Minto Mine – Operational Experiences Managing Waste to Reduce Potential for Acid Rock Drainage

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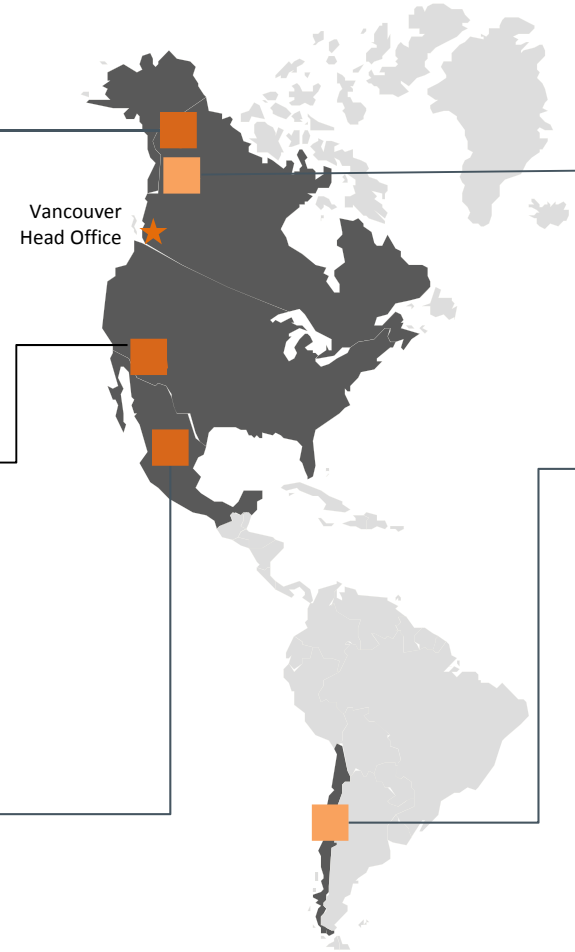
Capstone – Our Global Operations

Producing Mines

Minto
(Yukon, Canada)

Pinto Valley
(Arizona, USA)

Cozamin
(Zacatecas, Mexico)



Development Pipeline

Kutcho
(British Columbia, Canada)

Santo Domingo
(Region III, Chile)

Capstone - Portfolio

Short term

PRODUCTION

Three operating mines

Production assets located in stable geographies in the Americas producing ~230 M lbs of copper annually.

- **Pinto Valley**
  Arizona, US
  130 - 150 M lbs copper[1]
- **Cozamin**
  Zacatecas State, Mexico
  44 M lbs copper[2]
- **Minto**
  Yukon, Canada
  41 M lbs copper[2]

DEVELOPMENT

Growth project

Disciplined approach to construction, offering significant growth in planned copper production over next five years.

- **Santo Domingo**
  Region III, Chile
  CS 70%; KORES 30%

EXPLORATION

Portfolio

Early-stage base metals exploration properties.

- **Chile**
- **Canada**
- **Mexico**

Long term

1. See news release dated and April 28, 2013. 2.±5%; see news release dated December 19, 2012.

Minto Mine

- High-grade copper mine NW of Whitehorse (~40 km south of Pelly Crossing)
- Stream sediment sampling program drew Asarco Inc. to stake claims in 1970
- Sherwood Copper Corp. purchased Minto Explorations Ltd. in 2005
- Commercial production achieved in October 2007
- Began its mine life with one pit, six to seven year mine life
- Exploration success has extended the project life

Minto Mine

- The mine is located on Selkirk First Nation “Category A” lands
- Co operation agreement was originally signed in 1997
  - Renewed in 2009
- As land owners, Selkirk engaged in most aspects of site management and development

High grade copper mine operating in Yukon in partnership with Selkirk First Nation

Minto Mine

Open pit and Underground mine in Yukon, Canada

Daily production rate (tpd)	~ 4000
Mine life remaining (years)	+9
Production - 2013 guidance (M lbs Cu)	41
By-products	Au, Ag

Shipment of Copper

- Concentrate is trucked to Skagway and from there delivered to customers by boat

