Mineral Resource Management (MRM)

Rationale for MRM

- MRM provides an integrated business solution for the management and control of mining activities

- It focuses on the processes of defining, planning, depleting and reconciling ore reserves/resources
Economic Evaluation

Mine Establishment

Locate Ore Body

Prospecting

New Mine Site

Ore Reserves

Production Analysis

Ore Flow

MRM

Geological Modeling

Caddy\textsuperscript{TM} - Mine 24/7

Survey Measurements

Red Liner

DPS Module

OIS Modules

Drying Process

Hoisting

Surface Transport

Storage of Ore

MRM - comparison with current Mining Technical Systems

MRM

Production Analysis

Red Liner

Geological Modeling

Ore Reserves

Survey Measurements

Stope Observations

Sampling

DPS Module

OIS Modules

DayCall

Mine Design & Scheduling
Potential benefits

- Realistic visualizations of mining conditions using 3-D technology
- Improved interpretation of geologically disturbed areas
- Optimizing of half-levels and therefore shaft capacities
- Optimizing on-reef and off-reef development
- Optimal scheduling of teams
- Timely increase in and scheduling of mining rates in areas of excess capacity, especially in mechanized sections

Potential benefits (cont’d)

- Continuous and dynamic rolling business plan
- Ease of creating different planning what-if scenarios
- Integrated communications between and sharing of information by service departments
- No data duplication or re-handling
Potential non-tangible benefits

- Mining processes (planning, modeling, etc) more streamlined
- Decision-makers able to make more timely and informed decisions
- End-users empowered through skills development
- Continuity and management of collective knowledge base
- Current industry practices maintained and potentially exceeded

3-D Geological Models
3-D Geological Models

A portion of 6#

Create mine layout and schedule
life-of-mine plan
## High-level project plan and implementation status

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Emmanuel Acheampong  
1 Dec 2004