Prepared for
Montana Resources, LLC
600 Shields Avenue
Butte, Montana
USA, 59701

Prepared by
Knight Piésold Ltd.
Suite 1400 - 750 West Pender Street
Vancouver, British Columbia
Canada, V6C 2T8

VA101-126/24-3

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT - EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY FOR 6,560 AMENDMENT DESIGN DOCUMENT

Rev	Description	Date
0	Issued in Final	January 10, 2025

EXECUTIVE SUMMARY

Montana Resources, LLC (MR) is in the process of preparing a permit amendment application (the 6,560 Amendment Application) for continued development of the Yankee Doodle Tailings Impoundment (YDTI) above the currently permitted maximum embankment crest elevation of 6,450 ft to facilitate continued operation of the mine after approximately 2034.

Knight Piésold Ltd. (KP) is developing the 6,560 Amendment Design Document (the Design Document) to support the 6,560 Amendment Application. The Design Document comprises a series of technical reports covering the subject areas and content to meet the requirements specified in Montana State law as well as evaluating opportunities for continued risk reduction to enhance safety as part of the fundamental objective for on-going continuous improvement of the safety of the YDTI. The laws governing tailings storage facility design, operation and reclamation are contained within sections of Montana Code Annotated (MCA) Title 82 Chapter 4 Part 3 (MCA, 2023).

- Title 82: Minerals, Oil, and Gas
  - Chapter 4: Reclamation
    - Part 3: Metal Mine Reclamation

An evaluation of the proposed tailings storage facility is required to fulfil the requirements of the MCA Title 82 Chapter 4 Part 3 Section 76 (82-4-376) (e), which describes the design document requirements for an operator proposing to expand an existing tailings storage facility. This report has been prepared by KP to present the evaluation of tailings management technologies and techniques that were considered as part of the Design Document development process. This evaluation is focused on tailings and rockfill storage following 2034, when additional tailings storage capacity would be required above the existing permitted capacity. The evaluation included identifying applicable tailings management techniques and technologies and ranking them based on site-specific conditions and concerns.

The Design Document uses the 2022 End of Year Reserve Report (the Reserve Report) produced by MR (MR, 2023) as the basis for evaluating long-term tailings and rockfill storage requirements. This Reserve Report was used as a basis for this evaluation. Two tailings technologies (slurry and filtered tailings), two tailings storage locations (YDTI and Berkeley Pit) and three rockfill uses/storage locations (construction materials, rock disposal sites (RDS), in-pit storage) were selected for evaluation. It is important to note that the Berkeley Pit does not have sufficient capacity to contain all the tailings contemplated in this assessment; therefore, candidates involving the Berkeley Pit also include continued expansion of the YDTI. The use of the Berkeley Pit for long-term tailings storage would also require modifications related to the remedy requirements for the Butte Mine Flooding Operable Unit (BMFOU) set out in the 1994 Record of Decision. The permitting authority responsible for administering the State laws related to tailing storage facilities (i.e. Montana Department of Environmental Quality (MDEQ) Hard Rock Mining Bureau) cannot unilaterally approve implementation of candidates involving the Berkeley Pit. Candidates involving Berkeley Pit tailings storage are presented for completeness. Potential benefits and drawbacks of implementation of tailings storage within the Berkeley Pit may be further evaluated by MR, other BMFOU stakeholders, and the MDEQ.

Five pre-screened candidates with varying tailings technology, tailings disposal techniques, and rockfill storage configurations were advanced to a Multiple Accounts Assessment (MAA) to select the preferred candidate for continued mine operations. The MAA evaluated the five candidates using project specific

criteria related to safety and environment, technical execution, economic, and closure. The criteria were assigned relative weights according to their importance in each category, with higher weights indicating greater relative importance. The candidates were rated and scored for each of the assessment criteria based on a qualitative scale from 1 (low) to 4 (high), with higher ratings being assigned to the candidates with more preferrable outcomes. Rankings are subjective and based on the understanding of the assessment criteria with candidates relative to each other.

The results of the unweighted and weighted assessments indicate that Candidate 1, the continued use of slurry tailings technology and the expansion of the current YDTI to a maximum crest elevation of 6,560 ft for ongoing tailings storage, is the most preferred. The results indicate that Candidate 1 uses the most applicable, appropriate, and current technologies and techniques practicable given site-specific conditions and concerns. Candidate 1 also provides the most volume of downstream rockfill storage in RDS.

The main factors that lead to the selection of Candidate 1 are as follows:

- Highest safety ratings considering the substantial buttressing provided by the RDS sites and limited changes to current mine operations and active work areas.
- Highest technical execution ratings based on consistency of proposed tailings and water management practices with well developed design and construction practices at the site.
- Consistency with long-term management objectives for the Berkeley Pit.
- Anticipated relatively low capital costs associated with implementing the candidate.

The results indicate that Candidate 3, which includes concurrent use of the YDTI and development of the Berkeley Pit as a second tailings repository, is the next preferred candidate. The weighted assessment highlights the potential safety and technical execution benefits of this candidate; however, the complexity of permitting and developing the Berkeley Pit for long-term tailings management could result in delays to the project permitting process and implementation.

TABLE OF CONTENTS

PAGE

TABLES

FIGURES

APPENDICES

ABBREVIATIONS

ACC	Anaconda Copper Company
BMFOU	Butte Mine Flooding Operable Unit
EC	Environment Canada
EL	elevation
EPA	Environmental Protection Agency
ft	feet
GPS	Global Positioning System
H	horizontal
HsB	Horseshoe Bend
KP	Knight Piésold Ltd.
MAA	Multiple Accounts Assessment
MCA	Montana Code Annotated
MDEQ	Montana Department of Environmental Quality
MR	Montana Resources, LLC
Mtons	millions short tons
No.	Number
PMF	Probable Maximum Flood
RDS	Rock Disposal Site
ROD	Record of Decision
TSF	tailings storage facility
V	vertical
WED	West Embankment Drain
YDTI	Yankee Doodle Tailings Impoundment

1.0 INTRODUCTION

1.1 LOCATION

Montana Resources, LLC (MR) operates the Montana Resources open pit copper and molybdenum mine located in Butte, Montana. The mine is bounded by Interstate 15 and the Continental Divide on the east, Moulton Reservoir Road on the west, and Farrell Street, Continental Drive and Shields Avenue to the south. The ore throughput at the mill and processing facilities is approximately 49,000 short tons per day. The tailings from ore processing are conveyed to the Yankee Doodle Tailings Impoundment for disposal and permanent storage.

The key components of the MR facilities, as shown on Figure 1.1, include the following:

- Yankee Doodle Tailings Impoundment (YDTI)
- Berkeley Pit
- Continental Pit
- Mill and processing facilities (the Concentrator)
- Horseshoe Bend (HsB) Area and associated facilities

1.2 REPORT PURPOSE

Operation of the YDTI is currently permitted up to a maximum crest elevation (EL.) of 6,450 feet (ft). MR is preparing a permit amendment application (the 6,560 Amendment Application) to facilitate continued operation of the mine thereafter by aligning approval for tailings storage at the YDTI with the remaining ore reserves. The permit amendment application process requires the permit applicant (MR) to submit a design document in support of the permit amendment application.

Knight Piésold Ltd. (KP) is developing the 6,560 Amendment Design Document (the Design Document) to support the 6,560 Amendment Application. The Design Document comprises a series of technical reports covering the subject areas and content to meet the requirements specified in Montana State law as well as evaluating opportunities for continued risk reduction to enhance safety as part of the fundamental objective for on-going continuous improvement of the safety of the YDTI. The laws governing tailings storage facility design, operation and reclamation are contained within sections of Montana Code Annotated (MCA) Title 82 Chapter 4 Part 3 (MCA, 2023).

- Title 82: Minerals, Oil, and Gas
  - Chapter 4: Reclamation
    - Part 3: Metal Mine Reclamation

An evaluation of the proposed tailings storage facility is required to fulfil the requirements of the MCA Title 82 Chapter 4 Part 3 Section 76 (82-4-376) (e), which is outlined below.

> *(e) an evaluation indicating that the proposed tailings storage facility will be designed, operated, monitored, and closed using the most applicable, appropriate, and current technologies and techniques practicable given site-specific conditions and concerns.*

State law (MCA 82-4-303) further defines the word “practicable” to mean:

> *(25) available and capable of being implemented after taking into consideration cost, existing technology, and logistics in light of overall project purposes.*

This report has been prepared by KP to present the evaluation and rankings of applicable tailings management technologies and techniques considered as part of the Design Document development process. The evaluation provides a transparent rationale for the selection of the proposed design candidate, including consideration of safety and environmental aspects, technical execution, financial aspects, and closure.

1.3 EXISTING TAILINGS STORAGE FACILITY AND TAILINGS PROCESSES

1.3.1 EXISTING YDTI EMBANKMENTS

The YDTI is a valley-fill style impoundment created by a continuous rockfill embankment that has been constructed by progressively placing rockfill to form free-draining rockfill embankments. The YDTI was originally constructed in 1963 using rockfill from the Berkeley Pit and has been continuously constructed using rockfill from the Berkeley Pit (until 1982) and from the Continental Pit (beginning in 1986). The rockfill embankment comprises pit-run material historically end-dumped in approximately 30 to 100 ft lifts with initial compaction from the mine haul fleet traffic and gradual settlement occurring thereafter. Ripping of the embankment surface to enhance vertical infiltration has been commonly completed prior to subsequent fill placement. For descriptive purposes, the confining rockfill embankment is divided into three segments according to the general geometry of each limb of the continuous embankment. These embankments are the:

- **North-South Embankment:** The North-South Embankment forms the eastern to southeastern limb of the YDTI and runs approximately north to south in orientation. The North-South Embankment abuts onto the base of Rampart Mountain, forming the eastern battery limit of the MR mine site.
- **East-West Embankment:** The East-West Embankment forms the southwestern limb of the YDTI and runs approximately east to west in orientation. The East-West Embankment is constructed upstream of the HsB area and the Berkeley Pit.
- **West Embankment**: The West Embankment forms the western limb of the YDTI and runs approximately north to south in orientation. The West Embankment is constructed along the side of the West Ridge and forms the western battery limit of the facility. The West Embankment incorporates the West Embankment Drain (WED) and several other seepage control features, which will maintain hydrodynamic containment of YDTI seepage as the supernatant pond elevation rises above the lowest groundwater elevations in the West Ridge. The West Embankment also includes a zone of material with relatively lower permeability and relatively lower acid generation potential along the downstream side.

The embankment is currently constructed to crest EL. 6,450 ft with a maximum embankment height of approximately 800 ft measured from the embankment downstream toe to the crest at the maximum section. The minimum overall downstream slope of the embankments is approximately 2 horizontal to 1 vertical (2H:1V) with flatter overall slopes where practicable.

The tailings storage capacity remaining in the currently constructed YDTI was estimated using three-dimensional (3D) modelling of the facility and tailings deposition process. The remaining tailings storage capacity considering the EL. 6,450 ft crest elevation is approximately 200 million short tons (Mtons), which will enable continued mining through until approximately 2034 (KP, 2024).

MR will continue progressive construction of areas below EL. 6,450 ft (currently permitted crest elevation) over the next several years prior to the requirement for storage expansion. Construction activities currently planned to be undertaken during this time include:

- Construction of the Stage 1 HsB Rock Disposal Site (RDS) to approximately EL. 5,900 ft.
- Construction of the new East-West Haul ramp to crest EL. 6,450 ft.
- Construction of downstream lifts of the North-South Embankment to flatten the overall downstream slope of the North-South Embankment.
- Construction of the North RDS to approximately EL. 6,200 ft.

Construction in these areas is ongoing at the time of this report. MR will continue to develop these areas as rockfill is available, with the expectation that the permit amendment will be received with sufficient time to allow for construction of additional tailings storage capacity.

1.3.2 EXISTING TAILINGS DEPOSITION

Tailings are the fraction of ore processed at the Concentrator that is not considered to be economically valuable. Tailings are managed as a waste material requiring a geotechnically and geochemically stable storage solution to manage the materials (solids and water) throughout the mine life and following closure. The Concentrator currently produces tailings with a gravimetric solids content of approximately 35%. The tailings distribution system conveys tailings to the YDTI using a series of tailings pumps, booster stations, pipelines, and discharge spigots.

The tailings beach within the YDTI is formed by the discharge and deposition of conventional tailings slurry from multiple discharge locations along the YDTI embankments (multipoint discharge). The tailings beach is progressively developed as the tailings are discharged and the solids settle and accumulate within the impoundment. Efficient storage of tailings is achieved by maximizing the settled tailings dry density through sub-aerial drying and drainage to enhance natural consolidation within the tailings mass. The tailings beach naturally settles and consolidates further over time due to increased loading from the accreting tailings mass.

The YDTI supernatant pond is located on the northeast side of the facility and provides a source of water to support continuous mill operations. A nominal operating pond volume of approximately 15,000 acre-ft (+/- 3,000 acre-ft) is maintained within the supernatant pond; however, fluctuations typically occur seasonally due to precipitation/runoff, higher summer evaporation rates, variation in the make-up water flowrates, and development/melt of winter ice.

1.4 COORDINATE SYSTEM

The YDTI references the site coordinate system known as the ‘Anaconda Mine Grid’ established by The Anaconda Company in 1957. The Anaconda Mine Grid is based on the Anaconda Copper Company (ACC) Datum established in 1915. All elevations are stated in Anaconda Mine Grid coordinates with respect to the ACC Vertical Datum unless specifically indicated otherwise. The Montana Resources Global Positioning System (GPS) Site Coordinate System is based on the ‘Anaconda Mine Grid’ and utilizes International Feet.

