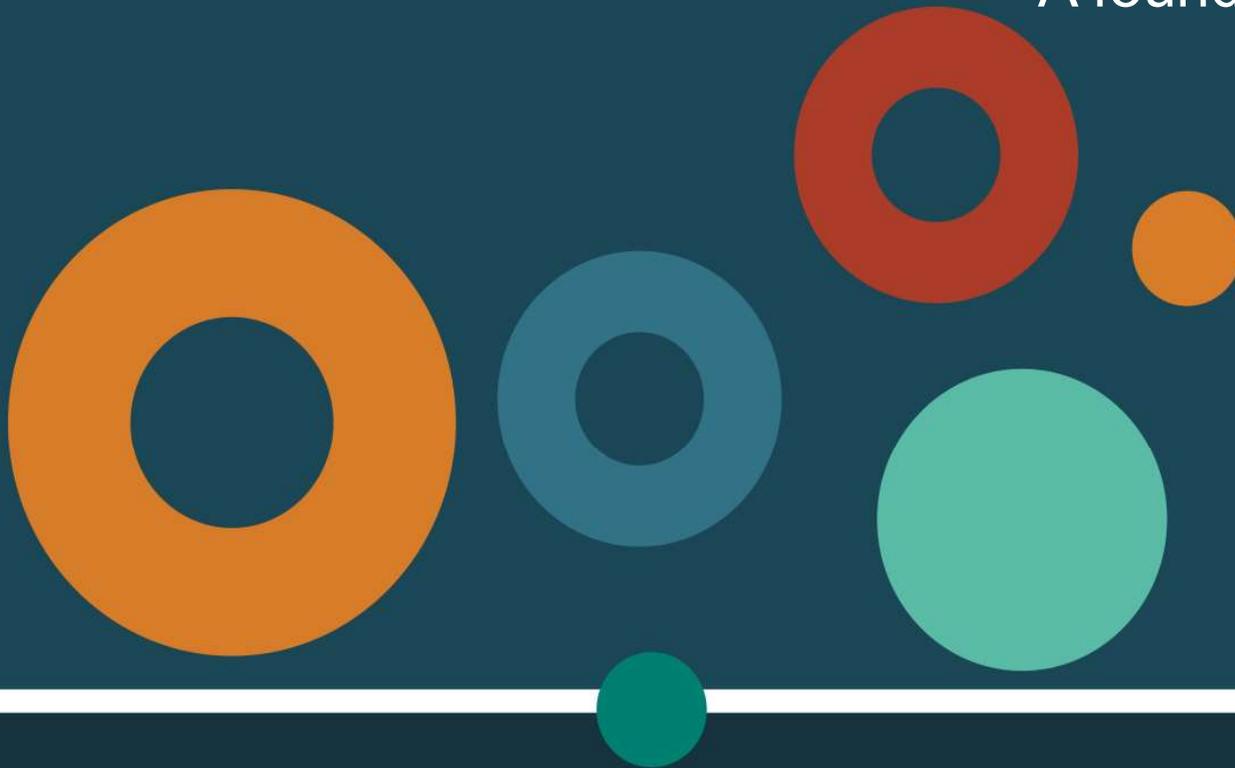




Next Technical Workshop
2nd week of June
Townsville

Mineral & Coal Reporting Guideline

A foundation for Data Driven Exploration



Timeline



2016

Reporting Guideline Published

- Preserved “current state”
- Clarified Regulation
- Digital lodgement – Production/Reserves
- Limited report types

New Draft Reporting Guideline

- Improved specifications
- Reduced report body
- Applied industry standards and best practice for data management
- Developed submission templates

2019

Engagement

- ◇ Internal Consultation
- ◇ Industry Consultation
- ◇ Incorporate feedback

2020

Final Reporting Guideline

- Consideration of feedback
- Testing template compatibility
- Draft and finalise guideline
- Finalise submission templates

Key Dates



DATE	ACTION
29 th March 2019	Draft Available for feedback
2 nd April 2019	First industry feedback and information forum - 1 William St
29 th May 2019	End of feedback period
1 st July 2019	Release of updated guidelines for industry use (transition period)
1 st July 2019 – 1 st July 2020	Engagement and information period - Multiple workshops in city and rural areas
1 st July 2020	Guidelines become mandatory

