



ERA

Energy Resources of Australia Ltd

Visitor site briefing

Monday 19 October 2015





Forward-looking statements

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Nothing in this presentation should be interpreted to mean that future earnings per share of ERA will necessarily match or exceed its historical published earnings per share.

All currency mentioned in this presentation is in Australian dollars unless otherwise stated.

Competent Persons

The information in this presentation that relates to exploration results, mineral resources and ore reserves is based on information compiled by geologists Greg Rogers (a full time employee of ERA) and Stephen Pevely (a full time employee of ERA). Greg Rogers and Stephen Pevely are members of the Australasian Institute of Mining & Metallurgy and have sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration, and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Greg Rogers and Stephen Pevely consent to the inclusion in this presentation of the matters based on their information in the form and context in which it appears.



Welcome to Ranger mine





Acknowledge Traditional Owners

- The mining operations of Energy Resources of Australia Ltd (ERA) are located on Aboriginal land and are surrounded by, but separate from, Kakadu National Park
- ERA respectfully acknowledges the Mirarr, Traditional Owners of the land on which the Ranger mine is situated



Uranium – powering the world

ERA's uranium is used to produce electricity to power these and many other global cities



Los Angeles



Yokohama

- Very common metal; more abundant than gold and silver
- Large amounts of uranium occur at low concentrations in the world's oceans
- Only 0.7% of naturally occurring uranium is the radioactive U235 isotope - enriched to 4% for nuclear power use
- Important source of energy in a carbon-constrained world
- Nuclear power is one of the lowest emitters of greenhouse gases



One 400 kg drum of uranium oxide

=

6,600 tonnes of coal



Enough power for a
small town (4,500
people) for a year



Approximately 66 rail cars



Saving around 15,000 tonnes of CO₂
emissions into the atmosphere



Ranger mine overview

- Ranger mine has produced over 110,000 tonnes of uranium oxide over three decades
- Currently processing stockpiled ore following the completion of open cut mining in 2012
- Indigenous employment represents approximately 12 per cent of workforce
- Approximately 370 employees and contractors
- Ranger mine is the most regulated and scrutinised mine in Australia
- The environment surrounding Ranger mine has remained protected since mining began more than 30 years ago





Safety performance



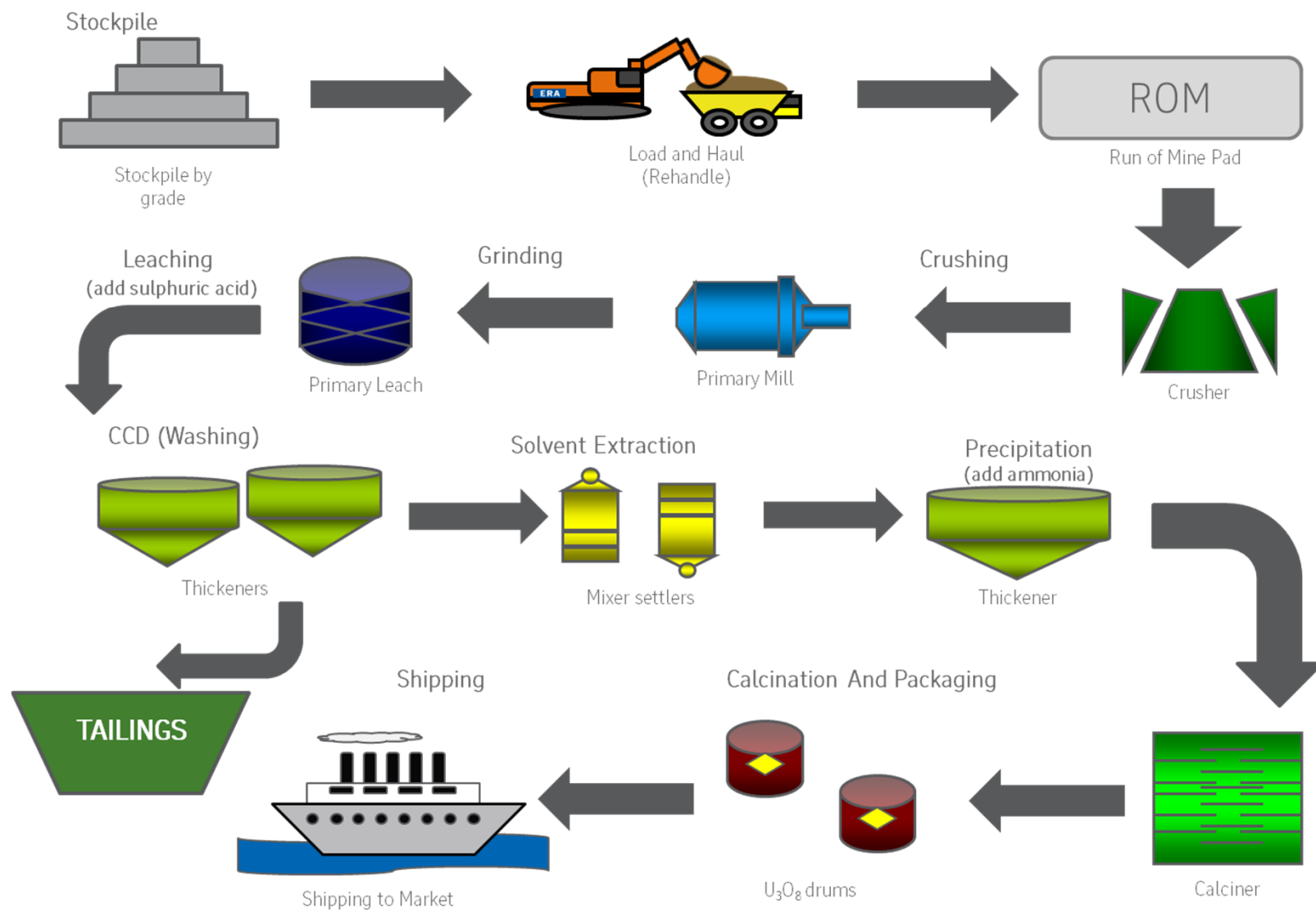
- Safety underpins everything we do
- ERA measures safety by the All Injury Frequency Rate which includes all reportable injuries
- Our All Injury Frequency Rate in 2014 was 1.27 for every 200,000 hours worked
- Our All Injury Frequency Rate for 2015 year to date is 0.81 for every 200,000 hours worked

