Money Mining & Sustainability Seminar Seminar Program

The 2- day Money Mining & Sustainability Seminar comprehensively explains the philosophy and methodology behind Whittle Integrated Strategic Planning.

Seminar outline

Integrated Strategic Planning is now regarded as best practice in the mining industry. The 2 – day Money Mining & Sustainability Seminar comprehensively explains the philosophy and methodology behind Whittle Integrated Strategic Planning. It includes an explanation of the processes involved and the benefits derived from developing a Whittle Enterprise Optimisation model.

The seminar explains the 10 distinct mechanisms in a Whittle Enterprise Optimisation model including: pit/underground, phases, mine schedule, cut-off, stockpiles, blend, processing, product mix and specification, logistics and capital. When applied simultaneously these mechanisms produce extraordinary results. Important new techniques and concepts for the mining industry are also explored. These theories include Activity Based Costing (ABC) and Theory of Constraints (TOC). The end result is a powerful analytical approach to decision making across all aspects of a mining operation or project.

The 15 most common reasons for undertaking Whittle Integrated Strategic Planning

Whittle Integrated Strategic Planning is frequently undertaken to:

- 1. Improve cash flow
- 2. Increase Net Present Value (NPV)
- 3. Support Pre-feasibility Studies (PFS) or Feasibility Studies (FS)
- 4. Guide investment decisions
- 5. Raise finance
- 6. Achieve sustainable operations
- 7. Respond to market and contextual changes
- 8. Perform Due Diligence (DD) and/or validate current plans
- 9. Design management processes and systems
- 10. Harness Big Data
- 11. Identify bottlenecks and leverage points
- 12. Embrace complexity
- 13. Enable Business Improvement (BI)
- 14. Rescue distressed assets
- 15. Drive innovation

"The Whittle course was a real eye-opener and essential for any senior execs serious about getting the most out of their assets." Robert Smackman, CEO, Crusader Resources.

"A unique approach to optimising project value and cash flow returns...this is well worth attendance & highly recommended." John Meyer, SP Angel, London.



Seminar participants

The seminar is frequently attended by senior mining executives, geologists, mining engineers, process engineers, metallurgists, logistics managers, department, divisional and project managers, institutional mining fund investors, financial analysts and project financiers.

Ideally senior managers across all business disciplines from the one company should attend together, as the seminar presents the benefits of cross-functional collaboration. Attendance is often the final step in deciding whether to embark an Enterprise Optimisation study, or the first step in doing it. In house seminars can be arranged upon request.

Seminar facilitator - Gerald Whittle, CEO, Whittle Consulting

As the CEO of Whittle Consulting, Gerald has worked in the mining industry for the past 15 years. A recognised thought leader on mining optimisation, Gerald has presented the Money Mining & Sustainability seminar to over 2,500 delegates worldwide. A qualified accountant and an experienced CFO, he has over 30 years in business planning, analysis and change management.



Who are Whittle Consulting?

Whittle Consulting are the leaders in the field of Integrated Strategic Planning. Since 1999, Whittle Consulting has conducted over 150 Whittle Enterprise Optimisation studies for mining companies worldwide. These studies have repeatedly improved the economics of a mining project or operation by 15%, and in many cases substantially more. These results are achieved even after conventional mining optimisation techniques have already been applied.



Effective long term planning can enhance the value of a minerals business by at least 15% and often significantly more.

Seminar Outline Day One

1. INTRODUCTION

- Introductions/Objectives/Participation/Workbooks
- The "MONEY MINING" philosophyThe "SUSTAINABILTY" framework
- Defining Value NPV
- · Pros and Cons of NPV

2. OPTIMISATION MECHANISMS Steps 1 - 6

- Open Pit Case Study: Introduction
 - 0. Base Case life of mine plan
 - 1. Pit optimisation: Lerchs-Grossman
 - 2. Phase/pushback selection
 - 3 Mine schedule
 - 4. Cut-off grade: Ken Lane
 - 5. Stockpiles
 - 6. Blending

3. OPTIMISATION MECHANISMS Steps 7 - 10

- 7. Process plant calibration (grind/throughput/recovery)
- 8. Product specification
- 10. Capital scaling Implications

4. UNDERGROUND CASE STUDY

- · Grade tonnage curves
- Stope design criteria
- Mine scheduling
- Variable cut-off strategies
- · Maximizing value

5. CASE STUDIES

2018 Seminar Dates	
Brisbane, Australia	26 - 27 March
Toronto, Canada	3 - 4 May
Accra, Ghana	28 - 29 May
Perth, Australia	18 - 19 June
Lima, Peru	2 - 3 July
Mexico City, Mexico	9 - 10 July

Seminar Outline Day Two

RECAP DAY 1

6. ACTIVITY BASED COSTING

- · Types of cost accounting
- Traditional Fixed/variable/capital costs
- Activity Based Costing
- · Identifying attributable, period, capital costs
- Frontline, support, backline activities
- Examples

7. THEORY OF CONSTRAINTS

- The production line, impact of bottlenecks
- Theory of Constraints: Eli Goldratt
- Mining case study
- Recommendation 1: Defining constraints
- Recommendation 2: Treatment of period costs
- · Recommendation 3: Grade control methodology/Grade Bins

8. SUSTAINABILTY Step 11

- The "Five Capitals"— Sustainable Development Balance Sheet
- SUSOP Sustainable Operations
- Integrating EO/SUSOP

9. RISK and UNCERTIANTY Step 12

- Sources of uncertainty
- Modelling uncertainty
- Measuring the impact of uncertainty
- Monte Carlo and Optimisation
- Real Options
- Hedaina

10. MONEY MINING and SUSTAINABILTY IMPLEMENTATION

- Technical barriers data, software
- Organisational/human barriers "It's a Minefield"
- Strategic to Tactical operational considerations
- The ideal planning process when and how
- · Where to next?

Seminar Registration

Seminar registration information available at

www.whittleconsulting.com.au/money-mining-seminar

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Seminar Partners























