters defined, a coal resource estimate, summarized in *Table 11-3*, was prepared as of December 31, 2022, for Property (see Appendix 1). Resources represent in-place coal tonnages exclusive of the interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and quality as presented in *Table 11-3* reflect the inclusion of high-ash partings which are ultimately removed after mining during coal preparation.

	Coal	Resource (Dry Tonn	es, In Situ, Mt)		R	esource Quality (I	Dry)
Seam	Measured	Indicated	Inferred	Total	Ash%	Sulfur%	VM%
Inclusive of Reserves							
Mary Lee	19.0	13.5	0.0	32.5	-	-	
Blue Creek	50.5	28.4	0.0	78.9	- ÷	÷	1
Total	69.5	41.9	0.0	111.4	13.8	0.8	30
Exclusive of Reserves	· · · · · · · · · · · · · · · · · · ·		0.0				-
Mary Lee	0.0	12.8	0.0	12.8			20
Blue Creek	0.0	26.5	0.0	26.5			
Total	0.0	39.2	0.0	39.2	19.0	1.5	31
Grand Total			0.0				
	69.5	81.1	0.0	150.7	-		

Table 11-3: Coal Resources Summary as of December 31, 2022

Note 1: For A through E1, Resource tonnes are inclusive of reserve tonnes since they include the in-situ tonnes from which recoverable coal reserves are derived.

Note 2: For E2 and E3, Resource tonnes are exclusive of reserve tonnes since they include the in-situ tonnes for which no recoverable reserve tonnes have been estimated.

Note 3: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during coal preparation. Surface moisture and inherent moisture are excluded.

Note 4: Coal resource quality reported on a raw, weight-averaged basis

Totals may not add due to rounding.

# 11.3 Qualified Person's Opinion

Based on the data review, the attendant work done to verify the data integrity and the creation of an independent geologic model, MM&A believes this is a fair and accurate representation of the Property's resources.

Resources exclusive of reserve are limited by quality definition. Initial drilling suggests potentially higher ash and sulfur parameters in comparison to the eastern areas. Sufficient exploration data exists to define the thickness distribution trends of the western area, but ongoing additional exploration is needed to better define quality characteristics of the subject coals. Additionally, the western resource area exhibits thinner seam characteristics than the eastern area. Extrapolation of trends between seam thickness and costs suggests that the coals in the western resource area could be mined at reasonably similar costs to those in the east, albeit higher. The market impacts of potentially higher ash and sulfur values is unknown. Warrior Met is conducting an exploration campaign to better define these trends.

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11.2 Qualified Person's Estimates Based on the work described and detailed modelling of the areas considering all the parameters defined, a coal resource estimate, summarized in Table 11-3, was prepared as of December 31, 2022, for Property (see Appendix 1). Resources represent in-place coal tonnages exclusive of the interburden, but inclusive of any high-ash partings within the Mary Lee and Blue Creek coal seams. As such, in-situ tonnages and qualit presented in Table 11-3 reflect the inclusion of high-ash partings which are ultimately removed after mining during coal preparation. Table 11-3: Coal Resources Summary as of December 31, 2022 Coal Resource (Dry Tonnes, In Situ, Mt) Resource Quality (Dry) Seam Measured Indicated Inferred Tota Ash% Sulfur% VM% Inclusive of Reserves Mary Lee 19.0 13.5 0.0 32.5 — Blue Creek 50.5 28.4 0.0 78.9 — Total 69.5 41.9 0.0 111.4 13.8 0.8 30 Exclusive of Reserves 0.0 Mary Lee 0.0 12.8 0.0 12.8 — Blue Creek 0.0 26.5 0.0 26.5 — Total 0.0 39.2 0.0 39.2 19.0 1.5 31 Grand Total 0.0 69.5 8 0.0 150.7 — Note 1: For A through E1, Resource tonnes are inclusive of reserve tonnes since they include the in-situ tonnes from which recoverable c reserves are derived. Note 2: For E2 and E3, Resource tonnes are exclusive of reserve tonnes since they include the in-situ tonnes for which no recoverable reserve tonnes have been estimated. Note 3: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during the in-situ tonnes for which no recoverable c reserve tonnes have been estimated. Note 3: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during the in-situ tonnes for which no recoverable c reserve tonnes have been estimated. Note 3: Coal resources are reported on a dry basis, inclusive of high-ash partings which are ultimately removed during the in-situ tonnes for which no recoverable c reserve tonnes have been estimated. Note 3: Coal resources are reported on a dry basis, inclusive of high

coal preparation. Surface moisture and inherent moisture are excluded. Note 4: Coal resource quality reported on a raw, weight-averaged basis. Totals m not add due to rounding. 11.3 Qualified Person's Opinion Based on the data review, the attendant work done to verify the data integrity and the creation an independent geologic model, MM&A believes this is a fair and accurate representation of the Property's resources. Resources exclusive of reserve are limited by quality definition. Initial drilling suggests potentially higher ash and sulfur parameters in comparison to the eastern areas. Sufficient explorati data exists to define the thickness distribution trends of the western area, but ongoing additional exploration is needed to better define quality characteris of the subject coals. Additionally, the western resource area exhibits thinner seam characteristics than the eastern area. Extrapolation of trends between s thickness and costs suggests that the coals in the western resource area could be mined at reasonably similar costs to those in the east, albeit higher. The market impacts of potentially higher ash and sulfur values is unknown. Warrior Met is conducting an exploration campaign to better define these trends. MARSHALL MILLER & ASSOCIATES, INC. 53



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 12 Mineral Reserve Estimates

## 12.1 Assumptions, Parameters and Methodology

Coal Reserves are classified as proven or probable considering "modifying factors" including mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

- Mineral Reserve is an estimate of tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economically viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted.
- Proven Coal Reserves are the economically mineable part of a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.
- Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at the time of reporting.

Upon completion of delineation and calculation of coal resources, MM&A generated a LOM plan for the Project. The footprint of the LOM plan is shown on the maps in various figures throughout the text. The mine plan was generated based on previous mine plans, anticipated lease acquisitions, and operational criteria with modifications where necessary due to geologic mapping, or other factors determined during the evaluation.

Carlson Mining software was used to generate the LOM plan. The mine plan was sequenced based on productivity schedules developed collaboratively between MM&A and Warrior Met. MM&A judged the productivity estimates and plans to be reasonable based on experience and current industry practice. Mining plans encompass a significant portion of uncontrolled tonnage. While a risk, it is assumed that adverse parcels will be acquired as needed by Warrior Met to support longwall mining.

A minimum mining height of 5 feet was used due to the longwall mining method being employed, and 7.0 feet for continuous miner sections. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height consists of OSD. Mine recovery generally varies between 30 and 60 percent for continuous mining panels, and 95 percent for longwall. Plant recovery is a function of in-seam recovery, OSD and adjustments to produce a 10-ash product. A typical entry width is 20-feet.

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12 Mineral Reserve Estimates 12.1 Assumptions, Parameters and Methodology Coal Reserves are classified as proven or probable considering "modifyi factors" including mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. > Mineral Reserve is an estimate tonnage and grade or quality of indicated and measured mineral resources that, in the opinion of the qualified person, can be the basis of an economicall viable project. More specifically, it is the economically mineable part of a measured or indicated mineral resource, which includes diluting materials and allowances for losses that may occur when the material is mined or extracted. > Proven Coal Reserves are the economically mineable part of a measured coal resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in

consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at time of reporting. > Probable Coal Reserves are the economically mineable part of an indicated coal resource, and in some circumstances a measured co resource, adjusted for diluting materials and allowances for losses when the material is mined. It is based on appropriate assessment and studies in consideration of and adjusted for reasonably assumed modifying factors. These assessments demonstrate that extraction could be reasonably justified at time of reporting. Upon completion of delineation and calculation of coal resources, MM&A generated a LOM plan for the Project. The footprint of the LOM plan is shown on the maps in various figures throughout the text. The mine plan was generated based on previous mine plans, anticipated lease acquisitions, and operational criteria with modifications where necessary due to geologic mapping, or other factors determined during the evaluation. Carlson Mining software was used to generate the LOM plan. The mine plan was sequenced based on experience and current industry practi Mining plans encompass a significant portion of uncontrolled tonnage. While a risk, it is assumed that adverse parcels will be acquired as needed by Wa Met to support longwall mining. A minimum mining height of 5 feet was used due to the longwall mining method being employed, and 7.0 feet for continuous miner sections. For coal seams thinner than the assigned mining height, the difference between the coal seam height and assigned mining height of prevent for continuous mining panels, and 95 percent for longwall. Plant recovery is function of in-seam recovery, OSD and adjustments to produce a 10-ash product. A typical entry width is 20-feet. MARSHALL MILLER & ASSOCIAT INC. 54



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

Raw, ROM production data outputs from LOM plan sequencing were processed into Microsoft<sup>®</sup> EXCEL spreadsheets and summarized on a quarter and annual basis for processing into the economic model. Average seam densities were estimated to determine raw coal tonnes produced from the LOM plan. Average mine recovery and wash recovery factors were applied to determine coal reserve tonnes.

Coal reserve tonnes in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property.

Pricing, as provided by Warrior Met, is described in *Section 16.2*. The pricing data assumes an FOB railcar or barge price of approximately \$116 per metric tonne for calendar year 2025 when production begins. The price increases, based on the most recent supply and demand forecast, to approximately \$150 per metric tonne by 2030 then it is held constant afterwards. Pricing for the years 2022 through 2024 is shown for information purposes only, as revenue streams from the operation are not projected to be realized until 2025.

The coal resource mapping and estimation process, described in the report, was used as a basis for the coal reserve estimate. Proven and probable coal reserves were derived from the defined coal resource considering relevant processing, economic (including technical estimates of capital, revenue, and cost), marketing, legal, environmental, socio-economic, and regulatory factors and are presented on a moist, recoverable basis.

As is customary in the US, the categories for proven and probable coal reserves are based on the distances from valid points of measurement as determined by the QP for the area under consideration. For this evaluation, measured resource, which may convert to a proven reserve, is based on a %-mile radius from a valid point of observation.

Points of observation include exploration drill holes and gas wells, approximately half of which have been vetted by the review of original, source information. The geologic model is based on seam depositional modeling, the interrelationship of overlying and underlying strata on seam mineability, seam thickness trends, the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in *Section 11.1.1* was conducted and a ¼-mile radius from a valid point of observation was selected to define Measured Resources. Likewise, the distance between ¼ and ¼ of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves.

There are no Inferred Resources (greater than a %-mile radius from a valid point of observation) within the mine plan, resources, or reserves.

# 12.2 Qualified Person's Estimates

The coal reserves, as shown in *Table 12-1*, are based on a technical evaluation of the geology and a bankable feasibility study of the coal deposits. The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or other

Raw, ROM production data outputs from LOM plan sequencing were processed into Microsoft® EXCEL spreadsheets and summarized on a quarter and annual basis for processing into the economic model. Average seam densities were estimated to determine raw coal tonnes produced from the LOM plan Average mine recovery and wash recovery factors were applied to determine coal reserve tonnes . Coal reserve tonnes in this evaluation are reported at a 10.0-percent moisture and represent the saleable product from the Property. Pricing, as provided by Warrior Met, is described in Section 16.2. The pricir data assumes an FOB railcar or barge price of approximately \$116 per metric tonne for calendar year 2025 when production begins. The price increases, based on the most recent supply and demand forecast, to approximately \$150 per metric tonne by 2030 then it is held constant afterwards. Pricing for the years 2022 through 2024 is shown for information purposes only, as revenue streams from the operation are not projected to be realized until 2025. The resource mapping and estimation process, described in the report, was used as a basis for the coal reserve estimate. Proven and probable coal reserves w derived from the defined coal resource considering relevant processing, economic (including technical estimates of capital, revenue, and cost), marketing legal, environmental, socio-economic, and regulatory factors and are presented on a moist, recoverable basis. As is customary in the US, the categories f proven and probable coal reserves are based on the distances from valid points of measurement as determined by the QP for the area under consideration For this evaluation, measured resource, which may convert to a proven reserve, is based on a 1/4-mile radius from a valid point of observation. Points of observation include exploration drill holes and gas wells, approximately half of which have been vetted by the review of original, source information. Tl geologic model is based on seam depositional modeling, the interrelationship of overlying and underlying strata on seam mineability, seam thickness tre the impact of seam structure (i.e., faulting), intra-seam characteristics, etc. Once the geologic model was completed, a statistical analysis, described in Section 11.1.1 was conducted and a 1/4-mile radius from a valid point of observation was selected to define Measured Resources. Likewise, the distance between 1/4 and 3/4 of a mile radius was selected to define Indicated Resources. Indicated Resources may convert to Probable Reserves. There are no Inferred Resources (greater than a 3/4-mile radius from a valid point of observation) within the mine plan, resources, or reserves. 12.2 Qualified Person's Estimates The coal reserves, as shown in Table 12-1, are based on a technical evaluation of the geology and a bankable feasibility study of the coal depo The extent to which the coal reserves may be affected by any known environmental, permitting, legal, title, socio-economic, marketing, political, or othe MARSHALL MILLER & ASSOCIATES, INC. 55



relevant issues has been reviewed. Similarly, the extent to which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been considered. Such factors include a mine recovery of 63 percent derived from an engineered mine plan, the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 61 percent and the consideration of moisture factors. Projected mine recovery for Blue Creek in comparison to Warrior's active mines is lower due to faults present in the reserve area which were considered when designing the mine plan.

The results of this TRS define an estimated 68.2 Mt of proven and probable marketable coal reserves.

# Table 12-1: Coal Reserves Summary, Specific to Mining Areas A through E1, (Marketable Sales Basis) as of December 31, 2022

				tserves (We tt Shipped, 1				Wash		
Seam	By Reliability Category			By Control Type			Quality (Dry Basis)		Recovery	
	Proven	Probable	Total	Owned	Leased	Option	Ash%	Sulfur%	VMN	*
Mary Lee	11.4	7.9	19.3	3.1	13.9	2.3	12.8	0.9	31	
Blue Creek	31,4	17.5	48.9	8.1	35.7	5.1	8.4	0.6	32	61%
Total	42.8	25.4	68.2	11.1	49.7	7.4	10.2	0.7	32	

Note 1: Marketable reserve tonnes are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture at its operating mines. Actual product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications.

Note 2: Wash recovery is based on LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, as the Mary Lee and Blue Creek seams are mined together – allocation of dilution material on a seam-by-seam basis would introduce confusion with regards to wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by-seam basis, absent dilution assumptions.

Note 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$116.37/tonne (FOB-mine) in 2025, increasing to a long-term price of approximately \$150.37/tonne. See Chapter 16 for further details on marketing assumptions.

#### Totals may not add due to rounding.

## 12.3 Qualified Person's Opinion

The estimate of coal reserves was determined in accordance with SEC standards.

The LOM mining plan for the Property was prepared to the level of preliminary feasibility. Mine projections were prepared with a timing schedule to match production with coal seam characteristics. Production timing was carried out from current locations to depletion of the coal reserve area. Coal reserve estimates could be materially affected by the risk factors described in *Section 22.2*.

Based on the preliminary feasibility study and the attendant economic review, MM&A believes this is a fair and accurate estimation of Property's coal reserves.

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relevant issues has been reviewed. Similarly, the extent to which the estimates of coal reserves may be materially affected by mining, metallurgical, infrastructure and other relevant factors has also been considered. Such factors include a mine recovery of 63 percent derived from an engineered mine r the consideration of out-of-seam and in-seam dilution material, an effective a wash recovery of 61 percent and the consideration of moisture factors. Projected mine recovery for Blue Creek in comparison to Warrior's active mines is lower due to faults present in the reserve area which were considered when designing the mine plan. The results of this TRS define an estimated 68.2 Mt of proven and probable marketable coal reserves. Table 12-1: Coal Reserves Summary, Specific to Mining Areas A through E1, (Marketable Sales Basis) as of December 31, 2022 Demonstrated Coal Reserves (Wet Tonn Washed or Direct Shipped, Mt) Wash By Reliability Category By Control Type Quality (Dry Basis) Recovery Seam Proven Probable Total Owned Leas Option Ash% Sulfur% VM% % Mary Lee 11.4 7.9 19.3 3.1 13.9 2.3 12.8 0.9 31 Blue Creek 31.4 17.5 48.9 8.1 35.7 5.1 8.4 0.6 32 61% Total 42.8 25.4 11.1 49.7 7.4 10.2 0.7 32 Note 1: Marketable reserve tonnes are reported on a moist basis, including a combination of surface and inherent moisture. The combination of surface and inherent moisture is modeled at 10-percent, comparable to Warrior Met's current product moisture at its operating mines. Ac product moisture is dependent upon multiple geological factors, operational factors, and product contract specifications. Note 2: Wash recovery is based LOM planning and reflects projected plant recovery after the consideration of out-of-seam dilution. Wash recover is not stated on a seam-by-seam basis, the Mary Lee and Blue Creek seams are mined together - allocation of dilution material on a seam-by-seam basis would introduce confusion with regard wash recovery. Detailed reserve tables (see Appendix) show projected in-seam wash recovery on a seam-by -seam basis, absent dilution assumptions. No 3: Coal Reserves are based upon sales assumptions provided to MM&A by Warrior and were relied upon by MM&A. Financial modeling assumes sales prices of approximately \$116.37/tonne (FOB-mine) in 2025, increasing to a long-term price of approximately \$150.37/tonne. See Chapter 16 for further

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# 13 Mining Methods and Mine Plan Design

# 13.1 Geotechnical and Hydrologic Aspects of Mine Design

## 13.1.1 Horizontal Stress

The orientation and magnitude of horizontal stress in the subject area has not been measured; however, consideration of published data from The World Stress Map Project and industry experience in the general region suggests that the orientation of the principal horizontal stress may be between approximately N50°E and N70°E. No significant horizontal stress issues are known to have been reported at Warrior Met's Mine No. 4 and Mine No. 7. Future exploration activities may consider conducting horizontal stress-related measurements, potentially via overcoring to determine stress magnitude and direction or by using an Acoustic Televiewer (*ATV*) downhole geophysical probe to detect principal horizontal stress orientation.

## 13.1.2 Pillar Design

Pillar design for the proposed mine has been evaluated considering design methodology successfully implemented at nearby mines, as well as with modern pillar design software. Deep mining in the subject region commonly implements a yield pillar design (herein referred to as the Wilson Method) as described in Carr and Wilson (1982) and Martin, et al. (1988). In addition, pillar design specific to the subject area is discussed in Park (1989). In addition to assessment via the Wilson Method, the proposed pillar designs were also evaluated using a software package known as Analysis of Coal Pillar Stability (*ACPS*), which includes a combination of methodologies initially developed as part of the National Institute for Occupational Safety & Health (*NIOSH*) Ground Control Toolbar. Pillar sizing and design for the proposed mining is consistent with that of Warrior Met's two active mines that operate locally in similar geologic conditions.

The proposed pillar dimensions are expected to be adequate for mine stability under typical mining conditions. Pillar stability assessment should be updated as additional geotechnical information is collected for the project. Cut-depth, panel sequencing, face ventilation, and seal locations have not been specifically considered for the current pillar stability assessment.

## 13.1.3 Hydrogeology

Hydrogeologic concerns are expected to be minimal within the majority of the proposed mine area, with the exception of areas near existing faults and overlain by large surface water features (see Section 7.4). Warrior Met currently operates two similar mines in the vicinity, using the same mining methods and in the same coal beds as the proposed mine. These two active mines have reportedly experienced minimal hydrologic concerns or material issues. Mining of the subject reserve is generally projected to occur in areas exhibiting similar hydrogeological conditions as Warrior Met's active mines, including stream undermining, undermining of aquifers, and mining through hydraulically fractured coalbed methane wells. Based upon the history of the current operations with regards to hydrogeological

#### MARSHALL MILLER & ASSOCIATES, INC.

13 Mining Methods and Mine Plan Design 13.1 Geotechnical and Hydrologic Aspects of Mine Design 13.1.1 Horizontal Stress The orientation and magnitude of horizontal stress in the subject area has not been measured; however, consideration of published data from The World Stress Map Project a industry experience in the general region suggests that the orientation of the principal horizontal stress may be between approximately N50°E and N70°l No significant horizontal stress issues are known to have been reported at Warrior Met's Mine No. 4 and Mine No. 7. Future exploration activities may consider conducting horizontal stress-related measurements, potentially via overcoring to determine stress magnitude and direction or by using an Acou Televiewer (ATV) downhole geophysical probe to detect principal horizontal stress orientation. 13.1.2 Pillar Design Pillar design for the proposed mine been evaluated considering design methodology successfully implemented at nearby mines, as well as with modern pillar design software. Deep mining the subject region commonly implements a yield pillar design (herein referred to as the Wilson Method) as described in Carr and Wilson (1982) and Mai et al. (1988). In addition, pillar design specific to the subject area is discussed in Park (1989). In addition to assessment via the Wilson Method, the prop

pillar designs were also evaluated using a software package known as Analysis of Coal Pillar Stability (ACPS), which includes a combination of methodologies initially developed as part of the National Institute for Occupational Safety & Health (NIOSH) Ground Control Toolbar. Pillar sizing and design for the proposed mining is consistent with that of Warrior Met's two active mines that operate locally in similar geologic conditions. The propose pillar dimensions are expected to be adequate for mine stability under typical mining conditions. Pillar stability assessment should be updated as addition geotechnical information is collected for the project. Cut-depth, panel sequencing, face ventilation, and seal locations have not been specifically conside for the current pillar stability assessment. 13.1.3 Hydrogeology Hydrogeologic concerns are expected to be minimal within the majority of the proposed mine area, with the exception of areas near existing faults and overlain by large surface water features (see Section 7.4). Warrior Met currently operates similar mines in the vicinity, using the same mining methods and in the same coal beds as the proposed mine. These two active mines have reportedly experienced minimal hydrologic concerns or material issues. Mining of the subject reserve is generally projected to occur in areas exhibiting similar hydrogeological conditions as Warrior Met's active mines, including stream undermining, undermining of aquifers, and mining through hydraulically fractured coalbed methane wells. Based upon the history of the current operations with regards to hydrogeological MARSHALL MILLER & ASSOCIATES, INC. 57



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matters, the proposed operation is not expected to be significantly affected by mine-wide hydrogeologic issues.

The project's slope will cross multiple faults and a heavily fractured/breccia zone which also extends into areas proximal to the projected slope bottom and adjacent to the initial longwall mining district. Warrior Met is aware of this potential encumbrance which is strategically avoided by planned initial longwall mining. Supplemental support, in-mine grouting, and increased water handling could reasonably be expected on a spot basis to account for instability and water-inflow associated with this unique geological zone. MM&A has not conducted a detailed geotechnical or hydrogeological study associated with this potential hazard, but rather makes note to the reader of available lithologic data and researched publications which suggests a possible encumbrance. Warrior's initial longwall districts avoid areas which have been previously identified by others as potential hazards.

#### 13.2 Production Rates

Plans summarized in this TRS include a single longwall operation which is supported by continuous mining units. Warrior Met is considering an alternative plan which would include two longwall mining units.

The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to reflect future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine development and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves.

Productivity for continuous mining sections and longwall units reflect typical rates incurred in the region. At a steady state, the mine produces approximately 3.7 million clean tonnes per year.

Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coal seams. The mine plan was sequenced based on productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological models as constructed by MM&A's team of geologists and mining engineers. *Table 13-1* below summarizes the production forecast for the Blue Creek Mine illustrating the clean production tonnes and tonnage breakdowns by controlled (reserve) and adverse status. Adverse tonnages represent a risk to the project, as mineral rights must be acquired ahead of mining. Such represent approximately 34-percent of the LOM projected tonnages. Risk 15 and 16, identified in *Chapter 22*, provide a discussion of the relative severity of such risks. Most notably, the acquisition of BLM properties represents a material risk to the project as projected in this TRS.

grouting, and increased water handling could reasonably be expected on a spot basis to account for instability and water-inflow associated with this uniq geological zone. MM&A has not conducted a detailed geotechnical or hydrogeological study associated with this potential hazard, but rather makes note the reader of available lithologic data and researched publications which suggests a possible encumbrance. Warrior's initial longwall districts avoid area which have been previously identified by others as potential hazards. 13.2 Production Rates Plans summarized in this TRS include a single longwall operation which is supported by continuous mining units. Warrior Met is considering an alternative plan which would include two longwall mining units The mine plan and productivity expectations reflect historical performance and efforts have been made to adjust the plan to reflect future conditions. MM&A is confident that the mine plan is reasonably representative to provide an accurate estimation of coal reserves. Mine development and operation have not been optimized within the TRS. Rather, the plan is developed at the Pre-Feasibility level to gain a realistic estimate of potential operational and capital costs to demonstrate the economic viability of the subject reserves. Productivity for continuous mining sections and longwall units reflect typical rates incurred in the region. At a steady state, the mine produces approximately 3.7 million clean tonnes per year. Carlson Mining software was used by MM&A to generate the mine plan for the underground mineable coal seams. The mine plan was sequenced based on productivity schedules provided by Warrior Met, which were based on historically achieved productivity levels. All production forecasting ties assumed production rates to geological mode as constructed by MM&A's team of geologists and mining engineers. Table 13-1 below summarizes the production forecast for the Blue Creek Mine illustrating the clean production tonnes and tonnage breakdowns by controlled (reserve) and adverse status. Adverse tonnages represent a risk to the proj as mineral rights must be acquired ahead of mining. Such represent approximately 34-percent of the LOM projected tonnages. Risk 15 and 16, identified Chapter 22, provide a discussion of the relative severity of such risks. Most notably, the acquisition of BLM properties represents a material risk to the project as projected in this TRS. MARSHALL MILLER & ASSOCIATES, INC. 58



Tonnes x1,000,000	Total LOM	Q3 25	Q425	Q1 26	Q2 26	Q3 26	Q426	0127	Q2 27	Q3 27	Q427
In Seam Tonnes, (ML + BC)	120.9	0.06	0.11	0.21	0.25	0.24	0.20	0.28	1.33	1.43	1.26
Dilution Tonnes, Raw	48.4	0.02	0.04	0.07	0.10	0.12	0.09	0.11	0.63	0.65	0.50
Total Raw Tonnes	169.2	0.08	0.15	0.29	0.34	0.35	0.29	0.39	1.96	2.07	1.76
Total Clean Tonnes	103.8	0.05	0.09	0.18	0.21	0.21	0,17	0.24	1.16	1.24	1.09
Clean Tonnes - Reserve	68.2	0.05	0.09	0.18	0.21	0.21	0.17	0.23	1.11	1.22	1.09
Clean Tonnes - Adverse	35.6	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.02	0.00
Percentage Controlled, %	66%	100%	100%	100%	100%	100%	100%	96%	96%	99%	100%
Tonnes x1,000,000	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
In Seam Tonnes, (ML + BC)	4.7	4,77	4.84	4.95	4.91	4.51	4.79	4.52	3.98	5.20	4.80
Dilution Tonnes, Raw	2.1	2.10	2.13	2.10	2.05	2,20	2.05	2.11	2.12	2.00	1.99
Total Raw Tonnes	6.7	6.88	6.98	7.05	6.95	6.71	6.84	6.63	6.09	7.20	6.79
Total Clean Tonnes	4.1	4.14	4.21	4,30	4.26	3.91	4.15	3.91	3.44	4.49	4.13
Clean Tonnes - Reserve	3.9	3.71	3.71	4.07	2.82	2.73	2.79	0.79	0.60	2.58	2.72
Clean Tonnes - Adverse	0.1	0.43	0.49	0.23	1,43	1.18	1.37	3.13	2.84	1.91	1.41
Percentage Controlled, %	97%	90%	88%	95%	66%	70%	67%	20%	17%	58%	66%
Tonnes x1,000,000	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
In Seam Tonnes, (ML + BC)	5.3	5.21	4.65	4.48	4.48	4.72	4.40	4.23	4.19	3.36	2.84
Dilution Tonnes, Raw	1.8	1.66	1.73	1.50	1.66	1.63	1.25	1.28	1.31	1.24	1.54
Total Raw Tonnes	7.1	6.87	6.38	5.98	6.14	6.35	5.65	5.51	5.50	4.61	4.38
Total Clean Tonnes	4.6	4.51	4.02	3.85	3.84	4.04	3.79	3.66	3.46	2.63	2.20
Clean Tonnes - Reserve	3.2	3.15	2.54	2.51	0.49	1.05	2.16	2.03	1.45	1.47	1.06
Clean Tonnes - Adverse	1.3	1.36	1.49	1.34	3.35	2.99	1.63	1.63	2.01	1.16	1.14
Percentage Controlled, %	71%	70%	63%	65%	13%	26%	57%	55%	42%	56%	48%
Tonnes x1,000,000	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060
In Seam Tonnes, (ML + BC)	2.9	3.39	3.93	3.46	1.98	1.4			- FC	~	1/42
Dilution Tonnes, Raw	1.1	1.28	1.64	1.77	0.72	1.18	-	-			1.00/
Total Raw Tonnes	4.1	4.66	5.58	5.23	2.70	1.28	1 - Di 1	6	- 80	- 61	
Total Clean Tonnes	2.5	2.94	3.42	3.00	1.71		- 1a' - 1				1.0410
Clean Tonnes - Reserve	2.3	2.93	2.97	2.38	1.41			-			(
Clean Tonnes - Adverse	0.2	0.01	0.45	0.62	0.30	(† 1944) 1946 - Jack Britsel, skrifter	1.12	1.12	- 20 - 1		1.00
Percentage Controlled, %	91%	100%	87%	79%	82%						

#### Table 13-1: Blue Creek Production Forecast Summary

#### 13.3 Mining Related Requirements

Although the continuous miner sections are significantly more expensive to operate on a cost-pertonne basis, they are necessary to open up areas of the mine by developing main entries and gate roads in preparation for the longwall. The LOM plan included in this TRS requires three continuous mining support sections for the majority of the duration of the operation.

