DUKE EXPLORATION

ASX Announcement

Media Release

Company Announcements Office
Australian Securities Exchange

MT FLORA MAIDEN INFERRED MINERAL RESOURCE AND DRILLING UPDATE

29 JUNE 2021

Highlights

Mount Flora Mineral Resource Summary.

		Tonnes (Mt)	Cu%	Ag g/t	Cu tonnes	Ag ounces
Inferred	Oxide	1	0.3	4.2	2,000	87,000
	Sulphide	15	0.5	7.0	76,000	3,500,000
	Total	16	0.5	6.9	78,000	3,600,000

Notes:

- Reported at a 0.2% Cu-equivalent cut-off grade (Cu & Ag)
- The Mineral Resource is classified in accordance with JORC, 2012 edition.
- The effective date of the Mineral Resource estimate is 25 June 2021.
- The Mineral Resource is contained within EMP 26499.
- Estimates are rounded to reflect the level of confidence in these resources at the present time. All resources have been rounded to the nearest million tonnes.
- The Mineral Resource is reported as a global resource

- *Better **new intersections** from the unreported RC resource holes used in the Mineral Resource Estimate RC at **Mt Flora** include:*
  - ***8 m at 0.57 % Cu, 9.01 g/t Ag and 0.036 g/t Au from 52 m in MFRC079,***
  - ***7 m at 1.24 % Cu, 13.44 g/t Ag and 0.090 g/t Au from 190 m in MFRC079,***
  - ***5 m at 1.80 % Cu, 32.90 g/t Ag and 0.073 g/t Au from 163 m in MFRC080,***
  - ***2 m at 0.97 % Cu, 18.40 g/t Ag and 0.020 g/t Au from 123 m in MFRC081,***
  - ***10 m at 0.80 % Cu, 11.93 g/t Ag and 0.035 g/t Au from 243 m in MFRC083 and***
  - ***4 m at 0.74 % Cu, 14.10 g/t Ag and 0.032 g/t Au from 194 m in MFRC084.***

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- *The Mt Flora Mineral Resource estimate is based on a total of* ***87 RC holes (15,834 m) and 3 diamond holes (550 m),*** *drilled on a* ***60 m by 60 m grid****, covering an* ***area of 650 m by 650 m****, and to a* ***vertical depth of around 270 m.***
- *The Inferred Mineral Resource at Mt Flora comprises* ***78,000 tonnes of copper and 3.6 million ounces of silver****. Silver continues to be an* ***important metal*** *at Mt Flora, which equates to an additional* ***10,000 tonnes of copper equivalent*** *to the* ***78,000 tonnes of copper*** *reported. The copper equivalent for silver is calculated using a current A$ copper price of $12,378 per tonne and A$ silver price of $34.41 per ounce as 25 June 2021.*
- *The Mineral Resource at* ***Mt Flora is open at least 300 m to the north*** *based on recent exploration drilling.*
- *Additional drilling is being planned to extend the* ***resource 300m further to the north****, which will give* ***Mt Flora a strike of 1,000m****, as well as infill drilling to achieve Indicated resource classification.*
- *Drilling is also being planned to test the resource potential of the* ***copper mineralisation intersected*** *in the holes at the* ***Quorn and Absolon*** *prosects, which are also expected to add to the Maiden Inferred Mineral Resource at Mt Flora.*
- *Four new exploration RC* ***holes drilled 300 m to the north*** *of the resource area at* ***Mt Flora intersected*** *massive sulphide* ***mineralisation up to 11 m wide with visible chalcopyrite*** *from a vertical depth of 20m to 200m. This important discovery extends the potential strike of mineralisation at Mt Flora by 300m*
- *The* ***drilling also confirms that pXRF soil anomalies*** *of greater than 140 ppm copper are related to bed rock massive sulphide copper mineralisation, which has* ***very important implications for the potential scale of the mineralised systems in the south west of the Bundarra Pluton in the Quorn, Absolon and Rogers prospect areas.***

Duke Exploration Limited ("Duke" or the "Company") (ASX:DEX) is pleased to announce a Maiden Inferred Mineral Resource Estimate at Mt Flora of ***16 Mt at an average grade of 0.5% Cu and 6.9 ppm, Ag, reported at a 0.2% Cu cut-off grade*** *as classified and reported in accordance with the JORC Code (2012), based on the recent drilling programme at the Mount Flora copper-silver project, located 130 km southwest of Mackay in central Queensland. The Mineral Resource estimate is based on all the work by the Company up to 2 June 2021.*

Commenting on progress – Philip Condon, MD:

"This is a very solid start for the Company who only listed seven months ago, and we are on track to meet our business objectives at listing. It is particularly pleasing to see the maiden resource at Mt Flora already close to the upper range of our exploration target in the prospectus (5,500,000-12,000,000 tonnes at 0.5-0.8% Cu for 27,000-96,000 tonnes of copper, 5-15g/t Ag for 884,000-5,780,000 ounces of silver and 0.1-0.1g/t Au for 17,000-38,000 ounces of gold. See www.duke-exploration.com.au to download the

Independent Geologists Report for the details of the Exploration Target). Importantly recent drilling of conductive and pXRF soil anomalies to the north of the maiden resource area, which intersected visible copper mineralisation from the near surface to a depth of 80m suggest that the resource at Mt Flora should continue to grow as assays are returned from the continuing resource and exploration drilling. It is also encouraging to see from the preliminary metallurgical and mining studies completed to support the resource estimate that Mt Flora on its' own has potential to be a standalone mining operation. The new resource development areas currently being discovered by our regional exploration will only add to this potential. These recent positive results have given us the confidence to start prefeasibility work on Mt Flora to develop definitive economics for the project. This work will include detailed metallurgy, infill resource drilling to extend and upgrade the Mt Flora resource to Indicated resource status and mining optimisation studies. We will continue to explore the regional potential of the Bundarra intrusion as this work progresses, which we are confident will only add to the scale of the project."

Looking south from the discovery holes back towards Mt Flora, with Quorn in the background.

Future Work Programme

- *Complete Phase Two RC drilling at Mt Flora and the Quarry Anomaly,*
- *Complete follow up geophysics surveys at Quorn to allow planning of a drilling programme to test the results from this work,*
- *Extend the gradient array and pXRF soil sampling to cover anomalous areas from the Quorn surveys that are open,*
- *Complete gradient array and pXRF soil surveys over the Isens Underground mine area, to start drill testing by the second quarter of 2021,*
- *Start drilling of the first holes at the Prairie Creek gold target,*
- *Source a second rig to fast-track resource and exploration drilling over Mt Flora, Quarry, Quorn, Absolon, Rogers and Isens prospects.*

This announcement has been authorised for release by the Board.

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Mt Flora Phase Two New RC Drilling Results Used in Resource Estimate

The Mt Flora prospect is the first high priority target for development in the Bundarra Project area (see www.duke-exploration.com.au for project details). A phased approach is being taken to the drilling at Mt Flora, which aimed to initially deliver sufficient assay results to estimate a maiden JORC 2012 Inferred resource at Mt Flora (Figure 1).

There have been 9 holes completed for 7,659m at Mt Flora since the last announcement on 2 June (Table 1 in Appendix 2 and Figure 1). A total of 98 RC holes have been drilled for 18,127 m since resource drilling started at Mt Flora, with 87 holes for 15,834 m with assays returned used in the Mt Flora resource estimation. A total of 20,616 samples have been sent to the laboratory in Townsville since drilling started at Bundarra and 3,319 assay results will remain to be announced after this announcement, including the new assays from the exploration holes at Quorn and Absolon.

Nine lines of holes on a 60m by 60m drill spacing have been completed over the known mineralised area, covering a strike of 550m, a width of 900m and to a vertical depth of 300m (Figure 1), which is larger than the area that was used to develop the reported Exploration Target. The results for all the new holes assayed have been entered into the drill databases and a quality control review completed. All check samples, blanks and sample weights have been reviewed as part of an ongoing quality control process and returned results within accepted expected statistical ranges, which confirms the validity of the assay results.

There are 36 new intersections of copper, silver and gold mineralisation above a 0.2% Cu cut off from the new drilling at Mt Flora that are included in the resource estimate, which brings the total number of intersections to date to 377 intersections. Mineralisation continues to be predictable and consistent in width, copper grade and orientation between drill holes both down dip and now along strike. Better intersections from the new drilling include:

- 8 m at 0.57 % Cu, 9.01 g/t Ag and 0.036 g/t Au from 52 m in MFRC079,
- 7 m at 1.24 % Cu, 13.44 g/t Ag and 0.090 g/t Au from 190 m in MFRC079,
- 5 m at 1.80 % Cu, 32.90 g/t Ag and 0.073 g/t Au from 163 m in MFRC080,
- 2 m at 0.97 % Cu, 18.40 g/t Ag and 0.020 g/t Au from 123 m in MFRC081,
- 10 m at 0.80 % Cu, 11.93 g/t Ag and 0.035 g/t Au from 243 m in MFRC083 and
- 4 m at 0.74 % Cu, 14.10 g/t Ag and 0.032 g/t Au from 194 m in MFRC084 (Figure 1 and Table 2 in Appendix 2 for all new results).

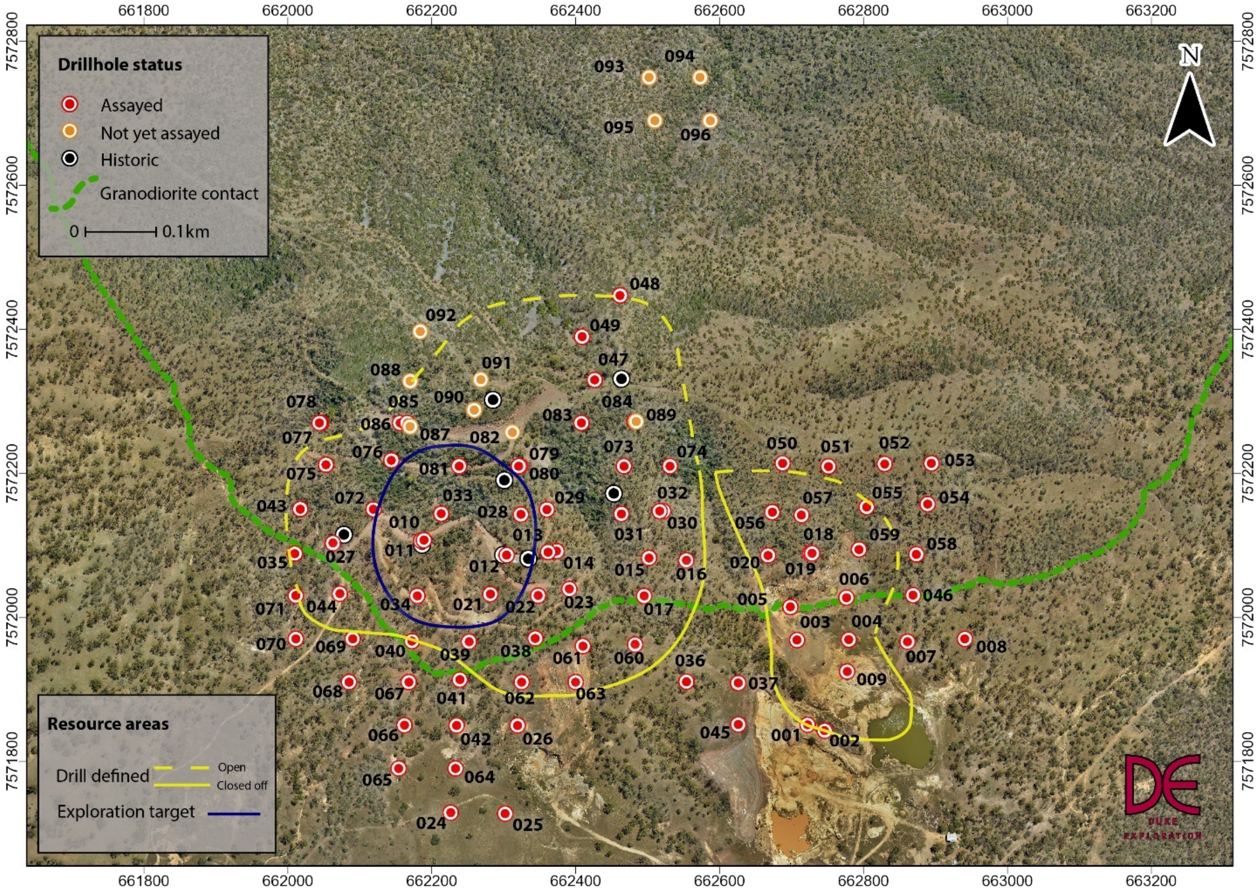

Figure 1. Mt Flora drill location plan for the holes completed to 24 June at the Quarry Anomaly and Mt Flora relative to the Exploration Target area, drilled mineralised area and granodiorite contact, showing the historic drill holes, assayed holes and holes with assays pending (all hole numbers have a MFRC prefix).

Four new exploration RC holes have been drilled 300 m to the north of the last line of holes used in the mineral resource estimate to test a coincident pXRF copper soil and EM conductivity anomaly that was interpreted as a potential new massive sulphide vein system that may join up with the Mt Flora or Quarry Lode vein systems (Figure 1 and Figure 2 and Table 1 in Appendix 2: MFRC093 – MFRC096). All four holes intersected massive sulphide mineralisation with visible chalcopyrite up to 11 m wide that is supported by pXRF copper analysis from a vertical depth of 20m to 200m. The sulphide mineralisation appears to have a similar dip to the Mt Flora and Quarry Lode mineralisation, but it is unclear if the mineralisation is related to either vein system.

This is a very important discovery as it not only extends the potential strike of mineralisation at Mt Flora by 300m but also confirms that pXRF soil anomalies of greater than 140 ppm copper are related to bed rock massive sulphide copper mineralisation in the near surface and at depth, which has very important implications for the potential scale of the mineralised systems in the southwest of the Bundarra Pluton in the Quorn, Absolon and Rogers prospect areas.

