Minerals and Energy Resources Industry Forum

Rachael Cronin, Deputy Director-General, Mineral and Energy Resources
Safety Share

Have you subscribed to the DNRME Safety Alerts?

Fatality involving an articulated dump truck
Mines safety alert no. 358

What happened?
On Sunday 29 July the operator of an articulated dump truck was working at a quarry with his last load of the day. Moving fully loaded down the access ramp, it appears he lost control of the vehicle. At the bottom of the ramp the vehicle overturned (see photo), partially pinning the operator under the cab. He later succumbed to his injuries.

How did it happen?
The incident is still under investigation.

Recommendations:
- Site senior executives must ensure machines are operated with reference to original equipment manufacturer (OEM) specifications.
- Site safety and health management systems must include safety requirements as stipulated by the OEM with respect to the use and maintenance of safety critical items.
- Site senior executives must ensure that all equipment on site is suitably maintained and serviced in accordance with OEM requirements and site specific hazards. Service and operational manuals for equipment must be available on site.
- Site senior executives must ensure all workers are competent to perform tasks on site and are competent on the particular equipment being operated. A record of the training must be maintained to show that workers possess the relevant competencies.

Topics and Speakers

- **Data Driven Exploration** - Tony Knight, Chief Government Geologist

- **Queensland Exploration Program** – Warwick Squire, A/Executive Director, Statewide Operations

- **Mine Rehabilitation and Financial Assurance Reform** – Andrew Grabski, Program Executive, Infrastructure Management

- **Groundwater Impacts** – Darren Moor, Executive Director, Central Region

- **Tenure Management System** – Bernadette McNevin, Director, Mineral and Energy Resources Policy

- **Lodgement of Environmental Authority Applications** – Leanne Barbeler, Director, Resource Sector Regulation and Support, DES
Data driven exploration

An overview of the Geoscience Data Modernisation Program

Tony Knight, Chief Government Geologist
Data driven exploration

Does our geoscience data ecosystem enable industry success?
Data driven exploration

Research ≠ Discoveries

TIME

DEPTH

Increase in research


100m 200m

Lady Loretta Pegmont Starra/Mt Dore Maronan Eloise Ernest Henry Cannington Century Osborne/Kultur Grevillea Rocklands Merlin

Decline in discovery

Knowledge transfer gap

EXPLORATION ACTIVITY

RESEARCH + NEW DATA
Effective and efficient use of knowledge to enable industry success
~ discovery, cost, time, resources, waste
Data driven exploration

- Data input
- Geoscience data reporting guidelines
Data driven exploration

Data curation

Geoscience data modernisation program

Mining Tenures Data Base computer

The Minister for Mines and Energy, Mr Merlin Tenen, officially turned on a computer on September 5 which will be the central “brain” for a $1.8 million computerization of Queensland’s Mining Tenures Data Base.

The system which will see smaller units placed in Mines Department offices throughout the State, is expected to be fully operational about mid-year.

The new $700,000 Prime, which is several megabytes bigger than the existing Mines Department computer (which is used mainly for scientific and geological computations) arrived at the Department of Mines office in Mary Street late in August.

The Prime computer model 4090 has 24 Megays of memory, 3.99 Gigabytes of disk storage, ORACLE subroutines data base software and ARC/INFO graphical information system software.

It is also linked to an Ethernet data communication system recently installed in the OMEC building.

This network will be extended to each of the Department’s proposed regional offices throughout Queensland during 1988.

It is intended to provide access to the Data Base stored in the new computer from the linked regional offices throughout the State.

Each regional office will have its own $60,000 computer, and those make up the remainder of the $1.2 million equipment order.

The Minister for Mines and Energy, Mr Merlin Tenen, switches on the Prime computer which will be at the centre of the Mining Tenures Data Base.

