RIMFIRE PACIFIC MINING LTD

ASX: RIM

"Critical Minerals Explorer"

MANAGEMENT

David Hutton
EXECUTIVE DIRECTOR

Dr Peter Crowhurst
EXPLORATION MANAGER

Michael Love
GEOLOGICAL CONSULTANT

Paul Wright
GEOLOGICAL CONSULTANT

Greg Keane
CHIEF FINANCIAL OFFICER

BOARD

Ian McCubbing
CHAIRMAN

Andrew Knox
NON-EXECUTIVE DIRECTOR

Misha Collins
NON-EXECUTIVE DIRECTOR

Stefan Ross
COMPANY SECRETARY

OFFICE

Suite 142, Level 1
1 Queens Road
MELBOURNE VIC 3004

CONTACT DETAILS

David Hutton
+ 61 417 974 843

Greg Keane
+ 61 497 805 918

rimfire@rimfire.com.au
www.rimfire.com.au

ABN: 59 006 911 744

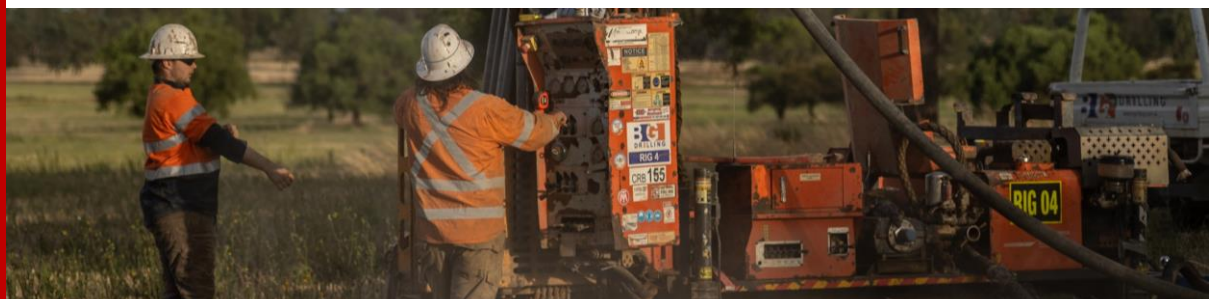
8 June 2022

Significant nickel, cobalt, platinum drilling results at Currajong

Highlights

- Aircore (AC) drilling returns significant nickel - cobalt mineralisation within the weathered portion of a 2.5 kilometre long platinum - mineralised ultramafic unit from multiple holes;
  - 34m @ 0.29% Ni, 0.15% Co, and 101ppm Sc from 6 metres *including 16m @ 0.27% Ni, 0.22% Co, and 120ppm Sc from 8 metres,*
  - 28m @ 0.53% Ni, 0.06% Co, and 41ppm Sc from 5 metres, *including 5m @ 0.57% Ni, 0.09% Co, and 56 Sc from 16 metres,*
  - 9m @ 0.16% Ni, 0.14% Co, and 111ppm Sc from 18 metres,
- Multiple shallow platinum (PGE) drill intercepts in historical drill holes – with no follow up drilling
  - 44m @ 0.34g/t Pt + Pd from 8 metres including *8m @ 0.87g/t Pt + Pd from 10 metres and 2m @ 1.34g/t Pt + Pd from 12 metres,*
  - 6m @ 0.72g/t Pt + Pd from 26 metres and 20m @ 0.80g/t Pt + Pd from 52 metres (Hole ended in mineralisation),
  - 4m @ 0.61g/t Pt + Pd from 52 metres (Hole ended in mineralisation),
- Aircore drilling planned to determine extents of near surface nickel – cobalt mineralisation
- Reverse Circulation / diamond drilling planned to test for primary PGE mineralisation in underlying ultramafic unit below base of weathering

Rimfire Pacific Mining (**ASX: RIM**, "Rimfire" or the "Company") advises that recent aircore drilling at the Currajong prospect has intersected significant anomalous nickel - cobalt mineralisation within the weathered portion of a platinum - mineralised ultramafic unit that can be mapped in magnetics for over 2.5 kilometres strike length.



Currajong forms part of Rimfire's Avondale Project which is located 70 kilometres northwest of Parkes within the highly prospective Lachlan Orogen of central New South Wales (*see Figures 1 and 2*).

Management Comment

Commenting on the announcement, Rimfire's Executive Director Mr David Hutton said: *"The latest Currajong drill results reinforce the Company's new critical minerals exploration strategy.*

We have only scratched the surface at Currajong, and our work will continue to map out the extents of the near surface nickel – cobalt mineralisation as well as testing the potential for primary PGE mineralisation in the underlying ultramafic unit below the base of weathering.

Having a strike extensive platinum – mineralised ultramafic unit with effectively no deep drilling and very little, if any modern exploration is an outstanding exploration opportunity for the Company and its shareholders given the forecast demand for, and value of critical minerals such as the platinum group elements.

We're excited to pursue these opportunities and look forward to providing further market updates as new information comes to hand."

Drilling discussion

Sixty-three vertical aircore holes (FI2235 to FI2288 and FI2322 to FI2329 - 1,763 metres) were drilled by Rimfire on nominal 50 x 100 metre centres at the southern end of the ultramafic unit with strongly anomalous nickel (Ni) and cobalt (Co) returned from multiple drill holes (reported as true widths and *see Figures 3, 4 and Table 1*):

- FI2285 – **34m @ 0.29% Ni, 0.15% Co, and 101ppm Sc from 6 metres** *including* ***16m @ 0.27% Ni, 0.22% Co, and 120ppm Sc from 8 metres***,
- FI2261 – 28m @ 0.53% Ni, 0.06% Co, and 41ppm Sc from 5 metres, *including 5m @ 0.57% Ni, 0.09% Co, and 56 Sc from 16 metres,*
- FI2245 – **9m @ 0.16% Ni, 0.14% Co, and 111ppm Sc from 18 metres**,
- FI2248 – 20m @ 0.30% Ni, 0.07% Co, and 54 ppm Sc from 9 metres, *including 6m @ 0.29% Ni, 0.10% Co, and 75ppm Sc from 13.*
- FI2284 – 11m @ 0.23% Ni, 0.05% Co, and 118ppm Sc from 8 metres,
- FI2278 – 13m @ 0.30% Ni, 0.08% Co, and 34ppm Sc from 8 metres,
- FI2287 – 17m @ 0.62% Ni, 0.04% Co, and 68 ppm Sc from 7 metres, and
- FI2257 – 4m @ 0.57% Ni, 0.06% Co, and 74 ppm Sc from 20 metres.

The latest results build on aircore drilling results previously announced by Rimfire in 2018 *(RIM ASX Announcement: 3 May 2018 - Drilling Confirms Cobalt-Nickel-Scandium Laterite Mineralisation* and Table 1).

- FI0903 - 20m @ 0.18% Ni, 0.10% Co, and 78ppm Sc from 10 metres *including* ***8m*** *@* ***0.22% Ni, 0.14% Co, and 115 ppm Sc from 12 metres,***
- FI0900 – 10m @ 0.52% Ni, 0.05% Co, and 23ppm Sc from 18 metres *including 2m @ 0.83% Ni, 0.06% Co, and 45ppm Sc from 20 metres*, and
- FI0904 – 24m @ 0.18% Ni, 0.05% Co, 310ppm Sc from 20 metres.

The nickel – cobalt mineralisation occurs within a flat lying weathered zone that is developed over an ultramafic unit that can be "mapped" in magnetic imagery for over 2.5 kilometres (*see Figures 5 and 7*).

The recent drilling which was focused on the southern end of the ultramafic has now defined nickel - cobalt mineralisation (using a +200-ppm cobalt contour) over an approximate area of 800 metres x 200 metres.

