APPENDIX D

Information Available at Scoping Meetings

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Black Butte Copper Project EIS

MEPA & EIS Description

The Montana Environmental Policy Act (MEPA) requires a state agency to prepare an environmental impact statement before taking any state action that will significantly impact the human environment. The MEPA process facilitates public participation in the environmental review. In the scoping stage of the MEPA process, the public is invited to assist the state agency in identifying potential environmental impacts and alternatives to the proposed action that should be considered in the EIS.

An EIS is prepared in two stages:

- DEQ prepares a Draft EIS that describes the environmental impacts of the proposed action and analyzes alternatives to the proposed action. In the Draft EIS, DEQ may identify a preferred alternative and give the reasons for the preference. DEQ then publishes the Draft EIS and solicits public comment on the Draft EIS.
- DEQ prepares and publishes the Final EIS. In the Final EIS, DEQ responds to the public comments received on the Draft EIS, evaluating the comments and indicating the information in the Final EIS that was changed in response to public comment. The Final EIS must also include DEQ's proposed decision with an explanation of the reasons for the proposed decision.

DEQ's actual decision is set forth in a Record of Decision that is published shortly after the Final EIS is published. While MEPA provides a procedural framework that a state agency must follow in making a decision, it does not provide any additional regulatory authority to the state agency beyond that contained in the state law under which the decision is being made. In the case of the proposed Black Butte Copper Project, DEQ's decision will be made under the Metal Mine Reclamation Act. MEPA does not give DEQ any regulator authority beyond that contained in the Metal Mine Reclamation Act.

DEQ Montana Department of Environmental Quality

Black Butte Copper Project EIS

Scoping Process under Montana Environmental Policy Act (MEPA)

The purpose of "scoping" is to provide information about Tintina's proposed project, to identify issues related to the proposed project that are likely to involve significant impacts that will be analyzed in depth in the EIS, and to identify possible alternatives to be considered. Knowing the scope and the importance of issues assists in an accurate and timely environmental analysis. The scoping process helps identify issues important to the community and is designed to encourage public input.

The results of the scoping phase are combined with review of the Project by an interdisciplinary team of technical experts to establish the scope of analysis to be conducted in the EIS. DEQ is asking your assistance in defining the issues and concerns you may have with regards to the proposed Project and to identify alternatives.

Alternatives will be developed based on issues of concern raised by the general public, participating government agencies, and EIS team resource specialists. The Draft EIS (DEIS) will be published and made available for public review.

If a commenter submits a substantive issue or an alternative during scoping, it only needs to be submitted. Substantive scoping comments that assist DEQ in the DEIS are ones that:

- Identify issues related to the Proposed Action that likely involve significant impacts and will be analyzed in depth in the EIS; or,
- Identify possible Alternatives to the proposed project, including possible mitigations, to be considered in the EIS.

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Black Butte Copper Project EIS

Brief Description of Proposed Project

The Black Butte Copper Project (Project) site is located about 15 miles north of White Sulphur Springs in Meagher County, Montana. The site has a history of mineral exploration activities since the 1800s. Tintina applied to DEQ for an operating permit for the Black Butte Copper Project on December 15, 2015 under the Metal Mine Reclamation Act, Section 82-4-301, et seq., MCA. Pursuant to Section 82-4-337, MCA, DEQ determined that Tintina's application was complete and compliant and, on September 18, 2017, issued Tintina a draft operating permit for the Black Butte Copper Project. The proposed mine permit boundary encompasses 1,887.7 acres of privately-owned ranch land, which would include all proposed facilities and surface disturbances.

The proposed Project is an underground copper mine. Multiple surface facilities, haul roads, access roads, and stockpiles would be constructed in addition to the underground mine portal. Ore mined from underground would undergo crushing and grinding on-site. Copper concentrate would be separated from a tailings waste stream via a flotation process. The tailings would be managed on-site by storing a portion underground as cemented backfill and storing the rest as cemented paste tailings in a tailings storage facility on the surface. The copper concentrate would be transported off-site for further processing.

Reclamation conducted contemporaneous to construction would stabilize disturbed areas throughout the life of mine. Monitoring programs would continue during construction, operations, temporary closure, and in permanent closure until closure objectives are met. Upon final closure, surfaces would be revegetated with pre-mining seed mixes adapted to the area.

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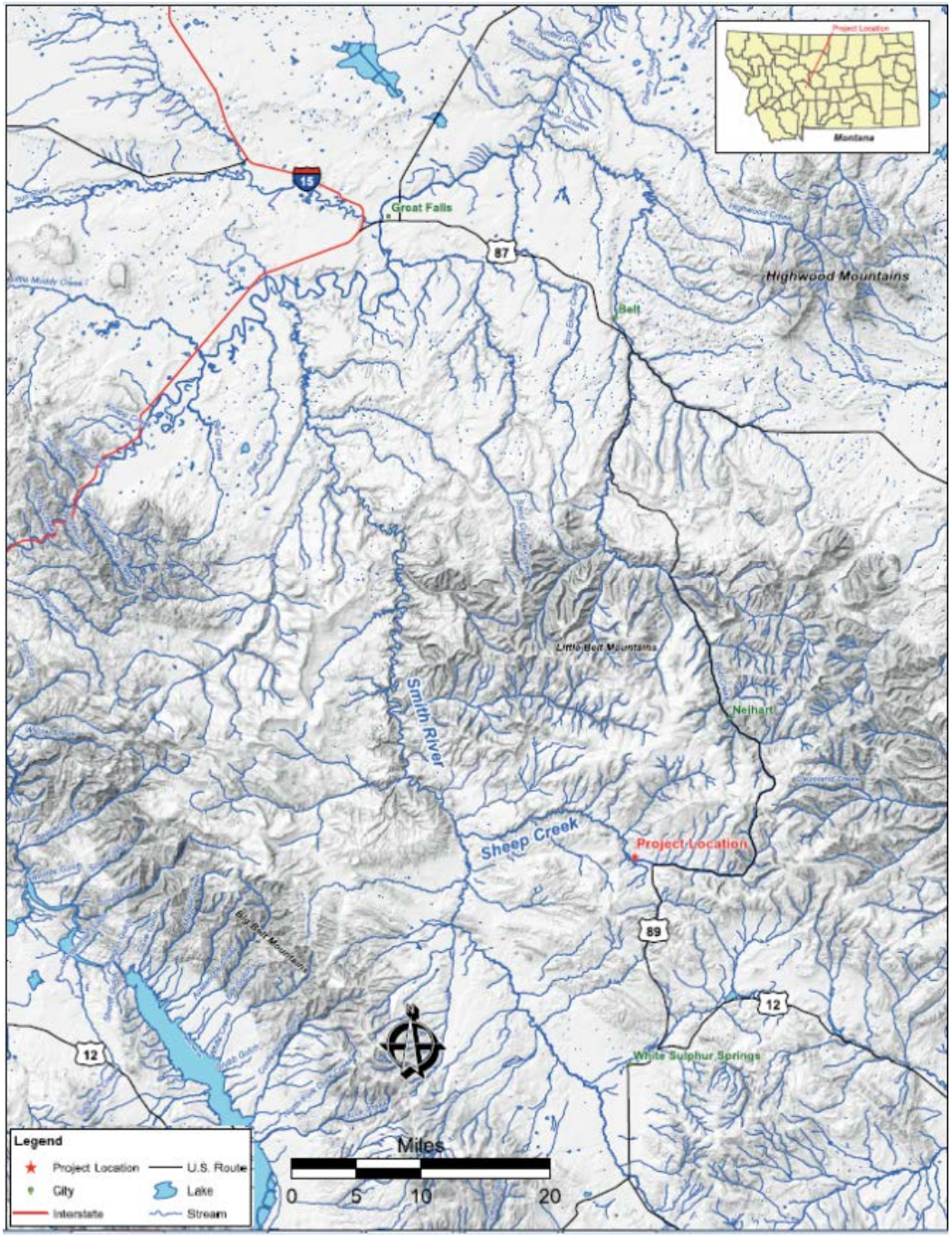
Black Butte Copper Project EIS

Project Map



DEQ Montana Department of Environmental Quality

Black Butte Copper Project EIS

Project Schedule

The Black Butte Copper Project EIS is currently in the Public Scoping phase (see Figure 1 below). After the Draft EIS (DEIS) is published, there will be another opportunity for the public to comment on the Project.

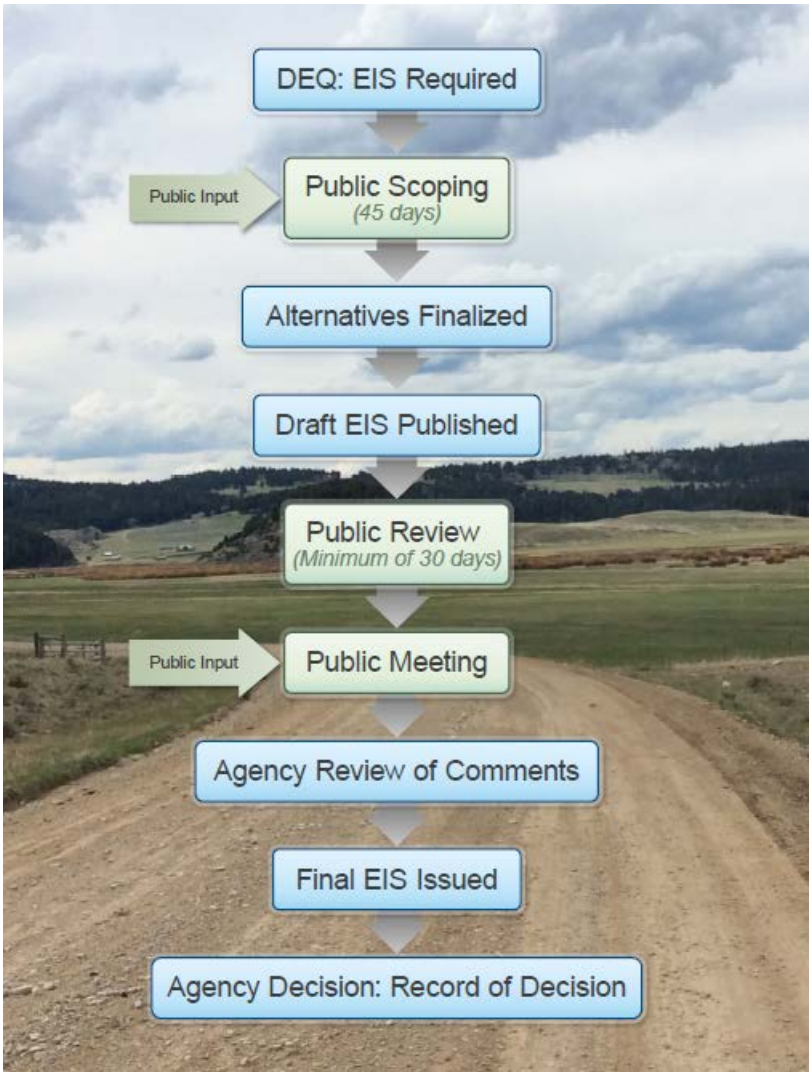


Figure 1: MEPA Process

Black Butte Copper Project EIS

How to Submit Comments to DEQ

Please provide your scoping comments using one of the following methods:

- Oral comments at one of the public meetings recorded by the court reporter
- Written comment form at one of the public meetings
- Email comments to: deqtintinablackbuttecopperproject@mt.gov
- Postal mail to the following address:

  Craig Jones

  Department of Environmental Quality

  P.O. Box 200901

  Helena, MT 59620-0901

Comments must be submitted to DEQ no later than November 16, 2017.