NOTES:

1. AERIAL IMAGE PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT CURRENT GENERAL ARRANGEMENT

Knight Piésold CONSULTING

P/A NO.	REF NO.
VA101-126/24	3

FIGURE 1.1 REV 0

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

2.0 PREVIOUS EVALUATION

The Amendment 10 Design Document published in 2017 also included an evaluation of tailings management technologies and techniques (KP, 2017). The purpose of Amendment 10 was to facilitate continued mining beyond 2020 by seeking approval to construct the West Embankment to EL. 6,450 ft and to commence operation of the WED.

The evaluation conducted in 2017 evaluated tailings storage facility (TSF) and tailings management techniques and technologies that would allow MR to continue operation of the mine. The evaluation included consideration for safety, implications to the environment, technical and financial aspects, and closure. The evaluation specifically considered three design components:

1. TSF general locations: on-site and off-site
2. Tailings management systems:
    a. single versus multiple discharge spigots
    b. conventional versus thickened versus filtered tailings
3. West Embankment design: free-draining, zoned or upstream drained embankment

The evaluation concluded that on-site storage was preferred, and identified several challenges related to considering new off-site TSF locations. The evaluation identified the preferred solution for additional tailings storage capacity was to increase the storage capacity of the YDTI. The evaluation identified the best technique to increase the capacity of the YDTI was to use multiple discharge points discharging conventional tailings slurry and developing tailings beaches along the full embankment length. Extensive tailings beaches separating the supernatant pond from the embankment enhance the safety characteristics of the facility.

The best design approach for construction of the West Embankment was determined to be incorporating an upstream drain and other seepage control features to maintain hydrodynamic containment of YDTI contact water.

3.0 EVALUATION METHODOLOGY

3.1 EVALUATION BASIS

This evaluation considers several tailings storage techniques and tailings dewatering technologies (i.e. candidates) to support continued mining operations between approximately 2034 and the mid-2050s. Locations for non-ore rock disposal are also considered.

The Design Document uses the 2022 End of Year Reserve Report (the Reserve Report) produced by MR (MR, 2023) as the basis for evaluating long-term tailings and rockfill storage requirements. The reserve reports prepared by MR includes the total proven and probable reserves, and the report is updated by MR each year based on project economics, resource drilling, and other mine operation decisions. Rockfill scheduling for the life of mine is further described in the Life of Mine Design Report (KP, 2024).

This evaluation is focused on tailings and rockfill storage following 2034, when additional tailings storage capacity would be required above the existing permitted capacity. Rockfill will continue to be placed in various permitted locations around the YDTI while the permit amendment application is in progress, as described in Section 1.3. The configuration of the YDTI used as the basis for this evaluation is presented on Figure 3.1.

It was assumed that any expansion of the YDTI or additional tailings placement above EL. 6,450 ft will require the relocation of the maintenance yard and truck shop within the HsB area. This area is assumed to be available for RDS development and rockfill storage for all management candidates. This evaluation also assumes that the ultimate RDS elevation is limited by the YDTI embankment crest elevation.

A summary of the estimated tailings and rockfill tonnages from the Reserve Report and the expected tailings and rockfill storage requirements after 2034 is presented in Table 3.1.

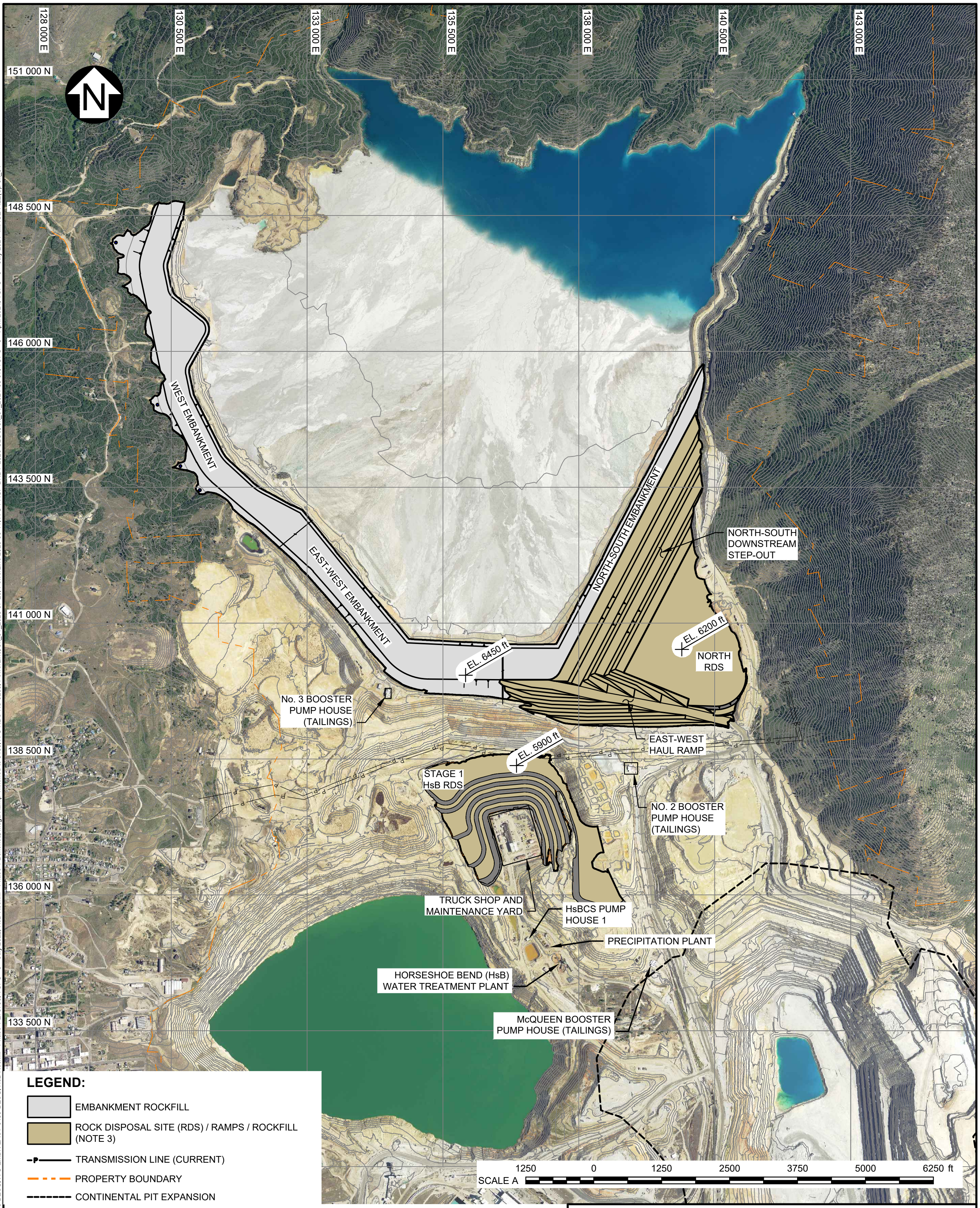
Table 3.1 Required Tailings and Rockfill Storage Volumes

Material	Reserve Report Quantity[1]	Permitted Tailings and Rockfill Quantity[2]	Required Storage Quantity for Assessment
	MTons	MTons	MTons
Ore (Tailings)	570	200	370
Rockfill	562	168	394

Note(s):

1. The 2022 Reserve Report (MR, 2023) includes Continental Pit Area CE/CS/DN/DE/DS/EN pushbacks and the Central Zone.
2. Tailings storage estimated to be provided by the EL. 6,450 ft YDTI. Rockfill projected through 2034 operations.
3. Quantities reported in units of million short tons (Mtons).

This evaluation does not rely on specific stability analyses, detailed cost estimates, water balances, or detailed material take-offs for each candidate. Advanced candidates were evaluated on a comparative basis using engineering judgement following the methodology described in the following sections.



NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. AERIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. STAGE 1 HsB RDS, EAST-WEST HAUL RAMP, NORTH-SOUTH DOWNSTREAM STEP-OUT AND EL. 6,200 ft NORTH RDS CONSTRUCTION IS ONGOING AND IS EXPECTED TO BE COMPLETE PRIOR TO THE 6560 PERMIT AMENDMENT.
4. EL. 6450 FT EMBANKMENT LIFT SUBSTANTIALLY COMPLETED APRIL 2023.

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY- PRIOR TO PERMIT ARRANGEMENT

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

Knight Piésold CONSULTING

P/A NO.	REF NO.
VA101-126/24	3

FIGURE 3.1 REV 0

SAVED: M:\1\01\00126\24\A\Acad\FIGS\A49, 12/18/2024 12:56:05 PM , RMCLELLAN PRINTED: 1/6/2025 1:03:02 PM, FIG 3.1, RMCLELLAN ACAD VERSION: 25.0S (LMS TECH)

XREF FILE(S): X-C-PROP-BNDY-2020; X-C-EMBK-WEST-6450-DESG; X-C-EMBK-EAST-6450-DESG; HsB Rockfill - Phase 1 El 5700; TOPO - 5' - July 2022; HsB Rockfill - Phase 1 Benched; Mega Ramp Trimmed to 6450; X-C-RDS-NS-6200; PowerLine; 5ft_01_2023-07-26; PowerLine 2023-09-11; X-C-PROP-BNDY-2023-CLOS; 5ft_01_2024-08-07; TOPO - 5' - April 2024; TOPO - 5' - July 2024 IMAGE FILE(S): 5ft_01

3.2 EVALUATION METHODOLGY

Comprehensive guidelines outlining methodologies to assess tailings storage techniques and technologies are currently not known to be available in the State of Montana or elsewhere in the United States of America. The methodology adopted for this evaluation is generally based on Environment Canada's (EC) *Guidelines for the Assessment of Alternatives for Mine Waste Disposal* (EC Guidelines; EC, 2024), which were published in September 2011 and updated in July 2024.

The general steps for an evaluation of potential candidates based on the EC Guidelines are presented in order below; however, it is acknowledged that completing an evaluation of tailings management candidates generally involves an iterative process.

- **Step 1 – Identify Candidates**: Develop a list of possible candidates for various mine waste disposal candidates for the site, including possible storage locations and technologies.
- **Step 2 – Pre-Screening Assessment**: Screen candidates according to a pre-determined set of pre-screening criteria to identify any "fatal flaws" (i.e., characteristics that, in isolation from other criteria, would render a candidate unfeasible).
- **Step 3 – Characterization:** Characterize remaining candidates on specific characterization criteria developed for each project. The characterization criteria can generally be placed under one of a number of categories, or accounts, which typically includes environmental, technical, economic, and social.
- **Step 4 – Multiple Accounts Assessment**: Complete a multiple accounts assessment (MAA) for the remaining candidates. This is a decision-making tool which identifies the elements for differentiating the candidates and provides a basis for qualifying or quantifying the elements.
- **Step 5 – Value-based Decision-Making Process:** Complete value-based decision making from the MAA. Value-based decision making involves scoring and weighting the elements of the multiple accounts ledger and quantifying each element followed by completing a quantitative analysis. The results of the analysis identify the preferred candidate.
- **Step 6 – Sensitivity Analysis**: Complete a sensitivity analysis on the results of the value-based decision-making process by assigning different weightings to the assessment elements, or by adding/removing elements from the assessment.
- **Step 7 – Document Results:** Thoroughly document all steps and the results of the evaluation (i.e., this report).

4.0 PRE-SCREENING OF TECHNIQUES AND TECHNOLOGIES

4.1 TAILINGS MANAGEMENT TECHNIQUES

The identification and pre-screening of potential tailings storage techniques considered the results of the previous studies as well as current mine operations. Off-site storage was not considered during this evaluation as there have been no significant land ownership changes that would affect the conclusions of the previous evaluation (KP, 2017). Any off-site candidates would add significant risk to the project, require extensive time and capital costs to locate, investigate, design, permit and construct, and disturb previously undisturbed areas at a large scale.

On-site storage techniques were considered for further evaluation if they met the following screening criteria:

1. Located within the existing MR property boundary or with limited consequence to surrounding land.
2. Does not effect the location of the existing Concentrator.
3. Does not limit future potential for Continental Pit expansion.
4. Limited effect to main network of mine access roads and corridors.

The initial screening identified the following storage techniques for further evaluation. These techniques were considered individually or in a combined storage arrangement:

- Raise of the existing YDTI embankment crest.
- Raise and expansion of the YDTI footprint over the historical leach areas downstream of the North-South Embankment (to increase the footprint of the YDTI and decrease the required elevation).
- Infilling of the Berkeley Pit with tailings.

It is estimated that the Berkeley Pit could provide storage capacity for 230 to 350 Mtons of tailings, depending on the tailings technology and placement methods, which are further discussed below. It does not have sufficient capacity to contain all the tailings contemplated in the evaluation; therefore, candidates involving the Berkeley Pit also include continued expansion of the YDTI.

It is important to note that deposition into the Berkeley Pit could require extensive coordination with various Butte Mine Flooding Operable Unit (BMFOU) stakeholders. The Berkeley Pit is located within the BMFOU to the Silver Bow Creek/Butte Area National Priorities List Site and subject to Environmental Protection Agency (EPA) jurisdiction and requirements. According to EPA, the Berkeley Pit is the major feature in the BMFOU. In 1994, the EPA, with the concurrence of the State of Montana, selected a remedy to address the contaminated water reporting to the Berkeley Pit from hydraulically connected underground mine workings, and alluvial and bedrock aquifers. To prevent a reversal of the hydraulic gradient (allowing water to leave the pit), EPA and the State determined that the water level in the Berkeley Pit must be maintained below a Protective Water Level of 5,466 ft (ACC Datum). That determination was made in compliance with the Comprehensive Environmental Response Compensation and Liability Act and is documented, along with other remedy requirements, in the 1994 Record of Decision (BMFOU ROD). The remedy and remedy requirements were predicated upon an analysis of rising water levels and the control of surface inflows to the Berkeley Pit. At the time, it was anticipated that the Berkeley Pit would be used for the containment of water and not for future tailings storage purposes.