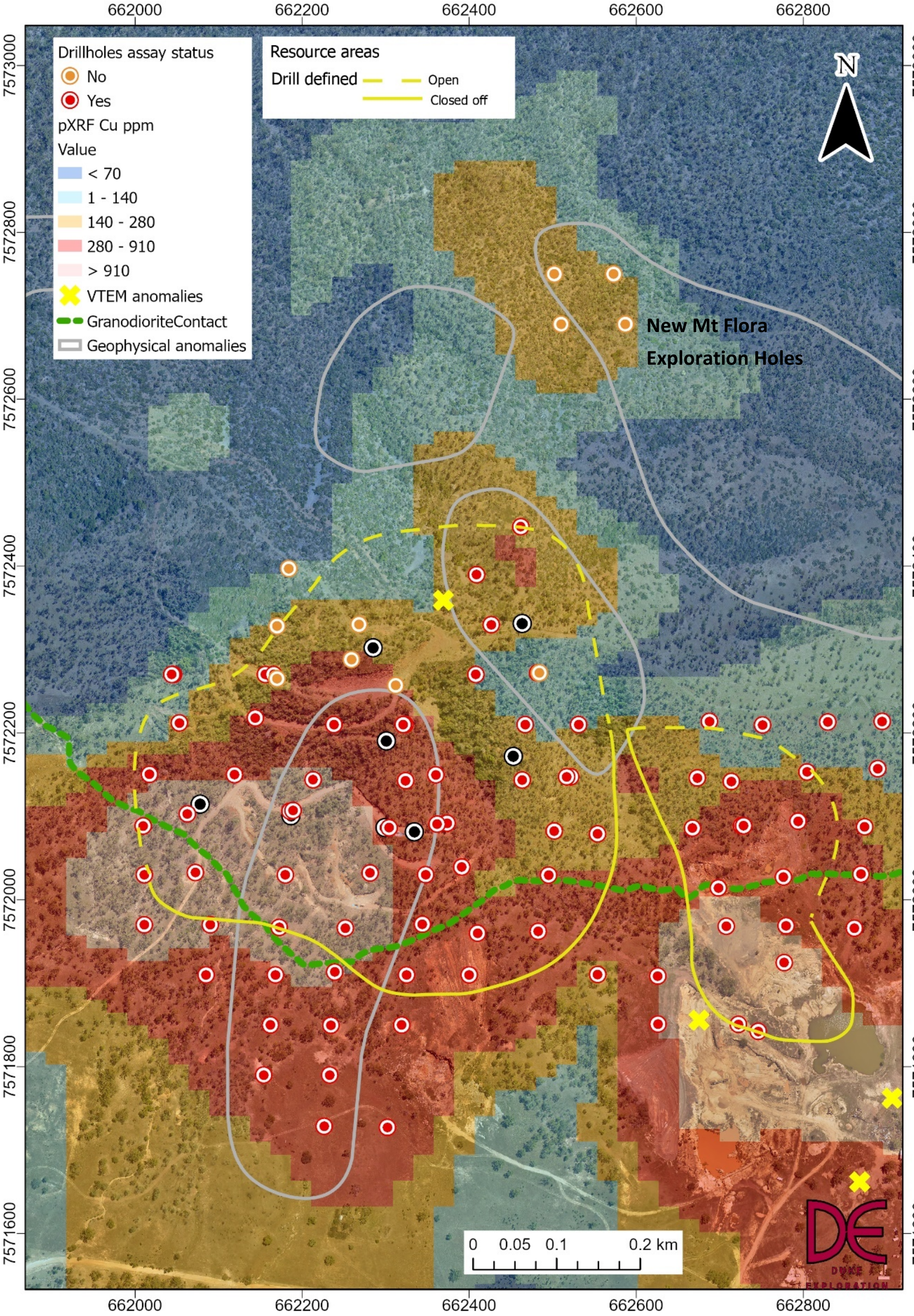

Figure 2. Mt Flora drill location plan for the holes completed to date at the Quarry Anomaly and Mt Flora relative the pXRF soil and electrical geophysical anomalies in relation to the northern Mt Flora exploration holes.

Mt Flora Maiden Resource Estimate

In compliance with the ASX Listing Rules (clause 5.8.1) for the public reporting of a Mineral Resource, the Company provides supporting information in the sections below.

Geology and Geological Interpretation

Regional Geological Setting

The Bundarra project area is located in the northern Bowen Basin (Figure 3), which is a lower Permian-Upper Triassic rift-related sedimentary basin that crops out from the Collinsville area, in north Queensland, southward to around latitude 25°S. The Bowen Basin comprises up to ten kilometres of continental and shallow-marine, largely clastic sediments, including substantial deposits of coal. The eastern part of the basin is composed of lower Permian volcanic rocks, and the lower to upper Permian Back Creek Group. The Back Creek Group consists of thickly bedded to massive mudstone, and subordinate lithic sandstone. Deposition of the undivided Back Creek Group occurred during a major early Permian marine transgression. Trace fossils indicate a marine origin to the sediments.

Many intrusives have been documented in the region from Carboniferous to Cretaceous in age. Carboniferous I-type intrusions range from gabbro to granite and increase in age systematically from north to south. The Bundarra pluton is much younger based on zircon geochronology and is interpreted to intrude the Permian Back Creek Group sediments in the Cretaceous.

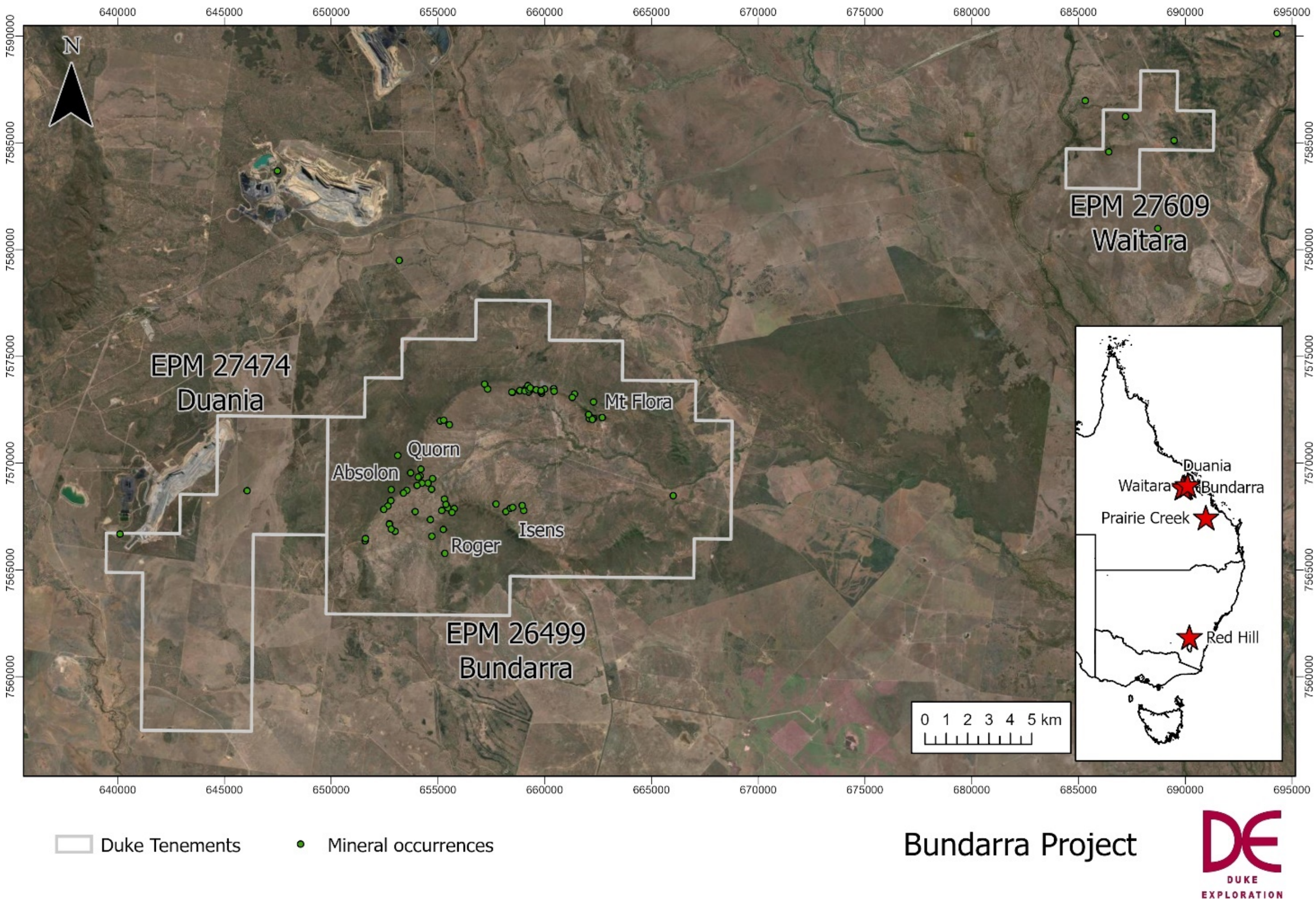

Figure 3. Location of the Mt Flora resource development area within the Bundarra project.

Local Geological Setting

The local geology of the Bundarra Project area is dominated by the Cretaceous Bundarra pluton, which intrudes the Permian Back Creek Group. The Bundarra pluton is the largest intrusion in the eastern part of the Bowen Basin. It is a multi-phase intrusion that comprises a range of compositions, including granodiorite, quartz monzodiorite, quartz diorite, tonalite, syenite and adamellite-quartz monzonite.

The intrusion forms an area of low relief surrounded by a ring of hills of contact-metamorphosed sediments (Figure 3). Within, and surrounding the Bundarra pluton, are numerous quartz porphyry and quartz-feldspar porphyry dykes and sills (Figure 4). The presence of porphyries, breccia pipes and occasionally pebble dykes supports the high-level and water or volatile-rich nature of the Bundarra pluton, as does the contact metamorphism of the country rocks.

The pluton comprises four main intrusions (Figure 4). Two smaller intrusions occur to the northeast and east of the central Bundarra granodiorite, and one large distinct intrusion to the southwest (Painted Peak pluton). The later phase intrusives have a wide range of compositions, interpreted to be a product of an evolving magma chamber at depth. The larger intrusions can be mapped by prominent ridge lines resistant to erosion due to contact metamorphism. The igneous-sedimentary contacts are sharp with only small xenoliths of hornfels in the primary igneous phase.

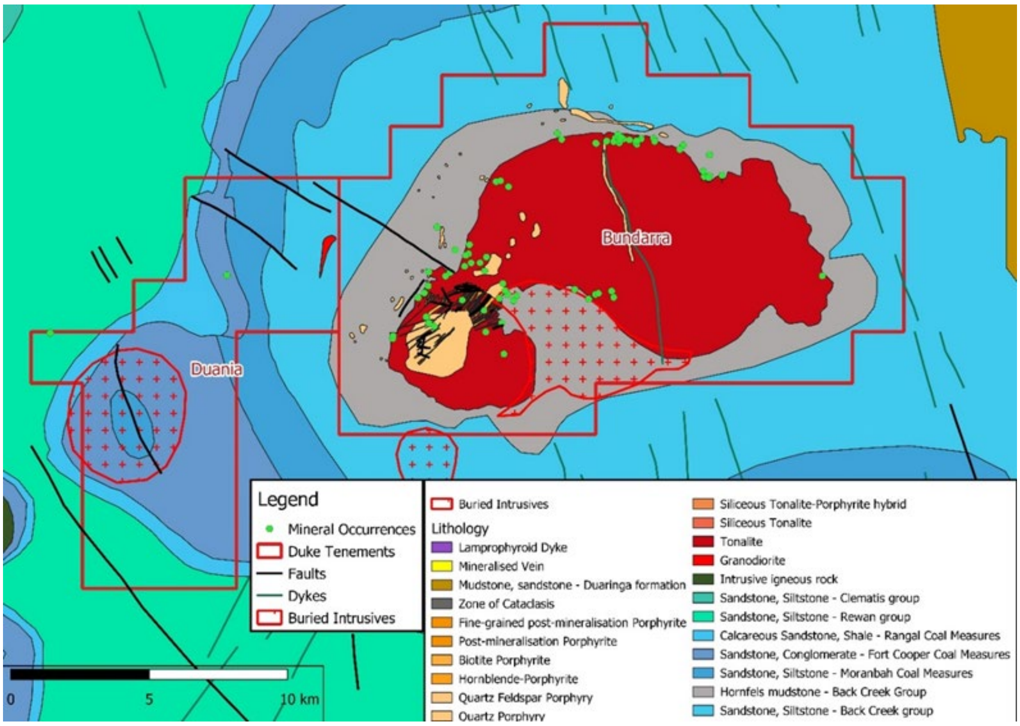

Figure 4. Local scale geology of the Bundarra tenement.

The copper, silver and gold mineralisation found and mined historically around the Bundarra pluton is preferentially located in the hills around the Bundarra intrusion, which comprise mainly hornfels argillite. The metals occur in massive sulphide veins that form structurally controlled lodes. The massive sulphide veins predominantly consist of chalcopyrite and pyrite, with minor bornite, cuprite, chrysocolla, and molybdenite also documented. Copper oxides, azurite, and malachite are the dominant ore minerals in the near surface within the weathered zone.

Mt Flora

Copper, gold, silver and molybdenum mineralisation at Mt Flora is located within 500 m of the contact zone between the Bundarra granodiorite and hornfelsed Back Creek Group sediments (Figure 4). The hornfels argillite is generally massive and structurally monotonous. The unit is dark grey consisting of quartz, andalusite, sericite and minor carbonaceous material and detrital tourmaline. Due to the hornfels metamorphism there is no primary sedimentary structures or metamorphic fabric present. Uneven grainsize and irregular inter-granular relations indicate rock has not reached textural equilibrium. The mineral assemblage would be stable at a temperature of 500–520 degrees, in the probable pressure range of formation, placing the unit's metamorphism in the upper albite-epidote-hornfels facies.

The copper, silver and gold mineralisation at Mt Flora is spatially related to the granodiorite contact focussed in structurally controlled lodes dipping to the east. The stacked lodes consist of massive sulphides at the centre of alteration haloes that also contain lower-grade fine veins of chalcopyrite. The high-grade massive sulphide veins comprise predominantly chalcopyrite and pyrite (Figure 5). Lower-grade haloes of sulphide veinlets extend outwards from the massive sulphide veins into the hornfels argillite host rock, with widths of 1–20 m depending on the density of massive sulphide veinlets. The mineralisation consists of small, 0.5–2 cm massive sulphide veinlets associated with pervasive sericite–albite–chlorite alteration.

