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Company Announcements Office  
Australian Securities Exchange

## DEX – COPPER AND SILVER MINERALISATION INTERSECTED BEYOND THE CURRENT RESOURCE AREA AT MT FLORA

Duke Exploration (ASX Code: DEX) is pleased to announce that the final results for the Phase 2 resource and exploration drilling at Mt Flora have been returned that follow on from the results announced on 02 June and 29 June. The new results come from outside the area covered by the Inferred resource announced on 29 June and confirm the extension of the Mt Flora and Quarry Lode veins 300 m to the north.

### Highlights

- **Significant intersections** from the new RC resource and exploration extension holes at Mt Flora include:
  - 2 m at 5.49 % Cu, 60.15 g/t Ag and 0.17 Au from 206 m in MFRC089,
  - 9 m at 1.28 % Cu, 22.07 g/t Ag and 0.02 Au from 259 m in MFRC089,
  - 3 m at 1.4 % Cu, 16.03 g/t Ag and 0.14 Au from 159 m in MFRC090,
  - 11 m at 0.4 % Cu, 4.82 g/t Ag and 0.02 Au from 22 m in MFRC091,
  - 8 m at 1.01 % Cu, 11.9 g/t Ag and 0.02 Au from 18 m in MFRC093,
  - 4 m at 1.17 % Cu, 25.45 g/t Ag and 0.05 Au from 48 m in MFRC094,
  - 4 m at 1.3 % Cu, 19.25 g/t Ag and 0.09 Au from 58 m in MFRC099,
  - 25 m at 0.6 % Cu, 7.49 g/t Ag and 0.04 Au from 219 m in MFRC106,
  - 13 m at 0.55 % Cu, 7.19 g/t Ag and 0.04 Au from 248 m in MFRC106 and
  - 15 m at 1.31 % Cu, 7.11 g/t Ag and 0.11 Au from 228 m in MFRC109.
- There are 62 new intersections of potentially economic copper, silver and gold mineralisation from the new drilling that are not included in the current Inferred resource estimate.
- Copper, silver and gold mineralisation were intersected from the near surface to a depth of 240 m and are expected to add to the recently announced Inferred resource 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), which equates to 78,000 tonnes of copper and 3.6 million ounces of silver.

- The veins, like those in the resource estimate, continue to form stacked narrow and wider sheeted en-echelon systems with copper grades up to 10.2% Cu, 165 g/t Ag and 0.73 g/t Au in individual metres.
- The copper, silver and gold mineralised area has increased to a strike of 950 m, a width of 900 m and to a vertical depth of 300 m, which is 30% larger than the area that was used to estimate the recent Inferred resource reported on 29 June.
- There are 62 new intersections of copper, silver and gold mineralisation above a 0.2% Cu cut off from the 22 new RC holes at Mt Flora that are not included in the current resource estimate, which brings the total number of intersections to date to 439 intersections.
- The Phase 2 drilling is now completed and planning and budgeting for new resource drilling to cover the new intersections north of the resource area is underway. This drilling is expected to increase the strike of the copper, silver and gold veins at Mt flora to more than 950m.
- The exploration results are another significant step forward in developing a successful mining operation at Bundarra and is providing more confidence in the project hosting additional resources of copper, silver and gold at Mt Flora as well as at the five regional target areas.

**Commenting on progress – Philip Condon, MD:**

*“The assay results from the last holes from the Phase 2 drilling are very encouraging and are among the best results from the ore body at Mt Flora. The ore body is still open to the north, with mineralisation intersected from the surface 300m north of the current resource area at Mt Flora. This increases our confidence that the resource at Mt Flora will continue to grow. We can now start detailed metallurgy test work, with results expected in the next Quarter. We continue to accelerate the collection of pluton scale geochemistry and electrical geophysical data that will be used with computer machine learning systems to prioritise development targets, which we are confident will quickly add to the scale of a potential mining project at Bundarra.”*

## Future Work Programme

- Evaluate and decide on timing of extension RC resource drilling at Mt Flora and the Quarry Anomaly to test the new mineralisation discovered to the north, after the completion of alternate high priority target evaluation and development sequencing,
- Started accelerated pXRF soil sampling, to be completed by the end of the year, to sample the entire Bundarra Pluton to help prioritise resource development work,
- Accelerate and extend collection of electrical geophysical data to cover the entire Bundarra Pluton, starting with the prospective areas between Absolon, Quorn and Rogers,
- Start exploration diamond drilling to collect geological data to help prioritise resource development work of the anomalies around Absolon, Quorn and Rogers.
- Start development RC drilling to determine the highest priority target for resource development drilling,
- Complete diamond drilling of the Prairie Creek gold target, with first results expected by the end of September.

This announcement has been authorised for release by the Board.