In 2002 MR and others agreed to implement the remedy set out in the BMFOU ROD. That agreement (including the BMFOU ROD) was lodged in the federal District Court for the District of Montana on March 25, 2002. The Consent Decree was approved by the Court on August 14, 2002. It is inferred that the use of the Berkeley Pit for tailings storage would require adjustment to several previous determinations and agreements.

4.2 TAILINGS MANAGEMENT TECHNOLOGIES

4.2.1 TAILINGS TECHNOLOGIES OVERVIEW

Tailings can be described by their approximate solids content on a range referred to as the tailings continuum. This range qualitatively describes tailings solids content, thickening (and/or dewatering) effort, behavior, method of deposition and segregation potential upon deposition. A schematic of the tailings continuum is shown on Figure 4.1. The following sections describe the various tailings technologies and how they are considered in this evaluation.

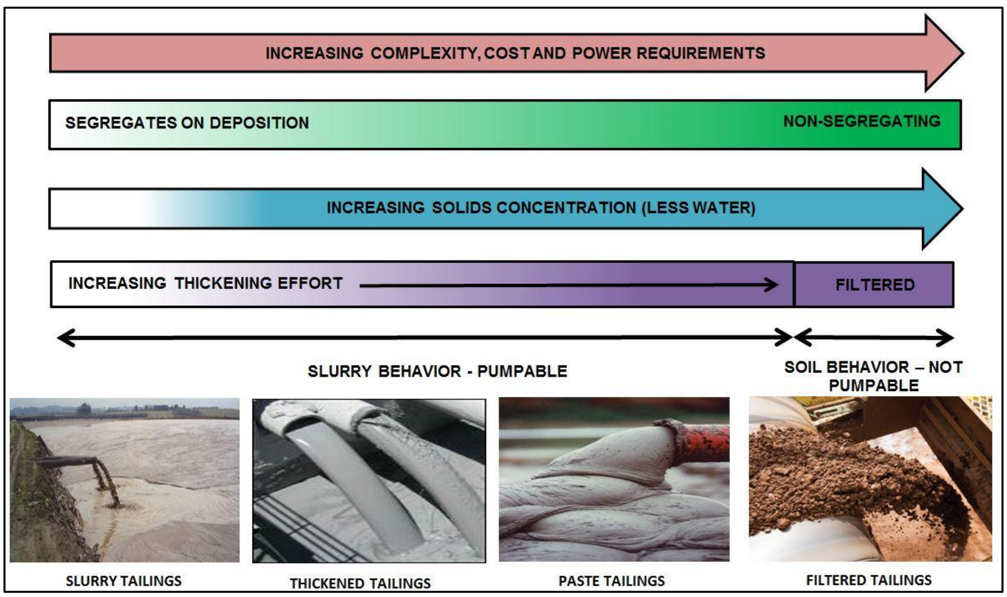


Figure 4.1 Tailings Continuum

4.2.2 SLURRY TAILINGS

Mineral processing commonly produces a slurry with solids content in the order of 20 to 40% by weight. Slurry tailings may be pumped, flow by gravity, or a combination of both for transport to their storage location, depending on available head and distance from the processing plant. Slurry tailings are often discharged through multiple off-takes located around the perimeter of confining embankments. A supernatant pond is created from release of water associated with settlement of tailings solids following deposition. The tailings solids commonly segregate after deposition of the slurry with the coarsest particles settling near the discharge points, often creating a sub-aerial beach slopes of approximately 0.5 to 1% and sub-aqueous beach slopes of approximately 2 to 5%. The finer particles of the slurry will settle farther towards and into the supernatant pond, remaining in suspension for a longer period of time. The development of a tailings beach provides separation between the confining embankments and supernatant pond.

The supernatant pond developed through discharge of slurry tailings provides water for processing, storage for periods of rainfall/runoff, and a water cover that can be utilized to limit acid generation potential for materials stored within a facility. Maintaining a supernatant pond can require careful and effective management to maintain tailings beaches and avoid excess water accumulation depending on prevailing climate conditions and water management practices.

The production and storage of slurry tailings is a well-understood technology that is practicable to apply in many circumstances without need for the additional efforts and costs for dewatering described in the following sections.

4.2.3 THICKENED AND ULTRA-THICKENED TAILINGS

Thickened and ultra-thickened tailings are produced by additional processing of a tailings slurry with thickeners and/or the addition of flocculants. Thickened slurry tailings contain less water than a conventional slurry, with a typical solids content of 40 to 75% by weight. The upper end of the solids content range, 70 to 75% solids, would be considered ultra-thickened. Ultra-thickened tailings are sometimes referred to as paste tailings; however, the term paste is generally only applied if certain yield stress criteria are met. Paste tailings are most commonly used in backfilling of underground mine workings; however, surface and pit disposal sites have also been developed.

The increased solids content of ultra-thickened tailings reduces the potential for segregation and development of a supernatant pond; however, ponded water can still develop above or adjacent to the tailings because of direct rainfall/runoff. Thickened and ultra-thickened tailings disposal do not result in significantly different settled density or beach slopes compared to un-thickened slurry tailings; however, the final settled density could be expected to be reached sooner.

4.2.4 FILTERED TAILINGS

Filtered tailings are produced by mechanical dewatering of slurry produced during mineral processing. Mechanical dewatering can be achieved with high-capacity vacuum or pressure filtration processes, though thickening may be required prior to dewatering depending on the solids content and material properties of the initial slurry.

Filtered tailings differ from slurry, thickened and ultra-thickened tailings in that they are dewatered to a point at which they will behave as a soil and not as a fluid. Filtered tailings are assumed for the purpose of this assessment to have soil moisture content in the order of 20%. The characteristics of a slurry do not apply to a soil; however, if these characteristics were applied to filtered tailings it would equate to a solids content of approximately 80 to 85% solids by weight.

Filtered tailings would be transported by truck or conveyor to the storage location, commonly referred to as a 'stack'. Depending on the specific tailings material properties, it may be possible to produce filtered tailings at or near the optimum moisture content for compaction. Compacted filtered tailings would be used for structural confinement of the overall stack in an ideal situation; however, this can be challenging and is highly dependent on the level to which water can be removed from the tailings, precipitation on the filtered materials, and the physical properties of the material and behaviour under loading. Management of off-specification materials must be considered when contemplating filtered tailings disposal. Off-specification materials may include tailings which did not achieve the desired moisture content during the filtering process, or conventional tailings requiring storage during periods when the filter plant is not operating. Specific considerations of placement during periods of high precipitation may also be required.

4.2.5 SELECTED TAILINGS TECHNOLOGIES

The following tailings technologies were selected for evaluation in this evaluation:

- Continue using the existing tailings management technology by pumping conventional slurry tailings at approximately 35% solids concentration (by weight) to multiple discharge points.
- Mechanically filter and stack dewatered tailings (approximately 85% solids concentration by weight).

These technologies were considered based on current operations and industry standards in assessing best management practices. The initial settled dry density (85 pcf) and beach slopes for the deposited slurry tailings were assumed to be the same for all slurry tailings candidates. Filtered tailings characteristics for this assessment assume a tailings solids concentration of approximately 85% solids (by weight) and the tailings in-place dry density of 100 pcf.

4.3 ROCKFILL MANAGEMENT

The storage of the rockfill generated during long-term mining was also included in this evaluation. The primary use of rockfill generated during mining will be to support ongoing operations (i.e. embankment or containment construction). Surplus rockfill, not required for embankment construction or continued tailings containment, is to be stored on site. The preferential location for long-term storage of surplus rockfill is in RDS located downstream of the YDTI embankment. The development of RDS in these areas will further enhance the stability of the embankment and allow for the construction of flatter overall embankment slopes. Rockfill storage was prioritized in the following areas for this evaluation:

- Construction materials (embankments, haul roads/ramps, etc.)
- Surface RDS
- In-pit storage (Continental Pit towards end of mine life)

The total rockfill volume and placement schedule for the RDS in the long-term is dependent on several factors, including MR's rockfill forecast schedule, pit stripping requirements, embankment rockfill material needs, cut-off grades due to fluctuating metal prices, other mine site uses, and the duration of continued mining operations at the site.

4.4 SUMMARY OF ADVANCED CANDIDATES

A combination of tailings management techniques, tailings management technologies, and rockfill management techniques were selected to be advanced to the MAA as candidates for evaluation. The candidates are summarized in Table 4.1 and further described and evaluated in subsequent sections.

Table 4.1 Candidates Advanced to MAA

<table>
<tr><th rowspan="2">Candidate</th><th colspan="3">Tailings Storage</th><th colspan="2">Rockfill Storage</th></tr>
<tr><th>Technology</th><th>Location</th><th>Methodology</th><th>Location</th><th>Methodology</th></tr>
<tr><td>1</td><td>Conventional slurry</td><td>YDTI</td><td>Crest raise, multipoint discharge</td><td>On-surface, in pit</td><td>Embankment construction and Rock Disposal Sites, excess into Continental Pit</td></tr>
<tr><td>2</td><td>Conventional slurry</td><td>YDTI</td><td>YDTI footprint expansion and crest raise, multipoint discharge</td><td>On-surface, in pit</td><td>Embankment construction and Rock Disposal Sites, excess into Continental Pit</td></tr>
<tr><td rowspan="2">3</td><td rowspan="2">Conventional slurry</td><td>YDTI</td><td>Crest raise, multipoint discharge</td><td rowspan="2">On-surface, in pit</td><td rowspan="2">Embankment construction and Rock Disposal Sites, excess into Continental Pit</td></tr>
<tr><td>Berkeley Pit</td><td>Multipoint discharge</td></tr>
<tr><td rowspan="2">4</td><td>Conventional slurry</td><td>YDTI</td><td>Crest raise, multipoint discharge</td><td rowspan="2">On-surface, in pit</td><td rowspan="2">Embankment construction and Rock Disposal Sites, excess into Continental Pit</td></tr>
<tr><td>Filtered</td><td>Berkeley Pit</td><td>Filtered tailings</td></tr>
<tr><td>5</td><td>Filtered</td><td>YDTI</td><td>Filtered tailings</td><td>On-surface, in pit</td><td>Rock Disposal Sites, Continental Pit</td></tr>
</table>

5.0 CANDIDATES CHARACTERIZATION

5.1 CANDIDATE 1

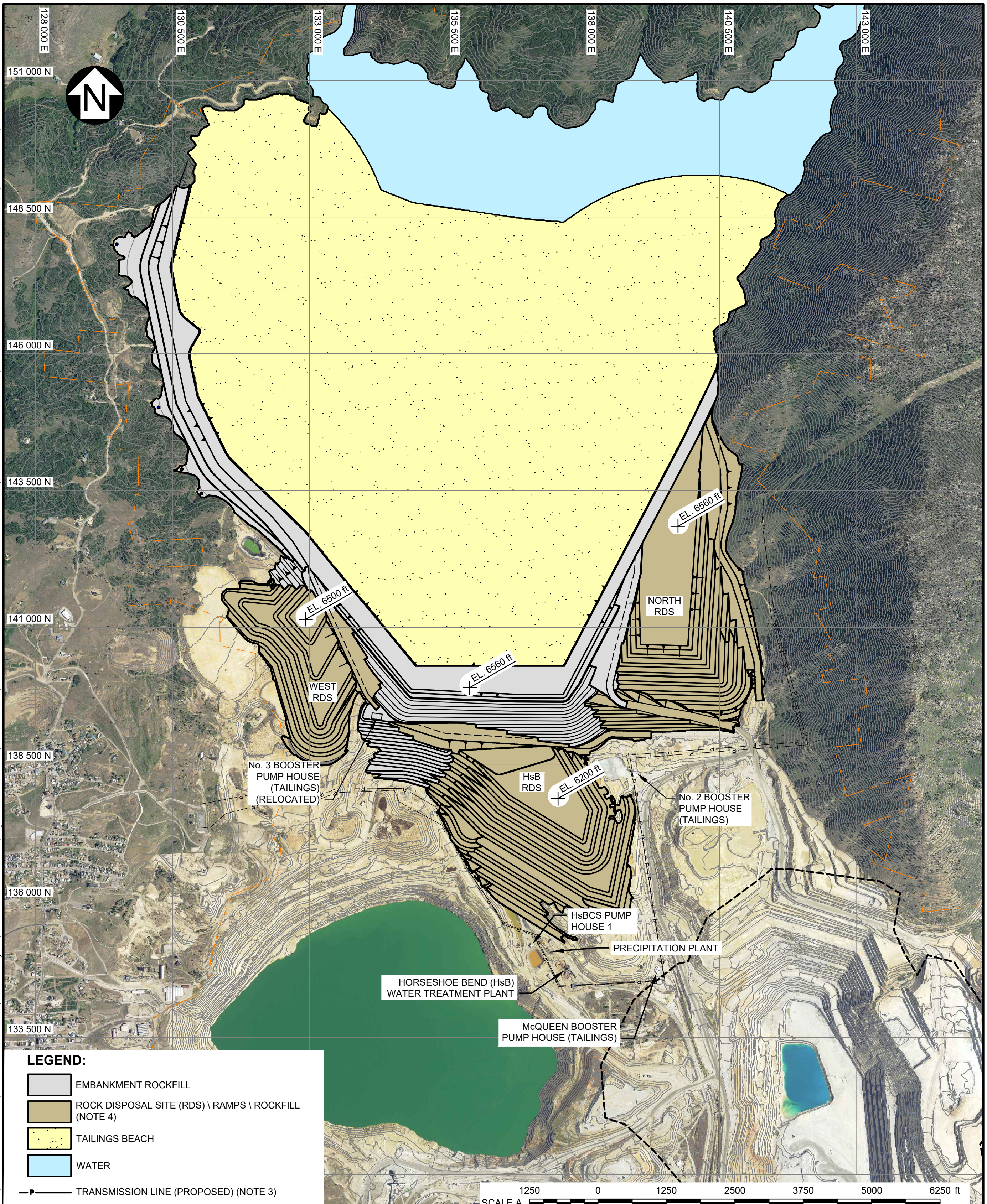
Candidate 1 considers the continued use of the YDTI using an embankment alignment generally the same as current. The embankment crest elevation would be raised using construction practices similar to current operations to provide the required tailings storage capacity within the YDTI. The projected maximum crest elevation of this candidate is EL. 6,560 ft. Tailings operations and distribution would be consistent with current operations; however, relocation and expansion of the Number (No.) 3 Booster Pump House (Tailings) would be required to facilitate ongoing embankment construction. Rockfill is conceptually placed in RDS sites located downstream of the North-South Embankment (North RDS), within the HsB area (HsB RDS), and downstream of the northwest trending limb of the East-West Embankment (West RDS) in this candidate. Any surplus rockfill will be required to be placed in the Continental Pit for long-term storage.

