

30<sup>th</sup> July 2021

## Quarterly Activities Report

For the quarter ended 30 June 2021

### HIGHLIGHTS

- Avondale Agreement executed during the quarter – GPR to earn up to 75% for spending up to \$7.5m over 4 years.
- Over the last 12 months up to \$12m for exploration expenditure secured in the Lachlan Fold Belt (Fifield Project and Avondale Project Earn-ins).
- Initial RC and Diamond Drill Program completed at The Valley Project, intersecting prospective copper porphyry style host rocks analogous to other significant producing mines in the Lachlan Fold Belt
- Within the Fifield Project area, drilling at Transit Prospect (hole Fi2080) obtained a down hole intercept of 86m (to 107m downhole depth) at an average grade of 0.63g/t Au from 21m depth including 9m @ 1.72g/t Au from 21m.
- Drilling at Transit indicates potential to extend mineralisation along strike (northeast / southwest) and downdip (deeper) of existing drilling and in undrilled area to northwest.
- Gold and Silver assays of metallurgical drillholes at Sorpresa to collect drill core for metallurgical test work were consistent with previous good mineralised intercepts at Trench 31, Roadside and Roadside North
- Environmental Impact Assessment (EIA) fauna and flora studies for Sorpresa deposit located within the Fifield Project area are continuing.
- Appointment of Non-executive Director, Misha Collins to the Board.

### Operations

#### The Valley Project: RIM 100%

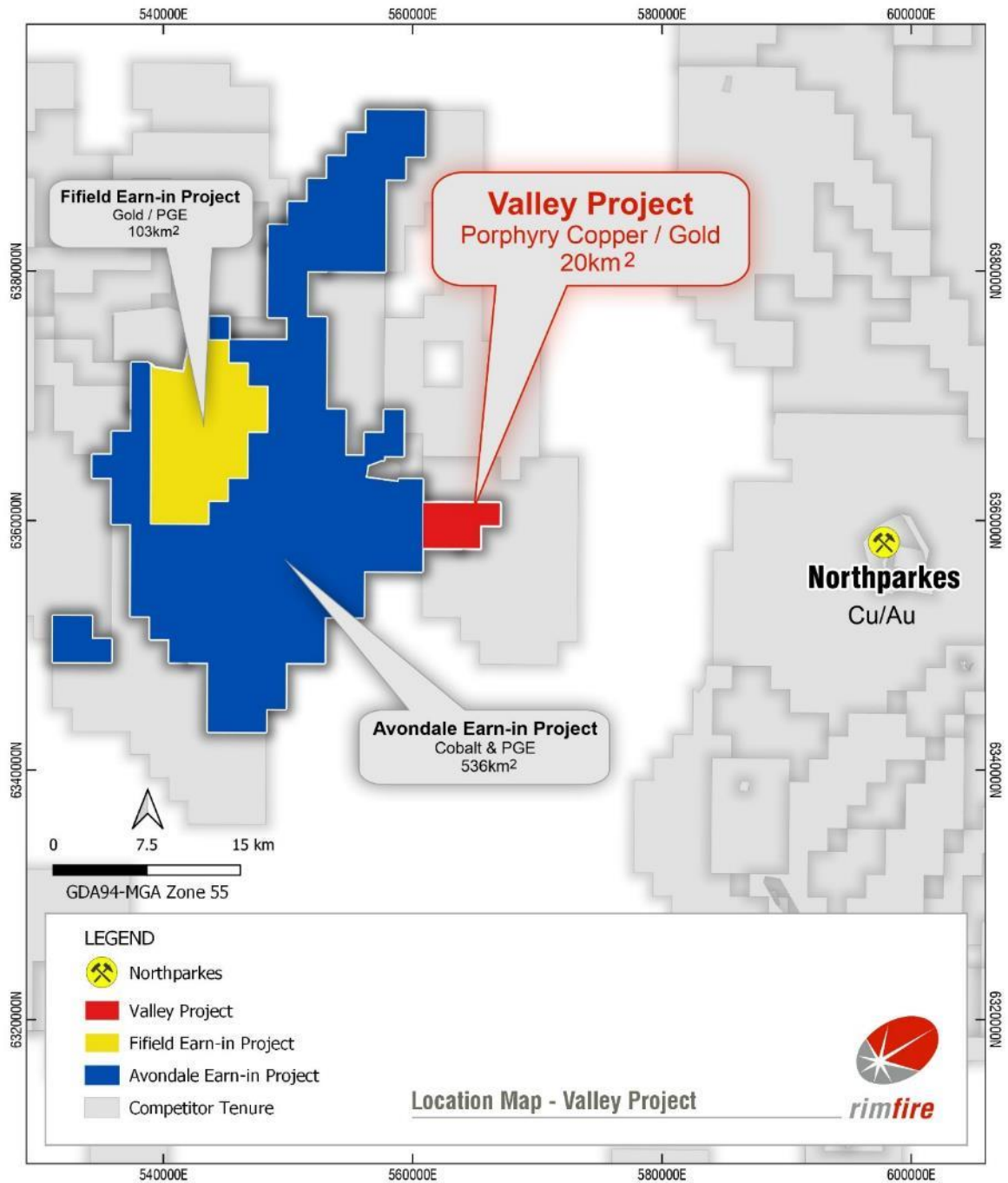
Rimfire continues to focus on the discovery of a large scale ore body in the broader Fifield area. The interpreted Ordovician Volcanics at Fifield host the nearby Cowal gold (Evolution Mining), Northparkes copper / gold (China Molybdenum) and Cadia Valley Operations copper / gold (Newcrest) mines.

At “The Valley” prospect, Rimfire is targeting near surface Induced Polarisation (IP) geophysical features and possible deeper porphyry copper style mineralisation. The Valley target is approximately 5km west of the Kincora Copper / RareX Mordialloc porphyry copper / gold target.

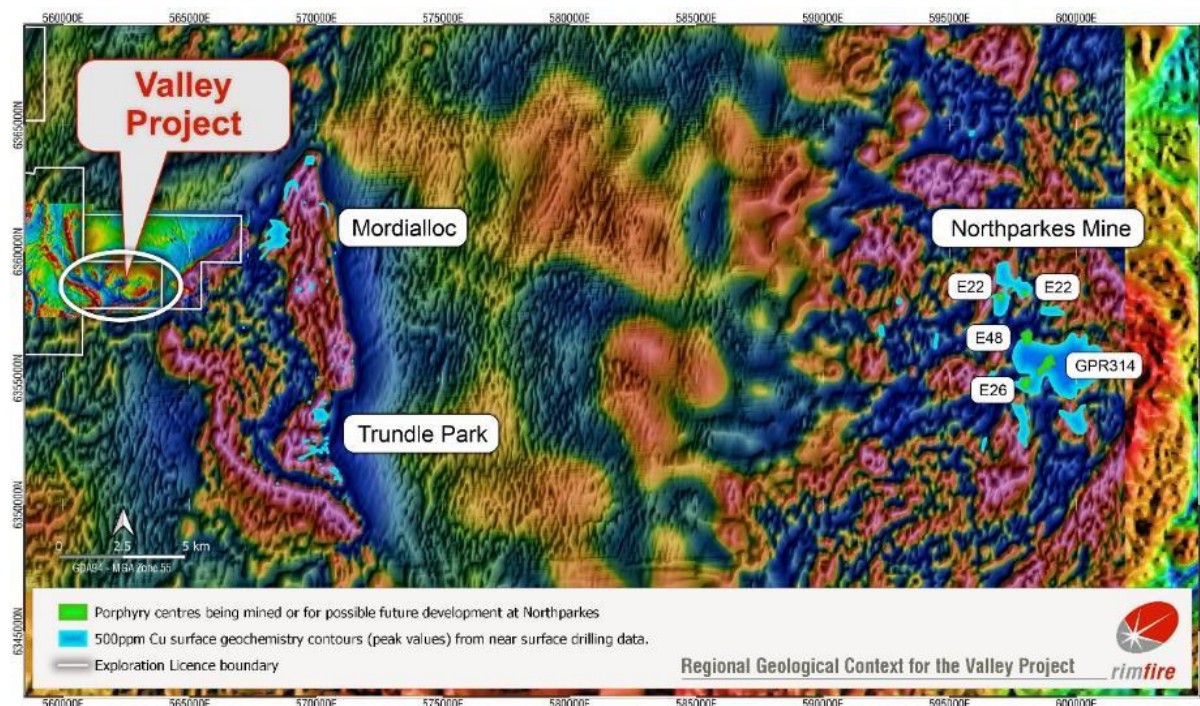
The drilling program consists of a program to test Induced Polarisation (IP) features (zones of anomalous chargeability and resistivity responses in the bedrock substrate) and a deeper hole to confirm depth to interpreted Ordovician Volcanic basement rocks.