Minto Mine

Overview of our presentation

- ABA program at Minto
  - Objectives
- Defining PAG at Minto Mine
  - Water licence criteria
- Initial Indicators of changed ABA results: Timeline
- Adapting Strategies
- Operational Challenges

Maintaining a long term focus on reducing potential for ML ARD, adapting accordingly

Minto Mine – ABA Program Overview for Waste Rock

- Objectives:
  - determine the NP/AP ratio of waste rock and overburden
  - Generally guide site knowledge of ABA characteristics of waste rock
  - Feeds into ML ARD monitoring used for EA

- Field geologist： key player
  - collects samples
  - Records rock types or lithological units not previously identified
  - changes in mineralogy such as identifying pyrite, other sulphate and carbonate minerals

- A composite sample of drill cuttings from each blast in waste

Minto Mine – ABA Program Overview for Waste Rock

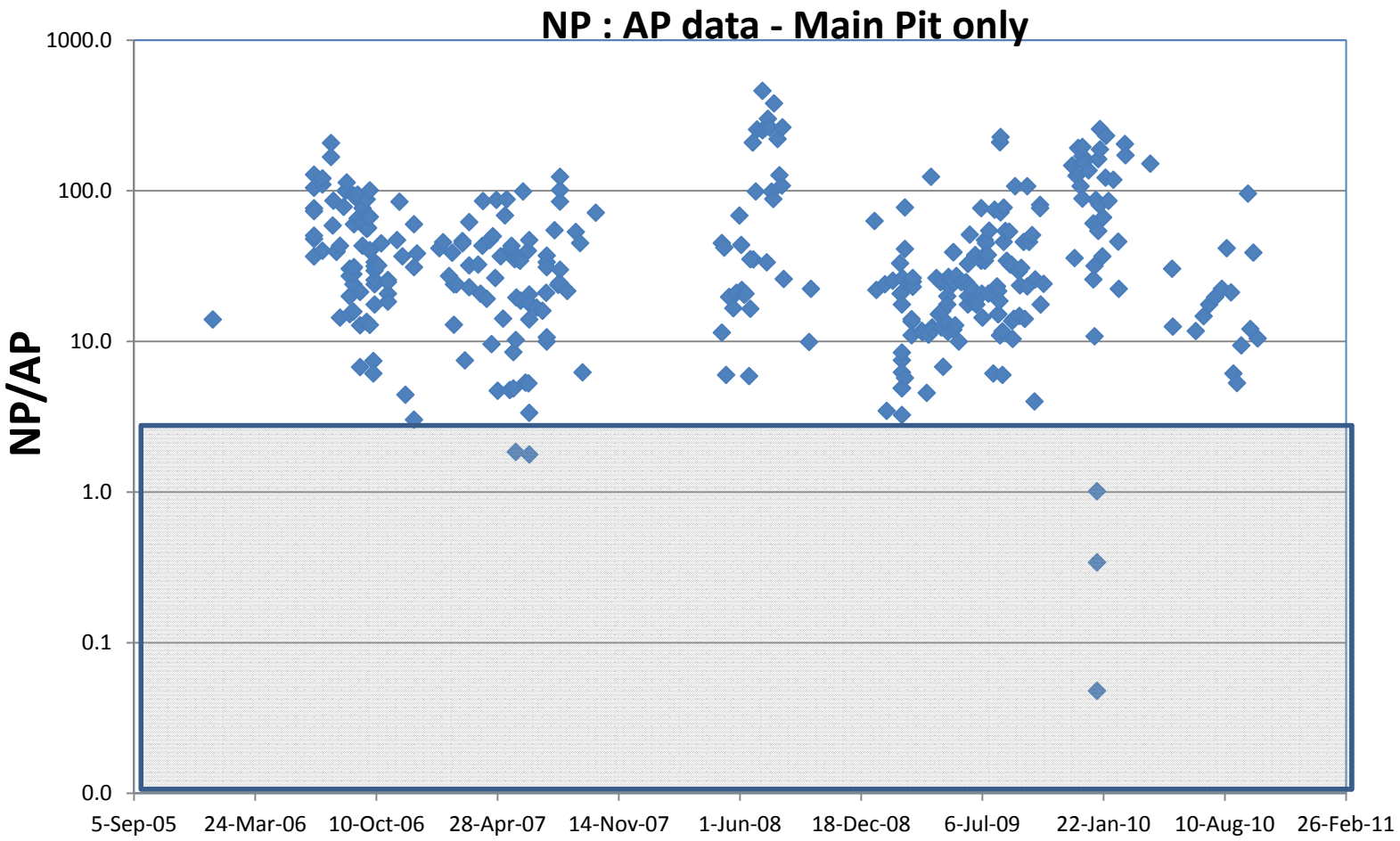
- Test Work and Evaluation
  - ABA analysis using the BC Research Method
    - As required in water licence
  - Paste pH, inorganic carbonate content and Fizz test
  - Every 10th sample:
    - Filtering the residual liquid phase used to determine NP and run ICP MS scan includes calcium, magnesium, aluminum and iron