Construction of the HsB RDS will require the relocation of the high-voltage power lines, maintenance yard and truck shop. Additional drainage features would be required within the HsB area to manage seepage flows currently known to collect within the area. The WED would not require any expansion under this candidate. A general arrangement of the embankment configuration assuming a tailings beach and pond are developed using a multiple spigot discharge configuration is shown on Figure 5.1.

The conceptual closure plan and objectives for this candidate include gradual slope flattening and progressive buttressing of the facility, consistent with previous closure plans for the site. There will be increases in total embankment and tailings beach areas requiring reclamation in comparison to the EL. 6,450 ft arrangement; however, the progression of the YDTI development would provide opportunities for progressive reclamation on select downstream slopes and RDS. A closure spillway would be constructed along Rampart Mountain following operations for emergency water management.

The key components and considerations for Candidate 1 can be summarized as:

- Continued use of the current YDTI alignment to EL. 6,560 ft using construction practices consistent with current operations.
- Construction of downstream RDS sites to progressively buttress the impoundment along the East-West and North-South Embankments and create overall flatter slopes, improving the stability of the impoundment and reducing overall risk.
- Tailings technology and distribution using multi-point discharge similar to current operations.
- Relocation of key infrastructure including the maintenance yard and truck shop and high voltage transmission lines to facilitate embankment and RDS construction.
- Closure plan similar to current, with incremental increases in reclamation areas and construction of a closure spillway.



LEGEND:

- EMBANKMENT ROCKFILL
- ROCK DISPOSAL SITE (RDS) \ RAMPS \ ROCKFILL (NOTE 4)
- TAILINGS BEACH
- WATER
- TRANSMISSION LINE (PROPOSED) (NOTE 3)
- PROPERTY BOUNDARY
- CONTINENTAL PIT EXPANSION

NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. AERIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. HIGH VOLTAGE TRANSMISSION LINE IS APPROXIMATE AS PROVIDED BY MR IN SEPTEMBER 2023. LAYOUT BY NORTHWEST ENERGY.
4. ROCKFILL TO BE STORED IN CONTINENTAL PIT NOT SHOWN.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY - CANDIDATE 1

Knight Piésold CONSULTING

P/A NO. VA101-126/24

REF NO. 3

FIGURE 5.1

REV 0

5.2 CANDIDATE 2

Candidate 2 considers a modified configuration of the existing YDTI with the East-West Embankment extending east from Section 0+00 towards Rampart Mountain, encapsulating the existing North-South Embankment within the facility to incrementally increase storage capacity and decrease the ultimate elevation of the YDTI embankment. The existing East-West and West Embankments would retain their current embankment alignments. The maximum embankment crest elevation for this candidate is estimated to be EL. 6,540 ft. The extended East-West Embankment segment is assumed to be constructed using similar construction practices currently used on site; however, this embankment segment would be constructed in the downstream methodology with a minimum overall slope of 3H:1V. The upstream slope of the embankment has been conceptually modelled with a 2H:1V slope for the purpose of this evaluation. The foundation conditions for the proposed new embankment area would need to be further characterized to support the embankment design as this area was historically used for leaching operations and major haul road access. The extension of the East-West Embankment and infilling of the historical leach areas would cut off existing access to the reclaim system, and a new cut and fill ramp and road system would need to be constructed to maintain access to the reclaim system.

Tailings distribution would be achieved using multiple point discharge, similar to current operations, along with new infrastructure to allow tailings discharge over the historical leach pads downstream of the existing North-South Embankment. The initial rate of rise of tailings within this new cell would need to be quite high to catch up to the current filling level within the impoundment. The embankment concept would need to be carefully considered as well due to the high rate of rise and lack of a tailings beach during initial filling. Similar to the previous candidate, the relocation of the No. 3 Booster Pump House (Tailings) would be required to facilitate proposed embankment construction.

MR is currently in process of constructing the North RDS and East-West Haul Ramp in this area. The North RDS was intended to infill most of this area over the long-term. Rockfill materials not used in embankment construction would be placed in RDS like those described in Candidate 1, with the exception of the North RDS expansion. Reallocation of this storage capacity for tailings would require relocation of the remaining North RDS rockfill volumes. Surplus rockfill volumes, relatively higher than those of Candidate 1, would be required to be stored in the Continental Pit.

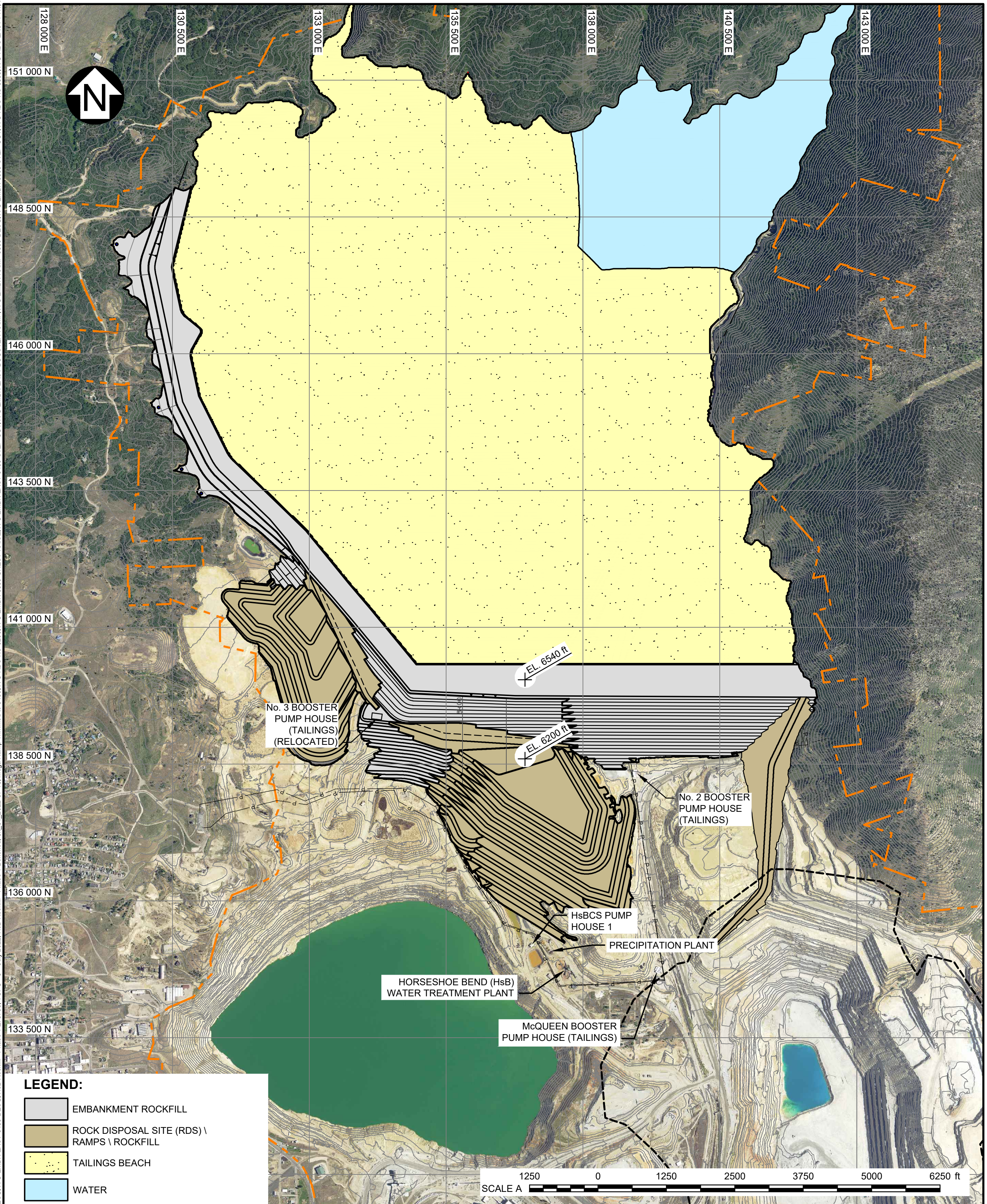
Construction of the HsB RDS would require the relocation of the high-voltage power lines and maintenance yard and truck shop, similar to Candidate 1. The high-voltage power line relocation would be further affected by the embankment alignment contemplated in Candidate 2.

The closure objectives for this candidate will be similar to Candidate 1, as the layout achieves gradual slope flattening and progressive buttressing of the facility. A closure spillway would also be constructed following operations for emergency water management; however, the spillway length and cut volumes are anticipated to be significantly higher than that of Candidate 1 due to the new abutment location along Rampart Mountain.

The key components and considerations for Candidate 2, shown on Figure 5.2, can be summarized as:

- Continued use of the YDTI to EL. 6,540 ft using construction practices consistent with current operations and a revised embankment arrangement.
- Increased uncertainty related to foundation conditions below revised embankment alignment.

- Construction of downstream RDS sites to progressively buttress along the East-West Embankment and create overall flatter slopes, improving the stability of the impoundment and reducing overall risk.
- Storage of additional rockfill within the Continental Pit over the long-term.
- Tailings technology and distribution using multi-point discharge similar to current operations with expanded alignment along the new East-West Embankment extension.
- Relocation of key infrastructure including the maintenance yard and truck shop and high voltage transmission lines to facilitate embankment and RDS construction.
- Closure plan similar to current, with incremental increases in reclamation areas and construction of a longer closure spillway.



LEGEND:

- EMBANKMENT ROCKFILL
- ROCK DISPOSAL SITE (RDS) \ RAMPS \ ROCKFILL
- TAILINGS BEACH
- WATER
- TRANSMISSION LINE (PROPOSED) (NOTE 3)
- PROPERTY BOUNDARY
- CONTINENTAL PIT EXPANSION

NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. AERIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. HIGH VOLTAGE TRANSMISSION LINE IS APPROXIMATE AS PROVIDED BY MR IN SEPTEMBER 2023. LAYOUT BY NORTHWEST ENERGY.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY - CANDIDATE 2

Knight Piésold CONSULTING

P/A NO.	REF NO.
VA101-126/24	3

FIGURE 5.2 REV 0

5.3 CANDIDATES 3 AND 4

Candidates 3 and 4 include raising the current arrangement of the YDTI to EL. 6,500 ft and storage of tailings within the Berkeley Pit. Section 4 outlines that the use of the Berkeley Pit for long-term tailings storage would require modifications to the remedy and remedy requirements set out in the BMFOU ROD to manage the water levels and the control of surface inflows to the Berkeley Pit. The permitting authority responsible for administering the State laws related to tailing storage facilities (i.e. Montana Department of Environmental Quality (MDEQ) Hard Rock Mining Bureau) cannot unilaterally approve implementation of candidates involving the Berkeley Pit. Candidates involving Berkeley Pit tailings storage are presented for completeness. Potential benefits and drawbacks of implementation of tailings storage within the Berkeley Pit may be further evaluated by MR, other BMFOU stakeholders, and the MDEQ.

The general arrangements for Candidates 3 and 4 are shown on Figures 5.3 and 5.4, respectively. The YDTI embankment raise would be completed using construction practices similar to current operations. Tailings operation and discharge into the YDTI would be generally consistent with current operations, and relocation of the No. 3 Booster Pump House (Tailings) would not be required for these candidates.

Rockfill would be placed in RDS sites located downstream of the North-South Embankment, within the HsB area, and downstream of the northwest trending limb of the East-West Embankment. Surplus rockfill not used for embankment construction or stored within the RDS would be placed in the Continental Pit. Construction of the HsB RDS would require the relocation of the high-voltage power lines and maintenance yard and truck shop. Additional drainage features within the HsB area would be required to manage seepage flows currently known to daylight within the area. The WED would not require any expansion.

Closure objectives for the YDTI will be similar to those described above for Candidates 1 and 2 with gradual slope flattening and progressive buttressing of the facility. A closure spillway would also be constructed following operations for emergency water management; however, the spillway length and cut volumes are anticipated to be lower than that of Candidate 1 due to the lower elevation of the embankment crest and interface with Rampart Mountain.