Ranger mine site





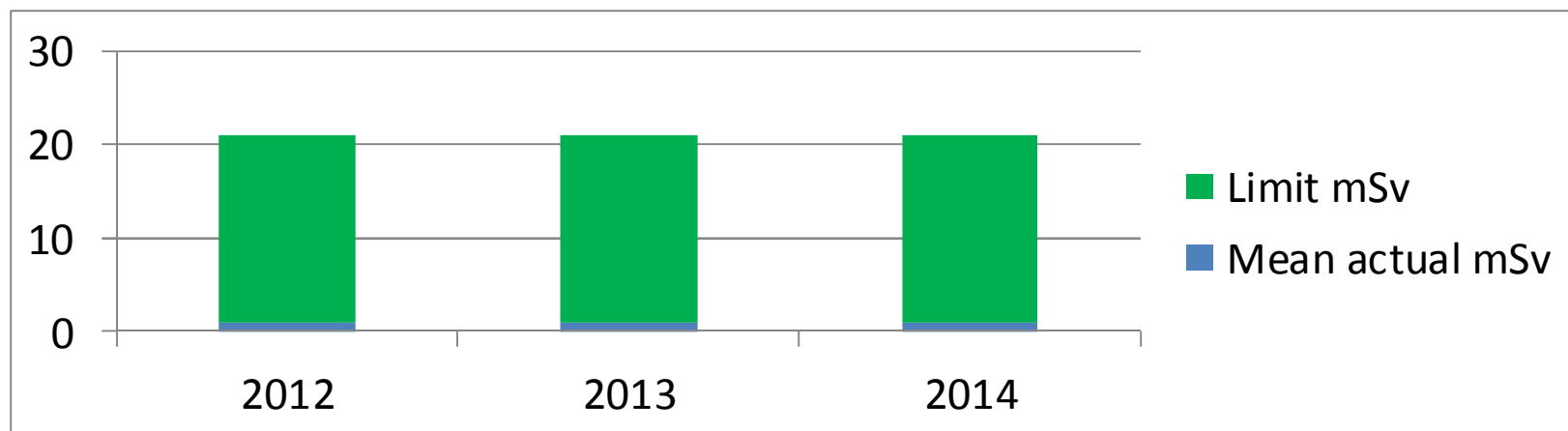
How we make Uranium Oxide (U_3O_8)





Radiation monitoring

- At Ranger mine, radiation exposure is controlled in a number of ways, including personal protective equipment, personal continuous monitoring devices for workers who might be exposed and operational design
- Radiation levels are measured through
 - Inhalation of airborne dust
 - Inhalation of radon decay products
 - External radiation from gamma rays
- Ranger employee radiation levels





ERA's work with the Mirarr people

- The Mirarr people, through representative bodies Gundjeihmi Aboriginal Corporation and the Northern Land Council, are involved in decisions relating to ERA's operations and activities, including water management, land management, cultural heritage management and mining
- All new ERA employees participate in Cultural Awareness training
- A mining agreement on behalf of the Traditional Owners was executed in January 2013



Image used with the consent of the Gundjeihmi Aboriginal Corporation



Jabiru infrastructure and ERA



- ERA employees are a major part of the town population
- Majority of houses, supermarket, specialty shops and the Jabiru Sports and Social Club are ERA-owned buildings
- Power to town is supplied by the Ranger power station
- Airport is also part of ERA infrastructure and was resurfaced in October 2014



Environmental management

- Exemplary environmental management is a core business requirement that is essential to ERA's long-term success
- ERA is demonstrating strong environmental management practices as it progresses rehabilitation of the exhausted Pit 1 and Pit 3 open cut mines
- ERA's environmental management system is certified to the international standard ISO 14001
- Ranger mine is one of the most regulated mines in the world through Commonwealth and Northern Territory legislation and other operating agreements





Environmental regulators

- **Complex network of regulators, including:**
 - Northern Territory Department of Mines and Energy
 - Commonwealth Government Department of Industry, Innovation and Science
 - Supervising Scientist Branch
 - Aboriginal interests: Traditional Owners and the Northern Land Council
 - MTC - Mine site Technical Committee
 - ARRTC - a scientific advisory body comprising eminent scientists
 - ARRAC - a consultative forum that includes Aboriginal groups, Local, Territory and Commonwealth governments, and environmental groups



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Rehabilitation Overview





Legislated obligations for closure of Ranger mine

- **Environmental Requirements for Ranger are prescribed in section 41 Authority**
 - The Company must rehabilitate the Ranger Project Area to establish an environment similar to adjacent areas of Kakadu National Park such that, in the opinion of the Minister with the advice of the Supervising Scientist, the rehabilitated area could be incorporated into the Kakadu National Park
 - All tailings to be stored below ground for permanent disposal with the tailings physically isolated from the environment for at least 10,000 years
 - Any contaminants arising from the tailings will not result in any detrimental environmental impact for at least 10,000 years
 - Cease processing by January 2021 and complete rehabilitation by January 2026