## 13.4 Required Equipment and Personnel

The Blue Creek Project will be a sister operation to Warrior Met's active operations, Mine No. 7 and Mine No. 4. The longwall shearing machines are used for extraction of coal at the production face. A chain conveyor is used to remove coal from the longwall face for discharge onto the conveyor belt which then ultimately delivers it to the skip system. Development for the longwalls is conducted by the extraction of coal from the production faces using continuous miners and haulage using shuttle cars to a feeder-breaker located at the tail of the section conveyor belt. The feeder-breaker crushes large pieces of coal and rock and regulates coal feed onto the mine conveyor. Roof-bolting machines are used to support the roof on the development sections of the longwall mine and battery scoops are available to clean the mine entries and assist in delivery of mine supplies to work areas. Other supplemental equipment such as personnel carriers, supply vehicles, etc., are also used daily.

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Table 13-1: Blue Creek Production Forecast Summary Total Tonnes x1,000,000 Q3 25 Q4 25 Q1 26 Q2 26 Q3 26 Q4 26 Q1 27 Q2 27 Q3 27 Q4 27 LOI Seam Tonnes, (ML + BC) 120.9 0.06 0.11 0.21 0.25 0.24 0.20 0.28 1.33 1.43 1.26 Dilution Tonnes, Raw 48.4 0.02 0.04 0.07 0.10 0.12 0.09 0.11 0.63 0. 0.50 Total Raw Tonnes 169.2 0.08 0.15 0.29 0.34 0.35 0.29 0.39 1.96 2.07 1.76 Total Clean Tonnes 103.8 0.05 0.09 0.18 0.21 0.21 0.17 0.24 1.16 1.24 1 Clean Tonnes—Reserve 68.2 0.05 0.09 0.18 0.21 0.21 0.17 0.23 1.11 1.22 1.09 Clean Tonnes—Adverse 35.6 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.04 0.0 0.00 Percentage Controlled, % 66% 100% 100% 100% 100% 100% 96% 96% 99% 100% Tonnes x1.000.000 2028 2029 2030 2031 2032 2033 20 2035 2036 2037 2038 In Seam Tonnes, (ML + BC) 4.7 4.77 4.84 4.95 4.91 4.51 4.79 4.52 3.98 5.20 4.80 Dilution Tonnes, Raw 2.1 2.10 2.13 2.10 2.05 2.05 2.11 2.12 2.00 1.99 Total Raw Tonnes 6.7 6.88 6.98 7.05 6.95 6.71 6.84 6.63 6.09 7.20 6.79 Total Clean Tonnes 4.1 4.14 4.21 4.30 4.26 3.91 4.15 3 3.44 4.49 4.13 Clean Tonnes—Reserve 3.9 3.71 3.71 4.07 2.82 2.73 2.79 0.79 0.60 2.58 2.72 Clean Tonnes—Adverse 0.1 0.43 0.49 0.23 1.43 1.18 1.37 2.84 1.91 1.41 Percentage Controlled, % 97% 90% 88% 95% 66% 70% 67% 20% 17% 58% 66% Tonnes x1,000,000 2039 2040 2041 2042 2043 2044 2046 2047 2048 2049 In Seam Tonnes, (ML + BC) 5.3 5.21 4.65 4.48 4.48 4.72 4.40 4.23 4.19 3.36 2.84 Dilution Tonnes, Raw 1.8 1.66 1.73 1.50 1.66 1.25 1.28 1.31 1.24 1.54 Total Raw Tonnes 7.1 6.87 6.38 5.98 6.14 6.35 5.65 5.51 5.50 4.61 4.38 Total Clean Tonnes 4.6 4.51 4.02 3.85 3.84 4.04 3.79 3 3.46 2.63 2.20 Clean Tonnes—Reserve 3.2 3.15 2.54 2.51 0.49 1.05 2.16 2.03 1.45 1.47 1.06 Clean Tonnes—Adverse 1.3 1.36 1.49 1.34 3.35 2.99 1.63 2.01 1.16 1.14 Percentage Controlled, % 71% 70% 63% 65% 13% 26% 57% 55% 42% 56% 48% Tonnes x1,000,000 2050 2051 2052 2053 2054 2055 2057 2058 2059 2060 In Seam Tonnes, (ML + BC) 2.9 3.39 3.93 3.46 1.98 — — — Dilution Tonnes, Raw 1.1 1.28 1.64 1.77 0.72 — — Total Raw Tonnes 4.1 4.66 5.58 5.23 2.70 — — Total Clean Tonnes 2.5 2.94 3.42 3.00 1.71 — — Clean Tonnes—Reserve 2.3 2.93 2.97 2.38 1.41 Clean Tonnes—Adverse 0.2 0.01 0.45 0.62 0.30 — — Percentage Controlled, % 91% 100% 87% 79% 82% — — 13.3 Mining Related Requirem

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Mine conveyors typically range in width up to 6 feet. Multiple belt flights are arranged in series to deliver raw coal to the underground storage. Along the main and sub-main entries and panels, a travel way is provided for personnel and materials by rubber-tired equipment or on rail. The haulage slope conveyor will be used to transport ROM coal to the surface where the coal may be sampled, crushed and washed in the preparation plant and stockpiled to await shipment.

Surface ventilation fans are installed as needed to provide a sufficient volume of air to ventilate production sections, coal haulage and transport entries, battery charging stations, and transformers in accordance with approved plans. High-voltage cables deliver power throughout the mine where transformers reduce voltage for specific equipment requirements. *The Mine Improvement and New Emergency Response Act of 2006 (MINER Act)* requires that carbon monoxide detection systems be installed along mine conveyor belts and that electronic two-way tracking and communications systems be installed throughout the underground mine. Water is required to control dust at production sections and along conveyor belts, and to cool electric motors. Water is available from nearby sources and is distributed within the mine by pipelines as required. At a steady state, the mine is projected to employ approximately 375 employees.

# 14 Processing and Recovery Methods

# 14.1 Description or Flowsheet

A new coal processing is being designed to handle the run-of-mine coal from the proposed longwall operation. Current plans call for a processing plant with a capacity of 1,800 tons per hour (1,620 metric tonne per hour). Following initial sizing of the material, the coarse coal (2-inch by 1-mm) is to be cleaned using a dense media cyclone (*DMC*) with the overflow from the DMC being dried via clean coal centrifuges.

The undersize material (sub 1-mm) will be divided at 100-mesh via classifying cyclones. The underflow material from the cyclones (greater than 100-mesh) is processed by either triple start compound spirals, reflux classifiers, or fines dense media technology. The overflow stream from the classifying cyclones (smaller than 100-mesh) is to be treated using stack cell flotation technology. The flotation circuit will use a rougher-scavenger configuration, where the tailings from the first flotation unit are reprocessed by the following unit.

The cleaned coal from the flotation and spiral units will be combined and dewatered using a screen bowl centrifuge (SBC).

The underflow stream from the coarse dense media circuit and the reject material from the spirals are combined and treated as coarse refuse. The tailings stream from the flotation cells and various effluent circuits are combined and fed to a thickener. Current plans by Warrior Met call for plate presses and

Mine conveyors typically range in width up to 6 feet. Multiple belt flights are arranged in series to deliver raw coal to the underground storage. Along th main and sub-main entries and panels, a travel way is provided for personnel and materials by rubber-tired equipment or on rail. The haulage slope conv will be used to transport ROM coal to the surface where the coal may be sampled, crushed and washed in the preparation plant and stockpiled to await shipment. Surface ventilation fans are installed as needed to provide a sufficient volume of air to ventilate production sections, coal haulage and transport entries, battery charging stations, and transformers in accordance with approved plans. High-voltage cables deliver power throughout the mine where

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transformers reduce voltage for specific equipment requirements. The Mine Improvement and New Emergency Response Act of 2006 (MINER Act) requires that carbon monoxide detection systems be installed along mine conveyor belts and that electronic two-way tracking and communications syste be installed throughout the underground mine. Water is required to control dust at production sections and along conveyor belts, and to cool electric mot Water is available from nearby sources and is distributed within the mine by pipelines as required. At a steady state, the mine is projected to employ approximately 375 employees. 14 Processing and Recovery Methods 14.1 Description or Flowsheet A new coal processing is being designed to handle t run-of-mine coal from the proposed longwall operation. Current plans call for a processing plant with a capacity of 1,800 tons per hour (1,620 metric tor per hour). Following initial sizing of the material, the coarse coal (2-inch by 1-mm) is to be cleaned using a dense media cyclone (DMC) with the overfl from the DMC being dried via clean coal centrifuges. The undersize material (sub 1-mm) will be divided at 100-mesh via classifying cyclones. The underflow material from the cyclones (greater than 100-mesh) is processed by either triple start compound spirals, reflux classifiers, or fines dense media technology. The overflow stream from the classifying cyclones (smaller than 100-mesh) is to be treated using stack cell flotation technology. The flotatic circuit will use a rougher-scavenger configuration, where the tailings from the first flotation unit are reprocessed by the following unit. The cleaned coal from the flotation and spiral units will be combined and dewatered using a screen bowl centrifuge (SBC). The underflow stream from the coarse dense media circuit and the reject material from the spirals are combined and treated as coarse refuse. The tailings stream from the flotation cells and various effluent circuits are combined and fed to a thickener. Current plans by Warrior Met ca



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dry slurry disposal to mitigate risks associated with impoundments. *Table 14-1* below shows 5 years of projected wash yields for the Blue Creek plant.

Total LOM	Basis	Projected Yield % (Combination of Plan No. 5 + Plant No. 7)		
2025	Projected	63%		
2026	Projected	61%		
2027	Projected	60%		
2028	Projected	60%		
2029	Projected	60%		
LOM	Projected	61%		

Table 14-1: 5 Years of	Projected Wash	<b>Yields for Blue Creek</b>
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# 15 Infrastructure

# 15.1 Mine Ventilation

The subject coal reserves will be accessed via a combination of vertical shafts and a slope. Ventilation to the Blue Creek mine workings will be provided through multiple shafts, utilizing an exhausting ventilation fan atop the main return shaft to power the airflow. The fresh-air intake shaft will be divided, housing a personnel/supply elevator to service the mine as well as provide intake air. Prior to longwall startup, a dedicated intake shaft will be developed on the initial mains to support longwall ventilation. In conjunction with the longwall mining plan, each longwall district will be ventilated using a dedicated bleeder shaft with its own exhaust fan. Additional main ventilation shafts will be needed as the mainline entries progress further from the slope bottom.

# 15.2 Methane

Methane is not expected to adversely affect mine production and should be managed with attention to sound ventilation practices. Coalbed degasification and methane drainage are very mature practices in the BWB and many of the CBM wells began degasification 20 to 30 years ago. Therefore, it is expected that degasification has been completed to the extent that methane will not represent a significant source of production delays.

CBM liberated during mining can create a safety hazard and interrupt production if the concentrations along the working face exceed safe limits. The mine ventilation system has been planned to deliver sufficient volume of air to ensure that the methane concentration in the immediate return of the production sections does not exceed 1 percent. Factors that may affect the concentration and liberation of methane gas during mining include depth of overburden cover, which generally exceeds 1,000 feet in the proposed mine area; geology and structural features such as faults; mine production dry slurry disposal to mitigate risks associated with impoundments. Table 14-1 below shows 5 years of projected wash yields for the Blue Creek plant. T 14-1: 5 Years of Projected Wash Yields for Blue Creek Projected Yield % (Combination of Plant Total LOM Basis No. 5 + Plant No. 7) 2025 Projected 6 2026 Projected 61% 2027 Projected 60% 2028 Projected 60% 2029 Projected 60% LOM Projected 61% 15 Infrastructure 15.1 Mine Ventilation The sub coal reserves will be accessed via a combination of vertical shafts and a slope. Ventilation to the Blue Creek mine workings will be provided through multiple shafts, utilizing an exhausting ventilation fan atop the main return shaft to power the airflow. The fresh-air intake shaft will be divided, housing personnel/supply elevator to service the mine as well as provide intake air. Prior to longwall startup, a dedicated intake shaft will be developed on the in mains to support longwall ventilation. In conjunction with the longwall mining plan, each longwall district will be ventilated using a dedicated bleeder s with its own exhaust fan. Additional main ventilation shafts will be needed as the mainline entries progress further from the slope bottom. 15.2 Methane Methane is not expected to adversely affect mine production and should be managed with attention to sound ventilation practices. Coalbed degasification and methane drainage are very mature practices in the BWB and many of the CBM wells began degasification 20 to 30 years ago. Therefore, it is expect that degasification has been completed to the extent that methane will not represent a significant source of production delays. CBM liberated during min can create a safety hazard and interrupt production if the concentrations along the working face exceed safe limits. The mine ventilation system has beer planned to deliver sufficient volume of air to ensure that the methane concentration in the immediate return of the production sections does not exceed 1 percent. Factors that may affect the concentration and liberation of



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rates; methane release characteristics of the coal seam; and previous CBM development (vertical and/or horizontal wells).

## 15.3 Materials Handling

Transport of coal within the mine and to the surface via the planned slope will be done exclusively with belt conveyors. The Blue Creek conveyors are designed to accommodate constant, high volume longwall production.

## 15.4 Seam Access

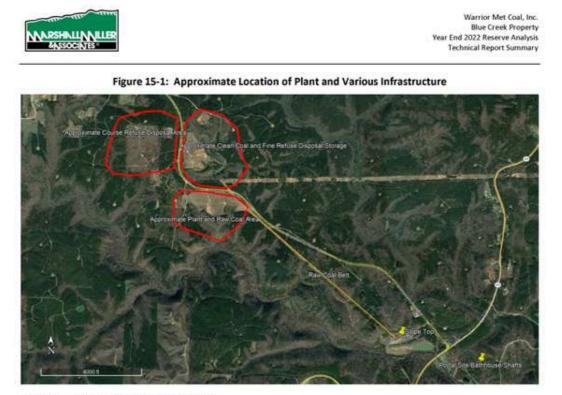
Access to the proposed mine will be provided by a combination of a slope and shafts, the installation of which is currently underway. Warrior Met reports that as of the issuance of this TRS, the slope and initial shafts have reached between one-third and one-half of their ultimate depth. The decline slope will be for conveyor access, in order to transport ROM coal from the mine and multiple shafts will allow for transport of personnel, materials, and equipment as well as serve for ventilation purposes. Details pertaining to engineering design of slopes and shafts are retained in MM&A and/or Warrior Met's files.

# 15.5 Surface Infrastructure

## 15.5.1 Preparation Plant & Materials Handling Infrastructure

The Project includes surface facilities to be constructed at multiple locations in close proximity to the intersection of State Route 69 and Brandon School Road. The map below illustrates the locations of various site infrastructure. MM&A and Warrior Met maintain more detailed mapping and supporting information in their files.

rates; methane release characteristics of the coal seam; and previous CBM development (vertical and/or horizontal wells). 15.3 Materials Handling Transport of coal within the mine and to the surface via the planned slope will be done exclusively with belt conveyors. The Blue Creek conveyors are designed to accommodate constant, high volume longwall production. 15.4 Seam Access Access to the proposed mine will be provided by a combination a slope and shafts, the installation of which is currently underway. Warrior Met reports that as of the issuance of this TRS, the slope and initial shafts hav reached between one-third and one-half of their ultimate depth. The decline slope will be for conveyor access, in order to transport ROM coal from the r and multiple shafts will allow for transport of personnel, materials, and equipment as well as serve for ventilation purposes. Details pertaining to engineering design of slopes and shafts are retained in MM&A and/or Warrior Met's files. 15.5 Surface Infrastructure 15.5.1 Preparation Plant & Materi Handling Infrastructure The Project includes surface facilities to be constructed at multiple locations in close proximity to the intersection of State Route and Brandon School Road. The map below illustrates the locations of various site infrastructure. MM&A and Warrior Met maintain more detailed mapp and supporting information in their files. MARSHALL MILLER & ASSOCIATES, INC. 62



#### 15.5.2 Clean Coal Transportation

This TRS assumes that all clean coal is shipped to market via a barge loadout facility on the Black Warrior River, necessitating the construction an overland conveyor. The conveyor route follows an existing power line right-of-way. The final location of the barge loadout has been determined, including the final belt alignment from the existing right of way to the Black Warrior River. Construction of the conveyor system is anticipated to commence in 2023.

Additionally, Warrior Met reports that it is considering an alternative transportation method via rail. Rail transportation would require the installation of a significant rail spur to an existing mainline railroad. Although this TRS assumes capital and operating costs associated with an overland conveyor and barge system, Warrior Met is still considering both methods of transportation.

#### 15.5.3 Water Supply

The Project's water system is designed to deliver water to multiple end-use locations across the mine complex and maintain storage capacity in the freshwater impoundment. A freshwater pump in a proximal waterway will provide the majority of water for the operation, including firefighting water, plant make-up water and water for mining needs. Details pertaining to the design are retained in MM&A and Warrior Met's files.

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Figure 15-1: Approximate Location of Plant and Various Infrastructure 15.5.2 Clean Coal Transportation This TRS assumes that all clean coal is shipped market via a barge loadout facility on the Black Warrior River, necessitating the construction an overland conveyor. The conveyor route follows an exist power line right-of-way. The final location of the barge loadout has been determined, including the final belt alignment from the existing right of way to Black Warrior River. Construction of the conveyor system is anticipated to commence in 2023. Additionally, Warrior Met reports that it is considering an alternative transportation method via rail. Rail transportation would require the installation of a significant rail spur to an existing mainline railroad.

Although this TRS assumes capital and operating costs associated with an overland conveyor and barge system, Warrior Met is still considering both methods of transportation. 15.5.3 Water Supply The Project's water system is designed to deliver water to multiple end-use locations across the mine complex and maintain storage capacity in the freshwater impoundment. A freshwater pump in a proximal waterway will provide the majority of water fc the operation, including firefighting water, plant make-up water and water for mining needs. Details pertaining to the design are retained in MM&A and Warrior Met's files. MARSHALL MILLER & ASSOCIATES, INC. 63



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## 15.5.3.1 Potable Water

Potable water will be needed at several surface locations such as the bathhouse, plant, and mine office. Additionally, potable water is required for emulsion hydraulic system for longwall equipment, preventing algae buildup in the hydraulic system. Public water is available locally through **Oakman Water Works, Inc. (Oakman)**.

Public sewer is not available in the area, requiring the construction of a sewage treatment facility to handle the raw sewage prior to discharge. Multiple systems may be required to service the preparation plant and the deep mine. Permitting actions through the Health Department and NPDES may be required.

## 15.5.4 <u>Power</u>

Power for the Project will be sourced from Alabama Power's 115kV transmission line that lies to the west of the Property. It is anticipated that the final power system will be similar to those employed at Warrior Met's active operations. Capital associated with power systems has been included in the pre-feasibility level economic analysis.

# 16 Market Studies

## 16.1 Market Description

Drill hole data was utilized to develop average coal quality characteristics for the Project. Detailed metallurgical characteristics are presented in *Table 10-5*. Yield projections are based upon a 10% dry ash product with sulfur percentages under 1%.

All the mine production serves the metallurgical markets. The coal is expected to be marketed as a high-volatile A (typically greater than 32 percent and less than 34 percent volatile matter content) product.

Recent exploration activities in Resource and Reserve Area E1 have shown slightly elevated ash and sulfur, and as such, has been classified as an "indicated" status, reflective of the unknowns with processing and marketing. Resource Areas E2 and E3, which do not include reserves, have minimal exploration information to support market placement. The limited information in this zone suggests even higher potential ash and sulfur characteristics.

## 16.2 Price Forecasts

Warrior Met provided MM&A with the most recent **IHS Markit Ltd. (IHS)** coking coal forecast through 2030 as the basis of the pricing assumptions. Pricing was held constant beyond that date. Warrior Met also provided MM&A with appropriate transportation adjustments to derive FOB-mine realized sales prices from the HIS forecast.

#### MARSHALL MALLER & ASSOCIATES, INC.

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15.5.3.1 Potable Water Potable water will be needed at several surface locations such as the bathhouse, plant, and mine office. Additionally, potable water required for emulsion hydraulic system for longwall equipment, preventing algae buildup in the hydraulic system. Public water is available locally throu Oakman Water Works, Inc. (Oakman). Public sewer is not available in the area, requiring the construction of a sewage treatment facility to handle the rar sewage prior to discharge. Multiple systems may be required to service the preparation plant and the deep mine. Permitting actions through the Health Department and NPDES may be required. 15.5.4 Power Power for the Project will be sourced from Alabama Power's 115kV transmission line that lies t the west of the Property. It is anticipated that the final power system will be similar to those employed at Warrior Met's active operations. Capital association with power systems has been included in the pre-feasibility level economic analysis. 16 Market Studies 16.1 Market Description Drill hole data was util to develop average coal quality characteristics for the Project. Detailed metallurgical characteristics are presented in Table 10-5. Yield projections are ba upon a 10% dry ash product with sulfur percentages under 1%. All the mine production serves the metallurgical markets. The coal is expected to be marketed as a high-volatile A (typically greater than 32 percent and less than 34 percent volatile matter content) product. Recent exploration activities in

Resource and Reserve Area E1 have shown slightly elevated ash and sulfur, and as such, has been classified as an "indicated" status, reflective of the unknowns with processing and marketing. Resource Areas E2 and E3, which do not include reserves, have minimal exploration information to support market placement. The limited information in this zone suggests even higher potential ash and sulfur characteristics. 16.2 Price Forecasts Warrior Met provided MM&A with the most recent IHS Markit Ltd. (IHS) coking coal forecast through 2030 as the basis of the pricing assumptions. Pricing was hel constant beyond that date. Warrior Met also provided MM&A with appropriate transportation adjustments to derive FOB-mine realized sales prices from HIS forecast. MARSHALL MILLER & ASSOCIATES, INC. 64



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

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Coal from the Blue Creek Mine is assumed to be sold at 100% of the US high-vol price listed, as it has some qualities that should list it among the best high-vol A coals in the U.S. based on strong CSR, and lower sulfur levels.

Warrior Met has recommended utilizing the HVA forecast to determine sales realizations for the Blue Creek Project. To develop the price received FOB the barge, transportation and loading were backed out of the FOB vessel price. The adjusted pricing is detailed in *Table 16-1*.

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and the second sec	LOM	2023	2024	2025	2026	2027
Price FOB Vessel	\$175.86	\$143.00	\$143.00	\$143.00	\$148.00	\$164.00
Transportation	\$26.63	\$0.00	\$0.00	\$26.63	\$26.63	\$26.63
Revenue FOB Barge	\$149.23	\$0.00	\$0.00	\$116.37	\$121.37	\$137.37
	2028	2029	2030	2031	2032	2033
Price FOB Vessel	\$170.00	\$174.00	\$177.00	\$177.00	\$177.00	\$177.00
Transportation	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63
Revenue FOB Barge	\$143.37	\$147.37	\$150.37	\$150.37	\$150.37	\$150.37
	2034	2035	2036	2037	2038	2039
Price FOB Vessel	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00
Transportation	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63
Revenue FOB Barge	\$150.37	\$150.37	\$150.37	\$150.37	\$150.37	\$150.37
	2040	2041	2042	2043	2044	2045
Price FOB Vessel	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00
Transportation	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63
Revenue FOB Barge	\$150.37	\$150.37	\$150.37	\$150.37	\$150.37	\$150.37
	2046	2047	2048	2049	2050	2051
Price FOB Vessel	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00	\$177.00
Transportation	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63	\$26.63
Revenue FOB Barge	\$150.37	\$150.37	\$150.37	\$150.37	\$150.37	\$150.3
	2052	2053	2054		2	
Price FOB Vessel	\$177.00	\$177.00	\$177.00			
Transportation	\$26.63	\$26.63	\$26.63			
Revenue FOB Barge	\$150.37	\$150.37	\$150.37			

#### Table 16-1: Adjusted Pricing

IHS is a well-recognized source of such data. IHS is a global diversified provider of critical information, analytics, and solutions. It offers next-generation information, analytics, and solutions to customers in business, finance, and government, improving their operational efficiency and providing deep insights. IHS serves business and government customers worldwide.