Figure 1: Location Plan of Valley Project



**Figure 2: Regional Geological Context for The Valley project**



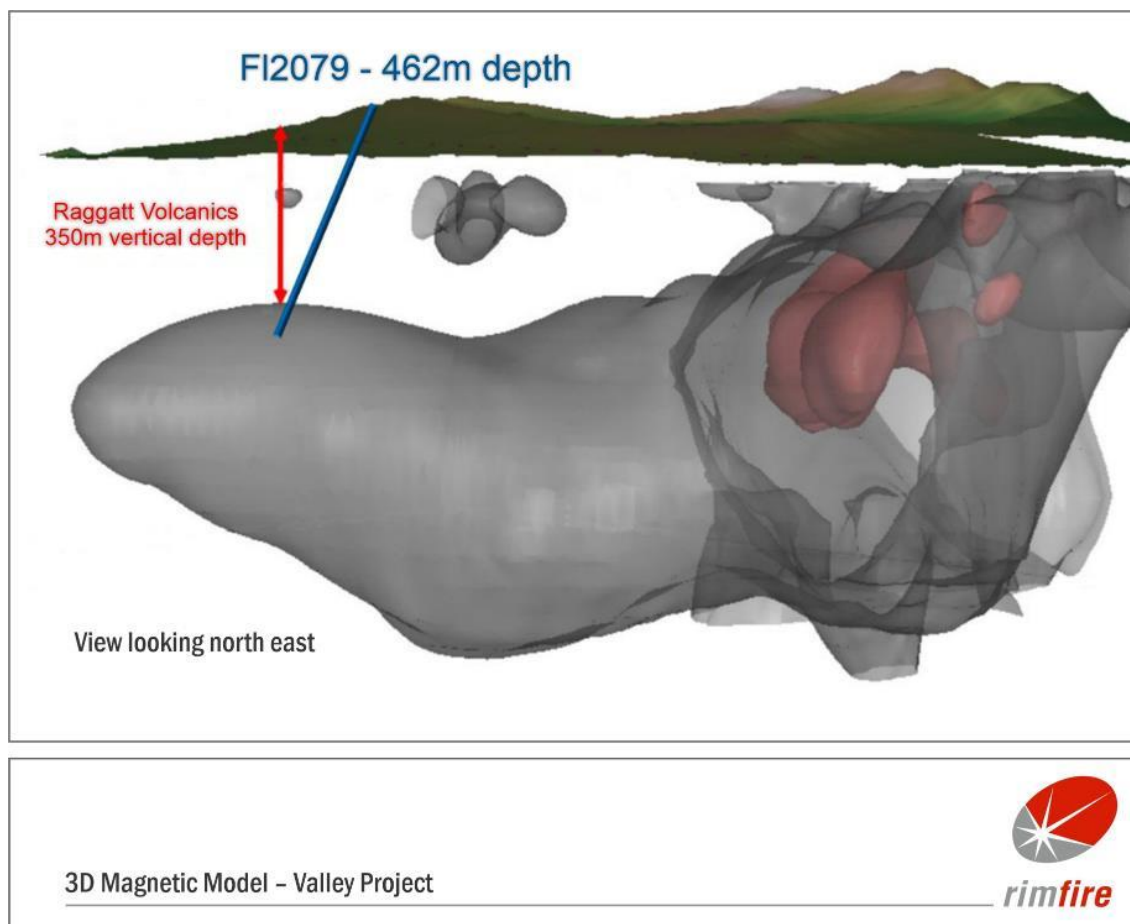
NB: Geochemical footprints of Northparkes Cu-Au porphyry and local porphyry prospects Trundle Park and Mordialloc are compiled from multiple open file sources. *Background image is aeromagnetic.*

A deep diamond drill hole ([ASX Announcement: Valley Results Nearby Porphyry System 27 July 2021](#)) FI2079 of 463m total downhole depth and a shallow diamond drill hole, FI2081 of 151m total downhole depth were completed to test two targets:

- ✓ A deeper magnetic target (Figure 3) interpreted as Ordovician volcanics that are related to porphyry style mineralisation in the region which occurs beneath younger Devonian sediments;
- ✓ The source of surface geochemical anomalism along a ferruginous ridge and an Induced Polarisation (IP) geophysical feature in same vicinity.

Only the assay results from FI2079 from 75m to 462.6m (End of Hole) are currently available. The magnetic target was intersected at ~350m vertical depth. The unit is a strongly epidote-chlorite altered volcanoclastic, polymictic conglomerate and is interpreted as representing the Raggatt volcanics (Ordovician). A series of stringer breccia fault zones were intersected and yielded anomalous copper (Cu) values of 26m @ 410ppm Cu downhole from 96m including 10m @ 800ppm Cu from 97m downhole, and are believed to be the source of the surface geochemical anomaly.

**Figure 3: 3D Magnetic Model of Valley Prospect**



**Note:** Data filtered to show the higher magnetic response in grey with schematic depiction of drill hole FI2079 which confirmed the depth of the Raggatt Volcanic unit.

A second diamond drill hole, FI2081 (150m total depth), was completed ~320m NW of FI2079 in order to test the lateral extent of the ferruginous ridge and an Induced Polarisation (IP) geophysical response. FI2081 is a scissor hole to FI2079 with the purpose of testing the steep structure as a host for copper mineralisation and determine if it was also responsible for the IP response. Very little copper mineralisation was observed, and logging indicates the IP feature is associated with disseminated pyrite (iron sulphide) in younger sediments (Devonian). Assay results for this drill hole are pending.

As the Valley Prospect had been largely unexplored beyond surface mapping and sampling by Rimfire or past explorers until last year, these results are very encouraging and bode well for the next phase of the program to vector into the source of a mineralised system.

### **Cowal Project: RIM 100%**

Primary activity during the quarter involved work program planning and obtaining approvals for an aircore drilling program that is planned to be undertaken during the next quarter.

### **Fifield Project: GPR Earning up to 50.1%,**

GPR committed to the second year of the Fifield Project Earn-in with the payment of the Year 2 administration fee of \$300k received during the quarter, bringing the total amount that GPR have paid in the last 12 months under the Fifield Project Earn-in to \$2.1m.

### **Sorpresa Development Update**

A six hole diamond core drilling program was completed at the Sorpresa Development Project (Figure 4). Three holes were drilled at Trench 31 to obtain additional geotechnical data that will support pit wall slope design parameters and one metallurgical hole at Trench 31, Roadside and Roadside North areas.

