

## ASX ANNOUNCEMENT

30 April 2012



# Quarterly Activities Report for the Period Ended 31 March 2012

Riedel Resources Limited (“Riedel” or “the Company”, ASX: RIE) is pleased to present its March Quarter 2012 Activities Report:

## HIGHLIGHTS

### Exploration

#### ➤ **Marymia**

- Significant exploration programmes throughout the March Quarter with **2,304** soil samples collected and **270 square kilometres** of detailed geological mapping completed.
- Widespread multi-element soil anomalies identified with peak values of **452ppm Cu** (copper), **1,280ppm Ni** (nickel) and **135ppm As** (arsenic).
- Extensive new **arsenic anomaly** trends for more than **7 kilometres**, coincident with a large fault.
- Rock chip assays up to **56.6g/t Au** (gold) and **45.9% Fe** (iron).
- High priority drilling targets identified within the Baumgarten Greenstone Belt following re-interpretation of historic drilling results, including:
  - ❖ **5 metres @ 4.87g/t Au** from 239.24 metres depth in BD1 (Chardonnay Prospect), and;
  - ❖ **3 metres @ 9.53g/t Au** from 51 metres depth in BRC23 (Champagne Prospect).

### Corporate

- Issue of 12,500,000 consideration shares to Golden Rim Resources Ltd approved at **General Meeting of Shareholders** on 22 February 2012.
- **Cash** at 31 March 2012 – **\$2.3M**

#### COMPANY DIRECTORS

Mr Ian Tchacos  
Non-Executive Chairman

Mr Bruce Franzen  
Executive Director

Mr Jeffrey Moore  
Managing Director

Mr Andrew Childs  
Non-Executive Director

Mr Wolfgang Zimmer  
Non-Executive Director

#### COMPANY SECRETARY

Mr Bruce Franzen

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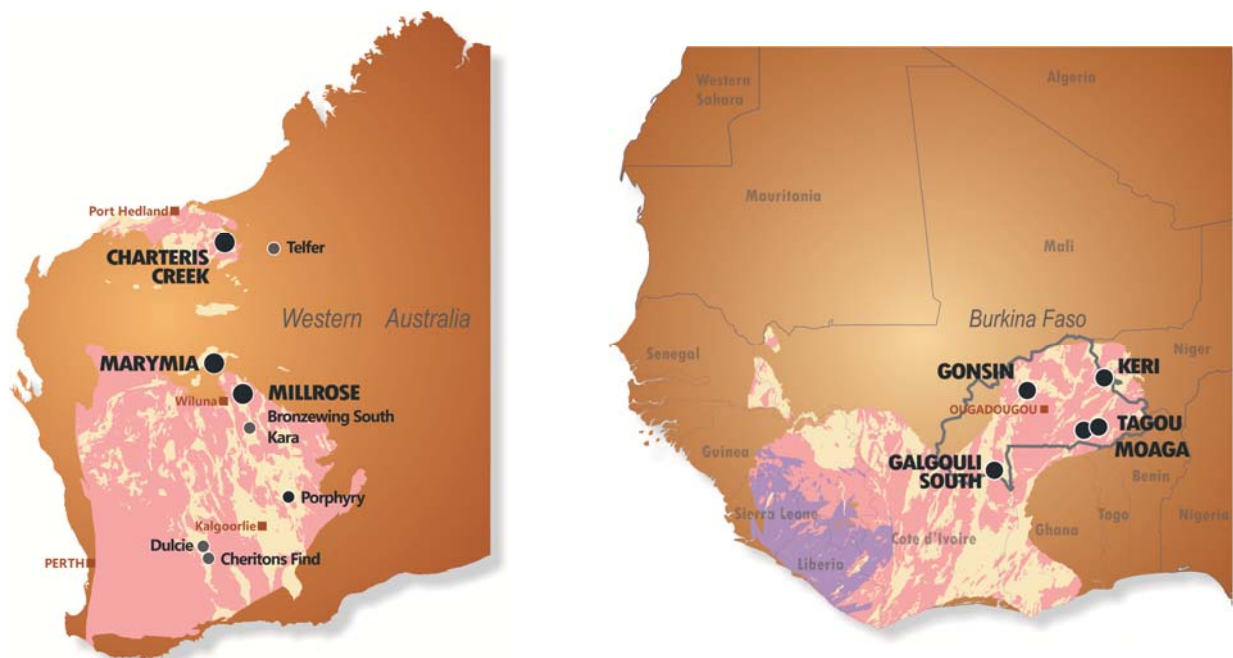


Riedel's assets include a portfolio of gold, copper and nickel projects and significant land holdings in prospective areas in Archaean- and Proterozoic-age terranes of Western Australia and the Company is in the process of acquiring Permits with high prospectivity for Proterozoic-age gold mineralisation in Burkina Faso (see Figure 1). Subsequent to the end of the Quarterly period, on 11 April 2012 Riedel completed the acquisition of rights to acquire the Permits in Burkina Faso from Golden Rim Resources Ltd.