#### 16.3 Contract Requirements

Some contracts are necessary for successful marketing of coal. For Blue Creek, since all mining, preparation and marketing is done in-house, the remaining contracts required include:

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Coal from the Blue Creek Mine is assumed to be sold at 100% of the US high-vol price listed, as it has some qualities that should list it among the best F vol A coals in the U.S. based on strong CSR, and lower sulfur levels. Warrior Met has recommended utilizing the HVA forecast to determine sales realizations for the Blue Creek Project. To develop the price received FOB the barge, transportation and loading were backed out of the FOB vessel pric The adjusted pricing is detailed in Table 16-1. Table 16-1: Adjusted Pricing LOM 2023 2024 2025 2026 2027 Price FOB Vessel \$175.86 \$143.00 \$143.0 \$143.0 \$148.00 \$164.00 Transportation \$26.63 \$0.00 \$0.00 \$26.63 \$26.63 \$26.63 Revenue FOB Barge \$149.23 \$0.00 \$0.00 \$116.37 \$121.37 \$137.37 2028 2029 2030 2031 2032 2033 Price FOB Vessel \$170.00 \$177.00 \$177.00 \$177.00 \$177.00 Transportation \$26.63 \$26.63 \$26.63 \$26.63 \$26.63 Revenue FOB Barge \$149.23 \$0.00 \$0.00 \$26.63 \$26.63 \$226.63 \$226.63 Revenue FOB Barge \$149.23 \$0.00 \$0.00 \$116.37 \$121.37 \$137.37 2028 2029 2030 2031 2032 2033 Price FOB Vessel \$170.00 \$177.00 \$17

\$26.63 \$26.63 \$26.63 \$26.63 Revenue FOB Barge \$150.37 \$150.37 \$150.37 \$150.37 \$150.37 \$150.37 \$150.37 2046 2047 2048 2049 2050 2051 Price FOB Ves \$177.00 \$177.00 \$177.00 \$177.00 \$177.00 \$177.00 Transportation \$26.63 \$26



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

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- > Transportation The mine will contract with requisite railroad and barge transportation companies to transport the coal to either the domestic customers or to the Mobile export terminal for overseas shipment.
- Handling Contracts for loading vessels for export sales are necessary. These are typically handled by annual negotiations based on projected shipments.
- > Sales Sales contracts are a mix of spot and contract sales.

# 17 Environmental Studies, Permitting and Plans, and Social and Community Impacts

## 17.1 Results of Studies

The Project represents a greenfield site with minimal completed development work. Aside from baseline analysis pertaining to permitting, MM&A is not aware of existing environmental studies on the Property. MM&A did not undertake a review of permitting violation history for the active permits or an Environmental Site Assessment (*ESA*) of the properties. The property is located adjacent and proximal to multiple active longwall operations which are subject to the same regulatory environment as the proposed BC mine.

## 17.2 Requirements and Plans for Waste Disposal

## 17.2.1 Disposal Methods and Design Concepts

Coal refuse from the preparation plant will be disposed of on site at several locations over the life of the mine. Current plans call for dry slurry disposal via the use of plate presses for fine refuse, yet permitting is underway under the predication of fine refuse disposal in slurry form. Coarse refuse will travel by conveyor belt to a central location and then by truck to its final destination as needed. Bulldozers and other mobile equipment will be used to spread and compact the material for the construction of the disposal structures.

The refuse produced by the plant is expected to generate 4 tonnes of coarse refuse per tonne of fine refuse. Volumetrically, this equates to 2.33 cubic yards of coarse refuse produced to every cubic yard of slurry (on a dry, consolidated, design basis). Warrior Met reports that it is also considering the option of combined coarse/fine refuse storage should slurry impoundments become prohibitive.

## 17.2.2 Life-of-Mine Storage Requirements

For the life of the Project, it is estimated that the plant will generate 25,000 ac-ft of fine refuse and 95 million cubic yards of coarse refuse. These figures were derived from the MM&A's production model using a coarse to fine ratio and refuse densities provided by Warrior Met. Such figures were reviewed by MM&A and deemed appropriate. These characteristics are also typical of Warrior Met's active facilities that are mining and processing similar material as that expected at the Project. For refuse

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> Transportation – The mine will contract with requisite railroad and barge transportation companies to transport the coal to either the domestic custome to the Mobile export terminal for overseas shipment. > Handling – Contracts for loading vessels for export sales are necessary. These are typically handl by annual negotiations based on projected shipments. > Sales – Sales contracts are a mix of spot and contract sales. 17 Environmental Studies, Permittin and Plans, and Social and Community Impacts 17.1 Results of Studies The Project represents a greenfield site with minimal completed development wo Aside from baseline analysis pertaining to permitting, MM&A is not aware of existing environmental studies on the Property. MM&A did not undertake review of permitting violation history for the active permits or an Environmental Site Assessment (ESA) of the properties. The property is located adjace and proximal to multiple active longwall operations which are subject to the same regulatory environment as the proposed BC mine. 17.2 Requirements

Plans for Waste Disposal 17.2.1 Disposal Methods and Design Concepts Coal refuse from the preparation plant will be disposed of on site at several locations over the life of the mine. Current plans call for dry slurry disposal via the use of plate presses for fine refuse, yet permitting is underway under predication of fine refuse disposal in slurry form. Coarse refuse will travel by conveyor belt to a central location and then by truck to its final destination needed. Bulldozers and other mobile equipment will be used to spread and compact the material for the construction of the disposal structures. The refus produced by the plant is expected to generate 4 tonnes of coarse refuse per tonne of fine refuse. Volumetrically, this equates to 2.33 cubic yards of coarse refuse produced to every cubic yard of slurry (on a dry, consolidated, design basis). Warrior Met reports that it is also considering the option of combine coarse/fine refuse storage should slurry impoundments become prohibitive. 17.2.2 Life-of-Mine Storage Requirements For the life of the Project, it is estimated that the plant will generate 25,000 ac-ft of fine refuse and 95 million cubic yards of coarse refuses were derived from the MM&, production model using a coarse to fine ratio and refuse densities provided by Warrior Met. Such figures were reviewed by MM&A and deemed approprint These characteristics are also typical of Warrior Met's active facilities that are mining and processing similar material as that expected at the Project. For refuse MARSHALL MILLER & ASSOCIATES, INC. 66



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

planning, the assumed ratio of coarse to fine refuse is 4 to 1 by weight and dry, compacted densities are 110 pounds per cubic foot (coarse refuse) and 64 pounds per cubic foot (fine refuse). At full production, the Project is expected to generate an average of 1.7 million cubic yards of coarse refuse and 450 acre-ft of slurry annually.

### 17.2.3 Storage Areas

Warrior Met has identified 4 slurry impoundment sites and 2 separate coarse refuse sites for refuse disposal. MM&A has confirmed storage volumes for these sites. Total storage estimated within these areas is roughly 13,550 ac-ft for slurry and about 59-million cubic yards for coarse refuse. This represents approximately 31 years of slurry and 35 years of coarse refuse storage, or over half of the LOM needs of the Project.

Preliminary design for these sites appears to be reasonable and it is expected that permit approvals can be obtained for these locations. More detailed design work will be needed, however general layouts and expected capacities should not result in significant change.

## 17.2.4 Control of Proposed Storage Areas

Warrior Met currently controls the surface property needed for three of the proposed refuse disposal areas and is in the process of permitting two of the sites. The areas currently controlled by Warrior Met for refuse disposal consist of two slurry impoundment sites and one coarse refuse site. An estimated 13 years of storage for both fine and coarse refuse is contained on these controlled sites.

Warrior Met does control a majority of the surface property for the other sites as well. Property control for the remaining impoundment areas ranges from 60 to 80-percent. Timely property acquisitions will need to be made to utilize these planned sites. MM&A has no reason to believe that the remaining surface properties will not be acquired.

#### 17.2.5 Refuse Permitting

Warrior Met reports that it was successful in obtaining MSHA approval in March 2021 for the Slurry Impoundment No.1 facility. This facility will have approximately 1,200 acre-ft of beginning capacity and will support the mine for the first 4 years of production. An **Army Corps of Engineers (ACOE)** 404 Individual Permit is being prepared for 2023 submittal. Once ACOE review is underway, the SMCRA permit will be updated to reflect the addition of the fine refuse disposal facility.

Warrior Met reports that it has completed the initial design of a coarse refuse disposal area which will provide approximately 10,000,000 cubic yards of initial capacity, which should accommodate up to the first 7 years of production. The coarse refuse area is in the advanced stages of permitting and is anticipated to be fully permitted in mid-2023. If a situation were to arise where the fine refuse disposal facility permitting was delayed, the coarse refuse disposal facility could be converted to a combined coarse refuse storage facility and accept coarse and dewatered tailings.

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planning, the assumed ratio of coarse to fine refuse is 4 to 1 by weight and dry, compacted densities are 110 pounds per cubic foot (coarse refuse) and 64 pounds per cubic foot (fine refuse). At full production, the Project is expected to generate an average of 1.7 million cubic yards of coarse refuse and 450 acre-ft of slurry annually. 17.2.3 Storage Areas Warrior Met has identified 4 slurry impoundment sites and 2 separate coarse refuse sites for refuse dispose MM&A has confirmed storage volumes for these sites. Total storage estimated within these areas is roughly 13,550 ac-ft for slurry and about 59-million

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## 17.3 Permit Requirements and Status

Warrior Met (through its predecessor, Walter) has successfully obtained multiple permits for the proposed operations on the Property. *Table 17-1* depicts the mine permits which are currently in place from: Alabama Surface Mining Commission (*ALSMC*); Alabama Department of Environmental Management (*ADEM*); United States Army Corps of Engineers (USACE); and MSHA. All of the currently approved permits have been renewed as needed and remain in good standing. The existing Surface Mine Control and Reclamation Act (SMCRA) permit will require a minor revision to accommodate revised surface infrastructure plans which have changed since the Project's inception.

Permits listed in *Table 17-1* pertain to the proposed preparation plant and portal facilities. Additional permitting actions will be needed for the development and installation of the slurry Impoundment, coarse refuse facility, overland conveyor and barge loading facility.

Facility Name	Issuing Agency Permit No.		Permit Type	Approval Date	Expiration Date	
Blue Creek Energy Mine No. 1	ACOE	SAM-2011-01645-CMS	NW50	3/12/2012	3/18/2012	
Blue Creek Mine No. 1 - Alabama Highway 69 Entrance Road	ADEM ALR10C2XU		NPDES General Construction	9/30/2022	3/31/2026	
Blue Creek Energy Mine No. 1	ADEM	ALR108FR6	NPDES General Construction		3/31/2026	
Blue Creek Energy Mine No. 1	ASMC	P-3964	Mining		6/20/2027	

Table 17-1:	<b>Currently Active Permits</b>
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Additionally, Warrior Met will require permits related to the coarse and fine refuse facilities, barge loadout, and overland conveyor. Regulatory agencies which will be involved with such permit activities include the USACE, ALSMC, MSHA and ADEM.

The most time-consuming aspect of the required remaining permitting action is associated with the MSHA review of the Slurry Impoundment design. These structures are classified as High-Hazard dams and as such, receive thorough and lengthy technical reviews through MSHA's Technical Support group in Pittsburg, Pennsylvania. Review approvals for these facilities can be expected to take two to three years. Early submittal is essential to receiving timely approvals for these critical structures. National Pollutant Discharge Elimination System (NDPES) discharge for the impoundment area is covered under the existing state mine permit.

While the Coarse Refuse Facility will also require MSHA review and approval, these structures do not have the same complexity in design and can be approved rather quickly. The conveyor from the plant to the barge loading facility will share the ROW of the powerline in its entirety, permitting of the beltline will coincide with the powerline. Permits for the overland conveyor and the Barge Loading Facility pose minimal risk of delay to the Project if pursued diligently. The permitting process will need to begin in the near future to match the required construction timeline for these items.

## 17.4 Local Plans, Negotiations or Agreements

MM&A found no indication of ancillary agreements beyond the scope of Federal or State Regulations.

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17.3 Permit Requirements and Status Warrior Met (through its predecessor, Walter) has successfully obtained multiple permits for the proposed operatio on the Property. Table 17-1 depicts the mine permits which are currently in place from: Alabama Surface Mining Commission (ALSMC); Alabama Department of Environmental Management (ADEM); United States Army Corps of Engineers (USACE); and MSHA. All of the currently approved peri have been renewed as needed and remain in good standing. The existing Surface Mine Control and Reclamation Act (SMCRA) permit will require a min revision to accommodate revised surface infrastructure plans which have changed since the Project's inception. Permits listed in Table 17-1 pertain to th proposed preparation plant and portal facilities. Additional permitting actions will be needed for the development and installation of the slurry Impoundment, coarse refuse facility, overland conveyor and barge loading facility. Table 17-1: Currently Active Permits Issuing Approval Expiration Facility Name Agency Permit No. Permit Type Date Date Blue Creek Energy Mine No. 1 ACOE SAM-2011-01645-CMS NW50 3/12/2012 3/18/2012 E Creek Mine No. 1—Alabama ADEM ALR10C2XU NPDES — General Construction 9/30/2022 3/31/2026 Highway 69 Entrance Road Blue Creek Ener Mine No. 1 ADEM ALR10BFR6 NPDES — General Construction 3/31/2026 Blue Creek Energy Mine No. 1 ASMC P-3964 Mining 6/20/2027 Additionally, Warrior Met will require permits related to the coarse and fine refuse facilities, barge loadout, and overland conveyor. Regulatory agencies which will be involved with such permit activities include the USACE, ALSMC, MSHA and ADEM. The most time-consuming aspect of the required remaining permitting action is associated with the MSHA review of the Slurry Impoundment design. These structures are classified as High-Hazard dam and as such, receive thorough and lengthy technical reviews through MSHA's Technical Support group in Pittsburg, Pennsylvania. Review approvals for these facilities can be expected to take two to three years. Early submittal is essential to receiving timely approvals for these critical structures. National Pollutant Discharge Elimination System (NDPES) discharge for the impoundment area is covered under the existing state mine permit. While the Coarse

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## 17.5 Mine Closure Plans

Applicable regulations require that mines be properly closed, and reclamation commenced immediately upon abandonment. In general, site reclamation includes removal of structures, backfilling, regrading, and revegetation of disturbed areas. Sediment control is required during the establishment of vegetation, and bond release generally requires a minimum five-year period of site maintenance, water sampling, and sediment control following mine completion and rough grading. For most mines, unless special issues arise, reclamation and monitoring costs continue for about 7 years after cessation of production. Reclamation of underground mines includes closure and sealing of mine openings such as portals and shafts in addition to the items listed above.

Estimated costs for mine closure for all the Blue Creek facilities, including water quality monitoring during site reclamation, are included in the financial model. As with all mining companies, an accretion calculation is performed annually so the necessary Asset Retirement Obligations (*ARO*) can be shown as a liability on the balance sheet.

Costs have been included for the closure of some existing facilities prior to exhaustion of the mine. As Bleeder shafts are determined to no longer be needed, they are sealed and as refuse disposal areas are filled and replaced, reclamation is done. The costs for this non-ARO reclamation work have been accrued on a per tonne basis in the model.

# 17.6 Qualified Person's Opinion

Warrior Met's environmental and permitting staff is strongly engaged in the project. As it continues to move forward within existing project timelines and schedules, it is anticipated that Warrior Met will remain on target to obtain all necessary permits.

Estimated expenditures for site closure and reclamation are included in the financial model for this site.

# 18 Capital and Operating Costs

## 18.1 Capital

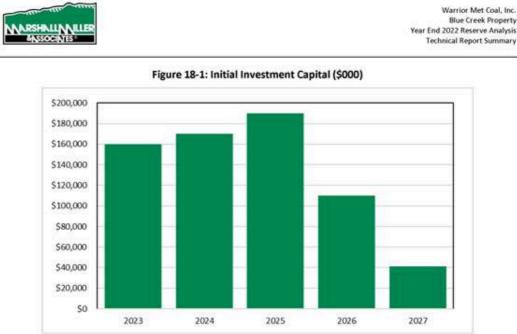
Capital expenditures (CAPEX) are typically reviewed and compared to other projects using three measures: initial investment, LOM capital and LOM capital per ton (or tonne) of production.

The initial investment for this project is defined as the capital necessary until the mine reaches full production. With the longwall starting in early 2027, CAPEX for the Project (current through 2027) as shown in *Figure 18-1* totals \$671 million, excluding sunk cost. Major development capital items include the slope, shafts, bottom development and other purchases necessary to commence production. A new 1,800 TPH (1,600 tonnes per hour) preparation plant, an overland conveyor, and barge loadout have also been included in the Initial CAPEX.

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ARO reclamation work have been accrued on a per tonne basis in the model. 17.6 Qualified Person's Opinion Warrior Met's environmental and permitti staff is strongly engaged in the project. As it continues to move forward within existing project timelines and schedules, it is anticipated that Warrior Me will remain on target to obtain all necessary permits. Estimated expenditures for site closure and reclamation are included in the financial model for this 18 Capital and Operating Costs 18.1 Capital Capital expenditures (CAPEX) are typically reviewed and compared to other projects using three measures initial investment, LOM capital and LOM capital per ton (or tonne) of production. The initial investment for this project is defined as the capital necessa until the mine reaches full production. With the longwall starting in early 2027, CAPEX for the Project (current through 2027) as shown in Figure 18-1 totals \$671 million, excluding sunk cost. Major development capital items include the slope, shafts, bottom development and other purchases necessary commence production. A new 1,800 TPH (1,600 tonnes per hour) preparation plant, an overland conveyor, and barge loadout have also been included in Initial CAPEX. MARSHALL MILLER & ASSOCIATES, INC. 69



Note: Capital figures are based upon MM&A's best estimates and are supported by a combination of MM&A's experience in comparable projects & comparable quotations. Such level is sufficient to meet the criteria of a pre-feasibility level financial assessment. At Warrior Met's request more Capital has been front-loaded into 2023 and 2024 to mitigate the risk of extended lead times impacting timely delivery of the equipment.

Beyond the Initial Investment of \$671 million, excluding sunk cost through December 31, 2022, CAPEX is necessary for sustaining production. This includes rebuilds and replacement of equipment, mine development and multiple bleeder, intake and return shafts. Based on a previous detailed study of a mine in the basin, with pricing increased by 16% to reflect recent inflation trends, and a review of Warrior Met's spending patterns, sustaining capital has been estimated at \$11.00 per tonne. No efficiency or production increase projects have been included as they will be analyzed on a stand-alone basis when considered. To reflect typical spending patterns, based on production winding down, sustaining capital is reduced to 75% in 2052, 50% in 2053 and eliminated in 2054, the final year of production.

LOM CAPEX totals \$1.7 billion, inclusive of sustaining and replacement items and excluding sunk cost through December 31, 2022. All equipment and infrastructure are assumed to be purchased new for this project.

For the purpose of calculating tax liability, it is necessary to forecast Depreciation. Development Capital is assumed to have an average depreciable life of 8 years beginning once the mine starts production. Sustaining Capital has been assumed to have an average depreciable life of 5 years, beginning at purchase.

For the life of the mine, the CAPEX Expenditures from January 1, 2023 forward average \$16.54 per marketed tonne which is reasonable for a project of this magnitude.

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Figure 18-1: Initial Investment Capital (\$000) Note: Capital figures are based upon MM&A's best estimates and are supported by a combination of MM&A's experience in comparable projects & comparable quotations. Such level is sufficient to meet the criteria of a pre-feasibility level financial assessment. At Warrior Met's request more Capital has been front-loaded into 2023 and 2024 to mitigate the risk of extended lead times impacting time! delivery of the equipment. Beyond the Initial Investment of \$671 million, excluding sunk cost through December 31, 2022, CAPEX is necessary for sustaining production. This includes rebuilds and replacement of equipment, mine development and multiple bleeder, intake and return shafts. Based on previous detailed study of a mine in the basin, with pricing increased by 16% to reflect recent inflation trends, and a review of Warrior Met's spending

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# 18.2 Operating Cost

MM&A used a combination of historical information from Warrior Met's nearby existing operations and detailed operating cost estimates from a recent study of a property in the region. Hourly labor rates and salaries were based upon regional information and expectations. Fringe-benefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconiosis, casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for roof-control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other factors were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs.

Utilizing this process, costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. *Table 18-1* provides the inflation factors used to escalate the costs from 2022 to 2023.

Multipliers					
Labor	3.0%				
Benefits	3.0%				
Fuel & Lube	100.0%				
Parts	14.5%				
Surface Contractors	17.5%				
Capital	16.0%				

Table 18-1:	Inflation Factors
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Operating costs factors were developed for the coal preparation plant processing, refuse handling, and coal loading. These were also subject to the multipliers in *Table 18-1*.

Property taxes and insurance and bonding were calculated based on regional information and experience at Warrior Met's other mines. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for state severance taxes, the federal black lung excise tax, and federal and state reclamation fees.

Mandated sales related costs such as black lung excise tax are summarized in Table 18-2.

Description of Tax or Sales Cost	Basis of Assessment	Cost
Federal Black Lung Excise Tax - Underground	Per Tonne	\$1.21
Federal Reclamation Fees – Underground	Per Tonne (Moisture Adjusted)	\$0.123
Alabama Severance Tax	Per Tonne (Moisture Adjusted)	\$0.344
Royalties	Percentage of Revenue (FOB Mine)	8%

Note: 1. Federal black lung excise tax is paid only on coal sold domestically. MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below.

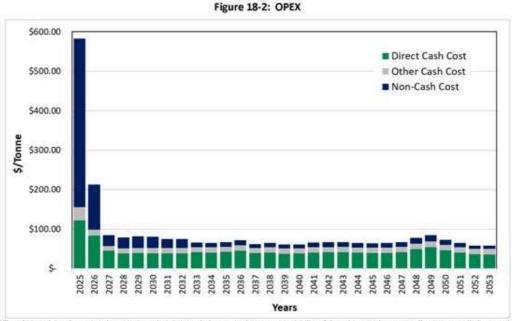
#### MARSHALL MILLER & ASSOCIATES, INC.

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18.2 Operating Cost MM&A used a combination of historical information from Warrior Met's nearby existing operations and detailed operating cost estimates from a recent study of a property in the region. Hourly labor rates and salaries were based upon regional information and expectations. Fringebenefit costs were developed for vacation and holidays, federal and state unemployment insurance, retirement, workers' compensation and pneumoconic casualty and life insurance, healthcare, and bonuses. A cost factor for mine supplies was developed that relates expenditures to mine advance rates for ro control costs. Other mine-supply costs are typically related to factors such as feet of section advance, ROM tonnes mined, and days worked. Other facto were developed for maintenance and repair costs, rentals, mine power, outside services and other direct mining costs. Utilizing this process, costs were calculated at 2022 levels, then to reflect recent inflation trends multipliers were applied to each category. Table 18-1 provides the inflation factors used t escalate the costs from 2022 to 2023. Table 18-1: Inflation Factors Multipliers Labor 3.0% Benefits 3.0% Fuel & Lube 100.0% Parts 14.5% Surface Contractors 17.5% Capital 16.0% Operating costs factors were developed for the coal preparation plant processing, refuse handling, and coal loading. TI were also subject to the multipliers in Table 18-1. Property taxes and insurance and bonding were calculated based on regional information and experien at Warrior Met's other mines. Appropriate royalty rates were assigned for production from leased coal lands, and sales related taxes were calculated for s severance taxes, the federal black lung excise tax, and federal and state reclamation fees. Mandated sales related costs such as black lung excise tax are summarized in Table 18-2. Table 18-2: Estimated Coal Production Taxes and Sales Costs Description of Tax or Sales Cost Basis of Assessment Cost Fec Black Lung Excise Tax—Underground Per Tonne \$1.21 Federal Reclamation Fees – Underground Per Tonne (Moisture Adjusted) \$0.344 Royalties Percentage of Revenue (FOB Mine) 8% Note: 1. Federal black lung excise tax is paid or on coal sold domestically. MM&A assumed 15% of total coal sales to be domestic in the economic analysis discussed below. MARSHALL MILLER & ASSOCIATES, INC. 71



A summary of the projected operating costs is in Figure 18-2.



\*The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tornage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

## 18.3 Capex & Opex Summary Tables

Table 18-3 shows the projected LOM major cost line items for the Blue Creek Mine. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 percent. Cost estimations use historical costs from similar mining operations as a basis to project costs forward with appropriate adjustments based on geological and economic factors.