**Philip Condon**  
**Managing Director**

p.condon@duke-exploration.com.au

Ph +61 417 574 730



**Toko Kapea**  
**Chairman**

t.kapea@duke-exploration.com.au

Ph +64 27 534 2886

## Mt Flora Final Phase Two RC Drilling Results

The Mt Flora prospect is the first high priority target for development in the Bundarra Project area (see [www.duke-exploration.com.au](http://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 by mid-2021. These new results follow on from the Inferred resource and drill results announced on 02 June and 29 June.

The new assay results from the resource drilling at Mt Flora come from the last 22 holes (7,659m) of the planned Phase 2 drilling (Table 1 and Figure 1). A total of 109 RC holes have been drilled for 20,101 m since resource drilling started at Mt Flora, with all assays now returned. There are fifteen lines of holes on a 60 m by 60 m drill spacing completed with the mineralised area increasing to a strike of 950 m, a width of 900 m and to a vertical depth of 300 m (Figure 1), which is 30% larger than the area that was used to estimate the recent Inferred resource reported on 29 June. 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 62 new intersections of copper, silver and gold mineralisation above a 0.2% Cu cut off from the 22 new RC holes at Mt Flora that are not included in the current resource estimate, which brings the total number of intersections to date to 439 intersections (Table 2). 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 (Table 2):

- 2 m at 5.49 % Cu, 60.15 g/t Ag and 0.17 Au from 206 m in MFRC089,
- 2 m at 0.91 % Cu, 19.55 g/t Ag and 0.02 Au from 220 m in MFRC089,
- 9 m at 1.28 % Cu, 22.07 g/t Ag and 0.02 Au from 259 m in MFRC089,
- 3 m at 1.4 % Cu, 16.03 g/t Ag and 0.14 Au from 159 m in MFRC090,
- 3 m at 0.78 % Cu, 22.1 g/t Ag and 0.04 Au from 211 m in MFRC090,
- 6 m at 0.24 % Cu, 0.31 g/t Ag and 0.01 Au from 12 m in MFRC091,
- 11 m at 0.4 % Cu, 4.82 g/t Ag and 0.02 Au from 22 m in MFRC091,
- 8 m at 1.01 % Cu, 11.9 g/t Ag and 0.02 Au from 18 m in MFRC093,
- 4 m at 1.17 % Cu, 25.45 g/t Ag and 0.05 Au from 48 m in MFRC094,
- 8 m at 0.34 % Cu, 6.61 g/t Ag and 0.02 Au from 230 m in MFRC096,
- 4 m at 1.3 % Cu, 19.25 g/t Ag and 0.09 Au from 58 m in MFRC099,
- 3 m at 0.77 % Cu, 21.93 g/t Ag and 0.01 Au from 74 m in MFRC106,
- 25 m at 0.6 % Cu, 7.49 g/t Ag and 0.04 Au from 219 m in MFRC106,
- 13 m at 0.55 % Cu, 7.19 g/t Ag and 0.04 Au from 248 m in MFRC106,
- 4 m at 0.71 % Cu, 8.43 g/t Ag and 0.05 Au from 266 m in MFRC106,
- 15 m at 0.29 % Cu, 2.78 g/t Ag and 0.03 Au from 169 m in MFRC108 and
- 15 m at 1.31 % Cu, 7.11 g/t Ag and 0.11 Au from 228 m in MFRC109.