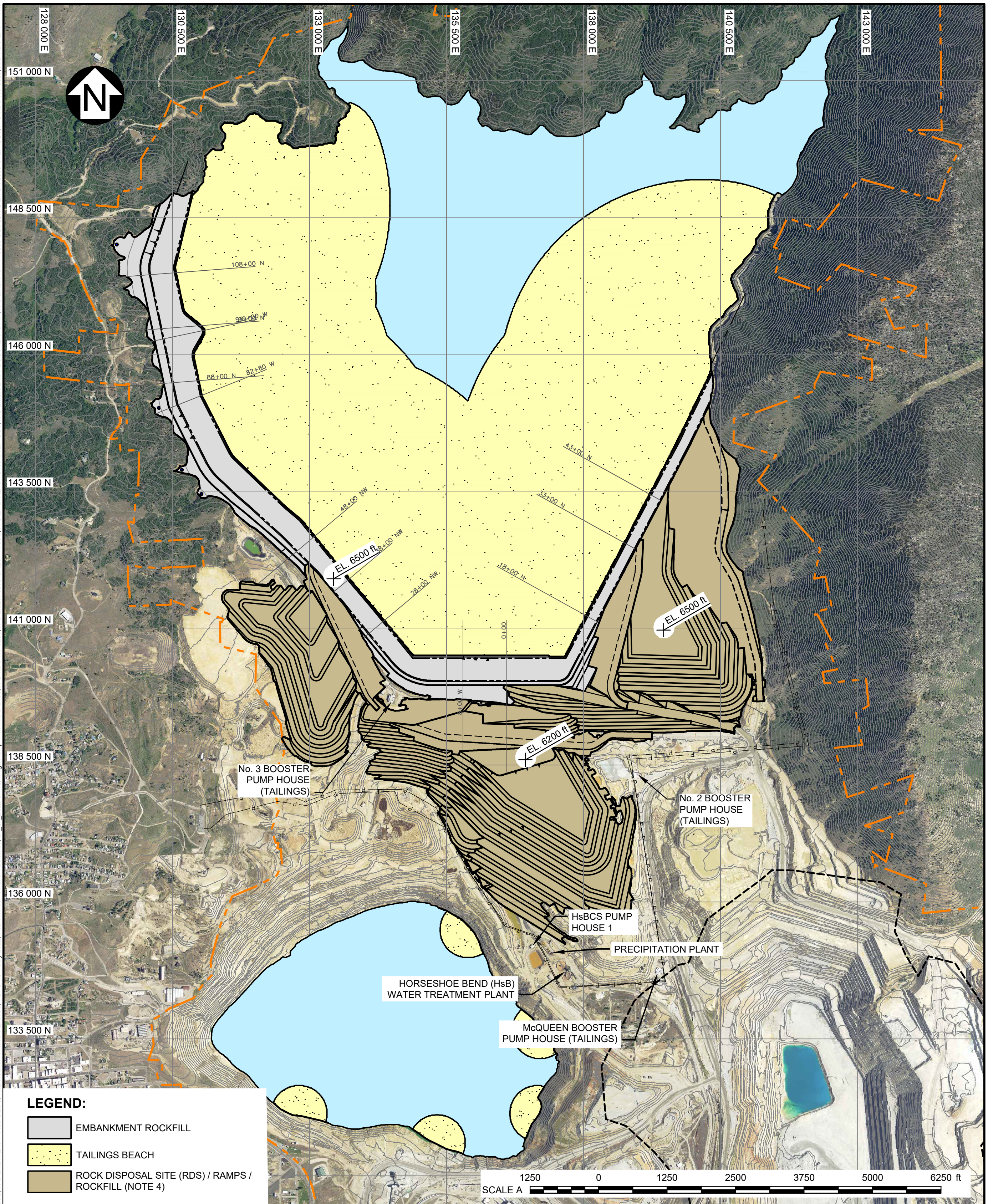
Tailings discharge into the Berkeley Pit in Candidate 3 assumes sub-aqueous deposition using a new multipoint tailings distribution system. The projected tailings elevation with the Berkeley Pit to store the surplus tailings not contained within the YDTI is approximately EL. 5,420 ft. Additional water management systems would be required to reclaim water from the Berkeley Pit to maintain the water level in the BMFOU East Camp Points of Compliance below the Protective Water Level or another compliance level determined during the associated permitting process. It was assumed that the deposition into the YDTI and Berkeley Pit for Candidate 3 would be done concurrently to provide operational flexibility and limit dewatering system costs associated with deposition at the Berkeley Pit.

Candidate 4 assumes that surplus tailings not stored within the EL. 6,500 ft YDTI would be stored within the Berkeley Pit using filtered tailings technology. The surplus tailings would be at approximately EL. 5,230 ft, as a higher in-place density and more efficient storage of tailings is conceptually achievable using filtered tailings. The implementation of filtered tailings would require additional tailings filtration systems and discharge methods (truck or conveyor distribution) to be implemented for the project and is assumed to occur following the filling of the EL 6,500 ft YDTI. The Berkeley Pit would need to be fully dewatered during the intervening period to allow for the placement of the filtered tailings within the pit. This would require substantial lead time to complete, and pit dewatering may expose pit wall instabilities.

Closure of the Berkeley Pit in both candidates would conceptually be consistent with the current remedy of allowing the Berkeley Pit to fill and managing the BMFOU East Camp water level at or below the Protective Water Level.

The key components and considerations for Candidates 3 and 4 can be summarized as:

- Continued use of the current YDTI alignment to EL. 6,500 ft using construction practices consistent with current operations along with development of new infrastructure to facilitate tailings storage within the Berkeley Pit.
- Construction of downstream RDS sites to progressively buttress the impoundment and create overall flatter slopes, improving the stability of the impoundment and reducing overall risk.
- Tailings technology and distribution:
  - Candidate 3: Multi-point slurry tailings discharge into the YDTI and concurrent discharge into the Berkeley Pit. Transition to Berkeley Pit sub-aqueous discharge will require new tailings distribution and water management systems.
  - Candidate 4: Multi-point slurry tailings discharge into the YDTI, transitioning to filtered tailings placement into the Berkeley Pit once YDTI capacity is exhausted and pit dewatering is complete. Substantial changes in mill processes, Berkeley Pit water management, and the tailings placement methodology to achieve placement of filtered tailings. Berkeley Pit would be required to be dewatered prior to tailings placement.
- Relocation of key infrastructure including the maintenance yard and truck shop and high voltage transmission lines to facilitate embankment and RDS construction.
- YDTI closure plan similar to current, with incremental increases in reclamation areas and construction of a closure spillway.
- Berkeley Pit closure would be similar to the current remedy but with altered conditions resulting from tailings deposition into the pit.



LEGEND:

- EMBANKMENT ROCKFILL
- TAILINGS BEACH
- ROCK DISPOSAL SITE (RDS) / RAMPS / ROCKFILL (NOTE 4)
- TRANSMISSION LINE PROPOSED (NOTE 3)
- PROPERTY BOUNDARY
- CONTINENTAL PIT EXPANSION

NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. AERIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. EXTENT OF FUTURE RDS TO BE DETERMINED BY THE ENGINEER AND MONTANA RESOURCES BASED ON ROCKFILL AVAILABILITY AND PROPERTY CONSTRAINTS.
4. ROCKFILL TO BE STORED IN CONTINENTAL PIT NOT SHOWN.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

MONTANA RESOURCES, LLC

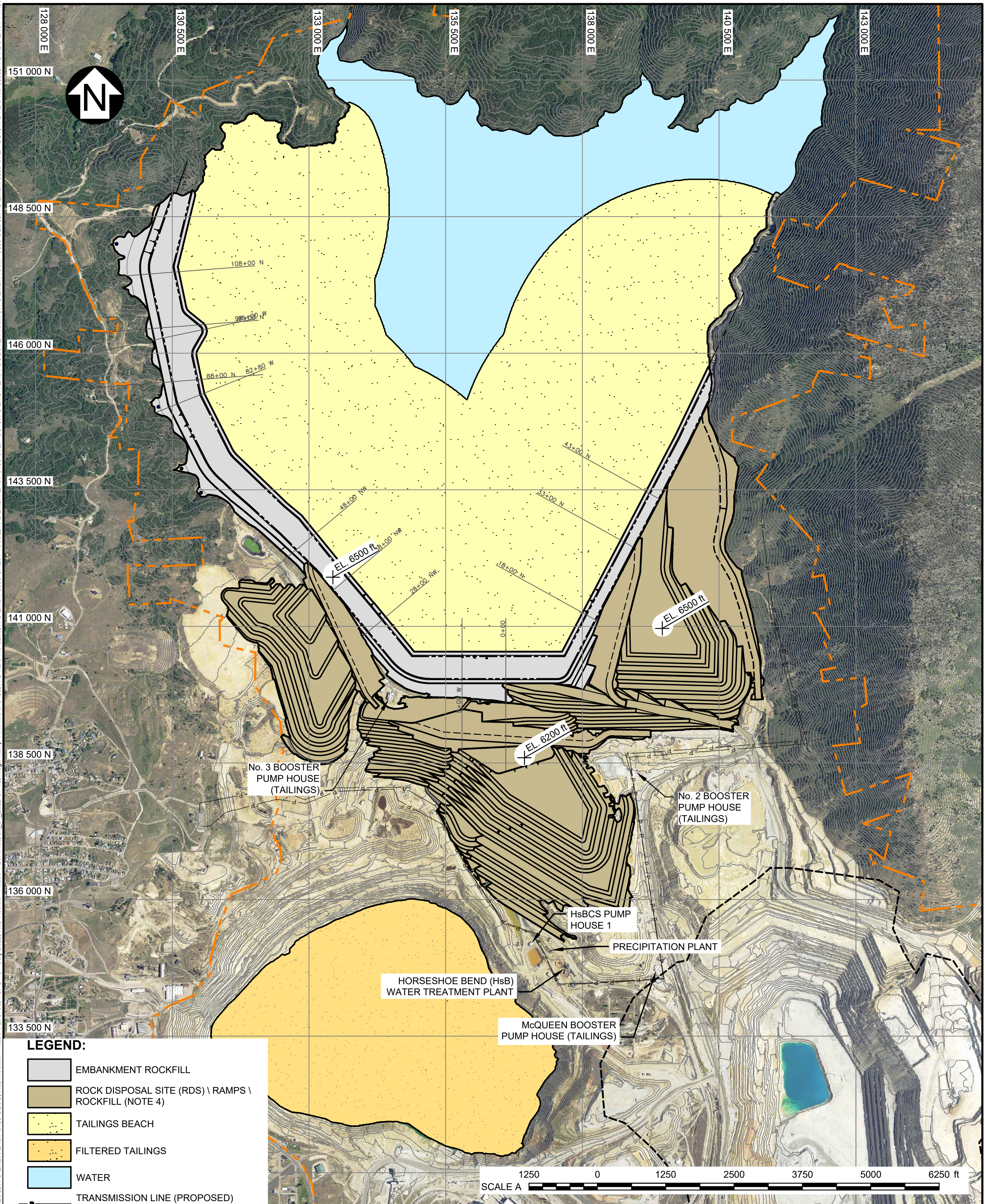
MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY - CANDIDATE 3

Knight Piésold CONSULTING

P/A NO.	REF NO.	
VA101-126/24	3	
FIGURE 5.3		REV 0

SAVED: M:\1\01\00126\24\A\Acad\FIGS\A51, 12/18/2024 12:58:16 PM, RMCLELLAN PRINTED: 1/6/2025 1:10:33 PM, FIG 5.3, RMCLELLAN ACAD VERSION: 25.0S (LMS TECH)



LEGEND:

- EMBANKMENT ROCKFILL
- ROCK DISPOSAL SITE (RDS) \ RAMPS \ ROCKFILL (NOTE 4)
- TAILINGS BEACH
- FILTERED TAILINGS
- WATER
- TRANSMISSION LINE (PROPOSED) (NOTE 3)
- PROPERTY BOUNDARY
- CONTINENTAL PIT EXPANSION

NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. ARIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. HIGH VOLTAGE TRANSMISSION LINE IS APPROXIMATE AS PROVIDED BY MR IN SEPTEMBER 2023. LAYOUT BY NORTHWEST ENERGY.
4. ROCKFILL TO BE STORED IN CONTINENTAL PIT NOT SHOWN.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY - CANDIDATE 4

Knight Piésold CONSULTING

P/A NO.	REF NO.
VA101-126/24	3

FIGURE 5.4 REV 0

SAVED: M:\1\01\00126\24\A\Acad\FIGS\A52, 12/18/2024 12:58:54 PM , RMCLELLAN PRINTED: 1/6/2025 1:12:39 PM, FIG 5.4, RMCLELLAN ACAD VERSION: 25.0S (LMS TECH)
XREF FILE(S): X-C-PROP-BNDY-2020; X-C-EMBK-WEST-6450-DESG; X-C-EMBK-EAST-6450-DESG; HsB Rockfill - Phase 1 El 5700; TOPO - 5' - July 2022; HsB Rockfill - Phase 1 Benched; 5ft_01_2022-07-18; Mega Ramp Trimmed to 6450; X-C-RDS-NS-6200; X-C-EMBK-6500-CREST-RAISE; X-C-EMBK-EAST-6450-STEP-OUT; X-C-EMBK-EAST-BOOSTER-RAMP; X-C-EMBK-RAMP-6500-DESG; X-C-EMBK-6500-STEP-OUT; X-C-RDS-NS-6350; X-C-RDS-EAST-PH1; Power