The metallurgical holes were drilled in areas of previously intersected oxide zone mineralisation (ie above fresh rock boundary) to obtain data that would assist in determining appropriate process plant design for oxide zone material. The gold and silver grades (Tables 1 and 1A, 1B, 1C and 2 ) from the drill holes were consistent with previous good mineralised intercepts at Trench 31, Roadside and Roadside North used for the Sorpresa (JORC 2012) Resource Reports in 2014 and 2019 ([ASX Announcement: Sorpresa Maiden Resource 23Dec2014](#) and [ASX Announcement: Sorpresa Resource Update 6Nov2019](#)). Limited sampling of the geotechnical holes was undertaken in the barren surrounding hanging wall and footwall rocks with no results of interest.

The current resource estimate is based on 577 holes and 42,760m of drilling data so a new Resource Estimate update will not be undertaken to incorporate these results which are consistent with previous results and expectations.

Table 1: Geotechnical and Metallurgical Drillhole Collar Details

Hole ID	Location	Dip	Core	End of Hole	GDA94	GDA94	RL
FI2073	Trench 31	90 <sup>0</sup>	HQ3	87.6m	542589mE	6368391mN	292m
FI2074	Trench 31	90 <sup>0</sup>	HQ3	72.6m	542544mE	6368423mN	298m
FI2075	Trench 31	90 <sup>0</sup>	HQ3	65.1m	542470mE	6368377mN	294m
FI2076	Roadside	90 <sup>0</sup>	PQ3	62.8m	543160mE	6369378mN	298m
FI2077	Roadside Nth	90 <sup>0</sup>	PQ3	75.7m	543155mE	6369654mN	296m
FI2078	Trench 31	90 <sup>0</sup>	PQ3	66.2m	542528mE	6368388mN	296m

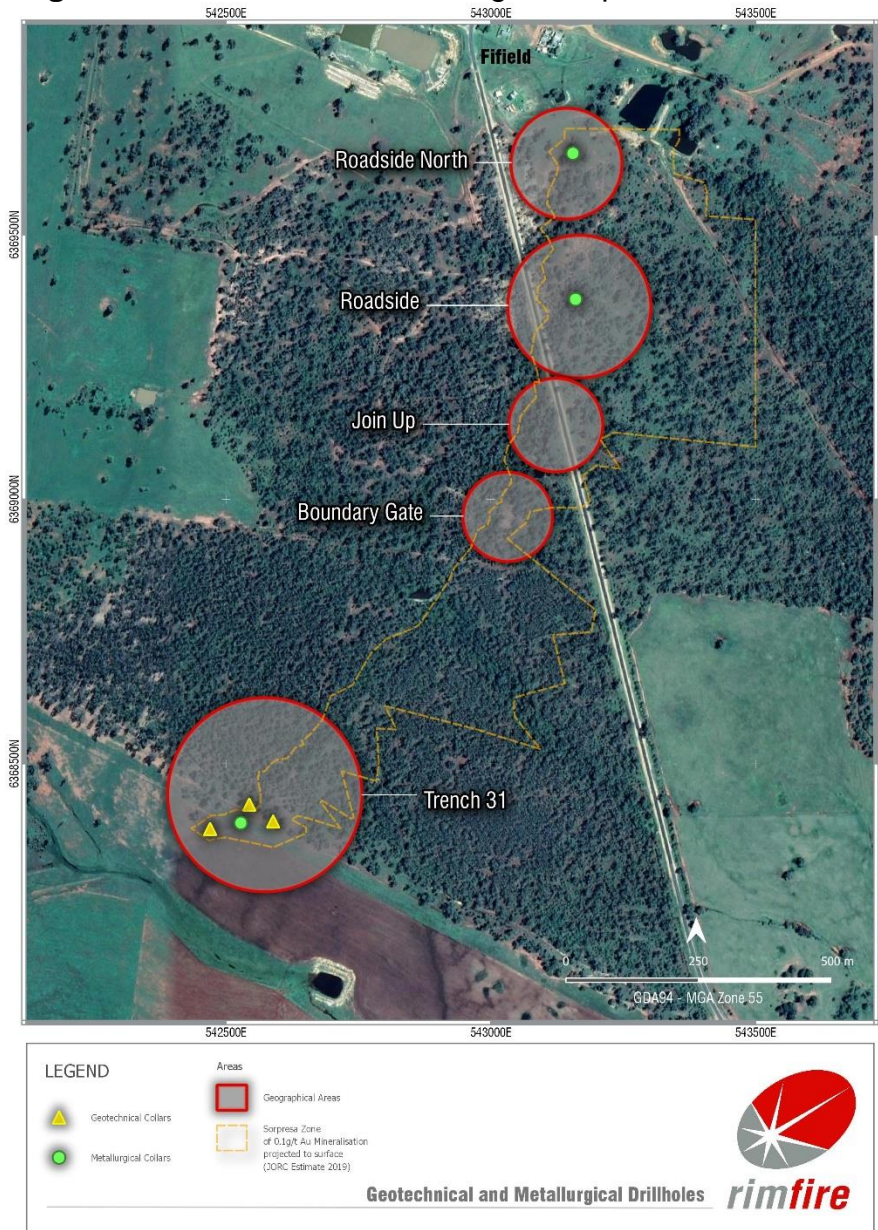
These holes were drilled vertically in the oxide zone of the mineralisation to obtain sufficient sample mass for metallurgical test work and do not represent true orebody thicknesses.

Key bulked downhole intercepts from the 3 metallurgical drill holes are

- FI2076 – 14m @ 2.85g/t Au and 158g/t Ag from 19m
- FI2077 – 20m @ 0.97g/t Au and 334g/t Ag from 39m
- FI2078 – 18m @ 2.56g/t Au and 5g/t Ag from 22m

The metallurgical test work will also provide samples for geochemical analysis which will form part of the Environmental Impact Assessment (EIA) that is required to obtain the Development Consent from the NSW Government Authorities for the Sorpresa project.

**Figure 4:** Location Plan of Drilling at Sorpresa



## ***Fifield Project Exploration***

### **Transit**

The focus of Company activities that are solely funded by the GPR Earn-in during the last quarter has been the drilling program at Transit where there have been some significant results. Transit is 4km to the east of Sorpresa and the recent drillhole tested for deeper extensions of gold mineralisation to a downhole depth of 156.6m, beyond Fi2072 downhole end of hole depth of 61m (Figure 5). Hole Fi2080 returned an intercept of 86m at average grade of 0.63g/t Au from 21m downhole depth including:

- 9m @ 1.72g/t Au from 21m
- 4m @ 1.48g/t Au from 98m

The 68m interval from 30m to 98m averaged 0.44g/t Au. There is also an interval of 5m from 102m that averaged 0.57g/t Au ([ASX Announcement: Fifield Project Intercept, 8 July 2021](#)) within substantial broader zone of elevated gold geochemistry.