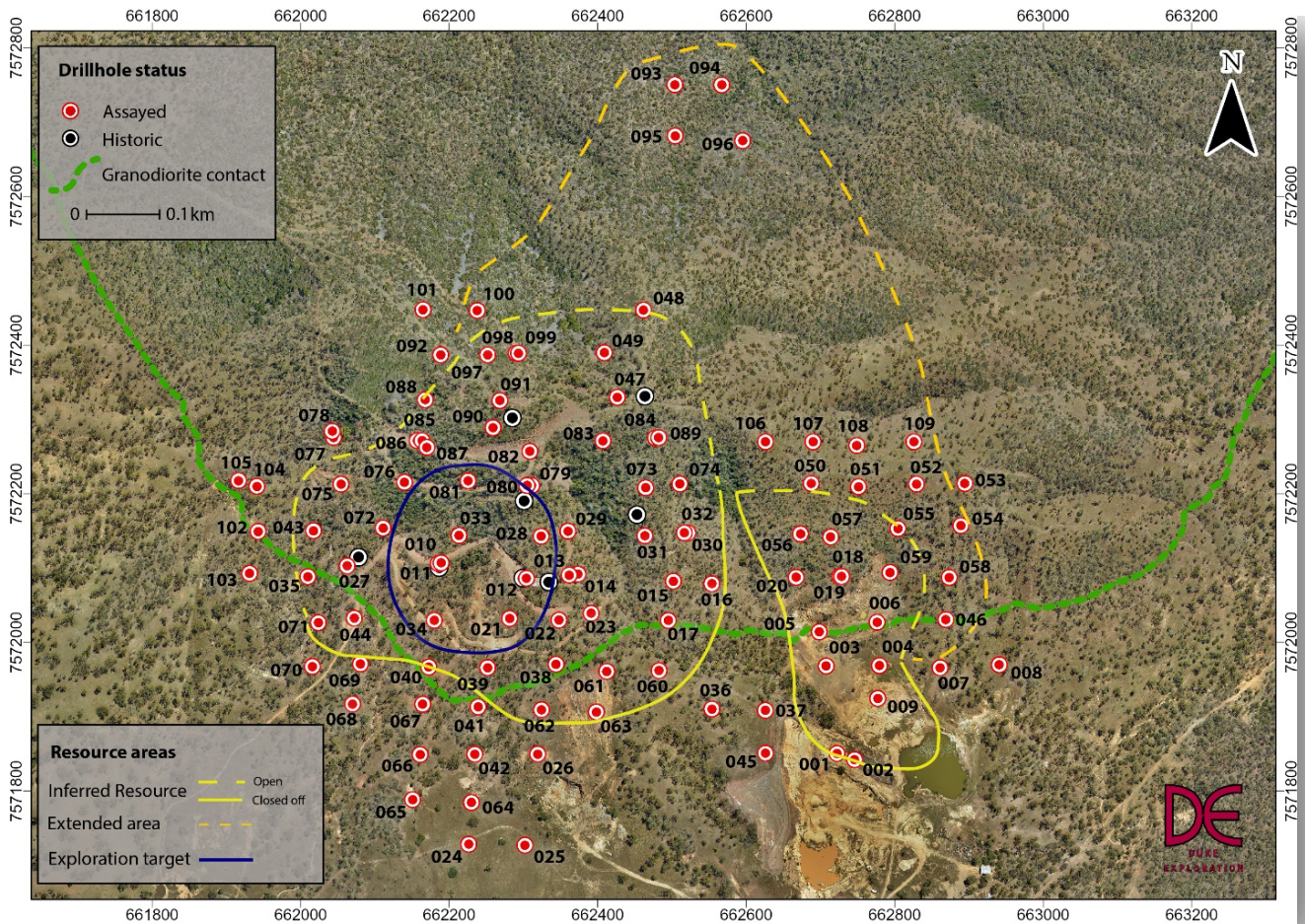


Figure 1. Mt Flora drill location plan for all the holes completed at the Quarry Anomaly and Mt Flora relative to the Exploration Target area, Inferred Resource area, extended mineralised area, granodiorite contact and location of historic drill holes (all hole numbers have a MFRC prefix)

The four extension RC holes (MFRC093 – MFRC096) drilled to test a coincident pXRF copper soil and EM conductivity anomaly 300 m north of the Mt Flora resource area intersected copper, silver and gold mineralisation from the surface to a 200m vertical depth, including 8 m at 1.01 % Cu, 11.9 g/t Ag and 0.02 Au from 18 m in MFRC093 and 4 m at 1.17 % Cu, 25.45 g/t Ag and 0.05 Au from 48 m in MFRC094 (Figure 1 and Figure 2 and Table 1). The 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 or is a new vein system (Figure 1 and Figure 2). Importantly, contrary to early interpretations that the mineralisation was potentially deepening to the north down the plunge of the granodiorite contact, the mineralisation reaches the surface and is open down dip to the east and along strike to the north (Figure 2). The northern most line drilled to test the Quarry Lode on 7572270mN, including MFRC106 – MFRC109, also intersected copper, silver and gold mineralisation, continuing the Quarry Lode to the north, which also remains open to the east down dip and along strike to the north. Some of the best intersections from the Phase 1 and Phase 2 drilling to date come from this line, including: 25 m at 0.6 % Cu, 7.49 g/t Ag and 0.04 Au from 219 m in MFRC106 and 15 m at 1.31 % Cu, 7.11 g/t Ag and 0.11 Au from 228 m in MFRC109.

Both these discoveries are very important as they not only extend the potential strike of mineralisation at Mt Flora and at the Quarry Lode, but also confirm that pXRF copper soil and geophysical conductivity anomaly profiles can be used to map the location and geometry of bed rock massive sulphide copper mineralisation in the near surface

and at depth, which has very important implications for targeting and prioritising the mineralised systems in the southwest of the Bundarra Pluton in the Quorn, Absolon and Rogers prospect areas for resource development work.