MERLIN September 1988
Geoscience data modernisation program

- GDMP Pilot
- Data61 Strategy
- Gartner advice
- Understanding of GSQ’s data problems

Best practice research
Geoscience data modernisation program

Data lake pilot

- Industry Data & Reports
- Data Upload
- Automated Data Validation
- Search & Data Discovery
- Data Access APIs
- Data Lake
- Data Catalog
- Spatial View of Data
- Integrate Current Data Stores (QDEX)
- Legacy Data Ingress
- Parse Unstructured Data
Data driven exploration

DRAFT North Western Mineral Provenance
data-driven mineral exploration
Data driven exploration

Pooling data for bigger & better results

Industry enablement

Skills Collaboration Capacity

CORE Skills unveils Data Science industry skills collaboration

Innovation and Collaboration Platform for the Oil and Gas Industry
Further information

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Queensland exploration program

Warwick Squire – A/Executive Director, Statewide Operations
Program objectives

• Support the resources sector, thus supporting:
  • Economic growth
  • Regional development
  • Jobs
• Assist companies plan activities
• Early communication
Releases under the QEP

- 29 areas for P&G
  - 3 releases

- 10 areas for coal
  - 2 releases

- 18 month release schedule

- All areas - EOIs from industry
Stakeholder engagement

• Better prepare stakeholders by providing information early

• Engagement with:
  • 1000+ landholders
  • 15 Traditional Owner groups
  • 15 local governments

• ‘Touch points’
  • prior to release of QEP
  • on release of each tender
  • at tender outcome
Expressions of Interest

• All areas nominated through EOIs.
• Assessment based on social, environmental and economic factors.
• Next EOI process will open later this year.
• Subscribe:  
  www.dnrme.qld.gov.au/resources-tenders
Tender process

Call for Tender & tender opened → Tender closes → Evaluation of tender submissions

Ministerial approval → Appointment of preferred tenderer → Grant of exploration authority
Tender evaluation criteria

• Special criteria
  • Australian Market Supply Condition (select P&G only)
  • Diversity and efficiency (P&G only)
  • Community, resource legislation, environmental, health and safety, cultural heritage and native title
  • Cash bid component

• Capability criteria
  • Financial capability
  • Technical resources
  • Ability to manage exploration and production

• Work Program criteria
Summary

• QEP contributing to regional economic development and jobs
• Provides certainty and transparency for stakeholders
• Responsive to industry demand – EOI’s
• 18 month program with 39 areas release areas
• Clear and robust tender assessment process
Further information

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Mine Rehabilitation and Financial Assurance Reform

Andrew Grabski, Program Executive, Infrastructure Management
Objectives

• Protect states financial interests
• Deliver a high level of environmental performance
• Satisfy community expectations
• Provide incentive for resources sector investment
Reform Agenda

• Financial provisioning scheme
• Acceptable sureties
• Rehabilitation policy
• Sites in care and maintenance
• Change of control and disclaiming of resources assets
• Residual risk at relinquishment
• Enhanced abandoned mines program
Legislative Reforms

- Mineral and Energy Resources (Financial Provisioning) Bill 2018
  - Establishment of FA Scheme and Scheme Manager
  - Risk category allocation
  - Fund contributions and surety
  - Fund Payments
  - EP Act amendments (including PRCP, PMLU&NUMA)

- Anticipate bill to be debated in late 2018
Rehabilitation and Related Issues

• Reforms expected to commence in 2019 including requirements for Progressive Rehabilitation and Closure Plan (PCRP)

• Recent discussion papers (now closed) include:
  o Care and Maintenance / Change of Control / Disclaimed Mines
  o Addressing the State’s abandoned mines legacy

• Residual risk discussion paper anticipated late 2018
Reclassification of Abandoned Mines:

Legacy & Terminated Sites

- Consistent with modern mechanised mines
- Approximately 102 sites identified (57 Priority & 45 Surveillance)
- Priority is to **Re-commercialise, Repurpose**, or **Remediate**

Historical mining disturbance

- Very small to small scale (shafts, adits, costeans, mullock)
- Comprises remainder of the 15,000
Summary

- Financial Assurance Framework and Rehabilitation Reform

- *Mineral and Energy Resources (Financial Provisioning) Bill 2018*
  - Rehabilitation Provisioning Fund
  - Progressive Rehabilitation and Closure Plans