DEQ will not accept comments that are threatening, defamatory, libelous, slanderous, or discriminatory in nature.

MEPA Process

DEQ: EIS Required

Public Input

Public Scoping
(45 days)

Alternatives Finalized

Draft EIS Published

Public Review
(Minimum of 30 days)

Public Input

Public Meeting

Agency Review of Comments

Final EIS Issued

Agency Decision: Record of Decision

How to Submit Comments to DEQ

Scoping comments may be submitted:

- **Orally or in writing at one of the public meetings**
- **Via email**

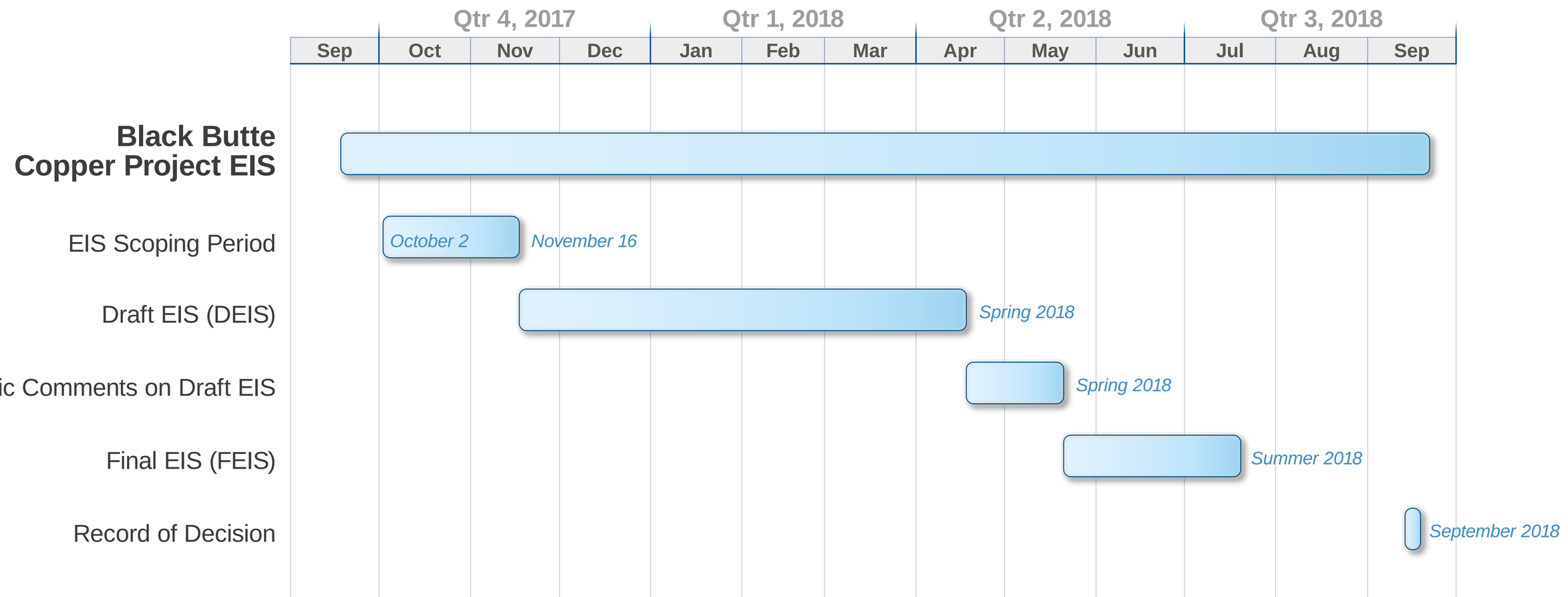
  deqtintinablackbuttecopperproject@mt.gov

- **Postal Mail**

  Craig Jones
  Department of Environmental Quality
  P.O. Box 200901
  Helena, MT 59620-0901

Comment Deadline is November 16th

Potential EIS Schedule



Issues to be Examined in EIS

Air Quality	Cultural Resources	Fisheries/ Aquatic Biology	Geochemistry
Geology	Geotechnical Engineering	Hazardous Materials	Hydrology
Land Use	Noise	Recreation	Socioeconomics
Soils	Transportation	Vegetation	Visuals
	Water Quality/Quantity	Wetlands	Wildlife

MMRA & MEPA Process

Applicant Submits to DEQ:
Application Form, Map(s),
Environmental Baseline Info, Plan of
Operations/Reclamation with
Detailed Appendices

DEQ has 90 Days to:
Determine Completeness and Compliance

If Application is Deficient

First Deficiency Letter Sent To Applicant

DEQ Receives Applicant's Response

DEQ Has 30 Days to Review Response

If Response is Found Deficient

2nd Deficiency Letter Sent to Applicant

DEQ Receives Applicant's Response to 2nd Letter

DEQ has 30 Days to Review Response

Cycle Continues Until Application is Complete or Withdrawn

Application is Complete and Compliant

Draft Permit Issued

EA Process Begins

EIS Process Begins

Publish Draft EIS

Public Comment Period

DEQ Responds to Public Comment and Publishes Final EIS

DEQ Approves the Application as Submitted, Approves the Application with Modifications, or Denies the Application