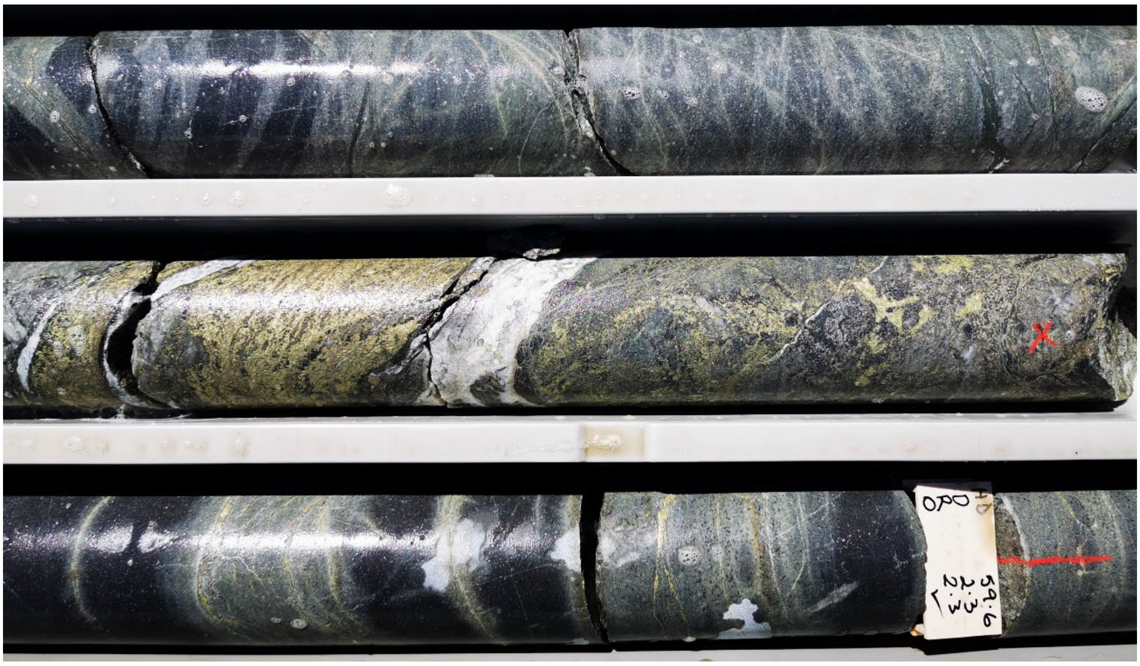

Figure 5. Mt Flora mineralisation hosted in high-grade massive sulphide veins. Hole DFD001, interval 60.25 m to 60.85 m (60 cm length), 5.84% Cu.

The structurally controlled lodes crosscut the hornfels argillite granodiorite contact, indicating the mineralisation is syn to post the main granodiorite intrusion. The lodes dip eastward at approximately 45–55 degrees. The high-grade massive sulphide-rich high-grade stockwork zone plunges to the northeast subparallel to the granodiorite contact (Figure 6 and Figure 7). The lodes are highly irregular and pinch and swell from centimetres to metres in width down dip and along strike. Several lodes outcrop at the surface (Figure 8) and can be traced north to south along strike.

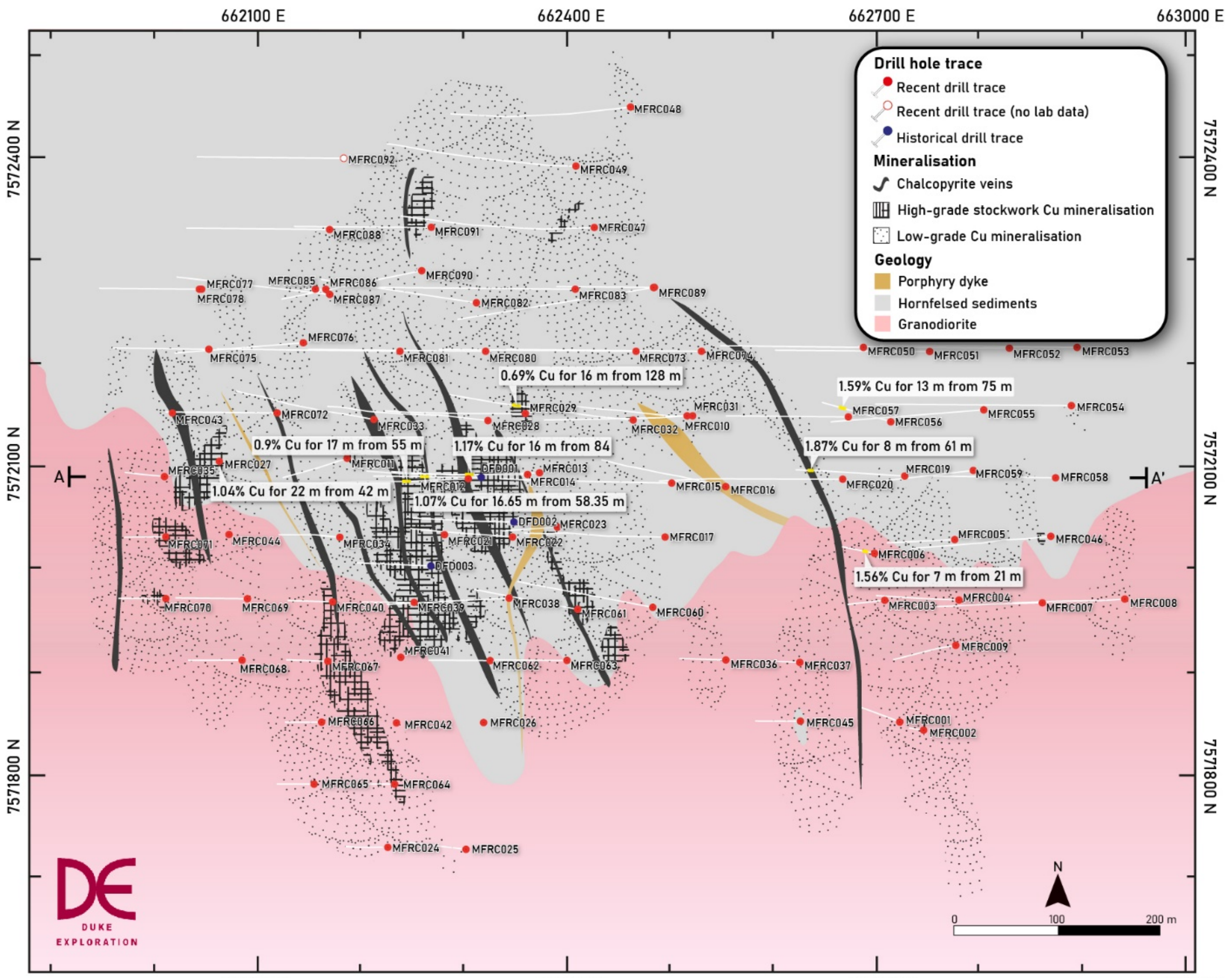

Figure 6. Plan view of the Mt Flora area showing drilling, mineralisation and geology. The location of cross-section plane shown in Figure 7 is denoted by the line along A–A'.

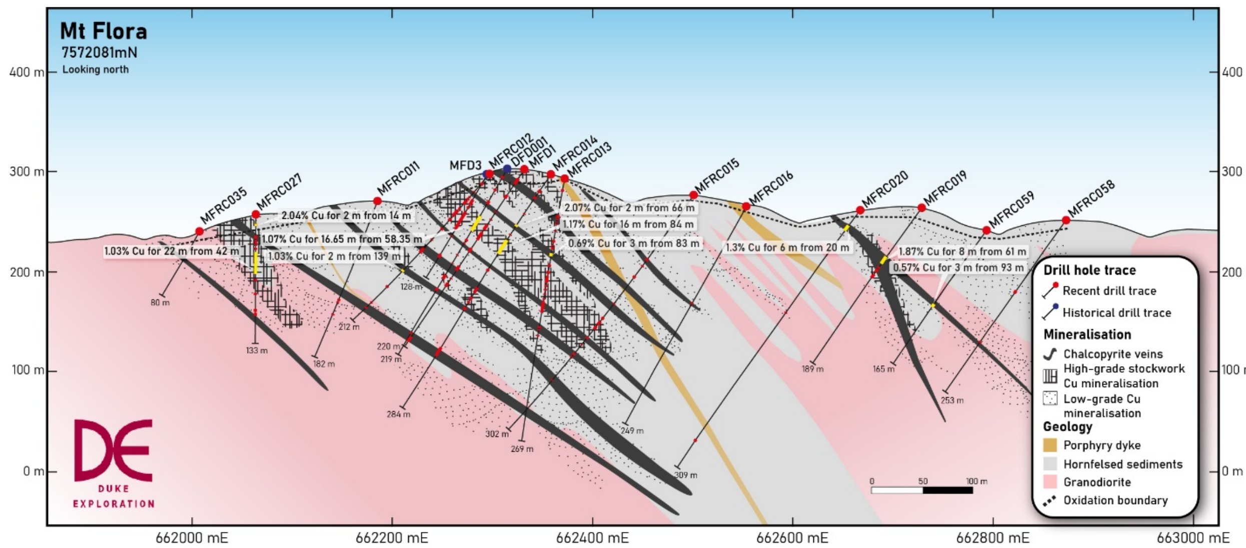

Figure 7. Drill section 7,572,081 mN (line A–A' in Figure 6) showing drilling, mineralisation and geology.

Figure 8. Outcropping east-dipping lode adjacent to a mine shaft on Mt Flora.

Drilling Techniques

The choice of reverse circulation (RC) drilling was carefully considered for the resource definition drilling programme. In the selection of the contractor, significant emphasis was put on the quality of the drilling and the resulting sample, and these constraints were included in the drilling agreement.

RC drilling was conducted by a McCulloch DR 800 drill rig with Sulli 350/1100 compressor and a Mercedes powered 350/1100 Sulli compressor, boosted by a Detroit 8V92 type 650 psi to a maximum of 900 psi. Face sampling hammers were used to collect samples. All drill bits used were face sampling Schramm 650 series 143 mm, had a shroud size of 141 mm, and they were sized to suit as they wore. Eight PCD outer teeth and nine tungsten inner teeth were used. All rods were Manutech Rods, with six-metre lengths and a four-inch outside diameter. All sample hoses had a three-inch inside diameter.

Prior to RC drilling, three diamond drillholes for a total of 550 m were drilled to better understand the geology, alteration and structural controls of the massive sulphide copper, silver and gold mineralisation at the Mt Flora prospect. Triple-tube HQ core was drilled by Associated Exploration Drillers (AED) using an Alton track mounted diamond drill rig. The holes were drilled dipping 60° to the west, approximately perpendicular to the mineralisation. Core recovery was measured at the rig by the drillers and checked by the logging geologist when the core was metre marked. Core recovery was excellent throughout the drill programme, with only the occasional loss of core in the shallow clay zone. The average core recovery was 99.34% (e.g., Figure 5).

Standard operating procedures were implemented for the sampling process and were discussed with the drillers before the drilling started. Drilling and sampling crew stayed consistent throughout the campaign. Specifically, RC drilling water issues were controlled by investing the time to set proper collars, by having appropriate equipment on site, and sufficient air pressure via use of a booster. In rare instances where wet drilling could not be avoided, holes were terminated. Any issues with wet drilling (leading to sample loss) were noted and ultimately accounted for in the data quality ranking (DQR) for each sample. Metre delimitation was controlled by a process of total sample bag weighing and monitored on a control sheet after standardising for bit size and density of the specific lithology from the logging.

The resource drilling was spaced 60 m down dip and along strike of the known mineralisation that was mined historically and intersected in the historical drilling. The drillholes were predominately drilled from 40–70° to intersect the mineralised lodes. Several hole locations were in topographically challenging areas (gorges and shafts) and these were adjusted for safety, and the azimuth and dip were amended to account for the changed hole location to target the mineralised pierce points at 60 m drill trace distance. However, some hole spacings were wider or narrower due to moving some drillholes when challenging topography was encountered. Drilling now covers a strike of 700 m, a width of 900 m and a vertical depth of 338 m, with drilling continuing to the north as the mineralised veins are open in that direction (Figure 6 and Figure 7).

Sampling and Sub-Sampling Techniques

Sampling

RC drill samples, collected by the drill hammer, were delivered to a cone splitter for sub-splitting. Splitting performance was monitored on a per-sample basis by collecting a duplicate split sample for each metre. The difference in sample weight acted as a proxy for sample split consistency, which was monitored in a spread sheet in real time. Site staff implemented and monitored this performance throughout the campaign and, apart from minor issues, the sample splits are of good quality and fit for use.

Each metre interval sample was split into two calico bags (primary and duplicate) that were attached to two sampling ports on the cone splitter. The remainder of the sample was collected into a 600-mm-wide green plastic bag attached to the opening at the base of the splitter. Each calico bag was filled with approximately five kilograms of material and the remaining sample left in the plastic bag.

Primary and duplicate calico bags were pre-numbered with a different six-figure number sequence. Both the geologist and the geotechnicians on site were responsible for monitoring the bag numbers to ensure the correct metre interval was assigned to the correct sample bag. Calicoes were laid out neatly in front of their corresponding green plastic bag so that sample number errors could be identified, if any.

Duplicate calicoes were submitted to the laboratory whenever mineralisation was intersected or expected from geological models, at the discretion of the geologist. These were collected and submitted to the lab together with the corresponding primary sample. Duplicate calicoes that were not dispatched were stored on site to be submitted to the lab if the primary sample was lost or destroyed. Due to keeping the secondary duplicate calico on site, the remaining sample in the green plastic bag was no longer needed; once the geologist had taken a representative sample for sieving, the green bags were then placed into bulka bags ready for relocation and rehabilitation.

HQ-sized diamond core samples were collected for the three diamond holes drilled during the initial campaign. Core was triple tube. Recovery was measured and recorded by the drillers on the rig and corroborated by the logging geologist when metre marked. Core recovery was excellent throughout the programme and the quality of the sample is deemed high and fit for purpose. Samples contained core of varied length ranging from a maximum of 1 m half core to 20 cm half core, depending on the geological logging of the interval.

Sampling Preparation

Once all necessary RC sample information had been collected, primary calico bags were collected by the field assistants into labelled polyweave bags and taken back to sample laydown area. Here, the polyweave bags were packed into bulka bags in batches of 250 samples.

RC sample preparation was completed by ALS minerals laboratory in Townsville, QLD. RC samples were delivered to ALS by Followmont transport. Once the samples had left the laydown area, the geologist notified the lab and sent the relevant submission paperwork.

Once received by the lab, the primary samples were dried in an LPG oven for 24 hrs @ 95°C. Samples to 3 kg were pulverised to 85% passing 75 µm in a FLSmidth LM5 mill. Samples >3 kg were spilt 50:50 using a 25-mm-aperture riffle splitter prior to pulverising. Samples were then scooped from the LM5 bowl and put into brown paper bags, after which the final 0.25 g charge weight was prepared by scooping from the bag using a spatula.