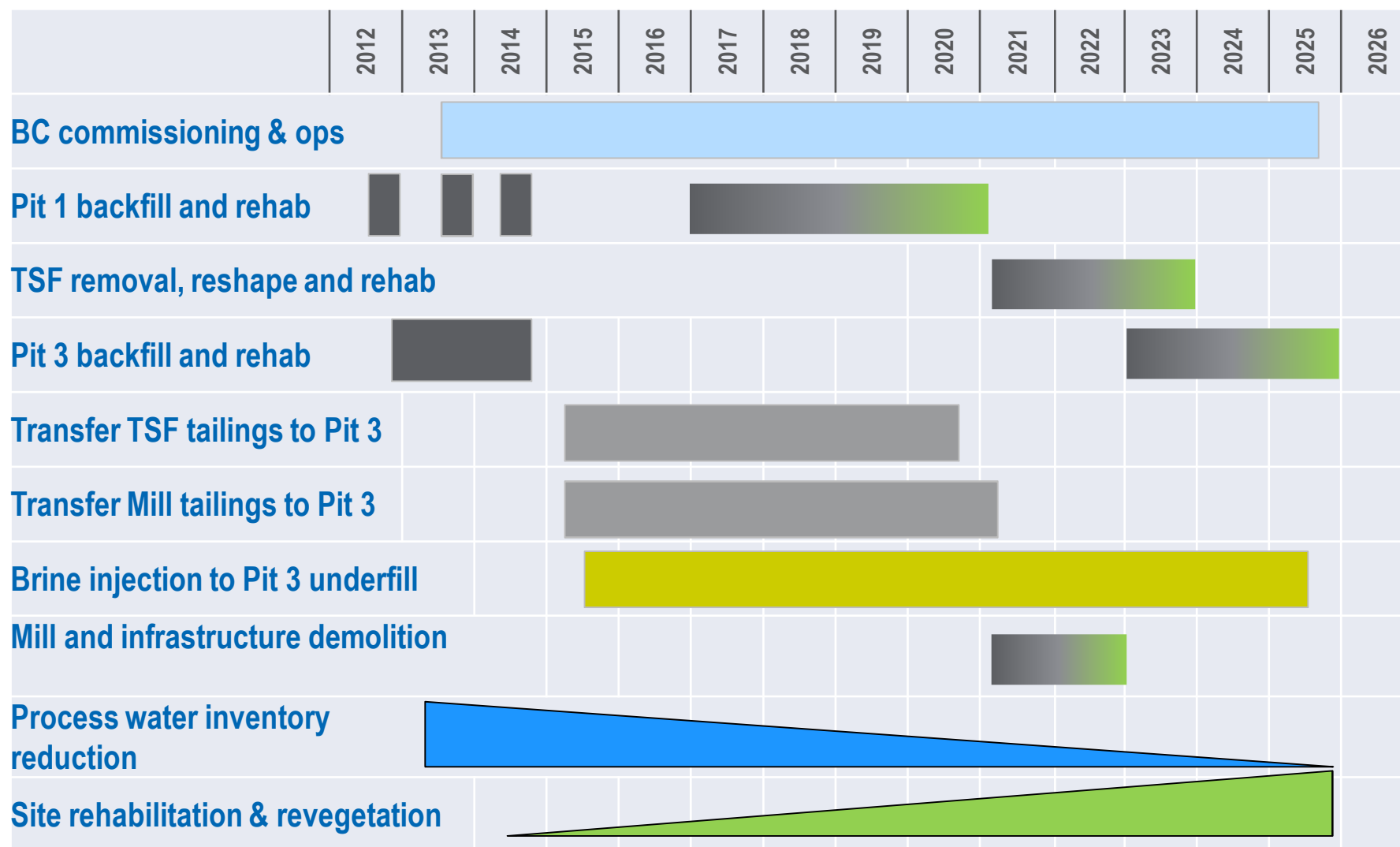


Rehabilitation strategy

- **The application of 'Best Practicable Technology' (as required by the Ranger section 41 Authority) combined with business requirements and the outcomes of engineering, solute modelling and consolidation modelling used to select the optimal closure strategy**
 - Milling of low grade stockpiles
 - Injecting the concentrated brine into waste rock at the base of Pit 3
 - Transferring the dredged, thickened tailings from the Tailings Storage Facility to Pit 3
 - Managing the process water inventory with the Brine Concentrator
 - Demolition and re-shaping of the Tailings Storage Facility walls
 - Demolition of the process plant and placing the components into Pit 3
 - Re-grading the site to an agreed landform
 - Gradual rehabilitation and revegetation of the site
 - Post closure monitoring and care



Rehabilitation timeline





Rehabilitation of Pit 1

- Mining ceased in Pit 1 in 1994
- Tailings deposition commenced in 1996 and ceased in 2008
- 7,700 prefabricated vertical drains (wicks) installed in Pit 1 to improve water drainage and accelerate consolidation of tailings
- Geotextile layers placed over exposed tailings to enable placement of waste rock drainage layer (preload) to manage tailings water expressed from wicks
- The laterite cap placed on top of preload cap to successfully convert Pit 1 from process water catchment to pond water catchment
- Waste rock will be used to create final landforms



Pit 1 wick installation 2012



Pit 1 layered pre-load placement 2013/14



Pit 1 overview



Pit 1 used as tailings repository



Installation of ~7700 wicks (2012)



Pit 1 overview



70% preload completed (October 2013)



100% preload completed and 60% laterite capping completed (December 2014)



Preparing for Pit 1 revegetation

- 30 years of dedicated research and revegetation trials on closure
- Revegetation trials have been ongoing using field testing and theoretical modelling to create optimal closure strategy
- Revegetation trials on 8 hectares of waste rock began in 2008 and fauna is colonising on the landform
- Trials have proven vegetation can be established on waste rock landform and is assessing erosion rates and run-off water quality
- Approximately 42 plant species will be used in the revegetation of Pit 1
- Seeds will be collected from within Kakadu National Park and germinated for planting at Ranger



17 year old trees on revegetation trial plot



Eight hectare revegetation trial plot



Tailings Storage Facility

- Ranger mill tailings deposited into Tailings Storage Facility until the first quarter of 2015
- Earliest reclamation can commence is the second quarter of 2015 with an end date in the first quarter of 2021
- Tailings Storage Facility decommissioning to commence in 2021
- Contaminated floor material to be transferred to Pit 3
- Clay to be reclaimed for pit cover capping
- Waste rock to be part of final landform and headwaters creation