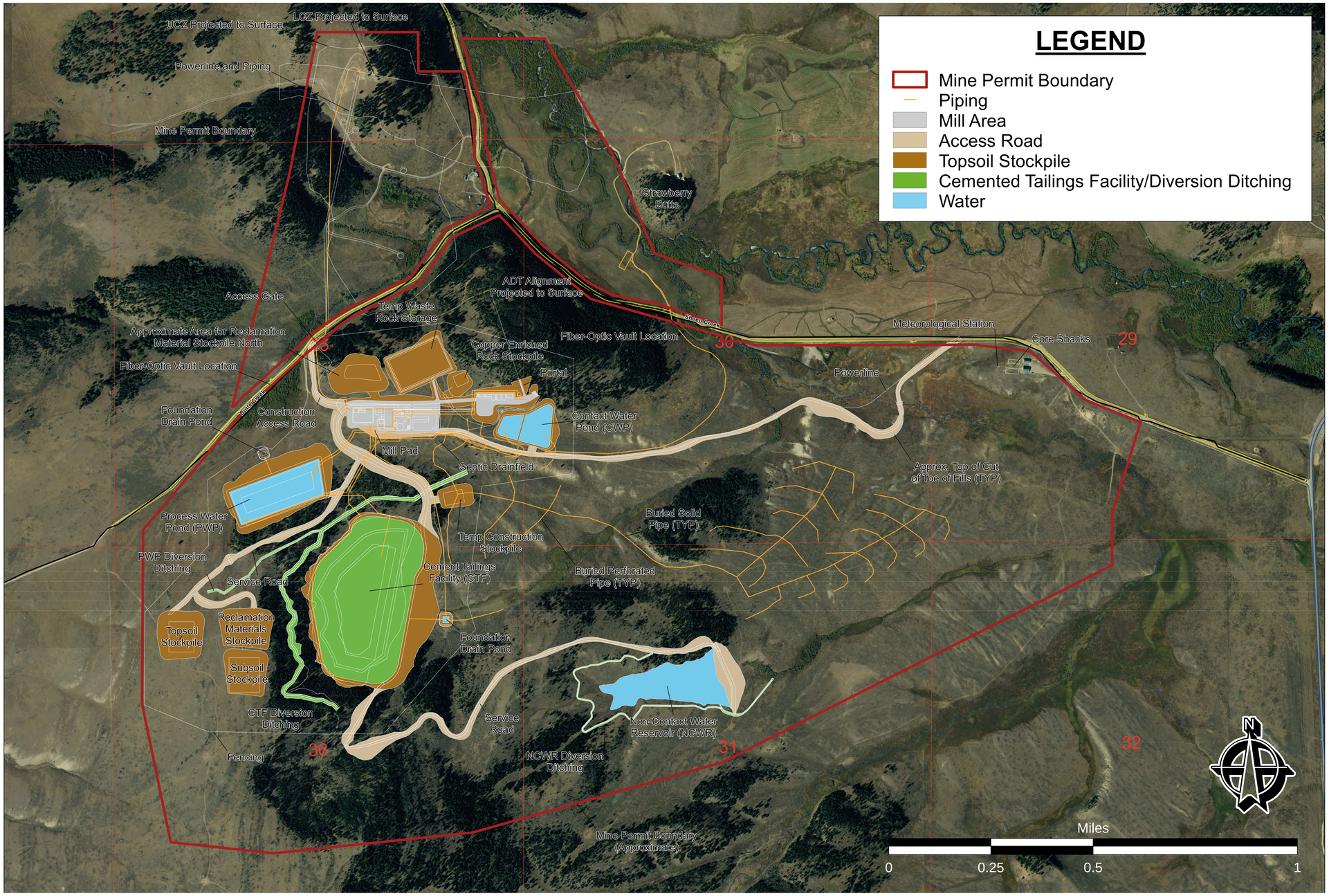
DEQ Calculates Bond

Applicant Submits Bond

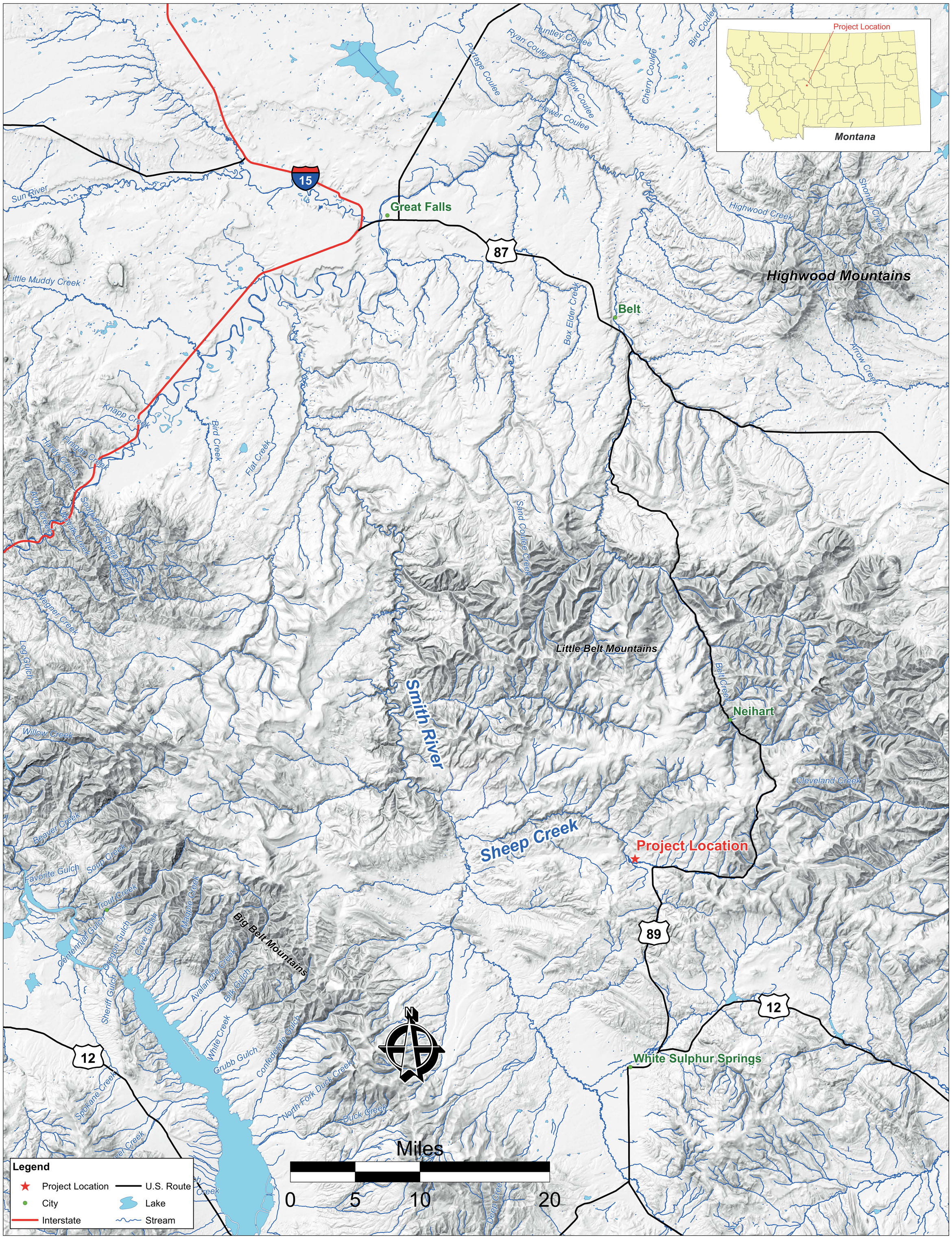
DEQ Reviews & Approves Bond

Permit is Signed & Issued

Facilities Site Plan



Project Location



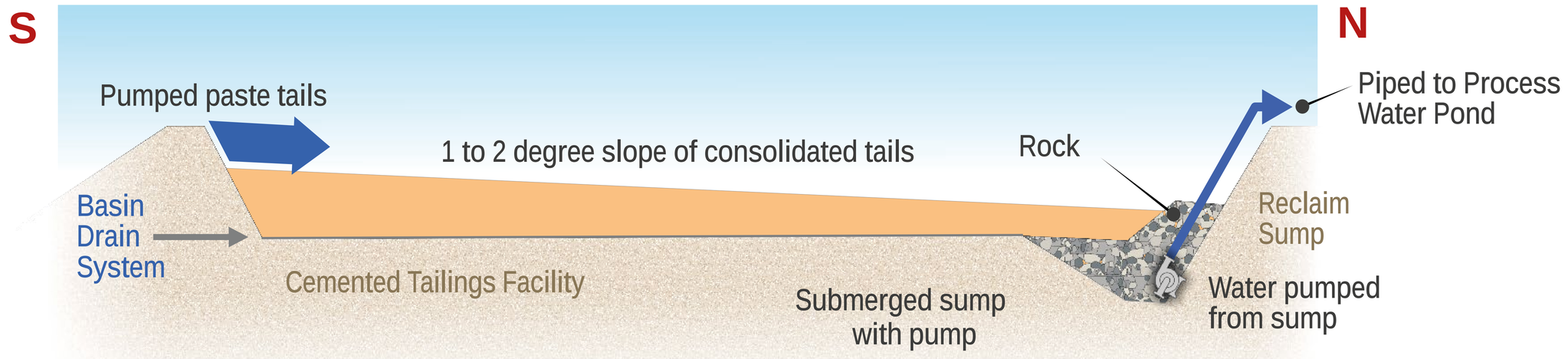
Oblique Aerial Simulation Looking Northwest

Black Butte Copper Project, Meagher County, Montana

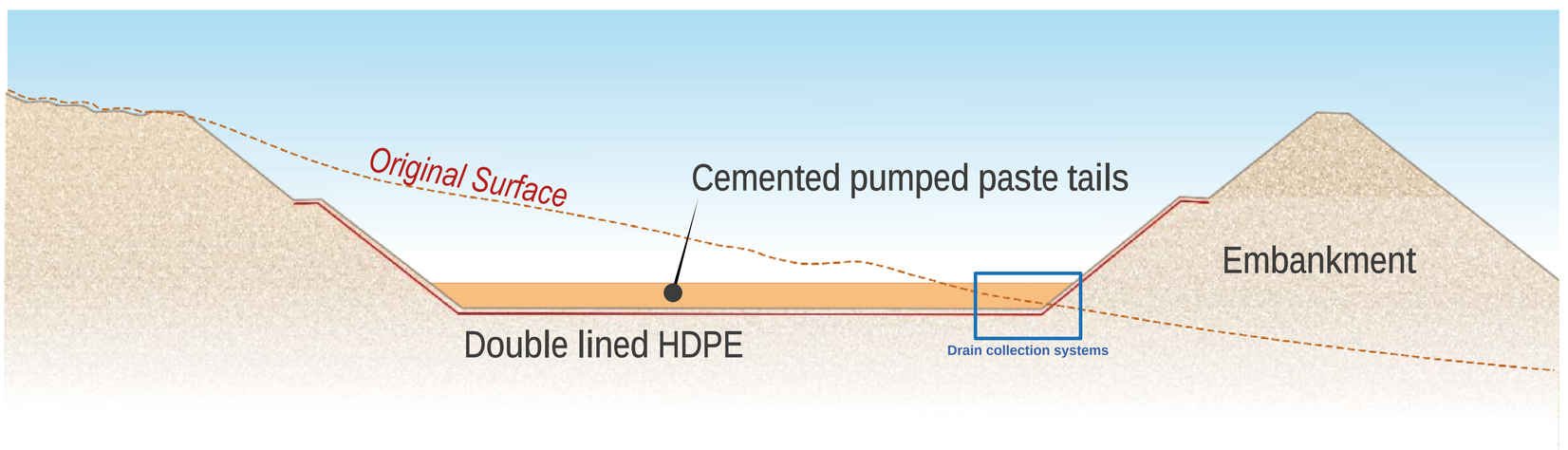
Source: Tetra Tech (2017).