The Company has a mixture of early stage and advanced prospects, with an initial focus on the following four core Projects:

- Marymia (copper, gold, silver, nickel and iron-ore);
- Burkina Faso (gold);
- Millrose (gold - Inferred Resources of 4.0Mt @ 2.4g/t Au for 309,000 oz);
- <sup>1</sup>Cheritons Find (gold - <sup>2</sup>Inferred Resources of 1.4Mt @ 2.4g/t Au for 108,000 oz).

Furthermore, the Western Australian Projects are augmented with a number of additional prospects, including existing joint ventures, royalty agreements and free carried interests.



**Figure 1: Western Australia and Burkina Faso (West Africa) Project Locations**

<sup>1</sup> Under application

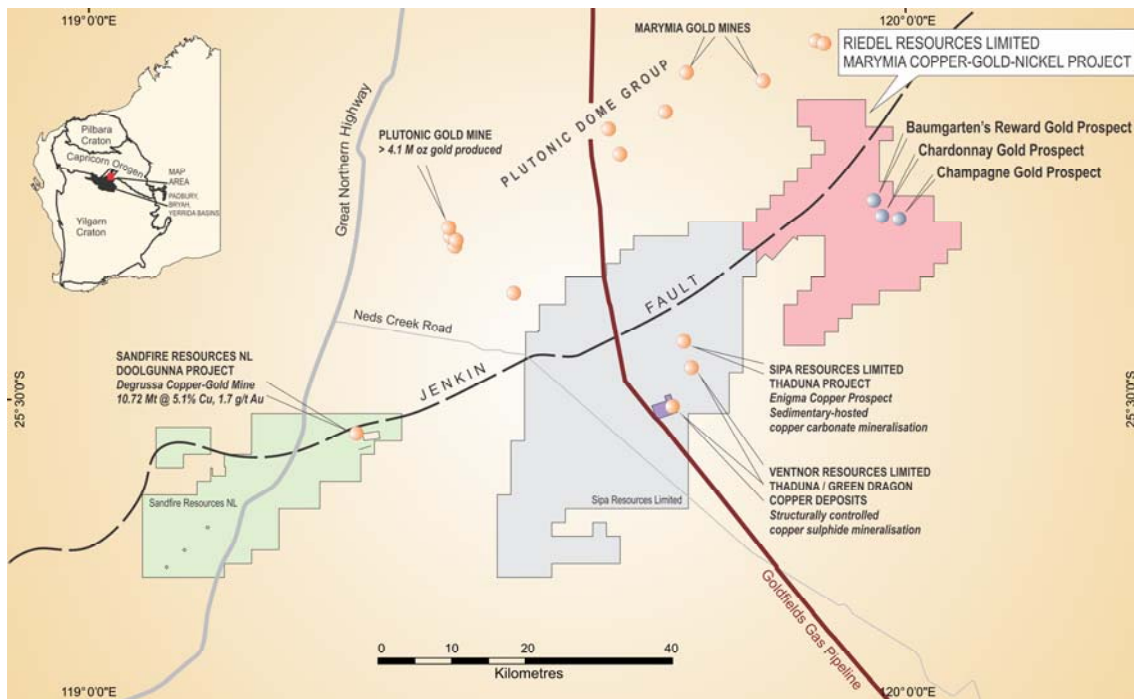
<sup>2</sup> Sons of Gwalia – 29 November 2000

## MARYMIA PROJECT

### Exploration Activities

#### Soil Geochemistry and Rock Chip Sampling

During the Quarter, exploration programmes including the collection of **2,304** soil geochemical samples and detailed geological mapping over **270** square kilometres were carried out over previously unexplored or underexplored areas within the Company's Marymia Project area (see Figures 2 and 3 for project and sample locations).