(000)	Total LOM	2023	2024	2025	2026	2027	2028	2029
ROM Tonnes Produced	169,232		-	228	1,275	6,181	6,743	6,876
Clean Tonnes Produced	103,824		- 18	144	778	3,728	4,070	4,143
Mining Costs	\$3,478,536	ş.	ş.	\$14,488	\$52,612	\$116,735	\$126,004	\$132,220
Preparation and Loading	\$792,913	Ş-	\$-	\$3,036	\$12,799	\$51,359	\$29,350	\$30,091
General & Administrative	\$255,089	\$1,165	\$4,771	\$4,067	\$6,566	\$8,423	\$8,755	\$8,755
Royalties	\$1,068,212	S-	\$-	\$40	\$3,154	\$33,950	\$40,539	\$42,392
Property and Sales Related Taxes	\$90,277	\$664	\$664	\$702	\$1,169	\$3,083	\$3,305	\$3,352
Total Capex	\$1,727,279	\$160,675	\$171,125	\$191,125	\$111,125	\$42,134	\$45,752	\$46,554
Total	\$7,685,362	\$162,505	\$176,561	\$213,829	\$189,478	\$265,595	\$264,519	\$274,383

Table 18-3: Project LOM Major Cost Line Items - Opex

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A summary of the projected operating costs is in Figure 18-2. Figure 18-2: OPEX \*The LOM model and associated economic analysis is intended to pro the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 18.3 Capex & Opex Summary Tables Table 18-3 shows the projected LOM major cost line items for the Blue Creek Mine. Costs have been considered to the level of pre-feasibility with an accuracy of +/- 25 percent. Cost estimations use historical costs from similar mining operations as a basis to project costs forward with appropriate adjustments based on geological and economic factors. Table 18-3: Project LOM Major Cost Line Items – Opex (000) Total Lt 2023 2024 2025 2026 2027 2028 2029 ROM Tonnes Produced 169,232 — 228 1,275 6,181 6,743 6,876 Clean Tonnes Produced 103,824 — 144 778 3,7 4,070 4,143 Mining Costs \$3,478,536 \$- \$- \$14,488 \$52,612 \$116,735 \$126,004 \$132,220 Preparation and Loading \$792,913 \$- \$- \$3,036 \$12,799 \$51 \$29,350 \$30,091 General & Administrative \$255,089 \$1,165 \$4,771 \$4,067 \$6,566 \$8,423 \$8,755 \$8,755 Royalties \$1,068,212 \$- \$- \$40 \$3,154 \$33,95 \$40,539 \$42,392 Property and Sales Related Taxes \$90,277 \$664 \$664 \$702 \$1,169 \$3,083 \$3,305 \$3,352 Total Capex \$1,727,279 \$160,675 \$171,125 \$191,125 \$111,125 \$42,134 \$45,752 \$46,554 Total \$7,685,362 \$162,505 \$176,561 \$213,829 \$189,478 \$265,595 \$264,519 \$274,383 MARSHALL MILLER & ASSOCIATES, INC. 72

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

(000)	2030	2031	2032	2033	2034	2035	2036	2037
ROM Tonnes Produced	6,978	7,050	6,953	6,708	6,841	6,629	6,094	7,203
Clean Tonnes Produced	4,205	4,297	4,256	3,911	4,153	3,914	3,440	4,48
Mining Costs	\$133,131	\$134,853	\$133,943	\$130,650	\$139,572	\$136,412	\$130,171	\$143,80
Preparation and Loading	\$30,449	\$30,749	\$30,432	\$29,367	\$30,004	\$29,146	\$27,121	\$31,38
General & Administrative	\$8,755	\$8,755	\$8,755	\$8,237	\$8,237	\$8,237	\$8,237	\$8,23
Royalties	\$43,887	\$44,841	\$44,411	\$40,813	\$43,342	\$40,848	\$35,904	\$46,83
Property and Sales Related Taxes	\$3,393	\$3,452	\$3,425	\$3,202	\$3,359	\$3,204	\$2,896	\$3,57
Total Capex	\$47,239	\$48,244	\$47,791	\$43,018	\$45,684	\$43,056	\$37,844	\$49,36
Total	\$278,037	\$282,239	\$279,966	\$265,906	\$281,192	\$271,446	\$251,709	\$294,89
(000)	2038	2039	2040	2041	2042	2043	2044	2045
ROM Tonnes Produced	\$6,791	\$7,062	\$6,874	\$6,377	\$5,979	\$6,138	\$6,348	\$5,65
Clean Tonnes Produced	\$4,129	\$4,561	\$4,511	\$4,024	\$3,849	\$3,842	\$4,041	\$3,78
Mining Costs	\$138,523	\$141,754	\$141,175	\$134,897	\$131,034	\$132,783	\$134,669	\$123,68
Preparation and Loading	\$29,835	\$31,072	\$30,484	\$28,552	\$27,239	\$27,680	\$28,490	\$26,24
General & Administrative	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,23
Royalties	\$43,086	\$47,601	\$47,073	\$41,993	\$40,172	\$40,092	\$42,177	\$39,52
Property and Sales Related Taxes	\$3,343	\$3,623	\$3,591	\$3,275	\$3,162	\$3,157	\$3,286	\$3,12
Total Capex	\$45,415	\$50,173	\$49,617	\$44,262	\$42,343	\$42,259	\$44,456	\$41,66
Total	\$279,359	\$294,083	\$291,561	\$271,616	\$262,015	\$264,188	\$271,706	\$251,91
(000)	2046	2047	2048	2049	2050	2051	2052	2053
ROM Tonnes Produced	5,511	5,500	4,609	4,379	4,086	4,664	5,575	5,23
Clean Tonnes Produced	3,656	3,457	2,628	2,196	2,549	2,939	3,416	3,00
Mining Costs	\$118,803	\$117,791	\$106,758	\$97,096	\$96,499	\$96,838	\$99,077	\$84,12
Preparation and Loading	\$25,705	\$25,461	\$22,042	\$20,926	\$20,478	\$22,247	\$25,054	\$23,34
General & Administrative	\$8,237	\$8,237	\$8,237	\$7,892	\$7,892	\$7,892	\$7,892	\$7,89
Royalties	\$38,157	\$36,075	\$27,424	\$22,918	\$26,605	\$30,671	\$35,650	\$31,30
Property and Sales Related Taxes	\$3,036	\$2,907	\$2,369	\$2,089	\$2,318	\$2,571	\$2,881	\$2,61
Total Capex	\$40,219	\$38,024	\$28,906	\$24,157	\$28,043	\$32,328	\$28,182	\$16.50
Total	\$243,324	\$237,453	\$202,974	\$181,653	\$188,470	\$200,150	\$207,727	\$174,01
(000)	2054	2055	2056	2057	2058	2059	2060	2061
ROM Tonnes Produced	2,698	100000						
Clean Toones Produced	1,712			G. (4)	(			
Mining Costs	\$54,907	\$506	\$506	\$506	\$506	\$506	\$506	\$50
Preparation and Loading	\$12,764	S-	5.	5-	5-	5-	5.	5
General & Administrative	\$7,376	\$2,738	\$865	\$865	\$806	\$806	\$806	\$80
Royalties	\$16,725	5-	\$- \$-	\$- \$-	\$-	\$- \$-	\$-	500
	and the second distances in the second se	\$332	\$332	\$332	\$166	\$166	\$166	\$16
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Property and Sales Related Taxes Total Capex	\$1,831	\$352 \$-	\$250	\$-	S-	S-	S-	5

Votes

Insurance Costs are included in G&A Cash Bonds Posted have been added to G&A

Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation.

# 19 Economic Analysis

### 19.1 Assumptions, Parameters and Methods

A pre-feasibility LOM plan was prepared by MM&A for the Blue Creek operation. MM&A prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustion) of the coal reserve areas, which is projected for the year 2054. All costs and prices are based on 2023 constant United States real dollars.

The mine plan, productivity expectations and cost estimates generally reflect historical performance by Warrior Met and efforts have been made to adjust plans and costs to reflect conditions at Blue Creek.

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(000) 2030 2031 2032 2033 2034 2035 2036 2037 ROM Tonnes Produced 6,978 7,050 6,953 6,708 6,841 6,629 6,094 7,203 Clean Tonnes Produced 4,2 4,297 4,256 3,911 4,153 3,914 3,440 4,488 Mining Costs \$133,131 \$134,853 \$133,943 \$130,650 \$139,572 \$136,412 \$130,171 \$143,800 Preparation an Loading \$30,449 \$30,749 \$30,432 \$29,367 \$30,004 \$29,146 \$27,121 \$31,389 General & Administrative \$8,755 \$8,755 \$8,755 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 Royalties \$43,887 \$44,841 \$44,411 \$40,813 \$43,342 \$40,848 \$35,904 \$46,835 Property and Sales Related Taxes \$3,393 \$3,452 \$3,425 \$3,202 \$3,359 \$3,204 \$2,896 \$3,576 Total Capex \$47,239 \$48,244 \$47,791 \$43,018 \$45,684 \$43,056 \$37,844 \$49,366 Total \$278,037 \$282,239 \$279,5 \$265,906 \$281,192 \$271,446 \$251,709 \$294,894 (000) 2038 2039 2040 2041 2042 2043 2044 2045 ROM Tonnes Produced \$6,791 \$7,062 \$6,874 \$6,3 \$5,979 \$6,138 \$6,348 \$5,650 Clean Tonnes Produced \$4,129 \$4,561 \$4,511 \$4,024 \$3,849 \$3,842 \$4,041 \$3,788 Mining Costs \$138,523 \$141,754 \$141,175 \$134,897 \$131,034 \$132,783 \$134,669 \$123,683 Preparation and Loading \$29,835 \$31,072 \$30,484 \$28,552 \$27,239 \$27,680 \$28,490 \$26,2

General & Administrative \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 Royalties \$43,086 \$47,601 \$47,073 \$41,993 \$40,172 \$40,092 \$42,177 \$39,527 Property and Sales Related Taxes \$3,343 \$3,623 \$3,591 \$3,275 \$3,162 \$3,157 \$3,286 \$3,122 Total Capex \$45,415 \$50,173 \$49,617 \$44,262 \$42,343 \$42,259 \$44,456 \$41,663 Total \$279,359 \$294,083 \$291,561 \$271,616 \$262,015 \$264,188 \$271,706 \$251,910 (000) 2046 2047 2048 2049 2050 2051 2052 2053 ROM Tonnes Produced 5,511 5,500 4,609 4,379 4,086 4,664 5,575 5,233 Clean Tonnes Produced 3,656 3,457 2,628 2,196 2,549 2,939 3,416 3,000 Mining Costs \$118,803 \$117,791 \$106,758 \$97,096 \$96,499 \$96,838 \$99,077 \$84,120 Preparation and Loading \$25,705 \$25,4 \$22,042 \$20,926 \$20,478 \$22,247 \$25,054 \$23,348 General & Administrative \$8,237 \$8,237 \$8,237 \$7,892 \$7,892 \$7,892 \$7,892 \$7,892 \$7,892 Royalties \$38,157 \$36,075 \$27,424 \$22,918 \$26,605 \$30,671 \$35,650 \$31,309 Property and Sales Related Taxes \$3,036 \$2,907 \$2,369 \$2,089 \$2,318 \$2,571 \$2, \$2,611 Total Capex \$40,219 \$38,024 \$28,906 \$24,157 \$28,043 \$32,328 \$28,182 \$16,500 Total \$243,324 \$237,453 \$202,974 \$181,653 \$188,470 \$200,1 \$207,727 \$174,012 (000) 2054 2055 2056 2057 2058 2059 2060 2061 ROM Tonnes Produced 2,698 --Clean Tonnes Produced 1,712 \$865 \$865 \$806 \$806 \$806 Royalties \$16,725 \$- \$- \$- \$- \$- Property and Sales Related Taxes \$1,831 \$332 \$332 \$332 \$166 \$166 \$166 \$166 Bonds Posted have been added to G&A Mining and G&A costs beyond production include Labor and some miscellaneous costs incurred during Reclamation. 19 Economic Analysis 19.1 Assumptions, Parameters and Methods A pre-feasibility LOM plan was prepared by MM&A for the Blue Cree operation. MM&A prepared mine projections and production timing forecasts based on coal seam characteristics. Production timing was carried out to depletion (exhaustion) of the coal reserve areas, which is projected for the year 2054. All costs and prices are based on 2023 constant United States real dollars. The mine plan, productivity expectations and cost estimates generally reflect historical performance by Warrior Met and efforts have been made adjust plans and costs to reflect conditions at Blue Creek. MARSHALL MILLER & ASSOCIATES, INC. 73



MM&A is confident that the mine plan and financial model are reasonably representative to provide an accurate estimation of coal reserves.

A capital forecast was developed by MM&A for mine development, infrastructure, and on-going capital requirements for the life of the mine. Staffing levels were prepared, and operating costs estimated by MM&A. MM&A utilized historical cost data provided by Warrior Met and its own knowledge and experience to estimate direct and indirect operating costs.

The preliminary feasibility financial model, prepared for this TRS, was developed to test the economic viability of the coal reserve areas. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations, but are intended to prove the economic viability of the estimated coal reserves. All costs and prices are based on 2023 constant United States dollars.

On an unlevered basis, the NPV of the real cash flows after taxes was estimated for the purpose of classifying coal reserves. The cash flows, excluding debt service, are calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, sampling and analysis services, reclamation, and general and administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the federal black lung tax, federal reclamation taxes, property taxes, local transportation prior to delivery at rail or barge loading sites, coal production royalties, sales and use taxes, income taxes and State severance taxes. Warrior Met's historical costs provided a useful reference for MM&A's cost estimates.

Sales revenue is based on the metallurgical coal price information provided to MM&A by Warrior Met, based on the HVA forecast.

Projected debt service is excluded from the P&L and cash flow model to determine enterprise value.

The financial model expresses coal sales prices, operating costs, and capital expenditures in current day dollars without adjustment for inflation. Capital expenditures and reclamation costs are included based on estimates for the mine by year.

Warrior Met will pay royalties for the various current and projected operations. The royalty rates vary by mining method and location. The average royalty rate for Blue Creek is estimated to be 8.0% of the sales revenue FOB the mine after deduction of all transportation and loading costs between the mine and the vessel.

The projection model also includes consolidated income tax calculations at the Warrior Met level, incorporating federal and state income taxes with an overall effective rate of 19%. To the extent the

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MM&A is confident that the mine plan and financial model are reasonably representative to provide an accurate estimation of coal reserves. A capital forecast was developed by MM&A for mine development, infrastructure, and on-going capital requirements for the life of the mine. Staffing levels were prepared, and operating costs estimated by MM&A. MM&A utilized historical cost data provided by Warrior Met and its own knowledge and experienc estimate direct and indirect operating costs. The preliminary feasibility financial model, prepared for this TRS, was developed to test the economic viabi of the coal reserve areas. Economic models include non-controlled tons which are expected to be acquired by Warrior Met. The results of this financial model are not intended to represent a bankable feasibility study, required for financing of any current or future mining operations, but are intended to prothe economic viability of the estimated coal reserves. All costs and prices are based on 2023 constant United States dollars. On an unlevered basis, the N of the real cash flows after taxes was estimated for the purpose of classifying coal reserves. The cash flows, excluding debt service, are calculated by subtracting direct and indirect operating expenses and capital expenditures from revenue. Direct costs include labor, operating supplies, maintenance and repairs, facilities costs for materials handling, coal preparation, refuse disposal, coal loading, sampling and analysis services, reclamation, and general at administrative costs. Indirect costs include statutory and legally agreed upon fees related to direct extraction of the mineral. The indirect costs are the fee black lung tax, federal reclamation taxes, property taxes, local transportation prior to delivery at rail or barge loading sites, coal production royalties, sal and use taxes, income taxes and State severance taxes. Warrior Met's historical costs provided a useful reference for MM&A's cost estimates. Sales reve is based on the metallurgical coal price information provided to MM&A by Warrior Met, based on the HVA forecast. Projected debt service is excluded the P&L and cash flow model to determine enterprise value. The financial model expresses coal sales prices, operating costs, and capital expenditures in current day dollars without adjustment for inflation. Capital expenditures and reclamation costs are included based on estimates for the mine by year.

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Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

mine generates net operating losses for tax purposes, the losses are assumed to offset other corporate taxable income. The term "cash flows" is used in this report refers to after tax cash flows.

Consolidated cash flows are driven by annual sales tonnage, which starts at 3.73 million tonnes in 2027, the first year of longwall production and averages 3.75 million tonnes per year from 2027 to 2053 the final full year of production. Projected consolidated revenue averages approximately \$560.2 million per year during the period 2027 to 2053. Revenue totals \$15.5 billion for the property's life.

Consolidated cash flow from the operation is positive throughout the projected operating period, with the exception of mine development years 2022 through 2026 and the post-production years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately 259.6 million per year from 2027 to 2053 and totals \$6.5 billion over the mine life. Capital expenditures, excluding sunk cost through December 31, 2022, total \$1.7 billion over the property's life. *Table 19-1* below shows the project LOM after-tax cash flows for the Blue Creek mine.

(000)	Total LOM	2023	2024	2025	2026	2027	2028	2029
Tonnes Produced	103,824	0	0	144	778	3,728	4,070	4,143
Tonnes Sold	103,824	0	0	24	778	3,728	4,070	4,143
Revenue	\$15,499,294	\$0	\$0	\$2,765	\$94,423	\$512,129	\$583,545	\$610,566
Price (\$/tonne FOB Mine)	\$149	\$0	\$0	\$116	\$121	\$137	\$143	\$147
Mining Costs	\$3,478,536	\$0	\$0	\$14,488	\$52,612	\$116,735	\$126,004	\$132,220
Preparation and Loading	\$792,913	\$0	\$0	\$3,036	\$12,799	\$51,359	\$29,350	\$30,091
Royalties & non-income taxes	\$1,158,489	\$664	\$664	\$741	\$4,323	\$37,034	\$43,844	\$45,744
General & Administrative	\$255,089	\$1,165	\$4,771	\$4,067	\$6,566	\$8,423	\$8,755	\$8,755
Income Taxes	\$1,544,394	(\$340)	(\$340)	(\$15,391)	(\$13,550)	\$37,333	\$49,542	\$51,261
Capital and Land Expenditures	\$1,727,729	\$120,554	\$168,625	\$187,945	\$133,171	\$88,317	\$23,518	\$47,597
Reclamation and Closing Costs	\$12,990	50	\$0	\$0	50	\$0	\$0	\$0
Total After Tax Cash Flow	\$6,529,156	(\$122,044)	(\$173,721)	(\$192,122)	(\$101,499)	\$172,927	\$302,532	\$294,897
NPV at 9% Discount Factor	\$1,520,306							
(000)	2030	2031	2032	2033	2034	2035	2036	2037
Tonnes Produced	4,205	4,297	4,256	3,911	4,153	3,914	3,440	4,488
Tonnes Sold	4,205	4,297	4,256	3,911	4,153	3,914	3,440	4,488
Revenue	\$632,357	\$646,093	\$639,907	\$588,062	\$624,503	\$588,569	\$517,331	\$674,831
Price (\$/tonne FOB Mine)	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150
Mining Costs	91.50	91.50	98.50	44.55	44.50			
mining coars	\$133,131	\$134,853	\$133,943	\$130,650	\$139,572	\$136,412	\$130,171	\$143,800
Preparation and Loading	and the second se	the second s		and the second se	the second se	\$136,412 \$29,146	\$130,171 \$27,121	\$143,800 \$31,389
	\$133,131	\$134,853	\$133,943	\$130,650	\$139,572	and the second se	and the second se	
Preparation and Loading Royalties & non-income taxes	\$133,131 \$30,449	\$134,853 \$30,749	\$133,943 \$30,432	\$130,650 \$29,367	\$139,572 \$30,004	\$29,146	\$27,121	\$31,389
Preparation and Loading Royalties & non-income taxes	\$133,131 \$30,449 \$47,280	\$134,853 \$30,749 \$48,292	\$133,943 \$30,432 \$47,836	\$130,650 \$29,367 \$44,015	\$139,572 \$30,004 \$46,701	\$29,146 \$44,052	\$27,121 \$38,800	\$31,389 \$50,411
Preparation and Loading Royalties & non-income taxes General & Administrative	\$133,131 \$30,449 \$47,280 \$8,755	\$134,853 \$30,749 \$48,292 \$8,755	\$133,943 \$30,432 \$47,836 \$8,755	\$130,650 \$29,367 \$44,015 \$8,237	\$139,572 \$30,004 \$46,701 \$8,237	\$29,146 \$44,052 \$8,237	\$27,121 \$38,800 \$8,237	\$31,389 \$50,411 \$8,237
Preparation and Loading Royalties & non-income taxes General & Administrative Income Taxes	\$133,131 \$30,449 \$47,280 \$8,755 \$55,819	\$134,853 \$30,749 \$48,292 \$8,755 \$61,376	\$133,943 \$30,432 \$47,836 \$8,755 \$61,145	\$130,650 \$29,367 \$44,015 \$8,237 \$62,702	\$139,572 \$30,004 \$46,701 \$8,237 \$67,295	\$29,146 \$44,052 \$8,237 \$61,856	\$27,121 \$38,800 \$8,237 \$51,246	\$31,389 \$50,411 \$8,237 \$75,468

#### Table 19-1: Blue Creek Project LOM After-tax Cash Flow

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mine generates net operating losses for tax purposes, the losses are assumed to offset other corporate taxable income. The term "cash flows" is used in the report refers to after tax cash flows. Consolidated cash flows are driven by annual sales tonnage, which starts at 3.73 million tonnes in 2027, the first yea longwall production and averages 3.75 million tonnes per year from 2027 to 2053 the final full year of production. Projected consolidated revenue avera approximately \$560.2 million per year during the period 2027 to 2053. Revenue totals \$15.5 billion for the property's life. Consolidated cash flow from operation is positive throughout the projected operating period, with the exception of mine development years 2022 through 2026 and the post-productic years, due to end-of-mine reclamation spending. Consolidated cash flow from the operation averages approximately 259.6 million per year from 2027 to 2053 and totals \$6.5 billion over the mine life. Capital expenditures, excluding sunk cost through December 31, 2022, total \$1.7 billion over the property. life. Table 19-1 below shows the project LOM after-tax cash flows for the Blue Creek mine. Table 19-1: Blue Creek Project LOM After-tax Cash Flow 7 (000) 2023 2024 2025 2026 2027 2028 2029 LOM Tonnes Produced 103,824 0 0 144 778 3,728 4,070 4,143 Tonnes Sold 103,824 0 0 24 778 3,728 4,07 4,143 Revenue \$15,499,294 \$0 \$0 \$2,765 \$94,423 \$512,129 \$583,545 \$610,566 Price (\$/tonne FOB Mine) \$149 \$0 \$0 \$116 \$121 \$137 \$143 \$147 Min Costs \$3,478,536 \$0 \$0 \$14,488 \$52,612 \$116,735 \$126,004 \$132,220 Preparation and Loading \$792,913 \$0 \$0 \$3,036 \$12,799 \$51,359 \$29,350 \$30,0



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

(000)	2038	2039	2040	2041	2042	2043	2044	2045
Tonnes Produced	4,129	4,561	4,511	4,024	3,849	3,842	4,041	3,788
Tonnes Sold	4,129	4,561	4,511	4,024	3,849	3,842	4,041	3,788
Revenue	\$620,817	\$685,863	\$678,259	\$605,064	\$578,827	\$577,676	\$607,716	\$569,539
Price (\$/tonne FOB Mine)	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150
Mining Costs	\$138,523	\$141,754	\$141,175	\$134,897	\$131,034	\$132,783	\$134,669	\$123,683
Preparation and Loading	\$29,835	\$31,072	\$30,484	\$28,552	\$27,239	\$27,680	\$28,490	\$26,241
Royalties & non-income taxes	\$46,429	\$51,224	\$50,664	\$45,268	\$43,334	\$43,249	\$45,463	\$42,649
General & Administrative	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237	\$8,237
Income Taxes	\$67,169	\$77,597	\$76,231	\$64,665	\$61,298	\$60,799	\$65,791	\$61,889
Capital and Land Expenditures	\$44,920	\$51,171	\$49,569	\$43,480	\$42,302	\$41,998	\$44,850	\$41,814
Reclamation and Closing Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total After Tax Cash Flow	\$285,704	\$324,808	\$321,899	\$279,965	\$265,384	\$262,930	\$280,216	\$265,027
(000)	2046	2047	2048	2049	2050	2051	2052	2053
Tonnes Produced	3,656	3,457	2,628	2,196	2,549	2,939	3,416	3,000
Tonnes Sold	3,656	3,457	2,628	2,196	2,549	2,939	3,416	3,000
Revenue	\$549,790	\$519,794	\$395,149	\$330,219	\$383,346	\$441,927	\$513,668	\$451,120
Price (S/tonne FOB Mine)	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150
Mining Costs	\$118,803	\$117,791	\$106,758	\$97,096	\$96,499	\$96,838	\$99,077	\$84,120
Preparation and Loading	\$25,705	\$25,461	\$22,042	\$20,926	\$20,478	\$22,247	\$25,054	\$23,348
Royalties & non-income taxes	\$41,193	\$38,982	\$29,793	\$25,007	\$28,923	\$33,242	\$38,530	\$33,920
General & Administrative	\$8,237	\$8,237	\$8,237	\$7,892	\$7,892	\$7,892	\$7,892	\$7,892
Income Taxes	\$59,596	\$54,720	\$36,036	\$27,494	\$37,560	\$47,769	\$59,810	\$52,440
Capital and Land Expenditures	\$40,070	\$37,478	\$27,624	\$25,278	\$26,724	\$31,224	\$18,375	\$9,377
Reclamation and Closing Costs	\$0	\$0	50	50	50	50	50	50
Total After Tax Cash Flow	\$256,186	\$237,126	\$164,657	\$126,527	\$165,270	\$202,715	\$264,929	\$240,024
(000)	2054	2055	2056	2057	2058	2059	2060	2061
Tonnes Produced	1,712	0	0	0	0	0	0	0
Tonnes Sold	1,832	0	0	0	0	0	0	0
Revenue	\$275,441	\$0	\$0	\$0	50	50	\$0	\$0
Price (\$/tonne FOB Mine)	\$150	\$0	50	50	50	50	50	\$0
Mining Costs	\$54,907	\$506	\$506	\$506	\$506	\$506	\$506	\$506
Preparation and Loading	\$12,764	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Royalties & non-income taxes	\$18,555	\$332	\$332	\$332	\$166	\$166	\$166	\$166
General & Administrative	\$7,376	\$2,738	\$865	\$865	\$806	\$806	\$806	\$806
Income Taxes	\$30,557	(\$679)	(\$324)	(\$324)	(\$281)	(\$281)	(\$281)	(\$281)
Capital and Land Expenditures	(\$3,528)	\$22,008	(\$11)	50	(\$6)	50	50	\$0
Reclamation and Closing Costs	(\$9,338)	\$11,450	\$8,874	\$1,260	\$515	\$115	\$115	\$0
Total After Tax Cash Flow	\$164,147	(\$36,354)	(\$10,242)	(\$2,639)	(\$1,706)	(\$1,311)	(\$1,311)	(\$1,197)

Note 1: G&A costs include Insurance premiums and Cash Bond posted.

Note 2: Income Tax credits in development years are taken against other corporate income.

Note 3: Capital and Land Expenditures include annual Working Capital adjustments.

Note 4: Reclamation and Closing Costs include an adjustment for the projected residual value of Equipment.

#### 19.2 Results

Cash flow after tax, but before debt service, generated over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV of the property cash flows represents the Enterprise Value of the property and amounts to \$1.5 billion. The pre-feasibility financial model, prepared by MM&A for this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining operations contemplated but are intended to prove the economic viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement.

Table 19-2 shows LOM tonnage, P&L, and EBITDA for Blue Creek.

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\$29,835 \$31,072 \$30,484 \$28,552 \$27,239 \$27,680 \$28,490 \$26,241 Royalties & non-income taxes \$46,429 \$51,224 \$50,664 \$45,268 \$43,334 \$43,249 \$45,463 \$42,649 General & Administrative \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 \$8,237 Income Taxes \$67,169 \$77,597 \$76,231 \$64,66: \$61,298 \$60,799 \$65,791 \$61,889 Capital and Land Expenditures \$44,920 \$51,171 \$49,569 \$43,480 \$42,302 \$41,998 \$44,850 \$41,814 Reclamation an Closing Costs \$0 \$0 \$0 \$0 \$0 \$0 \$0 Total After Tax Cash Flow \$285,704 \$324,808 \$321,899 \$279,965 \$265,384 \$262,930 \$280,216 \$265,027 (000) 2046 2047 2048 2049 2050 2051 2052 2053 Tonnes Produced 3,656 3,457 2,628 2,196 2,549 2,939 3,416 3,000 Tonnes Sold 3,656 3,457 2,628 2,196 2 2,939 3,416 3,000 Revenue \$549,790 \$519,794 \$395,149 \$330,219 \$383,346 \$441,927 \$513,668 \$451,120 Price (\$/tonne FOB Mine) \$150 \$150 \$150 \$150 \$150 \$150 \$150 \$150 Mining Costs \$118,803 \$117,791 \$106,758 \$97,096 \$96,499 \$96,838 \$99,077 \$84,120 Preparation and Loading \$25,705 \$25,461 \$22,042 \$20,926 \$20,478 \$22,247 \$25,054 \$23,348 Royalties & non-income taxes \$41,193 \$38,982 \$29,793 \$25,007 \$28,923 \$33,242 \$38,53( \$33,920 General & Administrative \$8,237 \$8,237 \$8,237 \$7,892 \$7,892 \$7,892 \$7,892 \$7,892 Income Taxes \$59,596 \$54,720 \$36,036 \$27,494 \$37,56( \$47,769 \$59,810 \$52,440 Capital and Land Expenditures \$40,070 \$37,478 \$27,624 \$25,278 \$26,724 \$31,224 \$18,375 \$9,377 Reclamation and Closing Costs \$0 \$0 \$0 \$0 \$0 \$0 \$0 Total After Tax Cash Flow \$256,186 \$237,126 \$164,657 \$126,527 \$165,270 \$202,715 \$264,929 \$240,024 (000) 2054 20 2056 2057 2058 2059 2060 2061 Tonnes Produced 1,712 0 0 0 0 0 0 0 Tonnes Sold 1,832 0 0 0 0 0 0 0 Revenue \$275,441 \$0 \$0 \$0 \$0 \$0 \$0 \$0 Price (\$/tonne FOB Mine) \$150 \$0 \$0 \$0 \$0 \$0 \$0 \$0 Mining Costs \$54,907 \$506 \$506 \$506 \$506 \$506 \$506 \$506 Preparation and Loading \$12,764 \$0 \$0 \$ \$0 \$0 \$0 \$0 Royalties & non-income taxes \$18,555 \$332 \$332 \$332 \$166 \$166 \$166 \$166 General & Administrative \$7,376 \$2,738 \$865 \$865 \$806 \$8 \$806 \$806 Income Taxes \$30,557 (\$679) (\$324) (\$324) (\$281) (\$281) (\$281) (\$281) Capital and Land Expenditures (\$3,528) \$22,008 (\$11) \$0 (\$6) \$0 \$0 Reclamation and Closing Costs (\$9,338) \$11,450 \$8,874 \$1,260 \$515 \$115 \$115 \$0 Total After Tax Cash Flow \$164,147 (\$36,354) (\$10,242) (\$2,63 (\$1,706) (\$1,311) (\$1,197) Note 1: G&A costs include Insurance premiums and Cash Bond posted. Note 2: Income Tax credits in development years are taken against other corporate income. Note 3: Capital and Land Expenditures include annual Working Capital adjustments. Note 4: Reclamatic and Closing Costs include an adjustment for the projected residual value of Equipment. 19.2 Results Cash flow after tax, but before debt service, genera over the life of the property was discounted to NPV at a 9% discount rate, which represents Warrior's typical WACC. On an un-levered basis, the NPV c the property cash flows represents the Enterprise Value of the property and amounts to \$1.5 billion. The pre-feasibility financial model, prepared by MM for this TRS, was developed to test the economic viability of each coal resource area. The results of this financial model are not intended to represent a bankable feasibility study, as may be required for financing of any current or future mining operations contemplated but are intended to prove the econor viability of the estimated coal reserves. Optimization of the LOM plan was outside the scope of the engagement. Table 19-2 shows LOM tonnage, P&L, EBITDA for Blue Creek. MARSHALL MILLER & ASSOCIATES, INC. 76



#### Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA

	Tonnes	Pre-Tax P&L	P&L	EBITDA	EBITDA
	(000)	(\$000)	per Tonne	(\$000)	per Tonne
Blue Creek	103,824	\$8,128,387	\$78.29	\$9,817,952	\$94.56

Note 2: The LOM model does not consider resources exclusive of reserves on the western portion of the property. Note 3: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

As shown in *Table 19-2,* Blue Creek has positive EBITDA over the LOM. Overall, the operation shows positive LOM P&L and EBITDA of \$8.1 billion and \$9.8 billion, respectively.