Draft guideline + templates released for feedback	New reporting guideline + templates are available for use by industry	New regulation takes effect
March 2019	1 July 2019	1 July 2020
Feedback period	Transition period - optional use	Mandatory use

Intent and Drivers for Change

■ Intent

- Enhance content and reduce duplication
- Optimise data transfer efficiency and utility
- Improve data quality



■ Drivers

- Reduce data management costs
- Increase industry investment
- Better and more informed decisions



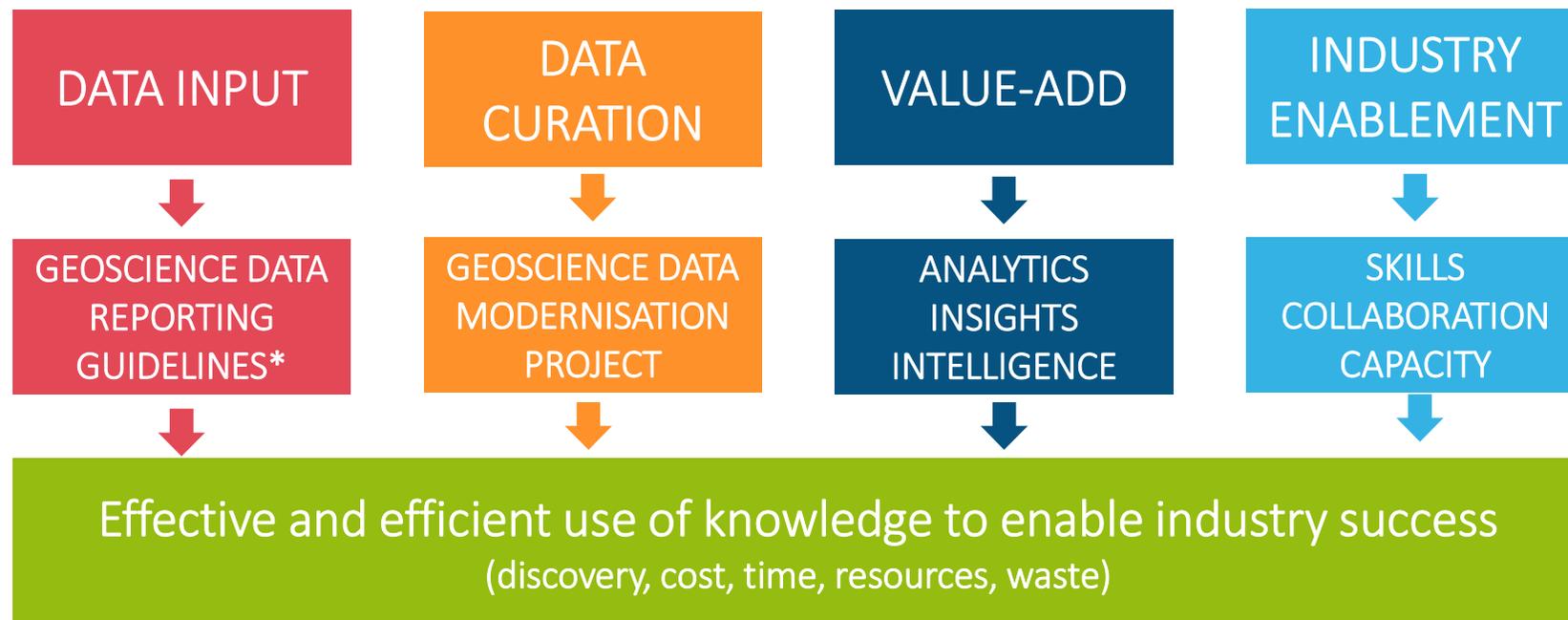
Key Issues



- Currently, less than 10% of all open file data is publically accessible on GSQ systems
 - Mostly seismic data missing
 - Minerals data in better shape, but not as good as it should be
- Geoscience Data Modernisation Project
 - Aims to facilitate data-driven exploration
 - Improved data quality
 - Improved data discoverability