Schematic Cemented Tailings Facility Sections with Lining System

Cemented Tailings Facility Long Section

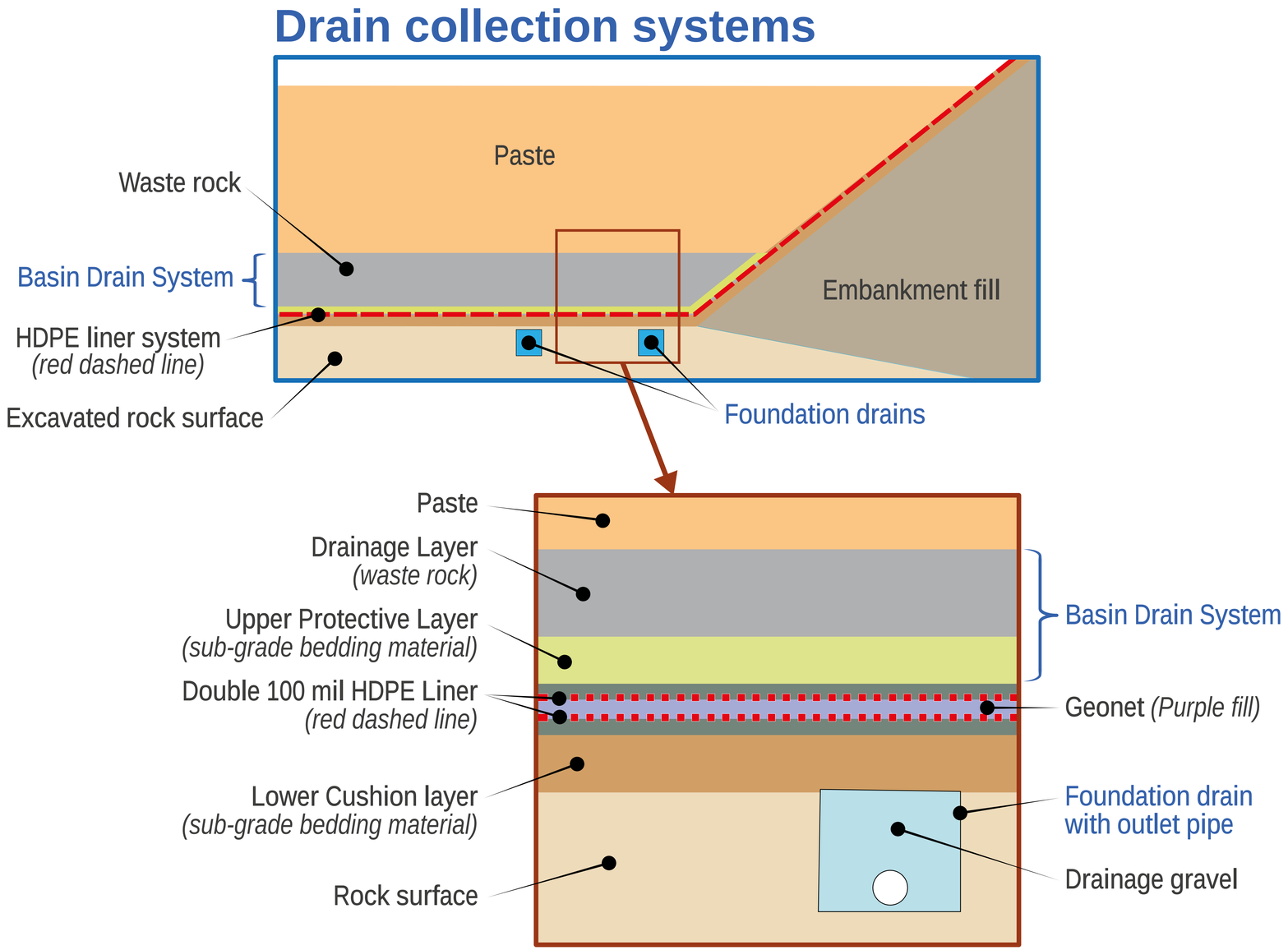


Cemented Paste Tails Lining System



Prepared by: Geomin using a Knight Piesold design (2017a)

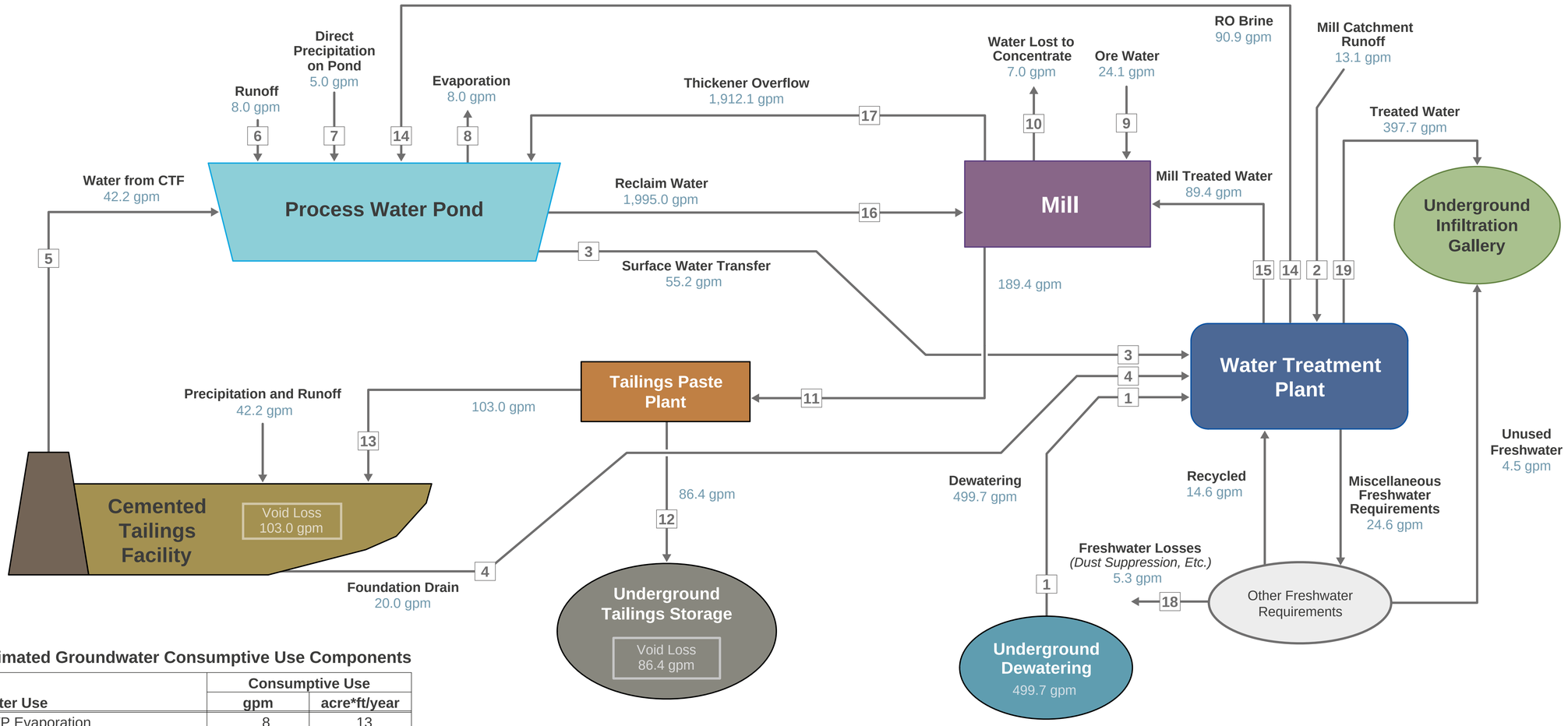
Schematic Cemented Tailings Facility Sections with Lining System



Prepared by: Geomin using a Knight Piesold design (2017a)

Annual Water Balance Schematic

Mean Case - Year 6



Estimated Groundwater Consumptive Use Components

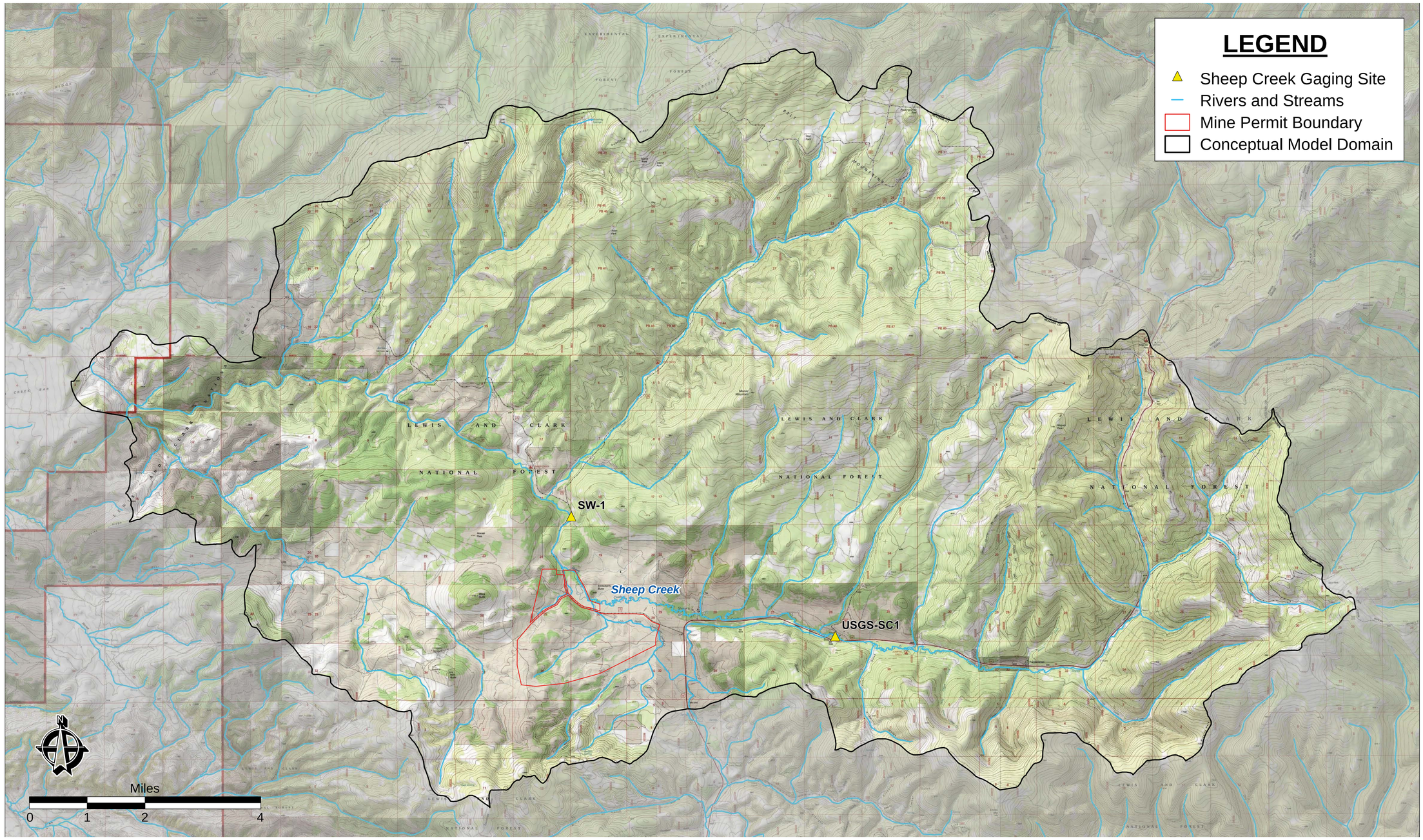
Water Use	Consumptive Use	
	gpm	acre*ft/year
PWP Evaporation	8	13
CTF Void Loss	103	166
Underground Tailings Void Loss	86	139
Water Loss to Concentrate	7	11
Freshwater Losses	6	9
Total Consumptive use	**210**	**339**

NOTES:

1. ALL WATER VOLUMES ARE EXPRESSED IN GPM EQUIVALENTS.
2. WATER IN TAILINGS PASTE IS ASSUMED TO BE UNRECOVERABLE.
3. SEEPAGE IS ASSUMED TO BE ZERO AS THE FACILITIES ARE LINED.

