

# Appendices

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# Appendix 1

## Summary of Prior Approvals

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	Original Application	MOD1 – November 2013 Minor adjustments to time to complete roadworks and residue management	MOD2 – April 2015 Caloma 1 Cutback and Amenity Bund	MOD3 – July 2016 Caloma 1 cutback, Caloma 2 Open Cut, Caloma 1 and 2 Underground (basis for comparison against future modification applications)	MOD4 – May 2020 RSF1 Stages 7 to 9	MOD5 – Current Application RSF2 Stages 1 and 2, extension of Tomingley Gold Operations Mine Site and Mine Life
Limits on Approval	<ul style="list-style-type: none"> <li>Life of the Mine – until 31/12/2022</li> <li>Rate of processing – 1.5Mtpa</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Life of the Mine – until 31/12/2025</li> <li>No other change</li> </ul>
Mining Operations	<ul style="list-style-type: none"> <li>Open cut <ul style="list-style-type: none"> <li>Caloma 1, Wyoming 1 and Wyoming 3</li> <li>Conventional open cut drill, blast, load and haul</li> </ul> </li> <li>Underground <ul style="list-style-type: none"> <li>Wyoming 1</li> <li>In-pit portal</li> <li>Conventional long-hole open stoping</li> <li>Waste rock backfill of completed stopes</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Open cut <ul style="list-style-type: none"> <li>Minor cutback of Caloma 1 to address geotechnical issues with wall stability</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Open cut <ul style="list-style-type: none"> <li>Additional minor cutback of Caloma 1</li> <li>Development of Caloma 2</li> </ul> </li> <li>Underground <ul style="list-style-type: none"> <li>Underground mining of Caloma 1 and Caloma 1 and exploration of Wyoming 1</li> <li>Lining of the workings associated with Wyoming 1, Caloma 1 and Caloma 2</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
Waste Rock Management	<ul style="list-style-type: none"> <li>3 x surface waste rock emplacement <ul style="list-style-type: none"> <li>WRE1, WRE2, WRE3</li> <li>Total design volume = 29.66Mm<sup>3</sup></li> <li>Maximum height = 40m</li> <li>Non-acid forming waste rock</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Backfilling of Wyoming 3 Open Cut with waste rock.</li> <li>Extension of WRE3</li> </ul>	<ul style="list-style-type: none"> <li>Importation of up to 335,000t or 161, 250cm of waste rock associated with the SAR Exploration decline</li> </ul>	<ul style="list-style-type: none"> <li>Placement of waste rock into Caloma 2 Open Cut</li> <li>No other change</li> </ul>
Processing Operations	<ul style="list-style-type: none"> <li>Conventional carbon-in-leach (CIL) process, comprising <ul style="list-style-type: none"> <li>ROM Pad</li> <li>Crushing, screening and grinding circuit</li> <li>Gravity circuit</li> <li>CIL circuit</li> <li>Gold room</li> </ul> </li> <li>Annual throughput = up to 1.5Mtpa</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Importation of up to 20,000t of bulk sample for batch processing and testing within the Processing Plant.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
Residue Management	<ul style="list-style-type: none"> <li>Residue Storage Facility <ul style="list-style-type: none"> <li>Two cells</li> <li>Area - 42ha</li> <li>Maximum Stage – Stage 6</li> <li>Maximum crest elevation – 280.5m AHD.</li> <li>Maximum residue elevation – 280.0m AHD.</li> <li>Design volume – 4.8Mm<sup>3</sup></li> <li>Liner – engineered clay</li> <li>Construction method – upstream lifts</li> <li>Perimeter discharge, centre decant</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Amendment of fauna deterrent measures</li> <li>Cyanide monitoring <ul style="list-style-type: none"> <li>Monitoring location – residue transfer pipe inlet (not outlet).</li> <li>WAD cyanite monitoring (not total cyanide)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Construction of a downstream lift for Stage 2 of the Residue Storage Facility</li> </ul>	<ul style="list-style-type: none"> <li>RSF1 – Stages 7 to 9 <ul style="list-style-type: none"> <li>Increased capacity to approximately 8.93Mt.</li> <li>Increase in maximum elevation from 280.5m AHD to 286.5m AHD.</li> <li>Increased footprint from approximately 50ha to approximately 55ha</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>RSF2 – Stages 1 and 2 <ul style="list-style-type: none"> <li>Capacity – 4.5Mt</li> <li>Maximum elevation – 271.3m AHD</li> <li>Footprint – approximately 64.3ha</li> </ul> </li> <li>No other change</li> </ul>
Water Management	<ul style="list-style-type: none"> <li>Water balance (priority order) <ul style="list-style-type: none"> <li>Storages – Residue Storage Facility, Process Water Dam, Settling Dam, Mine Dewatering Ponds 1 and 2, Raw Water Dam Sediment Basins 1 to 5.</li> <li>Sources – process water dams, sediment basins, water supply pipeline (1GL/year)</li> <li>Uses – dust suppression, processing</li> </ul> </li> <li>Sediment and Erosion Control <ul style="list-style-type: none"> <li>Sediment Basins 1 to 5, clean and dirty water diversions</li> <li>Separation of clean, dirty and contaminated water</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Minor adjustments to the Central Clean Water Channel and WRE3 Dirty Water Drain and construction of Sediment Basins 6 and 7 and Wyoming Central Dam.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change. RSF2 to be internally draining with capacity to store 1 in 10,000 AEP rainfall event.</li> <li>Water balance indicates adequate capacity to store process/decant water.</li> </ul>