The ultramafic unit appears to be a "sill" like body and is made up of peridotite, serpentinite and pyroxenite lithologies and is bounded to the east and west by a mixed sequence of sediments, felsic intrusions, and minor ultramafic units (*see Figures 6 and 7*).

The ultramafic is platiniferous, with strongly anomalous platinum (Pt) +/- palladium (Pd) intersected in wide spaced shallow holes drilled in the late 1990's and early 2000's – **none of which were followed up at the time** (*see Table 2*).

- RC02A03 – 8m @ 0.54g/t Pt +Pd from 24 metres,
- RC02A04 – **6m@ 0.72g/t Pt + Pd from 26 metres and 20m @ 0.80g/t Pt + Pd from 52 metres (Hole ended in mineralisation)**,
- RC02A05 – **44m @ 0.34g/t Pt + Pd from 8 metres *including 8m @ 0.87g/t Pt + Pd from 10 metres including 2m @ 1.34g/t Pt + Pd from 12 metres***,
- RC02A06 – 2m @ 0.58g/t Pt + Pd from 34 metres,
- AC03A08 – 27m @ 0.33g/t Pt + Pd from 32 metres (Hole ended in mineralisation),
- AC03A17 – **4m @ 0.61g/t Pt + Pd from 52 metres (Hole ended in mineralisation),**
- AC03A23 – 5m @ 0.39g/t Pt + Pd from 8 metres,
- AC03A25 – 5m @ 0.46g/t Pt + Pd from 12 metres,
- AC03A27 – 4m @ 0.58g/t Pt + Pd from 23 metres and 3m @ 0.57g/t Pt + Pd from 29 metres,
- AC03A45 – 4m @ 0.76g/t Pt + Pd from 8 metres.

Significantly only 54 holes out of the total 204 holes drilled at Currajong (i.e., one quarter) have been analysed for platinum and palladium, and of those holes, only three (RC02A04, AC03A08, and AC03A17) tested the ultramafic below the base of weathering with each intersecting platinum + palladium mineralisation in the fresh ultramafic.

As such the Currajong ultramafic (beneath the base of weathering) remains largely untested for platinum and palladium, and completely untested for all other Platinum Group Elements (PGE's) such as iridium, osmium, rhodium, and ruthenium.

Regional Context and Next Steps

Regionally the Currajong prospect is one of 20+ priority exploration targets at Avondale that lie within a 50-kilometre-long belt of underexplored intermediate volcaniclastics, sediments and ultramafic intrusive units that occur within a geologically significant regional – scale structure called the "Steeton Ultramafic Suture Zone" (SUSZ – *see Figure 2*).

The exploration targets are prospective for the discovery of nickel, cobalt, scandium, and platinum group elements (PGE's) associated with ultramafic host rocks, and range variously from untested magnetic anomalies (interpreted to represent previously unrecognised ultramafic occurrences) to confirmed ultramafic occurrences with historic drill intercepts (i.e., Currajong.

As previously announced (*RIM ASX Announcement: 28 March 2022 - Critical Minerals Discovery Opportunity driving Exploration Strategy at the Avondale Project, NSW*), Rimfire's exploration strategy at Avondale is focused on the discovery of high-value critical minerals within the SUSZ and the Company has initiated a major exploration program to assess the targets.

This strategy has already delivered impressive results with recent aircore drilling at the Melrose prospect returning high-grade nickel cobalt and scandium drill results (9m @ 0.17% Ni, 0.10% Co, and 362ppm Sc from 3 metres,) (*RIM ASX Announcement: 7 February 2022 - Drilling Update - Platinum, Cobalt, Gold and Copper*).

Based on the strength of the recent Currajong results and historic platinum results, Rimfire will resubmit samples from the recent program for Platinum Group Elements (PGE's) analysis and will be undertaking deeper drilling (i.e., Reverse Circulation and / or diamond drilling) to test for primary mineralisation within the underlying ultramafic host rocks.

Further infill aircore drilling is being considered to determine whether a potentially economic accumulation of nickel – cobalt mineralisation is present at Currajong.

All exploration work at the Avondale Project is fully funded by Rimfire's exploration partner - Golden Plains Resources (GPR) who recently confirmed their ongoing financial support with another $1.5M committed to discovery work over the next 12 months (*RIM ASX Announcement: 14 March 2022 - Rimfire's Exploration Partner Commits to Year 2 of Avondale Earn-in*).

Why Critical Minerals?

Critical minerals are required for the manufacture of solar PV plants, wind farms, electric vehicles, and battery storage. Additionally advanced manufacturing, defence, renewable energy, and medical devices has increased demand for critical minerals as building blocks for new products. For further information, refer to the Australian Government's Australian Critical Minerals Prospectus 2021, (*December 2021: Australian Critical Minerals Prospectus*).

The Australian and United States Governments identify critical minerals as metals, non-metals and minerals that are considered vital for the economic well-being of the world's major and emerging economies, yet whose supply may be at risk due to geological scarcity, geopolitical issues, trade policy or other factors.

The critical minerals include Antimony, Beryllium, Bismuth, Chromium, Cobalt, Graphite, Lithium, Magnesium, Manganese, Nickel Niobium, Platinum Group Elements, Rare Earth Elements, Rhenium, Scandium, Titanium/Zirconium, Tungsten, Vanadium and Zirconium

The Platinum Group Elements (PGE's) comprise iridium, osmium, palladium, platinum, rhodium, and ruthenium.

Table 1A – Drill hole (nickel – cobalt intercepts) specifications (MGA94 Zone 55)

Hole ID	Easting	Northing	EOH	Dip°	Azimuth°	From	Width	Ni_%	Co_%	Sc_ppm
FI2235	546,295	6,356,441	20	-90	0	No Significant Intercept				
FI2236	546,354	6,356,413	48	-90	0	45	3	0.09	0.02	11
FI2237	546,401	6,356,385	27	-90	0	No Significant Intercept				
FI2238	546,455	6,356,389	15	-90	0	No Significant Intercept				
FI2239	546,307	6,355,941	23	-90	0	No Significant Intercept				
FI2240	546,258	6,355,954	27	-90	0	No Significant Intercept				
FI2241	546,207	6,355,968	24	-90	0	15	4	0.14	0.03	43
FI2242	546,165	6,355,988	25	-90	0	15	2	0.03	0.11	51
FI2243	546,310	6,355,427	42	-90	0	No Significant Intercept				
FI2244	546,260	6,355,435	39	-90	0	16	14	0.13	0.04	218
FI2245	546,209	6,355,455	54	-90	0	18	9	0.16	0.14	111
FI2246	546,154	6,355,469	39	-90	0	15	3	0.15	0.02	42
"	"	"	"	"	"	26	7	0.16	0.02	81
FI2247	546,105	6,355,485	33	-90	0	27	6	0.47	0.03	97
FI2248	546,058	6,355,508	29	-90	0	9	20	0.30	0.07	54
Including						*13*	*6*	*0.29*	*0.10*	*75*
FI2249	545,959	6,355,538	33	-90	0	No Significant Intercept				
FI2250	545,992	6,355,518	39	-90	0	18	19	0.17	0.03	25
FI2251	545,916	6,355,619	14	-90	0	No Significant Intercept				
FI2252	545,979	6,355,575	29	-90	0	No Significant Intercept				
FI2253	546,035	6,355,559	27	-90	0	11	9	0.19	0.02	14
FI2254	546,090	6,355,547	24	-90	0	No Significant Intercept				
FI2255	546,135	6,355,581	36	-90	0	13	20	0.17	0.04	122
FI2256	546,174	6,355,565	30	-90	0	No Significant Intercept				
FI2257	546,221	6,355,551	33	-90	0	20	4	0.57	0.06	74
FI2258	546,276	6,355,533	63	-90	0	20	4	0.03	0.04	102
FI2259	546,260	6,355,674	70	-90	0	No Significant Intercept				
FI2260	546,214	6,355,686	25	-90	0	6	12	0.14	0.04	256
FI2261	546,163	6,355,702	60	-90	0	5	28	0.53	0.06	41