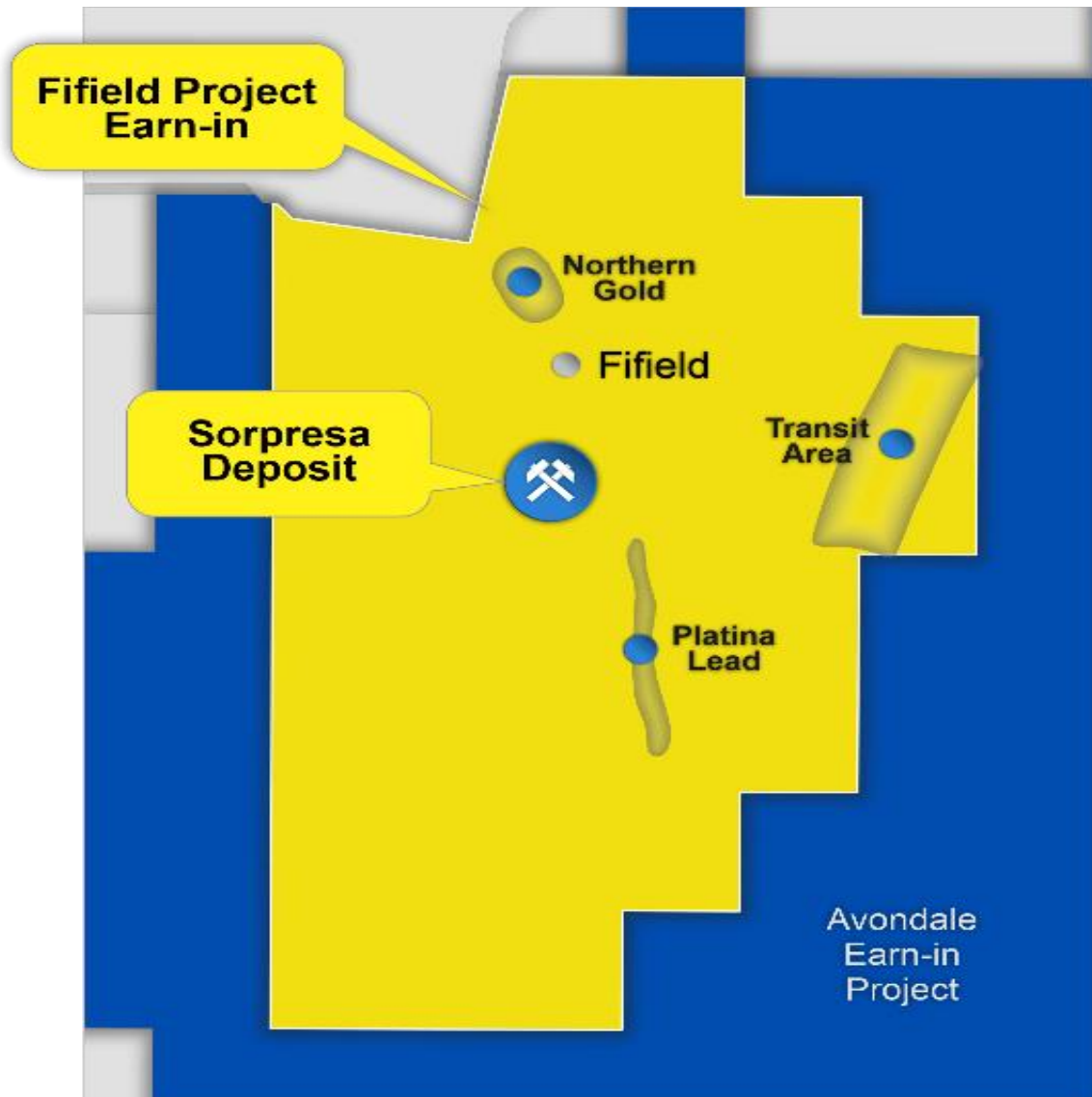
The broader program at Transit has also identified a zone of significant elevated gold geochemistry coincident with surface soil and auger bedrock samples approximately 150m to the north east (Figure 6). As diamond core provides significantly better quality data than RC drilling the diamond drill hole at Transit has allowed Rimfire to develop a better understanding of lithology and structure. Key insights include recognition of

1. A broad halo of elevated gold geochemistry occurring within a strongly sheared, quartz-veined carbonaceous siltstone host rock with the highest grades appearing to lie within steep structurally controlled breccias
2. Mineralisation trends approximately NE-SW bordering a magnetic high (intrusive rock) and the potential for additional extension of mineralisation along this structural trend.

To date, 8 holes have tested the zone of highest surface Au anomalism. The area tested so far is ~120 x 100m with 6 of the 8 holes intercepting significant zones of Au. As only a small area of surface anomalism has been tested with drilling (auger, RC and diamond) to date the broad zone of anomalous geochemistry of bedrock may represent a significant Intrusion Related Gold System (IRGS) deposit style opportunity ([ASX Announcement: IRGS Sorpresa Basin Model, 15 July 2019](#)).

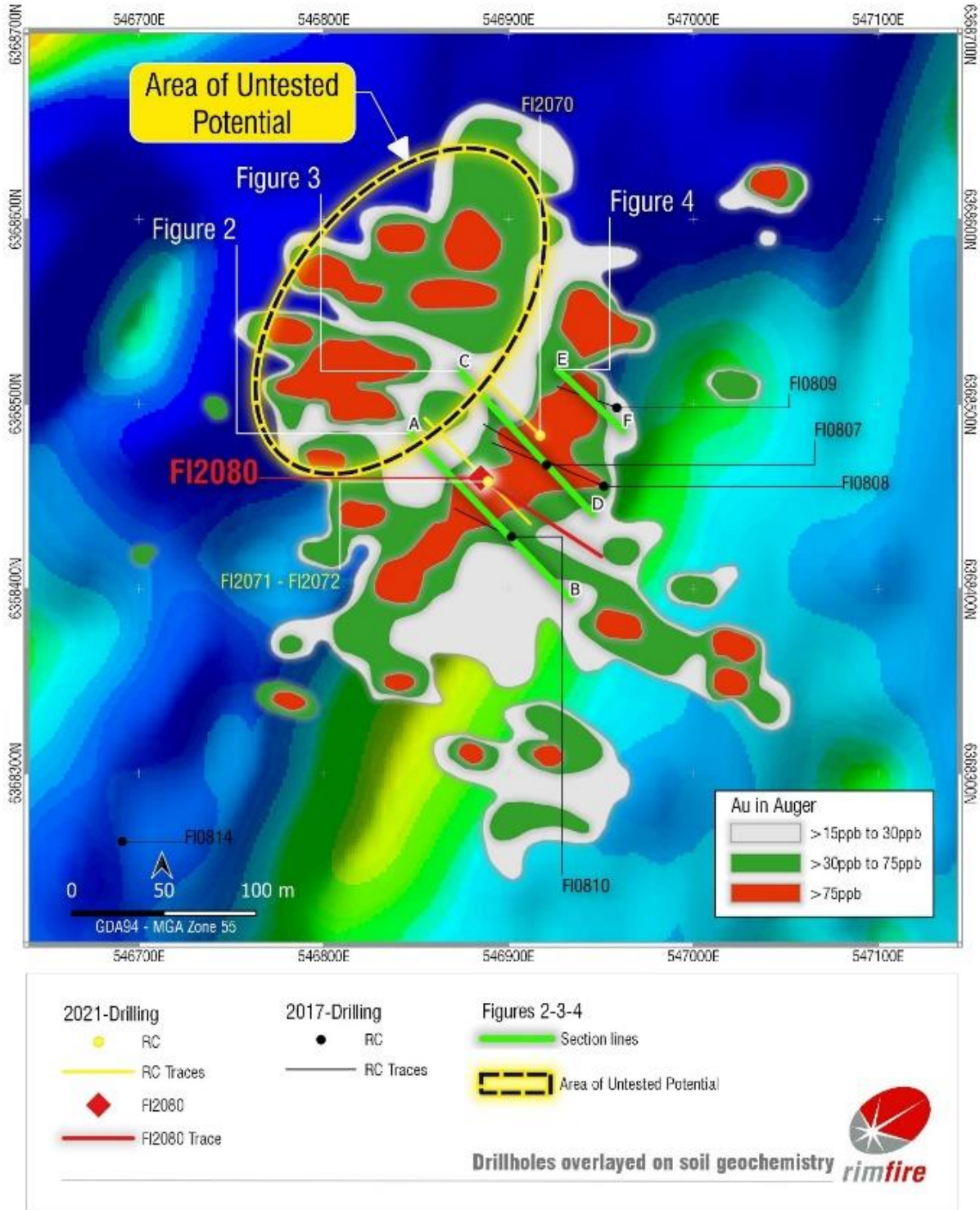
The next stage is to step out and test the proximal surface anomalies and the interpreted structural trend. Subject to rig availability, completion of NSW Government regulatory approval process Government directives regarding management of COVID it is expected that this program will commence in September.