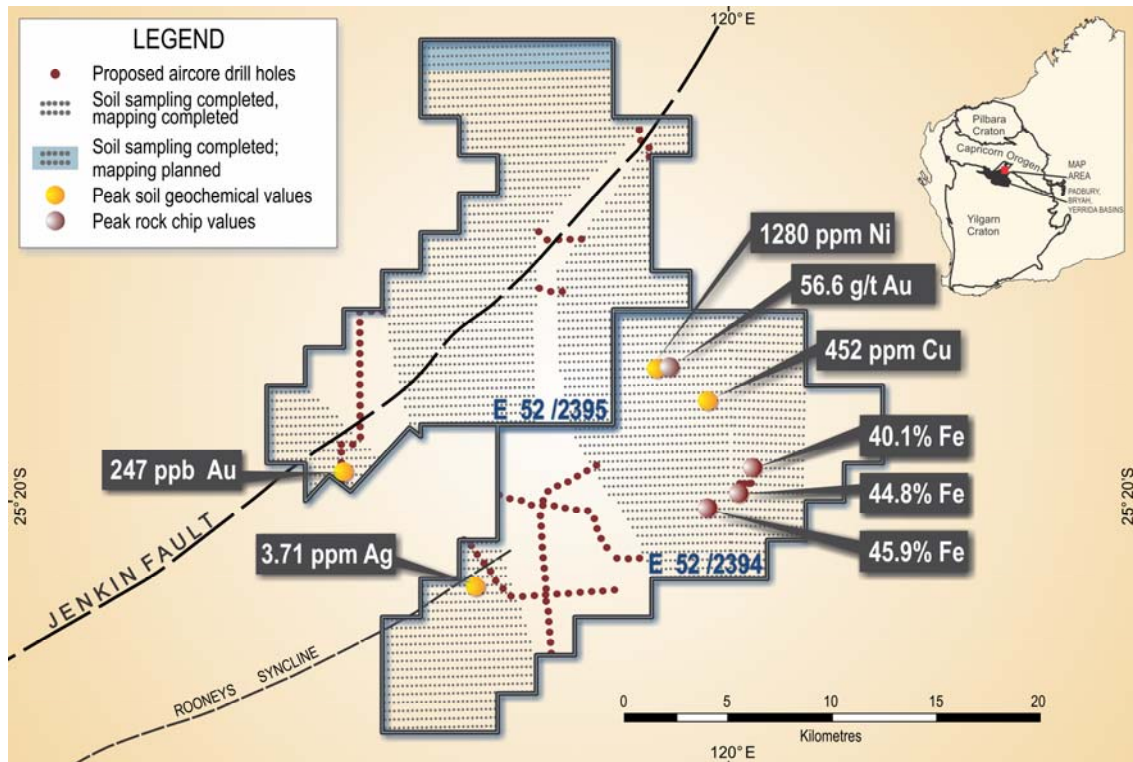


**Figure 2: Marymia Project - Location Map**

This work completes the first pass soil sampling programme on 400 metre x 200 metre centres over prospective regolith within the project area and all soil sample assay results have now been received. Ten square kilometres of mapping remain to be completed in the most northern part of E52/2395.

This first pass soil sampling programme has produced many anomalies that require follow-up infill sampling, with some of the best geochemical anomalies being characterised by high order copper (Cu), nickel (Ni) and arsenic (As) values, peaking at **452ppm Cu**, **1,280ppm Ni** and **135ppm As** (see Figure 3).

Numerous copper anomalies (>27ppm Cu) were identified with the highest assay result of **452ppm Cu** being identified at the Champagne Prospect. The peak nickel value of **1,280ppm Ni** was returned from the Chardonnay Prospect and significant assay results for other metals include **3,710ppb silver (3.71g/t Ag)** and **247ppb Au** which is coincident with an interpreted fault (refer to Table 2 for summary statistics of key pathfinder elements for all soil geochemical assay results since sampling commenced in November 2011).



**Figure 3: Marymia Project – Soil geochemical sample locations and peak soil geochemical and rock chip sample results**

Nine (9) rock chip samples were collected from several prospects within the BGB. The highest assay result of **56.6g/t Au** was returned from an outcropping quartz vein within the Baumgarten’s South prospect, located 2.5 kilometres south-east of the Baumgarten’s Reward Prospect.

In the eastern part of E52/2394 18 rock chip samples were collected from an area considered particularly prospective for base metals and iron-ore. The iron-ore potential is illustrated by the return of several anomalous rock chip sample results up to **45.9% Fe** collected to test outcropping ironstone within an area mapped as the Frere Formation. This formation has been shown to host significant iron-ore mineralisation in other locations to the south and east of the tenement and further field work including detailed geological mapping, rock chip sampling and aircore drilling is planned to better define the area of potential mineralisation.

Assay results for key pathfinder elements for the 70 rock chip samples collected at the Marymia Project since sampling commenced in November 2011 are detailed in Table 1.