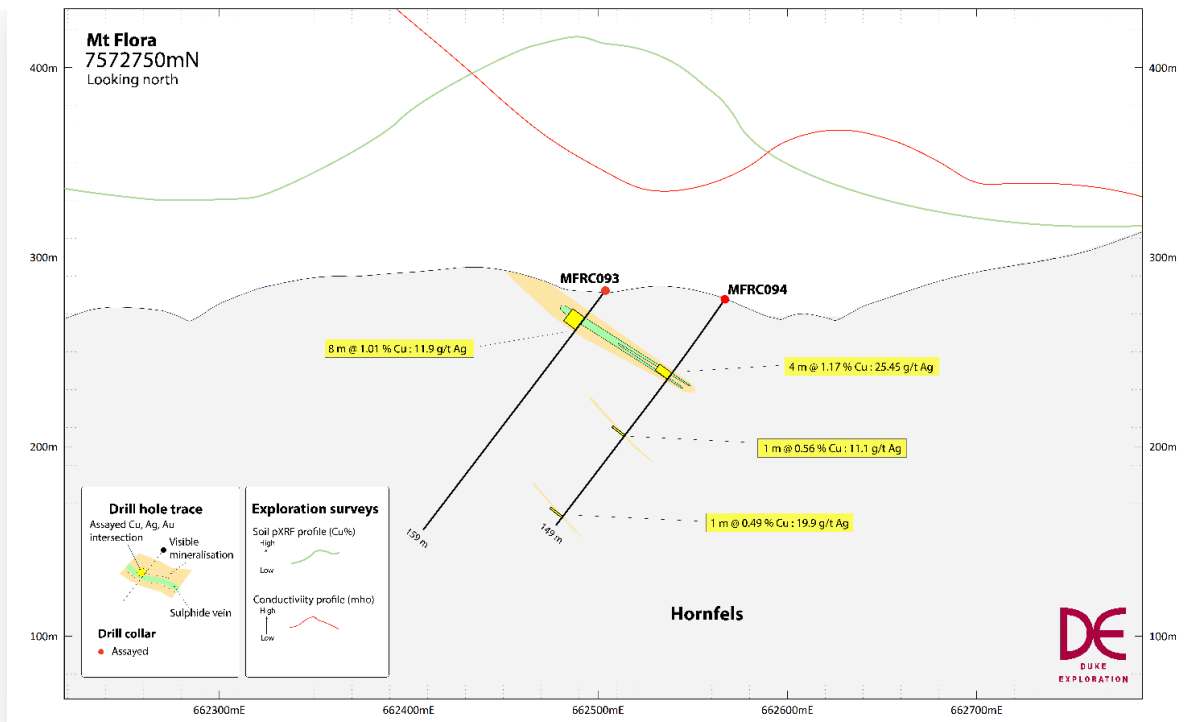


Figure 2. Section 7572750mN of the most northern line of exploration extension drilling north of the Mt Flora resource area relative to nXRF soil and electrical geophysical anomalies