5.4 CANDIDATE 5

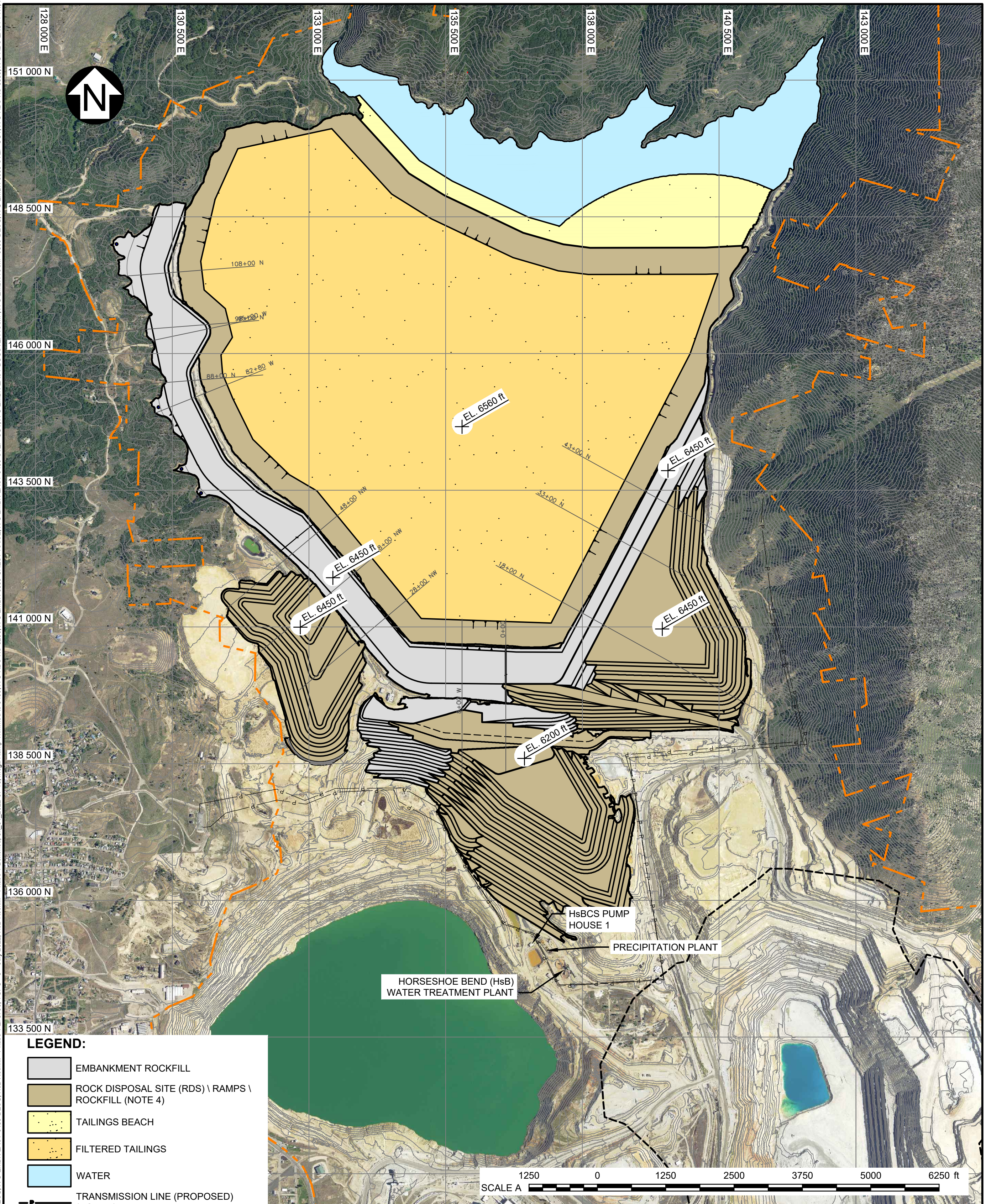
Candidate 5 considers a transition from the slurry tailings to a filtered tailings management system when the EL. 6,450 ft YDTI has reached its' capacity. Filtered tailings would be stored on the existing YDTI beach and transported to the YDTI by truck or conveyor. Mill and tailings distribution infrastructure would need to be modified to produce filtered tailings. The estimated elevation for filtered tailings in this candidate is EL. 6,560 ft as the placement of filtered tailings was assumed to be limited to the exposed tailings beach surface of the YDTI. Significant challenges may result during placement of the filtered tailings due to the consolidation of the underlying historical tailings. Surface water diversions would be required to be constructed during operations to divert runoff from the upstream catchments of the YDTI. Diversions would be sized to manage the Probable Maximum Flood (PMF) for long term water management and to limit potential disturbance to the filtered tailings.

Rockfill is to be conceptually placed downstream of the EL. 6,450 ft YDTI embankments in RDS, similar to the previous candidates. Construction of the HsB RDS would require the relocation of the high-voltage power lines and maintenance yard and truck shop. Additional rockfill would also be placed along the face of the filtered tailings to provide additional stability. Surplus rockfill in this candidate would be placed in the Continental Pit.

The closure objectives for this candidate would include construction of a closure cover for the filtered tailings and progressive reclamation of the surrounding rockfill and RDS.

The key components and considerations for Candidate 5, shown on Figure 5.5, can be summarized as:

- No further expansion of the YDTI embankments above EL. 6,450 ft.
- Construction of downstream RDS sites to buttress the impoundment and create overall flatter slopes, improving the stability of the impoundment and reducing overall risk. RDS capacity limited by crest elevation. Surplus rockfill placed within the Continental Pit.
- Transition to filtered tailings placement above the previous YDTI tailings to an elevation of approximately EL. 6,560 ft. Substantial changes in mill processes, water management, and the tailings placement methodology to achieve placement of filtered tailings. Potential for stability concerns of the existing tailings during consolidation.
- Relocation of key infrastructure including the maintenance yard and truck shop and high voltage transmission lines to facilitate RDS construction.
- Closure plan would allow for progressive reclamation of the downstream RDS, with incremental increases in reclamation areas and construction of a closure spillway.
- Surface water diversions are required to be constructed during operations to divert runoff around the YDTI.



LEGEND:

- EMBANKMENT ROCKFILL
- ROCK DISPOSAL SITE (RDS) \ RAMPS \ ROCKFILL (NOTE 4)
- TAILINGS BEACH
- FILTERED TAILINGS
- WATER
- TRANSMISSION LINE (PROPOSED) (NOTE 3)
- PROPERTY BOUNDARY
- CONTINENTAL PIT EXPANSION

NOTES:

1. COORDINATE SYSTEM AND ELEVATIONS BASED ON ANACONDA MINE GRID.
2. AERIAL IMAGE AND TOPOGRAPHY PROVIDED BY MONTANA RESOURCES, LLC IN AUGUST 2024.
3. HIGH VOLTAGE TRANSMISSION LINE IS APPROXIMATE AS PROVIDED BY MR IN SEPTEMBER 2023. LAYOUT BY NORTHWEST ENERGY.
4. ROCKFILL TO BE STORED IN CONTINENTAL PIT NOT SHOWN.

REV	DATE	DESCRIPTION	DESIGNED	DRAWN	REVIEWED
0	06JAN'25	ISSUED WITH REPORT	JRG	RMM	DDF

MONTANA RESOURCES, LLC

MONTANA RESOURCES

YANKEE DOODLE TAILINGS IMPOUNDMENT EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY - CANDIDATE 5

Knight Piésold CONSULTING

P/A NO.	REF NO.
VA101-126/24	3

FIGURE 5.5 REV 0

SAVED: M:\1\01\00126\24\A\Acad\FIGS\A53, 12/18/2024 12:59:44 PM , RMCLELLAN PRINTED: 1/6/2025 1:15:05 PM, FIG 5.5, RMCLELLAN ACAD VERSION: 25.0S (LMS TECH)

6.0 MULTIPLE ACCOUNTS ANALYSIS METHODOLOGY

A MAA was completed to evaluate the candidates for tailings and rockfill storage presented above. The MAA used four categories (safety and environment, technical execution, economic, and closure) to compare the relative merits and risks of each candidate. The candidates were rated at a high level relative to each other and relied on a basic understanding of the candidate components (i.e. storage methods, project footprint, process changes, etc.). The ratings were developed by a group of KP personnel based on engineering judgement. The four categories are summarized as follows:

- **Safety and Environment:** The safety and environment category is intended to differentiate candidates that enhance safety characteristics of tailings storage and with consideration of the environment. Preference is given to candidates that would improve safety or maintain current safe characteristics, limit or reduce potential consequences related to air quality resulting from dusting events, would not result in an increase of the current Berkeley Pit operating level, and are consistent with long-term operational experience of MR staff. Significant changes in performance requirements and increases to worker hazards or environmental consequences are less preferable.
- **Technical Execution:** The technical execution category is intended to identify candidates which have the most achievable implementation of the design and can be permitted without interrupting operations. Candidates that are considered easier to permit are more preferable than those that may require a longer permitting timeline. Novel or unconventional technology, or significant changes in the operating plan for the mine are less preferable because they have the potential to lead to extended permitting timelines and an interruption of operations.
- **Economic:** The economic category is intended to differentiate candidates that maintain or improve current project economics. Increased costs may be considered acceptable if costs are reasonable and the expenditure improves performance in other categories. Candidates that have the potential to affect profitability or viability of the operation are less preferable.
- **Closure:** The closure category is intended to differentiate candidates that require less incremental increase to reclamation requirements or can enhance closure characteristics of the facility. Candidates that decrease achievability of reclamation objectives or substantially increase the area requiring reclamation are less preferable. Candidates with the opportunities for progressive reclamation during operations are preferable.

The categories were divided into project specific sub-categories, which were further divided into assessment criteria. Each category, sub-category and criteria was assigned a relative weight (1 through 5) according to its' estimated importance in the category. Higher weights indicate greater relative importance and reflect the site conditions and issues relative to the proposed development. These relative weights are project specific and based on engineering judgement. The tiered weighting system was developed to remove bias that may be caused by having different numbers of matrix sub-categories and evaluation indicators in the assessment. The categories, sub-categories, criteria, and weights are summarized in Table 6.1.

The five candidates are rated in each assessment category based on a qualitative scale from 1 (low) to 4 (high), with higher ratings being assigned to the candidates with more preferrable outcomes (i.e. candidates that do not require a change in mill operations would be rated higher than those that do for an economic account). Ratings are subjective based on the understanding of the assessment criteria with candidates relative to each other. Multiple candidates can be given the same score for any assessment category. The ratings for each option and each criterion are then multiplied by the weight factors and summed to determine the total weighted score for the criteria. The combined total weighted score for each sub-category was multiplied by the sub-category weight factor and summed to determine the total weighted score for each category.

Table 6.1 Categories, Sub-Categories and Criteria Weights

Category	Sub-Category	Criteria	Category Weight	Sub-Category Weight	Criteria Weight
Safety and Environment	Off-Site and Mine Personnel Safety and Environmental Considerations	Impoundment Physical Stability	5	5	5
		Consideration of Protective Water Level			3
		Potential for Tailings Dust Exposure			3
		Operational Risks (Additional or Changing)			4
Technical Execution	Tailings Storage Facility	Constructability: YDTI Embankment	4	5	4
		Constructability: Berkeley Pit			4
		Permitting Complexity			3
		Downstream Rock Disposal Site Development (Storage Capacity)			2
	Water Management	Water Management System Requirements (Reclaim, Berkeley, PMF)		3	2
		Stakeholder Considerations / BMFOU			4
	Operations	Mill Process and Complexity		4	3
		Tailings Placement Process and Complexity			4
		Management of Upset Conditions / Off-Spec Materials			1
		Monitoring Requirements			3
Economic	Cost	Capital Investment to Implement Candidate	3	5	5
		Operating Costs			3
		Closure Costs			4
Closure	Closure	Current Closure Plan Applicability	3	5	2
		Ability to Implement Unplanned Closure			3

7.0 RESULTS

7.1 CANDIDATE RATINGS

The results of the MAA are presented in Appendix A. Ratings for the candidates were completed by KP based on a high-level comparative understanding of each candidate. The ratings assigned for all criteria are summarized in Tables A1 and A2 in Appendix A. Key considerations when assigning the ratings to each criterion are described below:

Safety and Environment

- Impoundment Physical Stability: Candidates that result in stability enhancement are preferred. Reduced elevation of the YDTI and downstream RDS storage are preferred as they result in flatter overall slope angles and enhanced stability. Storage within the Berkeley Pit is preferred as it results in below ground storage instead of increased embankment height.
- Consideration of Protective Water Level: Candidates presented do not result in an increase of the current Berkeley Pit operating level (currently managed at approximately EL. 5,412 ft (ACC Datum)). This is a non-differentiating factor due to the candidates selected and is considered in the assessment for transparency and completeness.
- Potential for Dust Exposure: Candidates with lower potential for dust exposure from blowing tailings are preferred. Partially wetted or wetted beach areas are preferred to limit dusting potential. Storage of tailings below ground (Berkeley Pit) are preferred over on-surface storage as it is inferred that this would limit potential for tailings dust exposure. Larger areas of exposed tailings are less preferred.
- Operational Risks (Additional or Changing): Significant changes to current mine operations and construction practices that introduce new or increase potential hazards are less preferred. This criterion considers mill operations, construction practices, additional tailings distribution systems and water reclaim systems, pit dewatering and slope instability, etc. Consistency with current safe operational practices is preferred.