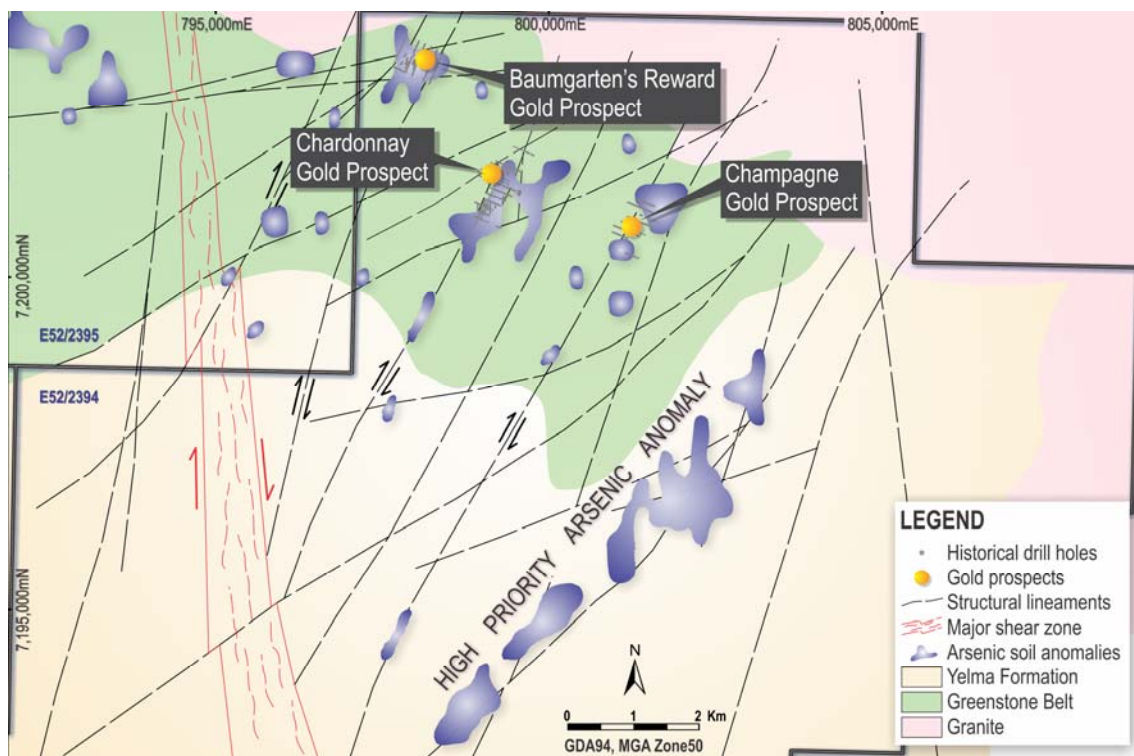
The soil geochemical dataset, including results for copper, is now being modelled and interpreted in conjunction with detailed geological mapping data to best rank and prioritise the respective anomalies for follow-up/infill sampling and drilling.

Of particular significance is a new **arsenic anomaly extending for a distance of more than 7 kilometres** to the south of the Baumgarten Greenstone Belt (“BGB”), coincident with a large north-east interpreted fault (see Figure 4). This target is very promising as there is strong coincidence between the presence of arsenic and gold mineralisation within the BGB and the anomaly has not been previously tested by drilling. Furthermore, at this location the BGB is overlain by a relatively thin sequence of Proterozoic-aged sediments belonging to the Yelma

Formation and the arsenic anomaly may represent the surface expression of a mineralised structure (or structures) within the underlying Archaean greenstone rocks of the BGB.

Further infill soil sampling and drill target generation will be prioritised due to the large size of the anomaly and the lack of previous exploration within this area.

Arsenic anomalies are also recognised at the Baumgarten's Reward, Chardonney, Baumgarten's South and Champagne Prospects, coincident with the presence of surface geochemical gold anomalies and from previous drilling results.



**Figure 4: Marymia Project – Geochemical arsenic anomalies, interpreted structures and prospect locations**

### **Identification of Drilling Targets**

A reinterpretation of historic RAB, RC and diamond core drilling results and the construction of a new structural model for the Baumgarten's South, Chardonney and Champagne Prospects area within the BGB has generated high priority drill targets that have yet to be effectively tested.

