Developing a Financial Model for Other Deep Sea Minerals
Current model and analysis is targeted to the case of Polymetallic Nodules

Technical Factors

Cost Model

CAPEX & OPEX

Cash Flow Model

Revenues

Price Forecast:
- Cobalt
- Copper
- Nickel
- Manganese

Payment System with Rates

Revenues

ISA Revenues
Constructing Cost Model for Another Mineral

• How will collection process operate?
  • Estimates of physical requirements?
    • Vessels, collection equipment, monitoring equipment, transport, etc
  • How much investment will these require?
  • What operating costs?
  • What production rates?

• Will ore by sold directly to existing processors or will new processing plants be needed?

• If new plants, estimates of costs for metal processing
  • Needed to assess an ore transfer price
Price Forecasts

• Which metals (or other) will be sold?
• Currently have forecasts for Co, Ni, Cu & Mn
• Other metals will require additional forecasts
• Designation of price index for each of these metals

• Metals composition and recovery rates
  • Ore grades for each metal including uncertainty or variation
  • Metallurgical approach to extraction
  • Metals recovery rates including uncertainty