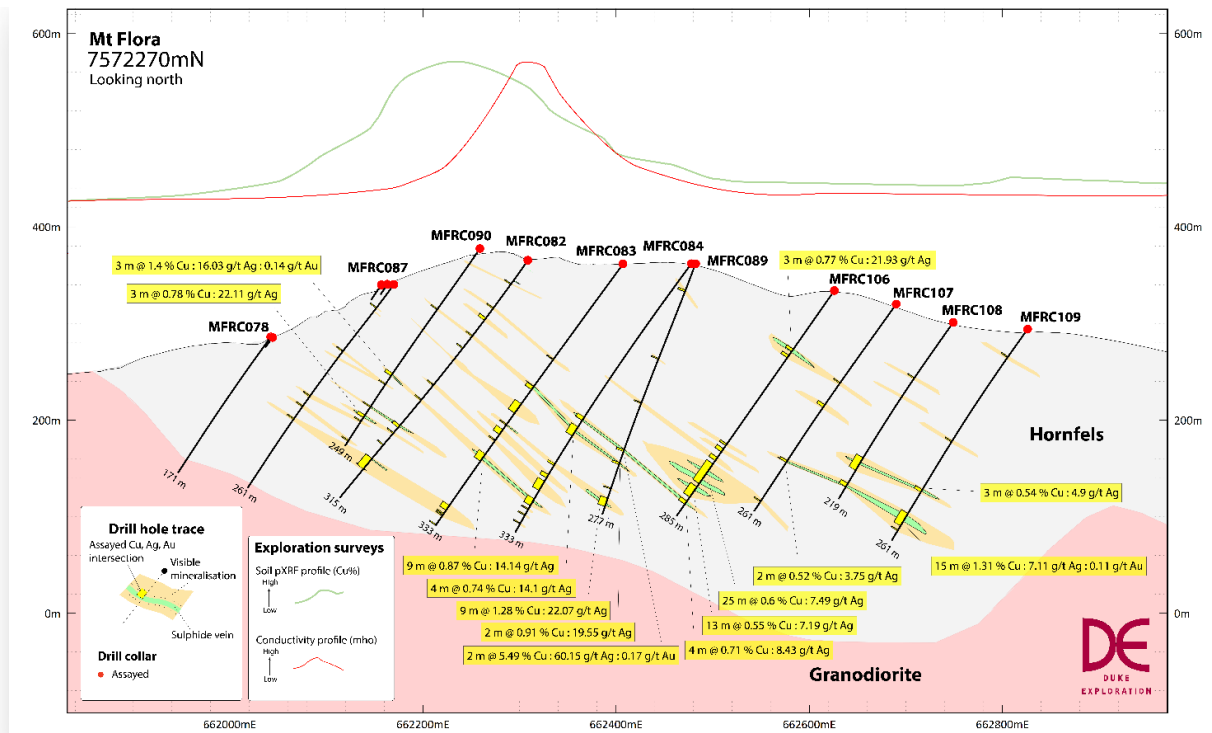


Figure 3. Section 7572270mN of the most northern line of resource drilling of the Quarry Lode relative to pXRF soil and electrical geophysical anomalies

Prospect	Hole	Line	Easting	Northing	RL	Depth	Az	Dip	Status
Mt Flora	MFRC088	7572330	662,168	7,572,326	350	243	267	-52	Unmineralised
Mt Flora	MFRC089	7572270	662,482	7,572,276	362	277	275	-69	Mineralised
Mt Flora	MFRC090	7572270	662,259	7,572,289	378	249	259	-56	Mineralised
Mt Flora	MFRC091	7572330	662,268	7,572,325	380	249	273	-54	Mineralised
Mt Flora	MFRC092	7572390	662,189	7,572,387	368	249	271	-55	Unmineralised
Mt Flora	MFRC093	7,572,750	662,504	7,572,750	282	159	269	-53	Mineralised
Mt Flora	MFRC094	7,572,750	662,567	7,572,750	278	149	271	-55	Mineralised
Mt Flora	MFRC095	7,572,675	662,504	7,572,681	295	201	270	-54	Mineralised
Mt Flora	MFRC096	7,572,675	662,595	7,572,675	291	249	268	-55	Mineralised
Mt Flora	MFRC097	7572390	662,252	7,572,387	369	249	270	-55	Mineralised
Mt Flora	MFRC098	7572390	662,290	7,572,389	357	13	271	-55	Abandoned
Mt Flora	MFRC099	7572390	662,293	7,572,389	357	249	272	-67	Mineralised
Mt Flora	MFRC100	7572450	662,238	7,572,447	351	248	275	-55	Unmineralised
Mt Flora	MFRC101	7572450	662,165	7,572,448	358	219	274	-54	Unmineralised
Mt Flora	MFRC102	7572150	661,943	7,572,149	253	79	270	-54	Mineralised
Mt Flora	MFRC103	7572090	661,931	7,572,093	240	55	274	-55	Unmineralised
Mt Flora	MFRC104	7572210	661,941	7,572,210	251	19	271	-55	Abandoned
Mt Flora	MFRC105	7572210	661,916	7,572,218	256	85	256	-75	Mineralised
Quarry lode	MFRC106	7,572,270	662,626	7,572,270	334	285	271	-55	Mineralised
Quarry lode	MFRC107	7,572,270	662,690	7,572,270	320	261	272	-55	Mineralised
Quarry lode	MFRC108	7,572,270	662,749	7,572,265	301	219	273	-55	Mineralised
Quarry lode	MFRC109	7,572,270	662,826	7,572,270	294	261	267	-55	Mineralised

Table 1. Drill collar details of RC holes with new assays 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
MFRC089	Mt Flora	662,472	7,572,276	334	29	31	2	0.35	5.15	0.03
MFRC089	Mt Flora	662,444	7,572,275	263	105	106	1	0.35	13.20	0.02
MFRC089	Mt Flora	662,426	7,572,274	218	154	155	1	0.39	5.90	0.01
MFRC089	Mt Flora	662,408	7,572,275	168	206	208	2	5.49	60.15	0.17
MFRC089	Mt Flora	662,404	7,572,275	155	220	222	2	0.91	19.55	0.02
MFRC089	Mt Flora	662,395	7,572,276	129	248	249	1	0.42	7.10	0.01
MFRC089	Mt Flora	662,390	7,572,277	115	259	268	9	1.28	22.07	0.02
MFRC090	Mt Flora	662,215	7,572,280	315	77	78	1	0.56	19.40	0.02
MFRC090	Mt Flora	662,168	7,572,270	247	159	162	3	1.40	16.03	0.14
MFRC090	Mt Flora	662,161	7,572,269	237	172	173	1	0.24	10.20	0.08
MFRC090	Mt Flora	662,146	7,572,266	214	200	201	1	0.73	21.80	0.04
MFRC090	Mt Flora	662,139	7,572,265	204	211	214	3	0.78	22.10	0.04
MFRC090	Mt Flora	662,136	7,572,265	199	218	219	1	0.55	4.40	0.06
MFRC090	Mt Flora	662,123	7,572,263	179	242	243	1	0.23	6.70	0.01
MFRC091	Mt Flora	662,260	7,572,326	368	12	18	6	0.24	0.31	0.01
MFRC091	Mt Flora	662,252	7,572,326	358	22	33	11	0.40	4.82	0.02
MFRC091	Mt Flora	662,235	7,572,326	335	56	57	1	0.25	6.40	0.01
MFRC091	Mt Flora	662,229	7,572,327	326	65	68	3	0.27	6.60	0.01
MFRC091	Mt Flora	662,191	7,572,327	274	131	132	1	0.32	5.30	0.01