### **Baumgarten's South-Chardonney Prospects**

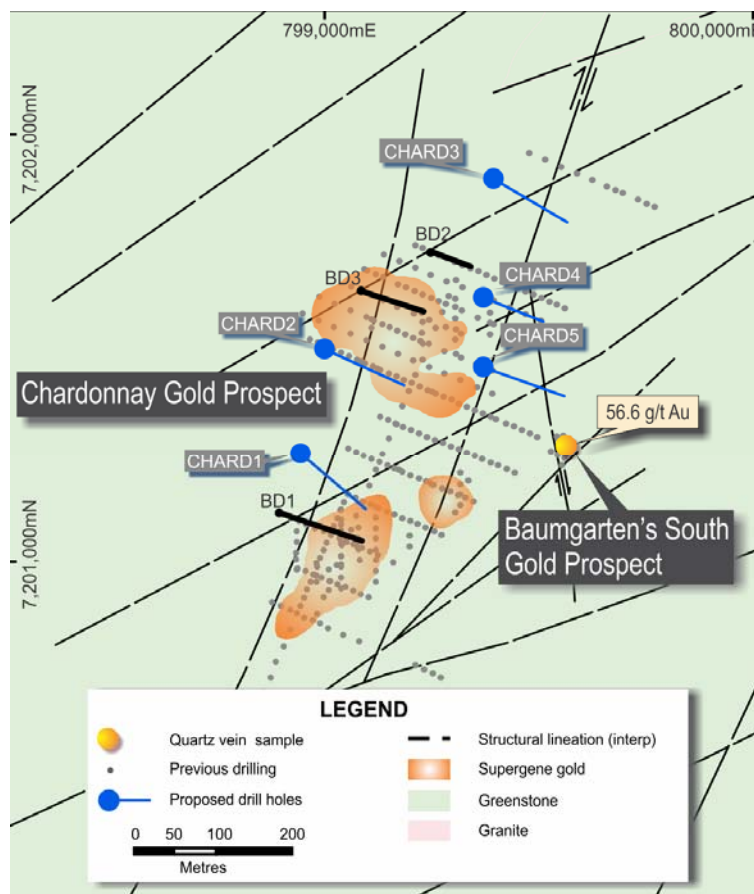
Previous drilling at Baumgarten's South/Chardonney was mostly shallow (average depth less than 50 metres), however, depth to fresh rock is typically in the order of 60 to 80 metres. Although extensive zones of supergene gold were discovered from the shallow drilling work at the Baumgarten's Reward and the Champagne prospects, follow-up drilling to find the primary source of the gold mineralisation focused on zones beneath the supergene enrichment and may not have been sufficiently deep or effectively oriented.

Previous shallow drilling intersections at Chardonney include **2 metres @ 6.26g/t Au** from 32

metres depth in RB551, **2 metres @ 5.07g/t Au** from 29 metres depth in RB773 and **4 metres @ 3.74g/t Au** from 31 metres depth in RB705. Deeper diamond drilling completed at Chardonnay (BD1, BD2 and BD3) returned a result of **5 metres @ 4.87g/t Au** from 239.24 metres depth in BD1. The Baumgarten's South quartz vein that recently returned a rock chip assay result of **56.6g/t Au** has yet to be effectively drilled.

### Champagne Prospect

Previous shallow drilling at the Champagne prospect discovered an east-west trending zone of supergene gold, characterised by significant shallow intersections including **3 metres @ 9.53g/t Au** from 51 metres depth in BRC23 and **2 metres @ 7.15g/t Au** from 4 metres depth in RB620. Follow-up diamond drilling (BD4 - total depth 219 metres), oriented to the south to intersect the interpreted primary source, failed to detect any gold mineralisation, however, the Company now believes that the primary mineralisation may be hosted by a northeast trending dextral shear zone located about 100 metres to the west of BD4. Drilling programmes to test this concept are being planned.



**Figure 5: Chardonnay and Baumgarten's South Prospects - Planned Drillholes**

In summary, interpretation of the historic mineralised drilling intercepts from the Marymia Project Baumgarten Greenstone Belt strongly support Riedel's new structural interpretation and mineralisation model for the area. The Company plans to test for extensions to the mineralisation intersected in BD1, BD2 and BD3 and in associated structures with five diamond drillholes (see Figure 5 for planned diamond core drilling of Baumgarten's South-Chardonnay Prospects).

## Marymia Project Background and Geological setting

Riedel's Marymia exploration licences hold potential for the discovery of mineral deposits including:

- Sedimentary-hosted copper deposits in Proterozoic Yerrida Basin stratigraphy which onlaps the Marymia Dome, and;
- Structurally controlled gold, copper and nickel deposits in the Baumgarten Greenstone Belt of the Archaean Marymia Inlier.

Riedel holds two exploration licences (E52/2394 and E52/2395) covering an area of more than 425 square kilometres in the highly prospective Doolgunna-Thaduna region of the Proterozoic volcano-sedimentary Bryah and Yerrida Basins and Archaean Baumgarten Greenstone Belt in the Marymia Inlier.