Including						*16*	*5*	*0.57*	*0.09*	*56*
FI2262	546,112	6,355,692	60	-90	0	No Significant Intercept				
FI2263	546,065	6,355,710	14	-90	0	10	4	0.34	0.03	46
FI2264	546,020	6,355,722	39	-90	0	No Significant Intercept				
FI2265	546,003	6,355,839	45	-90	0	No Significant Intercept				
FI2266	546,054	6,355,819	60	-90	0	9	5	0.21	0.02	12
FI2267	546,092	6,355,805	20	-90	0	No Significant Intercept				
FI2268	546,144	6,355,788	20	-90	0	9	11	0.26	0.03	34
FI2269	546,194	6,355,774	15	-90	0	6	9	0.29	0.03	17
FI2270	546,243	6,355,752	33	-90	0	No Significant Intercept				
FI2271	546,287	6,355,735	7	-90	0	No Significant Intercept				
FI2272	546,320	6,355,829	25	-90	0	No Significant Intercept				
FI2273	546,275	6,355,845	13	-90	0	No Significant Intercept				
FI2274	546,223	6,355,864	17	-90	0	No Significant Intercept				
FI2275	546,173	6,355,880	8	-90	0	No Significant Intercept				
FI2276	546,127	6,355,906	15	-90	0	No Significant Intercept				
FI2277	546,085	6,355,908	19	-90	0	No Significant Intercept				
FI2278	546,054	6,355,920	21	-90	0	8	13	0.30	0.08	34
FI2279	545,983	6,355,953	29	-90	0	No Significant Intercept				
FI2280	546,112	6,356,002	21	-90	0	No Significant Intercept				
FI2281	546,146	6,356,100	45	-90	0	No Significant Intercept				
FI2282	546,158	6,356,150	33	-90	0	No Significant Intercept				
FI2283	546,193	6,356,088	21	-90	0	No Significant Intercept				
FI2284	546,245	6,356,067	30	-90	0	8	11	0.23	0.05	118
FI2285	546,291	6,356,052	35	-90	0	6	34	0.29	0.15	101
Including						*8*	*16*	*0.27*	*0.22*	*120*
FI2286	546,342	6,356,043	24	-90	0	No Significant Intercept				
FI2287	546,322	6,356,150	24	-90	0	7	17	0.62	0.04	68
FI2288	546,351	6,356,244	9	-90	0	No Significant Intercept				
FI2322	546,067	6,355,388	6	-90	0	No Significant Intercept				
FI2323	546,111	6,355,372	8	-90	0	No Significant Intercept				
FI2324	546,163	6,355,353	20	-90	0	No Significant Intercept				
FI2325	545,922	6,355,438	11	-90	0	No Significant Intercept				
FI2326	545,973	6,355,418	27	-90	0	No Significant Intercept				
FI2327	546,019	6,355,404	12	-90	0	No Significant Intercept				
FI2328	546,276	6,356,163	16	-90	0	No Significant Intercept				
FI2329	546,367	6,356,136	33	-90	0	No Significant Intercept				
FI0903	546,307	6,356,120	38	-60	270	10	20	0.18	0.10	78
Including						*12*	*8*	*0.22*	*0.14*	*115*
FI0900	546,198	6,355,770	45	-60	270	18	10	0.52	0.05	23
Including						*20*	*2*	*0.83*	*0.06*	*45*
FI0904	546,160	6,355,550	57	-60	270	20	24	0.18	0.05	310

Table 1B – Historic drill hole (platinum intercepts) specifications (MGA94 Zone 55)

Hole ID	Easting	Northing	EOH	Dip°	Azimuth°	From	Width	Pt_g/t	Pd_g/t	Pt+Pd_g/t
RC02A03	546,563	6,356,899	72	-60	270	24	8	0.53	0.01	0.54
RC02A04	546,512	6,356,619	72	-60	270	26	6	0.71	0.01	0.72
"	"	"	"	"	"	52	20	0.79	0.01	0.80
RC02A05	546,318	6,356,159	78	-90	0	8	44	0.32	0.02	0.34
Including						*10*	*8*	*0.80*	*0.07*	*0.87*
which includes						*12*	*2*	*1.21*	*0.13*	*1.34*
RC02A06	546,078	6,355,734	49	-90	0	34	2	0.57	0.01	0.58
AC03A08	546,563	6,356,613	59	-60	270	32	27	0.32	0.01	0.33
AC03A17	546,534	6,356,739	58	-60	270	52	4	0.60	0.01	0.61
AC03A23	546,159	6,355,889	33	-60	270	8	5	0.38	0.01	0.39
AC03A25	546,314	6,356,109	34	-60	270	12	5	0.44	0.02	0.46
AC03A27	546,524	6,356,889	36	-60	90	23	4	0.57	0.01	0.58
"	"	"	"	"	"	29	3	0.56	0.01	0.57
AC03A45	546,163	6,356,239	30	-60	270	8	4	0.10	0.66	0.76