Technical Execution

Tailings Storage Facility:

- Constructability: YDTI Embankment: Candidates easier to implement and are consistent with current construction practices are preferred. Introduction of new systems or construction techniques that may require additional mine personnel or construction fleet are less preferred.
- Constructability: Berkeley Pit: Candidates that do not require any execution work at the Berkeley Pit are the most preferred. Lesser implementation requirements are preferred over greater requirements.
- Permitting Complexity: Candidates consistent with past successful operations and requires a permit amendment are preferred. Candidates that introduce an unconventional technology or methodology are less preferred. Permitting processes that may lead to complications or have undefined timelines are least preferred.
- Downstream Rock Disposal Site Development (Storage Capacity): The maximum RDS elevation was assumed to be equivalent to the YDTI crest elevation. Additional on surface storage was considered preferred. Maximum footprints for each RDS were considered the same in each candidate but lower YDTI embankment elevations are less preferred as they result in lesser rockfill storage within the adjacent RDS.

Water Management:

- Water Management System Requirements (Reclaim, Berkeley, PMF): Ratings of the water management requirements considered the number of systems required to manage process water as well as any additional systems (ditches, etc.) to manage storm water. The fewer mechanical systems and less complex overall site wide water management is preferred. Candidates requiring additional pumping systems to manage water levels with the Berkeley Pit are less preferred.
- Stakeholder Considerations / BMFOU: If substantial coordination is required to design, permit, implement and operate the candidate resulting in an operation that is not fully within MR control this was considered to be less preferred.

Operations:

- Mill Process and Complexity: Consistency with current mill operations is preferred. This is specific to mill operations and does not include the distribution systems.
- Tailings Placement Process and Complexity: Consistency with current tailings placement process (slurry tailings, multipoint discharge) is preferred. Complexity and number/length of distribution or conveyance systems were also considered.
- Management of Upset Conditions / Off-Spec Materials: Requirement for management of off-spec materials (i.e. tailings are to wet, filter plant not operating) is less preferred.
- Monitoring Requirements: Related to the required expansion of the monitoring network for each candidate. Ratings considered the conceptual expansion of the monitoring network, and number of areas requiring monitoring. Fewer new areas or fewer additional monitoring locations are preferred.

Economic

Cost:

- Capital Investment to Implement: The cost associated with implementing the candidate was evaluated at a qualitative level, including consideration for potential updates to the mill processes, additional monitoring requirements, and additional tailings distribution/conveyance systems. Lower implementation costs are preferred.
- Operating Costs: Operating costs were rated based on qualitative assessment of the tailings distribution and water management systems. Lower operating costs are preferred.
- Closure Costs: Closure costs were rated based on surface area the tailings, embankments, and RDS that would require reclamation covers. Flooding of the Berkeley Pit was considered less expensive than a closure cover. Lower costs are preferred.

Closure

- Current Closure Plan Applicability: Consistency with the currently Amendment 10 closure plan is considered preferred.
- Ability to Implement Unplanned Closure: The ability to implement unplanned closure was rated based on the required activities that would require completion if the mine was to unexpectedly stop operations. This includes construction of the closure cover if not progressively complete, construction of any water management systems (i.e. YDTI spillway) and management of water within the Berkeley Pit. The timing of the closure would effect required activities, as some may be complete progressively during mine development (i.e. spillway constructed as soon as YDTI is full in select candidate). Fewer required

closure activities are preferred. The number of tailings storage areas requiring closure (1 or 2) were also considered and candidates with fewer active tailings storage facilities were preferred.

7.2 UNWEIGHTED RESULTS

The individual criteria ratings were summed for each candidate to determine the total unweighted score for each candidate. The unweighted results are summarized in Table 7.1 and presented graphically on Figure 7.1.

Table 7.1 Unweighted Ratings Summary

Category	Unweighted Candidate Rating				
	1	2	3	4	5
Safety and Environment	14	10	13	13	10
Technical Execution	38	30	31	20	23
Economic	10	8	9	6	5
Closure	7	5	7	7	7
Unweighted Total	**69**	**53**	**60**	**46**	**45**
Ranking	**1**	**3**	**2**	**4**	**5**

The unweighted results indicate that Candidate 1 is the highest rated, Candidate 3 is the second highest rated, and Candidate 5 is the lowest rated. Candidate 1 scored the highest in the Safety and Environment, Technical Execution, and Economic categories. Candidates 1, 3, 4 and 5 all had the scored the highest in the Closure category. Candidate 3 rates relatively high, in comparison to other candidates, in all categories but did not rank in the highest in any category other than closure.

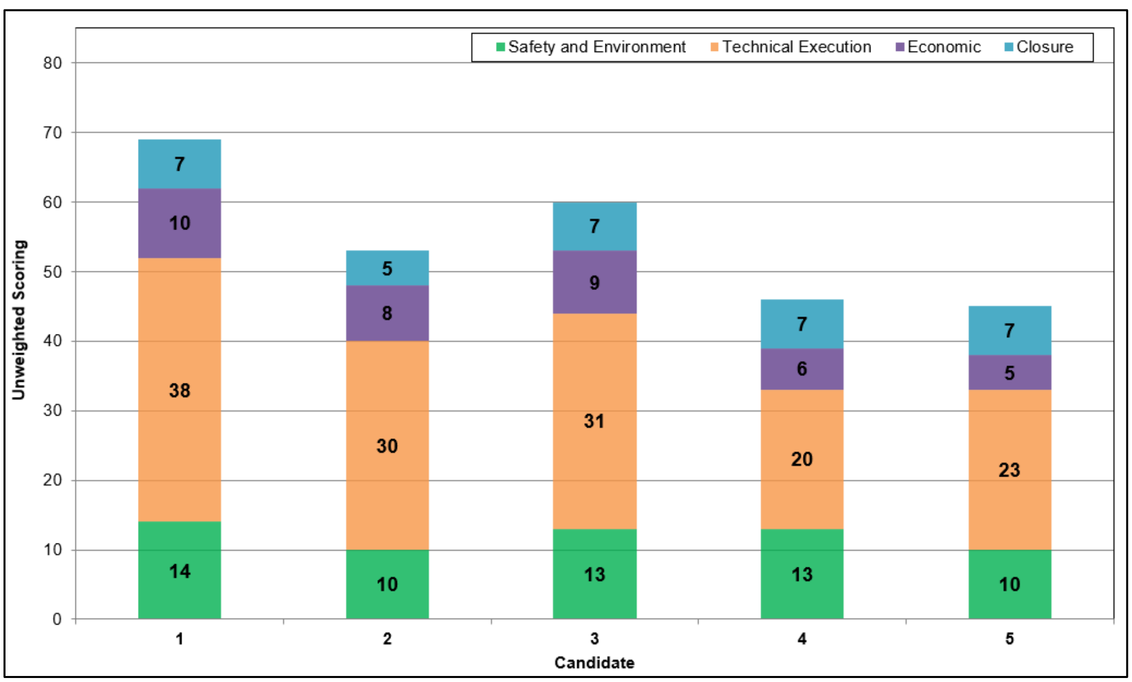


Figure 7.1 Unweighted Rating Results

7.3 WEIGHTED RESULTS

The category, sub-category and criteria weightings (summarized in Table 6.1 and described in Section 6) were applied to the results of the unweighted assessment to prioritize certain criteria of higher relative importance. The highest score represents the highest rated candidate, based on the assigned ratings and weightings. The maximum possible weighted rating is 4, and the minimum possible weighted rating is 1. The results of the assessment are summarized in Table 7.2 and presented graphically on Figure 7.2. Weighted scoring of the MAA is detailed in Table A3 in Appendix A.

Table 7.2 Weighted Ratings Summary

Category	Weighted Candidates Rankings				
	1	2	3	4	5
Safety and Environment	17.3	12.0	16.7	16.0	12.7
Technical Execution	15.1	12.3	11.6	8.0	10.3
Economic	10.3	8.0	8.8	6.0	5.0
Closure	10.2	7.2	10.2	10.2	10.8
MAA Score (Weighted)	**52.9**	**39.5**	**47.3**	**40.2**	**38.8**
MAA Rating (1 through 4)	**3.5**	**2.6**	**3.2**	**2.7**	**2.6**
Ranking	**1**	**4**	**2**	**3**	**5**

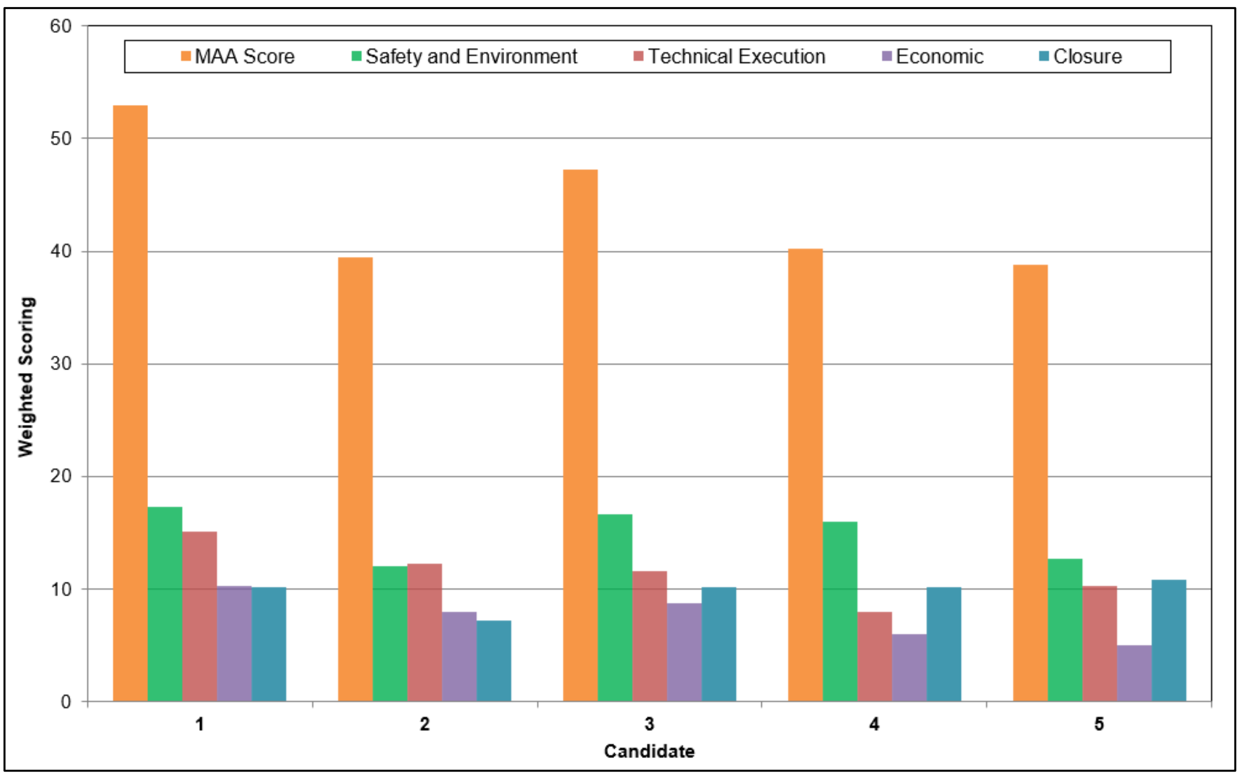


Figure 7.2 Overall Weighted Scoring Summary

The results of the weighted assessment are similar to the unweighted, with Candidate 1 being the highest rated, Candidate 3 being rated second, and Candidate 5 being the lowest rated. The weighted ratings swap Candidates 2 and 4 compared to the unweighted assessment results, with Candidate 2 now being rated 4^{th}, compared to being 3^{rd} in the unweighted assessment. This adjustment in ratings is due to the higher category weight for the Safety and Environment category relative to Technical Execution and the lower score for the Closure category. Candidate 5 is rated highest in the closure category due to the higher sub-category score and weighting related to the ability to implement unplanned closure.

8.0 SUMMARY OF PREFERRED CANDIDATE

The information presented within this report provides the framework and results of an MAA evaluation for the continued tailings and rockfill management at the YDTI. This evaluation is focused on tailings and rockfill storage following 2034, when additional tailings storage capacity would be required above the existing permitted capacity. The evaluation included identifying applicable tailings management techniques and technologies and ranking them based on site-specific conditions and concerns.

The results of both the unweighted and the weighted assessment indicate that Candidate 1, the continued use of slurry tailings technology and the expansion of the current YDTI to a maximum crest elevation of 6,560 ft for ongoing tailings storage, is the preferred candidate. The results indicate that Candidate 1 uses the most applicable, appropriate, and current technologies and techniques practicable given site-specific conditions and concerns. Candidate 1 also provides the most volume of downstream rockfill storage in on surface RDS when the crest elevation is considered as a limiting factor in RDS development.

The main factors that lead to the selection of Candidate 1 are as follows:

- Highest safety and environment ratings considering the substantial buttressing provided by the RDS areas downstream of the embankments and limited changes to current mine operations and active work areas.
- Highest technical execution ratings based on consistency of proposed tailings and water management practices with well developed design and construction practices at the site.
- Consistency with long-term management objectives for the Berkeley Pit.
- Anticipated relatively low capital costs associated with implementing the candidate.

The results indicate that Candidate 3, which includes concurrent use of the YDTI and development of the Berkeley Pit as a second tailings repository, is the next best candidate. The weighted assessment highlights the potential benefits of this candidate; however, the complexity of permitting and developing the Berkeley Pit for long-term tailings management could result in delays to the project permitting process and candidate implementation. The potential benefits and drawbacks of implementation of tailings storage within the Berkeley Pit may be further evaluated by MR, other BMFOU stakeholders, and the MDEQ.

9.0 REFERENCES

Environment and Climate Change Canada (ECCC), 2024. Guidelines for the Assessment of Alternatives for Mine Waste Disposal. Available at: https://www.canada.ca/en/environment-climate-change/services/managing-pollution/sources-industry/mining-effluent/metal-diamond-mining-effluent/tailings-impoundment-areas/guidelines-alternatives-mine-waste-disposal.html

Knight Piésold Ltd. (KP), 2017. Alternatives Assessment, KP Ref. No. VA101-126/12-4 Rev. 2, dated August 24, 2017.