The exploration licences are located approximately 55 kilometres north-east of Sandfire Resources NL's DeGrussa copper-gold mine, 12 kilometres east of Sipa Resources Limited's Thaduna copper prospect and 12 kilometres east-north-east of Ventnor Resources Limited's Green Dragon and Thaduna copper deposits in Western Australia's Mid-West region.

### Yerrida Basin

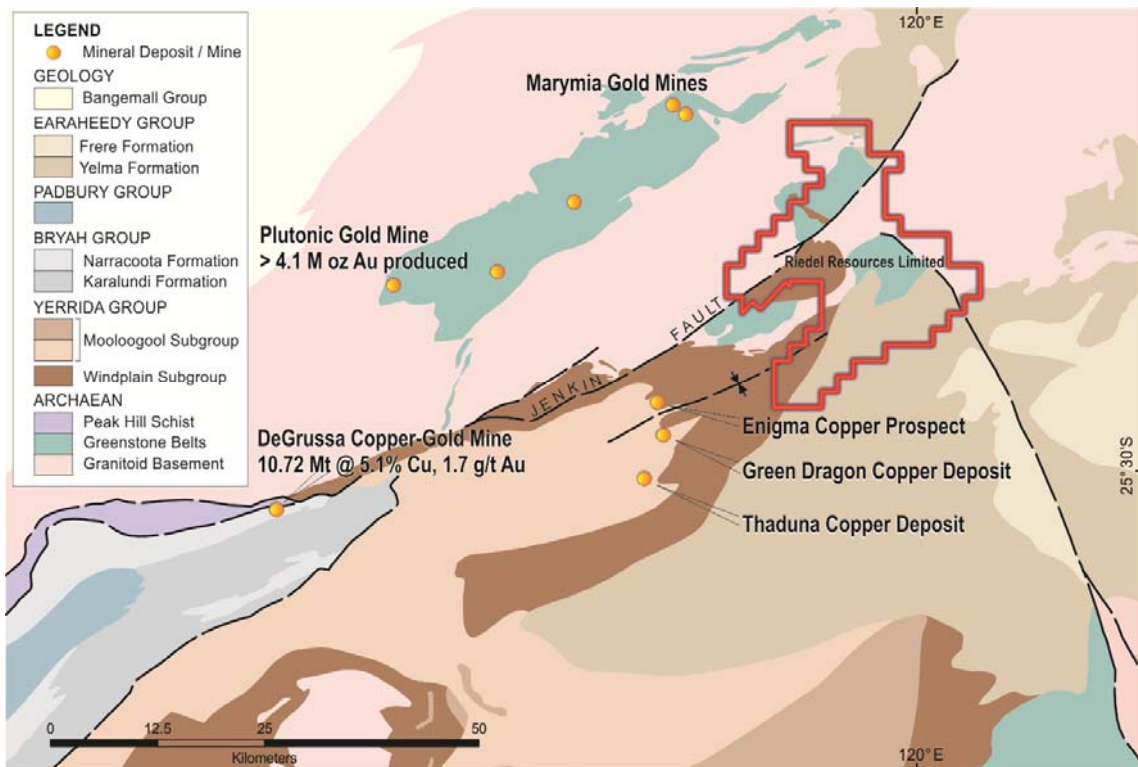
Recent exploration results reported by Sipa and Ventnor highlight the discovery of significant sedimentary-hosted (the Enigma Prospect) and structurally-controlled copper mineralisation (Thaduna and Green Dragon deposits) in Yerrida Group sedimentary rocks.

Yerrida Group sedimentary rocks are present in the south-western portion of Riedel's tenements and in the eastern and northern areas prospective Proterozoic sedimentary rocks are also present, onlapping and marginal to the Marymia Inlier (*see Figure 6*).

Since the recent DeGrussa, Enigma and Thaduna discoveries, the Proterozoic rock suite surrounding the Marymia Inlier has become increasingly important and Riedel's tenements may hold potential for both sediment-hosted copper and SEDEX-type lead-zinc-silver deposits. Important precursors and associations for the formation of significant sediment-hosted and/or SEDEX deposits which are apparent in Riedel's tenements include:

- Proximity to major regional structures to provide fluid pathways;
- Proximity to long-lived, stable basement highs to focus fluid flow;
- Prospective host sedimentary rocks, and;
- Presence of igneous intrusives or deep-seated magmatic rocks to provide the heat source to drive long-lived hydrothermal systems.

Additionally, the south-eastern part of E52/2394 overlies the Proterozoic Frere Formation which has been shown to host significant iron-ore mineralisation in other locations to the south and east of the tenement.