Warrior Met's Blue Creek annual production and revenue are shown in Figure 19-1 and the Mine's after-tax cash flow summary in constant dollars, excluding debt service, is shown in Figure 19-2 below.

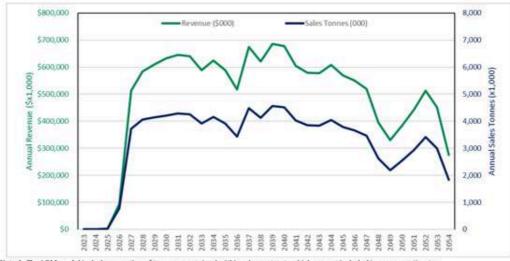


Figure 19-1: Blue Creek Production and Revenue

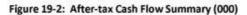
Note 1: The LOM model includes a portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations.

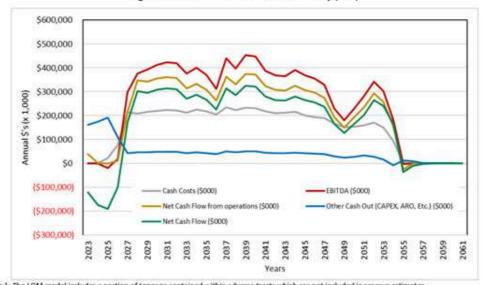
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Table 19-2: Life-of-Mine Tonnage, P&L before Tax, and EBITDA Tonnes Pre-Tax P&L P&L EBITDA EBITDA (000) (\$000) per Tonne (\$000) per Ton Blue Creek 103,824 \$8,128,387 \$78.29 \$9,817,952 \$94.56 Note 1: The LOM model includes tonnages contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model does not consider resources exclusive of reserves on the western portion of the property. Note 3: LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forwa looking market projections which are expected to vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. As shown in Table 19-2, Blue Creek has positive EBITDA over the LOM. Overall, the operation shows positive LOM P&L and EBITDA of \$8.1 billion an \$9.8 billion, respectively. Warrior Met's Blue Creek annual production and revenue are shown in Figure 19-1 and the Mine's after-tax cash flow summai constant dollars, excluding debt service, is shown in Figure 19-2 below. Figure 19-1: Blue Creek Production and Revenue Note 1: The LOM model inclua portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic anal is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected vary over time based upon historic volatility of coal markets. The development of costs incorporates a combination of Warrior M







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# 19.3 Sensitivity

Sensitivity of the NPV results to changes in the key drivers is presented in the chart below. The sensitivity study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased within a +/- 10% range.

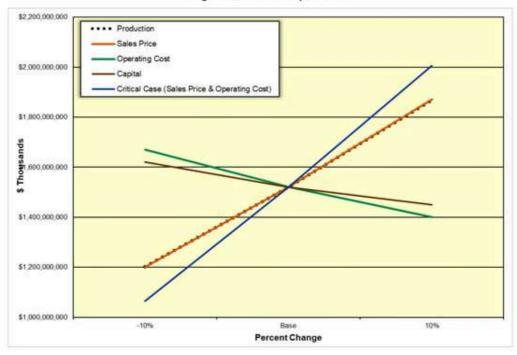
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Figure 19-2: After-tax Cash Flow Summary (000) Note 1: The LOM model includes a portion of tonnage contained within adverse tracts which are not included in reserve estimates. Note 2: The LOM model and associated economic analysis is intended to prove the economic viability of the subject coal tonnage, allowing controlled tons to be classified as "reserve". The exercise should not be construed to represent a valuation of Warrior Met's holdings. Long-term cash flows incorporate forward-looking market projections which are expected to vary over time based upon historic volatility of coal market The development of costs incorporates a combination of Warrior Met's historical performance and MM&A's knowledge of mine productivity and cost structures for comparable operations. 19.3 Sensitivity Sensitivity of the NPV results to changes in the key drivers is presented in the chart below. The sensitivity study shows the NPV at the 9% discount rate when base case sales prices, operating costs, and capital costs are increased and decreased withi +/- 10% range. MARSHALL MILLER & ASSOCIATES, INC. 78



### Figure 19-3: Sensitivity of NPV



# 19.4 Economic Analysis Summary

This TRS, conducted in accordance with industry standards, is sufficient to conclude the Property has a reasonable potential of obtaining long-term shareholder value given forecast market conditions approaching those used in the analysis. The plan appears to be reasonable, complete, and capable of being executed under competent management.

# 20 Adjacent Properties

# 20.1 Information Used

No Proprietary information associated with neighboring properties was used as part of this study.

# 21 Other Relevant Data and Information

MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this former work as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geological- and mining-based studies in the

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Figure 19-3: Sensitivity of NPV 19.4 Economic Analysis Summary This TRS, conducted in accordance with industry standards, is sufficient to conclude Property has a reasonable potential of obtaining long-term shareholder value given forecast market conditions approaching those used in the analysis. TI plan appears to be reasonable, complete, and capable of being executed under competent management. 20 Adjacent Properties 20.1 Information Used No Proprietary information associated with neighboring properties was used as part of this study. 21 Other Relevant Data and Information MM&A has performed various technical studies of the Property over the past decade. MM&A utilized this former work as the basis of an updated study which meets those standards set forth by the SEC. Additionally, MM&A has a longstanding history of various geological- and mining-based studies in the MARSHA MILLER & ASSOCIATES, INC. 79



Black Warrior Basin, with specific projects conducted for Warrior Met in several operations adjacent to the Property during due diligence activities. This experience was utilized in the development of this TRS.

# 22 Interpretation and Conclusions

# 22.1 Conclusion

Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal horizons situated on the Property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS.

The geological data and TRS, which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of coal reserves provided herein.

This geologic evaluation conducted in conjunction with the feasibility study is sufficient to conclude that Warrior Met currently controls 68.2 million tonnes of marketable underground coal reserves identified on the Property. The LOM model includes 103.8 million tonnes, a portion of which are currently classified as mineral adverse and must be obtained to successfully engage in the venture.

# 22.2 Project Risk Assessment

The MM&A project team identified project risks for operational, technical and administrative subjects related to the development of the Blue Creek Project. A risk matrix has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessment process. The risk matrix and risk assessment process are modelled to the standards presented in the Australian and New Zealand Standard on Risk Management (AS/NZS 4360).

The purpose of the risk assessment presented herein is to inform project stakeholders of key aspects of the Project that can be impacted by events, the consequences of which could affect the success of the venture. The significance of an impacted aspect of the operation is directly related to both the probability of occurrence and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potential impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor is herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual risk can be quantified numerically, derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

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Black Warrior Basin, with specific projects conducted for Warrior Met in several operations adjacent to the Property during due diligence activities. This experience was utilized in the development of this TRS. 22 Interpretation and Conclusions 22.1 Conclusion Sufficient data have been obtained through various exploration and sampling programs and mining operations to support the geological interpretations of seam structure and thickness for coal hori: situated on the Property. The data are of sufficient quantity and reliability to reasonably support the coal resource and coal reserve estimates in this TRS. geological data and TRS, which consider mining plans, revenue, and operating and capital cost estimates are sufficient to support the classification of co reserves provided herein. This geologic evaluation conducted in conjunction with the feasibility study is sufficient to conclude that Warrior Met currentl controls 68.2 million tonnes of marketable underground coal reserves identified on the Property. The LOM model includes 103.8 million tonnes, a portic which are currently classified as mineral adverse and must be obtained to successfully engage in the venture. 22.2 Project Risk Assessment The MM&A project team identified project risks for operational, technical and administrative subjects related to the development of the Blue Creek Project. A risk m has been constructed to present the risk levels for all the risk factors identified and quantified in the risk assessment process. The risk matrix and risk assessment process are modelled to the standards presented in the Australian and New Zealand Standard on Risk Management (AS/NZS 4360). The pur of the risk assessment presented herein is to inform project stakeholders of key aspects of the Project that can be impacted by events, the consequences c which could affect the success of the venture. The significance of an impacted aspect of the operation is directly related to both the probability of occurr and the severity of the consequences. The initial risk for a risk factor is herein defined as the risk level after the potential impact of the risk factor is addressed by competent and prudent management utilizing control measures readily available. Residual risk for a risk factor is herein defined as the risk level following application of special mitigation measures if management determines that the initial risk level is unacceptable. Initial risk and residual ri

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Risk aspects identified and evaluated during this assignment total 25. No residual risks are rated Very High; 5 risk aspects are rated High; 10 of the risk aspects are classified as Moderate residual risk, and 10 of the risk aspects were attributed Low and Very Low residual risks.

# 22.2.1 Assumptions and Limitations

Key assumptions in the risk assessment are outlined below.

- The identification of project risks is not presumed to be exhaustive. Instead, that listing of risks is presented based on the experiences of the project team.
- The probability and consequence ratings are subjectively assigned and are assumed to reasonably reflect the condition of the projected mine operations.
- The Control Measures shown in the matrices presented in this chapter are not exhaustive. They
  represent a condensed collection of activities that the MM&A team has observed to be effective
  in coal mining scenarios.
- Mitigation Measures listed for each risk factor of the operation are not exhaustive. The measures listed, however, have been observed to be effective.
- The monetary values used in ranking the consequences are assumed to be appropriate for projected investment and expected size of the operation.

The risk assessment is subject to the limitations of the information currently collected, tested, and interpreted at the effective date of the report.

#### 22.2.2 Methodology

The numerical quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.

	$R = P \times C$	
Where:	R = Risk Level	
	P = Probability of Occurrence	
	C = Consequence of Occurrence	

The Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by MM&A's team of practiced mine engineers, geologists and managers. Both P and C are assigned integer values ranging from 1 to 5 for which the value 1 represents the lowest probability and least consequence, and the value 5 represents the highest probability and greatest consequence. The products (R = P x C) which define the Risk Level, are thereafter classified from very low to very high.

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Risk aspects identified and evaluated during this assignment total 25. No residual risks are rated Very High; 5 risk aspects are rated High; 10 of the risk aspects are classified as Moderate residual risk, and 10 of the risk aspects were attributed Low and Very Low residual risks. 22.2.1 Assumptions and Limitations Key assumptions in the risk assessment are outlined below. 1. The identification of project risks is not presumed to be exhaustive. Instead, th listing of risks is presented based on the experiences of the project team. 2. The probability and consequence ratings are subjectively assigned and are assumed to reasonably reflect the condition of the projected mine operations. 3. The Control Measures shown in the matrices presented in this chapter an not exhaustive. They represent a condensed collection of activities that the MM&A team has observed to be effective in coal mining scenarios. 4. Mitiga Measures listed for each risk factor of the operation are not exhaustive. The measures listed, however, have been observed to be effective. 5. The moneta values used in ranking the consequences are assumed to be appropriate for projected investment and expected size of the operation. The risk assessment subject to the limitations of the information currently collected, tested, and interpreted at the effective date of the report. 22.2.2 Methodology The numer quantities (i.e., risk levels) attributable to either "initial" or "residual" risks are derived by the product of values assigned to probability and consequence ranging from very low risk to very high risk.  $R = P \ge C$  Where: R = Risk Level P = Probability of Occurrence C = Consequence of Occurrence The Probability (P) and Consequence (C) parameters recited in the formula are subjective numerical estimates made by MM&A's team of practiced mine engineers, geologists and managers. Both P and C are assigned integer values ranging from 1 to 5 for which the value 1 represents the lowest probability

least consequence, and the value 5 represents the highest probability and greatest consequence. The products ( $R = P \ge C$ ) which define the Risk Level, at thereafter classified from very low to very high. MARSHALL MILLER & ASSOCIATES, INC. 81



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# Risk Level Table Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25)

Very high initial risks are considered to be unacceptable and require corrective action well in advance of project development. In short, measures must be applied to reduce very high initial risks to a tolerable level.

After the consideration and application of mitigation factors, the residual risk can be determined. The residual risk provides a basis for the management team to determine if the residual risk level is acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the proposed operation.

# 22.2.3 Development of the Risk Matrix

# 22.2.3.1 Quantification of Risk Likelihood and Severity of Impact

Risks have been identified for the technical, operational, and administrative activities expected to be encountered throughout the development, installation, and operation of the Project. The likelihood of risk occurrence was developed and quantified according to *Table 22-1*.

Category		Probability Level (P)	
1	Remote	Not likely to occur except in exceptional circumstances.	<10%
2	Unlikely	Not likely to occur; small in degree.	10 - 30%
3	Possible	Capable of occurring.	30 - 60%
4	Likely	High chance of occurring in most circumstances.	60 - 90%
5	Almost Certain	Event is expected under most circumstances; impossible to avoid.	>90%

# Table 22-1: Probability Levels of Risks and Corresponding Values

The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihood of occurrence of less than 10 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5 assigned to incidents considered to be almost certain to occur.

Consequences of each risk were estimated and quantified by MM&A according to the following Table 22-2.

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Risk Level Table Risk Level (R) Very Low (1 to 2) Low (3 to 5) Moderate (6 to 11) High (12 to 19) Very High (20 to 25) Very high initial risks are considered to be unacceptable and require corrective action well in advance of project development. In short, measures must be applied to reduce very h initial risks to a tolerable level. After the consideration and application of mitigation factors, the residual risk can be determined. The residual risk provid basis for the management team to determine if the residual risk level is acceptable or tolerable. If the risk level is determined to be unacceptable, further actions should be considered to reduce the residual risk to acceptable or tolerable levels to provide justification for continuation of the proposed operatic 22.2.3 Development of the Risk Matrix 22.2.3.1 Quantification of Risk Likelihood and Severity of Impact Risks have been identified for the technical, operational, and administrative activities expected to be encountered throughout the development, installation, and operation of the Project. The likeliho of risk occurrence was developed and quantified according to Table 22-1. Table 22-1: Probability Levels of Risks and Corresponding Values Category Probability Level (P) 1 Remote Not likely to occur except in exceptional circumstances. <10% 2 Unlikely Not likely to occur; small in degree. 10—30% Possible Capable of occurring. 30—60% 4 Likely High chance of occurring in most circumstances. 60—90% 5 Almost Certain Event is expected under most circumstances; impossible to avoid. >90% The lowest rated probability of occurrence is assigned the value of 1 and described as remote, with a likelihood of occurrence of less than 10 percent. Increasing values are assigned to each higher probability of occurrence, culminating with the value of 5

assigned to incidents considered to be almost certain to occur. Consequences of each risk were estimated and quantified by MM&A according to the following Table 22-2. MARSHALL MILLER & ASSOCIATES, INC. 82



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				ts in Key Elements of the Pr	oject Program to Event Se	verity Category	w
Category	Severity of the Event	Financial Impact of the Event	Unplanned Loss of Production (Impact on Commercial Operations)	Events Impacting on the Environment	Events Affecting the Program's Social and Community Relations	Resultant Regulatory / Sovereign Risk	Events Affecting Occupational Health & Si
1	1     Insignificant     < \$1MM		Occasional nuisance impact on travel.		Event recurrence avoided corrective action throu established procedure (Engineering, guarding training).		
2			Persistent nuisance impact on travel. Transient adverse media coverage.		First aid – lost time. Ever recurrence avoided by corrective action thoug established procedure		
3	Moderate	\$4MM to	≤1 week	Appreciable change to species population; medium-term (<10	Measurable impact on travel and water/air quality. Significant	Uncertainty securing or retaining essential approval / license.	Medical Treatment – permanent incapacitati Avoiding event recurrer
3	Moderate	\$10MM	SIWEEK	years) detriment to ecosystem function.	adverse media coverage / transient public outrage.	Change to regulations (tax; bonds; standards).	requires modification t established corrective ac procedures.
4	Major	\$10MM to \$20MM	1 to 2 weeks	Change to species population threatening viability; long-term (>10 years) detriment to ecosystem function.	Long-term, serious impact on travel and use of water resources; degradation of air quality; sustained and effective public opposition.	Suspension / long-delay in securing essential approval / license. Change to laws (tax; bonds; standards).	Fatality. Avoiding ever recurrence requires modification to establish corrective action procedu and staff retraining.
5	Critical	> \$20MM	>1 month	Species extinction; irreversible damage to ecosystem function.	Loss of permits.	Withdraw / failure to secure essential approval / license.	Multiple fatalities. Avoid event recurrence requir major overhaul of policies procedures.

Table 22-2: Consequence Level Table

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Table 22-2: Consequence Level Table Correlation of Events in Key Elements of the Project Program to Event Severity Category Unplanned Loss of Financial Production (Impact Events Affecting the Severity of Impact of on Commercial Events Impacting on Program's Social and Resultant Regulator Events Affecting Category the Event the Event Operations) the Environment Community Relations Sovereign Risk Occupational Health & Safety Event recurrence avoided by Insignificant loss of corrective action through habitat; no irreversible Occasional nuisance 1 Insignificant < \$1MM ? 12 hours established procedures effects on water, soil impact on travel. (Engineering, guarding, and the environment. training). No significant change to Persisten nuisance First aid - lost time. Event species populations; \$1MM to impact on travel. recurrence avoided by 2 Minor ? 1 day short-term reversible \$4MN Transient adverse corrective action thought perturbation to media coverage. established procedures. ecosystem function. Measurable impact on Uncertai securing or Medical Treatment - Appreciable change to travel and water/air retaining essential approval permanent incapacitation species population; \$4MM to quality. Significant / license. Avoiding event recurrence 3 Moderate ? 1 week medium-term (?10 \$10MM adverse media requires modification years) detriment to Change to regulations (tax; coverage / transient established corrective action ecosystem function. bonds; standards). public outrage. procedures. Long-term, serious Fatality. Avoiding event Change to species impact on travel and Suspension / long-delay in recurrence requires populatic threatening use of water resources; securing essential approval modification to established \$10MM to 4 Major 1 to 2 weeks viability; long-term (>10 degradation of air / license. corrective action procedures \$20MM years) detriment to quality; sustained and staff retraining. ecosystem function. effective public Change to laws (tax; bonds; opposition. standards). Multiple fatalities. Avoiding Species extinction; Withdraw / failure to secure event recurrence requires 5 Critical > \$20MM >1 month irreversible damage to Loss of permits. essential approval / license. major overhaul of policies and ecosystem function. procedures. MARSHALL MILLER & ASSOCIATES, INC. 83



The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incidents with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than \$2-million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include multiple-fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than \$20-million.

# Composite Risk Matrix R = P x C and Color-Code Convention

The risk level, defined as the product of probability of occurrence and consequence, ranges in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the highest risk aspects.

			1				
	P x C = R		Insignificant	Minor	Moderate	Major	Critical
			1	2 3		4	5
	Remote	1	1	2	3	4	5
vel (P)	Unlikely	2	2	4	6	8	10
Probability Level (P)	Possible	3	3	6	9	12	15
Probat	Likely	4	4	8	12	16	20
1212	Almost Certain	5	5	10	15	20	25

Table 22-3:	<b>Risk Matrix</b>
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# 22.2.4 Categorization of Risk Levels and Color Code Convention

Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level.

# 22.2.5 Summary of Residual Risk Ratings

Each risk factor is numbered, and a risk level for each is determined by multiplying the assigned probability by the assigned consequence. The risk levels are plotted on a risk matrix, *Table 22-4*, to provide a composite view of the Warrior Met risk profile. The average risk level is 7.1, which is defined as Moderate.

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The lowest rated consequence is assigned the value of 1 and is described as Insignificant Consequence parameters include non-reportable safety incident with zero days lost accidents, no environmental damage, loss of production or systems for less than one week and cost of less than \$2-million. Increasing values are assigned to each higher consequence, culminating with the value of 5 assigned to critical consequences, the parameters of which include mult fatality accidents, major environmental damage, and loss of production or systems for longer than six months and cost of greater than \$20-million. Composite Risk Matrix  $R = P \times C$  and Color-Code Convention The risk level, defined as the product of probability of occurrence and consequence, rang in value from 1 (lowest possible risk) to 25 (maximum risk level). The values are color-coded to facilitate identification of the highest risk aspects. Table 3: Risk Matrix Consequence (C) P x C = R Insignificant Minor Moderate Major Critical 1 2 3 4 5 Remote 1 1 2 3 4 5 (P) Level Unlikely 2 2 4 6 8 10 Possible 3 3 6 9 12 15 Probability Likely 4 4 8 12 16 20 Almost 5 5 10 15 20 25 Certain 22.2.4 Categorization of Risk Levels and Color Code Conventic Very high risks are considered to be unacceptable and require corrective action. Risk reduction measures must be applied to reduce very high risks to a tolerable level. 22.2.5 Summary of Residual Risk Ratings Each risk factor is numbered, and a risk level for each is determined by multiplying the assign probability by the assigned consequence. The risk levels are plotted on a risk matrix, Table 22-4, to provide a composite view of the Warrior Met risk profile. The average risk level is 7.1, which is defined as Moderate. MARSHALL MILLER & ASSOCIATES, INC. 84



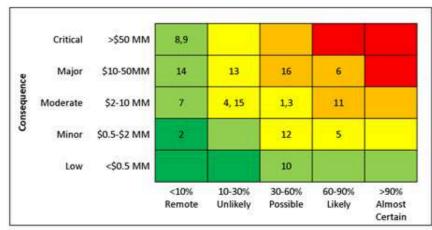


Table 22-4: Residual Risk Assessment Matrix

# 22.2.6 Risk Factors

A high-level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. Risk factors that are unique to a specific operation or are particularly noteworthy are addressed individually.

# 22.2.6.1 Geological and Coal Resource

Coal mining is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource to be uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets.

Offsetting the geological and coal resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from areas where coal quality and/or mineability may be less favorable. This flexibility, combined with the extensive work done to define the reserve, reduces the risk at BC below that of other mine properties.

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Table 22-4: Residual Risk Assessment Matrix Critical >\$50 MM 8,9 Major \$10-50MM 14 13 16 6 Moderate \$2-10 MM 7 4, 15 1,3 11 Consequence Mi \$0.5-\$2 MM 2 12 5 Low <\$0.5 MM 10 <10% 10-30% 30-60% 60-90% >90% Remote Unlikely Possible Likely Almost Certain 22.2.6 Risk Factors A h level approach is utilized to characterize risk factors that are generally similar across a number of active and proposed mining operations in the region. R factors that are unique to a specific operation or are particularly noteworthy are addressed individually. 22.2.6.1 Geological and Coal Resource Coal mir is accompanied by risk that, despite exploration efforts, mining areas will be encountered where geological conditions render extraction of the resource t uneconomic (such as faulting), or coal quality characteristics that may disqualify the product for sale into target markets. Offsetting the geological and c resource risk are the massive size of the controlled property which allows large areas to be mined in the preferred mine areas sufficiently away from area where coal quality and/or mineability may be less favorable. This flexibility, combined with the extensive work done to define the reserve, reduces the r at BC below that of other mine properties. MARSHALL MILLER & ASSOCIATES, INC. 85



Aspect	Impact	Control Measures	Initial Risk Level			Mitigation Measures	Residual Risk Level		
			P	C	R		P	C	R
Recoverable coal tonnes recognized to be significantly less than previously estimated, including impacts of faulting impacts of faulting impacts of faulting associated geotechnical & hydrogeological result in project delays and operational challenges, including decreased productivity.	Reserve base is adequate to serve market commitments and respond to opportunities for many years. Local adverse conditions may increase frequency and cost of production unit relocations. Potential cost overruns and project delays. Reduced productivity on CM and LW sections, increased roof control cost on CM sections and LW gateroads;	Previous and ongoing exploration and extensive regional mining history provide a high level of confidence of coal seam correlation, continuity of the coal seams, and coal resource tonnes. Attempt to locate coal barriers and mains away from areas exhibiting poor mineability: conduct hazard mapping and training to reduce accident risk; conduct ongoing exploration to locate problem areas in ample time to allow adjustment to mine plan	4	4	16	Optimize mine plan to increase resource recovery, develop mine plan to provide readly available alternate mining locations to sustain expected production level. Continue to conduct significant chiling ahead of mining and project infrastructure installation. Assess geomechanical charactenstics of roof and floor ahead of mine development, shaft & slope installation.	60	3	9
Coal quality locally proves to be lower than initially projected.	If uncontrolled, production and sale of coal that is out of specification can result in rejection of deliveries, cancellation of coal sales agreements and damage to reputation.	Exploration and vast experience and history in local coal seams provide confidence in coal quality, limited excursions can be managed with careful product segregation and blending.	2	3	6	Develop mine plan to provide readily available alternate mining locations to sustain expected production level, modify coal sales agreements to reflect coal quality.	1	2	2

Table 22-5: Geological and Coal Resource Risk Assessment (Risks 1 and 2)

### 22.2.6.1 Environmental

Water quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to meet modified standards or to receive new permits and modifications to existing permits. Permit protests may result in delays or denials to permit applications.

Environmental standards and permit requirements have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements.