- Residual risk discussion paper anticipated late 2018

- Expanded Abandoned Mines Program

- Recommercialise – Repurpose - Remediate
Further information

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Groundwater Impacts

Darren Moor, Executive Director, Central Region

Department of Natural Resources, Mines and Energy

Queensland Government
Queensland has two management frameworks:

- Water planning & allocation framework (DNRME)
- Underground water rights & obligations (DES)

Chapter 3 *Water Act 2000* (CSG/mining)
Water Planning and Mgmt

Catchment based

Scientifically robust

Consultative process

Queensland Water Plan Areas

Legend

- Water plan area

0 100 200 300 400 500 Kilometres

Cape York (in progress)

Mitchell

Barron

Wet Tropics

Pioneer

Whitsunday

Burdekin

Cooper Creek

Fitzroy

Burnett

Condamine - Balonne

Warrego, Paroo, Bulloo and Neine

Monnie

Border Rivers

Logan

Gold Coast

Moreton

Boyne

Baffle

Mary

Legend

Water plan area

0 100 200 300 400 500 Kilometres
Water planning and management

- Great Artesian Basin and Other Regional Aquifers Water Plan sets a framework to sustainably manage Queensland's Great Artesian Basin for the next 10 years.
- Takes CSG and mining water use into account.
- GABSI has saved over 200,000 ML per annum.
- Over 160 bores and around 5,500 km of bore drains yet to be rehabilitated.
QLD Department of Environment and Science (DES)

*Environmental Protection Act 1994*

**Environmental Authority (EA)**

*Water Act 2000 – Chapter 3 (shared with DNRME)*

**Make good agreement (MGA)**

QLD Department of Natural Resources, Mines and Energy (DNRME)

*Mineral Resources Act 1989*

**Resource Authority Conditions (ML)**

*Mineral and Energy Resources (Common Provisions) Act 2014*

*Water Act 2000 – Chapter 2, Chapter 9*

**Water Planning and Licencing**
## Right to Take Associated Water

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<th>Pre 7 December 2016</th>
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<td><strong>P &amp; G</strong></td>
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**Notes:**
- Pre 7 December 2016: P & G has the right to take both associated and non-associated water.
- Post 7 December 2016: P & G has the right to take associated water, but not non-associated water.
Underground water and resource tenure holders:

- Framework provides a right to take associated water as a necessary activity as part of the process of extracting the resource.
- Extraction of associated water can impact water levels in adjacent aquifers.
- With their rights, resource tenure holders have an obligation to comply with the underground water management framework under the *Water Act 2000*. 
Groundwater impact assessment

- *Water Act 2000*, Chapter 3
- Underground Water Impact Reports (UWIRs)
- Bore baseline assessments
- ‘Make Good’ obligations
- Office of Groundwater Impact Assessment (OGIA)
  - Independent statutory office to support management of groundwater impacts from petroleum and gas and mining development
  - Funded through industry levy
  - Primary driver is the assessment and management of impacts in ‘cumulative management areas’ (CMAs)
‘Make Good’ obligations

- Tenure holder ‘make good’ obligations:
  - undertake bore assessment
  - enter into ‘make good’ agreement with bore owner
  - comply with ‘make good’ agreements
  - if requested to, vary an agreement and enter into negotiations
Associated water licence

• Transitional provision - captures approx. 35 projects

• Required for a mining tenure if before 6 December 2016:
  • an environmental authority (EA) was granted; or
  • an application for EA or EA amendment was made; or
  • project was notified as a coordinated project; and
  • project was previously required to hold a water licence or water permit to take or interfere with underground water.

• Projects that were granted/operational at introduction, were deemed to have an AWL.
Associated water licence

- Lodging an objection = right to apply for a merit based review.
- Water Act requires DNRME to consult with DES.
- Mining tenure must be granted before an application for an AWL can be decided.
- Becoming routine business with settled conditioning – intended to align and complement EA conditions
Reporting obligations

• MR Act requires that the volume of take of associated water be reported to DNRME.