Minto Mine – Waste Segregation

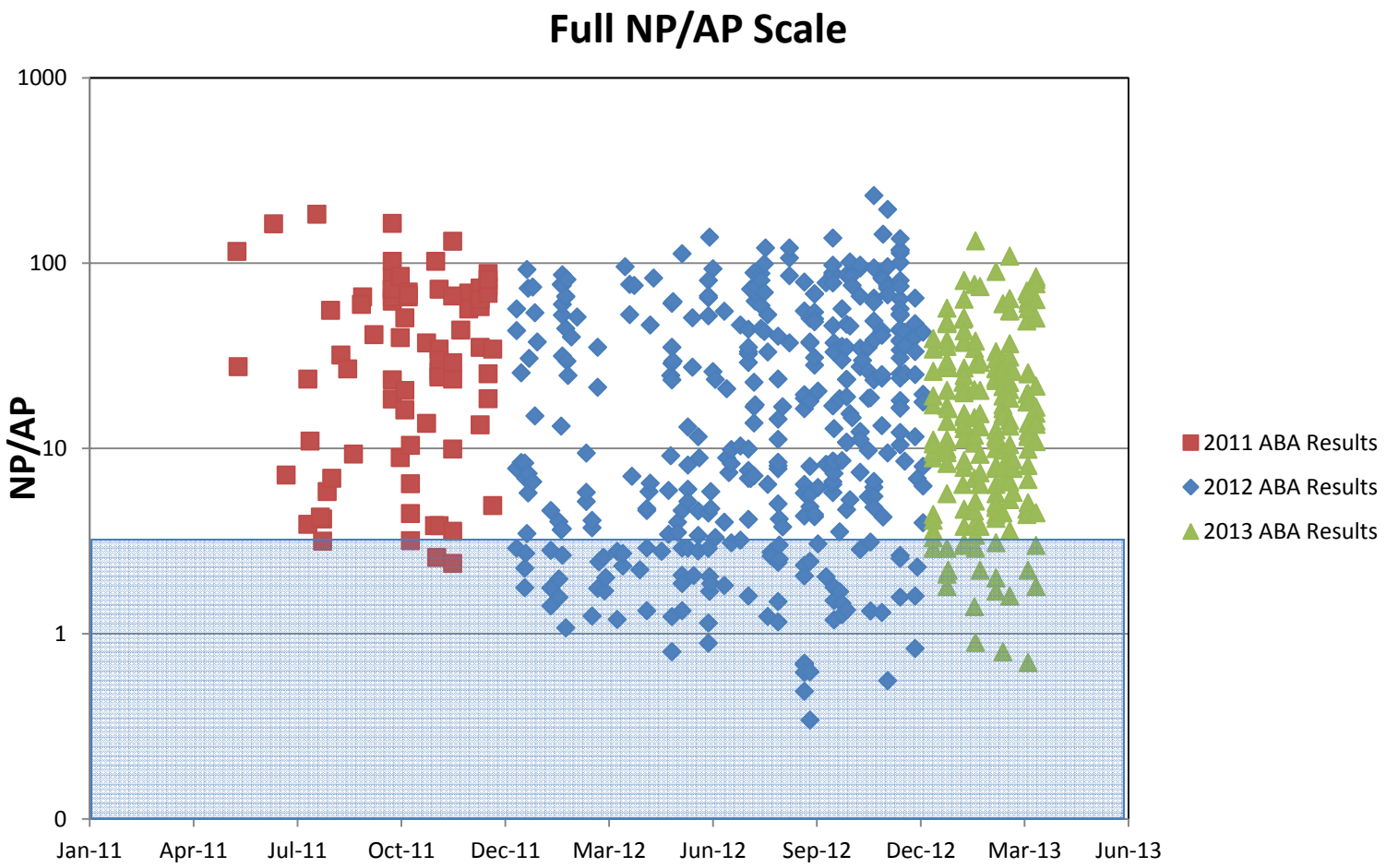
- Initial Waste Segregation and Dispatch procedure
  - All waste rock from Area 2 Pit was dispatched and disposed of based on Cu% grade