Hole	Prospect	Easting	Northing	RL	From	To	Width	Cu %	Ag g/t	Au g/t
MFRC091	Mt Flora	662,139	7,572,333	202	220	222	2	0.48	10.70	0.01
MFRC093	Mt Flora	662,491	7,572,750	265	18	26	8	1.01	11.90	0.02
MFRC094	Mt Flora	662,538	7,572,749	237	48	52	4	1.17	25.45	0.05
MFRC094	Mt Flora	662,514	7,572,749	206	89	90	1	0.56	11.10	0.05
MFRC094	Mt Flora	662,481	7,572,748	163	143	144	1	0.49	19.90	0.04
MFRC095	Mt Flora	662,496	7,572,681	283	14	15	1	0.32	2.50	0.01
MFRC095	Mt Flora	662,491	7,572,681	277	20	25	5	0.40	2.81	0.01
MFRC095	Mt Flora	662,456	7,572,678	231	80	81	1	0.22	10.20	0.08
MFRC096	Mt Flora	662,540	7,572,670	214	93	96	3	0.25	7.53	0.01
MFRC096	Mt Flora	662,506	7,572,665	169	151	152	1	0.70	16.10	0.01
MFRC096	Mt Flora	662,479	7,572,662	134	196	197	1	0.49	12.70	0.01
MFRC096	Mt Flora	662,456	7,572,659	104	230	238	8	0.34	6.61	0.02
MFRC097	Mt Flora	662,227	7,572,387	334	43	44	1	0.65	18.70	0.01
MFRC097	Mt Flora	662,193	7,572,387	286	101	102	1	0.20	3.40	0.02
MFRC099	Mt Flora	662,272	7,572,390	308	53	54	1	0.84	13.20	0.05
MFRC099	Mt Flora	662,270	7,572,391	302	58	62	4	1.30	19.25	0.09
MFRC099	Mt Flora	662,254	7,572,393	264	101	102	1	0.23	6.20	0.02
MFRC099	Mt Flora	662,249	7,572,394	253	113	114	1	0.21	2.50	0.01
MFRC099	Mt Flora	662,245	7,572,395	243	123	124	1	0.24	7.00	0.01
MFRC099	Mt Flora	662,203	7,572,407	144	232	233	1	0.35	3.40	0.07
MFRC102	Mt Flora	661,930	7,572,149	235	22	23	1	0.38	4.90	0.14
MFRC105	Mt Flora	661,904	7,572,216	207	50	51	1	0.43	5.20	0.06
MFRC105	Mt Flora	661,898	7,572,215	184	73	75	2	0.32	3.30	0.05
MFRC106	Mt Flora	662,583	7,572,270	272	74	77	3	0.77	21.93	0.01
MFRC106	Mt Flora	662,578	7,572,270	266	82	85	3	0.23	7.70	0.01
MFRC106	Mt Flora	662,514	7,572,270	174	194	196	2	0.31	3.55	0.06
MFRC106	Mt Flora	662,510	7,572,270	169	200	204	4	0.34	3.50	0.03
MFRC106	Mt Flora	662,504	7,572,270	160	211	215	4	0.21	2.70	0.01
MFRC106	Mt Flora	662,493	7,572,270	144	219	244	25	0.60	7.49	0.04
MFRC106	Mt Flora	662,480	7,572,270	126	248	261	13	0.55	7.19	0.04
MFRC106	Mt Flora	662,472	7,572,270	114	266	270	4	0.71	8.43	0.05
MFRC107	Mt Flora	662,632	7,572,274	238	100	101	1	0.22	5.90	0.01
MFRC107	Mt Flora	662,615	7,572,276	214	128	131	3	0.46	5.07	0.04
MFRC107	Mt Flora	662,577	7,572,282	157	198	200	2	0.52	3.75	0.06
MFRC107	Mt Flora	662,549	7,572,286	116	248	249	1	0.25	2.30	0.03
MFRC108	Mt Flora	662,709	7,572,268	243	70	71	1	0.20	5.00	0.02
MFRC108	Mt Flora	662,652	7,572,279	154	169	184	15	0.29	2.78	0.03
MFRC108	Mt Flora	662,639	7,572,282	133	200	204	4	0.44	3.78	0.03
MFRC109	Mt Flora	662,805	7,572,269	265	35	36	1	0.22	5.50	0.01
MFRC109	Mt Flora	662,748	7,572,275	178	140	141	1	0.21	7.90	0.03
MFRC109	Mt Flora	662,716	7,572,280	127	199	202	3	0.54	4.90	0.04
MFRC109	Mt Flora	662,698	7,572,284	97	228	243	15	1.31	7.11	0.11
MFRC109	Mt Flora	662,692	7,572,285	86	248	249	1	0.21	2.10	0.02

