

Dugald River Project

Minex 2017 – Mt Isa

Pierre Malan, General Manager | Dugald River 16 May 2017

Dugald River – scale, size and life

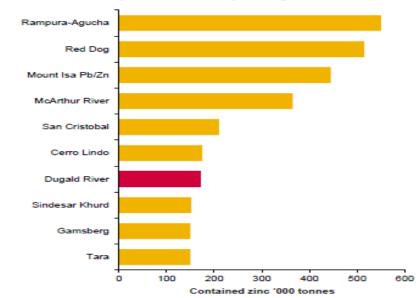


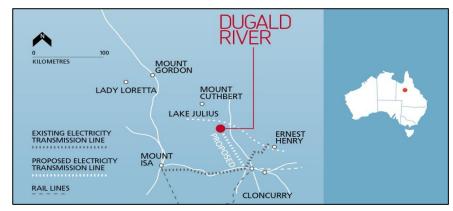
At full production Dugald River will be one of the ten largest zinc mines globally

Overview

- Wholly-owned zinc deposit located in Queensland
- Highest grade zinc project currently being developed
- Expected to commence first production in 1H CY18
- MMG announced optimised mine plan in June 2016 which supports throughput of 1.7Mtpa
- Large scale and long life annual production of 170kt
 Zn over estimated 25 year mine life
- Strong cash flow generation potential steady state
 C1 costs of US\$0.68 0.78/lb
- Remaining capex of US\$600 620M from July 2015
- Project is 62% complete (as at 30 April 2017) with key milestones tracking in line with schedule

2019 forecast production capability1





"4th Industrial Revolution"



- Mechanisation & Automation
- Technology Strategy
- Enabling Infrastructure
- Examples
 - Site Data centre
 - Underground systems/application
 - Underground tracking
 - Container tracking

Safety and Health



- 12 month moving average total recordable injury frequency rate of 5.5 as of 30 April 2017
- 1,590 LTI free days as at 30 April 2017

Beyond the statistics ...

- Building and embedding good safety culture awareness and behaviours
 - Safety first Full 1-day stop work in November 2016
 - Mobilisation / demobilisation of construction contractors
 - Preparing new operational staff

Environment - Air Quality Monitoring



Depositional dust

 Studies indicate that mining activities are not causing unacceptable levels of dust

Volumetric Sampling

No exceedances of air quality criteria

Noise and vibration monitoring

 No stakeholder complaints received. This supports the quantitative study findings that noise and vibration from mining do not impact neighbours.



Environment – Land & Biodiversity Monitoring



Fauna

- Purple Necked Rock Wallaby studies (October survey)
- Regional feral animal control program- feral cats
- Carpentarian false antechinus
 Research program being
 established 2017-2018

Flora

- Ongoing rehabilitation of previously disturbed areas
- Expansion of weed management program (completed November) including removal of Kapok bush



Construction progress to date



Completed:

- Village expansion from 100 permanent rooms to 400
- Over 30km of underground haulage advance since 2012
- More than 145km of diamond drilling
- Installation of all 3 new primary ventilation fans.
- Energisation of HV transmission line and 220kv substation
- All earthworks, civil works and structural steelwork
- Installation of primary crusher, SAG & Ball mills and regrind mills
- Installation of all flotation cells equipment
- TSF earthworks to final level (to end life of mine 2040)