Diamond core sampling intervals were determined by geologists during the logging stage. Samples were sent to ALS Townsville for cutting, sample preparation and assaying. Core was cut just to the right of the orientation line, and the right half of the core was sampled, leaving the half with the metre marks and orientation line in the tray. Sample intervals were a maximum of 1 m and a minimum of 20 cm with consideration for mineralisation. Core samples were weighed, bagged, split, pulverised or crushed into 50-g pulp samples.

Sample Analysis Method

All samples that were used in the Mineral Resource estimation were analysed at ALS Laboratories in Townsville, Queensland. Analysis for Cu and Ag was by four-acid digestion with ICP-AES finish; either by method ME-ICP61 or by method Cu-OG62 (the upper detection limit for the ME-ICP61 method is 10,000 ppm Cu).

A thorough quality control programme was maintained throughout sample analysis. In addition to ALSs' own internal use of CRM material, Duke used blanks and a range of OREAS CRMs. These were inserted into the sample stream by the rig geologist at set intervals to avoid any confusion or errors with sample numbers. Blank samples were inserted every 40 samples and CRMs every 20 samples. Several different CRMs were used and were rotated on a regular basis to ensure there was enough variation for a comprehensive statistical analysis to be made. Different standards were also used based on whether the rock was oxidised or fresh.

All CRM laboratory results were monitored for consistency and then checked for bias against certified values. This was done for both Duke and ALS CRMs. No statistically significant bias was detected that affected the reporting of Cu within the Mineral Resource estimation.

Estimation Methodology

The Mt Flora Mineral Resource estimate is based on diamond and RC drilling conducted by Duke from 2020 to 2021. It includes a total of three diamond holes (550 m) and 87 RC holes (15,834 m). Six historic diamond drill holes were not included in the estimate. The data cut-off date for the Mineral Resource estimate is 16 June 2021. The collar, survey, lithological and assay files were verified in the database. The assay data in the database were also verified against laboratory results and the data quality were controlled through regular QC reports throughout the drilling programme. Preliminary pXRF values were used for drillholes for which laboratory results were not yet available for domaining but these results were not used in the Mineral Resource estimate.

Geological Domains

Four major lithological domains were created (hornfels, granodiorite, microdiorite, and porphyry dyke), using Leapfrog Geo implicit modelling workflows and based on the downhole geological logging and supported by multi-element geochemical data (Figure 9).

The resulting 3D geological wireframes provide an important control on mineralisation, with the plunge of the mineralisation aligning with the granodiorite-sediment contact.

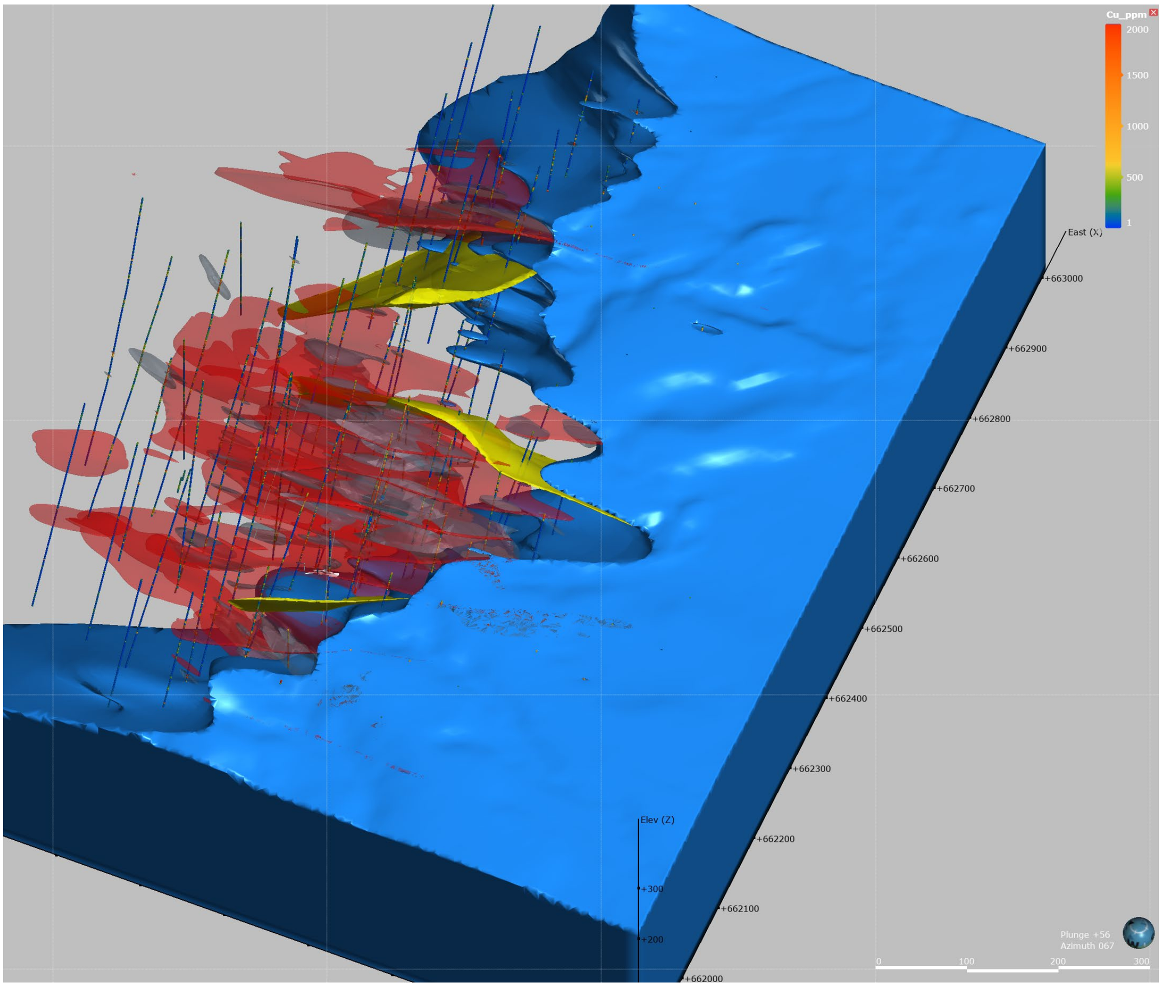

Figure 9. Oblique 3D view of the granodiorite-metasediment contact (looking 56° down towards ENE). Porphyry dykes in yellow; granodiorite in blue; metasediments not showing (void); transparent red and grey domains of mineralisation plunging along granodiorite contact along view angle.

Estimation Domains

Geological controls on mineralisation and the mapping of geological domains were not at sufficient resolution to map the geometry of the mineralisation and particularly separate grade populations for unbiased estimation. Mt Flora occurs in structurally controlled 0.5 m to 2.0 m wide massive sulphide veins that crosscut the granodiorite-sediment contact, and in a wider, steeper-dipping network of centimetre scale stock-work veining and alteration. Mineralisation is interpreted to be hosted by faults and fractures that appear to be spatially related to the granodiorite contact and contacts of porphyry dykes that are perpendicular to the granodiorite contact.

The massive sulphide lodes are predominantly massive chalcopyrite veins that can have very high Cu grades (>10%). They are visible as discreet veins at surface (Figure 8), in drill core (Figure 5), and in OTV photography. Their dip, trend and geometry can be interpreted between drillholes with reasonable confidence combining down hole logging data with Cu and Mo grade intersections. The massive sulphide lodes were therefore modelled implicitly by a narrow domain using the Leapfrog Vein Modelling workflow, creating hard boundaries and rarely extending beyond 2–3m thickness. This is Estimation Domain 1.

Structural data, obtained from OTV data interpretation in WellCad and analysed structurally using stereonets, suggests the presence of steeper-dipping structures, also east-dipping but at a steeper dip of about 70°. This structural trend aligns with the dip and azimuth of a major porphyry dyke that is spatially associated with the deposit (Figure 9). A subset of structural measurements from OTV data, capturing these structures, was extracted and modelled into a trend using the Leapfrog Form Interpolant workflow. This trend then provided the anisotropy to model the high-grade Cu-Ag stockwork domain using hard copper grade boundaries. This is Estimation Domain 2.

A broader background mineralisation is evident from grade data in the drilling and geologically in the diamond drill holes (Figure 5). It forms a zone of sericite and chlorite alteration with associated centimetre scale irregular chalcopyrite veins that does not have spatial continuity at the scale of the current drilling spacing. A significant jump occurs in the cumulative probability Cu grade population at about 200 ppm Cu and this threshold was used to model this domain. This was done using both the anisotropy and trends determined from the massive sulphide veining as well as the high-grade stockwork mineralisation, creating two broadly overlapping domains. These were then combined using a Boolean union operation to form the overall constraint to estimation. This is Estimation Domain 3.

Oxidation domains were modelled using the sulphur data from pXRF, which showed a clear break on the base of oxidation. Weathering domains were modelled from the clear break in down-the-hole gamma-gamma measurements.

All domains were validated in the context of the geological framework, through observations from mapping at surface and observed structures, and in core and OTV imagery. At 60 m drill spacing, it is often difficult to determine whether intervals are part of one vein domain, which reduces the confidence in the interpreted continuity of the detailed geometry of the mineralisation. This may affect the accuracy of the estimation but the domains are a suitable interpretation of the geometries of the copper, silver and gold mineralisation at Mount Flora and are fit for purpose for estimation and classification in the Inferred category. The drill spacing will need to be reduced to a 30 m drill spacing to provide more confidence in continuity, which will allow the classification of the Mineral Resource estimate to be improved.

The domaining approach used for this Mineral Resource estimate aims to constrain the grade interpolation to only relevant samples that are characterised by the same geological features. The grade populations in each of the estimation domains displayed acceptable variances that remain reasonably stationary across the deposit. The coefficient of variation for the composited data in the vein and stockwork domains is 1.63 (after grade-capping five samples to 7.5% Cu) and 1.62 (uncapped), respectively (Figure 10). No further distinction was made within the mineralised domains (e.g. no sub-domains were generated).

The contact analysis plots for the massive sulphide, chalcopyrite vein estimation domains and high-grade stockwork estimation domains indicate that the vein domain clearly has hard contacts, whereas the stockwork domain is expectedly more gradational (Figure 11).

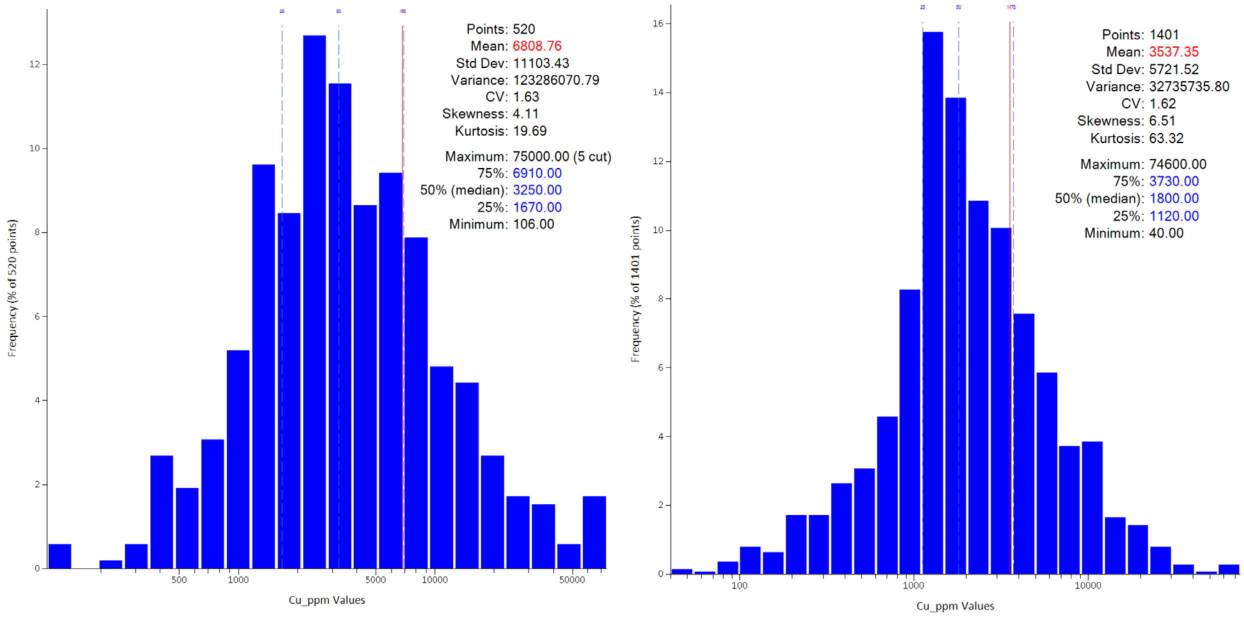

Figure 10. Statistics of composites within the massive sulphide chalcopyrite vein estimation domains (left) and high-grade stockwork estimation domains (right).

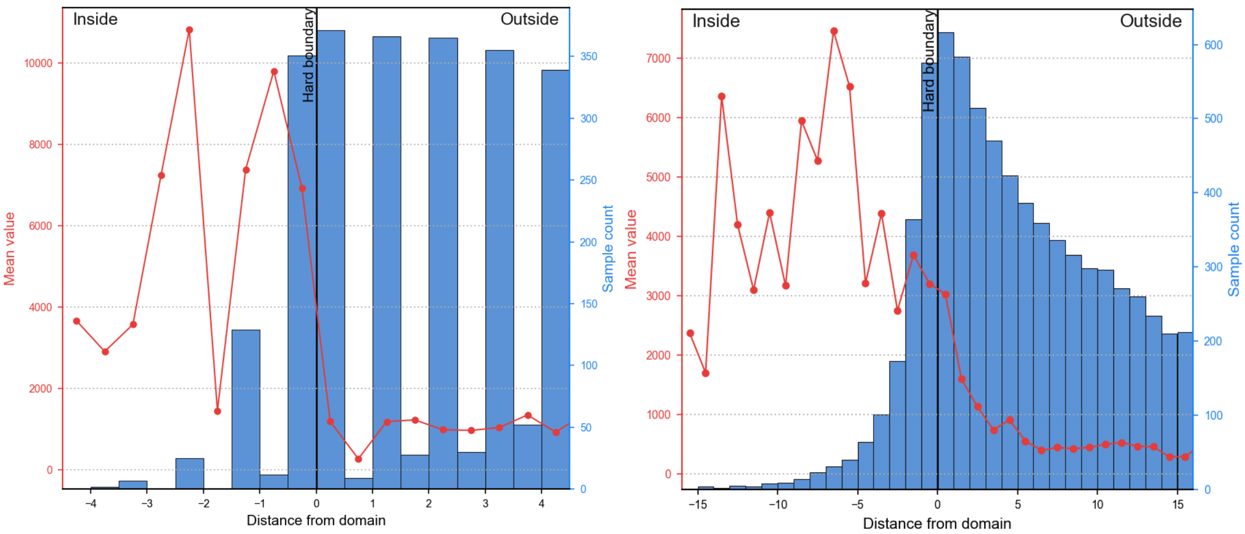

Figure 11. Contact plots for the massive sulphide chalcopyrite vein estimation domains (left) and high-grade stockwork estimation domains (right).