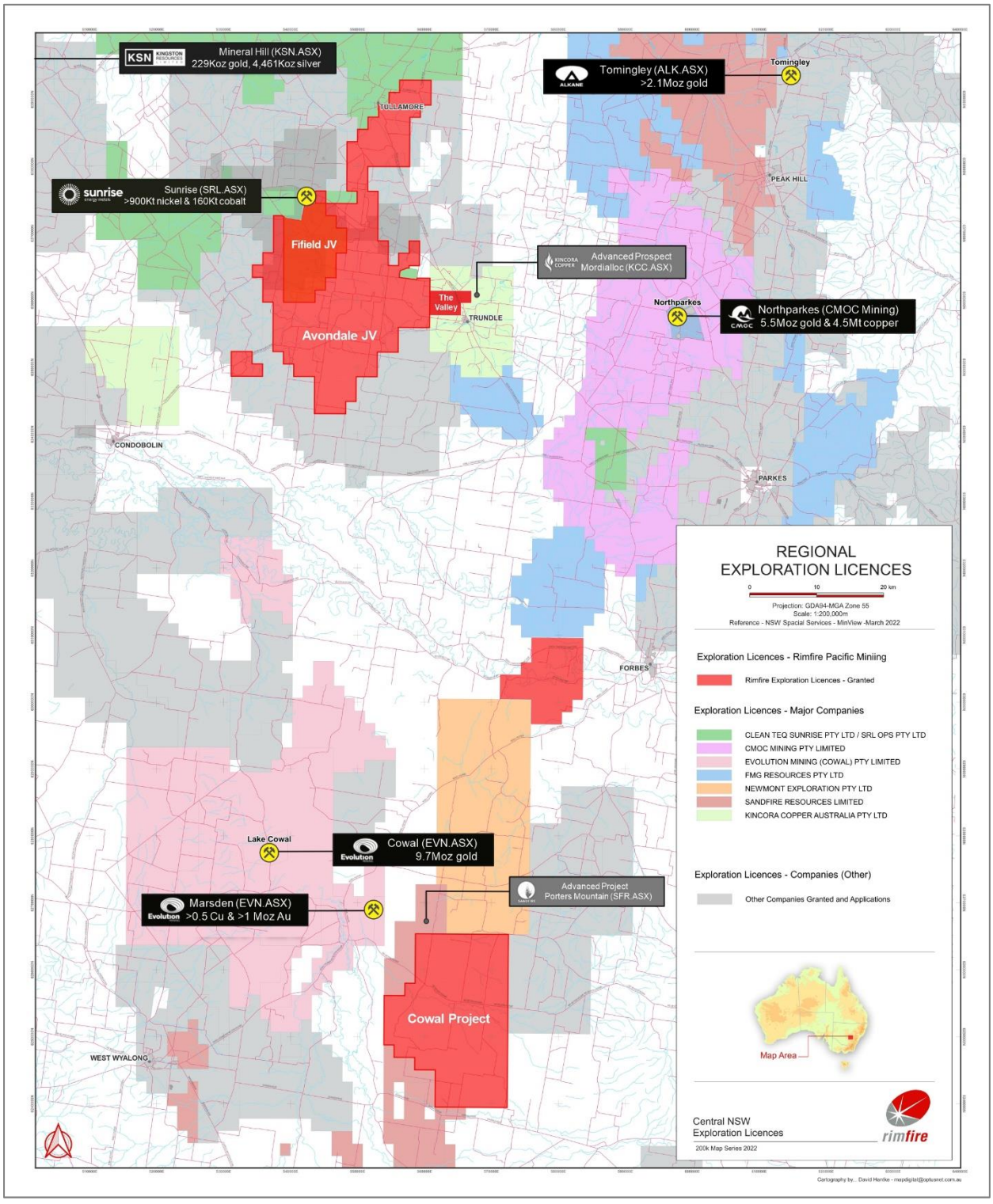


Figure 1: Rimfire Project Locations (in red) showing major competitors' tenement holdings, active mines, and key prospects

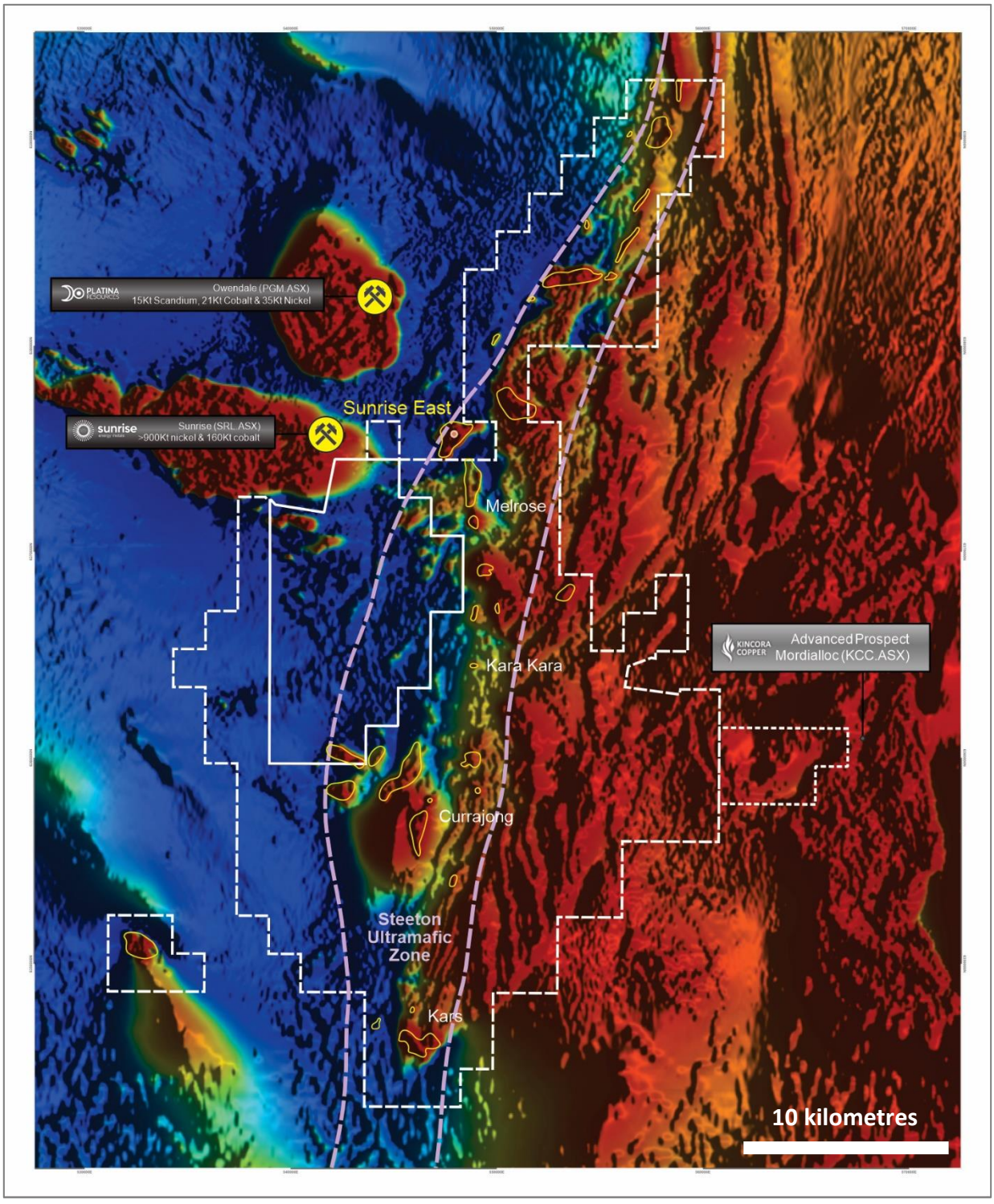


Figure 2: Rimfire's Avondale and Fifield Projects on RTP TMI background image showing Steeton Ultramafic Suture Zone, and critical minerals targets (yellow polygons).