Geoscience Data Modernisation

Data-Driven Exploration

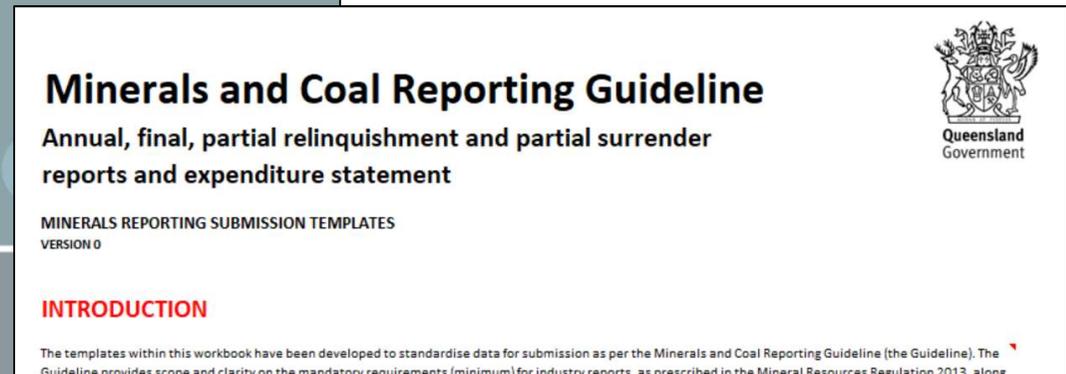
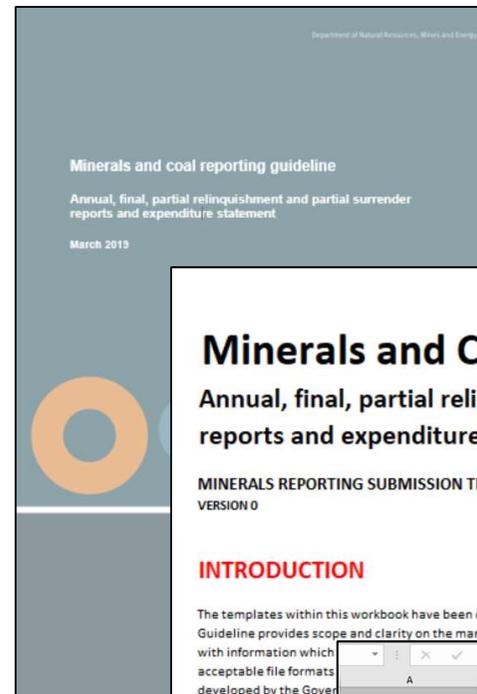


* Draft Mineral & Coal Reporting Guidelines available for Industry feedback after 29th March 2019

Draft Reporting Guideline

New look and feel

- Improved design and formatting
- Easier navigation
- Language concise and consistent
- “Common Requirements”
- Legislative references incorporated
- Templates for data submission developed



FIELD	DRILLHOLE_ID	LONGITUDE	LATITUDE	DEPTH_DATUM	DEPTH_DATUM_ELEV	TOTAL_DEPTH
GGIC CODE	H1000					
MANDATORY	Y	Y	Y	Y	Y	Y
DATA TYPE	VARCHAR2	NUMBER	NUMBER	VARCHAR2	NUMBER	NUMBER
DATA LENGTH	255	14,9	14,9	40	10,5	10,5
STANDARD UOM/FORMAT	-	DECIMAL DEGREES	DECIMAL DEGREES	-	METRES	METRES
STANDARD DECIMAL ACCURACY	-	6	6	-	1	1
DEFINITION	DRILLHOLEID: Unique name and/or number assigned to the drillhole by the operator.	LONGITUDE: Angular distance in decimal degrees, east or west of the prime meridian. A negative value represents a west longitude.	LATITUDE: Angular distance in decimal degrees, north or south of the equator. A negative value represents a south latitude.	DEPTH DATUM: The point from which all depths are measured in a drillhole. For example: Drillpipe Collar (DC) or Ground Level (GL).	DEPTH DATUM ELEVATION: Operator reported elevation of the measurement datum used as a reference for other measured drillhole points. It is mandatory to report this in metres with elevation referenced to Australian Height Datum (AHD).	TOTAL_DEPTH: Total or maximum measured depth of the drillhole as stated by the operator/driller relative to the depth reference datum. It is mandatory to report this in metres.