Grade Interpolation

In preparation for grade interpolation using Ordinary Kriging, weights were generated by modelling variograms for each of the estimation domains and for each element of interest. Given the geometry of the massive sulphide veins and the wide drill spacing, this was carried out on all combined data within the massive sulphide vein system (*n*=520). The resulting variograms were poorly structured, which is a clear indication that further infill drilling is required to achieve higher classifications. After normal-score transformation, the experimental data have a γ_0 of about 40%, and a long range of about 110 m. Second structures are hard to determine but were introduced to reduce the weighting of samples between 30–110 m ranges. The back-transformed models for the massive sulphide chalcopyrite estimation domain and the high-grade Cu stockwork estimation domains are shown in Figure 12.

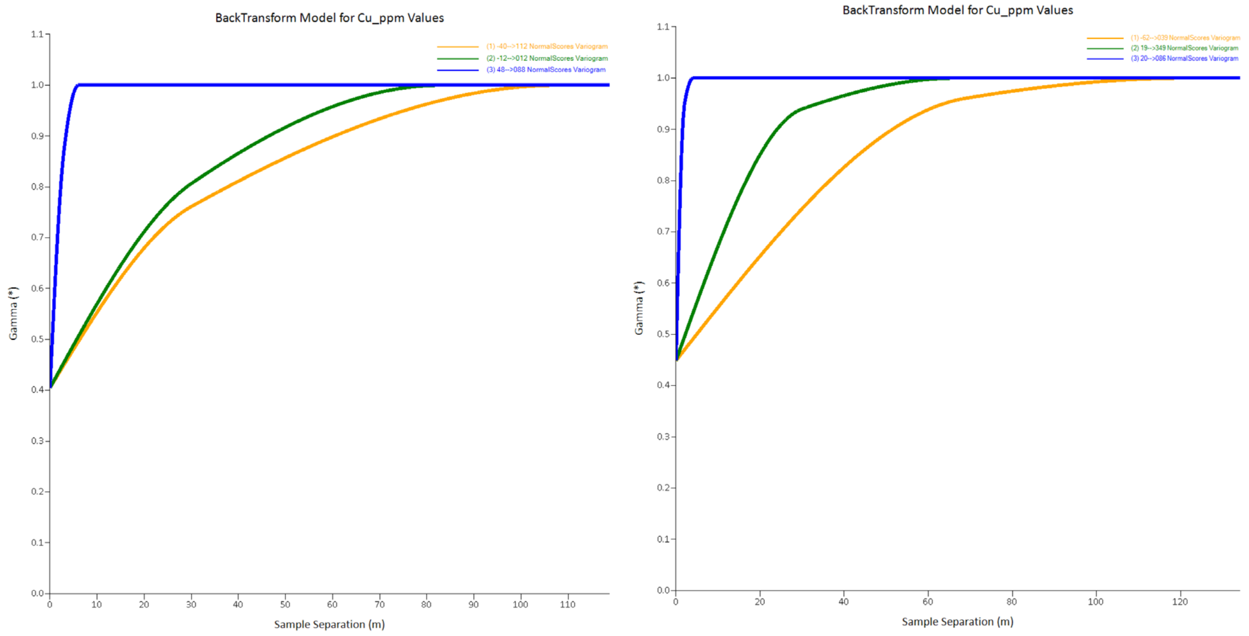

Figure 1. Back-transformed models for the massive sulphide chalcopyrite estimation domain (left) and the high-grade Cu stockwork estimation domain (right).

Average block grades were estimated using ordinary kriging (OK). The block size was set to 25 m x 30 m x 5 m to honour the drillhole spacing, with sub-celling set at 5 m x 10 m x 5 m for volume resolution at the anticipated SMU scale.

The search ellipse used in a single-pass estimation had settings broadly acknowledging the geometry of the domains (250 m x 150 m x 25 m). Estimation was performed by dynamically rotating the search ellipse to the local orientation of the vein or the trend of the stockwork zone. To find a balance between grade capping and estimation bias, extreme grades were capped back slightly further than the level indicated by the global statistics of the domains, and the extreme grades were allowed to inform the nearest blocks without capping (e.g. distance-buffered grade capping).

Bulk Density

Bulk density values were determined using down-the-hole gamma-gamma in both RC and diamond holes at a 1-cm resolution, as well as by conventional wet-dry Archimedes density determination on selected core samples. Inconsistencies were discovered during data validation of the gamma-gamma method, and these have not yet been resolved at the time of reporting.

Bulk densities were therefore assigned to the various geological and estimation domains, by using average values from the Archimedes and salvageable gamma-gamma data and taking weathering into account (Table 1). This approach is fit for the purpose for estimation of a low-confidence Inferred Mineral Resource. But will need to be improved for future resource upgrades.

Weathering	Rock Type	Mineralisation	Density
Weathered	Granodiorite	Massive sulphide chalcopyrite veins	2.58

Weathering	Rock Type	Mineralisation	Density
Fresh		High-grade stockwork	2.38
		LG & unmineralised	2.32
	Hornfels	Massive sulphide chalcopyrite veins	2.58
		High-grade stockwork	2.44
		LG & unmineralised	2.54
	Granodiorite	Massive sulphide chalcopyrite veins	2.90
		High-grade stockwork	2.68
		LG & unmineralised	2.66
	Hornfels	Massive sulphide chalcopyrite veins	2.90
		High-grade stockwork	2.70
		LG & unmineralised	2.67

Table 1. Assigned bulk dry densities

Supporting Preliminary Mining and Metallurgical Studies

Preliminary test work, to assess metallurgical processing options, was conducted by Core Metallurgy in May and June 2019[1]. The scoping test work considered both leaching and flotation as means of copper recovery for various mineralogical domain samples at the Mt Flora and Quorn prospects, but did not seek to fully optimise conditions and only assessed the amenability of the samples to these processes. The samples were collected from old shaft surface dumps at the Mt Flora deposit and were nominally classified as having oxide, transition, and sulphide mineralisation. Because the sulphide mineralisation on the mine dumps has been exposed to weathering since being mined it will have some oxidation that will affect the metallurgical results.

Key assumptions used in the study based on the results of the metallurgical test work included that all mining would occur from an open pit, would use a throughput rate of 500,000 tonnes per annum of sulphide ore, a concentrate grade for Cu of 24% and Ag of 398 g/t, which are the results from one sample of ore on the dumps at Mt Flora, that the concentrate filter cake would be delivered to Mt Isa by road transport and a locally based drive in and out workforce would be available at Mackay or in the surrounding area.

The study considered 12 processing options. The Base Case capital cost estimate for the supply and construction of a processing plant, with a nominal capacity of 500,000 dry tonnes per annum to produce a saleable rough copper concentrate, was estimated by Core to be approximately AUD 56.3 million. Order-of-magnitude operating costs, for a greenfield EPCM and a second-hand processing plant (AUD 31–34 per tonne) were significantly lower compared to Builder Owner Operator (AUD 47–51 per tonne) and Contract Crushing/Direct Shipped Ore (AUD 65–89 per tonne) options.

AMC assessed the open pit mining parameters in a study completed in May 2021, using assumptions based on the Core Metallurgy test work. It considered a steady-state mining rate of 15–20 Mtpa is achievable from the geometry

[1] First reported publicly on 16 September 2020 in https://duke-exploration.com.au/duke/wp-content/uploads/2020/09/dke_prospectus2020_a06.0.pdf

of the deposit and sufficient to maintain steady-state concentrator feed rates. The geometry of the deposit would require that the majority of mining would need to be undertaken as selective mining, with limited opportunity for bulk waste mining in the hanging wall. Bench heights of five metres or less would be required to limit mining dilution and ore loss. On this basis, excavators in the 110-t to 190-t class may be appropriate, matched with 100-t payload mine trucks. The corresponding mining cost indicated an overall waste unit mining cost of approximately AUD 4.14/t mined. Including an additional allowance for grade control, of AUD 1.00/t of ore processed, the overall unit mining cost increases to approximately AUD 4.35/t mined.

A constant copper recovery of 96.8% to the concentrate was used in the review for all ore grades. Based on recoveries observed in other studies, metallurgical recoveries in flotation circuits can be variable and dependent on the overall feed grade, mineral assemblage and lithology. Lower recoveries are often observed from lower grade material, and a fixed tail grade component is often applied to account for this. On the basis of the conceptual mining parameters, an SMU size in the order of 5 m x 10 m x 5 m (XYZ) matches the size of mining equipment recommended, the mining selectivity indicated by the deposit geometry, and the mine production rates required to maintain a 2 Mtpa processing feed rate. The steady state mining and processing rates, and plant feed and concentrate grade profiles, are in line with other similar open pit projects in Australia.

Resource Classification

The Mineral Resource estimate for Mt Flora has been classified in the Inferred category in accordance with the JORC Code (2012). Geological evidence is sufficient to imply but not verify geological and grade continuity. The Mineral Resource is based on exploration, sampling and assaying information gathered through appropriate techniques from outcrops and drillholes. There is no material classified as Indicated or Measured.

It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration, particularly reducing the drill spacing. Confidence in the estimate is not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning in Pre-Feasibility or Feasibility Studies. Caution should be exercised if Inferred Mineral Resources are used to support technical and economic studies such as Scoping Studies.

In assessing the reasonable prospects for economic extraction, preliminary mining and metallurgical studies have been completed that support the future prospects for economic extraction of the Mt Flora Inferred Resource. Future work will be planned to decrease the drill spacing, improve sample and analytical quality control, obtain representative bulk density data for the resource and waste components of the model, metallurgical sampling to allow definitive metallurgical studies to be completed, particularly to better understand the concentrate grade(s) achievable at a copper cut-off grade of 0.2% Cu.

Mt Flora Maiden Mineral Resource Estimate

The Maiden Inferred Mineral Resource Estimate at Mt Flora is 16 Mt at an average grade of 0.5% Cu and 6.9 ppm Ag (Table 2), The resource is reported at a 0.2% Cu cut-off grade as classified and reported in accordance with the JORC Code (2012). The cut-off grade of 0.2% Cu used to report the Mt Flora Mineral Resource estimate was confirmed by the mining study and is in line with cut-off grades for other similar open pit copper projects.

		Tonnes (Mt)	Cu%	Ag g/t	Cu tonnes	Ag ounces
Inferred	Oxide	1	0.3	4.2	2,000	87,000
	Sulphide	15	0.5	7.0	76,000	3,500,000
	Total	16	0.5	6.9	78,000	3,600,000

Table 2. Mount Flora Mineral Resource Summary.

Notes:

- Reported at a 0.2% Cu-equivalent cut-off grade (Cu & Ag)
- The Mineral Resource is classified in accordance with JORC, 2012 edition.
- The effective date of the Mineral Resource estimate is 25 June 2021.
- The Mineral Resource is contained within EMP 26499.
- Estimates are rounded to reflect the level of confidence in these resources at the present time. All resources have been rounded to the nearest million tonnes.
- The Mineral Resource is reported as a global resource

The styles of mineralisation at Mt Flora can be subdivided into higher grade massive sulphide lodes surrounded by disseminated lower grade network veins. The higher grade massive sulphide lodes comprise about 40% of the copper, silver and gold mineralisation as modelled, which define attractive targets for mining. Closer spaced infill drilling is required to better map these zones in the Mineral Resource estimate model.

Importantly the visible copper in the new exploration drilled 300 m to the north of the last line of holes used in the Mineral Resource estimate as described above provide an immediate target for increasing the resource at Mt Flora with a 300m strike of the mineral system remaining to be drill tested, which if successful would increase the strike of the copper, silver and gold veins at Mt Flora to 1,000m (Figure 2). Planning for resource drilling at Mt Flora and the new mineralisation recently discovered at Quorn is underway, which will be carried out as part of the next phase of infill drilling of the current resource area at Mt Flora. The Mineral Resource estimate for the Bundarra project area will be updated once this drilling is completed.

About Duke Exploration

Duke is an Australian exploration company with majority interests in five granted exploration tenements for copper, gold and silver exploration areas located in Queensland and New South Wales, Australia.

Duke's key assets comprise:

- EPM 26499, EPM 27474 and EPM 27609 – Bundarra project (100% owned copper exploration project near Mackay, Queensland);
- EPM 26852 – Prairie Creek Project (91% owned (9% Capgold) gold exploration project near Rockhampton, Queensland); and
- EL 8568 – Red Hill Project (100% owned copper exploration project near Red Hill, New South Wales).

In addition, Duke also has an interest in four New South Wales Cu-Au porphyry tenements currently operated by Lachlan Resources Pty Ltd, a wholly owned subsidiary of ASX listed Emmerson Resources (ASX:ERM). Duke currently holds a 5% interest in two of these tenements and a 10% interest in the other two tenements that is free carried to BFS.

The highest priority target for the Company is the Mt Flora prospect in the Bundarra project, one of the numerous Bundarra project's prospects, which has resource development potential for copper, silver and gold. All historical data from the mine at the Mt Flora prospect have been checked in the field by diamond drilling and ground geophysics, which have confirmed the tenor and scale of copper, silver and gold mineralisation mined previously. There are five other areas with similar development potential on the Bundarra project as defined by historical mining, geology and geophysics.

Our aim is to develop an Indicated Mineral Resource at the Mt Flora prospect as a priority to allow feasibility studies to be undertaken and to delineate additional Inferred Mineral Resources from the current known exploration target areas. The Company also intends to drill the more conceptual exploration targets on the Prairie Creek project and Red Hill project (see *www.duke-exploration.com.au* for more project details).

The exploration and development strategies are to simultaneously carry out resource development work at Mt Flora, while exploring the regional potential of the Bundarra pluton. The aim is to discover a pipeline of resource development projects around the Bundarra pluton to add to the Mt Flora project organically. pXRF soil sampling and gradient array resistivity and induced polarization (GAIP) surveys continue to be carried out to the south and east of the surveys, towards the Roger and Isens prospects. Detailed 3D IP data have been acquired, targeting the GAIP anomalies at Quorn and Absolon. The first results from the Quorn target area have been used to carry out scout exploration drilling which has intersected new zones of copper, silver and gold mineralisation outside the Mt Flora resource area.