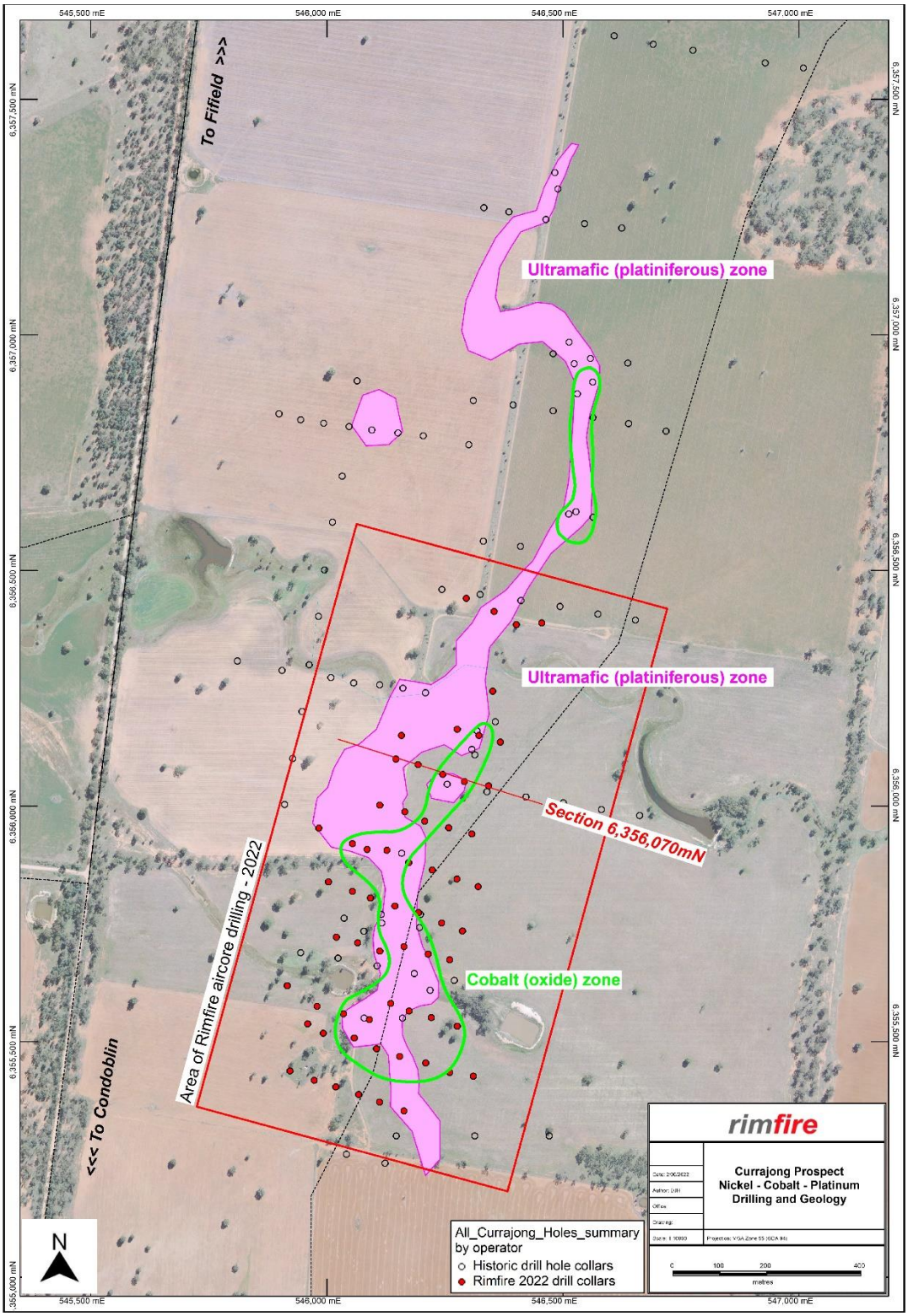


Figure 3: Currajong prospect drill collar plan showing Rimfire 2022 air core drill hole collars (red) and historic drill hole collars (black circles), platiniferous ultramafic and cobalt (200ppm Co) zone.

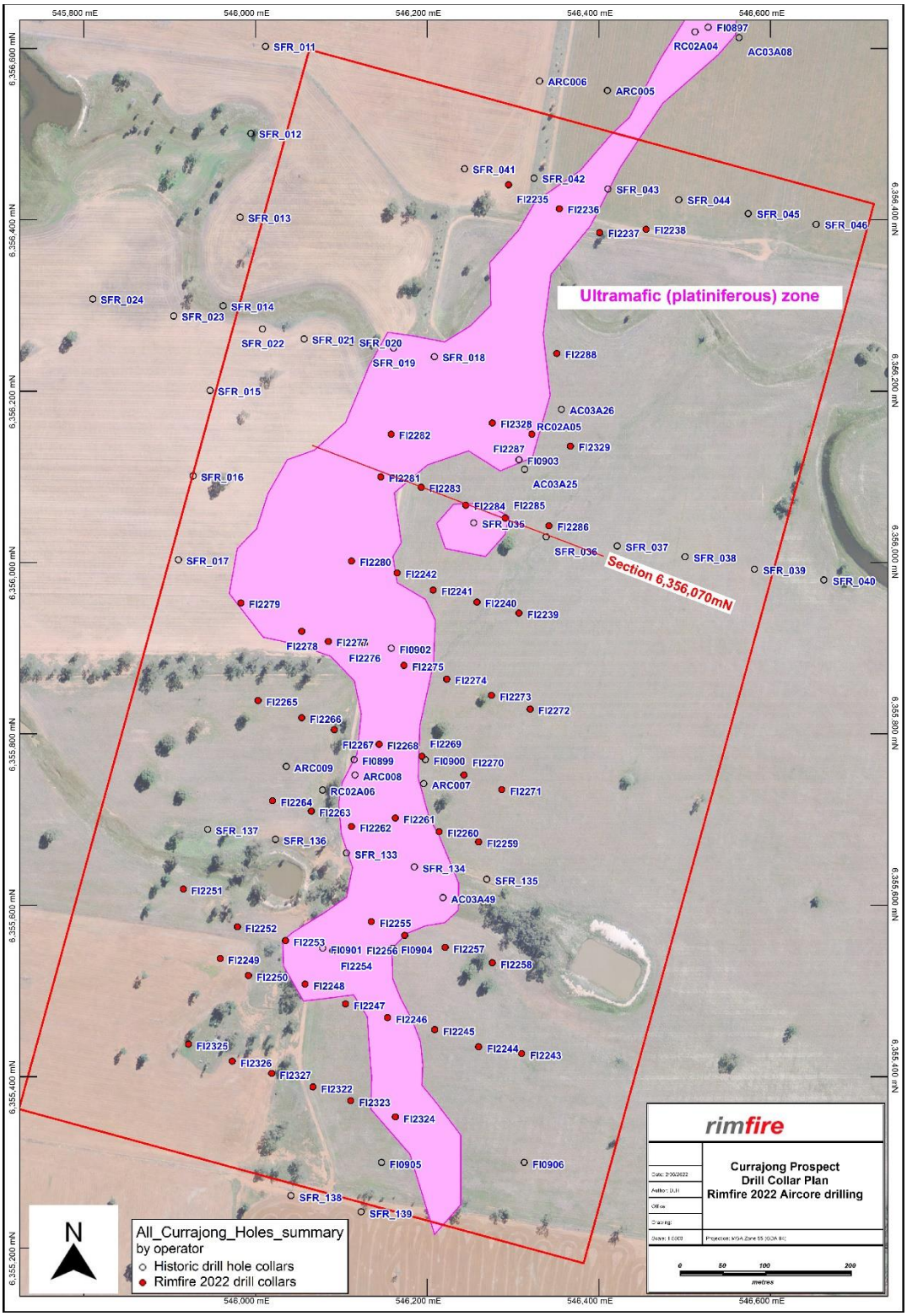


Figure 4: Currajong prospect drill collar plan showing Rimfire 2022 air core drill hole collars (red) and hole ID's.