Waste Grade Bins	Copper Grade Range	Description of Disposal
Zero-grade Waste	< 0.01%	Can be utilized for construction projects and dumps located in sensitive areas.
Low-grade Waste	0.01% - 0.10%	Not of significant concern at closure, generally used for construction.
Mid-grade Waste	0.10% - 0.36%	Copper Leach is a concern at closure, material must be handled separately, but has poor prospects for future milling.
High-grade Waste	> 0.36% - Cutoff Grade	The same disposal requirements apply as do for mid-grade waste, but there is a chance that if mill throughput or metal prices increase substantially, this material will prove economic.

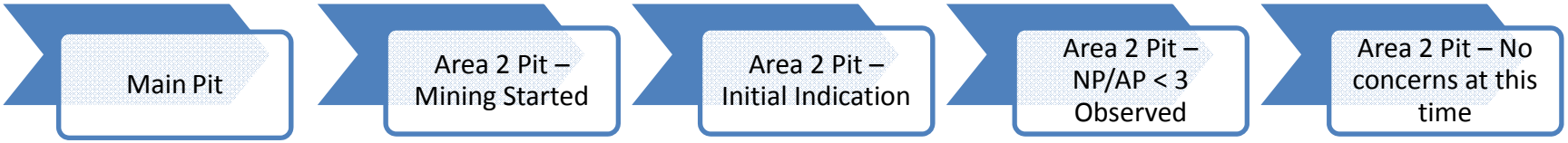
Defining PAG at Minto: Main Pit ABA data



Defining PAG at Minto: Area 2 ABA data



Initial Indicators - Timeline



- Very little PAG observed

- Elevated (>0.3%) sulphide sulphur

- 7 Samples elevated sulphide sulphur
- 2 Samples <3 NP/AP (2.58, 2.40)

- 2 samples elevated sulphide sulphur
- 1 sample <3 NP/AP (2.9)

Initial Indicators - Timeline

April 2012

Area 2 Pit – Change in Trend

- Significant change in NP/AP
- 6 samples with elevated sulphide
- 6 samples with NP/AP <3:1 (1.8, 1.4, 1.8, 2.3, 2.7)

May 2012

Construction Season

- Unsure about construction rock characteristics

May 2012

Preliminary Discussion – Waste Segregation Strategy

- Consideration given to adapting waste rock management strategy.

June 2012

Area 2 Pit – Trend Established

- More data confirming presence of PAG.

July 2012

Adapting Waste Rock Strategies

- Options explored for adapting waste rock management strategy.

Operational Challenges

Adapted Waste Segregation and Dispatching

- All waste rock to be dispatched based on NP/AP and sulphide sulphur content

- Waste Dispatch Solution Criteria
  - Does not disrupt production or involve significant rehandling
  - Feasible from a cost perspective
  - Quickly implemented
  - Reliable/Consistent

- Waste Disposal Solution Criteria
  - Addresses environmental risk
  - Feasible from a cost perspective
  - Does not disrupt production or involve significant rehandling

Solution for Classification of Waste Rock

- Carbon – Sulphur Induction Furnace
  - Met all the criteria:
    - Turn-around on results the same or quicker than Cu assay
    - Cost was feasible at ~ $40,000
    - Unit purchased and setup in 1 month
    - Procedures for sampling, testing, data management and field staking were developed while waiting for unit
    - Measurements are repeatable and a calculated NP and AP could be determined

