

Best Practice Guideline for a Life Cycle of Mining Projects

A basis for discussion



Mine Surveyors Competences in Mining Projects

Lignite



Hard Coal



Minerals

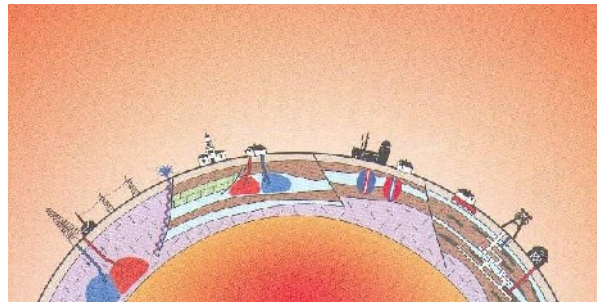
CBM/CMM



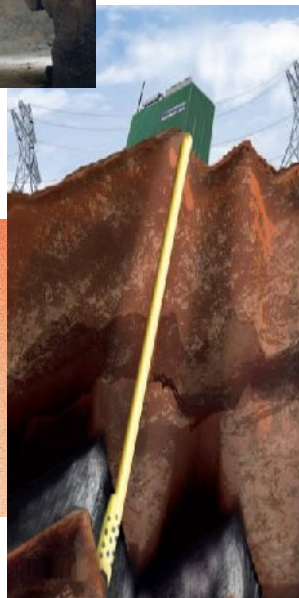
Oil / Gas



Geotechnical Consulting



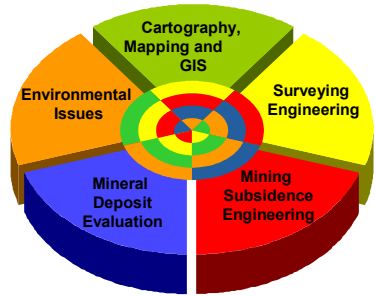
Geothermal Energy



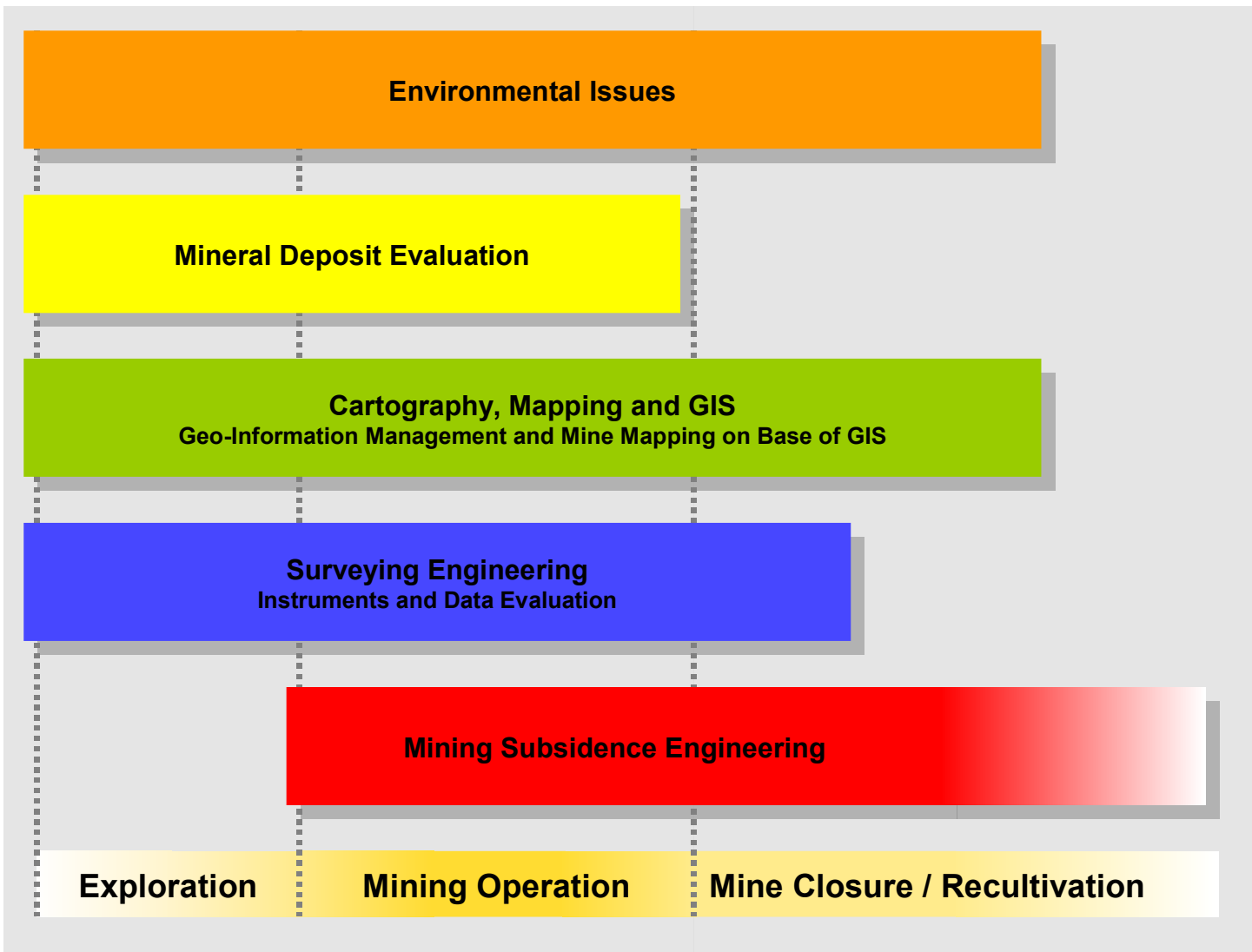


ISM Commissions Competences in Mining Projects

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... during the lifespan of a mining operation