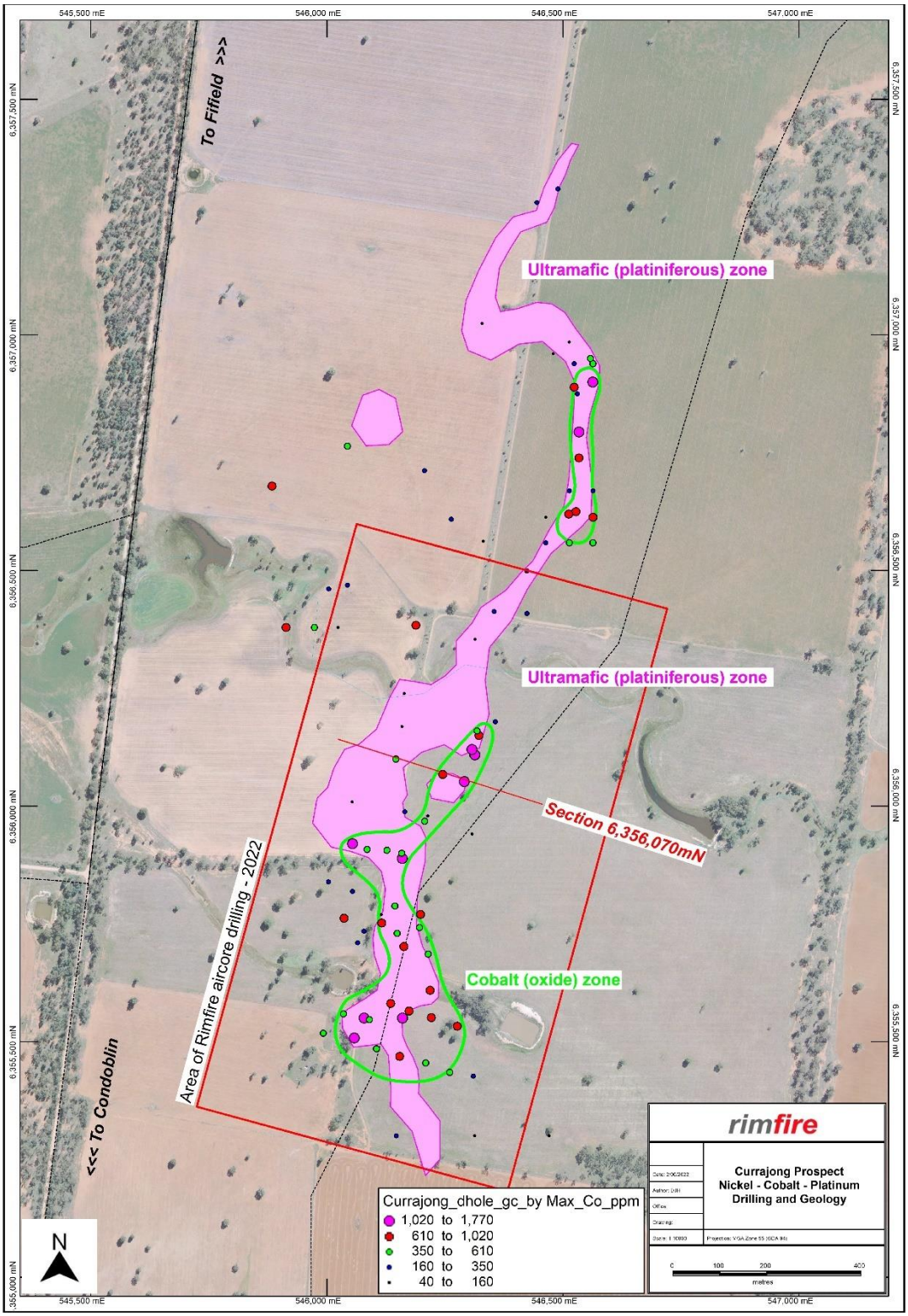


Figure 5: Currajong prospect drill collar plan showing Rimfire 2022 aircore drill hole collars color – coded by maximum downhole cobalt (ppm), and cobalt (200ppm Co) zone.

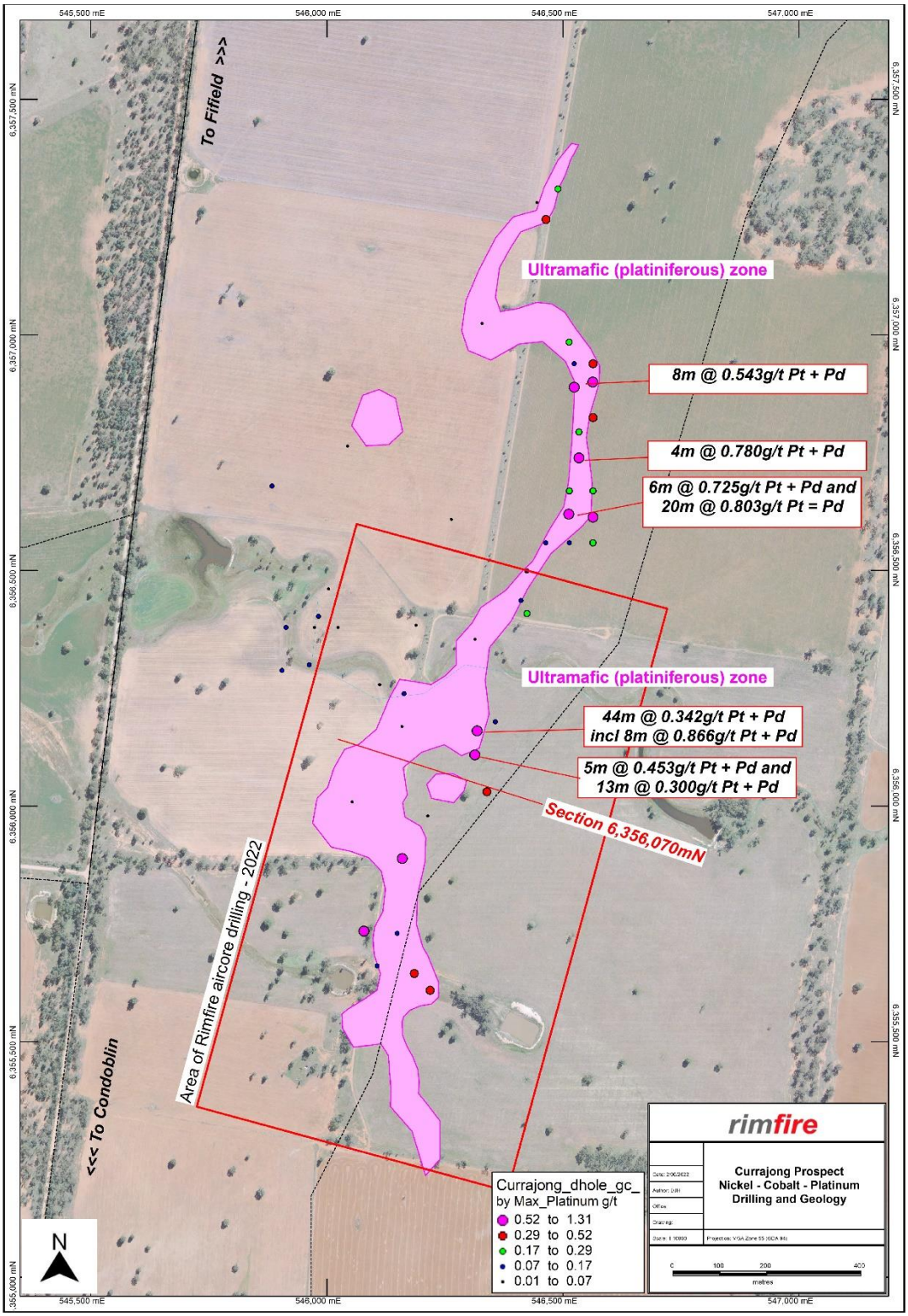


Figure 6: Currajong prospect drill collar plan showing Rimfire 2022 aircore drill hole collars color – coded by maximum downhole platinum (ppm), and cobalt (200ppm Co) zone.