Prepared by Tetra Tech Inc. (March 2017)
Reference: Modified after Knight Piesold (2017): Report No. VA101-46-/3-2

Conceptual Hydrologic Model Area



Date: November 9, 2015 Source: Hydrometrics (2015)

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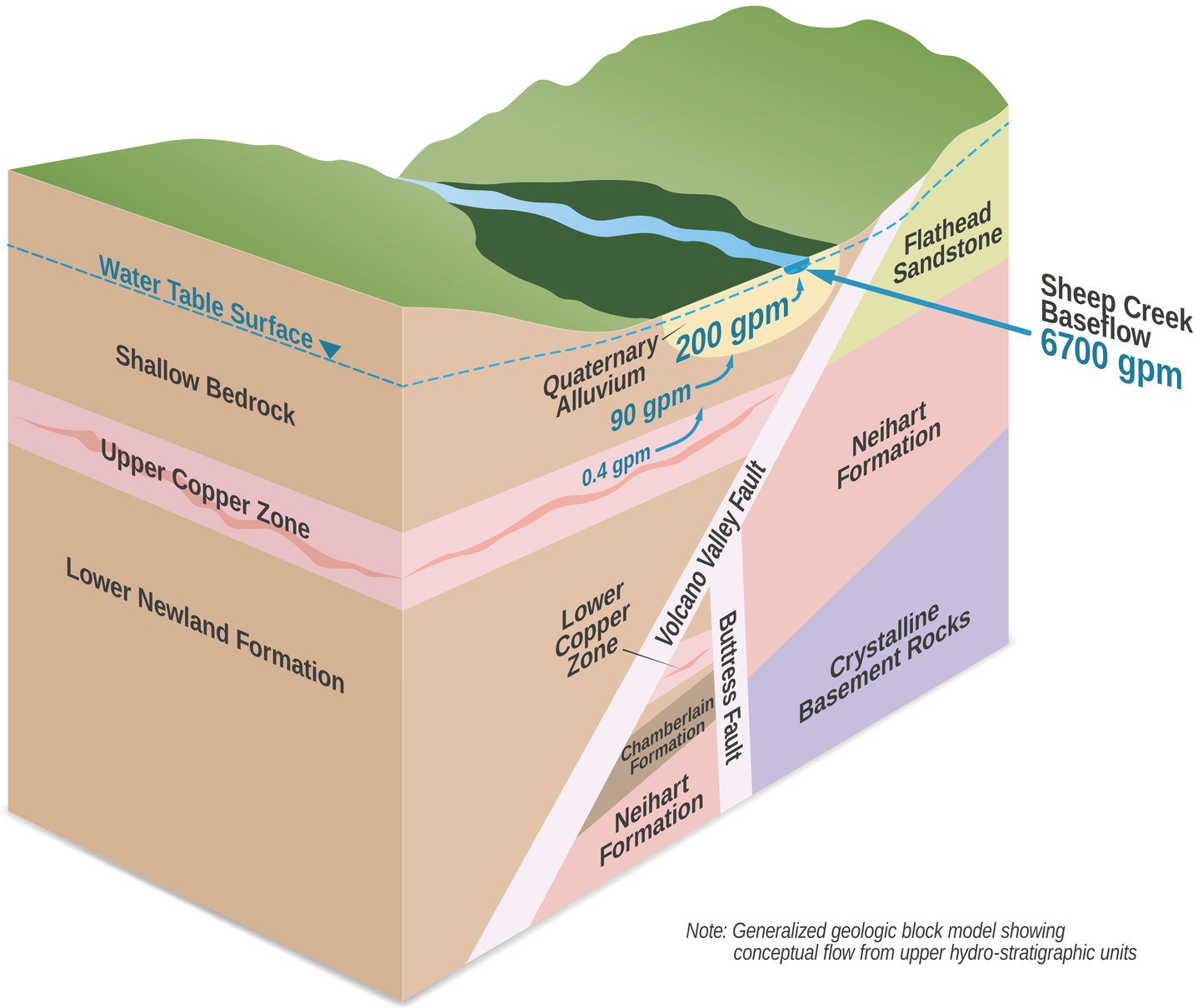
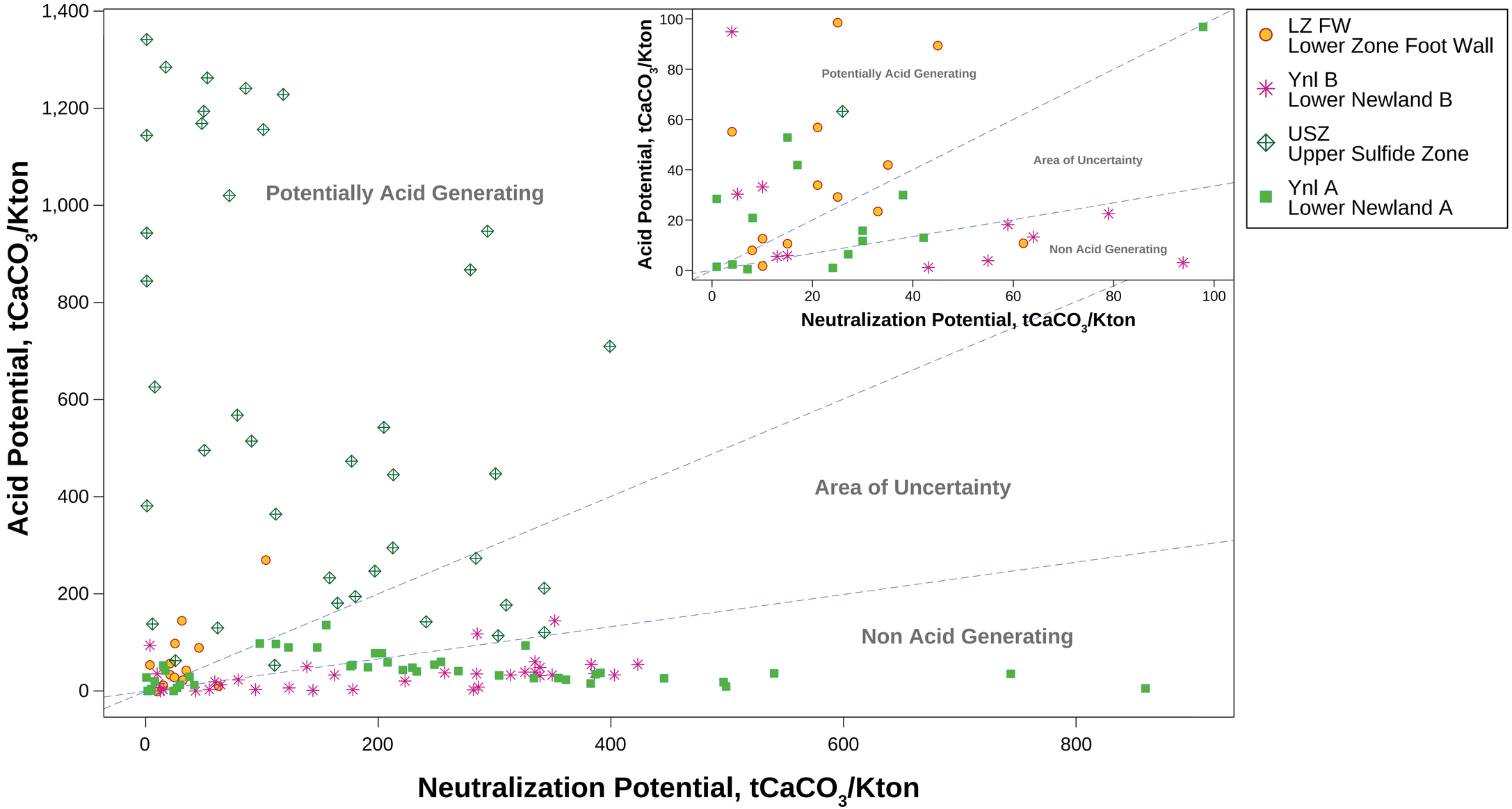
Block Flow Diagram



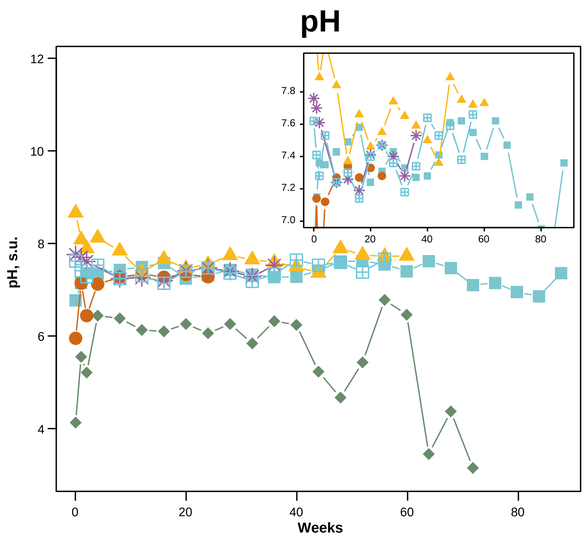
Note: Generalized geologic block model showing conceptual flow from upper hydro-stratigraphic units

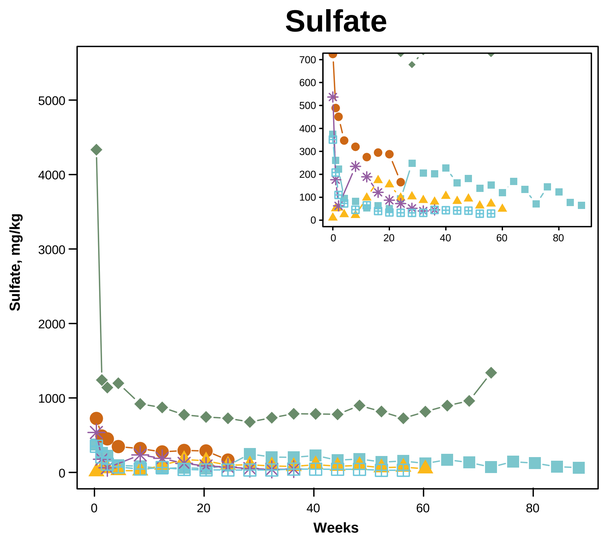
Prepared by Hydrometrics (2016)