Figure 5: Transit Locality Map





**Figure 6: Surface Gold Geochemistry at Transit**



## **Avondale Project: GPR Earning up to 75%**

During the Quarter the Avondale Project Earn-in was executed with GPR ASX Announcement: 25 June 2021: [RIM Secures \\$7.5m Avondale Farm Out](#).

Key aspects of the transaction include:

- GPR has committed to the payment of \$1.0 million to fund exploration activities in year 1 of the agreement.
- GPR has the option to contribute a further:
  - \$1.5m in Year 2 to earn a 40% interest in the property,
  - \$2.5m in Year 3 to increase their interest to 70%; and
  - \$2.5m in Year 4 to earn a further 5% interest in the JV Area.
- Rimfire will retain responsibility and control for the design and execution of field work programs during the Earn-in period.

Rimfire are currently planning the program of activity to be undertaken within the Avondale Project area with initial focus to be on the Cobalt and Platinum Group Elements potential of previously identified prospects.

## **Tenement Position**

There has been ongoing routine submittal of various compliance reports including Annual Technical Reports to NSW Department of Planning, Industry and Environment – Resources and Geoscience to meet government compliance requirements for Rimfire's Exploration Licences and M(C)L305.

The Company continues to maintain its tenements in the Fifield area covering an area of 915km<sup>2</sup>. The Company also maintained its tenement interest in an Exploration Licence in the Broken Hill area of 78km<sup>2</sup> with Perilya as operator.

## **Health, Safety, Environment and Community**

### **Health and Safety**

There were no Health or Safety related incidents during the last quarter. The Total Year to Date performance for Minor Injuries, Medical Treatment Injuries and Lost Time Injuries remains zero.

The Company continues to monitor the required Covid-19 preventive measures when undertaking office or field activities. Recent Queensland State Government COVID border movement restrictions for people travelling between Queensland and NSW has the potential to impact operations in the next quarter. The company appreciates the ongoing support of the local community, employees and contractors during this period of abnormal business conditions.

## Environment

There has been further rainfall during the past quarter that has kept all dams at the Fifield project site at capacity and fully saturated the surface soils. The ongoing rainfall has caused some delays to field program activities as access tracks to many sites including drill hole locations are too wet to support vehicle movements. The Company continues to collaborate with farmers to ensure drilling operations have minimal impact on farming activities and rehabilitation is completed to a high standard.

## Community

There have been no significant community events during the past Quarter.

## CORPORATE ACTIVITY

### Board Composition

At the beginning of July, Misha Collins joined the Board of the Company as a Non-executive Director, bringing 23 years of experience in resources as a mining executive, financial analyst and company director (ASX Announcement 2 July 2021: [Appointment of NED](#))

### Cash, Capital Structure, Funding, Facilities, and Investments

The Company's cash at bank at 30 June 2021 was \$1.6m. During the June Quarter the Company also received \$300k for payment of the fourth quarterly cash call for the Fifield Project Earn-in with GPR which is held in trust in the Fifield Project Earn-in account and drawn down as expenditure is made in the Fifield Project Earn-in Area. The balance of the Fifield Project Earn-in account at 30 June 2021 was \$0.3m, which is not included in the Company's cash balance of \$1.6m. GPR also paid the \$300k Year 2 Administration Fee for Fifield Project Earn-in directly to the Company.

During the June Quarter the Company also received \$100k initial payment from GPR relating to Avondale Project Earn-in which was executed during the June Quarter. This is held in trust in the Avondale Project Earn-in account and drawn down as expenditure is made in the Avondale Project Earn-in Area. The balance of the Avondale Project Earn-in account at 30 June 2021 was \$0.1m, which is not included in the Company's cash balance of \$1.6m. Subsequent to the end of the Quarter GPR paid an additional \$0.2m into the Avondale Project Earn-in account.

There was no change in the Company's capital structure during the Quarter. Related party transactions of \$83k (section 6.1 and 6.2 of the June 2021 Quarter Appendix 5B) are payments for salary (including statutory superannuation) to Craig Riley (MD and CEO) and Director fees for the June 2021 Quarter.

The continuing strength of commodity prices has generated increased focus on exploration companies that hold ground positions in highly prospective areas such as the Lachlan Fold Belt in central NSW, which is being now being reported by media commentators as a “hotspot”. As previously advised to the market the Company will continue to evaluate opportunities that may support the growth and funding activity of the Company.

### Commodity Pricing for the Quarter

During the June Quarter 2021 the gold price slightly increased in value, finishing the quarter with a 4% increase in value to USD 1,776 / AUD 2,336 per ounce (using an exchange rate USD:AUD of 0.76), since the quarter ended Gold has regained value, appreciating back to USD 1,809 per ounce (26 July 2021). Silver also increased in value by 8% and Copper appreciating in value during the June Quarter with an increase of 6%.

**Table 3 – Commodity Pricing**

Commodity	USD		%’age Change	AUD		%’age Change
	31/03/2021	30/06/2021		31/03/2021	30/06/2021	
Gold (oz)	1,713.30	1,775.60	3.64%	2,254.34	2,336.32	3.64%
Silver (oz)	24.31	26.20	7.78%	31.98	34.47	7.78%
Copper (t)	8,850	9,385	6.05%	11,644.74	12,348.68	6.05%

\*Note: Using an exchange rate of AUD:USD 0.76 at 31 March 2021 and 30 June 2021  
Gold and Silver Prices from [www.kitco.com](http://www.kitco.com) in New York in USD and Copper and Cobalt Prices from [LME.com](http://LME.com) in USD.

### Appendix A - Rimfire Exploration Licenses

Below is a listing of the exploration licenses held by Rimfire Pacific Mining NL as at 30 June 2021.

Project	Lic No.	Units	RIM Int.	Interest Acquired During Quarter	Interest Reduced During Quarter
The Valley	EL8542	5	100%	-	-
	EL8401	2	100%	-	-
Cowal	EL8804	42	100%	-	-
	EL8805	39	100%	-	-
Fifield**	EL8935	21	100%	-	-
	M(C)L305	1.9ha	100%	-	-
	EL6241	15	100%	-	-
Avondale***	EL5565	4	100%	-	-
	EL7058	35	100%	-	-
	EL7959	7	100%	-	-
	EL8401	98	100%	-	-
	EL8542	27	100%	-	-
	EL8543	1	100%	-	-
	EL8935	19	100%	-	-
Broken Hill	EL 5958*	27	10%	-	-

\*Perilya manage the project, RIM free carried for 10%

\*\*Subject to Fifield Project Earn-in entered into during the June 2020 Quarter, however no interest in tenements to be ceded until earn-in conditions met in full

\*\*\*Subject to Avondale Project Earn-in entered into during the June 2021 Quarter, however no interest in tenements to be ceded until earn-in conditions met in full