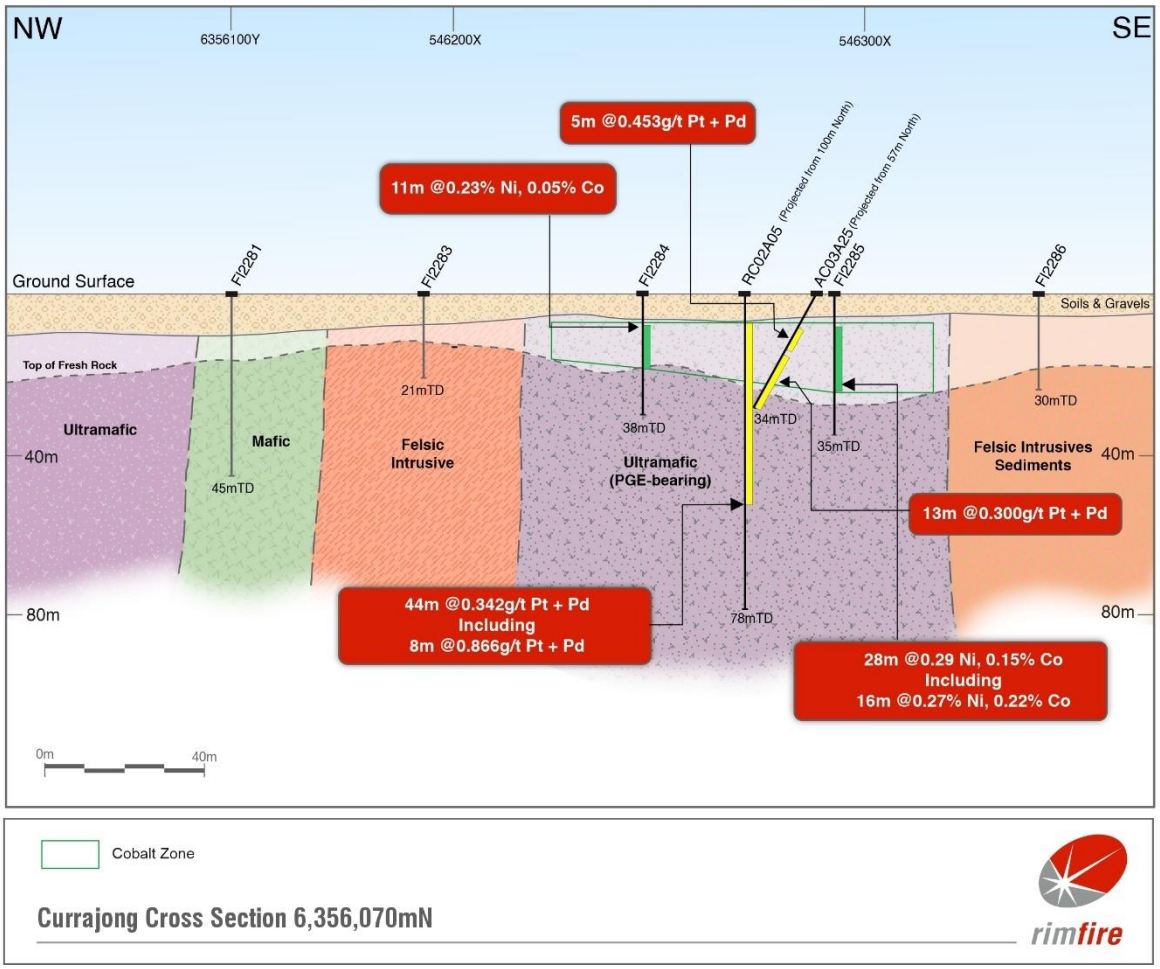


Figure 7: Currajong cross section 6,356,070mN

This announcement is authorised for release to the market by the Board of Directors of Rimfire Pacific Mining Ltd.

For further information please contact:

David Hutton
Executive Director
Ph: +61 417 974 843

Greg Keane
CFO / Investor Relations,
Ph: +61 497 805 918

JORC Reporting

Table 2: JORC Code Reporting Criteria

Section 1 Sampling Techniques and Data – Aircore Drilling

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 down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Aircore drilling was undertaken by Rimfire Pacific Mining Limited at the Currajong Prospect during the March 2022 Quarter. For each drillhole, a scooped sample was collected for subsequent laboratory analysis as described below. Each sample represents a scooped sample of cuttings generated via aircore drilling. Each sample is representative of either 1 metre or 3 metre composites. The nature of the sample generation and collection process means the samples should be considered as indicative of grade rather than representative of a precise grade. For aircore drilling undertaken by the Company in 2018, the following information is provided. Consecutive 1m samples were collected from the cyclone on the rig in buckets then divided through a two tier (75:25) riffle splitter to create a sub-sample of approximately 2-3kg representing 2 drilled meters for assay. The bulk material collected by the meter in plastic bags. For historic platinum focussed drilling undertaken by the Company in 2002, the following information is provided. Reverse Circulation drill holes were sampled at 1 metre intervals. Approximately 1.5 kg was taken by 40mm spear extraction from each 1 metre of drill cuttings and composited with the next metre for a 3kg x 2 metre composite sample, submitted for assay of Au, Pt and Pd to ALS Orange. For historic platinum focussed drilling undertaken by the Company in 2003, the following information is provided. Aircore drillholes were sampled with a 0.5kg sample taken by 40mm spear extraction method from each 1 metre sample was composited into a 4m sample for assay. Samples from both the 2002 and 2003 programs were submitted to ALS Orange for assay of Pt, Pd and Au by method PGM MS24 (50g charge fire assay with ICP-MS finish).

Criteria	JORC Code explanation	Commentary
	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	The nature of aircore sampling means samples should be considered as an indicative rather than precise measure, aimed at defining areas of anomalism. Blank samples and reference standards were inserted into the sample sequence for QA/QC.
	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.	The field collected samples were typically 1.0 to 2.0kg from single 1m intervals or composite samples from a 3m interval from aircore drilling. Industry standard preparation and assay conducted at ALS Pty Ltd in Orange, NSW, including sample crushing and pulverising prior to subsampling for an assay sample. For 2022 aircore drilling, 25 g of pulverized sample was utilized for multi-element assay via aqua regia and ICP technique.
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).	All 2003, 2018 and 2022 holes were drilled using aircore drill rig. All holes were vertical. 2002 holes were drilled using a Reverse Circulation drill rig.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	For the 2022 aircore drilling, an approximate estimate of total sample quantity was recorded with each 1m interval by comparing volumes within each bucket of sample yielded from the cyclone. A visual estimate of 0, 25, 50, 75, 100, 125% was recorded for each metre.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	For the 2022 aircore drilling, the drillers adjusted penetration and air pressure rates according to ground conditions to optimise recoveries. The cyclone was cleaned regularly, and holes were reamed in between rod changes to reduce contamination.
	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.	Due to the reconnaissance nature of the aircore drilling it cannot be determined 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.
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.	Sub-samples were collected for the purpose of geological logging, aimed primarily at assessing the lithological type and confirming sample represents insitu material.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging of chips/rock samples is qualitative by nature.
	The total length and percentage of the relevant intersections logged.	For the 2022 air core drilling, geological logging was completed for the entire length of each hole.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable as no core samples were collected.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation continued.	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Aircore drilling samples were scooped with PVC pipe from the total output of cuttings that passed through the cyclone on the rig.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Given the indicative nature of the sample medium (refer to sampling techniques section above) this process is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All sampling equipment was cleaned between samples.
	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.	For the 2022 aircore drilling, blanks and standards were inserted in the sample stream before being submitted to the commercial laboratory. The Company also re-analysed a subset of the drill samples using a lithium borate fusion / XRF to confirm the validity of the drill assays. The 2022 air core assay data presented in this Report has been generated using the aqua regia / ICP technique.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes of between 1-2 kg are considered suitable for a qualitative assessment for indications of mineralisation.
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.	Reported elements for the 2022 aircore drilling were assayed via Aqua Regia which is considered a partial method.
	For geophysical tools, spectrometers, handheld XRF instruments (pXRF), etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Not applicable as no geophysical tools were used or results of using geophysical tools reported.
	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.	A blank and a recognized Standard were inserted in the sample stream at a spacing of every 20 samples. The Company also re-analysed a subset of the drill samples using a lithium borate fusion / XRF to confirm the accuracy of the aqua regia drill assays. The reanalysis confirmed that the aqua regia technique was generating consistently accurate results, albeit lower than what would be expected if a lithium borate fusion / XRF technique was used. The 2022 air core assay data presented in this Report has been generated using the aqua regia / ICP technique.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All reported significant intersections have been reviewed by the Company's Exploration Manager and Executive Director.
	The use of twinned holes.	Not applicable as no twinned holes drilled.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Sampling data was recorded on field sheets at the sample site. Field data was entered into an excel spreadsheet and saved on Cloud server. Geological logging was recorded directly in LogChief program during drilling and backed up on Cloud server. Assay results were reported in a digital format suitable for direct loading into a Datashed database with a 3rd party expert consulting group.
	Discuss any adjustment to assay data.	No adjustments have been made.
Location of data points	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.	Sample locations are recorded using handheld Garmin GPS with a nominal accuracy +/- 3m.
	Specification of the grid system used.	GDA94 Zone 55.
	Quality and adequacy of topographic control.	Handheld GPS, which is suitable for the early stage and broad spacing of this exploration.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Data spacing is controlled by the interpretation of the prospect and potential orientation of mineralisation. For the 2022 air core drilling data discussed in this Report spacing is nominally 50 x 100 metres.
	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.	Sampling is considered appropriate to identify 'broad' anomalous areas of potential mineralisation. Samples are not to be used in resource/reserve estimation.
	Whether sample compositing has been applied.	For the 2022 aircore drilling, samples were either collected at 1m intervals or composited at 1 - 3m intervals for assay submission
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.	Given the early stage of exploration it is not yet known if sample spacing, and orientation achieves unbiased results.
	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.	Due to the reconnaissance (early stage) nature of the aircore drilling it cannot be determined whether relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias
Sample security	The measures taken to ensure sample security.	Samples double bagged and delivered directly to the laboratory by company personnel.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews completed.