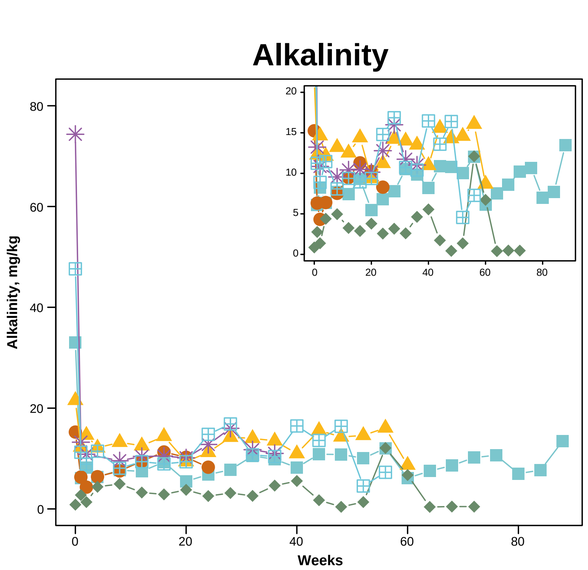
Comparison of Neutralization and Acid Potential Data for Major Waste Rock Units

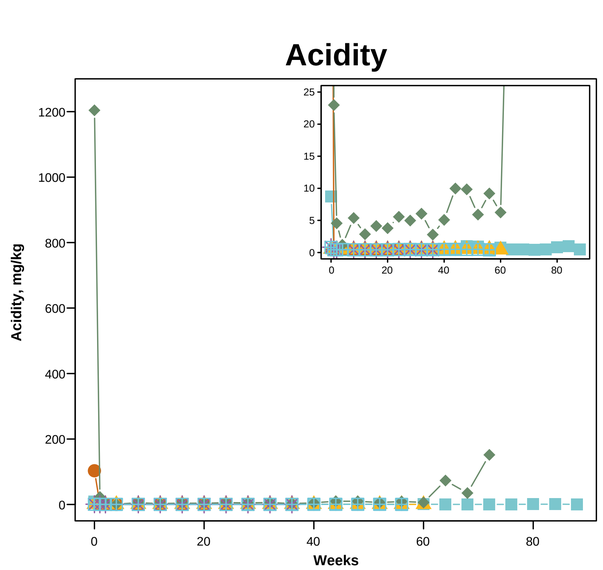


Comparison of Select Parameters for Waste Rock Kinetic Humidity Cells





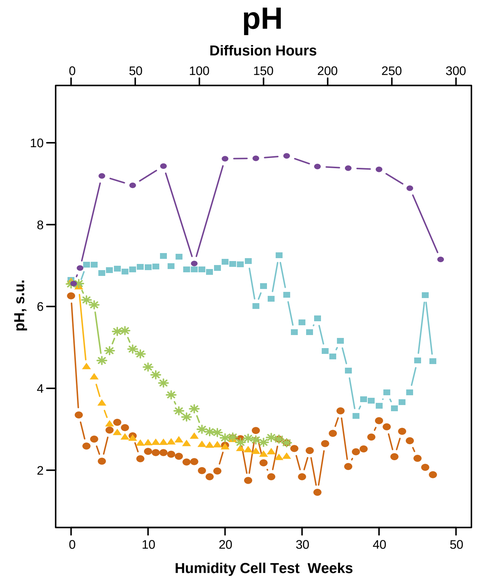


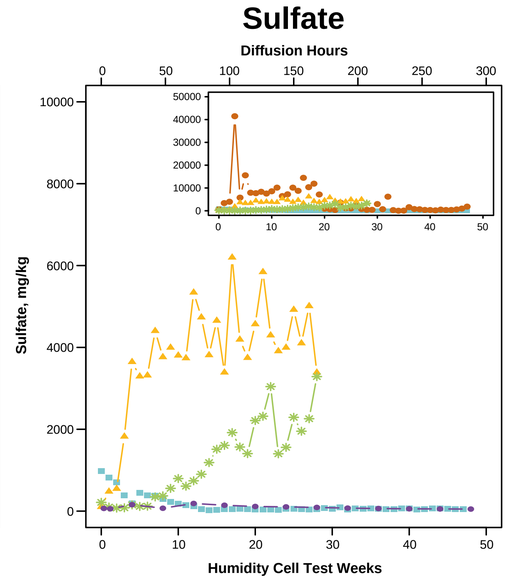


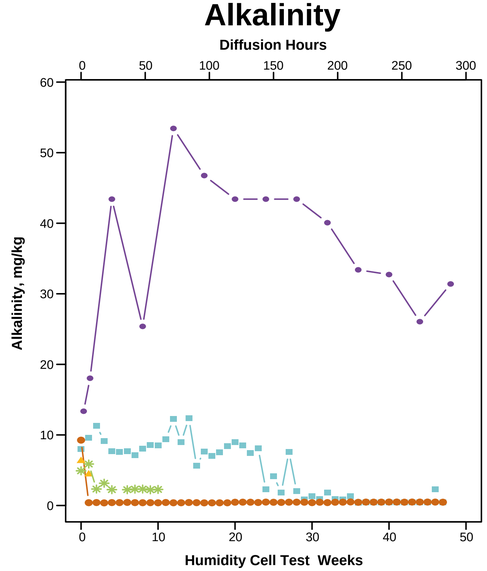
Note: Some data obscured in insets. All data visible in large figures; test durations varied.

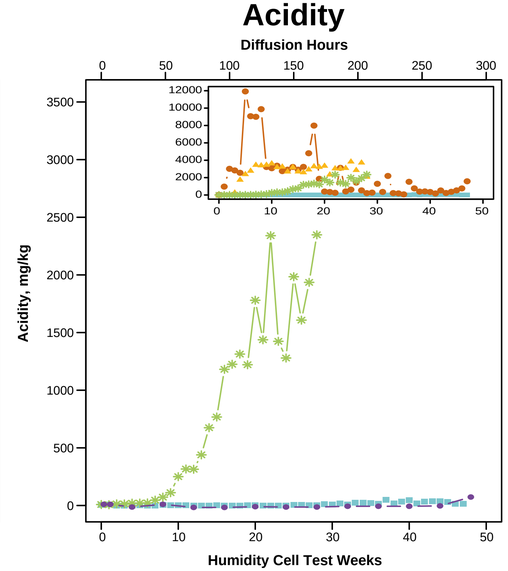
2012 Ynl A - Lower Newland A
2012 USZ - Upper Sulfide Zone
2012 Ynl B - Lower Newland B
2015 USZ - Upper Sulfide Zone
2015 Ynl B - Lower Newland B
2015 LZ FW - Lower Zone Foot Wall

Kinetic Test Results for Tailings









Note: To facilitate data interpretation, the Unsat. tailings HCT and 2% binders HCT acidity data are only presented in the inset with the expanded view of the y-axis. Diffusion Hours on upper x-axis only relate to 4% Diffusion test data in purple. All other data relate to the lower x-axis (Weeks).

Saturated Tailings Humidity Cell Tests
Unsaturated Tailings Humidity Cell Tests
2% Binders Humidity Cell Tests
4% Binders Humidity Cell Tests
4% Binders Diffusion

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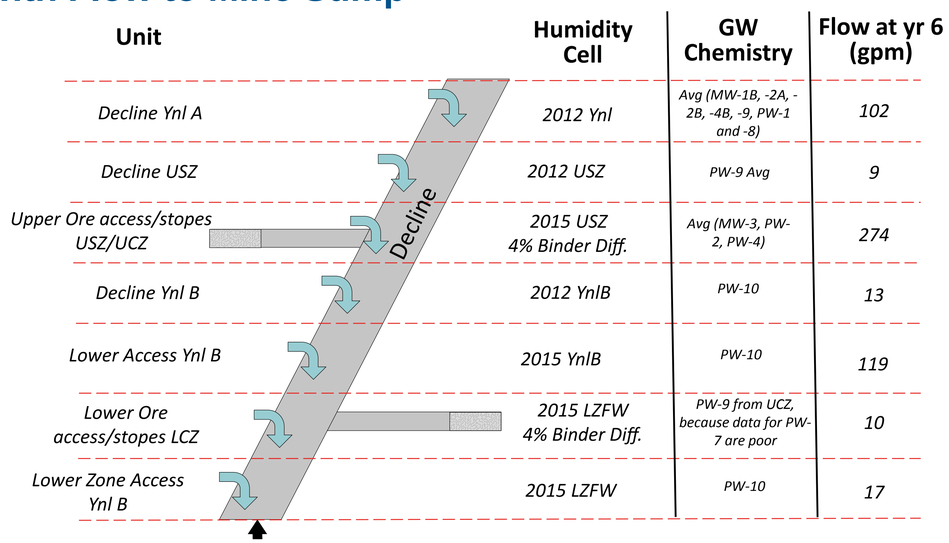
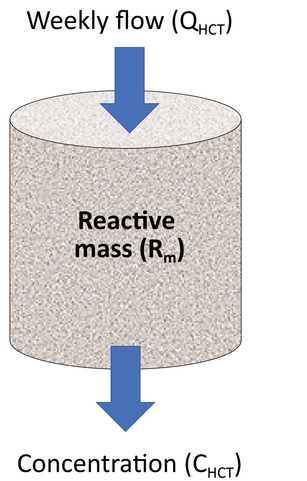
Conceptual Models

Conceptual Model of the Hydro-stratigraphic Units, with Flow to Mine Sump

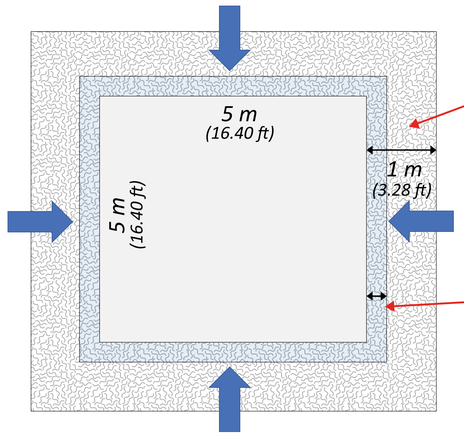


Predicted water quality in the sump

Humidity Cell Test



Conceptual Model of Reactive Surface Area in Underground Workings



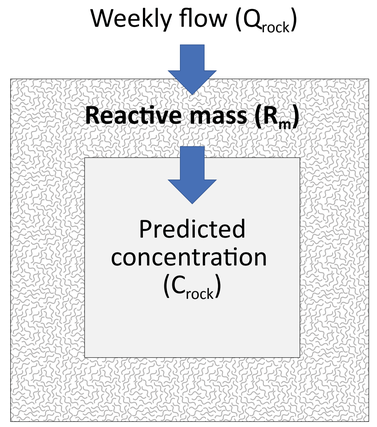
Blast-induced fracture zone
The base case maximum fracture zone is one meter (3.28 feet). Reported values are typically 0.3-1 m (0.98 to 3.28 feet)(Siskind and Fumanti), although typically <0.5 m (<1.64 feet) for low-charge methods (Kelsall et al.).