Tailings Storage Facility rehabilitation

- 27 metre stainless steel purpose built dredge and maintenance craft launched in August 2015
- Approximately 27 million tonnes of tailings for reclamation and final deposition into Pit 3
- Dredging of Tailings Storage Facility is expected to take approximately 6 years
- Tailings Storage Facility to be maintained as process water solar evaporation while tailings are reclaimed





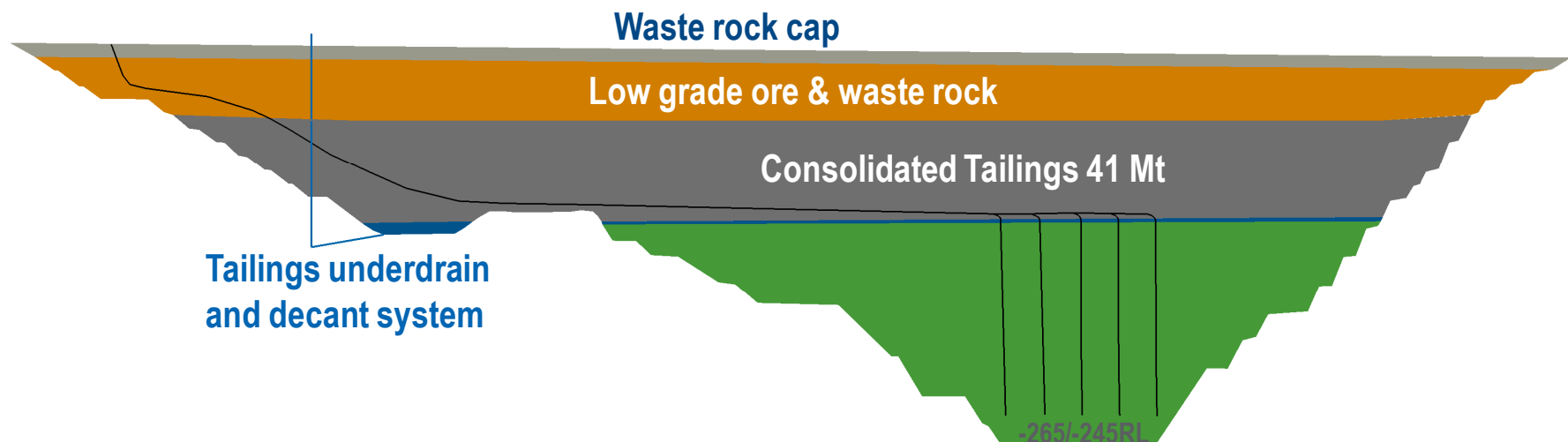
Rehabilitation of Pit 3





Proposed Pit 3 backfill plan

- **The current rehabilitation plan for Pit 3 includes**
 - 31 million tonnes low grade ore underfill (completed December 2012 to August 2014)
 - Approximately 41 million tonnes tailings: mill (14Mt); Tailings Storage Facility (27Mt)
 - Approximately 62 million tonnes waste rock placed in pit
 - Unsalvageable plant and infrastructure





Pit 3 overview

- Pit 3 mining completed in November 2012; underfill commenced in December 2012
- Pit 3 underfill completed in August 2014; underdrain completed in December 2014
- Mill tailings to Pit 3 from February 2015
- Tailings Storage Facility dredged tailings to report to Pit 3 from September 2015
- Pit 3 bulk rock backfill commences in 2023 with completion in 2025



Pit 3 underfill construction 2013



Pit 3 underdrain construction November 2014



Jabiluka rehabilitation



- Rehabilitation work at Jabiluka began in 2003
- Infrastructure was removed and the box-cut and decline were backfilled
- Revegetation of disturbed areas began in 2005 with the planting of 7,560 local native seedlings
- Interim water management pond deconstructed in 2013
- Land reshaped to pre-mining formation
- Erosion matting and rock drains laid to control erosion



Jabiluka revegetation

- 8,600 saplings planted in 3 further stages between 2013 and 2015
- Traditional Owners consulted on native species, density and landforms
- Seeds from native species within lease area were collected and germinated
- 22 species of native plants planted during revegetation
- Ongoing weed, fire and water quality management plans in place