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Table 22-5: Geological and Coal Resource Risk Assessment (Risks 1 and 2) Initial Risk Level Residual Risk Level Aspect Impact Control Measures Mitigation Measures P C R P C R Recoverable coal Reserve base is adequate to Previous and ongoing 4 4 16 Optimize mine plan to 3 3 9 tonnes recogn to serve market commitments exploration and extensive increase resource be significantly less and respond to opportunities regional mining history recovery; develop than previously for many years. Local provide a high level of mine plan to provide estimated, including adverse conditions may confidence of coal seam readily available impacts of faulting, increase frequency and cost correlation, continuity of alternate mining Impacts of faulting of production unit the coal seams, and coal locations to sustain associated relocations. Potential cost resource tonnes. Attempt expected production geotechnical & overruns and project delays, to locate coal level. Continue to hydrogeological Reduced productivity on barriers and mains away conduct significant result in project CM and LW sections; from areas exhibiting drilling ahead of delays and increased roof control poor mineability; conduct min and project operational cost on CM sections and hazard mapping and infrastructure challenges, including LW gateroads; training to reduce installation. Assess decreased accident risk; conduct geomechanical productivity, ongoing exploration to characteristics of roof locate problem areas in and floor ahe of ample time to allow mine development, adjustment to mine plan shaft & slope installation. Coal guality locally If uncontrolled, production Exploratic and vast 2 3 6 Develop mine plan to 1 2 2 proves to be lower and sale of coal that is out of experience and history in provide readily than initially projec specification can result in local coal seams provide available alternate rejection of deliveries, confidence in coal quality; mining locations to cancellation coal sales limited excursions can be sustain expected agreements and damage to managed with careful production level; reputation. product segregation modify coal sales blending, agreements to reflect coal quality, 22.2.6.1 Environmental Water quality and other permit requirements are subject to modification and such changes could have a material impact on the capability of the operator to meet modified standards or to receive new permits and

modifications to existing permits. Permit protests may result in delays or denials to permit applications. Environmental standards and permit requiremen have evolved significantly over the past 50 years and to-date, mining operators and regulatory bodies have been able to adapt successfully to evolving environmental requirements. MARSHALL MILLER & ASSOCIATES, INC. 86



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Aspect	_* N		Initial Risk Level				Residual Risk Level		
	Impact	Control Measures	P	C	R	Mitigation Measures	Р	C	R
Environmental performance standards are modified in the future.	Delays in receiving new permits and modifications to existing permits; cost of testing and treatment of water and soes	Work with regulatory agencies to understand and influence final standards, implement tasting, treatment and other actions to comply with new standards.	3	4	12	Modify mining and reclamation plans to improve compliance with new standards while reducing cost of compliance.	3	3	9
New permits and permit modifications are increasingly delayed or denied	Interruption of production and delayed implementation of replacement production from new mining areas.	Comply quickly with testing, treatment and other actions required, continue excellent compliance performance within existing permits.	2	4	8	Establish and maintain close and constructive working relationships with regulatory agencies, local communities and community action groups. Prepare and submit permits well in advance of needs. Conduct additional drilling to lower risk associated with quality concerns in suspect areas.	2	3	6

Table 22-6: Environmental (Risks 3 and 4)

### 22.2.6.2 Regulatory Requirements

Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The impact is industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements.

# Table 22-7: Regulatory Requirements (Risk 5)

Aspect	Impact	Control Measures	Initia P	l Risk L C	evel R	Mitigation	Resid P	ual Risk C	Level
Federal and state mine safety and health regulatory agencies amend mine laws and regulations.	Cost of training, materials, supplies and equipment, modification of mine examination and production procedures, modification of mining plans.	Participate in hearings and workshops when possible to facilitate understanding and implementation, work cooperatively with agencies and employees to facilitate implementation of new laws and regulations.	4	3	12	Familianty and experience with new laws and regulations results in reduced impact to operators and productivity and improved supplies and equipment options.	40	2	8

# 22.2.6.3 Market and Transportation

Most of the current and future production is expected to be directed to domestic and international metallurgical markets. Historically the metallurgical markets have been cyclical and highly volatile.

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Table 22-6: Environmental (Risks 3 and 4) Residual Risk Initial Risk Level Level Aspect Impact Control Measures P C R Mitigation Measures P C R Environmental Delays in receiving new Work with regulatory 3 4 12 Modify mining and 3 3 9 performance standards permits and modifications to agen to understand and reclamation plans to improve are modified in the existing permits; cost of influence final standards; compliance with new future. testi and treatment of water implement testing, treatment standards while reducing and soils and other actions to comply cost of compliance. with new standa New permits and permit Interruption of production and Comply quickly with testing, 2 4 8 Establish and maintain close 2 3 6 modifications are delayed implementation of treatment and other actions and constructive working increasingly delayed or replacement production from required; continue excelle relationships with regulatory denied. new mining areas. compliance performance agencies, local communities within existing permits. and community action groups. Prepare and submit permits well in advance of needs. Conduct additional drilling to lower risk associated with quality concerns in suspect areas. 22.2.6.2 Regulatory Requirements Federal and state health and safety regulatory agencies occasionally amend mine laws and regulations. The implies industry wide. Mining operators and regulatory agencies have been able to adapt successfully to evolving health and safety requirements. Table 22-7: Regulatory Requirements (Risk 5) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Federal an state mine Cost of training, materials, Participate in hearings and 4 3 12 Familiarity and 4 2 8 safety and health supplies and equipment; workshops whe

possible to experience with new regulatory agencies modification of mine facilitate understanding and laws and regulations amend mine laws and examination and production implementation; work results in reduced regulations. procedures; modification of cooperatively with agencies impact to operations mining plans. and employees to facilitate and productivity and implementation of new laws improved supplies and regulations. and equipmer options. 22.2.6.3 Market and Transportation Most of the current and future production is expected to be directed to domestic and international metallurg markets. Historically the metallurgical markets have been cyclical and highly volatile. MARSHALL MILLER & ASSOCIATES, INC. 87



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#### Table 22-8: Market (Risk 6)

		Control Measures	Initia	i Risk L	evel	Mitigation Measures	Residual Risk Level		
Aspect	Impact		P	C	R		P	C	R
Volatile coal prices drop precipitously.	Loss of revenue adversely affects profitability, reduced cash flow may disrupt capital expenditures plan.	Cost control measures implemented, capital spending deferred.	4	5	20	High-cost operations closed, and employees temporarily furloughed	4	4	16

Occasional delay or interruption of rail, river and terminals service may be expected. The operator can possibly minimize the impact of delays by being a preferred customer by fulfilling shipment obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk.

#### Table 22-9: Transportation (Risk 7)

			Initial Risk Lovel			Mitigation	Residual Risk Level		
Aspect Rail or river transport is delayed, storage and shipping access at river and ocean terminals is not	Impact Fulfilment of coal sales agreements delayed; limited coal storage at mines may increase cost of rehanding.	Control Measures Provide adequate storage capacity at mines; coordinate continuously with railroad and shipping	р 2	3	R 6	Measures Provide back-up storage facility along with personnel, equipment and	P 1	с 3	R
available.	production may be temporarily idled.	companies to respond quickly and effectively to changing circumstances.				rehandle plan to sustain production and fulfill sales obligations timely.			

#### 22.2.6.4 Mining Plan

Occupational health and safety risks are inherent in mining operations. Comprehensive training and retraining programs, internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce health risks to miners.

As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads to modification of mine plans and procedures to enable safe work within the mine environment.

Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations.

#### 22.2.6.4.1 Methane Management

Coalbed methane is present in coal operations below drainage. Often the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and

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Table 22-8: Market (Risk 6) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Volatile coal pric drop Loss of revenue adversely Cost control measures 4 5 20 High-cost operations 4 4 16 precipitously. affects profitability; reduced implemented; capit closed, and cash flow may disrupt capital spending deferred. employees expenditures plan. temporarily furloughed. Occasional delay or interruption of r river and terminals service may be expected. The operator can possibly minimize the impact of delays by being a preferred customer by fulfilling shipm obligations promptly and maintaining close working relationships. Multiple shipment means (rail and barge) help minimize this risk. Table 22-9: Transportation (Risk 7) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Rail or river transport Fulfillment of coal sales Provide adequate storage 2 3 6 Provide back-up 1 3 3 delayed; storage and agreements delayed; limited capacity at mines; stora facility along shipping access at river coal storage at mines may coordinate continuously with with personnel, and ocean terminals is not increase cost of rehandling; railroad and shipping equipment and available. production may be temporarily companies to respond rehandle plan to idled, quickly and effectively to sustain production changing circumstances. and fulfill sales obligations timely. 22.2.6.4 Mining Plan Occupational health and safety risks

inherent in mining operations. Comprehensive training and retraining programs, internal safety audits and examinations, regular mine inspections, safety meetings, along with support of trained fire brigades and mine-rescue teams are among activities that greatly reduce accident risks. Employee health-monitoring programs coupled with dust and noise monitoring and abatement reduce health risks to miners. As underground mines are developed and extended, observation of geological, hydrogeological and geotechnical conditions leads to modification of mine plans and procedures to enable safe wor within the mine environment. Highlighted below are selected examples of safety and external factors relevant to Warrior Met operations. 22.2.6.4.1 Met Management Coalbed methane is present in coal operations below drainage. Often the methane concentration in shallow coal seams is at such low levels that it can be readily managed with frequent testing and MARSHALL MILLER & ASSOCIATES, INC. 88



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monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee and Blue Creek seams at the BC Property in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Proximal mines have operated safely for many years in one of the most intense methane environments in the United States through careful management of coal seam degasification, gob degasification and mine-ventilation procedures.

#### Table 22-10: Methane Management (Risk 8)

			Initia	l Risk L	evel	Mitigation	Residual Risk Level		
Aspect Methane hazard is present in mines operating below drainage.	Impact Injury or loss of life, possible ignition of gas and mine explosion; potential loss of mine and equipment temporarily or permanently; additional mine fan, mine power, ventilation, monitoring and examination requirements.	Control Measures Low to moderate levels can be managed with frequent examinations, testing and monitoring within the mine ventilation system. Excellent rock dust maintenance minimizes explosion propagation risk should an ignition occur	P 2	с 5	R 10	Messures Very high-level methane concentrations may require coal seam degasification and gob degasification if longwell or plian extraction methods are employed.	1	5	R

# 22.2.6.4.2 Mine Fires

Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, reduce mine fire risks. Crew training and fire brigade support and training improve response for containment and control if a fire occurs. Spontaneous combustion within coal mines, which is the source of most fires that occur today, is not expected to occur at BC.

#### Table 22-11: Mine Fires (Risk 9)

			Initia	l Risk L	evel		Resid	ual Risk	Leve
Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P	C	R
Mine fire at underground or operation.	Injury or loss of life; potential loss of mine temporarily or permanently; damage to equipment and mine infrastructure.	Inspection and maintenance of mine power, equipment and mine infrastructure; good housekeeping; frequent examination of conveyor belt entities; prompt removal of accumulations of combustible materials.	1	5	5	If spontaneous combustion conditions are present, enhanced monitoring and examination procedures will be implemented, mine design will incorporate features to facilitate isolation, confariment and extinguishment of spontaneous combustion locations	1	5	5

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monitoring, vigilance, and routine mine ventilation. Very high methane concentrations may be present at greater depths, as experienced in the Mary Lee Blue Creek seams at the BC Property in Alabama. High methane concentrations may require degasification of the coal seams to assure safe mining. Proximal mines have operated safely for many years in one of the most intense methane environments in the United States through careful management coal seam degasification, gob degasification and mine-ventilation procedures. Table 22-10: Methane Management (Risk 8) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Methane hazard is present Injury or loss of life; possible Low to moderate levels can 2 5 10 Very high-level 1 5 5 in mines operating below ignition of gas and mine be managed with frequent methane drainage. explosion; poten loss of examinations, testing and concentrations may mine and equipment monitoring within the mine require coal seam temporarily or permanently; ventilation system. degasification and additional mine fan, mine Excellent rock dust gob degasification if power, ventilation, monitoring maintenance minimizes long wall or pillar and examination requirements. explosion propagation risk extraction methods should an ignition occur. are employed. 22.2.6.4.2 Mine Fires Mine fires, once common at mine operations, are rare today. Most active coal miners have not encountered a mine fire. Vastly improved mine power and equipment electrical systems, along with safe mine practices, reduce mine fire risks. Crew training and fire brigade support at training improve response for containment and control if a fire occurs. Spontaneous combustion within coal mines, which is the source of most fires that occur today, is not expected to occur at BC. Table 22-11: Mine Fires (Risk 9) Initial Risk Level Residual Risk Level Aspect Impact Control Measures P Mitigation Measures P C R Mine fire at underground Injury or loss of life; Inspection and maintenance 1 5 5 If spontaneous 1 5 5 or operation, potential of mine of mine power, equipment combustion conditions temporarily or permanently; and mine infrastructure; are present, enhanced damage to equipm and good housekeeping; monitoring and mine infrastructure. frequent examination of examination procedures conveyor belt entries; will be implemente prompt removal of mine design will accumulations of incorporate features to combustible materials. facilitate isolation, containment and extinguishment spontaneous combustion locations. MARSHALL MILLER & ASSOCIATES, INC. 89



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# 22.2.6.4.3 Availability of Supplies and Equipment

The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to be temporary with limited impact on production.

Aspect	Impact	Control Measures	Initia P	il Risk L C	evel R	Mitigation Measures	Resid	lual Risi C	Level R
Deruption of availability for supplies and equipment.	Temporary interruption of production.	Force majeure provision in coal sales agreements to limit liability for delayed or lost sales.	3	2	6	Work closely with customers to assure delayed coal delivery rather than cancelled sales, monitor external conditions and increase inventory of critical supplies, accelerate delivery of equipment when possible.	3	1	3



# 22.2.6.4.4 Labor

Work stoppage due to labor protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; the impact can be lessened with succession planning and training and training and mentorship of new employees.

Table 22-13:	Labor - Work Stoppage	(Risk 11)
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			Initia	ıl Risk L	evel	Mitigation	Resid	ual Risk	Level
Aspect	Impact	Control Measures	P	C	R	Measures	P	C	R
Work stoppage due to strikes, slowdowns or secondary boycott activity.	Loss of production and coal sales, damaged customer and employee relations; reputation loss.	Maintain excellent employee relations and communications; maintain frequent customer communications. Train salary employees for hourly tasks in case of long-term strike.		40	16	Develop plan for employee communications and legal support to minimize impact of secondary boycott activities	•	3	12

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22.2.6.4.3 Availability of Supplies and Equipment The industry has periodically experienced difficulty receiving timely delivery of mine supplies and equipment. Availability issues often accompanied boom periods for coal demand. Any future delivery of supplies and equipment delays are expected to 1 temporary with limited impact on production. Table 22-12: Availability of Supplies and Equipment (Risk 10) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Disruption of availability Temporary interruption of Force majeure provision in 3 2 6 Wo closely with 3 1 3 for supplies and production. coal sales agreements to customers to assure equipment. limit liability for delayed or delayed coal deliver

lost sales. rather than cancelled sales; monitor external conditions and increase inventory of critical supplies; accelerate delivery of equipment when possible. 22.2.6.4.4 Labor Work stoppage due to labor protests are considered unlikely and are accompanied by limited impact should it occur. Excellent employee relations and communications limit the exposure to outside protesters. Loss of supervisors and skilled employees to retirement is inevitable; th impact can be lessened with succession planning and training and training and mentorship of new employees. Table 22-13: Labor – Work Stoppage (Ris 11) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Work stoppage due to Loss of production coal Maintain excellent employee 4 4 16 Develop plan for 4 3 12 strikes, slowdowns or sales; damaged customer and relations and employee secondary boycott activity. employee relations; reputation communications; maintain communications and loss. frequent customer legal support to communications Train minimize impact of salary employees for hourly secondary boycott tasks in case of long-term activities. strike. MARSHALL MILLER & ASSOCIATES, INC. 90



## Table 22-14: Labor - Retirement (Risk 12)

	<b>-</b>			ıl Risk L		Mitigation	and a distant of the local dis	ual Risk	
Aspect Retirement of supervisors and skilled employees.	Impact Loss of leadership and critical skills to sustain high levels of safety, maintenance and productivity.	Control Measures Monitor demographics closely and maintain communications with employees who are approaching retirement age, maintain employee selection and fraining programs.	9 3	3	R 9	Motouros Maintain selection of candidates and implementation of in- house or third-party training for electricians and mechanics, develop employee mentoring program.	3	2	R 6

#### 22.2.6.4.5 Project Execution

Surface facilities construction commenced via a previous owner of the Property and permitting/engineering activity is actively underway by Warrior Met. The experienced and highly qualified executive management team improves the likelihood that the major construction project will be completed within the expected time frame and budget.

As construction of the Blue Creek complex continues, the executive management team will be challenged to assemble an experienced and highly competent operations team to execute the mining plan to avoid production short-falls and cost overruns. Key will be establishing a reasonable development schedule and predicating coal sales commitments to management's ability to select and train its workforce. The experience and capability of the executive team provides confidence that operational readiness will be forthcoming. Risks pertaining to project execution are summarized below.

				In	itial Risi	k Level		Resid	ual Risk	Residual Risk Level			
No.	Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P		R			
21	Project construction phase time and cost exceeds expectations.	Excessive cost and time diminish project investment return; additional project financing may be required; coal sales commitments be delayed.	Realistic budget and project construction schedule developed; continuous monitoring of cost and time to readily detect performance shortcomings and implement corrective actions; utilization of competent, highly reputable contractors and subcontractors.	3	4	12	Preparation of detailed schedule of each construction component; daily review of progress and issues; weekly coordination with all contractors and implementation of corrective actions if project falls behind schedule.	2	4	8			

#### Table 22-15: Construction Delays and Cost Overruns (Risk 13)

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Table 22-14: Labor – Retirement (Risk 12) Initial Risk Level Mitigation Residual Risk Level Aspect Impact Control Measures P C R Measures P C R Retirement of supervisors Loss of leadership and critical Monitor demographics 3 3 9 Maintain selection of 3 2 6 and skilled employees. skills to sustain high levels of closely and maintain candidates and safety, maintenance and communications with implementation of in-productivity. employees who are house or third-party approaching retirement age; training for maintain employee selection electricians and and training programs. mechanics; develop employee mentoring program. 22.2.6.4.5 Project Execution Surface facilities construction commenced via a previous owner of the Property and permitting/engineering activity is actively underway by Warrior Met. The experienced and highly qualified executive management team improves the

likelihood that the major construction project will be completed within the expected time frame and budget. As construction of the Blue Creek complex continues, the executive management team will be challenged to assemble an experienced and highly competent operations team to execute the mining p to avoid production short-falls and cost overruns. Key will be establishing a reasonable development schedule and predicating coal sales commitments to management's ability to select and train its workforce. The experience and capability of the executive team provides confidence that operational readine will be forthcoming. Risks pertaining to project execution are summarized below. Table 22-15: Construction Delays and Cost Overruns (Risk 13) Initial Risk Level Residual Risk Level No. Aspect Impact Control Measures P C R Mitigation Measures P C R 21 Project Excessive cost and Realistic budget a 3 4 12 Preparation of 2 4 8 construction time diminish project construction detailed schedule of phase time and project investment schedule developed; c construction cost exceeds return; additional continuous component; daily expectations. project financing monitoring of cost review of progress may be required; and time to readily and issues; weekly coal sales detect performance coordination with all commitments be shortcomings and contractors and delayed. implement corrective implementation of actions; utilization of corrective actions if competent, highly project falls behind reputable contractors schedule. and subcontractors. MARSHALL MILLER & ASSOCIATES, INC. 91

	<b>ANSOCINTES</b>	Tal	ble 22-16: Permitti	ing De	lays (I	Risk 1	Ţ		Reserve	
				and the second second	ial Risk I				lual Risk	
No. 22	Aspect Permitting delays (SMCRA, ACOE, MSHA, etc.) result in delays of construction and production.	Impact Lack of ample time to acquire state and federal permits delay production and require additional working capital,	Control Measures Initiate key permitting requirements immediately, including those related to barge development and refuse impoundments.	P 2	4	8	Mitigation Measures Incorporate contingencies into development schedule,	P 1	4	i i

#### Table 22-17: Select, Isolated Parcels of Uncontrolled Mineral (non-BLM lease) within Mine Plan (Risk 15)

				Sin	itial Ris	k Level		Resid	lual Risk	Level
No.	Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P		R
10	Select, Isolated Parcels of Uncontrolled Mineral within prohibit execution of mine plan. These parcels are associated with private (non- governmental) entities and individuals.	Payment of extortionary terms to secure mining rights; adjustment of mine plan to avoid adverse tracts.	Company has secured vast majority of land titles for development and mining of initial panels; continue efforts to secure timely title acquisition; mine plan defers production on adverse tracts to allow time to secure at reasonable cost.	5	2	10	As last resort, pay above-market price to secure mining right or adjust mine plan to avoid adverse tracts.	2	3	6

### Table 22-18: Select, Isolated Parcels of Uncontrolled Mineral (BLM lease) within Mine Plan (Risk 16)

				In	Itial Ris	k Level		Res	idual R	isk Leve
No.	Aspect	Impact	Control Measures	P	C	R	Mitigation Measures	P	С	R
11	Select, Isolated Parcels of Uncontrolled Mineral within Mine Plan prohibit execution of mine plan. These parcels are affiliated with Federal Bureau of Land Management (BLM) leases.	Adjustment of mine plan to avoid adverse tracts. Of important note, various presidential candidates have stated desire to limit leasing of federally owned mineral rights in an effort to reduce fossil fuel and natural resource production.	Company is actively pursuing BLM leases. Such activity should be prioritized to ensure that ample time to secure leases is available.	3	5	15	Develop mine plan to eliminate requirement for BLM leases as last resort.	3	4	12

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Table 22-16: Permitting Delays (Risk 14) Initial Risk Level Residual Risk Level No. Aspect Impact Control Measures P C R Mitigation Measures P C R Permitting delays Lack of ample time Initiate key 2 4 8 Incorporate 1 4 4 (SMCRA, ACOE, to acquire state and permitting contingencies into MSHA, et federal permits requirements development result in delays delay production immediately, schedule. of construction and require including those and production. additional working related to barge capital. development and refuse impoundments. Table 22-17: Select, Isolated Parcels of Uncontrolled

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Mineral (non-BLM lease) within Mine Plan (Risk 15) Initial Risk Level Residual Risk Level No. Aspect Impact Control Measures P C R Mitigation Measures P C R 10 Select, Isolated Payment of Company has secured 5 2 10 As last resort, pay 2 3 6 Parcels of extortionary terms vast majority of land above-market price Uncontrolled to secure mining titles for to secure mining right Mineral within rights; adjustment of development and or adjust mine to Mine Plan mine plan to avoid mining of initial avoid adverse tracts. prohibit adverse tracts. panels; continue execution of efforts to secure mine plan. These timely title parcels are acquisition; mine plan associated with defers production on private (non- adverse tracts to governmental) allow time to sec entities and at reasonable cost. individuals. Table 22-18: Select, Isolated Parcels of Uncontrolled Mineral (BLM lease) within Mine Plan (Risk 16) Initia Risk Level Residual Risk Level No. Aspect Impact Control Measures P C R Mitigation Measures P C R 11 Select, Isolated Adjustment of mine Compan actively 3 5 15 Develop mine plan to 3 4 12 Parcels of plan to avoid pursuing BLM leases. eliminate Uncontrolled adverse tracts. Of Such activity shoul requirement for BLM Mineral within important note, be prioritized to leases as last resort. Mine Plan various presidential ensure that ample prohibit candidates have time to secure leases execution of stated desire to limit is available. mine plan. These leasing of federally parcels are owned mineral affiliated with rights in an effort to Federal Bureau reduce fossil fuel of Land and natural resource Management production. (BLM) leases. MARSHALL MILLER & ASSOCIATES, INC. 92



Warrior Met Coal, Inc. Blue Creek Property Year End 2022 Reserve Analysis Technical Report Summary

# 23 Recommendations

Warrior Met is continuing to conduct ongoing geological campaigns to better define coal thickness, coal quality, and structure within the initial mine plan areas. As part of this campaign, significant efforts are being placed in defining fault networks proximal to the slope bottom and initial longwall districts. MM&A recommends continuing efforts in this regard. During this campaign, MM&A also recommends analyzing roof and floor samples for various geomechanical factors.

MM&A recommends expediting the BLM lease acquisition process, as multiple key leases need to be obtained to execute the mine plan.

# 24 References

- Various sources of geological information, including a digital exploration database, coal quality laboratory information, drillers' and geologists' logs, and geophysical logs.
- 2. Various engineering, permitting and mine plans as presented to MM&A by Warrior Met.
- 3. Various previous engineering and reserve reports conducted on behalf of Warrior Met by MM&A.
- 4. Publicly available information from various State and Federal agencies
- 5. Various mapping information obtained via the public domain.

# 25 Reliance on Information Provided by Registrant

The qualified persons responsible for the development of this TRS have relied upon information provide by Warrior Met, including:

- 1. Marketing Information, including sales forecasts coal and transportation costs.
- 2. Legal Matters, including mineral and surface-based land and tenure.
- Environmental Matters, including permit status, plans and refuse disposal plans and associated volumes.

MARSHALL MILLER & ASSOCIATES, INC.