Data Templates

- Data templates developed in Excel
- Simple instructions, template dictionary



	B	C	D	E	F	G	H	I	J	K	L
1	DRILLHOLE_ID	STATION_MD	INCLINATION	AZIMUTH	SURVEY_TYPE	SURVEY_COMPANY_BA_ID	SURVEY_START_DATE	SURVEY_END_DATE	DOG_LEG_SEVERITY	DOG_LEG_SEVERITY_OUOM	COMPUTE
2	H1000				H0532	H0533					
3	T	T	T	T	T	T	T	T			
4	VARCHAR2	NUMBER	NUMBER	NUMBER	VARCHAR2	VARCHAR2	DATE	DATE	NUMBER	VARCHAR2	VARC
5	255	10,5	10,5	10,5	40	40	DATE	DATE	10,5	40	4
6	-	METRES	DEGREES	DEGREES	-	-	DD-MMM-YYYY	DD-MMM-YYYY	-	-	-
7	-	2	0	0	-	-	-	-	-	-	-
8	DRILLHOLE ID: Unique name and/or number assigned to the drillhole by the operator.	STATION MEASURED DEPTH: Depth measured along the drillhole from the depth reference datum to the survey station. It is mandatory to report this in metres.	DRILLHOLE DIP: The angle (in degrees) at surface of drillhole deviation away from the vertical. 0 degree inclination is horizontal and -90 degree inclination is vertical (downward).	AZIMUTH: The angle (in degrees) of clockwise departure from true north to the drillhole direction.	REPORT SURVEY TYPE: Type of tool or equipment used to acquire the directional survey (e.g. MWD, Gyroscopic, MultiShot Camera etc).	SURVEY COMPANY BUSINESS ASSOCIATE ID: The company or entity that conducted the downhole survey.	SURVEY START DATE: Date the directional survey commenced. It is mandatory to report this in DD-MMM-YYYY format.	SURVEY END DATE: Date the directional survey was completed. It is mandatory to report this in DD-MMM-YYYY format.	DOG LEG SEVERITY: The rate of change in the wellbore inclination at the survey station.	DOG LEG SEVERITY OUOM: The original unit of measure for the dog leg severity value.	COMPUTE METH: Method used to calculate attribute value. Directional Survey Curvature, Mini-Balanced Tangent
9											
10											
11											
12											
13											
14											
15											
16											

TEMPLATE_NOTES

VALIDATION_DICTIONARY

TENEMENT

DRILLHOLE_LOCATION

DRILLHOLE_SURVEY

GEOCHEMISTRY_DRILLH ...



Report Component Information

Mandatory Information

2.8.2 Data – Drillhole Survey

Detailed information must be provided for any directional surveys conducted in a drillhole. If multiple drillholes (e.g. sidetracks, daughter holes) exist for a single parent hole, a directional survey must be provided for each, and referenced back to the drillhole origin at surface. Depths must be referenced to the reference datum supplied under Data – Drilling. Directional surveys must include the following

minimum information:

- drillhole name and/or number
- measured depth
- the inclination, in degrees from horizontal (-90 as vertical downward), and azimuth, in degrees from true north
- the survey type (e.g. MWD, Gyroscopic, Multishot Camera)
- surveying company and the survey unique identifier
- the dates on which the survey was conducted
- survey accuracy

Good Practice Information

As good industry practice, where relevant data is available, the following should be reported:

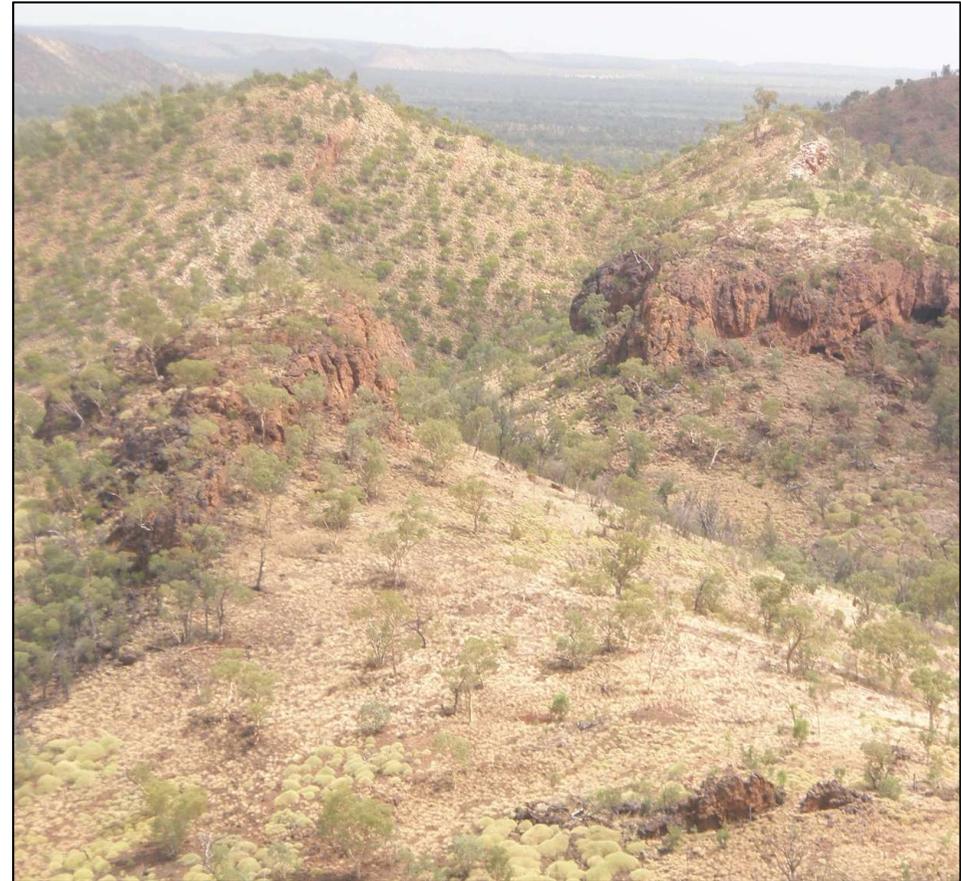
- dog leg severity (DLS)
- the survey computation method.

As **good industry practice** all holes drilled with the purpose of extracting, producing, or mining hydrocarbons should be reported as per the current Petroleum & Gas Guideline.

Report Submission



- Will remain the same
 - Report (word or .pdf)
 - Data files (as .csv)
 - Through QDEX Data
 - Production/sales through My Mines Online
- Future
 - Online forms.... But not there yet



Next Steps

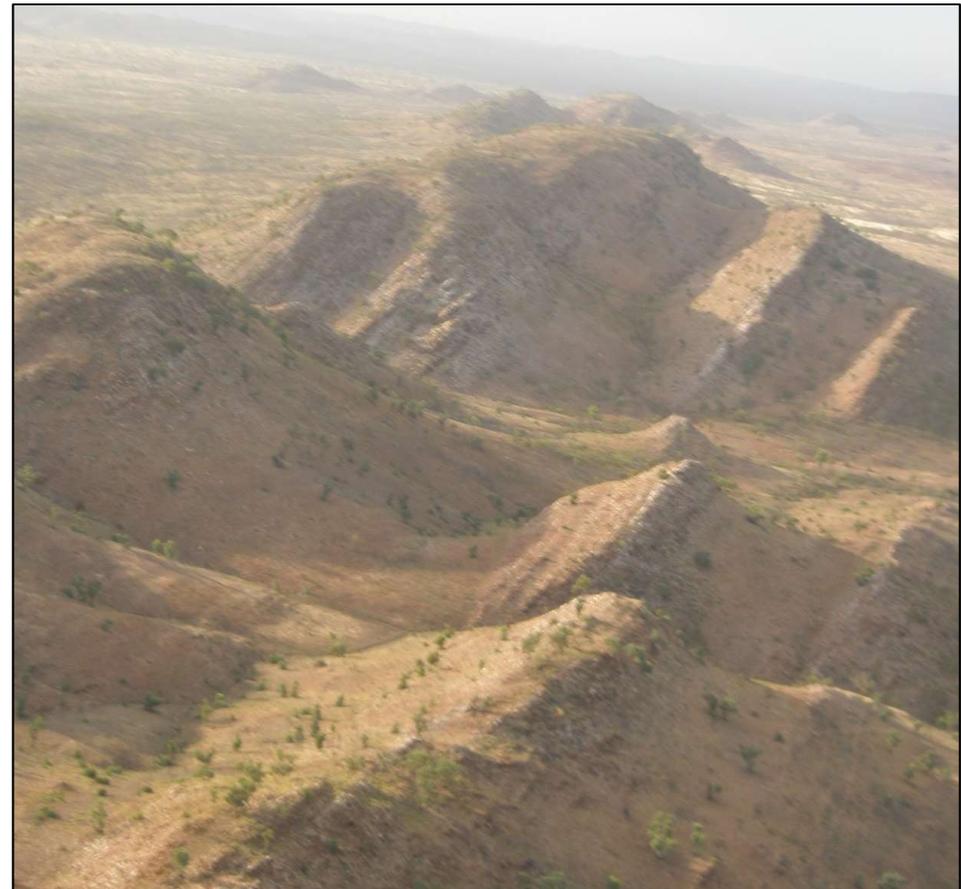
- **Draft release – 29th March 2019**
- **Feedback Period – April-May 2019**
 - Workshops to be run at GSQ
 - **2nd April 2019**
 - QEC/QRC + AMEC members
 - **7th May 2019**
 - Additional information sessions through QRC
 - Dates to be confirmed
 - Guideline revisions from 29th May 2019