- Final Choice – Eltra CS 800 induction furnace

Solution Waste Rock Disposal

- Disposal in the Main Pit below the closure saturation elevation.
  - Addresses environmental risk - PAG material will be saturated upon closure
  - Will not have to rehandle material upon closure
  - Relatively short haul, access available

Implementation

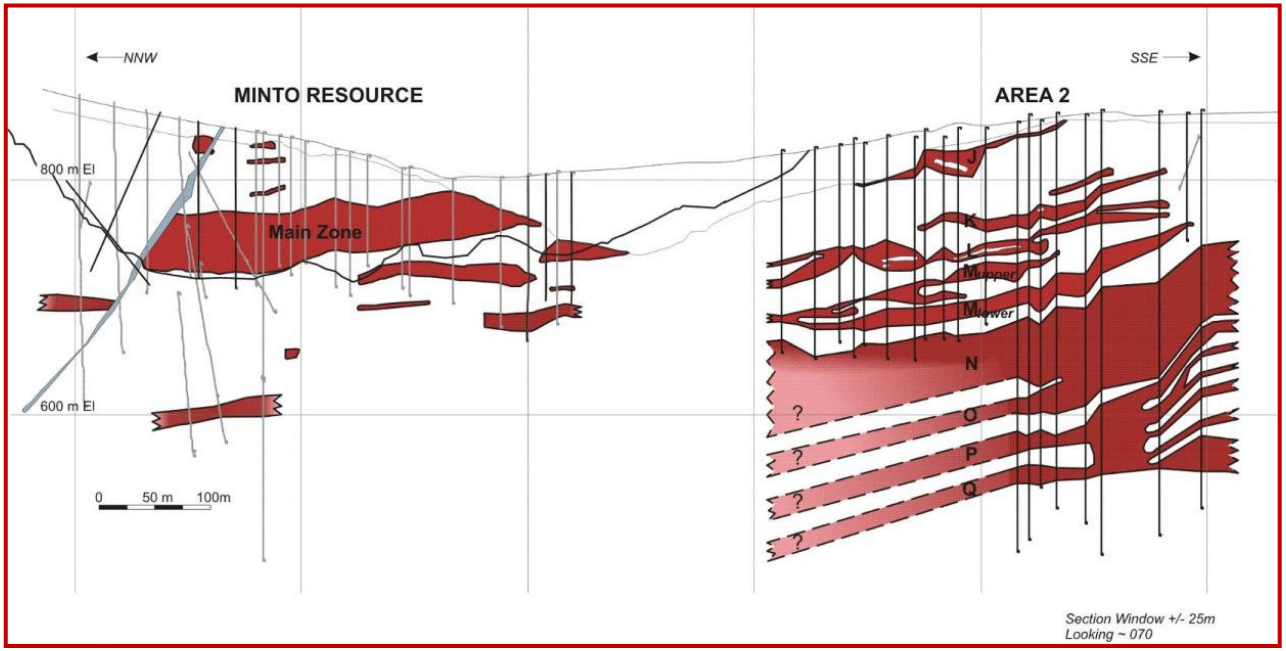
- On-site Assay lab
  - Every blast hole sample split
  - Using Eltra induction furnace determine C(T) and S(T)

- Geology
  - Integrate onsite data into blast hole database
    - NP and AP for every blast hole
  - Create new waste rock type (PAG) for rock with NP/AP <3

- Mine Operations
  - Determining mineable blocks
    - Used ore mining strategy for segregating PAG in blasted muck piles
  - Develop design for PAG dump in the Main Pit
    - Determine volume of PAG impacting storage capacity for closure planning
  - Develop and Implement a Waste Rock Verification Program

Conclusion and Lessons Learned

- Minto orebodies are complex, requiring conservative practices related to management of ARD
  - Not a porphyry deposit
  - Irregular ore zones made more complex by structural features
- Use this information to inform future Environment Assessment studies and refine exploration core logging practices



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