Knight Piésold Ltd. (KP), 2024. Yankee Doodle Tailings Impoundment – Life of Mine Design Report for 6,560 Amendment Design Document, KP Ref. No. VA101-126/24-4 Rev. 0, dated September 13, 2024.

Montana Resources, LLC. (MR), 2023. Letter to: Jack Standa, Montana Resources LLC. RE: Montana Resources – Ore Reserves as of December 31, 2022. January 17, 2023.

Montana Code Annotated (MCA), 2023. Title 82: Minerals, Oil, and Gas, Chapter 4: Reclamation, Part 3: Metal Mine Reclamation.
Available at: https://leg.mt.gov/bills/mca/title_0820/chapter_0040/part_0030/sections_index.html

10.0 CERTIFICATION

This report was prepared and reviewed by the undersigned.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. R. R. GILLESPIE
42239
2025-01-10

KNIGHT PIÉSOLD LTD.
PERMIT NUMBER
1001011
EGBC PERMIT TO PRACTICE

Prepared:

Jason Gillespie, P.Eng.
Senior Engineer

MONTANA
2025-01-10
DANIEL DYLAN FONTAINE
No. 59785 PE
LICENSED PROFESSIONAL ENGINEER

Reviewed:

Daniel Fontaine, P.E.
Specialist Engineer | Associate
YDTI Engineer of Record

Approval that this document adheres to the Knight Piésold Quality System: DDF

APPENDIX A

Multiple Accounts Analysis (MAA) Results

(Tables A1 to A3)

TABLE A1

MONTANA RESOURCES, LLC
MONTANA RESOURCES

EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY FOR 6,560 AMENDMENT DESIGN DOCUMENT
CATEGORY, SUB-CATEGORY AND CRITERIA RATINGS

Print Jan/10/25 12:04:49

Category	Sub-Category	Criteria	Description of Evaluation Relative to Current Operations	Candidate Consequence Rating (1 through 4)				
				1	2	3	4	5
Safety and Environment	Off-Site and Mine Personnel Safety and Environmental Considerations	Impoundment Physical Stability	4: Most substantial increase to facility physical stability 1: Minor or no increase to physical stability compared to current conditions	3	2	4	4	3
		Consideration of Protective Water Level	4: Protective Water Level remains consistency with ROD remedy and no additional water management systems are required. 1: Berkeley Pit operations increase normal operating level within the Berkeley Pit or require significant additional water management systems	4	4	3	4	4
		Potential for Tailings Dust Exposure	4: Shortest use of the YDTI for operations and smallest exposed beach area (ability for early or progressive closure) 1: Longest use of the YDTI for operations, largest exposed beach area	3	2	3	4	1
		Operational Risks (Additional or Changing)	4: Limited or no changes to current mine operations and construction practices 1: Most substantial changes to current mine operations and construction practices	4	2	3	1	2
Technical Execution	Tailings Storage Facility	Constructability: YDTI Embankment	4: Construction practices consistent with current operations and lesser construction materials 1: New design concepts, expansion of construction fleet required, significant construction materials	3	2	4	4	3
		Constructability: Berkeley Pit	4: Candidates do not require execution work at the Berkeley Pit 1: Significant execution work at the Berkeley Pit	4	4	3	1	4
		Permitting Complexity	4: Consistent with past successful operations, requires a permit amendment 1: Unconventional technology or methodology that may lead to permitting complications or undefined timelines	4	3	2	1	3
		Downstream Rock Disposal Site Development (Storage Capacity)	4: Most substantial RDS development (rockfill storage volumes) 1: Least substantial RDS development (rockfill storage volumes)	4	1	3	3	2
	Water Management	Water Management System Requirements (Reclaim, Berkeley, Pl	4: Least number of or least complex water management systems 1: Most number of or most complex water management systems	4	3	3	2	1
		Stakeholder Considerations / BMFOU	4: Design, implementation and operation fully within MR control 1: Design, implementation and operation require extensive and ongoing consultation	4	4	1	2	4
	Operations	Mill Process and Complexity	4. Least substantial changes to existing mill processes 1: Most substantial changes to existing mill processes	4	4	4	2	2
		Tailings Placement Process and Complexity	4: Least substantial changes to tailings deposition 1: Most substantial changes to tailings deposition	4	3	3	2	1
		Management of Upset Conditions / Off-Spec Materials	4: No requirement for management of off-spec materials 1: Requirement for management of off-spec materials throughout all future operations	4	4	4	2	1
		Monitoring Requirements	4. Least complicated instrumentation and performance monitoring 1. Most complicated instrumentation and performance monitoring	3	2	4	1	2
Economic	Cost	Capital Investment to Implement Candidate	4: Lowest relative cost to implement candidate 1: Highest relative cost to implement candidate	4	3	2	1	1
		Operating Costs	4: No additional operating costs, including operational changes 1: Significant additional operating costs, including operation changes	3	3	3	1	1
		Closure Costs	4: Lowest relative closure cost 1: Highest relative closure cost	3	2	4	4	3
Closure	Closure	Current Closure Plan Applicability	4: Most consistent closure plan to current 1: Least consistent closure plan to current	4	3	4	4	3
		Ability to Implement Unplanned Closure	4: Unplanned closure without any significant construction activities 1: Most complex implementation of unplanned closure	3	2	3	3	4

\\KPL\VA-Prj$\1\01\00126\24\A\Report\3 - YDTI Evaluation of Tailings Management Technology for A6560\Rev 0\Appendix A MAA\[Montana Resources MAA_Report_r0.xlsx]Table A3 Weighted Scoring

REV	DATE	DESCRIPTION	PREP'D	RVW'D
0	10JAN'25	ISSUED WITH REPORT VA101-126/24-3	JRG	DDF

Knight Piésold CONSULTING

TABLE A2

MONTANA RESOURCES, LLC
MONTANA RESOURCES

EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY FOR 6,560 AMENDMENT DESIGN DOCUMENT
CATEGORY, SUB-CATEGORY AND CRITERIA UNWEIGHTED SUMMARY

Print Jan/10/25 12:04:49

Category	Sub-Category	Criteria	Unweighted Rankings				
			1	2	3	4	5
Safety and Environment	Off-Site and Mine Personnel Safety and Environmental Considerations	Impoundment Physical Stability	3	2	4	4	3
		Consideration of Protective Water Level	4	4	3	4	4
		Potential for Tailings Dust Exposure	3	2	3	4	1
		Operational Risks (Additional or Changing)	4	2	3	1	2
Total Safety			**14**	**10**	**13**	**13**	**10**
Technical Execution	Tailings Storage Facility	Constructability: YDTI Embankment	3	2	4	4	3
		Constructability: Berkeley Pit	4	4	3	1	4
		Permitting Complexity	4	3	2	1	3
		Downstream Rock Disposal Site Development (Storage Capacity)	4	1	3	3	2
	Water Management	Water Management System Requirements (Reclaim, Berkeley, PMF)	4	3	3	2	1
		Stakeholder Considerations / BMFOU	4	4	1	2	4
	Operations	Mill Process and Complexity	4	4	4	2	2
		Tailings Placement Process and Complexity	4	3	3	2	1
		Management of Upset Conditions / Off-Spec Materials	4	4	4	2	1
		Monitoring Requirements	3	2	4	1	2
Total Technical Evaluation			**38**	**30**	**31**	**20**	**23**
Economic	Cost	Capital Investment to Implement Candidate	4	3	2	1	1
		Operating Costs	3	3	3	1	1
		Closure Costs	3	2	4	4	3
Total Economic			**10**	**8**	**9**	**6**	**5**
Closure	Closure	Current Closure Plan Applicability	4	3	4	4	3
		Ability to Implement Unplanned Closure	3	2	3	3	4
Total Economic			**7**	**5**	**7**	**7**	**7**
Unweighted Results			**69**	**53**	**60**	**46**	**45**
Ranking			**1**	**3**	**2**	**4**	**5**

\\KPL\VA-Prj$\1\01\00126\24\A\Report\3 - YDTI Evaluation of Tailings Management Technology for A6560\Rev 0\Appendix A MAA\[Montana Resources MAA_Report_r0.xlsx]Table A3 Weighted Scoring

0	10JAN'25	ISSUED WITH REPORT VA101-126/24-3	JRG	DDF
REV	DATE	DESCRIPTION	PREP'D	RVW'D

Knight Piésold CONSULTING

TABLE A3

MONTANA RESOURCES, LLC
MONTANA RESOURCES

EVALUATION OF TAILINGS MANAGEMENT TECHNOLOGY FOR 6,560 AMENDMENT DESIGN DOCUMENT
CATEGORY, SUB-CATEGORY AND CRITERIA WEIGHTED SCORING

Category	Category Weight (CaW)	Sub-Category	Sub-Category Weight (SCW)	Criteria	Criteria Weight (CS)	Weighted Candidates Ratings				
						1	2	3	4	5
Safety and Environment	5	Off-Site and Mine Personnel Safety and Environmental Considerations	5	Impoundment Physical Stability	5	3	2	4	4	3
				Consideration of Protective Water Level	3	4	4	3	4	4
				Potential for Tailings Dust Exposure	3	3	2	3	4	1
				Operational Risks (Additional or Changing)	4	4	2	3	1	2
				Criteria Score (CS) (Score x Criteria Weight)		52	36	50	48	38
				Criteria Rating (CS / SumCW)		3.5	2.4	3.3	3.2	2.5
				Sub-Category Score (SCS) (Criteria Rating x SCW)		17.3	12.0	16.7	16.0	12.7
				Sub-Category Rating (SCR) (SumSCS / SumSCW)		3.5	2.4	3.3	3.2	2.5
				Category Score (SCR x CaW)		17.3	12.0	16.7	16.0	12.7
Technical Execution	4	Tailings Storage Facility	5	Constructability: YDTI Embankment	4	3	2	4	4	3
				Constructability: Berkeley Pit	4	4	4	3	1	4
				Permitting Complexity	3	4	3	2	1	3
				Downstream Rock Disposal Site Development (Storage Capacity)	2	4	1	3	3	2
				Criteria Score (CS) (Score x Criteria Weight)		48	35	40	29	41
				Criteria Rating (CS / SumCW)		3.7	2.7	3.1	2.2	3.2
				Sub-Category Score (SCS) (Criteria Rating x SCW)		18.5	13.5	15.4	11.2	15.8
		Water Management	3	Water Management System Requirements (Reclaim, Berkeley, PMF)	2	4	3	3	2	1
				Stakeholder Considerations / BMFOU	4	4	4	1	2	4
				Criteria Score (CS) (Score x Criteria Weight)		24	22	10	12	18
				Criteria Rating (CS / SumCW)		4.0	3.7	1.7	2.0	3.0
				Sub-Category Score (SCS) (Criteria Rating x SCW)		12.0	11.0	5.0	6.0	9.0
		Operations	4	Mill Process and Complexity	3	4	4	4	2	2
				Tailings Placement Process and Complexity	4	4	3	3	2	1
				Management of Upset Conditions / Off-Spec Materials	1	4	4	4	2	1
				Monitoring Requirements	3	3	2	4	1	2
				Criteria Score (CS) (Score x Criteria Weight)		41	34	40	19	17
				Criteria Rating (CS / SumCW)		3.7	3.1	3.6	1.7	1.5
				Sub-Category Score (SCS) (Criteria Rating x SCW)		14.9	12.4	14.5	6.9	6.2
				Sub-Category Rating (SCR) (SumSCS / SumSCW)		3.8	3.1	2.9	2.0	2.6
				Category Score (SCR x CaW)		15.1	12.3	11.6	8.0	10.3
Economic	3	Cost	5	Capital Investment to Implement Candidate	5	4	3	2	1	1
				Operating Costs	3	3	3	3	1	1
				Closure Costs	4	3	2	4	4	3
				Criteria Score (CS) (Score x Criteria Weight)		41	32	35	24	20
				Criteria Rating (CS / SumCW)		3.4	2.7	2.9	2.0	1.7
				Sub-Category Score (SCS) (Criteria Rating x SCW)		17.1	13.3	14.6	10.0	8.3
				Sub-Category Rating (SCR) (SumSCS / SumSCW)		3.4	2.7	2.9	2.0	1.7
				Category Score (SCR x CaW)		10.3	8.0	8.8	6.0	5.0
Closure	3	Closure	5	Current Closure Plan Applicability	2	4	3	4	4	3
				Ability to Implement Unplanned Closure	3	3	2	3	3	4
				Criteria Score (CS) (Score x Criteria Weight)		17	12	17	17	18
				Criteria Rating (CS / SumCW)		3.4	2.4	3.4	3.4	3.6
				Sub-Category Score (SCS) (Criteria Rating x SCW)		17.0	12.0	17.0	17.0	18.0
				Sub-Category Rating (SCR) (SumSCS / SumSCW)		3.4	2.4	3.4	3.4	3.6
				Category Score (SCR x CaW)		10.2	7.2	10.2	10.2	10.8
				MAA SCORE		**52.9**	**39.5**	**47.3**	**40.2**	**38.8**
				MAA RATING		**3.53**	**2.63**	**3.15**	**2.68**	**2.59**

\\KPL\VA-Prj$\1\01\00126\24\A\Report\3 - YDTI Evaluation of Tailings Management Technology for A6560\Rev 0\Appendix A MAA\[Montana Resources MAA_Report_r0.xlsx]Table A3 Weighted Scoring

0	10JAN'25	ISSUED WITH REPORT VA101-126/24-3	JRG	DDF
REV	DATE	DESCRIPTION	PREP'D	RVW'D