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

**For further information please contact:**

Craig Riley

Managing Director, Ph: +61 3 9620 5866

**Table 1A: Assay Results for Diamond Drill Hole FI2076 – Roadside**

Eastings and Northings GDA 94 MGA Zone 55

From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm	From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm
0	1	543160	6369378	0.118	4.1	47	48	543160	6369378	0.018	0.6
1	2	543160	6369378	0.048	2.2	48	49	543160	6369378	0.020	0.8
2	3	543160	6369378	0.028	2.0	49	50	543160	6369378	0.017	1.3
3	4	543160	6369378	0.029	2.8	50	51	543160	6369378	<0.005	<0.2
4	5	543160	6369378	0.043	4.6	51	52	543160	6369378	0.014	1.1
5	6	543160	6369378	0.040	5.2	52	53	543160	6369378	0.010	1.0
6	7	543160	6369378	0.117	2.3	53	54	543160	6369378	0.007	1.0
7	8	543160	6369378	0.036	1.6	54	55	543160	6369378	0.006	3.2
8	9	543160	6369378	0.067	6.9	55	56	543160	6369378	0.015	8.0
9	10	543160	6369378	0.137	10.8	56	57	543160	6369378	0.032	0.8
10	11	543160	6369378	0.116	12.7	57	58	543160	6369378	0.017	1.1
11	12	543160	6369378	0.531	11.2	58	59	543160	6369378	0.013	0.5
12	13	543160	6369378	0.008	0.2	59	60	543160	6369378	0.011	0.6
13	14	543160	6369378	0.170	16.7	60	61	543160	6369378	0.021	0.6
14	15	543160	6369378	0.162	26.1	61	62	543160	6369378	0.006	0.4
15	16	543160	6369378	0.184	80.5	62	62.8	543160	6369378	0.008	0.6
16	17	543160	6369378	0.341	41.4						
17	18	543160	6369378	0.144	25.3						
18	19	543160	6369378	0.447	31.0						
19	20	543160	6369378	0.798	41.7						
20	21	543160	6369378	2.25	190						
21	22	543160	6369378	20.2	124						
22	23	543160	6369378	0.866	272						
23	24	543160	6369378	1.11	1270						
24	25	543160	6369378	0.569	141						
25	26	543160	6369378	0.090	50.7						
26	27	543160	6369378	0.282	17.2						
27	28	543160	6369378	2.71	8.8						
28	29	543160	6369378	0.895	5.4						
29	30	543160	6369378	0.384	7.9						
30	31	543160	6369378	2.74	30.0						
31	32	543160	6369378	2.52	4.5						
32	33	543160	6369378	1.54	25.8						
33	34	543160	6369378	5.42	26.7						
34	35	543160	6369378	0.115	8.6						
35	36	543160	6369378	0.111	4.5						
36	37	543160	6369378	0.069	1.4						
37	38	543160	6369378	0.102	0.9						
38	39	543160	6369378	0.095	0.6						
39	40	543160	6369378	0.106	2.3						
40	41	543160	6369378	0.052	0.5						
41	42	543160	6369378	0.005	<0.2						
42	43	543160	6369378	0.006	0.2						
43	44	543160	6369378	0.009	0.2						
44	45	543160	6369378	0.009	0.3						
45	46	543160	6369378	0.005	0.2						
46	47	543160	6369378	0.008	0.3						

Assay Techniques: Au 30g Fire Assay with AA finish (Au-AA23 Code)  
Base Metals Aqua Regia digest ICP-AES (ME-ICP41 Code)

**Table 1B: Assay Results for Diamond Drill Hole FI2077 – Roadside North**

Eastings and Northings GDA 94 MGA Zone 55

From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm	From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm
0	1	543155	6369654	0.036	0.7	47	48	543155	6369654	0.970	496
1	2	543155	6369654	0.019	0.7	48	49	543155	6369654	1.905	296
2	3	543155	6369654	0.007	0.4	49	50	543155	6369654	0.135	155
3	4	543155	6369654	0.023	0.9	50	51	543155	6369654	0.248	100
4	5	543155	6369654	0.017	1.3	51	52	543155	6369654	0.113	67.1
5	6	543155	6369654	0.076	1.4	52	53	543155	6369654	0.265	101
6	7	543155	6369654	0.016	1.7	53	54	543155	6369654	1.375	89.2
7	8	543155	6369654	<0.005	0.3	54	55	543155	6369654	0.135	75.3
8	9	543155	6369654	0.013	1.7	55	56	543155	6369654	0.048	157
9	10	543155	6369654	0.021	1.1	56	57	543155	6369654	0.072	98.1
10	11	543155	6369654	<0.005	0.8	57	58	543155	6369654	0.546	73.8
11	12	543155	6369654	0.098	1.7	58	59	543155	6369654	0.536	97.5
12	13	543155	6369654	0.026	1.4	59	60	543155	6369654	0.534	14.0
13	14	543155	6369654	0.012	1.9	60	61	543160	6369378	0.021	0.6
14	15	543155	6369654	0.057	2.7	61	62	543160	6369378	0.006	0.4
15	16	543155	6369654	0.091	2.4	62	63	543160	6369378	0.008	0.6
16	17	543155	6369654	0.049	3.9	63	64	543155	6369654	0.198	16.7
17	18	543155	6369654	0.04	5.8	64	65	543155	6369654	0.027	2.5
18	19	543155	6369654	0.025	6.6	65	66	543155	6369654	0.013	1.4
19	20	543155	6369654	0.124	4.6	66	67	543155	6369654	0.010	1.1
20	21	543155	6369654	0.203	6	67	68	543155	6369654	0.005	1.2
21	22	543155	6369654	0.089	13.5	68	69	543155	6369654	0.007	0.8
22	23	543155	6369654	0.077	4.3	69	70	543155	6369654	0.009	0.6
23	24	543155	6369654	0.065	6.3	70	71	543155	6369654	0.013	0.6
24	25	543155	6369654	0.105	7.5	71	72	543155	6369654	0.011	1.1
25	26	543155	6369654	0.067	6.9	72	73	543155	6369654	0.018	0.8
26	27	543155	6369654	0.045	9.2	73	74	543155	6369654	0.135	0.9
27	28	543155	6369654	0.04	12.2	74	75	543155	6369654	0.109	0.8
28	29	543155	6369654	0.067	45.3	75	75.7	543155	6369654	0.631	0.9
29	30	543155	6369654	0.026	24.6						
30	31	543155	6369654	0.017	37.9						
31	32	543155	6369654	0.027	11.2						
32	33	543155	6369654	0.052	7.4						
33	34	543155	6369654	0.055	10.6						
34	35	543155	6369654	0.048	14.2						
35	36	543155	6369654	0.036	6.0						
36	37	543155	6369654	0.147	7.9						
37	38	543155	6369654	0.141	50.0						
38	39	543155	6369654	0.523	31.9						
39	40	543155	6369654	0.145	230						
40	41	543155	6369654	0.327	1350						
41	42	543155	6369654	0.884	403						
42	43	543155	6369654	2.6	687						
43	44	543155	6369654	3.92	92.2						
44	45	543155	6369654	2.04	1390						
45	46	543155	6369654	2.69	514						
46	47	543155	6369654	0.439	212						

Assay Techniques: Au 30g Fire Assay with AA finish (Au-AA23 Code)  
Base Metals Aqua Regia digest ICP-AES (ME-ICP41 Code)