Competent Person Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Dr Greg Partington, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and a Member of The Australian Institute of Geologists.

Dr Partington is employed by Duke Exploration Pty Ltd as a consultant through Kenex Pty Ltd. He has over 30 years of experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr Partington consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 1 – JORC Code, 2012 Edition, Checklist of Assessment and Reporting Criteria

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	• RC drilling: 'industry-standard' with 1-m primary samples collected using a reverse circulation (RC) McCulloch DR 800 drill rig with Sulli 350/1100, boosted by a Detroit 8V92 type 650 psi to a maximum of 900 psi. Face sampling hammers were used to collect samples. • Diamond drilling: 'industry-standard' triple-tube, HQ-sized diamond core drilling using an AED Alton track mountain diamond drill rig, with half core submitted to the laboratory, followed by crushing and pulverisation. • Sample representivity was ensured through SOPs and quality control on sample weights for RC drilling and core recovery on diamond drilling.
Drilling techniques	• *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• RC drilling: The drilling was conducted by a McCulloch DR 800 drill rig with Sulli 350/1100 compressor and a Mercedes powered 350/1100 Sulli compressor. Booster is a Detroit 8V92 type 650 psi to a maximum of 900 psi. Face sampling hammers were used to collect samples. All drill bits used were face sampling Schramm 650 series 143 mm, had a shroud size of 141 mm, and they were sized to suit as they wore. Teeth are 8 PCD outer and 9 tungsten inner teeth. All rods were Manutech Rods which are 6m long, 4 inches outside diameter. All sample hoses are 3 inches inside diameter. • Diamond drilling: An AED Alton track mountain diamond rig was used to recover HQ-sized core. Three metre rods were used, and triple-tube methods were used to ensure sample recovery, especially though clay zones. Core was orientated using a reflex tool.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample recovery was maximised and representativity were ensured through SOPs and quality control processes. • RC drilling: All sample recovery information was digitally recorded on the rig using locked auto-validating excel spreadsheets. Samples were weighed using digital scales and recoveries were estimated based on average density of logged lithology, bit diameter (indicating volume of sample) and total sample weight. The recovery was constantly monitored using live-updating graphs indicating when recoveries were out of control or showing unfavourable trends. • An auxiliary booster was used to maximise air pressure to improve sample recovery, which allowed holes to be drilled dry. Where samples were drilled wet, they have been logged as such. Furthermore, constant monitoring of recoveries via measurement and evaluation of total sample weights on the rig enable recoveries to be

Criteria	JORC Code explanation	Commentary
		maximised. • There is no relationship between sample recovery and grade and no correction or weighting factors were required. • Diamond drilling: The drilling crew measured each run and recorded core recovery. This was doubled-checked by the geologist when the core was metre marked. Due to the competent nature of the rocks at Mt Flora, there was minimal core loss, only occasionally recorded in the shallow clay zone. Recovery was recorded as a percentage per metre. The average recovery for the total programme was 99.34%. • Triple-tubing was used to ensure maximum sample recovery for diamond drilling.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• RC drilling: Chip samples have been geologically and geotechnically logged to a level of detail to support mineral resource estimation. All chip samples have been geologically logged to 1 m resolution on the rig recording information on rock type, mineralogy, mineralisation, fabrics, and textures. This logging is paired with logging conducted using the downhole Televiewer information which can log to at least 1-cm resolution and records structural information for contacts, foliation, banding, veining etc. in the form of dip and dip direction measurements., resistivity, natural gamma and density measurements are also used to assist this logging. • The logging for the RC drilling was qualitative for the geological data collection and quantitative for structural, geotechnical and geochemical data. A handheld XRF was used to collect continuous geochemical data and Televiewer optical and acoustic data collection allows the measurement of structural and geotechnical data. • All 1-m samples from the drilling have been geologically logged and the geological data recorded in the drill database. Subsamples were also collected and stored in chip trays for future reference. The 87 holes drilled during the two-phase RC programme contained a total of 15,834m, all of which was geologically logged. • Diamond drilling: All core was logged by a geologist at a centimetre resolution. Features of interest that were logged include lithology, alteration, structure, and chemical composition (acquired through pXRF analysis), Downhole Optical Televiewer, Acoustic Televiewer, and petrophysical logging, including magnetic susceptibility, resistivity, natural gamma and density measurements, were also conducted and paired with geological and geotechnical logging. This logging provides information on structure, contacts, veining etc. in the form of dip and dip direction measurements at 10 cm resolution. • Geological logging is considered qualitative while structural, geochemical, and geotechnical logging via pXRF geochemical analysis, downhole Televiewers and petrophysical logging is considered quantitative. All core trays were photographed, as well as lithologies of interest in the core. • 100% of the core from the drilling was geologically logged and the geological data recorded in the drill database. A total length of core logged from the programme was 550 m.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is*	• Diamond drilling: Core was sawn in half, with half retained in trays and the other half assayed. • Sampling is considered representative of the in-situ mineralisation. Duplicates were not collected. • Sample sizes are considered appropriate to the grain size of the material sampled. • RC drilling: All samples derived from RC bit-face were split using a Metzke rotary cone splitter fixed to the side of the drill rig, a device aimed at reducing splitting variance.

Criteria	JORC Code explanation	Commentary
	representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Holes were kept dry wherever possible using an auxiliary booster. The cone splitter is able to deal with wet samples without introducing bias. This has been independently reviewed and is considered an appropriate technique to collect large-volume samples when extractor, delimitation and preparation errors are well managed. • RC drill chips were delivered to a cone splitter, then weighed on receipt at the laboratory and dried in an LPG oven for 24 hrs @ 95°C. Samples to 3 kg were pulverised to 85% passing 75 µm in a FLSmidth LM5 mill. Samples >3 kg were spilt 50:50 using a 25-mm aperture riffle splitter prior to pulverising. Samples were then scooped from the LM5 bowl and put into brown paper bags, after which the final 0.25 charge weight was prepared by scooping from the bag using a spatula. • The quality of the sampling preparation is considered of good quality, supported by sufficient quality control data (duplicates). The techniques have all been independently reviewed and are all considered appropriate and fit for purpose.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	• RC drilling: ME-ICP61 was used to analyse a total of 33 elements, including Cu and Ag. When a sample returned a value exceeding the analysis limit of Cu or Ag, the sample was re-analysed using an ore grade analysis method to accurately define the final analysis grade. The quality was carefully controlled by both Duke and ALS. • QC samples were inserted in the form of Certified Reference Materials and blanks. The results showed the laboratory mostly delivered consistent results throughout the campaign. A minor consistency issue was noted with Ag analysis, which reported low for extended periods. This has been resolved at the laboratory and in the Competent Person's opinion has a negligible effect on the quality of the results used in MRE. Overall, bias and variance acceptance testing showed acceptable results. • Internal ALS laboratory standards, blanks and duplicates were all within target range. • No external laboratory checks were made; however, Duke is planning to submit laboratory cross-check samples to an umpire laboratory to support future Mineral Resource classification upgrades.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• All significant intersections were inspected and verified by an external consultant during site visit for both RC and diamond samples. Verification of significant intersections has been made by comparing logging and laboratory results with chip trays and core boxes. • No twinned RC or diamond holes have been drilled; these are planned to support future Mineral Resource classification upgrades. • RC drilling: The data are collected via Duke Exploration Ltd.'s auto-validating, controlled spreadsheets with drop down menu entry. These sheets are loaded into an Access database using automatic scripting and are then subjected to a range of further tests for errors. Any issues were communicated to site within 24 hours and resolved before the data was accepted. The data were then validated within the database and brought into Micromine and further visual checks conducted. Database management was conducted by both internal staff and external consultants, reviewing all data merging and storage into the database to ensure the integrity of the data. • Diamond drilling: The data from the historical drilling are stored in a digital database and were verified against hard copy assays sheets in various annual reports where available. The current data are collected via an auto-

Criteria	JORC Code explanation	Commentary
		validated access database and are tested for errors. The data are then loaded into Micromine and validated using tools in Micromine and visual checks conducted. Database management was conducted by both internal staff and external consultants, reviewing all data merging and storage into the database to ensure the integrity of the data. • Assay data have not been adjusted.
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The drillholes have been accurately surveyed using a mmGPS in MGA 94/Zone 55. • Downhole survey data were collected using a north-seeking solid-state gyro during the downhole data acquisition. The gyro results were checked by the downhole surveyor by comparing them with the deviation data obtained with other downhole tools (OPTV and ATV) and by duplicating a total of three surveys. The location accuracy of sample data points is considered by the Competent Person to be highly accurate and properly quality controlled. • Topographic control has been adopted from a recent aerial geophysical programme and has been corrected to height values from the DGPS survey. The topographic control is considered to be highly accurate. • The grid system is MGA94 Zone 55. • Topographical control is by Lidar DTM, and accurate to ~1 m, as compared to surveyed points.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The drilling reported has been carried out on a 60 m x 60 m grid. The holes were drilled to an average depth of ~180 m. • Geological evidence is sufficient to imply but not verify geological and grade continuity. • No sample composting has been applied.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The drilling orientation has been determined via Televiewer structural interpretation and holes are oriented perpendicular to the main banding and veins. Where the terrain is challenging the drill pads were moved along the line and the drill dip was steepened to intersect the drill target at depth. In these circumstances, the drill intersection is not perpendicular to the geological structures or mineralisation, particularly where the holes are vertical. • There is no apparent bias in any of the drilling orientations used.
Sample security	• *The measures taken to ensure sample security.*	• RC drilling: All samples were removed from site on the day of drilling and stored inside a secure warehouse facility. The samples were transported by a certified freight company to ALS Laboratories. The samples are not left unattended, and a chain of custody is maintained throughout the shipping process. • Diamond drilling: Core trays were removed daily from the drill site and locked in a shed. The samples were transported by a professional freight company to the laboratory in Townsville and remain in a secure storage there.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• An external resource consultant has visited the exploration site and has reviewed and confirmed the drilling and sampling procedures. • This external consultancy has validated high grade RC sample and diamond core intervals, comparing database values to respective preserved chip and core samples, to ensure robustness and integrity of sampling and data capture methods.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• EPM 26499 'Bundarra' is located south of Nebo, QLD, and is held 100% by Duke Exploration Ltd. Parts of the tenement have native title interests with the Barada Barna people. • No known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Production at Mt Flora began in the 1880s. Numerous shafts, to a maximum depth of 38 m, adits and surface workings were developed. Mining continued during the 1970s. Exploration since the 1960s included geological mapping (Endeavour Oil 1974-75) soil surveys (CRA Exploration 1962, Endeavour Oil 1974-75, Regency Resources 2005), rock chip sampling (Endeavour Oil 1974-75, Chesterfield Mining and Exploration 1983, Elliot Exploration 1987, Dominion Gold Operations 1991, Queensland Metals Corporation 1994), Geophysics (magnetics by Planet Metals in 1967 and Elliot Exploration 1987, gravity by Carpentaria Gold in 1984, IP by Endeavour Oil in 1975, and VTEM by Regency in 2014). Endeavour Oil drilled six diamond drillholes in 1975, and Queensland Metals Corporation drilled two percussion holes in 1994. Endeavour Oil 1974-75 carried out trial underground mining, metallurgical test work and resource estimation. Endeavour Oil did extensive work at Mt Flora from 1974–1976, including detailed 1:500 scale mapping, rock chip sampling, geophysics, drilling and extending adits and shaft sinking. Petrology was done on ore material taken from the base of a shaft sunk on the Flora lode in 1972 (Endeavour Oil, 1974). Near surface narrow lode mineralisation was detected in the Mt Flora area using IP geophysics, and Endeavour Oil considered IP to be a useful reconnaissance tool. Six diamond holes were drilled to successfully test IP anomalies at depth. From 1974–1975 Endeavour Oil undertook a mining exploration programme and used this work to complete a resource estimate for the Mt Flora lodes. • Elliot Exploration re-assayed the Endeavour Oil core for gold in 1987. In 1994, Normandy drilled two holes: MFP 01 and MFP 02 near the top of Mt Flora, and Regency Mines 2001–2013 did mapping and soil sampling, and apparently drilled RC holes in 2001, although no data were reported.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Copper, gold, silver and molybdenum mineralisation at Mt Flora is located within 300 m of the contact zone between the Bundarra Granodiorite and Back Creek Group sediments. In the Mt Flora area, shale, siltstone and sandstone has undergone contact metamorphism to form andalusite hornfels. Mineralisation at Mt Flora occurs in structurally controlled lodes, which crosscut the granodiorite-sediment contact, with mineralisation occurs on both sides of the contact. Mineralisation is hosted by faults and fractures, associated with sheeted quartz veins, hematite, limonite and pyrite. The lodes have massive sulphides with high copper percentages (>10%). Silver and zinc are present, as well as

Criteria	JORC Code explanation	Commentary
		molybdenum and gold.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *downhole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• All drillhole information has been provided in previous public reports, latest of which dated: 2 June 2021 and can be accessed at: https://duke-exploration.com.au/reports/asx-announcements/ • No information was excluded.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Aggregate intercepts for new drilling announced here have been calculated at a 0.2% Cu cut-off grade, minimum width of 3 m and allowing 3m maximum internal dilution and 2m maximum consecutive dilution. • No metal equivalents have been used, other than to calculate an economic cut-off grades on blocks. This has been done using current metal prices and only for metals for which metallurgical information is reasonably available.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g., 'downhole length, true width not known').*	• The mean copper-mineralised vein direction is 40/099, while the diamond drillholes were drilled at 60/270 and RC drillholes were drilled at 55/270. This means the drillholes are close to perpendicular to the mean vein direction, and true widths are close to intercept lengths. This will vary on an individual basis. • RC drilling: Where the terrain is challenging the drill pads were moved along the line and the drill dip was steepened to intersect the drill target at depth. In these circumstances the drill intersection is not perpendicular to the geological structures or mineralisation.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• This report and previous announcements contain various maps, figures and sections in the body of the announcement text shoeing the sample results in geological context.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• In the Competent Person's opinion, all material results have been reported in a balanced manner.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• A desktop study was completed by Core Metallurgy Pty Ltd, using the most recent drill data and flotation test work results to perform an order-of magnitude assessment of processing and operating options for a mine at Mt Flora. The goal of the study was to produce indicative flowsheets and the associated capital and operating costs to subsequently evaluate the feasibility and economic viability of producing a copper concentrate via conventional open pit mining and processing methods from deposits in the Bundarra project area.