**Figure 6: Marymia Project - Regional Geological Map**

### Baumgarten Greenstone Belt

Riedel's exploration licences cover most of the Baumgarten Greenstone Belt ("BGB"). The greenstone belt forms the eastern domain of the Marymia Inlier, an Archaean granite-greenstone terrane which hosts numerous significant gold deposits and mines in the western portion (the Plutonic Well Greenstone Belt), including gold production of more than 4.7M ounces since production commenced in 1990 (see Figure 6).

Previous exploration over the eastern BGB is relatively sparse due to the relatively poor geological understanding of the area and the presence of extensive, weathered cover sequences which may mask the location of important regional structures and any associated buried deposits. Notwithstanding, previous exploration drilling has returned significant gold and anomalous nickel intersections, demonstrating the strong prospectivity for structurally-controlled gold, copper and nickel deposits below cover or in deeply weathered regions.

### **Corporate**

A General Meeting of Shareholders was held on 22 February, 2012 and approval was obtained for the issue of 12,500,000 consideration shares to Golden Rim Resources Ltd in preparation for the settlement of the acquisition of rights to acquire 100% interests in five exploration permits located in Burkina Faso.

*Subsequent to the end of the Quarterly period, on 11 April 2012 Riedel completed the acquisition of rights to acquire the Permits in Burkina Faso from Golden Rim Resources Ltd.*

The Company held Cash Reserves at 31 March 2012 of **\$2.3M**.

## Planned Activities for Next Quarter

### Marymia

- Detailed geological mapping over remaining areas;
- Infill soil sampling over high priority soil geochemical anomalies, and;
- Aircore drilling to test key gold targets and structural corridors.

### Burkina Faso

- Acquire 11,000 line kilometres of detailed aeromagnetic survey data over Galgouli South, Gonsin, Moaga and Tagou;
- 2,000 metres of RC drilling and 500 metres of trenching at Tagou, 5,000 metres of auger drilling at Gonsin and 500 metres of trenching at Galgouli South;
- Detailed geological mapping at Galgouli South and Tagou, and;
- Collection of approximately 5,000 soil samples at both Galgouli South and Tagou.

### Corporate

- Finalise the acquisition of rights to acquire 100% interests in five exploration permits in Burkina Faso from Golden Rim Resources Ltd.

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### Competent Person's Statement

*The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Ed Turner, who is a Member of The Australian Institute of Geoscientists. Mr Turner has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves'. Mr Turner consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

### About Riedel Resources Limited

Riedel Resources Limited is an Australian-based exploration company established to explore for and develop mineral deposits. Since listing on ASX on 31 January 2011 the Company has successfully secured the services of a core team of experienced corporate and technical professionals, experienced in all facets of exploring and developing minerals deposits in Australia and overseas.

Further information can be found on Riedel Resources at the Company's website [www.riedelresources.com.au](http://www.riedelresources.com.au) .