**Table 1C: Assay Results for Diamond Drill Hole FI2078 - Trench 31**

Eastings and Northings GDA 94 MGA Zone 55

From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm	From (m)	To (m)	mE	mN	Au_ ppm	Ag ppm
0	1	542528	6368388	0.736	1.2	47	48	542528	6368388	0.018	0.6
1	2	542528	6368388	0.773	1.1	48	49	542528	6368388	0.02	0.8
2	3	542528	6368388	0.03	0.5	49	50	542528	6368388	0.017	1.3
3	4	542528	6368388	0.009	0.4	50	51	542528	6368388	<0.005	<0.2
4	5	542528	6368388	0.012	1.1	51	52	542528	6368388	0.014	1.1
5	6	542528	6368388	0.018	0.8	52	53	542528	6368388	0.01	1.0
6	7	542528	6368388	0.027	0.5	53	54	542528	6368388	0.007	1.0
7	8	542528	6368388	0.054	0.4	54	55	542528	6368388	0.006	3.2
8	9	542528	6368388	0.116	0.9	55	56	542528	6368388	0.015	8.0
9	10	542528	6368388	0.051	0.5	56	57	542528	6368388	0.032	0.8
10	11	542528	6368388	0.007	0.3	57	58	542528	6368388	0.017	1.1
11	12	542528	6368388	0.034	0.4	58	59	542528	6368388	0.013	0.5
12	13	542528	6368388	0.049	0.6	59	60	542528	6368388	0.011	0.6
13	14	542528	6368388	0.063	0.6	60	61	542528	6368388	0.021	0.6
14	15	542528	6368388	0.039	0.5	61	62	542528	6368388	0.006	0.4
15	16	542528	6368388	0.057	0.8	62	63	542528	6368388	0.008	0.6
16	17	542528	6368388	0.439	0.7	63	65.7	542528	6368388	0.01	0.5
17	18	542528	6368388	1.69	1.0	65.7	66.2			ns	ns
18	19	542528	6368388	0.05	0.5						
19	20	542528	6368388	0.032	0.6						
20	21	542528	6368388	0.099	1.3						
21	22	542528	6368388	0.083	0.9						
22	23	542528	6368388	1.675	6.2						
23	24	542528	6368388	1.15	2.1						
24	25	542528	6368388	3.23	2.4						
25	26	542528	6368388	2.63	2.1						
26	27	542528	6368388	0.753	2.0						
27	28	542528	6368388	0.394	1.5						
28	29	542528	6368388	1.31	1.9						
29	30	542528	6368388	1.02	4.1						
30	31	542528	6368388	0.79	2.0						
31	32	542528	6368388	0.614	3.1						
32	33	542528	6368388	0.658	5.6						
33	34	542528	6368388	1.49	6.1						
34	35	542528	6368388	2.83	6.7						
35	36	542528	6368388	4.21	5.8						
36	37	542528	6368388	0.539	7.1						
37	38	542528	6368388	0.017	<0.2						
38	39	542528	6368388	5.97	7.2						
39	40	542528	6368388	14.6	18.1						
40	41	542528	6368388	0.834	6.0						
41	42	542528	6368388	0.099	1.3						
42	43	542528	6368388	0.031	1.3						
43	44	542528	6368388	0.043	1.6						
44	45	542528	6368388	0.05	0.9						
45	46	542528	6368388	0.902	0.8						
46	47	542528	6368388	0.009	0.3						

**Assay Techniques:** Au 30g Fire Assay with AA finish (Au-AA23 Code)  
 Base Metals Aqua Regia digest ICP-AES (ME-ICP41 Code)  
 ns = no sample



**Table 2: JORC Code Reporting Criteria**

**Section 1 Sampling Techniques and Data**

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.	Diamond core drilling was undertaken by Durock Drilling Pty Ltd. All of the diamond drill core is placed in core trays and labelled with metre depth markers by the drilling team. Drill run length, recovered core length and core loss length are recorded on wooden core blocks placed in the trays. The core recoveries and rock quality are measured by the geologist. The core is orientated into a direction that best matches geological continuity. For metallurgical holes a line is drawn down the long axis of the core and then cut in half down this line using a diamond saw. One half of the core is placed into labelled calico bags at 1m intervals and preserved for metallurgical test work. The other half of core is cut in half down the core axis and ¼ core was submitted for Au and multi element assay.
	Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used.	Diamond core drill runs were carefully measured by the drilling team and again by the geologist before processing to define the core recoveries and core loss and the total true length drilled. Blank samples, reference standards and duplicates were inserted into the sample sequence for QA/QC.
	Aspects of the determination of mineralisation that are Material to the Public Report. Where 'industry standard' work done this is relatively simple (e.g. 'RC 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.	<i>DDH (Diamond Core Drill Hole)</i> For metallurgical holes the PQ core was cut in half and one half was cut into quarters and samples collected at 1m intervals with half placed in calico bags for metallurgical test work, ¼ sent for assay and ¼ retained in core trays. For geotechnical holes the HQ core was cut in half and one half was placed in calico bags for assay and ½ retained in core trays. Industry standard preparation by ALS including sample crushing and pulverising prior to subsampling for Au fire assay (30g) and aqua regia digest ICP-ME41 to yield 35 elements.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, 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).	<i>DDH (Diamond Core Drill Hole)</i> All metallurgical diamond core holes were vertical orientation using triple tube PQ3 wireline bit producing 83mm diameter cores. All geotechnical diamond core holes were vertical orientation using triple tube HQ3 wireline bit producing 61mm diameter cores.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core loss was identified by drillers and calculated by geologists when logging. Generally recovery was good with any loss usually in portions of the oxide zone or strongly fractured shear
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Triple tube coring was used to maximise core recovery. In broken ground the drillers reduced the length of the drill runs and added more drill muds and slowed penetration rate.
	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.	There is no known relationship between sample recovery and grade

Criteria	JORC Code explanation	Commentary
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.	Each one metre interval is geologically logged for characteristics such as lithology, weathering, alteration (type, character and intensity), veining (type, character and intensity) and mineralisation (type, character and volume percentage)
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging was qualitative with visual estimates of characteristics. All drill holes were geologically and geotechnically logged by qualified geologists into Logchief program and uploaded to 3 <sup>rd</sup> party database host. All core was photographed with full clear labelling with photographs stored on cloud server.
	The total length and percentage of the relevant intersections logged.	All drill holes were geologically and geotechnical logged in full.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core sawn with half core samples reserved for metallurgical test work and other half cut into quarters and submitted for analysis Half core samples at selected intervals for geotechnical holes
	If non-core, whether riffled, tube sampled, rotary split, etc and wh sampled wet or dry.	DDH (Diamond Core Drill Hole) - Not Applicable
	For all sample types, the nature, quality and appropriateness of the sample preparation.	The sample collection methodology was considered suitable (refer to sampling techniques section above).
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Care was taken to cut core along a straight line down the axis of the core and split all samples evenly by always sampling on same side or quadrant of core in core box. Further sub-sampling is undertaken in controlled laboratory conditions.
	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.	Blanks and standards were inserted in the sample stream before being submitted to the commercial laboratory. No issues have been identified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	1m sample intervals of cut PQ core are representative size of at least 2-3 kg. Limited sampling was undertaken of HQ core from geotechnical holes
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.	A reputable industry analytical laboratory with internal controls and processes was utilised for all assaying using industry accepted assaying methodology and techniques. Gold was assayed via Aqua Regia which is considered a partial method of dissolution with a 30g fire assay finish. A 35 Multielement Aqua Regia Digest with ICP-AES finish was used for a range of significant elements
	For geophysical tools, spectrometers, handheld XRF (fpXRF) etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	All holes were surveyed by Groundsearch Australia using a high-definition optical televiewer (OTV) and acoustic televiewer (ATV).
	Quality control procedures (e.g. standards, blanks, duplicates, external laboratory checks) and if acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	<i>DDH (Diamond Core Drill Hole)</i> A blank and a recognized Standard were inserted in the sample stream. The reported results for these samples are as expected.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All reported mineralised results have been reviewed by at least 2 company personnel.
	The use of twinned holes.	Not applicable
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data was recorded on field sheets at the sample site. Field data was entered into an excel spreadsheet and saved on Cloud server. Assay results were reported in a digital format suitable for direct loading into a Dashed database with a 3 <sup>rd</sup> 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.	Drill collar locations are recorded using handheld Garmin GPS expected accuracy +/- 5m.
	Specification of the grid system used.	GDA94 zone55.
	Quality and adequacy of topographic control.	<i>DDH (Diamond Core Drill Hole)</i> Handheld GPS was used to measure RL.
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. Four holes were drilled at Trench 31 (3 geotechnical in waste rock and 1 metallurgical in ore), 1 hole in Roadside and 1 hole in Roadside North. Both holes at Roadside were for metallurgical sample
	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.	Not applicable – holes were for geotechnical and metallurgical test work. Metallurgical drilling was within zone of previously reported JORC (2012) Sorpresa Resource Announcements in 2014 and 2019
	Whether sample compositing has been applied.	No compositing applied for assay samples
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.	<i>DDH (Diamond Core Drill Hole)</i> Geological control is good and JORC (2012) resource estimates were completed in 2014 and updated in 2019 with corresponding ASX Announcements.
	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>DDH (Diamond Core Drill Hole)</i> Not applicable
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.	<i>DDH (Diamond Core Drill Hole)</i> No audits or reviews completed.