December 2013



July 2015



Jabiluka progress



2011



2013



2015



Jabiluka rehabilitation





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Ranger 3 Deeps



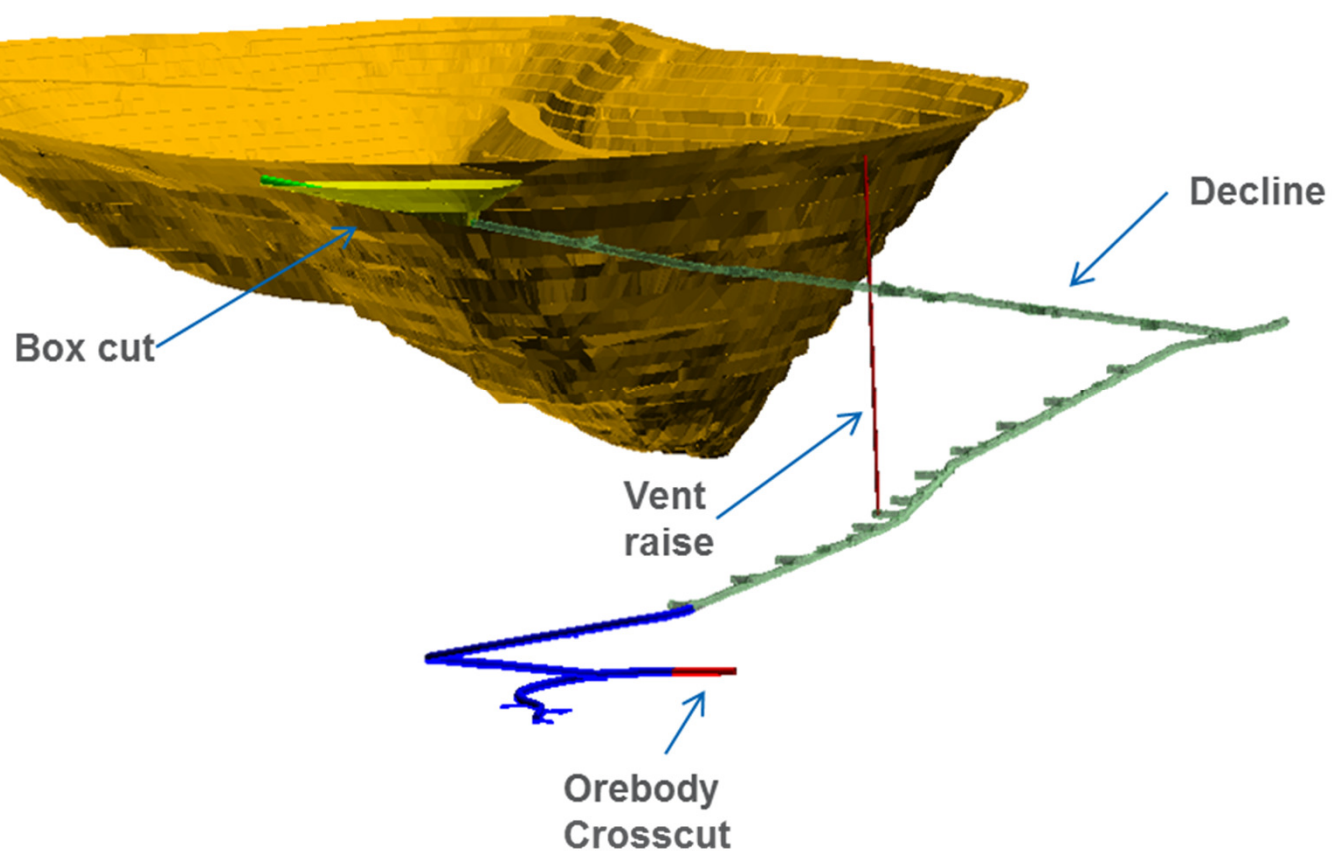


Ranger 3 Deeps – status

- The Ranger 3 Deeps Prefeasibility Study was completed in the first half of 2015. On 11 June 2015, ERA announced it would not progress the project to Final Feasibility stage in the current operating environment. The decision was driven primarily by two key factors
 - The uranium market had not improved as ERA previously expected and there is uncertainty regarding the uranium market's direction in the immediate future
 - The economics of the project require operations beyond the current Ranger Authority which expires in 2021
- On 15 October 2015 ERA announced that the Mirarr Traditional Owners had formally advised that they did not support an extension to the Ranger Authority