23 Recommendations Warrior Met is continuing to conduct ongoing geological campaigns to better define coal thickness, coal quality, and structure with the initial mine plan areas. As part of this campaign, significant efforts are being placed in defining fault networks proximal to the slope bottom and initi long wall districts. MM&A recommends continuing efforts in this regard. During this campaign, MM&A also recommends analyzing roof and floor sam for various geomechanical factors. MM&A recommends expediting the BLM lease acquisition process, as multiple key leases need to be obtained to execute the mine plan. 24 References 1. Various sources of geological information, including a digital exploration database, coal quality laboratory information, drillers' and geologists' logs, and geophysical logs. 2. Various engineering, permitting and mine plans as presented to MM&A by Warrior N 3. Various previous engineering and reserve reports conducted on behalf of Warrior Met by MM&A. 4. Publicly available information from various Stat and Federal agencies 5. Various mapping information obtained via the public domain. 25 Reliance on Information Provided by Registrant The qualified persons responsible for the development of this TRS have relied upon information provide by Warrior Met, including: 1. Marketing Information, includi sales forecasts coal and transportation costs. 2. Legal Matters, including mineral and surface-based land and tenure. 3. Environmental Matters, including permit status, plans and refuse disposal plans and associated volumes. MARSHALL MILLER & ASSOCIATES, INC. 93





APPENDIX A TABLE



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Therease .	in the second se	Barrenser		B							
	Seam	Tons/ Acre-ft.	Wash Recovery*	Resource T Measured	Indicated	the second se	ource Acres	Total	Measured	Place Tonnes Indicated	Total	Clean, Mois Proven	t, Demonstrate Probable
BC Area	Seam	Acre-IL	Recovery	Wieasured	Indicated	Measured	Indicated	Total	wieasured	Indicated	rotal	Proven	Probable
Block A						-							
Leased													
Continuous Mining	ML	1.938	84,40%				Calman and					528,895	300,323
Longwall Mining	ML	1,938	84,40%	1.44	1.47	2,526	1,304	3,830	6,405,561	3,373,213	9,778,774	3,632,138	1,808,969
Continuous Mining	BC	1,851	87.60%									1,655,730	865,666
Longwall Mining	BC	1,851	87.60%	4.60	4.32	2,526	1,304	3,830	19,529,661	9,468,317	28,997,978	11,574,941	5,358,563
Total				3.82	3.57	5,052	2,608	7,659	25,935,222	12,841,530	38,776,752	17,391,703	8,333,521
Owned													
Continuous Mining	ML	1,938	84.40%	1993	132.0	1225		8,223	10000000	1 28354	122223	46,396	29
Longwall Mining	ML	1,938	84.40%	1.51	1.57	201	1	202	531,583	2,132	533,715	267,446	1,810
Continuous Mining	BC	1,851	87.60%	1222	223	1223	10	2223	1000000000	1 242420	121223030	151,275	98
Longwall Mining	BC	1.851	87,60%	5.07	5.26	201	1	202	1,710,960	6,804	1,717,764	918,407	6.018
Total	1.1.	1		4.23	4.38	402	2	403	2,242,543	8,936	2,251,479	1,383,525	7,956
Option													
Continuous Mining	ML	1,938	84,40%	12.00	1222	12222	225	- C222	-22-20-20-20		01000000	45,253	3,360
Longwall Mining	ML	1,938	84.40%	1.67	1.32	135	10	146	396,830	24,086	420,916	160,532	10,880
Continuous Mining	BC	1,851	87.60%	10000	2002				5-2-710412527		or server	133,721	6,238
Longwall Mining	BC	1,851	87.60%	5.04	2.68	135	10	146	1,146,056	46,802	1,192,858	501,001	23,746
Total				4.17	2.22	271	21	292	1,542,886	70,887	1,613,773	840,507	44,223
Adverse													
Continuous Mining	P.41	1,938	84,40%									129,537	242,117
Longwall Mining	D.GL	1,938	84,40%	1.53	1.48	604	1,059	1,663	1,619,443	2,762,496	4,381,939	1,031,699	1,566,045
Continuous Mining	BC	1,851	87,60%									317.864	532,789
Longwall Mining	BC	1,851	87.60%	3.99	3.40	604	1,059	1,663	4,049,075	6,038,922	10,087,997	2,733,026	3,663,199
Total				3.29	2.80	1,207	2,118	3,326	5,668,518	8,801,418	14,469,936	4,212,126	6,004,150
Total					1								
Continuous Mining - ML	Only											620,544	303,712
Longwall Mining - ML C						2,862	1,315	4,177	7,333,974	3,399,431	10,733,405	4,060,117	1,821,658
Continuous Mining - BC	Only					2.053	1.215		22 205 522		22 000 000	1,940,725	872,002
Longwall Mining - BC_O	nly					2,862	1,315	4,177	22,386,677	9,521,923	31,908,599	12,994,349	5,388,327
Total						5,724	2,630	8,354	29,720,651	12,921,353	42,642,004	19,615,736	8,385,700
								100			3 35 4 470	1 103 535	2055
Owned						402	2	403	2,242,543	8,936	2,251,479	1,383,525	7,956
Leased						5,052	2,608	7,659	25,935,222		38,776,752	17,391,703	8,333,521
Option Total		-				271	21	292	1,542,886	70,887	1,613,773	840,507	44,223

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Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total BC Area Block A Leased Continuous Mining ML 1,938 84.40% 528,895 300,323 829,218 Longwall Mining ML 1,938 84.40% 1.44 1.47 2,526 1,304 3,830 6,405,561 3,373,213 9,778,774 3,632,138 1,808,969 5,441,107 Continuous Mining BC 1,851 87.60% 1,655, 865,666 2,521,396 4.60 4.32 2,526 1,304 3,830 19,529,661 9,468,317 28,997,978 Longwall Mining BC 1,851 87.60% 11,574,941 5,358,563 16,933,504 Total 3.82 3.57 5,052 2,608 7,659 25,935,222 12,841,530 38,776,752 17,391,703 8,333,521 25,725,225 Owned Continuous Mining ML 1,938 84.40% 46,396 29 46,426 Longwall Mining ML 1,938 84.40% 1.51 1.57 201 1 202 531,583 2,132 533,715 267,446 1,810 269,256 Continuous Mining BC 1,85 87.60% 151,275 98 151,373 5.07 5.26 201 1 202 1,710,960 6,804 1,717,764 Longwall Mining BC 1,851 87.60% 918,407 6,018 924,425 Total 4.23 4.38 402 2 403 2,242,543 8,936 2,251,479 1,383,525 7,956 1,391,481 Option Continuous Mining ML 1,938 84.40% 45,253 3,360 48,613 Longwall Mining I 1,938 84.40% 1.67 1.32 135 10 146 396,830 24,086 420,916 160,532 10,880 171,412 Continuous Mining BC 1,851 87.60% 133,721 6,238 139,959 5.0 2.68 135 10 146 1,146,056 46,802 1,192,858 Longwall Mining BC 1,851 87.60% 501,001 23,746 524,747 Total 4.17 2.22 271 21 292 1,542,886 70,887 1,613,773 840,507 44,223 884,730 Adverse Continuous Mining ML 1,938 84.40% 129,537 242,117 371,654 Longwall Mining ML 1,938 84.40% 1.53 604 1,059 1,663 1,619,443 2,762,496 4,381,939 1,031,699 1,566,045 2,597,744 Continuous Mining BC 1,851 87.60% 317,864 532,789 850,654 3.99 3. 604 1,059 1,663 4,049,075 6,038,922 10,087,997 Longwall Mining BC 1,851 87.60% 2,733,026 3,663,199 6,396,224 Total 3.29 2.80 1,207 2,118 3,326 5,668,518 8,801,418 14,469,936 4,212,126 6,004,150 10,216,276 Total Continuous Mining-ML Only 620,544 303,712 924,256 2,862 1,315 4,177 7,333,974 3,399,431 10,733,405 Longwall Mining-ML Only 4,060,117 1,821,658 5,881,775 Continuous Mining-BC Only 1,940,725 872,002 2,812,728 2,862 1,315 4,177 22,386,677 9,521,923 31,908,599 Longwall Mining-BC Only 12,994,349 5,388,327 18,382,676 Total 5,724 2,630 8,354 29,720,651 12,921,353 42,642,004 19,615,736 8,385,700 28,001,436 Owned 402 2 403 2,242,543 8,936 2,251,479 1,383,525 7,956 1,391,481 Leased 5 2,608 7,659 25,935,222 12,841,530 38,776,752 17,391,703 8,333,521 25,725,225 Option 271 21 292 1,542,886 70,887 1,613,773 840,507 44,223 884,7 Total 5,724 2,630 8,354 29,720,651 12,921,353 42,642,004 19,615,736 8,385,700 28,001,436 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 1 of 9



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource T	hickness	Res	ource Acres	I	In	<b>Place Tonnes</b>	9	Clean, Mois	st, Demonstrate
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block B													
Leased													
Continuous Mining	ML	1,938	84,40%									178,756	85,600
Longwall Mining	ML	1,938	84.40%	1.84	1.90	655	408	1,063	2,119,184	1,360,914	3,480,098	1,256,224	811.296
Continuous Mining	BC	1,851	87.60%					I				413,267	167,854
Longwall Mining	BC	1,851	87.60%	4.39	3.82	655	408	1,063	4,832,937	2,619,442	7,452,380	3,012,853	1,689,496
fotal	DL	4,034	0710079	3.61	3.16	1,310	816	2,126	6,952,122	3,980,356	10,932,477	4,861,100	2,754,246
lotai				3.61	3.16	1,310	816	2,120	6,932,122	3,980,396	10,932,477	4,001,100	2,734,240
Owned													
Continuous Mining	ML	1,938	84.40%	1.75			101	330	107 774	222.222	1 000 1000	98,159	24,640
ongwall Mining	ML	1,938	84.40%	1.76	1.82	226	104	330	697,734	333,372	1,031,106	159,074	152,981
Continuous Mining	BC	1,851	87.60%	12292	Y - 2002	\$2025		9200			0.0000000000	250,852	59,327
Longwall Mining	BC	1.851	87,60%	4.23	4.45	226	104	330	1,602,225	776,677	2,378,902	351,470	370,853
Total				3.48	3.66	451	208	659	2,299,959	1,110,050	3,410,009	859,555	607,801
Option													
50,000,000													
Continuous Mining	ML	1,938	84.40%	1.84	1.87	366	273	639	1,186,888	897,841	2,084,729	89,491	53,657
Longwall Mining	ML	1,938	84.40%	17040.0	4 4164	\$3000.1		- X650			1020032525253	756,970	596,420
Continuous Mining	BC	1,851	87.60%	4.30	3.90	366	273	639	2,640,580	1,786,111	4,426,691	214,146	109,197
Longwall Mining	BC	1,851	87.60%	1000	1.1.1.1	1.157		1024			50000001	1,740,903	1,252,288
Total				3.54	3.22	732	546	1,278	3,827,468	2,683,952	6,511,420	2,801,511	2,011,561
Adverse													
Continuous Mining	DAL.	1,938	84,40%			1/1/10	10000	1000		Transfer Manal		170,657	73,545
ongwall Mining	P.4L	1,938	84,40%	1.81	1.91	661	268	929	2,101,068	901,279	3,002,347	1,161,703	488,407
Continuous Mining	BC	1,851	87.60%								$\sim \sim$	383,219	142,514
ongwall Mining	BC	1.851	87.60%	4.16	3.95	661	268	929	4,616,211	1,779,970	6,396,180	2,649,060	1,053,382
Total		1,000		3.42	3.26	1,322	537	1,859	6,717,279	2,681,249	9,398,527	4,364,639	1,757,848
Total				-		1.000		_					
And the second													
Continuous Mining - ML						1,247	785	2,032	4,003,807	2,592,127	6,595,933	366,406	163,896
ongwall Mining - ML_C	1025					1000000					0.000	2,172,268	1,560,697
Continuous Mining - BC						1,247	785	2,032	9,075,742	5,182,231	14,257,973	878,265	336,378
ongwall Mining - BC_O	nly	-				ij zavenski r	0.000			100070011100	1.1.0	5,105,227	3,312,638
otal						2,493	1,570	4,064	13,079,548	7,774,358	20,853,906	8,522,166	5,373,609
Dwned						451	208	659	2,299,959	1,110,050	3,410,009	859,555	607,801
Leased						1,310	816	2,126	6,952,122	3,980,356	10,932,477	4,861,100	2,754,246
Option						732	546	1,278	3,827,468	2,683,952	6,511,420	2,801,511	2,011,561
Total		1				2,493	1,570	4,064	13,079,548	7,774,358	20,853,906	8,522,166	5,373,609

WARM120 BCM Table (2023-02-02).vlsx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Block B Leased Continuous Mining ML 1,938 84.40% 178,756 85,600 264,356 Longwall Mining ML 1,938 84.4 1.84 1.90 655 408 1,063 2,119,184 1,360,914 3,480,098 1,256,224 811,296 2,067,519 Continuous Mining BC 1,851 87.60% 413,267 167,854 581,122 4 3.82 655 408 1,063 4,832,937 2,619,442 7,452,380 Longwall Mining BC 1,851 87.60% 3,012,853 1,689,496 4,702,350 Total 3.61 3.16 1,310 816 2,126 6,952,122 3,980,356 10,932,477 4,861,100 2,754,246 7,615,347 Owned Continuous Mining ML 1,938 84.40% 98,159 24,640 122,799 Longwall Mining ML 1,938 84.40% 1.76 1.82 226 104 330 697,734 333,372 1,031,106 159,074 152,981 312,055 Continuous Mining BC 1,851 87.60% 250,852 59,327 310,178 4.23 4.45 226 104 330 1,602,225 776,677 2,378,902 Longwall Mining BC 1,851 87.60% 351,470 370,853 722,323 Total 3.48 3.66 451 208 65! 2,299,959 1,110,050 3,410,009 859,555 607,801 1,467,356 Option Continuous Mining ML 1,938 84.40% 89,491 53,657 143,148 Longwall Mining ML 1,938 84.40% 1.84 1.87 366 273 639 1,186,888 897,841 2,084,729 756,970 596,420 1,353,390 Continuous Mining BC 1,851 87.60% 214,146 109,197 323,343 4.30 3.90 366 273 639 2,640,580 1,786,111 4,426,691 Longwall Mining BC 1,851 87.60% 1,740,903 1,252,288 2,993,191 Total 3.54 3.22 732 1,278 3,827,468 2,683,952 6,511,420 2,801,511 2,011,561 4,813,072 Adverse Continuous Mining ML 1,938 84.40% 170,657 73,545 244,202 Longwall Mining ML 1,938 84.40% 1.81 1.91 661 268 929 2,101,068 901,279 3,002,347 1,161,703 488,407 1,650,110 Continuous Mining BC 1,851 87.60% 383 142,514 525,733 4.16 3.95 661 268 929 4,616,211 1,779,970 6,396,180 Longwall Mining BC 1,851 87.60% 2,649,060 1,053,382 3,702,443 Total 3.42 1,322 537 1,859 6,717,279 2,681,249 9,398,527 4,364,639 1,757,848 6,122,487 Total Continuous Mining-ML Only 366,406 163,896 530,303 1,247 7 2,032 4,003,807 2,592,127 6,595,933 Longwall Mining-ML Only 2,172,268 1,560,697 3,732,965 Continuous Mining-BC Only 878,265 336,378 1,214,643 1,247 785 2,032 9,075,742 5,182,231 14,257,973 Longwall Mining-BC Only 5,105,227 3,312,638 8,417,864 Total 2,493 1,570 4,064 13,079,548 7,774,358 20,853,906 8,522,166 5,373,609 13,895,775 Owned 451 208 659 2,299,959 1,110,050 3,410,009 859,555 607,801 1,467,356 Lea 1,310 816 2,126 6,952,122 3,980,356 10,932,477 4,861,100 2,754,246 7,615,347 Option 732 546 1,278 3,827,468 2,683,952 6,511,420 2,801,511 2,011 4,813,072 Total 2,493 1,570 4,064 13,079,548 7,774,358 20,853,906 8,522,166 5,373,609 13,895,775 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 2 (



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource	Thickness	Res	ource Acres	I	In	<b>Place Tonnes</b>	9	Clean, Moi	st, Demonstrate
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block C													
Leased													
Continuous Mining	ML	1,938	84.40%									77,353	164,891
Longwall Mining	ML	1,938	84,40%	2.01	2.06	266	625	891	937,503	2,266,647	3,204,150	485,181	1.382.161
Continuous Mining	BC	1,950	87.60%					I				134,733	260,691
	BC	1,851	87.60%	3.45	3.30	265	625	891	1,538,686	3,466,309	5,004,994	786,704	2,192,024
ongwall Mining fotal	DL.	1,051	87.0079	2.90	2.81	532	1,251	1,783	3 436 400	E 333 0EC	0.200.144		the state of the second s
lotal				2.90	2.81	532	1,251	1,783	2,476,189	5,732,956	8,209,144	1,483,971	3,999,767
Owned													
Continuous Mining	ML	1,938	84.40%	1.85	1.84	267	43	310	866,407	138,563	1,004,970	86,568	5,937
ongwall Mining	ML	1,938	84.40%	1.05	1.04	207	43	016	800,407	130,303	1004/310	335,174	91,659
Continuous Mining	BC	1,851	87.60%	1202	2 2022	32223	520	9208	100000000	121112122	1000000000000	183,982	13,598
Longwall Mining	BC	1.851	87.60%	4.06	4.15	267	43	310	1,819,414	298,364	2,117,778	739,930	203,291
Total		1		3.35	3.42	534	86	619	2,685,821	436,928	3,122,748	1,345,654	314,485
Option													
Continuous Mining	ML	1,938	84.40%	1.95	1.81	276	24	300	945,232	76,575	1,021,808	85,955	8,646
ongwall Mining	ML	1,938	84.40%	5904C5	2 41942	2010201					CONCERNATION OF	452,340	43,318
Continuous Mining	BC	1,851	87.60%	3.63	3.22	276	24	300	1,682,502	130,317	1,812,819	159,801	14,653
ongwall Mining	BC	1,851	87.60%									835,800	78,828
fotal				3.03	2.70	552	48	600	2,627,734	206,893	2,834,627	1,533,896	145,445
Adverse													
Continuous Mining	141	1,938	84,40%	1.00	2.00				2 003 203			261,913	439,847
ongwall Mining	MIL.	1.938	84,40%	1.96	2.00	870	1,401	2,271	2,992,731	4,926,813	7,919,544	1,550,727	2,813,242
Continuous Mining	BC	1,851	87,60%									474,653	710,880
ongwall Mining	BC	1.851	87.60%	3.60	3.31	870	1,401	2,271	5,256,257	7,782,876	13,039,133	7,802,481	4,648,768
lotal				3.00	2.80	1,740	2,802	4,542	8,248,988	12,709,689	20,958,677	5,089,774	8,612,736
Total				1.44									
And the second sec													
Continuous Mining - ML						809	692	1,501	2,749,142	2,481,786	5,230,929	249,875	179,474
ongwall Mining - ML_O	1625 - Constanting											1,272,694	1,517,138
Continuous Mining - BC						809	692	1,501	5,040,601	3,894,990	8,935,591	478,516	288,942
ongwall Mining - BC_O	ndy	-		2		1	. xxxxx			1803-11903-0117	100000000000000000000000000000000000000	2,362,434	2,474,143
otal						1,618	1,385	3,002	7,789,744	6,376,776	14,166,519	4,363,520	4,459,697
Owned						534	86	619	2,685,821	436,928	3,122,748	1,345,654	314,485
												2222-01020-022-02	
Leased						532	1,251	1,783	2,476,189	5,732,956	8,209,144	1,483,971	3,999,767
Option Total		-				552	48	600	2,627,734	206,893	2,834,627	1,533,896	145,445

WARM120 BCM Table (2023-02-02).xisx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Block C Leased Continuous Mining ML 1,938 84.40% 77,353 164,891 242,243 Longwall Mining ML 1,938 84.4 2.01 2.06 266 625 891 937,503 2,266,647 3,204,150 485,181 1,382,161 1,867,342 Continuous Mining BC 1,851 87.60% 134,733 260,691 395,424 3.45 3.30 266 625 891 1,538,686 3,466,309 5,004,994 Longwall Mining BC 1,851 87.60% 786,704 2,192,024 2,978,729 Total 2.90 2.81 532 1,251 1,783 2,476,189 5,732,956 8,209,144 1,483,971 3,999,767 5,483,738 Owned Continuous Mining ML 1,938 84.40% 86,568 5,937 92,505 Longwall Mining M 1,938 84.40% 1.85 1.84 267 43 310 866,407 138,563 1,004,970 335,174 91,659 426,833 Continuous Mining BC 1,851 87.60% 183,982 13,598 197,581 4.06 4.15 267 43 310 1,819,414 298,364 2,117,778 Longwall Mining BC 1,851 87.60% 739,930 203,291 943,221 Total 3.35 3.42 534 86 619 2,685,821 436,928 3,122,748 1,345,654 314,485 1,660,139 Option Continuous Mining ML 1,938 84.40% 85,955 8,646 94,601 Longwall Mining ML 1,938 84.40% 1.95 1.81 276 24 300 945,232 76,575 1,021,808 452,340 43,318 495,658 Continuous Mining BC 1,851 87.60% 159,801 14,653 174,454 3.63 3.22 276 300 1,682,502 130,317 1,812,819 Longwall Mining BC 1,851 87.60% 835,800 78,828 914,628 Total 3.03 2.70 552 48 600 2,627,734 206,893 2,834,62 1,533,896 145,445 1,679,341 Adverse Continuous Mining ML 1,938 84.40% 261,913 439,847 701,760 Longwall Mining ML 1,938 84.40% 1.96 2.00 8 1,401 2,271 2,992,731 4,926,813 7,919,544 1,550,727 2,813,242 4,363,969 Continuous Mining BC 1,851 87.60% 474,653 710,880 1,185,533 3.60 3.31 1,401 2,271 5,256,257 7,782,876 13,039,133 Longwall Mining BC 1,851 87.60% 2,802,481 4,648,768 7,451,248 Total 3.00 2.80 1,740 2,802 4,542 8,248,988 12,709,689 20,958,677 5,089,774 8,612,736 13,702,511 Total Continuous Mining-ML\_Only 249,875 179,474 429,349 809 692 1,501 2,749,142 2,481,786 5,230,929 Longwall Mining-ML Only 1,272,694 1,517,138 2,789,832 Continuous Mining-BC Only 478,516 288,942 767,459 692 1,501 5,040,601 3,894,990 8,935,591 Longwall Mining-BC Only 2,362,434 2,474,143 4,836,577 Total 1,618 1,385 3,002 7,789,744 6,376,776 14,166,519 4,363,520 4,459,697 8,823,218 Owned 534 86 619 2,685,821 436,928 3,122,748 1,345,654 314,485 1,660,139 Leased 532 1,251 1,783 2,476,189 5,732,956 8,209,144 1,483,971 3,999,767 5,483,738 Option 552 48 600 2,627,734 206,893 2,834,627 1,533,896 145,445 1,679,341 Total 1,6 1,385 3,002 7,789,744 6,376,776 14,166,519 4,363,520 4,459,697 8,823,218 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 3 of 9



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource	Thickness	Res	ource Acres	I	In	<b>Place Tonnes</b>	8	Clean, Mois	st, Demonstrate
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block D													
Leased													
Continuous Mining	ML	1.938	84,40%									185,958	132,621
Longwall Mining	ML	1,938	84.40%	1.43	1.42	1,001	569	1,570	2,509,673	1,415,444	3,925,117	977,711	612,416
Continuous Mining	BC	1,851	87.60%									589,882	366,679
Longwall Mining	BC	1,851	87.60%	4.54	4.08	1,001	569	1,570	7,628,510	3,894,591	11,523,100	3,027,804	1,668,629
Total	0.	4,034	07.0074	3.77	3.37	2,002	1,137	3,139	10,138,182	5,310,035	15,448,217	4,781,354	2,780,345
Owned													
	1000	10000	1 2322 2323	100000	1 1200							(1200-2200)	1000
Continuous Mining	ML	1,938	84,40%	1.58	1.57	877	212	1,089	2,442,986	583,347	3,026,333	252,820	70,468
Longwall Mining	ML	1,938	84.40%									1,175,182	304,564
Continuous Mining	BC	1,851	87.60%	4.32	4.16	877	212	1,089	6,357,416	1,479,719	7,837,135	676,597	178,158
Longwall Mining	BC	1,851	87.60%	186								3,142,944	827,773
Total				3.56	3,43	1,754	423	2,177	8,800,402	2,063,066	10,863,468	5,247,542	1,380,963
Option													
Continuous Mining	ML	1,938	84.40%	0.00	0.00	0	0	0	0	0	0	0	0
Longwall Mining	ML	1,938	84.40%	0.00	0.00		0			•		0	0
Continuous Mining	BC	1,851	87.60%			1.2	220	<ul> <li>22</li> </ul>	1.000	11.22	28	0	0
Longwall Mining	BC	1,851	87.60%	0.00	0.00	0	0	0	0	0	0	0	0
Total				0.00	0.00	0	0	0	0	0	0	0	0
Adverse													
Continuous Mining	ML	1,938	84,40%									34,184	125,746
Longwall Mining	ML	1.938	84,40%	1.53	1.58	119	302	421	318,277	838,466	1,156,743	180.616	283,022
Continuous Mining	BC	1,851	87.60%					I			~ ~	72,037	248,607
Longwall Mining	BC	1.851	87.60%	3.66	3.35	119	302	421	728,978	1,698,278	2,427,255	454,721	641,389
Total		1,031	07,0074	3.01	2.76	237	604	841	1,047,254	2,536,743	3,583,998	741,559	1,298,763
Total					1.1.1						-		
Contraction and the second second second second												430 770	202.000
Continuous Mining - ML						1,878	780	2,658	4,952,659	1,998,792	6,951,450	438,778	203,089
Longwall Mining - ML_O	1828 S					6280000					20-00-000	2,152,893	916,981
Continuous Mining - BC						1.878	780	2,658	13,985,926	5,374,309	19,360,235	1,266,478	544,837
Longwall Mining - BC_O Fotal	niy	+		-		3,756	1,560	5,316	18,938,585	7,373,101	26,311,685	6,170,747 10,028,896	2,496,401 4,161,308
Sector 2						3,120	4,500	3,310	40,330,303	7,373,201	20,313,003	40,020,090	4,202,300
Owned						1,754	423	2,177	8,800,402	2,063,066	10,863,468	5,247,542	1,380,963
Leased						2,002	1,137	3,139	10,138,182	5,310,035	15,448,217	4,781,354	2,780,345
Option						0	0	0	0	0	0	0	0

WARM120 BCM Table (2023-02-02).xlsx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Block D Leased Continuous Mining ML 1,938 84.40% 185,958 132,621 318,578 Longwall Mining ML 1,938 84.40% 1.43 1.42 1,001 569 1,570 2,509,673 1,415,444 3,925,117 977,711 612,416 1,590,127 Continuous Mining BC 1,851 87.60% 589,882 366,679 956,561 4.54 4.08 1,001 569 1,570 7,628,510 3,894,591 11,523,100 Longwall Mining BC 1,851 87.60% 3,027,804 1,668,629 4,696,432 Total 3.77 3.37 2,002 1,137 3,139 10,138,182 5,310,035 15,448,217 4,781,354 2,780,345 7,561,699 Owned Continuous Mining ML 1,938 84.40% 252,820 70,468 323 Longwall Mining ML 1,938 84.40% 1.58 1.57 877 212 1,089 2,442,986 583,347 3,026,333 1,175,182 304,564 1,479,746 Continuous Mining BC 1,851 87.60% 676,597 178,158 854,754 4.32 4.16 877 212 1,089 6,357,416 1,479,719 7,837,135 Longwall Mining BC 1,851 87.60% 3,142,944 827,773 3,970,717 Total 3.56 3.43 1,754 423 2,177 8,800,402 2,063,066 10,863,468 5,247,542 1,380,963 6,628,505 Option Continuous Mining ML 1,938 84.40 0 0 Longwall Mining ML 1,938 84.40% 0.00 0.00 0 0 0 0 0 0 0 0 0 0 Continuous Mining BC 1,851 87.60% 0 0 0 0.00 0 0 0 0 0 0 0 0 0 Longwall Mining H 1,851 87.60% 0 0 0 Total 0.00 0.00 0 0 0 0 0 0 0 0 0 0 Adverse Continuous Mining ML 1,938 84.40% 34,184 125,746 159,930 Longwall Mining ML 1,93 84.40% 1.53 1.58 119 302 421 318,277 838,466 1,156,743 180,616 283,022 463,638 Continuous Mining BC 1,851 87.60% 72,037 248,607 320,644 3.6 3.35 119 302 421 728,978 1,698,278 2,427,255 Longwall Mining BC 1,851 87.60% 454,721 641,389 1,096,110 Total 3.01 2.76 237 604 841 1,047,254 2,536,743 3,583,998 741,559 1,298,763 2,040,322 Total Continuous Mining-ML Only 438,778 203,089 641,866 1,878 780 2,658 4,952,659 1,998,79 6,951,450 Longwall Mining-ML Only 2,152,893 916,981 3,069,874 Continuous Mining-BC Only 1,266,478 544,837 1,811,316 1,878 780 2,658 13,985,926 5,374,309 19,360,235 Longwall Mining-BC Only 6,170,747 2,496,401 8,667,149 Total 3,756 1,560 5,316 18,938,585 7,373,101 26,311,6 10,028,896 4,161,308 14,190,204 Owned 1,754 423 2,177 8,800,402 2,063,066 10,863,468 5,247,542 1,380,963 6,628,505 Leased 2,002 1,137 3,139 10,138,182 5,310,035 15,448,217 4,781,354 2,780,345 7,561,699 Option 0 0 0 0 0 0 0 0 0 0 Total 3,756 1,560 5,316 18,938,585 7,373,101 26,311,685 10,028,896 4,161,308 14,190,204 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 4 of 9