Criteria	JORC Code explanation	Commentary
		• The cost estimates provided within the review are of a preliminary nature and should have an expected accuracy range of 25–45%. Scoping test work to assess metallurgical processing options was conducted by Core in May and June 2019 and these data were used to constrain the review. • Key assumptions include all mining will be from an open-pit, throughput rate will be 500,000 tonnes per annum of sulphide ore, a concentrate grade for Cu of 24% and Ag of 398 g/t, concentrate filter cake delivered to Mt Isa by road transport and a locally based drive in/out workforce is available at Mackay or in the surrounding area. • The study considered twelve processing options with the Base Case capital cost estimate for the supply and construction of a concentrator with a nominal capacity of 500,000 dry tonnes per annum to produce a saleable rougher copper concentrate is estimated at approximately AUD 56.3 million. • Order of magnitude operating costs for a greenfield EPCM and second-hand process plant, at AUD 31–34 per tonne, were significantly lower compared to Builder Owner Operator (AUD 47–51 per tonne) and Contract Crushing / Direct Shipped Ore (AUD 65–89 per tonne) options.
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work will include collection of GAIP data to map conductive anomalies associated with historic workings and VTEM anomalies. • The regional scale pXRF soil survey mapping Cu anomalies on a 80 m x 80 m grid is ongoing and eventually planned to cover the 50 km^2 area of the Bundarra Pluton and contact zone.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	• *JORC Code explanation*	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The data are collected via Duke Exploration Ltd.'s auto-validating, controlled spreadsheets with drop down menu entry. These sheets are loaded into an Access database using automatic scripting and are then subjected to a range of further tests for errors. Any issues were communicated to site within 24 hours and resolved before the data was accepted. The data are then validated within the database and brought into Micromine and further visual checks conducted. Database management was conducted by both internal staff and external consultants, reviewing all data merging and storage into the database to ensure the integrity of the data. • An external consultancy has undertaken an independent review of the drilling data including examination of original drilling logs and sampling data, original assay data, drill samples retained on site and chip tray samples. • An external consultancy has conducted data validation at both data receival stage and during

Criteria	JORC Code explanation	Commentary
		geological modelling.
Site visit	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• An external resource consultant visited the site in June 2021. All SOPs were found to be properly adhered to and the results of verification of results and data were positive.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• Geological evidence is sufficient to imply but not verify geological and grade continuity. • There is a reasonable degree of confidence in the geological interpretation of the deposit. The mineralised structures and hosting rocks have reasonably predictable geometries from section to section, and even though variability occurs on scales smaller than average drill spacing, the geological framework at the resolution of the resource model is fit-for-purpose. • Logging data, multi-element ICP and pXRF, gravity, magnetic susceptibility and density data were all used to aid in constructing the geological model. Assumptions did not have major implications on the overall geometries of the various geological domains.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The completion of phase 2 RC drilling extends the Mt Flora mineralised area to cover a strike of 700m, a width of 900m and a vertical depth of 280m.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Four major lithological domains were created (hornfels, granodiorite, microdiorite, and porphyry dykes) using Leapfrog Geo implicit modelling workflows and based on the downhole geological logging and supported by multi-element geochemical data. • Geological domains were not at sufficient resolution to capture mineralisation and separate grade populations for unbiased estimation. Mt Flora occurs in structurally controlled narrow massive sulphide veins, which crosscut the granodiorite-sediment contact, and in a dense, steeper-dipping network of stock-work veining and alteration. Mineralisation is hosted structurally controlled lodes all dipping to the east. • The massive sulphide lodes are predominantly massive chalcopyrite veins that can have very high Cu grades (>10%). They are visible as narrow discreet veins at surface, in drill core, and in OTV photography. Their dip, trend and geometry can be captured between drillholes with reasonable confidence combining these indicators with geochemical indicators. The massive sulphide veins were therefore modelled implicitly by a narrow domain using the Leapfrog Vein Modelling workflow, creating "hard" boundaries and rarely extending beyond 2–3m thickness. This is Estimation Domain 1. • Structural data, obtained from OTV data interpretation in WellCad and investigated through stereonets, showed steeper-dipping structures, also broadly east-dipping but at a steeper angle of ~70°. This structural trend aligned well with the dip and azimuth of a porphyry dyke that cuts through the deposit. A subset of structural measurements from OTV data capturing these structures was extracted and modelled into a trend using the Leapfrog Form Interpolant workflow. This trend then provided the anisotropy to model the high-grade Cu-Ag stockwork domain using hard copper grade boundaries. This is Estimation Domain 2. • A broader background mineralisation is evident from grade data in the drilling. It represents a zone with

Criteria	• *JORC Code explanation*	Commentary
		minor alteration and thin irregular quartz veining that lacks the consistency, at the current drilling spacing, to form further discreet domains. A significant jump occurs in the cumulative probability Cu grade population at ~200 ppm Cu and this threshold was used to model this domain. This was done using both the anisotropy and trends determined from the massive sulphide veining as well as the high-grade stockwork mineralisation, creating two broadly overlapping domains. These were then combined using a Boolean union operation to form the overall constraint to estimation. This is Estimation Domain 3. • Oxidation domains were modelled using the sulphur data from pXRF, which showed a clear break on the base of oxidation. Weathering domains were modelled from the clear break in down-the-hole gamma-gamma measurements. • All domains were validated in the context of the geological framework, through observations from mapping at surface and observed structures and in core and OTV imagery. At 60 m drill spacing, it is often difficult to determine whether intervals are part of one vein domain or another, and this may impact on the accuracy of the estimation. In the Competent Person's opinion, they are a suitable representation of the deposit at Mount Flora and fit for purpose of estimation and classification in the Inferred category. • The domaining approach aims to constrain the grade interpolation to only relevant samples that are characterised by the same geological features. The grade populations in each of the estimation domains displayed acceptable variances that remain reasonably stationary across the deposit. The coefficient of variation for the composited data in the vein and stockwork domains are 1.63 (after grade-capping five samples to 7.5% Cu) and 1.62 (uncapped), respectively. No further distinction was made within the mineralised domains (e.g. no sub-domains were generated). • The contact analysis plots for the massive sulphide chalcopyrite vein estimation domains and high-grade stockwork estimation domains indicate that the vein domain clearly has hard contacts, whereas the stockwork domain is expectedly more gradational. • In preparation of grade interpolation using Ordinary Kriging, weights were generated by modelling variograms for each of the estimation domains and for each element of interest. Given the thin nature of the massive sulphide veins and the wide spacing, this was carried out on all combined data within the massive sulphide vein system (n=520). The resulting variograms were poorly structured, which is a clear indication that further infill drilling is required to achieve higher classifications. After normal-score transformation, the experimental data show a $\gamma 0$ of ~40%, and a long range of ~110 m. Second structures are hard to determine but were introduced to reduce the weighting of samples between 30–110m ranges. • Average block grades were estimated using ordinary kriging (OK). The block size was set to 25 m x 30 m x 5 m to honour the drillhole spacing, with sub-celling set at 5 m x 10 m x 5 m for volume resolution at the anticipated SMU scale. • A large search ellipse was used in a single-pass estimation, with settings broadly acknowledging the geometry of the domains (250 m x 150 m x 25 m). Estimation was performed by dynamically rotating

Criteria	• JORC Code explanation	Commentary
		the search ellipse to the local orientation of the vein or the trend of the stockwork zone. To find a balance between grade capping and estimation bias, extreme grades were capped back slightly further than the level indicated by the global statistics of the domains, and the extreme grades were allowed to inform the nearest blocks without capping (e.g. distance-buffered grade capping).
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are estimated on an in-situ dry weight basis and moisture was not considered.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The cut-off grade is in line with cut-off grades for other similar open pit copper projects.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• AMC assessed open pit mining parameters. It considered a steady-state mining rate of 15–20 Mtpa is achievable from the geometry of the deposit and sufficient to maintain steady-state concentrator feed rates. The geometry of the deposit would require that the majority of mining would need to be undertaken as selective mining, with limited opportunity for bulk waste mining in the hanging wall. Bench heights of 5 m or less would be required to limit mining dilution and ore loss. • On this basis, excavators in the 110 t to 190 t class may be appropriate, matched with 100 t payload mine trucks. The corresponding mining cost indicated an overall waste unit mining cost of approximately AUD 4.14/t mined. Including an additional allowance for grade control of AUD 1.00/t of ore processed, the overall unit mining cost increases to approximately AUD 4.35/t mined. • A constant copper recovery of 96.8% for the concentrator was used in the review for all ore grades. Based on recoveries observed in other studies, metallurgical recoveries in flotation circuits are usually variable and dependent on the overall feed grade, mineral assemblage and lithology. Lower recoveries are often observed from lower grade material, and a fixed tail grade component is often applied to account for this. • On the basis of the conceptual mining parameters, an SMU size in the order of 5 m x 10 m x 5 m (XYZ) matches the size of mining equipment recommended, the mining selectivity indicated by the deposit geometry, and the mine production rates required to maintain a 2 Mtpa concentrator feed rate. The steady state mining and processing rates, and plant feed and concentrate grade profiles, are in line with other similar open pit projects.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Scoping test work to assess metallurgical processing options was conducted by Core Metallurgy in May and June 2019. The scoping test work considered both leaching and flotation as means of copper recovery for various mineralogical domain samples, but did not seek to fully optimise conditions and only assess the amenability of the samples to these processes. The samples were collected from old shaft surface dumps at the MT Flora deposit and were nominally classified as having oxide, transition, and sulphide mineralisation. • Key assumptions included that all mining would occur from an open pit, and using a throughput rate of 500,000 tonnes per annum of sulphide ore, a concentrate grade for Cu of 24% and Ag of 398 g/t, concentrate filter cake delivered to Mt Isa by road transport and a locally based drive in/out workforce being available at Mackay or in the surrounding area.

Criteria	JORC Code explanation	Commentary
		• The study considered 12 processing options. The Base Case capital cost estimate for the supply and construction of a concentrator, with a nominal capacity of 500,000 dry tonnes per annum to produce a saleable rougher copper concentrate, was estimated by Core to be approximately AUD 56.3 million. • Order-of-magnitude operating costs, for a greenfield EPCM and a second-hand processing plant (AUD 31–34 per tonne) were significantly lower compared to Builder Owner Operator (AUD 47–51 per tonne) and Contract Crushing/Direct Shipped Ore (AUD 65–89 per tonne) options.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No assumptions regarding the possible waste and process residue disposal options have been made. • The Mt Flora project area is currently used for grazing. • No large drainage systems pass through the area. • There do not appear to be any major environmental constraints that would negatively impact on the potential for eventual economic extraction.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density values were determined through down-the-hole gamma-gamma in both RC and diamond holes at 1 cm resolution, as well as by conventional wet-dry Archimedes density determination on selected core samples. Inconsistencies were discovered during data validation of the gamma-gamma method and these had not yet been resolved at time of reporting. • Bulk densities were therefore assigned to the various geological and estimation domains, by using average values from the Archimedes and salvageable gamma-gamma data, and taking weathering into account, as shown in Table 2 in the body of the text. • In the Competent Person's opinion, this is fit for the purpose for estimation of a low-confidence Mineral Resource; however, this will need to be improved in future resource upgrades.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Competent Person has classified the Mineral Resource in the Inferred category in accordance with the JORC Code (2012). Geological evidence is sufficient to imply but not verify geological and grade continuity. The Mineral Resource is based on exploration, sampling and assaying information gathered through appropriate techniques from outcrops and drillholes. There is no material classified as Indicated or Measured. • It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. Confidence in the estimate is not sufficient to allow the results of the application of technical and economic parameters to be used for detailed planning in Pre-Feasibility or Feasibility Studies. Caution should be exercised if Inferred Mineral Resources are used to support technical and economic studies such as Scoping Studies. • In assessing the reasonable prospects, the Competent Person has evaluated preliminary mining, metallurgical, economic and geo-technical parameters. The Mineral Resource reported here is a realistic inventory of mineralisation which, under assumed and justifiable technical, economic and

Criteria	• *JORC Code explanation*	Commentary
		development conditions, might, in whole or in part, become economically extractable. • Future work should seek to decrease the drill spacing, improve sample and analytical quality control and obtain representative bulk density data for the resource and waste components of the model.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The Mineral Resource estimate has been peer reviewed by an external consultancy.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The expected accuracy of the MRE is appropriately reflected in the classification assigned to the deposit. It includes assumptions on geological continuity, domain behaviour, assaying and sample preparation bias and variance, to a degree considered by the Competent Person to be suitable for inclusion in the Inferred category. Blocks classified as Inferred can generally be regarded as being accurate to within 25%-50%. • The MRE statement related to a global estimate of in-situ tonnes and grade. The MRE is considered to be accurate globally, but there may be some uncertainty in the local estimated due to data density giving a lack of detailed information of any subtle variations in the deposit. • No relevant production data is available for comparison.