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)



## 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 most advanced target for the Company is the Bundarra project Mt Flora prospect, which has resource development potential for copper, silver and gold, and a recently announced Inferred resource 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), which equates to 78,000 tonnes of copper and 3.6 million ounces of silver (Table 3). There are currently five other target areas with similar development potential on the Bundarra project as defined by historical mining, geology and geophysics.

		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

*Table 3. Mount Flora Mineral Resource Summary*

The exploration and development strategy is to define sufficient resources at Mt Flora and the other prospective targets in the Bundarra project area as a priority to allow feasibility studies to be undertaken to establish an economic mining operation and to delineate additional mineral resources from the current known exploration target areas to grow the project into the future. The Company has also started to test the more conceptual exploration targets on the Prairie Creek project and Red Hill project (see [www.duke-exploration.com.au](http://www.duke-exploration.com.au) for more project details). The business development strategy for the Company is to focus on the Bundarra project and simultaneously carry out resource development work on those targets evaluated and ranked as high priority, starting 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 north, south and east of the current survey areas around the northern and eastern contacts of the Bundarra pluton. The aim is to accelerate the collection of pXRF soil data and electrical geophysical data to map the entire prospective area of the Bundarra pluton to allow computer-based machine learning statistical analysis to be carried out to help target the highest priority targets for resource development drilling into the future.

## 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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>One-metre primary samples were collected using a reverse circulation drill rig, which when split is approximately 10% of the total meter sample. The quality of the sample has been being actively measured using various quality control techniques, focusing on keeping holes dry, reducing dust loss and optimising sample delimitation. The quality of the sampling has been independently reviewed and is deemed to be high, and fit-for-purpose to be used in mineral resource estimations. Various quality control metrics are actively monitored to ensure the quality of samples collected. Such measures include: <ul style="list-style-type: none"> <li>Every effort is made to ensure all samples are drilled dry and when this is not possible samples are logged as wet, and the quality designation ranking lowered and considered in the resource estimation.</li> <li>The measuring and monitoring of total RC sample weights to measure total recovery and metre delineation of the drilling (after correcting for density based on lithology averages and volume differences based on bit size)</li> </ul> </li> <li>pXRF analysis for some alteration and common rock-forming elements was carried out on every metre by taking a small ~25g sample from the bulk RC sample and analysing using an Olympus Vanta M series XRF Analyser with all three beams enabled with each beam set to 10 seconds each.</li> <li>Calibration checks were performed by the handheld XRF analysers at least once fortnightly to ensure that the analyser was operating within factory specifications</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling equipment with face sampling hammers were used to collect samples. The drilling was conducted by a _McCulloch DR 800 drill rig with Sulli 350/1100 compressor, a Mercedes powered 350/1100 Sulli compressor. Boosters is a Detroit 8V92 type 650 psi to a maximum of 900psi. 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 6 metres long 4 inch outside diameter. All sample hoses are 3 inch Inside diameter.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>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</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>been logged as such. Furthermore, constant monitoring of recoveries via measurement and evaluation of total sample weights on the rig enable recoveries to be maximised.</p> <ul style="list-style-type: none"> <li>There is no relationship between sample recovery and grade and no correction or weighting factors were required.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Chip samples have been geologically and geotechnically logged to a level of detail to support mineral resource estimation, mining studies and metallurgical studies. All chip samples have been geologically logged to 1m resolution on the rig recording information on rock type, mineralogy, mineralisation, fabrics, and textures. This logging is paired with logging conducted using the downhole Televue information which can log to at least 10cm 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.</li> <li>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 Televue optical and acoustic data collection allows the measurement of structural and geotechnical data.</li> <li>All one metre 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.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>All other samples were split using a cone splitter fixed to the side of the drill rig, a device aimed at reducing splitting variance. 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.</li> <li>For this project, the quality assurance and quality control on the primary calico sample were excellent, resulting in good metre delineation, minimal sample loss and good water management.</li> <li>RC drill chips were delivered to a cone splitter, then weighed on receipt at the laboratory and dried in an LPG oven for 24hrs @ 95° C. Samples to 3kg are full pulverised to 85% passing 75µm in a FLSmith LM5 mill. Samples &gt;3kg are split 50:50 using a 25mm aperture riffle splitter prior to pulverising. Samples were then scooped from the LM5 bowl and put into brown paper bags, after which the final charge weight was prepared by scooping from the bag using a spoon.</li> <li>The quality of the sampling preparation has been discussed in the announcement text and is considered of very 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.</li> <li>The sample size is considered appropriate for the mineralisation style.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The nature of the laboratory processes has been discussed in the announcement text in more detail. The total 50g fire assay technique with aqua regia digest and AAS finish is considered appropriate for Au analysis. ME-ICP 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</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<p>accurately define the final analysis grade. The quality was carefully controlled by both Duke and ALS.</p> <ul style="list-style-type: none"> <li>A pXRF Vanta m-series analysed each sample using 3 beams in geochemistry mode. Each beam was set to 10 seconds for a total of 30 seconds and targeting 39 elements, specifically anomalous copper. The pXRF Vanta m-series was calibrated once a week and the prolene pXRF windows were changed upon noticing any imperfection on the surface. A blank standard was analysed once a week or following the prolene window change.</li> <li>QC samples were inserted in the form of Certified Reference Materials, blanks, crush duplicates and pulp duplicates. The results showed the laboratory delivered consistent results throughout the campaign. Bias and variance acceptance testing showed positive results, with the only issue noted the elevated variability in pulps.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>All significant intersections were inspected and verified by the Competent Person.</li> <li>The data is 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 is then validated within the database and brought into Micromine and further visual checks conducted. One database administrator conducts all data merging and storage into the database to ensure the integrity of the data.</li> <li>No data has been adjusted.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>The drill holes have been accurately surveyed using a mmGPS in MGA 94/Zone 54.</li> <li>Downhole survey data was collected using a North seeking solid state gyro during the downhole data acquisition. The gyro results were checked by the down hole surveyor by comparing them with the deviation data obtained with other down hole 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.</li> <li>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.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>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.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>The drilling reported has been carried out on a 60mx60m grid. The holes are drilled to an average depth of around 180m.</li> <li>Geological and grade continuity has been confirmed across the 60m drill spacing.</li> <li>No physical compositing of samples has occurred in this drilling.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The drilling orientation has been determined via Televue structural interpretation and hole 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.</li> <li>There is no apparent bias in any of the drilling orientations used.</li> </ul>