Ranger 3 Deeps Exploration Decline layout

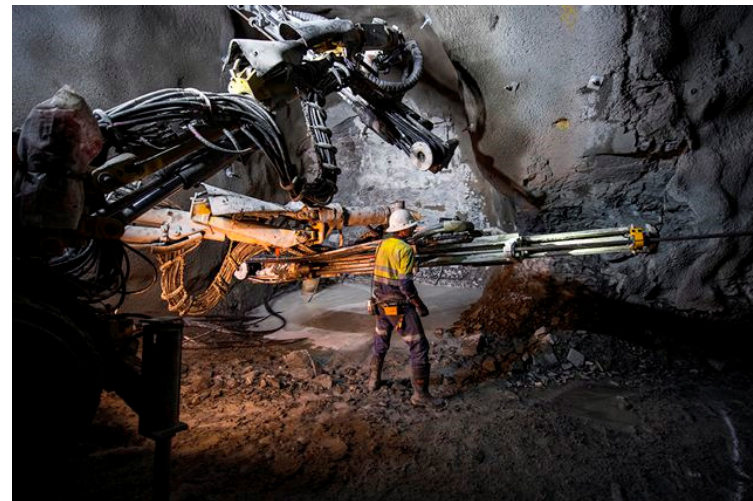




Decline development

Major contractor – Macmahon Underground

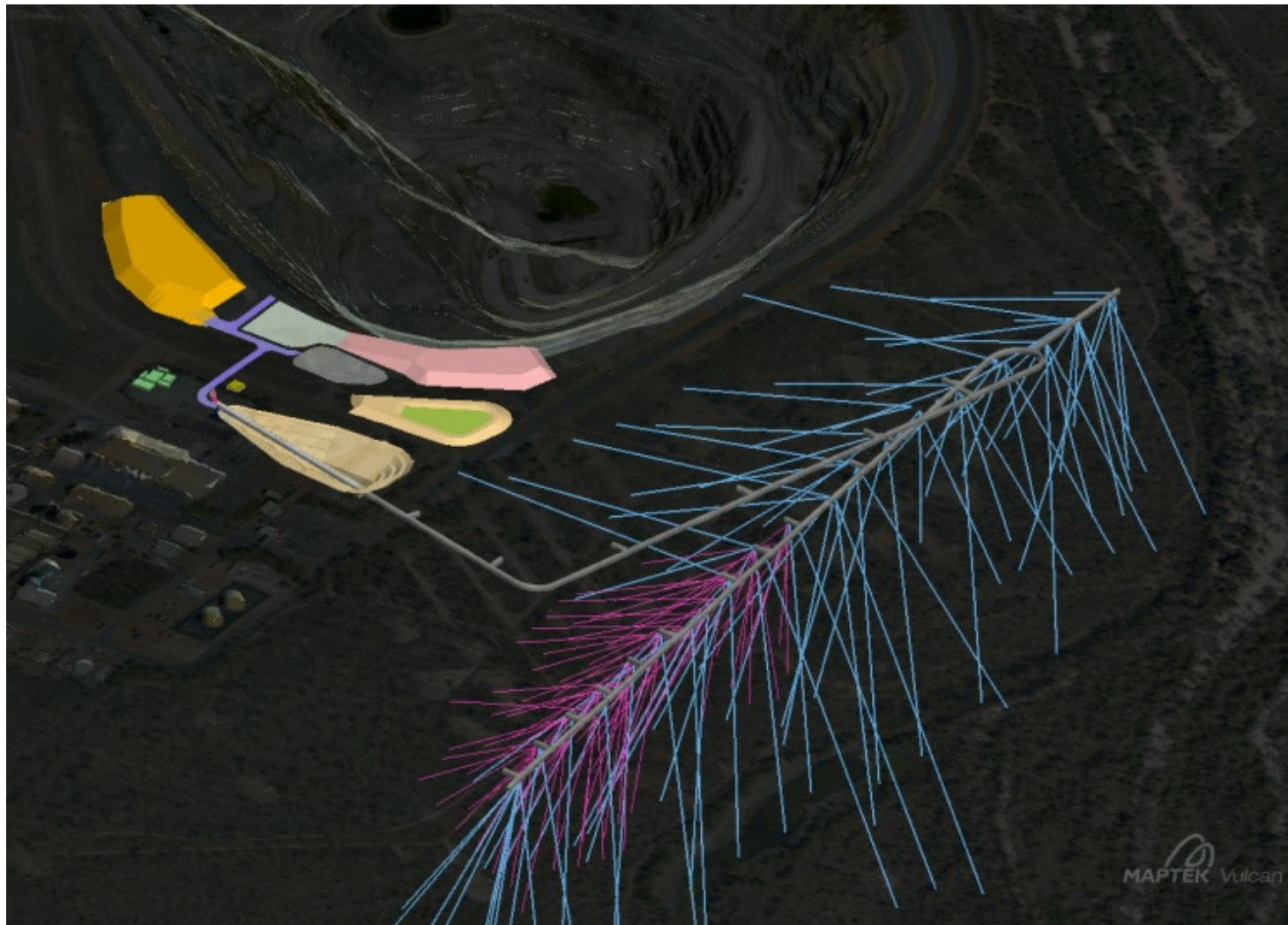
3,350 metres of development in total





Exploration drilling

47,000 metres of core recovered





Exploration drilling

Major contractor – Boart Longyear





Orebody



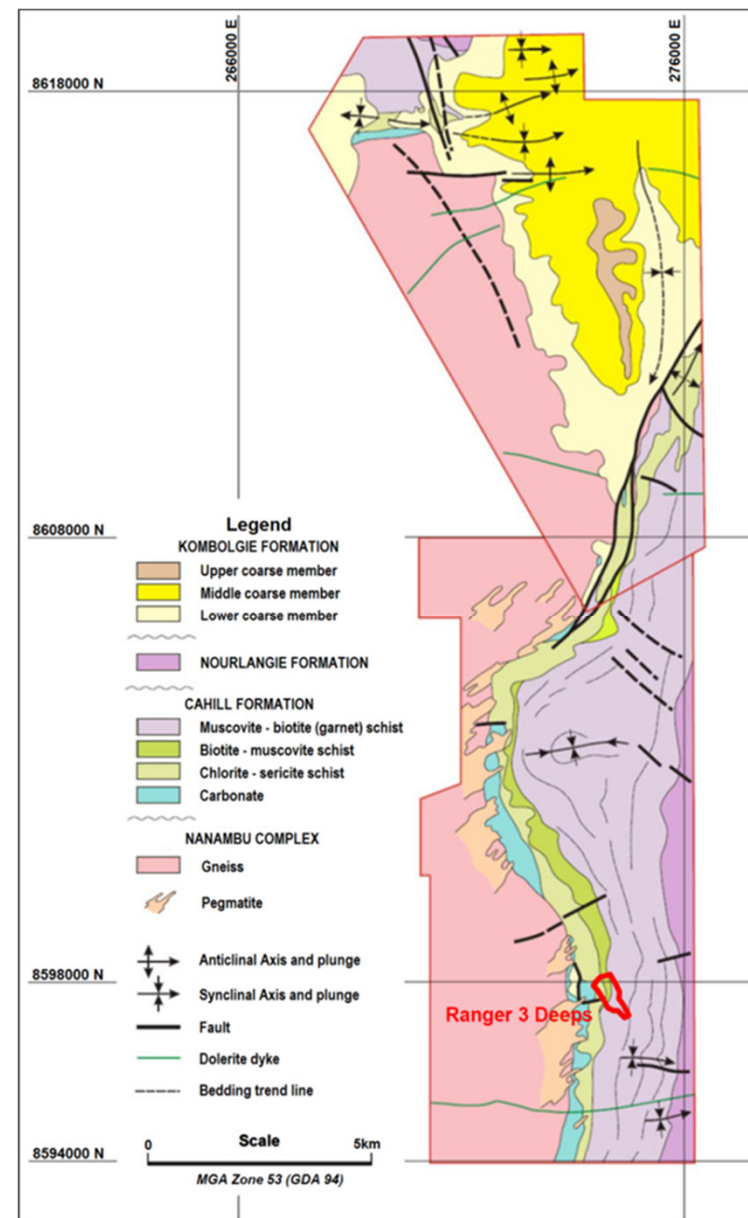
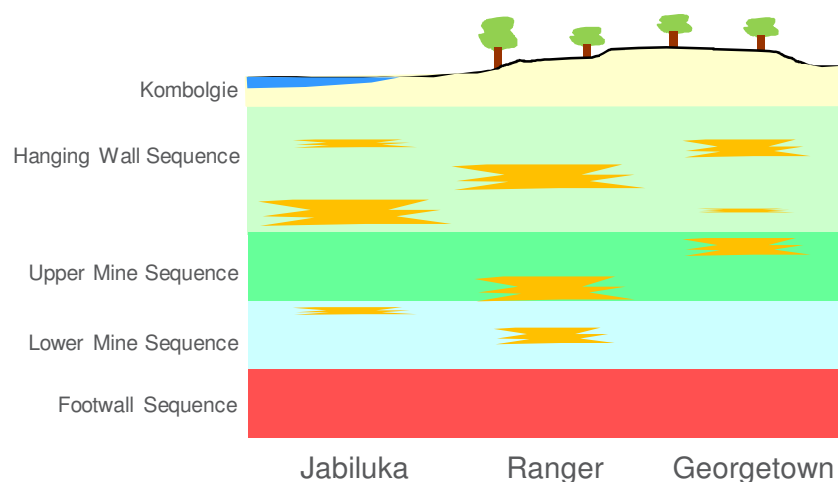
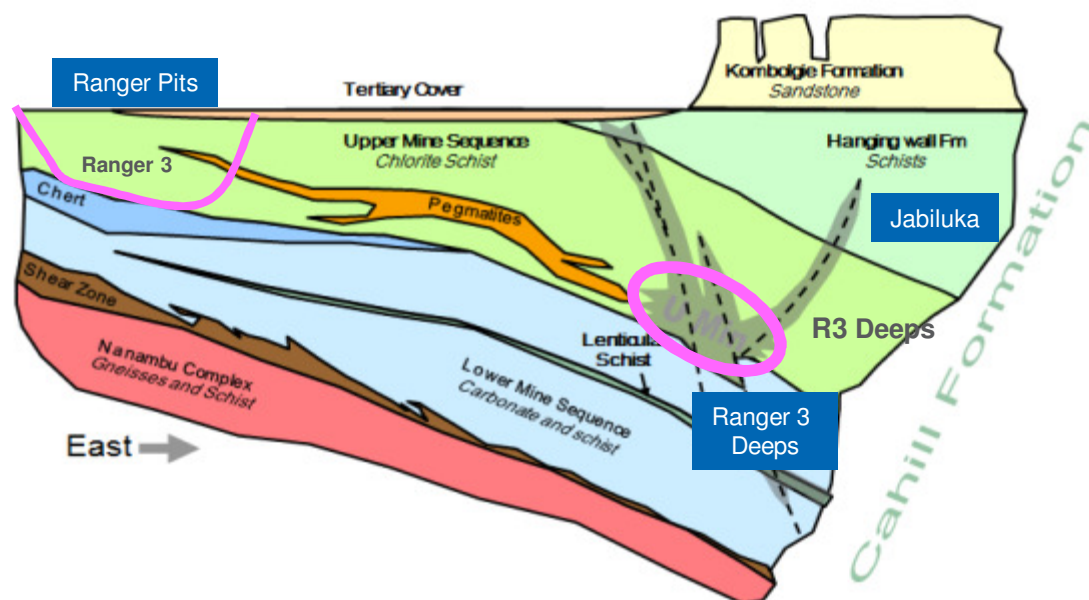