Next Steps



- **Final Guideline Release – 30th June 2019**
 - 12 month transition period
 - Regulatory amendments
 - Further workshops and information sessions
- **Full Implementation - June 2020**





Mineral and Coal EXPLORATION Guideline

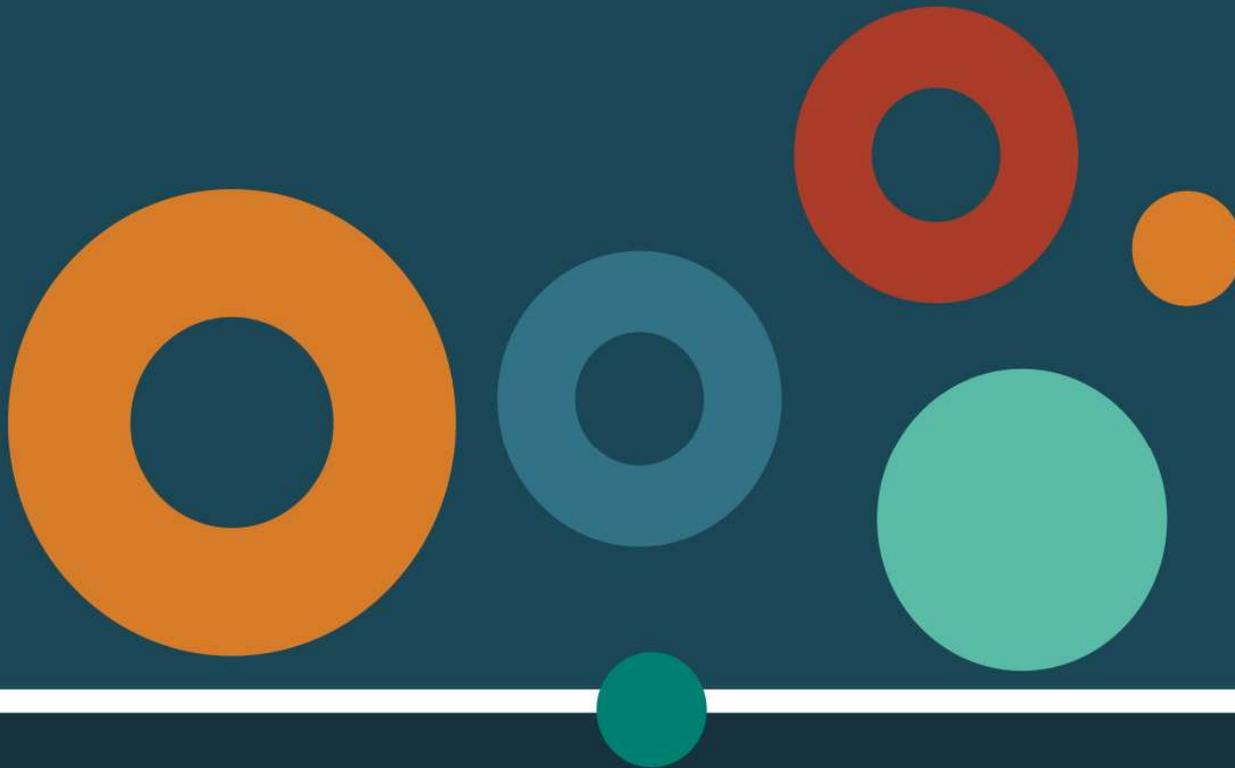
NWMP Strategy for licence assessment

North West Mineral Province

The North West Mineral Province (NWMP) is the highest value mineral province in the State. This region holds potential for world class high value discoveries, especially under areas of younger cover. It is attracting significant exploration investment from major international exploration and mining companies.