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<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits have been conducted by external parties at this stage. Internal review by various company personnel has occurred.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> <li>No known impediments.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>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 1974-76, 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. In 1974-75 Endeavour Oil undertook a mining exploration programme and used this work to complete a resource estimate for the Mt Flora lodes.</li> <li>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.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of</li> </ul>	<ul style="list-style-type: none"> <li>Copper, gold, silver and molybdenum mineralisation at</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>mineralisation.</i>	Bundarra is located within 300 m of the contact zone between the Bundarra Granodiorite and Back Creek Group sediments. Argillite, mudstone, siltstone and sandstone has been contact metamorphosed to an andalusite hornfels for a 800m wide zone surrounding the Bundarra pluton. Mineralisation at Mt Flora occurs in structurally controlled lodes, which crosscut the granodiorite-sediment contact, with mineralisation occurring 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 molybdenum and gold. It is interpreted the mineralisation at Quorn is similar.
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See Figure 1, Figure 2 and Figure 3 and Table 1 and Table 2 in the main text.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Intervals were composited in Micromine, using a weighted average technique at a 0.2% Cu cut off, allowing 3 m of internal dilution and a 1 m minimum width.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>These are the first holes drilled into the prospects and the orientation of the copper mineralisation is not known. The holes are thought to be drilling perpendicular to the mineralisation based off 3D IP models and mapping surrounding outcrops.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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</li> <li>appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>See Figure 1, Figure 2 and Figure 3 and Table 1 and Table 2 in the main text.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes assays returned to date from the current drill programme have been reported.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>contaminating substances.</i>	<p>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.</p> <ul style="list-style-type: none"> <li>The cost estimates provided within the review are of a preliminary nature and should have an expected accuracy range of 25% to 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.</li> <li>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 copper of 24% and silver of 398 g/t Ag, 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.</li> <li>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 A\$56.3 million.</li> <li>Order of magnitude operating costs for a greenfield EPCM and second-hand process plant, at A\$31-34 per tonne, were significantly lower compared to Builder Owner Operator (A\$47-51 per tonne) and Contract Crushing / Direct Shipped Ore (A\$65-89 per tonne) options.</li> <li>A copper cut-off grade of 0.2% Cu represents the economic cut-off grade for the project using the current copper price and cost estimates above.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Further work will include drilling other prospects around the Bundarra Pluton to test results returned from GAIP, MLEM and 3D IP geophysical surveys and pXRF soil surveys.</li> <li>The regional scale pXRF soil survey mapping Cu anomalies on a 80x80 grid is ongoing and eventually planned to cover the 50km<sup>2</sup> area of the Bundarra Pluton and contact zone.</li> </ul>