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Geology

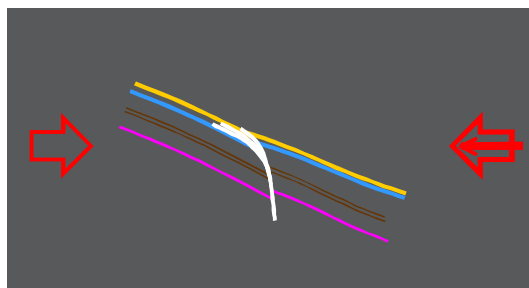
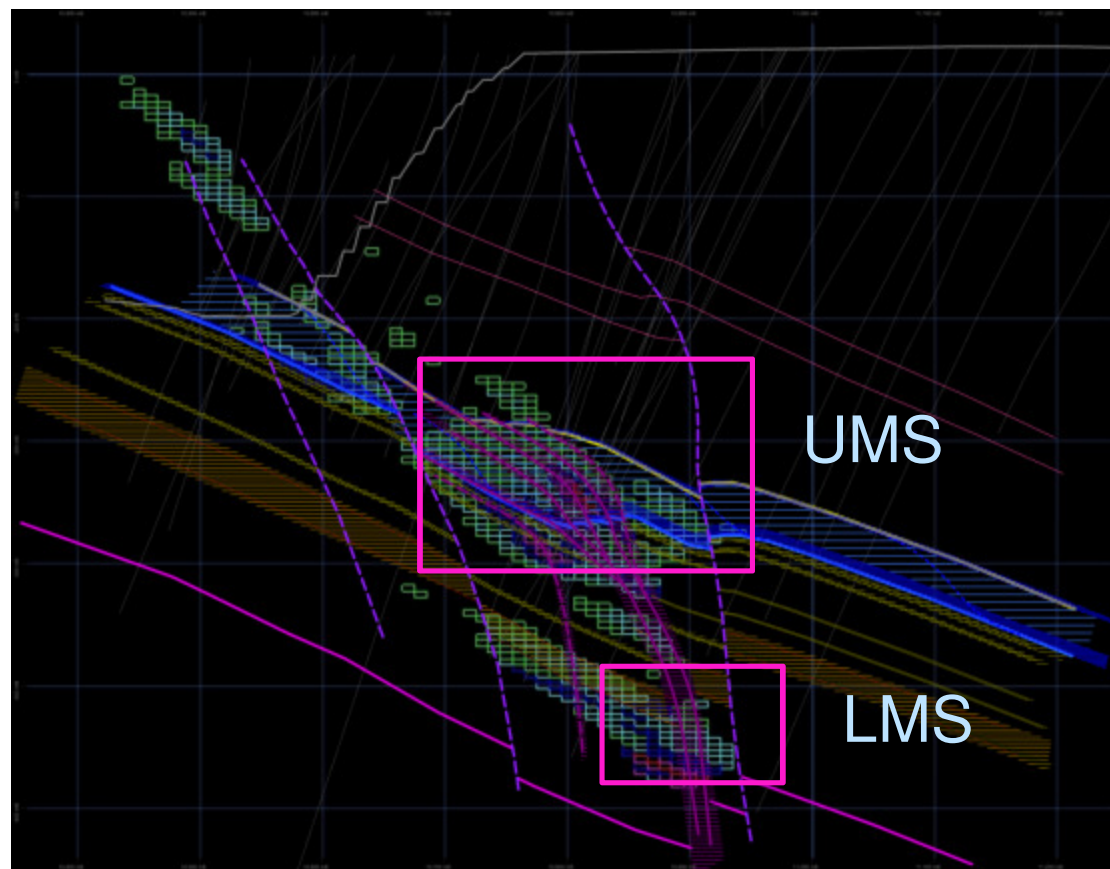