• Occurs annually via QDEX
  • 5.6GL – Mineral and Coal for 2016/17 (including 2.4GL in the Bowen Basin)
  • 6GL – Surat CMA (P&G only) for 2016/17
Summary

- Water framework – Planning/allocation or impact management
- P&G and Mineral/coal projects have the same rights and obligations
- AWL’s are a transitional provision – applications are case managed
- Quality modelling improves timeframes for AWL’s
Further information

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Proposed Changes

Mineral Resources Act 1989

Exploration permit changes

- Relinquishment – timing – 50% on renewal
- Relinquishment – variation – only to distribute across EPs
- Renewals - limited to two – 15 years total life
- Extension - after all renewals / in exceptional circumstances + 3 years
- Work programs - outcomes-based / prescriptive
Petroleum and Gas (Production and Safety Act) 2004

Changes proposed to

- Authorities to prospect
- Potential commercial areas (PCAs)
- Petroleum leases (PLs)
Proposed Changes

Petroleum and Gas (Production and Safety Act) 2004

Authority to prospect changes

• Relinquishment of 50% at end of year 6
  • Special amendments – to spread relinquishment not reduce it

• Work programs –
  • Initial work program is prescribed to year 4 then outcomes-based
  • Later work program can be outcomes-based
Other authority changes

- Removing the size limit on PCAs and PLs to reduce multiple applications
- Allow amalgamation of PLs

Change to geoscience data confidentiality periods

- Shortening the five-year period for production authority data to stimulate industry investment
Legislative amendments

- **Existing mineral and coal exploration permits**
  - Renewals – two more renewals
  - Relinquishment
    - nil on first renewal
    - 50% on second renewal
  - Extension of 3 years only in exceptional circumstances

- **Existing authorities to prospect**
  - Option to convert to an outcomes based work plan
  - No change to relinquishment requirements
  - Special amendments – to spread relinquishment not reduce it
Summary

Mineral Resources Act

• Exploration permits
  • Relinquishment
  • Renewals
  • Extension
  • Work programs

Petroleum and Gas (Production and Safety) Act

• Authorities to prospect – relinquishment and work program
• Potential commercial areas – no size limit
• Petroleum leases – no size limit

All authorities

• Changes to data confidentiality period
What’s new?
Improving resource approval efficiency
Consultation

Consultation with industry and interested parties

• How can we improve the efficiency and timeliness of end-to-end approval processes?

• Public consultation opened yesterday on Get Involved website

• Targeted consultation with industry peaks, conservation groups and legal associations

• Go to getinvolved.qld.gov.au – search for ‘resource approval’ or ResourcesPolicy@dnrme.qld.gov.au

• Consultation closes on 4 October 2018
Further information

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Lodgement of Environmental Authority Applications

Rachael Cronin Deputy Director General - MER
Leanne Barbeler Director Resource Sector Regulation and Support
• Department of Environment and Science (DES) have a digital platform – **Connect** – for online services and transactions e.g. environmental authority (EA) applications, annual returns etc.

• Petroleum and gas most commonly use **Connect** as an entry point for EA applications but mining EA applications have to date been lodged through MMOL.
What will change:

- Customers will need to make their EA applications online through Connect (paper applications will still be accepted)
- Two step process - EA application made after the tenure application is accepted and a tenure number issued
- Connect fee applies –
  - 7% of the application fee, capped at maximum of $70
Benefits of Connect:

- Submitting directly to DES will result in more responsive service
- The standard EA can be issued automatically (versus 20 business days if paper based/emailed)
- Self manage address and contact details
- See EA application status
- See the issued EA at any time
- 24 hour access
• **Lodge Applications:**
  - Permit and Licence Management
    Department of Environment and Science
    GPO Box 2454
    Brisbane QLD 4001

• **Connect Support:**
  - 1300 130 372 (option 6)
  - connecthelp@des.qld.gov.au
  - Includes guidelines on how to become a connect user
Closing Remarks and Q & A

Rachael Cronin, Deputy Director General, Minerals and Energy Resources