ISM Commissions Competences in Mining Projects

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... during the lifespan of a mining operation

Exploration

- Maps of found minerals for licensing procedures
- Drilling maps
- Maps for environmental planning
- Surveying of the topography
- Surveying for building a local network for following surveyings
- Surveying as the base for any planning
- Calculation of the mineral deposit
- Licensing procedures
- ...





ISM Commissions Competences in Mining Projects

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... during the lifespan of a mining operation

Mining Operation

- Any kind of maps and information management (GIS) for the mining operation
 - Surface infrastructure (railways, roads, harbors, etc.)
 - Open cast and underground infrastructure (shafts, inclines, roads, etc.)
- Any kind of surveying for the mining operation
 - Extension of the underground infrastructure
 - Construction of buildings
 - Documentation and compensation of damages caused by mining activities
 - Dimensions of the deposit (also Geology)
- All issues of mining damages (prediction, surveying, compensation)

Exploration

Mining Operation

Mine Closure / Recultivation



ISM Commissions Competences in Mining Projects

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... during the lifespan of a mining operation

Mine Closure / Recultivation

- Maps and information (GIS) for recultivation
- Environmental issues:
 - End of dewatering activities and effects on the surface
 - Future subsidences, damages or any deformation on the surface caused by the abandoned mining
- Maps of abandoned mines (shafts, open excavations near to the surface, old filled open pits, etc.)
- Surveying of old infrastructure of abandoned mines for other purposes (e.g. CMM)
- Licensing procedures to shut down a mine
- ...

Exploration

Mining Operation

Mine Closure / Recultivation



Summary of the presentation in Kimberley

Best Practice Guideline

1. Proposal of the Structure of a *Full Life Cycle of a Mining Project*
 - Different stages in a mining project
(Chapters of the guideline in chronological order)
 - Different tasks during the several stages
(Content of the chapters)

1. Gradual working out of details for all tasks

1. Continuation and all time maintenance of the *Guideline*



SME

Society for Mining, Metallurgy, & Exploration

Section 8 Mine Exploitation

SCOTT G. BRITTON, ASSOCIATE EDITOR AND SECTION COORDINATOR



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„Attention is given to all branches of mining--metal, coal, and nonmetal--and to all locales of mining--surface, underground, and hybrid.

Although the main emphasis is US mining, numerous references are made to international practice.

More than 250 experts contributed to this text divided into 25 sections followed by a complete index.“



Best Practice Guideline

- **1st idea: Build a framework (see slides before) and fill it with text**
 - **To write a new book means:**
 - **a lot of work and time for investigations, writing and editing**
(see also the efforts for the SME handbook)
 - **one more book among a huge number of other books about the same area of knowledge**
 - **not easy to keep a new book updated**
- **2nd (better) idea: Build a framework (see slides before) and fill it with links**
 - **To find appropriate links means:**
 - **make enquiries about existing literature**
 - **build a bibliography of existing literature on special focuses**
 - **create links between the framework and the bibliography**
 - **same work on doing the enquiries but less work for writing and editing**
 - **easier to keep a framework of links than of testes updated**



Best Practice Guideline

- **2nd idea: Build a framework and fill it with links**

→ **Necessary steps:**

- 1. build a tentative framework to be the kickoff for further work**
- 2. make enquiries about existing literature**
 - **can be done parallel by several investigators (all interested users)**
 - **the workload is spread out on more than one person**
(writing a text is more or less done by one person)
 - **use of the outcome of already existing enquiries for recent projects**
(real experiences of done work)
 - **easier to integrate personal experiences**
 - **one link can be used for more guideline aspects**
(easier than for written texts)
- 1. discuss the links concerning how to place them into the framework**
 - **easier to build and maintain a living framework of links than of texts**
 - **improvements can quickly be implemented by a minimum of work**
(much more quicker than for written texts)



Best Practice Guideline

- **2nd idea: Build a framework and fill it with links**

→ **Benefits:**

1. easy to add appropriate links

- **framework and its bibliography is immediately updated**
- **pass on own results of literature enquiries or other solutions**

2. links can be rated by all users

- **easy to follow experiences of other skilled users**
- **easy to pass on own experiences with existing links to other users**

3. framework of links is maintained by all users (real living experiences) and not only by one person (the author or editor) and his idea of mine surveying

1. framework may not be fixed in advance but might be open for new ideas