To ensure the best outcome for the State, assessment of applications made within the NWMP will be guided by some resource authority management principles that advance the potential of the area through innovation, exploration, discovery and mine development.

Confidentiality of Geoscience Data: opportunity creation or loss?



Tony Knight
Chief Government Geologist
Feb 2019

Problem statement



Loss of opportunity and benefit

- Current reporting and associated confidentiality provisions relating to *Mineral Resources Act* tenures makes data **unavailable** or so long **delayed** as to be of **little use**.

What do we need to do?

- Remove or lower barriers to new entrants obtaining information
- Improve productivity, efficiency, efficacy and success of exploration companies

Broader impacts

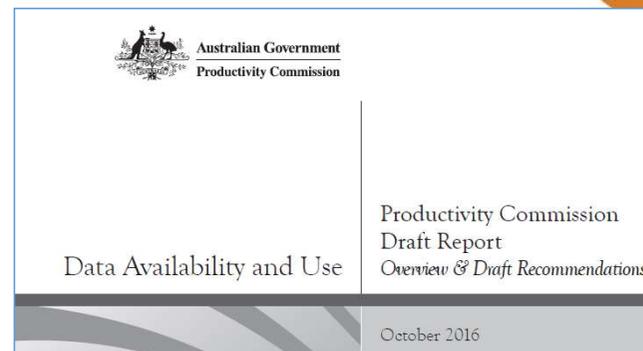
- Environmental and community/non technical risk
 - Inability to locate and determine status (open, suspended, plugged etc) of legacy holes
- Runs counter to the objectives of the MRA – to “encourage and facilitate prospecting and exploring for and mining of minerals”

Accessibility

What do we need to do to improve it?

Major issue: Address confidentiality restrictions

- A large amount of data held by GSQ is not publicly available
- Confidentiality restrictions are a major limiting factor
- Lack of data is a limiting factor in enabling industry exploration success
- Contrary to contemporary approaches at national and state level – Open vs Closed data



Access denied — Australia's lost opportunities



Fundamental change is needed



Confidentiality – current state

Petroleum & Gas Act

- **Exploration**
 - *2 year confidentiality term for exploration & appraisal wells, seismic etc*
- **Production**
 - *5 year confidentiality for development wells*
 - *6-month confidentiality period for bi-annual reporting of reserves and production*

Mineral Resources Act

- **Exploration**
 - *Nil*
- **Production**
 - *Nil*

Policy position has been for MRA confidentiality to run life of tenure

Confidentiality – change

***Mineral Resources Act* amended in
Oct 2018**

New provision inserted – s382

**Gives power to establish
confidentiality and data release
measures**

Part 6

Releasing required information

382 Public release of required information

- (1) A holder of a mining tenement is taken to authorise the chief executive to do the following in relation to required information for the mining tenement after the end of any confidentiality period prescribed by regulation—
 - (a) publish, in the way prescribed by regulation, the required information for public use;
 - (b) on payment of a fee prescribed by regulation, make the required information available to any person.
- (2) A confidentiality period prescribed under subsection (1) does not apply if the required information is about an authorised activity carried out in an area that is no longer in the area of the mining tenement.

Example—

The required information is a seismic survey carried out on particular land in the area of an exploration permit. Subsection (1) does not apply if all of that land is reduced from the area of the permit.

- (3) The authorisation is not affected by the ending of the mining tenement.

Confidentiality – future state



Objectives

1. Set confidentiality timeframes for Mineral Resource Act tenures
2. Create a more even playing field between Minerals and Petroleum
3. Enable data-driven exploration

Proposals

Standard **two-year confidentiality term** across exploration and production tenures for *Mineral Resources and Petroleum and Gas legislation/regulation*.

Confidentiality – future state



Considerations

1. Special Provision – extension of confidentiality term

- Not preferred as it:
 - counters the fundamental approach of realising the full value of data,
 - counters government and Productivity Commission efforts to make data more open
- If deemed essential, would likely be **strictly conditioned**, and imposed with **cost structures** so as to prevent casual use.
- Any mechanism would likely include significant annual cost and escalation factors, with an upper term and total limit of **not more than 5 years**.



Discussion