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Transportation Operations	<ul style="list-style-type: none"> <li>Site access via Tomingley West Road which was to be upgraded</li> <li>Heavy vehicles <ul style="list-style-type: none"> <li>Transportation of equipment, consumables, reagents and supplies</li> <li>Up to 8 movements/day</li> <li>Gold transported infrequently using security vehicle</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Deferred timing for completion of road upgrades to 31/3/2014.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
Supporting Infrastructure	<ul style="list-style-type: none"> <li>“Woodlands” bores and water supply pipeline</li> <li>20km 66kV transmission line from Peak Hill</li> <li>Newell Highway underpass</li> <li>Site access road and intersection with Tomingley West Road</li> <li>Site offices, workshops, stores, car parks, laydown areas</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Enlargement of the Eastern Amenity bund from 3m high to 10m high</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
Hours of Operation	<ul style="list-style-type: none"> <li>Vegetation clearing and topsoil stripping – 6:00am to 6:00pm, 7 days per week</li> <li>Construction, mining, processing, maintenance – 24 hours, 7 days per week.</li> <li>Rehabilitation - 7:00am to 10:00pm, 7 days per week</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
Employment and Economic Contributions	<ul style="list-style-type: none"> <li>Employment – up to approximately 130 positions</li> <li>Economic contributions (annual) <ul style="list-style-type: none"> <li>Wages/salaries – up to approximately \$13M</li> <li>Goods and services – up to approximately \$34M</li> <li>Rates, taxes and royalties – up to approximately \$2M</li> </ul> </li> <li>Planning agreement – Life of mine <ul style="list-style-type: none"> <li>Community Fund - \$430,000</li> <li>Road Maintenance (except for Tomingley West Road) - \$360,000</li> <li>Provision of Council Environmental Management Expertise - \$160,000</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Planning agreement – annual for life of mine <ul style="list-style-type: none"> <li>Community Fund - \$53,750</li> <li>Road Maintenance (except for Tomingley West Road) - \$45,000</li> <li>Provision of Council Environmental Management Expertise - \$20,000</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Planning agreement – update to reflected extended life of mine.</li> <li>No other change</li> </ul>
Final Landform and Rehabilitation	<ul style="list-style-type: none"> <li>3 x open cuts</li> <li>3 x shaped Waste Rock Emplacements</li> <li>1 x shaped Residue Storage Facility</li> <li>Final land use - Combination of agriculture and nature conservation</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Minor adjustments to reflect the revised site layout</li> </ul>	<ul style="list-style-type: none"> <li>Minor adjustments to reflect the revised Residue Storage Facility design</li> </ul>	<ul style="list-style-type: none"> <li>Inclusion of RSF2 in final landform. Rehabilitation broadly similar to RSF1</li> <li>No other change</li> </ul>
Other	<ul style="list-style-type: none"> <li>Biodiversity offset <ul style="list-style-type: none"> <li>Preservation of approximately 80ha of native vegetation</li> <li>Supplementary planting of approximately 77ha of native vegetation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Minor changes to soil stockpile locations to reflect revised site layout</li> </ul>	<ul style="list-style-type: none"> <li>Support for underground exploration in the vicinity of the Mine Site</li> </ul>	<ul style="list-style-type: none"> <li>Biodiversity impacts to be offset via payment into the Biodiversity Conservation Trust</li> <li>No other change</li> </ul>
Key changes to Environmental Impacts	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>	<ul style="list-style-type: none"> <li>Noise – enhanced noise attenuation</li> <li>Air quality – additional emissions during construction of the amenity bund</li> <li>Visual – additional amenity bund visible from surrounding areas</li> </ul>	<ul style="list-style-type: none"> <li>Noise – additional noise impacts associated with mining of Caloma 2. Mitigated with receiver architectural treatments.</li> <li>Water – potential offsite impacts mitigated through modified erosion and sediment control measures.</li> <li>Air quality – additional emission associated with Caloma 2 would remain less than the relevant assessment criteria.</li> <li>Biodiversity – additional 0.8ha disturbance not significant</li> <li>Visual – minor changes as a result of extension of WRE3 not significant</li> </ul>	<ul style="list-style-type: none"> <li>Visual – minor increase in the height of the Residue Storage Facility. No significant visual impact.</li> </ul>	<ul style="list-style-type: none"> <li>Biodiversity – 85ha and two vegetation communities to be disturbed requiring 152 ecosystem credits to be retired.</li> <li>Noise – noise emissions less than relevant criteria</li> <li>Air quality – minor changes, all within the relevant criteria</li> <li>All other impacts would be negligible.</li> </ul>

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