Mineralisation styles

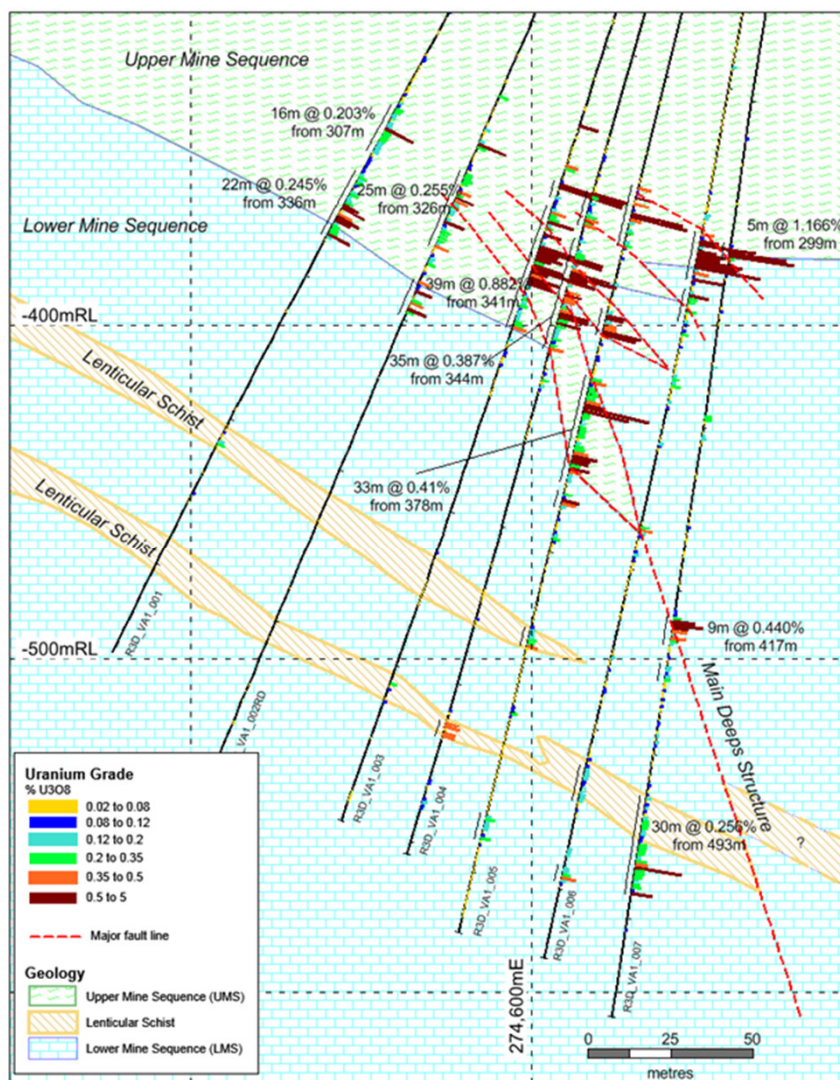




Ranger 3 Deeps mineralisation



Example of cross section of underground close-spaced drilling of the Ranger 3 Deeps mineral resource



- **First cross section (released to ASX on 30 August 2013)**
 - The initial underground drilling results showed significant high grade intersections consistent with the expected continuity of mineralisation within this zone of the mineral resource
- **Significant intercepts in the first cross section included:**
 - Hole 3 39m @ 0.882% eU3O8 from 302m
 - Hole 4 35m @ 0.387% eU3O8 from 309m
 - Hole 5 33m @ 0.410% eU3O8 from 345m
- **Results supported geological model and structural controls**
- **Exploration drilling program was completed in the fourth quarter of 2014**

Data sourced from ASX release titled 'Ranger 3 Deeps First Exploration Drilling Results Released' dated 30 August 2015.
See also Competent Person Statement on slide 2.



Summary of current orebody knowledge

- Structural analysis has resolved the principal controls on mineralisation
- Hosted in a complex reverse fault system
- Competency contrast of stratigraphy directly influences location of mineralisation
- Damage (breccia) zones adjacent to milled soling formational faults within the Upper Mine Sequence chlorite schist host the majority of uraninite
- Highest grades are associated with the most intense brecciation around main fault strands
- Grade attenuates up-dip as formational structures lose intensity
- Grade attenuates immediately down-dip of the Deeps fault
- Lower Mine Sequence mineralisation geometry not fully resolved – additional drilling required to achieve this



Total inventory reporting

2015 Reserves	Cut-off Grade	Material	Grade	Uranium Oxide
	(% U ₃ O ₈)	(Mt)	(% U ₃ O ₈)	(U ₃ O ₈ tonnes)
Existing Stockpiles	0.08	5.04	0.123	6,206
Jabiluka	0.20	13.80	0.490	67,700
2015 Resources	Cut -off Grade	Material	Grade	Uranium Oxide
	(% U ₃ O ₈)	(Mt)	(% U ₃ O ₈)	(U ₃ O ₈ tonnes)
Existing Stockpiles	0.02	38.29	0.047	17,844
Ranger 3 Deeps – In situ	0.11	19.58	0.244	43,868
Jabiluka	0.20	15.44	0.480	73,940

Resources and Reserves data sourced from ASX release titled 'Annual Statement Of Reserves and Resources' dated 6 February 2015 and ASX release 'Ranger 3 Deeps Resource Update' dated 10 July 2015. See also Competent Person Statement on slide 2.



Ranger Project Area – drilled exploration targets

- Significant exploration program conducted between 2011 and 2014
- Approximately \$25 million of expenditure