Oxidized rind (reactive zone)
The rind thickness increases as a function of time and sulfide content (i.e., oxygen consumption). The base case assumes that the rind increases according to sulfide oxidation (sulfate production),

$2FeS_2(s) + 7.5O_2 + 7H_2O \leftrightarrow 4SO_4^{2-} + 2Fe(OH)_{3(s)} + 8H^+$

at a rate of 6 kg $SO_4^{2-}/m^2/yr$.

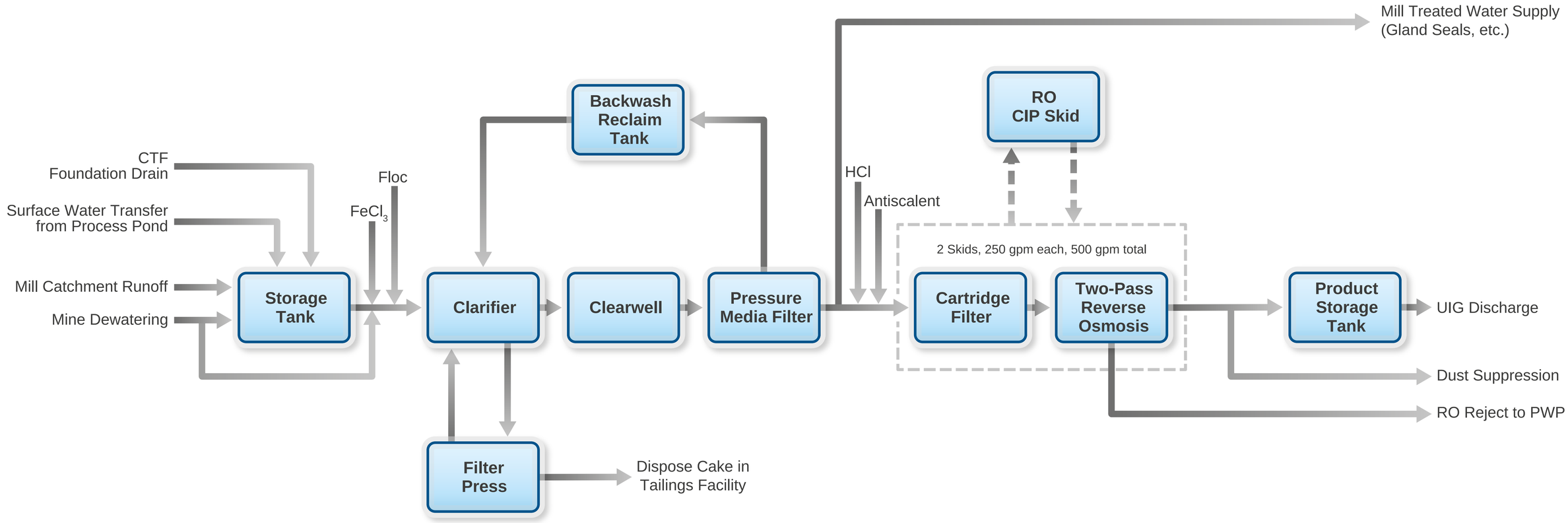
Wall Rock of Mine



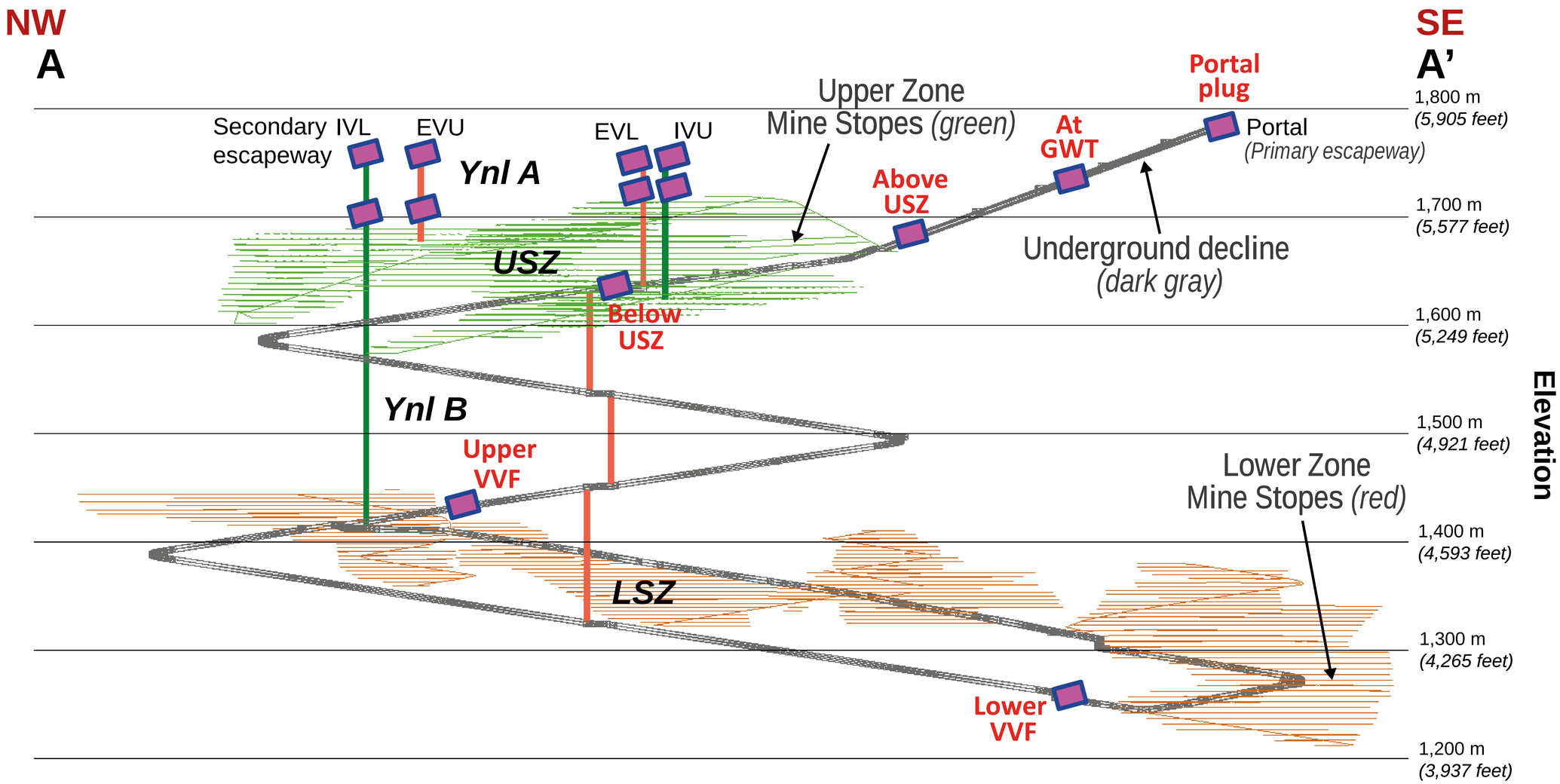
Prepared by: AMEC and TintinaResources (2017)

Water Treatment Process Flow Diagram

Operational Phase

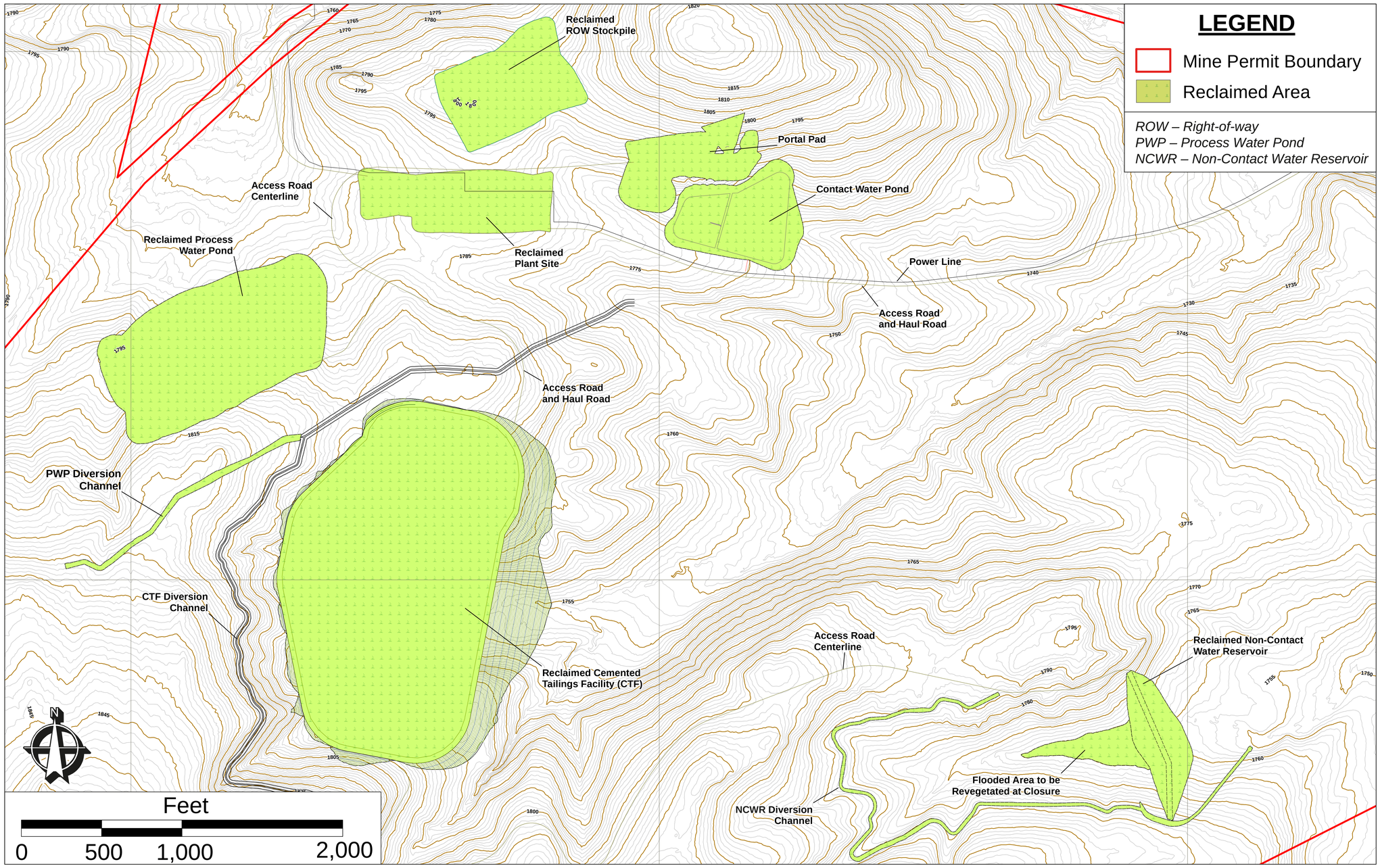


Cross-Section of Underground Workings Showing Hydraulic Barriers Installed in Closure



Prepared by: AMEC and TintinaResources (2017).