Appendix 2 – Drill Hole Information and Assay Results

Prospect	Phase	Hole	Line	Easting	Northing	RL	Depth	Az	Dip	Status
Quarry lode	R1	MFRC001	7,571,850	662,722	7,571,851	222	78	288	-60	Unmineralised
Quarry lode	R1	MFRC002	7,571,850	662,746	7,571,842	221	79	283	-80	Mineralised
Quarry lode	R1	MFRC003	7,571,970	662,708	7,571,968	230	61	266	-50	Mineralised
Quarry lode	R1	MFRC004	7,571,970	662,779	7,571,969	224	121	270	-50	Mineralised
Quarry lode	R1	MFRC005	7,572,030	662,776	7,572,027	236	137	270	-60	Mineralised
Quarry lode	R1	MFRC006	7,572,030	662,698	7,572,014	233	76	280	-60	Mineralised
Quarry lode	R1	MFRC007	7,571,970	662,861	7,571,966	223	158	270	-50	Mineralised
Quarry lode	R1	MFRC008	7,571,970	662,941	7,571,970	219	206	270	-50	Unmineralised
Quarry lode	R1	MFRC009	7,571,910	662,777	7,571,925	222	98	250	-50	Mineralised
Mt Flora	R1	MFRC010	7,572,090	662,185	7,572,106	285	46	250	-60	Mineralised
Mt Flora	R1	MFRC011	7,572,090	662,189	7,572,107	285	182	250	-70	Mineralised
Mt Flora	R1	MFRC012	7,572,090	662,304	7,572,086	305	212	268	-50	Mineralised
Mt Flora	R1	MFRC013	7,572,090	662,374	7,572,092	300	269	265	-80	Mineralised
Mt Flora	R1	MFRC014	7,572,090	662,362	7,572,091	301	284	270	-55	Mineralised
Mt Flora	R1	MFRC015	7,572,090	662,502	7,572,082	278	302	270	-55	Mineralised
Mt Flora	R1	MFRC016	7,572,090	662,554	7,572,079	265	249	280	-55	Mineralised
Mt Flora	R1	MFRC017	7,572,030	662,495	7,572,030	263	249	270	-55	Mineralised
Quarry lode	R1	MFRC018	7,572,090	662,726	7,572,089	264	15	270	-55	Mineralised
Quarry lode	R1	MFRC019	7,572,090	662,729	7,572,089	265	189	270	-55	Mineralised
Quarry lode	R1	MFRC020	7,572,090	662,667	7,572,086	263	309	270	-55	Mineralised
Mt Flora	R1	MFRC021	7,572,030	662,281	7,572,032	284	171	270	-55	Mineralised
Mt Flora	R1	MFRC022	7,572,030	662,348	7,572,030	285	189	270	-55	Mineralised
Mt Flora	R1	MFRC023	7,572,030	662,391	7,572,039	282	225	264	-65	Mineralised
Mt Flora	R1	MFRC024	7,571,730	662,226	7,571,729	218	79	270	-55	Unmineralised
Mt Flora	R1	MFRC025	7,571,730	662,302	7,571,727	217	103	270	-55	Unmineralised
Mt Flora	R1	MFRC026	7,571,850	662,319	7,571,850	231	103	270	-55	Unmineralised
Mt Flora	R1	MFRC027	7,572,090	662,063	7,572,103	262	133	0	-90	Mineralised
Mt Flora	R1	MFRC028	7,572,150	662,324	7,572,143	320	258	274	-55	Mineralised
Mt Flora	R1	MFRC029	7,572,150	662,360	7,572,150	315	309	270	-60	Mineralised
Mt Flora	R1	MFRC030	7,572,150	662,522	7,572,147	298	338	270	-72	Mineralised
Mt Flora	R1	MFRC031	7,572,150	662,517	7,572,147	298	333	270	-55	Mineralised
Mt Flora	R1	MFRC032	7,572,150	662,464	7,572,144	303	333	275	-55	Mineralised
Mt Flora	R1	MFRC033	7,572,150	662,213	7,572,144	300	255	280	-55	Mineralised
Mt Flora	R1	MFRC034	7,572,030	662,180	7,572,030	256	104	270	-55	Mineralised
Mt Flora	R2	MFRC035	7,572,090	662,010	7,572,089	244	80	270	-60	Mineralised
Mt Flora	R2	MFRC036	7,571,910	662,554	7,571,911	241	80	270	-55	Unmineralised
Mt Flora	R2	MFRC037	7,571,910	662,626	7,571,909	234	80	270	-55	Mineralised
Mt Flora	R1	MFRC038	7,571,970	662,344	7,571,971	264	219	270	-55	Mineralised
Mt Flora	R1	MFRC039	7,571,970	662,252	7,571,966	255	87	270	-55	Mineralised
Mt Flora	R1	MFRC040	7,571,970	662,173	7,571,967	247	75	270	-55	Mineralised
Mt Flora	R1	MFRC041	7,571,910	662,239	7,571,913	238	87	250	-60	Mineralised
Mt Flora	R1	MFRC042	7,571,850	662,234	7,571,850	229	87	270	-55	Mineralised
Mt Flora	R2	MFRC043	7,572,150	662,017	7,572,150	258	92	270	-55	Mineralised

Prospect	Phase	Hole	Line	Easting	Northing	RL	Depth	Az	Dip	Status
Mt Flora	R2	MFRC044	7,572,030	662,072	7,572,033	251	73	0	-90	Mineralised
Mt Flora	R2	MFRC045	7,571,850	662,626	7,571,851	230	75	270	-55	Mineralised
Quarry lode	R2	MFRC046	7,572,030	662,869	7,572,031	236	243	270	-55	Mineralised
Mt Flora	R1	MFRC047	7,572,330	662,426	7,572,330	375	333	270	-55	Mineralised
Mt Flora	R1	MFRC048	7,572,450	662,462	7,572,447	359	333	270	-58	Mineralised
Mt Flora	R1	MFRC049	7,572,390	662,409	7,572,390	350	333	270	-55	Mineralised
Quarry lode	R2	MFRC050	7,572,210	662,688	7,572,214	317	243	270	-55	Mineralised
Quarry lode	R2	MFRC051	7,572,210	662,751	7,572,210	305	261	270	-55	Mineralised
Quarry lode	R2	MFRC052	7,572,210	662,829	7,572,213	296	255	270	-55	Mineralised
Quarry lode	R2	MFRC053	7,572,210	662,894	7,572,214	290	333	270	-55	Mineralised
Quarry lode	R2	MFRC054	7,572,150	662,889	7,572,157	279	333	270	-55	Mineralised
Quarry lode	R2	MFRC055	7,572,150	662,804	7,572,153	271	261	265	-55	Mineralised
Quarry lode	R2	MFRC056	7,572,150	662,714	7,572,142	285	177	285	-67	Mineralised
Quarry lode	R2	MFRC057	7,572,150	662,673	7,572,146	290	207	270	-55	Mineralised
Quarry lode	R2	MFRC058	7,572,090	662,874	7,572,087	253	207	270	-55	Mineralised
Quarry lode	R2	MFRC059	7,572,090	662,794	7,572,094	244	165	263	-55	Mineralised
Mt Flora	R2	MFRC060	7,571,970	662,483	7,571,962	251	231	280	-55	Mineralised
Mt Flora	R2	MFRC061	7,571,970	662,410	7,571,960	257	177	280	-55	Mineralised
Mt Flora	R2	MFRC062	7,571,910	662,325	7,571,910	242	104	270	-55	Mineralised
Mt Flora	R2	MFRC063	7,571,910	662,400	7,571,910	244	146	270	-55	Mineralised
Mt Flora	R2	MFRC064	7,571,790	662,233	7,571,790	223	61	270	-55	Unmineralised
Mt Flora	R2	MFRC065	7,571,790	662,154	7,571,790	224	61	270	-55	Unmineralised
Mt Flora	R2	MFRC066	7,571,850	662,162	7,571,850	233	61	270	-55	Unmineralised
Mt Flora	R2	MFRC067	7,571,910	662,168	7,571,910	241	67	270	-55	Mineralised
Mt Flora	R2	MFRC068	7,571,910	662,085	7,571,910	234	91	270	-55	Mineralised
Mt Flora	R2	MFRC069	7,571,970	662,090	7,571,970	242	122	270	-55	Mineralised
Mt Flora	R2	MFRC070	7,571,970	662,011	7,571,970	240	80	270	-55	Mineralised
Mt Flora	R2	MFRC071	7,572,030	662,011	7,572,030	239	68	270	-55	Mineralised
Mt Flora	R2	MFRC072	7,572,150	662,119	7,572,150	284	189	270	-55	Mineralised
Mt Flora	R2	MFRC073	7,572,210	662,467	7,572,210	333	333	270	-55	Mineralised
Mt Flora	R2	MFRC074	7,572,210	662,531	7,572,210	315	331	270	-55	Mineralised
Mt Flora	R2	MFRC075	7,572,210	662,053	7,572,212	285	164	270	-55	Mineralised
Mt Flora	R2	MFRC076	7,572,210	662,144	7,572,218	315	219	265	-55	Mineralised
Mt Flora	R2	MFRC077	7,572,270	662,046	7,572,270	286	13	270	-55	Unmineralised
Mt Flora	R2	MFRC078	7,572,270	662,044	7,572,270	286	171	270	-55	Unmineralised
Mt Flora	R2	MFRC079	7,572,210	662,323	7,572,210	347	303	270	-80	Mineralised
Mt Flora	R2	MFRC080	7,572,210	662,321	7,572,210	347	300	270	-55	Mineralised
Mt Flora	R2	MFRC081	7,572,210	662,238	7,572,210	340	296	270	-55	Mineralised
Mt Flora	R2	MFRC082	7,572,270	662,312	7,572,257	369	315	278	-61	Mineralised
Mt Flora	R2	MFRC083	7,572,270	662,408	7,572,270	361	333	270	-55	Mineralised
Mt Flora	R2	MFRC084	7,572,270	662,482	7,572,272	359	333	260	-55	Mineralised
Mt Flora	R2	MFRC085	7,572,270	662,156	7,572,270	335	19	270	-56	Unmineralised
Mt Flora	R2	MFRC086	7,572,270	662,166	7,572,270	335	13	270	-55	Unmineralised
Mt Flora	R2	MFRC087	7,572,270	662,170	7,572,265	335	261	276	-55	Mineralised
Mt Flora	R2	MFRC088	7,572,330	662,170	7,572,328	350	243	270	-55	Assays Pending

Prospect	Phase	Hole	Line	Easting	Northing	RL	Depth	Az	Dip	Status
Mt Flora	R2	MFRC089	7,572,270	662,484	7,572,272	350	277	270	-70	Assays Pending
Mt Flora	R2	MFRC090	7,572,270	662,259	7,572,288	374	249	258	-56	Assays Pending
Mt Flora	R2	MFRC091	7,572,330	662,268	7,572,330	380	249	270	-55	Assays Pending
Mt Flora	R2	MFRC092	7,572,390	662,184	7,572,397	367	249	270	-55	Assays Pending
Mt Flora	R2	MFRC093	7,572,750	662,502	7,572,750	281	159	270	-55	Assays Pending
Mt Flora	R2	MFRC094	7,572,750	662,573	7,572,750	276	149	270	-55	Assays Pending
Mt Flora	R2	MFRC095	7,572,690	662,510	7,572,690	295	201	270	-55	Assays Pending
Mt Flora	R2	MFRC096	7,572,690	662,587	7,572,690	287	249	270	-55	Assays Pending
Mt Flora	R2	MFRC097	7,572,390	662,252	7,572,392	367	19	270	-55	Assays Pending

Table 1. Drill collar details of all Phase One and Phase Two RC holes drilled at the Quarry Lode and Mt Flora (MGA94 Zone 55).

Hole	Prospect	Easting	Northing	RL	From	To	Width	Cu %	Ag g/t	Au g/t
MFRC079	Mt Flora	662,313	7,572,210	290	52.0	60.0	8.0	0.57	9.01	0.04
MFRC079	Mt Flora	662,310	7,572,210	273	74.0	77.0	3.0	0.67	5.43	0.07
MFRC079	Mt Flora	662,307	7,572,210	257	90.0	92.0	2.0	0.26	2.95	0.01
MFRC079	Mt Flora	662,298	7,572,210	203	143.0	150.0	7.0	0.45	6.31	0.03
MFRC079	Mt Flora	662,294	7,572,210	184	164.0	167.0	3.0	0.36	8.83	0.03
MFRC079	Mt Flora	662,289	7,572,210	156	190.0	197.0	7.0	1.21	13.44	0.09
MFRC079	Mt Flora	662,288	7,572,210	146	203.0	205.0	2.0	0.23	2.30	0.02
MFRC079	Mt Flora	662,286	7,572,210	140	208.0	211.0	3.0	0.33	2.15	0.05
MFRC079	Mt Flora	662,280	7,572,210	103	247.0	249.0	2.0	0.27	2.20	0.01
MFRC079	Mt Flora	662,277	7,572,210	87	263.0	265.0	2.0	0.38	3.05	0.03
MFRC079	Mt Flora	662,275	7,572,210	76	271.0	279.0	8.0	0.76	8.49	0.03
MFRC080	Mt Flora	662,297	7,572,210	313	36.0	43.0	7.0	0.24	7.02	0.01
MFRC080	Mt Flora	662,278	7,572,210	285	74.0	76.0	2.0	0.62	13.85	0.01
MFRC080	Mt Flora	662,255	7,572,210	253	108.0	119.0	11.0	0.33	5.06	0.02
MFRC080	Mt Flora	662,247	7,572,210	241	128.0	131.0	3.0	0.33	9.60	0.03
MFRC080	Mt Flora	662,226	7,572,210	210	163.0	168.0	5.0	1.80	32.90	0.07
MFRC080	Mt Flora	662,170	7,572,210	130	257.0	265.0	8.0	0.42	4.80	0.03
MFRC081	Mt Flora	662,220	7,572,210	314	28.0	30.0	2.0	0.27	7.00	0.01
MFRC081	Mt Flora	662,166	7,572,210	238	123.0	125.0	2.0	0.97	18.40	0.02
MFRC081	Mt Flora	662,158	7,572,210	227	135.0	140.0	5.0	0.41	10.72	0.01
MFRC081	Mt Flora	662,122	7,572,210	174	201.0	208.0	7.0	0.43	6.38	0.02
MFRC082	Mt Flora	662,207	7,572,270	178	217.0	220.0	3.0	0.45	11.33	0.01
MFRC083	Mt Flora	662,338	7,572,270	260	122.0	124.0	2.0	0.44	13.55	0.01
MFRC083	Mt Flora	662,317	7,572,270	230	157.0	161.0	4.0	0.43	6.85	0.03
MFRC083	Mt Flora	662,300	7,572,270	210	179.0	188.0	9.0	0.20	3.18	0.03
MFRC083	Mt Flora	662,286	7,572,270	187	204.0	219.0	15.0	0.46	7.22	0.02
MFRC083	Mt Flora	662,265	7,572,270	157	243.0	253.0	10.0	0.80	11.93	0.04
MFRC083	Mt Flora	662,226	7,572,270	101	307.0	324.0	17.0	0.24	1.95	0.03
MFRC084	Mt Flora	662,370	7,572,252	198	194.0	198.0	4.0	0.74	14.10	0.03
MFRC084	Mt Flora	662,362	7,572,252	186	210.0	217.0	7.0	0.34	5.34	0.01
MFRC084	Mt Flora	662,332	7,572,247	142	264.0	276.0	12.0	0.34	4.90	0.02
MFRC084	Mt Flora	662,324	7,572,244	130	277.0	283.0	6.0	0.35	6.10	0.01
MFRC084	Mt Flora	662,315	7,572,242	117	293.0	301.0	8.0	0.43	4.81	0.01
MFRC084	Mt Flora	662,306	7,572,243	105	312.0	316.0	4.0	0.40	7.18	0.06
MFRC084	Mt Flora	662,299	7,572,242	95	322.0	324.0	2.0	0.51	8.35	0.02

Hole	Prospect	Easting	Northing	RL	From	To	Width	Cu %	Ag g/t	Au g/t
MFRC087	Mt Flora	662,120	7,572,269	264	86.0	88.0	2.0	0.25	6.75	0.01

Table 2. Drill intersections from the Mt Flora and Quarry Lode Resource RC drilling, using a 0.2% Cu cut off, with a minimum width of 1 metre and including 3 metres of internal waste (MGA94 Zone 55).