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource T	hickness	Res	ource Acres		In	Place Tonnes	8	Clean, Mois	it, Demonstrate
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block E1													
Leased													
Continuous Mining	ML	1,977	0.00%				244					26,828	201,753
Longwall Mining	ML	1,977	0.00%	0.00	1.83	0	919	919	0	3,014,022	3,014,022	66,878	1,015,652
Continuous Mining	BC	1,960	0.00%									37,986	282,220
Longwall Mining	BC	1,960	0.00%	0,00	2,72	0	919	919	0	4,444,027	4,444,027	137,057	1,501,101
Total				0.00	2.36	0	1,837	1,837	0	7,458,050	7,458,050	268,749	3,000,726
Owned													
Continuous Mining	ML	1,977	0.00%	0.00	0.00							0	0
Longwall Mining	ML	1,977	0.00%	0.00	0.00	0	0	0	0	0	0	0	0
Continuous Mining	BC	1,960	0.00%	2222		10.255	929	0.2	1223	1021	100	0	0
Longwall Mining	BC	1,960	0.00%	0.00	0.00	0	0	0	0	0	0	0	0
Total				0.00	0.00	0	0	0	0	0	0	0	0
Option													
Continuous Mining	ML	1,977	0.00%	212	10.00	120		- 222	100	0.000	100	0	0
Longwall Mining	ML	1,977	0.00%	0.00	0.00	0	0	0	0	0	0	0	0
Continuous Mining	BC	1,960	0.00%	10100		141	141	0.00	0.00	1.000	0.00	0	0
Longwall Mining	BC	1,960	0.00%	0.00	0.00	0	0	0	0	0	0	0	0
Total		-		0.00	0.00	0	0	0	0	0	0	0	0
Adverse													
Continuous Mining	NºL.	1,977	0.00%	0.00	1.70		00.0	000	1.00		2.2.24.202	50,941	231,558
Longwall Mining	ML	1.977	0.00%	0.00	1.76	0	993	993	0	3,124,291	3,124,291	438,594	782,583
Continuous Mining	BC	1,960	0.00%	0.00			003				1 101 010	62,298	325,510
Longwall Mining	BC	1,960	0.00%	0.00	2.54	0	993	993	0	4,484,016	4,484,016	517,321	1,153,451
Total				0.00	2.22	0	1,985	1,985	0	7,608,307	7,608,307	1,069,155	2,493,102
Total					1								
Continuous Mining - ML	Only											26,828	201,753
Longwall Mining - ML O						0	919	919	0	3,014,022	3,014,022	66,878	1,015,652
Continuous Mining - BC	Only					0	010	010		4 444 037	4 444 027	37,986	282,220
Longwall Mining - BC_O	ndy					0	919	919	0	4,444,027	4,444,027	137,057	1,501,101
Total						0	1,837	1,837	0	7,458,050	7,458,050	268,749	3,000,726
Owned						0	0	1.0	0	0	0	0	0
Leased						0	1,837	1,837	0	7,458,050	7,458,050	268,749	3,000,726
Option						0	1,837	1,03/	0	7,458,050	7,458,050	268,749	3,000,726
Total		1				0	1,837	1,837	0	7,458,050	7,458,050	268,749	3,000,726

WARM120 BCM Table (2023-02-02).xisx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Block E1 Leased Continuous Mining ML 1,977 0.00% 26,828 201,753 228,581 Longwall Mining ML 1,977 0.00 0.00 1.83 0 919 919 0 3,014,022 3,014,022 66,878 1,015,652 1,082,530 Continuous Mining BC 1,960 0.00% 37,986 282,220 320,207 0.00 2.72 0 919 9 4,444,027 4,444,027 Longwall Mining BC 1,960 0.00% 137,057 1,501,101 1,638,158 Total 0.00 2.36 0 1,837 1,837 0 7,458,050 7,458,050 268,749 3,000,726 3,269,476 Owned Continuous Mining ML 1,977 0.00% 0 0 0 Longwall Mining ML 1,977 0.00% 0.00 0.00 0 0 0 0 0 0 0 0 0 0 0 Continuous Mini BC 1,960 0.00% 0 0 0 0.00 0.00 0 0 0 0 0 0 0 Longwall Mining BC 1,960 0.00% 0 0 0 Total 0.00 0.00 0 0 0 0 0 0 0 0 0 0 Option Continuous Mining ML 1,5 0.00% 0 0 0 Longwall Mining ML 1,977 0.00% 0.00 0.00 0 0 0 0 0 0 0 0 0 0 0 Continuous Mining BC 1,960 0.00% 0 0 0 0.00 0 0 0 0 0 0 0 0 Longwall Mining BC 1,960 0.00% 0 0 0 Total 0.00 0.00 0 0 0 0 0 0 0 0 0 Adverse Continuous Mining ML 1,977 0.00% 50,941 231,558 282,499 Longwall Mining 1,977 0.00% 0.00 1.76 0 993 993 0 3,124,291 3,124,291 438,594 782,583 1,221,178 Continuous Mining BC 1,960 0.00% 62,298 325,510 387,807 0.00 2.54 0 993 993 0 4,484,016 4,484,016 Longwall Mining BC 1,960 0.00% 517,321 1,153,451 1,670,772 Total 0.00 2.22 0 1,985 1,985 0 7,608,307 7,608 1,069,155 2,493,102 3,562,256 Total Continuous Mining-ML Only 26,828 201,753 228,581 0 919 919 0 3,014,022 3,014,022 Longwall Mining-ML Only 66,878 1,015,652 1,082,530 Continuous Mining—BC Only 37,986 282,220 320,207 0 919 919 0 4,444,027 4,444,027 Longwall Mining— BC Only 137,057 1,501,101 1,638,158 Total 0 1,837 1,837 0 7,458,050 7,458,050 268,749 3,000,726 3,269,476 Owned 0 0 0 0 0 0 0 0 0 0 Leased 0 1,83 1,837 0 7,458,050 7,458,050 268,749 3,000,726 3,269,476 Option 0 0 0 0 0 0 0 0 0 0 0 Total 0 1,837 1,837 0 7,458,050 7,458,050 268,749 3,000,726 3,269 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 5 of 9



Moisture Preparation Plant Efficiency			Washed recover Included in Was	rable tons shown on the Recovery*	on 10.0% moista	ure basis							
		Tons/	Wash	Resource Thickness		Re	source Acres		In	Place Tonnes	s 1	Clean, Mo	ist, Demonstrated
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block E2													
Leased													
Continuous Mining	ML	1,977	0.00%									0	0
Longwall Mining	ML	1,977	0.00%	0.00	1.04	0	1,185	1,185	0	2,199,760	2,199,760	0	0
Continuous Mining	BC	1,960	0.00%									0	0
Longwall Mining	BC	1,960	0.00%	0.00	2.30	0	1,185	1,185	0	4,845,230	4,845,230	0	0
Total		1,000		0.00	1.90	0	2,370	2,370	0	7,044,990	7,044,990	0	
Owned													
Continuous Mining	ML	1,977	0.00%	10000	653	0.00	1 233	2 32	100		2.2	0	0
Longwall Mining	ML	1,977	0.00%	0.00	0.00	0	0	0	0	0	0	0	0
Continuous Mining	BC	1,960	0.00%	20070	1 26222	2120		1 108	99-0		1005	0	·
Longwall Mining	BC	1,960	0.00%	0.00	0.00	0	0	0	0	0	0	0	õ
Total		1,000		0.00	0.00	0	0	0	0	0	0	0	
Option													
Continuous Mining	ML	1,977	0.00%	2217	1 112122	1223		- 72	100	7.00	222	0	0
Longwall Mining	ML	1,977	0.00%	0.00	0.00	0	0	0	0	0	0	0	ő
Continuous Mining	BC	1,960	0.00%	1000000	1.120000	0.51		·		151.225		0	0
Longwall Mining	BC	1,960	0.00%	0.00	0.00	0	0	0	0	0	0	0	
Total				0.00	0.00	0	0	0	0	0	0	0	
Adverse													
Continuous Mining	ML	1,977	0.00%						100			0	0
Longwall Mining	NOL.	1.977	0.00%	0.00	1.01	0	633	633	0	1,151,327	1,151,327	0	0
Continuous Mining	BC	1,960	0.00%									0	0
Longwall Mining	BC	1,960	0.00%	0.00	2.24	0	633	.633	0	2,524,152	2,524,152	0	0
Total				0.00	1.86	0	1,266	1,266	0	3,675,478	3,675,478	0	0
Total					-								
Continuous Mining - MI	Only											0	0
Longwall Mining - ML						0	1,185	1,185	0	2,199,760	2,199,760	0	0
Continuous Mining - BC						100	53380	100000		1000000	2012/201	0	0
Longwall Mining - BC C						0	1,185	1,185	0	4,845,230	4,845,230	0	0
Total						0	2,370	2,370	0	7,044,990	7,044,990	0	
è						0	0	1.0	0	22			0
Owned						0	0	0	0	0	0	0	

WARM120 BCM Table (2023-02-02) xisx + Metric Tonnes + 2/10/2023

Leased

Option Total

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A-Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Block E2 Leased Continuous Mining ML 1,977 0.00% 0 0 0 Longwall Mining ML 1,977 0.00% 0.00 1.04 0 1,18; 1,185 0 2,199,760 2,199,760 0 0 0 Continuous Mining BC 1,960 0.00% 0 0 0 0.00 2.30 0 1,185 1,185 0 4,845,230 4,845,230 Longwall Mining BC 1,96 0.00% 0 0 0 Total 0.00 1.90 0 2,370 2,370 0 7,044,990 7,044,990 0 0 0 Owned Continuous Mining ML 1,977 0.00% 0 0 0 Longwall Mining ML 1,977 1,960 0.00% 0 0 0 0.00 0.00 0 0 0 0 0 0 0 Longwall Mining BC 1,960 0.00% 0 0 0 Total 0.00 0.00 0 0 0 0 0 0 0 0 Adverse Continuous Mining ML 1,977 0.00% 0 0 0 Longwall Mining ML 1,977 0.00% 0.00 1.01 0 633 633 0 1,151,327 1,151,327 0 0 0 Continuous Mining BC 1,960 0.00% 0 0 0 0.00 2.24 0 633 0 2,524,152 2,524,152 Longwall Mining BC 1,960 0.00% 0 0 0 Total 0.00 1.86 0 1,266 1,266 0 3,675,478 3,675,478 0 0 0 Total Continuous Mining ML Only 0 0 0 0 1,185 1,185 0 2,199,760 2,199,760 Longwall Mining-ML Only 0 0 0 Continuous Mining-BC Only 0 0 0 0 1,185 1,185 0 4,845,22 4,845,230 Longwall Mining-BC Only 0 0 0 Total 0 2,370 2,370 0 7,044,990 7,044,990 0 0 0 Owned 0 0 0 0 0 0 0 0 0 0 Leased 0 2,370 2,370 0 7,044,99 7,044,990 0 0 0 Option 0 0 0 0 0 0 0 0 0 0 0 Total 0 2,370 2,370 0 7,044,990 7,044,990 0 0 0 -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 6 of 9

0

2.370

2.370

2,370

2,370

0

7,044,990

7,044,990

7.044,990

7.044.990

0



Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

		Tons/	Wash	Resource 1	Thickness	Res	ource Acres	- 1	1	Place Tonnes	8	Clean, Mo	ist, Demonstrated
	Seam	Acre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Block E3													
Leased													
Continuous Mining	ML	1,977	0.00%									0	0
Longwall Mining	ML	1,977	0.00%	0.00	1.43	0	4,099	4,099	0	10,541,490	10,541,490	0	A (T)
	BC	1,960	0.00%									0	
Continuous Mining	BC	1,960	0.00%	0.00	2.95	0	4,099	4,099	0	21,477,260	21,477,260	0	
ongwall Mining	DL.	1,900	0.00%	0.00	2.45	0	0.107	0.107		22 040 760	22.010.250	0	
lotal				0.00	2.45	0	8,197	8,197	0	32,018,750	32,018,750	0	ų
Owned													
Continuous Mining	ML	1,977	0.00%	0.00	0.05		20	20			15 111	0	0
Longwall Mining	ML	1,977	0.00%		0.85	0	30	30	0	45,414	45,414	0	
Continuous Mining	BC	1.960	0.00%	985121	1 2953	202.0	220	- 23	192	n managanan	1000000	0	
Longwall Mining	BC	1,960	0.00%	0.00	2.53	0	30	30	0	133,411	133,411	0	
Total		1		0.00	2.10	0	59	59	0	178,824	178,824	0	
Option													
51 (53) (7)													
Continuous Mining	ML	1,977	0.00%		0.00	0	0	0	0	0	0	0	
Longwall Mining	ML	1,977	0.00%		1 100000	581		6 - 923			200	0	
Continuous Mining	BC	1,960	0.00%	0.00	0.00	0	0	0	0	0	0	0	
Longwall Mining	BC	1,960	0.00%									0	
Total				0.00	0.00	0	0	0	0	0	0	0	0
Adverse													
Continuous Mining	P.41.	1,977	0.00%						110		Californiana (	0	0
ongwall Mining	DOL.	1.977	0.00%	0.00	1.14	0	3,989	3,989	0	8,154,759	8,154,759	0	
Continuous Mining	BC	1,960	0.00%									0	
ongwall Mining	BC	1,960	0.00%	0.00	2.86	0	3,989	3,989	0	20,273,961	20,273,961	0	
Total				0.00	2.37	0	7,977	7,977	0	28,428,719	28,428,719	0	
Total								-					
Continuous Mining - ML						0	4,128	4,128	0	10,586,903	10,586,903	0	
Longwall Mining - ML_O												0	C 1051
Continuous Mining - BC						0	4,128	4,128	0	21,610,671	21,610,671	0	
ongwall Mining - BC_O	nly	-										0	
fotal						0	8,257	8,257	0	32,197,574	32,197,574	0	0
Dwned						0	59	59	0	178,824	178,824	0	0
Leased						ő	8,197	8,197	0		32,018,750	0	e
Option						0	0,197	0,107	0		0	0	
Total		-				0	8,257	8,257	0	32,197,574			0

WARM120 BCM Table (2023-02-02).xlsx • Metric Tonnes • 2/10/2023



#### Underground Mineable Reserves as of December 31, 2022 Appendix A - Table 1 (Metric Tonnes)

m on 10.0% molsture basis had to bla trans sho ided in Wash Recovery Tons/ Wash **Resource Thickness Resource Acres** In Place Tonnes Clean, Moist, Demonstrated Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Grand Total Inclusive of Reserves (Blocks A-E Continuous Mining - ML\_Only 1,702,431 1.051.924 11,287 19,039,581 13,486,158 32,525,739 6,796 4,491 Longwall Mining - ML, Only 9,724,850 6,832,126 Continuous Mining - BC\_Only 4,601,971 2,324,380 6.796 4.491 11,282 50 488 946 28 417 479 78.906.425 Longwall Mining - BC\_Only 26,769,815 15,172,610 Total 13,591 8.983 22.574 69.528.527 41.903.637 111.432.164 42,799.068 25.381.040 16,028,725 8,836,275 2,311,205 Owned 3,141 719 3,859 3,618,979 19,647,704 Leased 8,896 7.649 16,545 45,501,714 35,322,926 80,824,641 28.786.878 20.868.606 5,175,914 1,554 2,170 7,998,088 2,961,732 10,959,820 2,201,230 Option 615 Total 13,591 8,983 22.574 69.528.527 41.903.637 111.432.164 42,799,068 25,381,040 Adverse 4,507 8,046 12,553 21,682,039 34,337,406 56,019,445 15,477,253 20,166,599 Exclusive of Reserves (Blocks E1-E2) Continuous Mining - ML Only 0 5,313 5,313 0 12,786,664 12,786,664 Longwall Mining - ML Only Continuous Mining - BC\_Only 0 0 26,455,900 26,455,900 5.313 5.31 Longwall Mining - BC\_Only 0 39,242,564 Total 0 10.626 10,626 39,242,564 Owned 0 59 59 0 178.824 178,824 Leased 0 10,567 10,567 0 39,063,740 39,063,740 Option 0 0 0 0 Total 0 10,626 10,626 0 39,242,564 39,242,564 9,243 0 9,243 0 32,104,198 32,104,19 Adverse

#### WARM120 BCM Table (2023-02-02).xlsx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A—Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn. Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Grand Total Inclusive of Reserves (Blocks A-E) Continuous Mining—ML\_Only 1,702,431 1,051,924 2,754,355 Longwall Mining—ML\_Only 6,796 4,491 11,287 19,039,581 13,486,158 32,525,739 9,724,850 6,832,126 16,556,976 Continuous Mining—BC\_Only 4,601,971 2,324,380 6,926,352 Longwall Mining—BC\_Only 6,796 4,491 11,287 50,488,946 28,417,479 78,906,425 26,769,815 15,172,610 41,942,425 Total 13,591 8,983 22,574 69,528,527 41,903,637 111,432,164 42,799,068 25,381,040 68,180,108 Owned 3,141 719 3,859 16,028,725 3,618,979 19,647,704 8,836,275 2,311,205 11,147,480 Leased 8,896 7,649 16,545 45,501,714 35,322,926 80,824,641 28,786,878 20,868,606 49,655,484 Option 1,554 615 2,170 7,998,088 2,961,732 10,959,820 5,175,914 2,201,230 7,377,144 Total 13,591 8,983 22,574 69,528,527 41,903,637 111,432,164 42,799 25,381,040 68,180,108 Adverse 4,507 8,046 12,553 21,682,039 34,337,406 56,019,445 15,477,253 20,166,599 35,643,852 Exclusive of Reserves (Bloc E1-E2) Continuous Mining—ML\_Only Longwall Mining—ML\_Only 0 5,313 5,313 0 12,786,664 12,786,664 Continuous Mining—BC\_Only Longwall Mining—ML\_Only 0 5,313 5,313 0 12,786,664 12,786,664 Continuous Mining—BC\_Only Longwall Mining—BC\_Only 0 5,313 5,313 0 26,455,900 26,455,900 Total 0 10,626 10,626 0 39,242,564 39,242,564 Adverse 0 9,243 9,243 0 32,104,198 32,104, -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 8 of 9



Underground Mineable Reserves as of December 31, 2022

		Tons/	Wash	Resource	Thickness	Re	source Acres		In	<b>Place Tonnes</b>	18	Clean, Moist, Demonstrate	
	Seam A	cre-ft.	Recovery*	Measured	Indicated	Measured	Indicated	Total	Measured	Indicated	Total	Proven	Probable
Total	-							14					
Continuous Mining - ML_Only						6,796	9,805	16,600	19,039,581	26,272,821	45,312,403	1,702,431	1,051,924
Longwall Mining - ML_Only						0,730	3,043	10,000	19/039,301	20,212,021	43,312,403	9,724,850	6,832,126
Continuous Mining - BC_Only	£					6,796	9,805	16,600	50,488,946	54,873,380	105,362,326	4,601,971	2,324,380
Longwall Mining - BC_Only						0,790	9,005	10,000	50,468,940	34,613,360	103,302,320	26,769,815	15,172,610
Total						13,591	19,609	33,200	69,528,527	81,146,201	150,674,729	42,799,068	25,381,040
Owned						3,141	778	3,919	16,028,725	3,797,803	19,826,528	8,836,275	2,311,205
Leased						8,896	18,216	27,112	45,501,714	74,386,666	119,888,381	28,786,878	20,868,606
Option						1,554	615	2,170	7,998,088	2,961,732	10,959,820	5,175,914	2,201,230
Total						13,591	19,609	33,200	69,528,527	81,146,201	150,674,729	42,799,068	25,381,040
Adverse						4,507	17,289	21,796	21,682,039	66,441,603	88,123,642	15,477,253	20,166,599

\*Average total seam thickness by mine

Definitions: Total seam is the thickness of coal and non-coal partings from the top to the base of the seam, excluding the middleman. Wash recovery is estimated via a plant simulation utilizing multi-gravity data available to target a 10.254 ash product from exploration data and MM&A's experience in the subject coal horizons

#### WARM120 BCM Table (2023-02-02).xisx • Metric Tonnes • 2/10/2023

Warrior Met Coal, LLC Blue Creek Area Underground Mineable Reserves as of December 31, 2022 Appendix A—Table 1 (Metric Tonnes) Moisture 10 Washed recoverable tons shown on 10.0% moisture basis Preparation Plant Efficiency 100% Included in Wash Recovery\* Tons/ Wash Resource Thickn Resource Acres In Place Tonnes Clean, Moist, Demonstrated Tonnes Seam Acre-ft. Recovery\* Measured Indicated Measured Indicated Total Measured Indicated Total Proven Probable Total Continuous Mining—ML\_Only 1,702,431 1,051,924 2,754,355 Longwall Mining—ML\_Only 6,796 9,805 16,600 19,039,581 26,272,821 45,312,403 9,724,850 6,832,126 16,556,976 Continuous Mining—BC\_Only 4,601,971 2,324,380 6,926,352 Longwall Mining— BC\_Only 6,796 9,805 16,600 50,488,946 54,873,380 105,362,326 26,769,815 15,172,610 41,942,425 Total 13,591 19,609 33,200 69,528,527 81,146,20 150,674,729 42,799,068 25,381,040 68,180,108 Owned 3,141 778 3,919 16,028,725 3,797,803 19,826,528 8,836,275 2,311,205 11,147,480 Leased 8,89 18,216 27,112 45,501,714 74,386,666 119,888,381 28,786,878 20,868,606 49,655,484 Option 1,554 615 2,170 7,998,088 2,961,732 10,959,820 5,175,9 2,201,230 7,377,144 Total 13,591 19,609 33,200 69,528,527 81,146,201 150,674,729 42,799,068 25,381,040 68,180,108 Adverse 4,507 17,289 21,796 21,682,039 66,441,603 88,123,642 15,477,253 20,166,599 35,643,852 \*Average total seam thickness by mine Definitions: Total seam is the thickness o coal and non-coal partings from the top to the base of the seam, excluding the middleman. Wash recovery is estimated via a plant simulation utilizing m gravity data available to target a 10.2% ash product from exploration data and MM&A's experience in the subject coal horizons. -02-02).xlsx • Metric Tonnes • 2/10/2023 Page 9 of 9





APPENDIX B MARKET MEMORANDUM PROVIDED BY WARRIOR MET

And III address	expectations (nominal	Budy Budy Annual of Ball	Q1 2022											
Price	Description	Basis	average	Q2 2022	Q3 2022	Q4 2022	2022	2023	2024	2025	2026	2027	2028	2025
MCC1	Low vol PHEC	FOB Australia	412	303	234	180	281	159	160	160	165	182	188	193
MCCT	Upside case			403	284	230	230	179	170	170	175	192	798	202
MCCT	Downside case			293	224	170	172	149	150	150	155	172	178	182
MCC2	Mid vol PHCC	FOB Australia	416	306	238	184	285	153	154	154	-159	176	182	186
MCC3	2nd tier HCC	FOB Australia	368	270	209	161	251	139	140	140	145	162	168	172
MCC4	Low vol PHCC	CFR China	375	326	254	194	287	174	175	175	180	197	203	207
MCCS	Mid vol PHCC	CFR China	370	321	249	191	282	168	169	169	174	191	197	201
MCC6	2nd tier HCC	CFR China	353	305	237	182	268	159	160	160	165	182	188	192
MCC7	US high vol 8	FOB USEC	340	273	220	165	249	134	135	135	140	157	163	167
MCC8	US high vol A	FOB USEC	377	300	241	176	273	150	151	151	156	173	179	18
MCC9	US mid vol	FOB USEC	370	298	236	177	270	151	152	152	157	174	180	184
MCC10	US low vol	FOB USEC	362	297	231	174	278	153	154	154	159	176	182	186
	Australian low-vol PCI	FOB Australia	288	207	160	133	196	118	118	118	122	132	136	138
	Australian SSCC	FOB Australia	261	188	145	124	179	111	113	113	118	128	133	135
	Coke Rizhao	FOB China	521	427	366	318	407	299	300	300	305	320	325	325

Note: This incoding is based on Chrome multiture to Australian core continuing time and at 2022, an anter in later and will many fail thangs for addox, with tighter DTH and tower FOE proces. FREC 4 Prime for 502 C + Service and Cohing one, signature process are quarter another.

#### Appendix B1H5 Colling total price forecast alua

Appendix B Market Projections Provided by Warrior Met Key price expectations (nominal US dollars) Q1 2022 Price Description Basis average Q2 202 Q3 2022 Q4 2022 2023 2024 2025 2026 2027 2028 2029 2030 MCC1 Low vole PHCC FOB Australia 412 303 234 180 281 159 160 160 165 182 192 195 MCC1 Upside case 403 284 230 230 179 170 170 175 192 198 202 205 MCC1 Downside case 293 224 170 172 149 150 150 155 172 178 182 MCC2 Mid vole PHCC FOB Australia 416 306 238 184 285 153 154 154 159 176 182 186 189 MCC3 2nd tier HCC FOB Australia 368 270 209 161 2: 139 140 140 145 162 168 172 175 MCC4 Low vole PHCC CFR China 375 326 254 194 287 174 175 175 180 197 203 207 210 MCC5 Mid vole PHCC CFR China 370 321 249 191 282 168 169 169 174 191 197 201 204 MCC6 2nd tier HCC CFR China 353 305 237 182 268 159 160 160 165 182 188 19 195 MCC7 US high vole B FOB USEC 340 273 220 165 249 134 135 135 140 157 163 167 170 MCC8 US high vole A FOB USEC 377 300 241 176 2 150 151 151 156 173 179 183 186 MCC9 US mid vole FOB USEC 370 298 236 177 270 151 152 152 157 174 180 184 187 MCC10 US low vole FOB USEC 362 297 231 174 278 153 154 154 159 176 182 186 189 Australian low-vole PCI FOB Australia 288 207 160 133 196 118 118 118 122 132 136 140 Australian SSCC FOB Australia 261 188 145 124 179 111 113 118 118 128 133 135 137 Coke RI Zhao FOB China 521 427 366 318 407 299 300 3 305 320 325 329 331 Note: This modeling is based on Chinese restrictions on Australian coal continuing through the end of 2022; an earlier or later end meaningfully change our outlook, with higher CFR and lower FOB prices. PHCC = Prime hard coking coal, HCC = Hard coking coal; PCI = Pulverized coal injection; SSCC = Semi-soft coking coal; quarterly prices are quarter averages, including current quarter. Appendix B IHS Coking coal price forecast.xlsx