Post Closure Topographic Map



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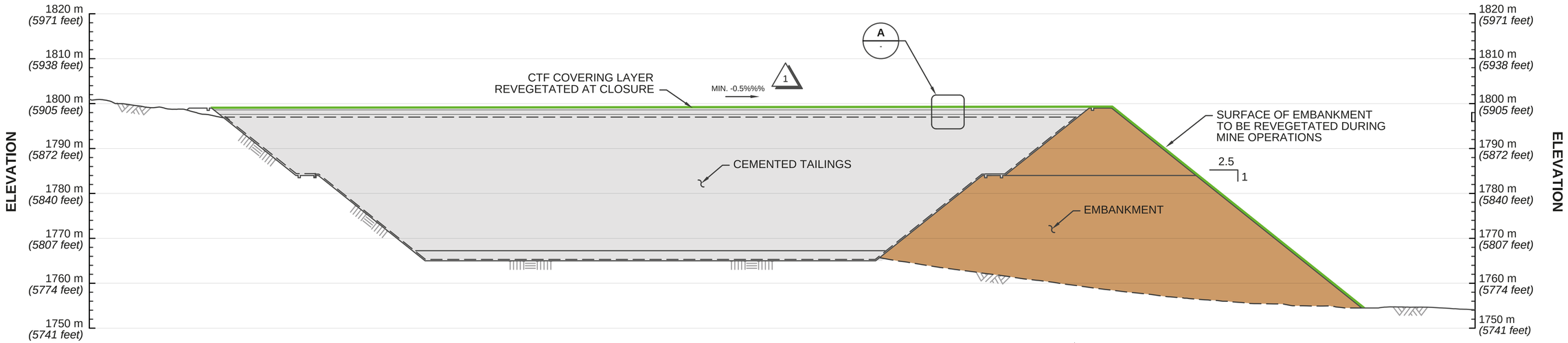
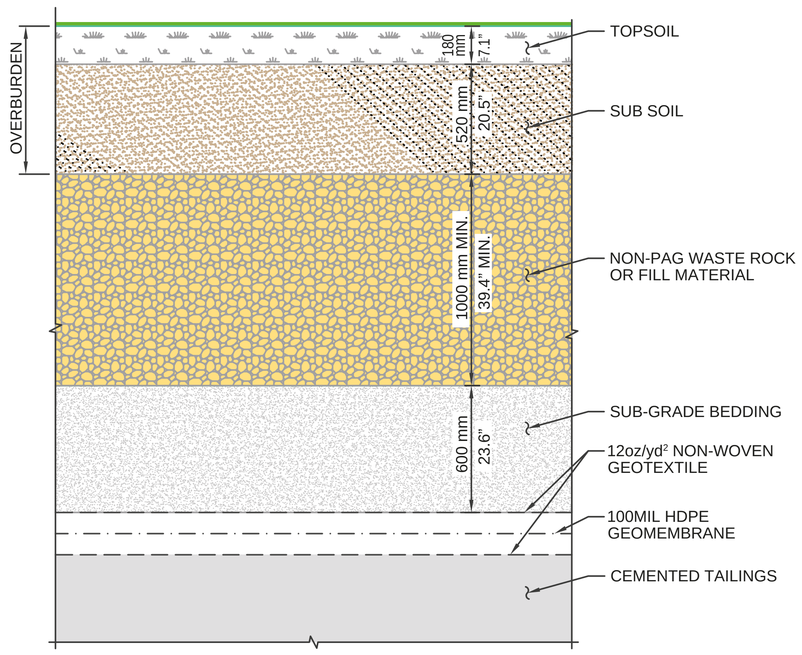
Cemented Tailings Facility
Reclamation and Closure Cross-section





1 / C8001 **SECTION**
HORIZONTAL: SCALE A
VERTICAL: SCALE B

SCALE A: 20 10 0 20 40 60 80 100 m
65.6 32.8 0 65.6 131.2 196.8 262.4 328.1 feet

SCALE B: 10 5 0 10 20 30 40 50 m
32.8 16.4 0 32.8 65.6 98.4 131.2 164.0 feet

A / - **DETAIL**
CTF CLOSURE COVER DETAILS
SCALE C

SCALE C: 300 150 0 500 1000 1500 mm
11.8 5.9 0 19.7 33.4 59 inches

NOTES:

1. TAILINGS SURFACE WILL BE LEVELED USING SUB-GRADE BEDDING AS NEEDED.
2. DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS ARE IN METERS, UNLESS NOTED OTHERWISE.

DEQ Montana Department of Environmental Quality

Other DEQ Permits...

Montana Air Quality Permitting

Statutory Authority

- ❑ Clean Air Act of Montana
- ❑ Montana Code Annotated (Title 75, Chapter 2)
- ❑ Federal Clean Air Act

Rules

- ❑ Code of Federal Regulations (Likely 40 CFR 60, Subparts IIII and LL and 40 CFR 63 Subpart ZZZZ)
- ❑ Administrative Rules of Montana (Title 17, Chapter 8)

Tintina will be required to demonstrate compliance with state and federal air quality standards before a Montana Air Quality Permit can be issued.

Regulated Pollutants

Particulate Matter (PM, PM_{10} (<10 ug/m^3), $PM_{2.5}$(<2.5 ug/m^3))
Carbon Monoxide (CO)
Sulfur Dioxide (SO_2)
Oxides of Nitrogen (NOx)
Volatile Organic Compounds (VOCs)
Lead (Pb)
Miscellaneous Hazardous Air Pollutants (HAPs)

Montana Air Quality Permit required if potential to emit is greater than 25 tons per year of any regulated pollutant other than lead which is 5 tons per year.

Regulatory Time-line for Issuance of Montana Air Quality Permit

From the Receipt of an application for an air quality permit:

a) The Air Quality Bureau (AQB) will have 30 days to determine the application "complete" or ask for additional information.
b) Once the application has been deemed complete, AQB will have 40 days to issue a "Preliminary Determination". The Preliminary Determination will be out for a 30-day public comment period.
c) Once the Project EIS and Record of Decision (ROD) are final, AQB will issue a final decision within 30 days of the Final EIS/ROD date. AQB will issue the Final permit following a 15-day appeal period.

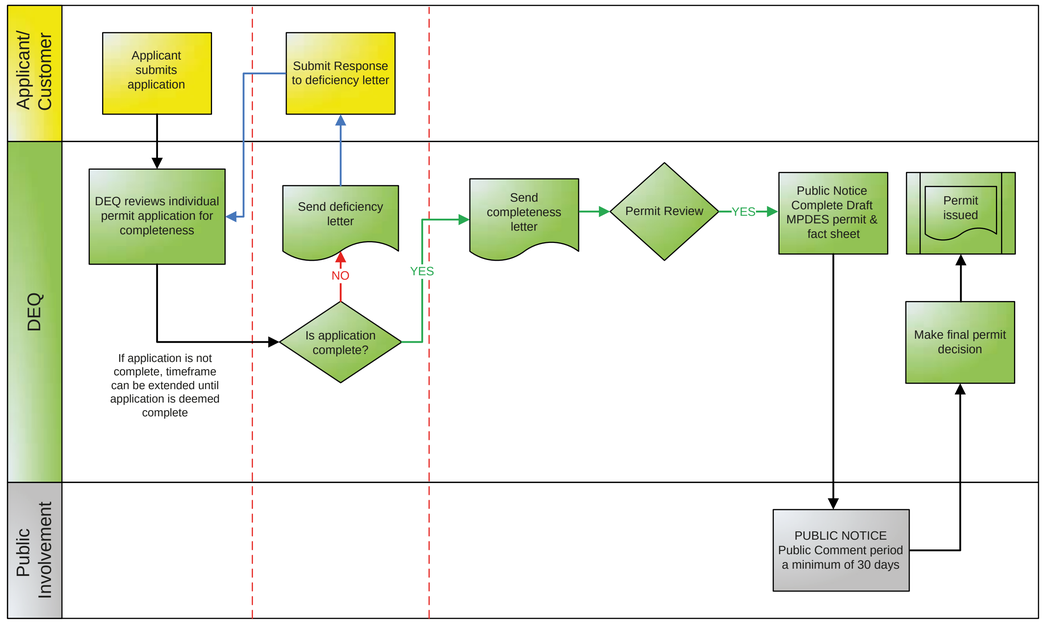
Current Tintina Air Quality Application Status

Ask for current status – as an application may now have been submitted.

DEQ Public Water Supply Process:

- Applicant submits Plans and Specifications to DEQ
- DEQ reviews the plans for compliance with Design Standards in Circular DEQ-3
- DEQ issues a Public Water Supply approval
- After construction is complete, applicant submits as-builts to DEQ
- For more detailed information please visit: *http://deq.mt.gov/Water/pwsub/pws/PlanReviewEngineer*

MPDES Permit Process



For more detailed information please visit: *http://deq.mt.gov/Water/WPB/mpdes*