Photo 1 – Permanent Village Accommodation



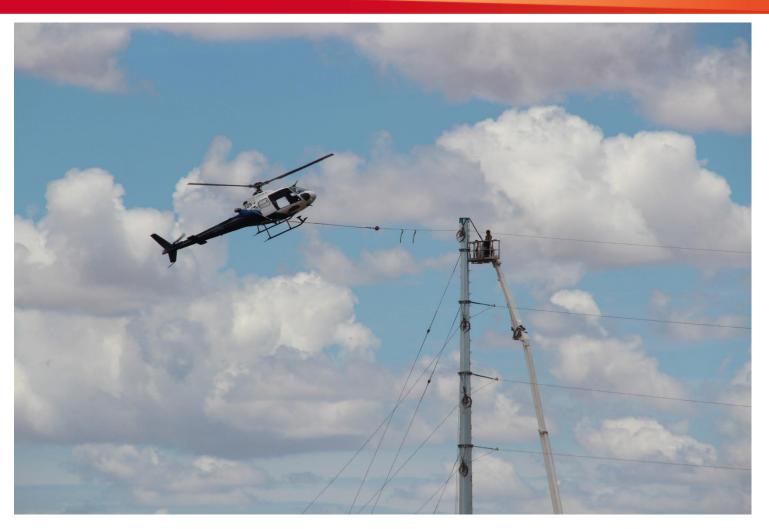


Photo 2 – HV transmission line stringing by helicopter





Photo 3 – 220Kv Substation with Transformers



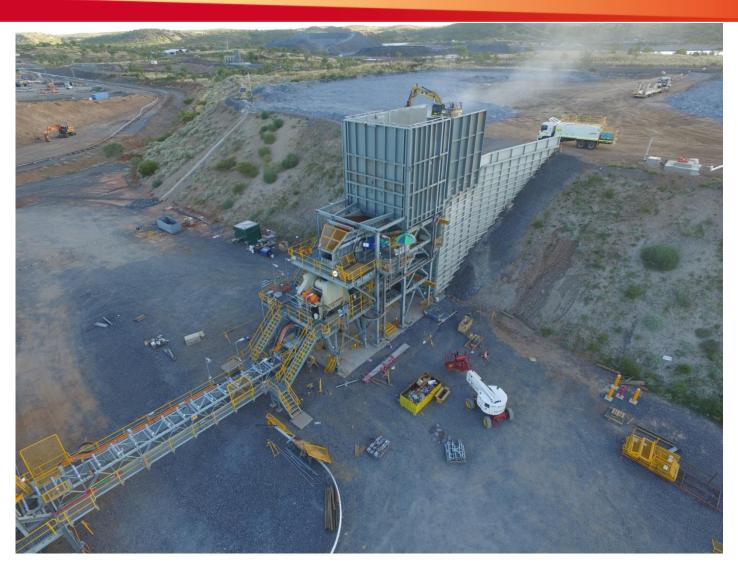


Photo 4 – Primary Crusher





Photo 5 - Reclaim tunnel earthworks





Photo 6 – Ball and Sag mill installed



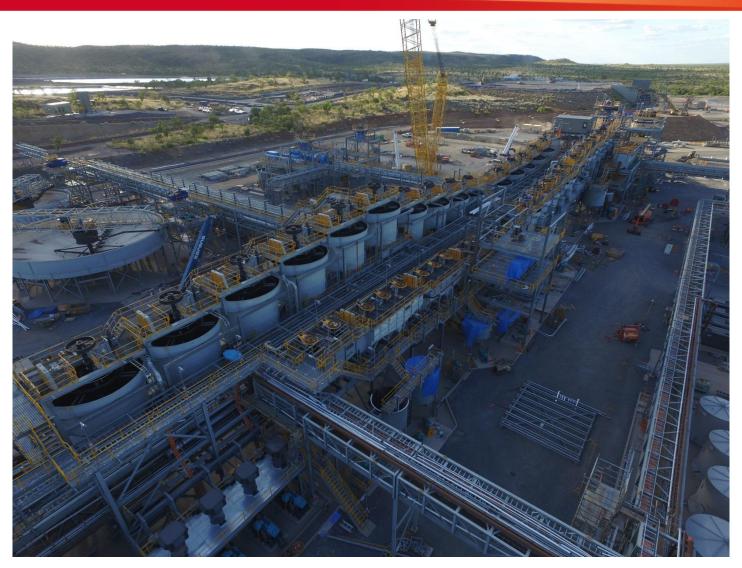


Photo 7 – Process plant flotation cells installed





Photo 8 – Reagent building and warehouse structural steelwork installed



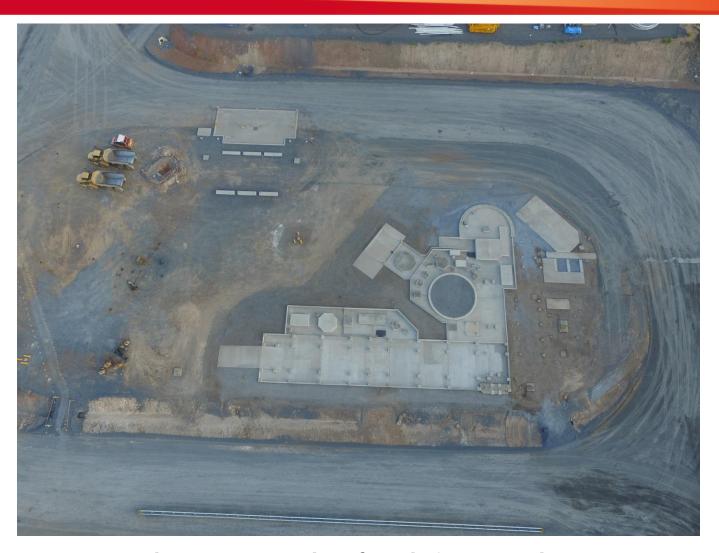


Photo 9 - Paste plant foundations complete



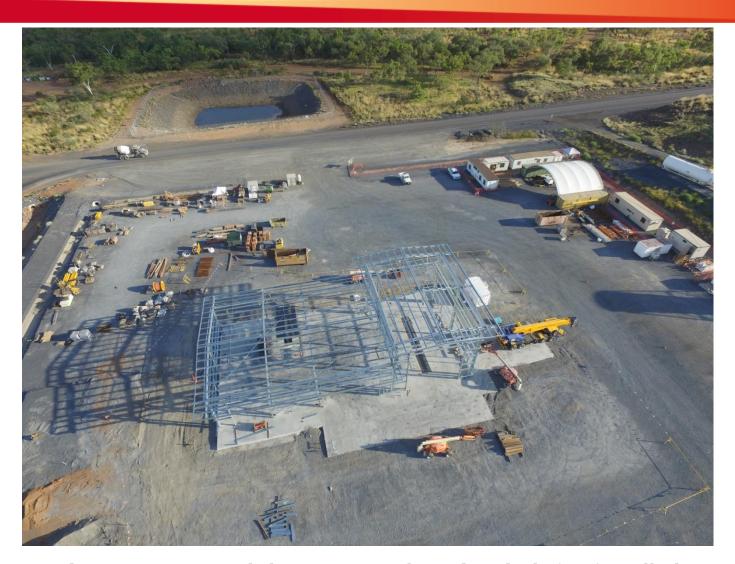


Photo 10 – HV Workshop Structural Steelworks being installed





Photo 11 – Tailings Storage Facility dam stage 2 liner installation