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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 for Sorpresa drilling are from Exploration Licence EL8935, Fifield NSW which is held 100% by Rimfire Pacific Mining NL. It is part of an Earn-In agreement with Golden Plain Resources (GPR). All samples were taken on Private Freehold Land or Temporary Common for Mining. No native title claims exist. 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.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	No results are relied on from other parties in this report.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	There were 4 DDH's drilled at Trench 31 zone within the Sorpresa Au-Ag deposit (JORC 20212 Resource Estimates 2014 and 2019). The purpose of 3 holes was to obtain samples from barren footwall and hanging wall rocks for geotechnical analysis. The final hole at Trench 31 and single holes at Roadside and Roadside North were to obtain samples from known areas of mineralisation within areas previously drilled and reported. The metallurgical holes were assayed as 1/4 core, 1m intervals to assist in selection of appropriate blended run of mine feed types. The Sorpresa mineralisation is interpreted as strata bound gold +/- silver hosted in carbonaceous siltstones in an enclosed Silurian basin.
<b>Drill hole Information</b>	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> </ul>	The drillhole location (mE, mN and RL) data for all holes are included within the report. Locational data is GDA94 – MGA Zone 55. RL is elevation above sea level in metres
	dip and azimuth of the hole	All dip and azimuth information is included with drillhole locations within the report. All holes were vertical.
	down hole length and interception depth	If applicable downhole mineralised intercepts are reported as downhole lengths
	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

Criteria	JORC Code explanation	Commentary
<b>Data aggregation methods</b>	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 cuts have been applied to assay data and bulked averages have been used for reporting of Exploration Results.
	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 with typical examples should be shown in detail.	All grade data from metallurgical drill holes has been provided in Tables 1A, 1B and 1C. Averages are bulked with no application of grade cuts. Main zone of interest from each metallurgical hole has been reported. Only selected intervals of core were sampled from geotechnical drilling.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Metal equivalents are not reported.
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results.	Intercept lengths in this document are not true widths of mineralisation based on current knowledge
	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').	Interpretation of mineralisation boundaries is that the strata bound carbonaceous siltstones are generally shallow dipping although with flexures where dips steepen significantly and cross cut by significant faults in some locations.
<b>Diagrams</b>	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery and 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)
<b>Balanced reporting</b>	Where 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	Any significant or important results are included in tables or on plans within the report (or as appendices)
<b>Other substantive exploration data</b>	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical results; geochemical results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	There is currently no other substantive exploration data that is meaningful and material to report beyond what has been provided in this document. The program consisted of drilling 3 holes in barren country rock for geotechnical data and another 3 holes in known mineralisation previously reported to obtain metallurgical samples for further test work to aid process plant design.
<b>Further work</b>	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Not applicable
	Diagrams clearly highlighting the areas of possible extensions, including main geological interpretations, future drilling areas, provided this information is not commercially sensitive.	Not applicable

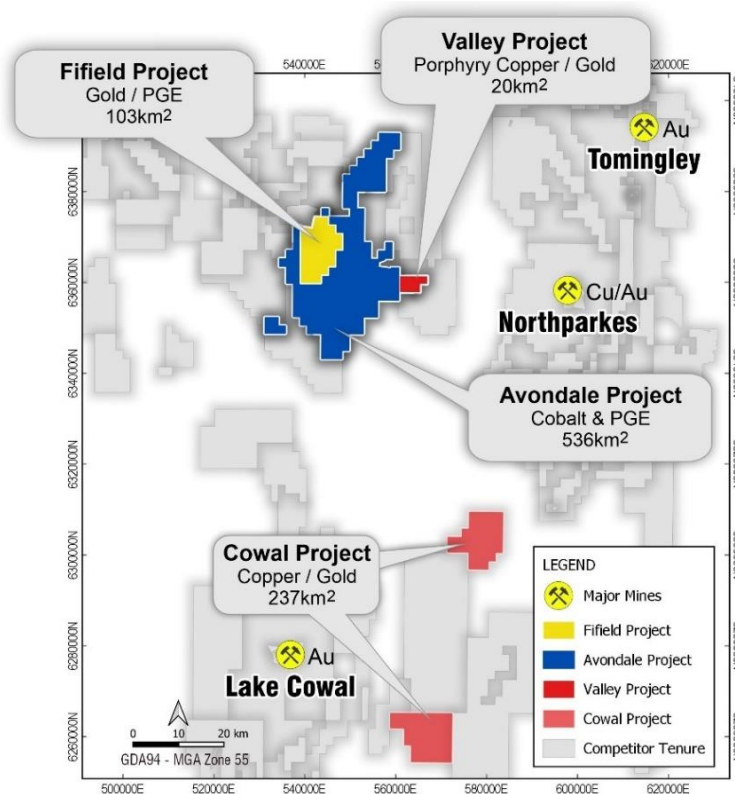
## ABOUT RIMFIRE

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

Rimfire currently has four key project areas under management in the Lachlan Fold Belt:

1. Fifield Project - Gold / PGE's
  - ✓ GPR earning up to 50.1%, RIM free carried for development.
  - ✓ Maiden JORC 2012 resource of 125Koz gold + 7.9Moz silver.
  - ✓ Recent drilling at the Transit Prospect returned 55m @ 0.94g/t gold with the final 1m intersection increasing to 9.98g/t gold.
  - ✓ Next stage of drilling at Transit is planned to commence in June 2021.
2. Avondale Project – Cobalt, PGEs and Gold
  - ✓ GPR earning up to 75%
  - ✓ Avondale and KARS prospects located in the southern area of the project area and prospective for Cobalt and PGE's respectively.
3. The Valley – Porphyry Copper / Gold, RIM 100%
  - ✓ Located 5km west of Kincora Copper/RareX Mordialloc porphyry copper-gold target.
  - ✓ Recently completed a drilling program to test near surface IP targets and interpreted Ordovician basement that hosts regional major discoveries such as Northparkes, Cadia and Cowal.
  - ✓ Results are expected in June, and these will influence the next steps in the program.
4. 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
  - ✓ Located in Forbes moratorium area for new Exploration Licence applications

**Rimfire's Lachlan Fold Belt Projects**



## **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 Craig Riley who is deemed to be a Competent Person and is a Member of The Australasian Institute of Mining and Metallurgy.*

*Mr Riley has over 25 years' experience in the mineral and mining industry. Mr Riley is employed by Rimfire Pacific Mining (RIM) and is an employee of the Company. Craig Riley 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'. Craig Riley 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",*