Section 2 Reporting of Exploration Results

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.	Reported results all from Exploration Licence EL8935 at Fifield NSW which is wholly - owned by Rimfire Pacific Mining Limited. The tenement forms part of the Company's Avondale Project which is subject to an Earn In and Joint Venture Agreement with Golden Plains Resources Pty Ltd (GPR) whereby GPR can earn up to a 75% interest by completing expenditure of $7.5M over 4 years. All samples were taken on Private Freehold Land. No Native Title exists. The land is used primarily for grazing and cropping.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The tenement is in good standing, and all work is conducted under specific approvals from NSW Department of Planning and Energy, Resources and Geoscience.

Criteria	*JORC Code explanation*	*Commentary*
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Previous exploration at Currajong have been undertaken by the following parties. 1987 – 1988. Helix Resources conducted ground magnetic traversing and reconnaissance RAB drilling testing for gold, platinum and palladium within bedrock ultramafic lithologies. 1988 – 1990. Helix Resources conducted geological mapping at Currajong 1999 – 2000. Rimfire – Black Range Minerals JV. The parties explored Currajong for lateritic nickel cobalt mineralisation. 2001. Rimfire following withdrawal of Black Range Minerals resumed exploration for platinum at Currajong with target generation, aeromagnetic surveying, and wide spaced Reverse Circulation drilling (RC02 series of drillholes). 2003. Rimfire conducted air core drilling at Currajong targeting platinum mineralisation within the lateritic portions of the Currajong ultramafic (AC03 series of drillholes). 2018. Rimfire conducted air core drilling at Currajong targeting lateritic cobalt mineralisation. Whilst exploration has been undertaken at Currajong since 1987, the work has exclusively focussed on delineating nickel, cobalt and platinum mineralisation within lateritic / weathered portion of the ultramafic units. There has been very little, if any specific testing of the ultramafic units at depth, and the last platinum – focussed exploration took place in 2003.
Geology	Deposit type, geological setting and style of mineralisation.	The target area lacks geological exposure, available information indicates the bedrock geology across the project is a dominated by a central body of ultramafic intrusive and stepping out to more felsic units on the margins. The deposit type/style of mineralisation is generally considered to be a flat lying ferruginous and laterised zone developed on top of ultramafic hosting anomalous Ni-Co-Sc. Historic drilling has shown that the host ultramafic is platiniferous.
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 drill holes: easting and northing of the drill hole collar	All drillhole specifications including significant intercepts are included within Tables 1a and 1b of this Report. All collar locations are also shown on the figures included with this Report.

Criteria	*JORC Code explanation*	*Commentary*
	elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	dip and azimuth of the hole	
	down hole length and interception depth	
	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.	Not applicable as no drill hole information has been 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.	No data aggregation or weighting has been applied to the reported significant intercepts. For the 2022 aircore drilling, the following low cut off grades have been used in determining the reported intercepts. • Nickel (1,000 ppm – 0.1%) • Cobalt (200 ppm – 0.02%) • Scandium (150 ppm – 0.015%) • Copper (1,000 ppm – 0.1%)
	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.	For the 2022 aircore drilling where sample intervals were of different, length weighting averaging was applied.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalents are not reported

Criteria	*JORC Code explanation*	*Commentary*
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the Reporting of Exploration Results.	The drill results included in this Report occur within a flat (horizontal) lying zone and given all the aircore drill holes are vertical, the significant intercepts are considered to represent true widths. The orientation of historic platinum drill intercept which occur within fresh rock is not known.
	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 down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	
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.	Included within the Report (or as appendices)

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 avoiding misleading reporting of Exploration Results.	All results are included on the plans
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;	There is currently no other substantive exploration data that is meaningful and material to report.
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).	Planned further work is discussed in the document in relation to the exploration results.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Not applicable at this stage

About Rimfire

Rimfire Pacific Mining Ltd (ASX: RIM) is an ASX-listed exploration company focused on projects in the Lachlan Fold Belt in central NSW and Broken Hill NSW. The company has a track record of successful exploration and asset monetisation through partnership agreements.

Rimfire currently has two projects in the Lachlan Fold Belt in JV with Golden Plains Resources (GPR):

- Avondale Project (GPR earning up to 75%) & Fifield Project (GPR earning up to 50.1%)
  - ✓ Both projects are prospective for PGEs, Nickel, Copper & Cobalt - Critical Materials which are essential metals in renewable energy, electrification and green technologies.
  - ✓ The development ready Sunrise Energy Metals Ni-Co-Sc Project (ASX: SRL) is adjacent to both projects.
  - ✓ The Fifield Project hosts the historical Platina Lead mine, the largest producer of Platinum in Australia.

For more information on the JV's see:

ASX Announcement: 4 May 2020 - Rimfire enters into $4.5m Earn-in Agreement

ASX Announcement: 25 June 2021 - RIM Secures $7.5m Avondale Farm Out

Also located in the Lachlan Ford Belt are two 100% owned Projects:

- The Valley Project – Porphyry Copper / Gold
- ✓ Located 5km west of Kincora Copper / RareX's Mordialloc porphyry copper-gold target.

- Cowal Project - Copper / Gold (RIM 100%).
- ✓ Located to the east of Evolution's Lake Cowal Copper / Gold mine
- ✓ Little exploration has occurred on these tenements and prospective for Copper / Gold

Rimfire also has a key project located at Broken Hill:

1. Green View – Cobalt, RIM 100%
   - ✓ Located 15km from Broken Hill
   - ✓ Covers the interpreted along strike extension to Cobalt Blue Holdings' Railway Cobalt Deposit.

Competent Persons Declaration

The information in the report to which this statement is attached that relates to Exploration and Resource Results is based on information reviewed and/or compiled by David Hutton who is deemed to be a Competent Person and is a Fellow of The Australasian Institute of Mining and Metallurgy.

Mr Hutton has over 30 years' experience in the mineral and mining industry. Mr Hutton is employed by Rimfire Pacific Mining (RIM) and is an employee of the Company. David Hutton has sufficient experience that is relevant to the style of mineralisation and type of deposits 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'. David Hutton consents to the inclusion of the matters based on the information in the form and context in which it appears.

Forward looking statements Disclaimer

This document contains "forward looking statements" as defined or implied in common law and within the meaning of the Corporations Law. Such forward looking statements may include, without limitation, (1) estimates of future capital expenditure; (2) estimates of future cash costs; (3) statements regarding future exploration results and goals.

Where the Company or any of its officers or Directors or representatives expresses an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and the Company or its officers or Directors or representatives as the case may be, believe to have a reasonable basis for implying such an expectation or belief.

However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward looking statements. Such risks include, but are not limited to, commodity price fluctuation, currency fluctuation, political and operational risks, governmental regulations and judicial outcomes, financial markets and availability of key personnel. The Company does not undertake any obligation to publicly release revisions to any "forward looking statement".