**TABLE 1: Marymia Project Rock Chip Sample Results**

Sample No.	Easting m(E)	Northing m(N)	Au (ppm)	Ag (ppm)	As (ppm)	Cu (ppm)	Fe (%)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Bi (ppm)
RR10944	785,065	7,196,285	0.01	<b>0.63</b>	18.6	69.4		19	18	23	0.54
RR10943	797,882	7,203,203	0.24	0.09	<b>1070</b>	76.2	9.96	<b>242</b>	<b>107</b>	136	0.02
RR10942	797,911	7,203,232	0.005	0.05	<b>485</b>	128.5	20.3	<b>428</b>	5.3	364	0.02
RR10941	798,130	7,203,260	0.03	<b>0.29</b>	60.3	72	3.44	26.1	9	19	0.02
RR10940	798,146	7,203,276	0.01	0.24	153	118	4.07	185	15.6	133	0.33
RR10939	798,154	7,203,267	0.03	0.07	<b>175</b>	103	8.43	82.9	16.1	60	0.02
RR10938	798,170	7,203,272	0.005	0.07	125	117.5	5.81	193	14.6	<b>425</b>	0.02
RR10937	798,989	7,201,528	0.01	0.03	<b>587</b>	102.5	7.3	40.2	5.9	129	0.04
RR10936	784,379	7,196,266	0.06	0.09	8.5	105.5	6.69	39.1	30.4	56	<b>1.47</b>
RR10935	785,071	7,196,317	0.03	0.09	3.9	<b>516</b>	<b>45.5</b>	71.4	32	160	0.07
RR10934	785,071	7,196,317	0.01	0.005	0.8	54	3.02	8.2	4.4	13	0.01
RR10933	785,064	7,196,304	0.005	0.03	1.1	48.7	3.58	10.7	2.9	23	0.02
RR10932	794,826	7,201,734	0.005	0.1	1.1	102		162.5	9.7	<b>549</b>	0.01
RR10931	799,025	7,201,069	<b>1.45</b>	0.2	<b>1280</b>	176.5	33.1	93.4	4.9	217	0.11
RR10930	799,025	7,201,069	<b>1.17</b>	0.13	<b>830</b>	148.5	17.35	65	5	162	0.07
RR10929	799,565	7,201,274	<b>56.6</b>	<b>13</b>	163	92.6	4.97	176.5	<b>155.5</b>	31	<b>9.24</b>
RR10928	799,557	7,201,287	<b>8.81</b>	<b>14.85</b>	79.3	58.5	1.51	66.2	14.3	11	<b>2.82</b>
RR10927	798,129	7,203,272	<b>0.75</b>	0.09	<b>759</b>	<b>462</b>	29.8	231	<b>58.8</b>	<b>390</b>	0.02
RR10926	798,131	7,203,267	0.01	0.03	54.6	53.1	2.21	17.8	3.1	12	0.01
RR10925	799,454	7,199,070	0.005	0.04	10.6	169	4.37	16.7	12.7	43	0.03
RR10924	799,470	7,199,093	0.005	0.08	29.5	<b>392</b>	13.95	47.7	<b>52.9</b>	139	0.18
RR10923	799,485	7,199,116	0.005	0.02	4.8	69.3	3.02	11.3	12	55	0.02
RR10922	790,394	7,201,022			20	<b>310</b>	11.4	60	<b>390</b>	220	
RR10921	790,411	7,201,027			5	<b>340</b>	2.11	10	<b>110</b>	150	
RR10920	790,407	7,201,028		<b>1</b>	5	<b>350</b>	1.59	30	<b>70</b>	150	
RR10919	789,848	7,186,934	0.005	0.005	0.1	7.4	0.66	5.7	8.6	19	0.08
RR10918	789,862	7,186,990	0.005	0.005	0.1	3.5	1.05	2.5	6.8	19	0.05
RR10917	789,908	7,187,147	0.005	0.005	0.5	4.5	0.87	2.5	7.3	12	0.08
RR10916	790,063	7,187,167	0.005	0.02	0.1	9.2	1.04	3	13	21	0.08
RR10915	789,961	7,187,308	0.005	0.06	0.2	12.9	1.02	3.6	27.2	23	0.22
RR10914	790,026	7,187,442	0.005	0.005	0.1	5.6	1.13	3	10.6	24	0.15
RR10913	790,229	7,187,373	0.005	0.005	0.2	5.6	0.94	3.1	4.6	13	0.11
RR10912	790,251	7,187,335	0.005	0.005	0.1	7.8	0.69	8.5	2.9	5	0.1
RR10911	790,273	7,187,282	0.005	0.04	0.3	3.9	1.45	6.4	11.2	40	0.06
RR10910	790,300	7,187,180	0.005	0.005	0.1	7.1	0.5	4.6	8.8	9	0.07
RR10909	790,322	7,187,072	0.005	0.02	0.1	6	1.13	9.7	9.4	22	<b>0.91</b>
RR10908	790,230	7,187,042	0.005	0.005	0.1	7.9	1.11	7.5	12	29	0.04
RR10907	790,105	7,186,965	0.005	0.005	0.1	10.9	0.82	4.4	14.9	14	0.14
RR10906	790,100	7,186,877	0.005	0.03	0.1	10.8	0.79	50	5.3	11	0.08
RR10905	790,052	7,186,800	0.005	0.005	0.1	5.9	0.7	6.7	2.6	11	0.06
RR10904	789,851	7,186,608	0.005	0.005	0.1	13.1	0.71	12.4	2	2	0.02
RR10903	789,861	7,186,624	0.005	0.02	0.1	30.5	0.96	<b>372</b>	1.8	5	0.03
RR10902	789,968	7,186,744	0.005	0.005	0.1	21.7	1.03	178	6.4	11	0.05
RR10901	789,851	7,186,871	0.005	0.04	0.1	13.5	0.57	68.3	6	14	0.04
RR10818	786,884	7,185,859	0.005	0.04	2.5	15.9	15.35	5.6	26	14	0.31
RR10817	786,894	7,185,906	0.005	0.02	2.4	12.3	14.55	6.6	20.1	15	0.28
RR10816	790,282	7,187,345	0.005	0.005	1.2	14.6	1.22	8.7	9	12	0.11
RR10815	789,909	7,186,550	0.005	0.005	4	18	3.55	15.4	40.9	30	0.16
RR10814	790,012	7,186,994	0.005	0.06	0.1	26	3.27	5.7	14.6	30	<b>1.72</b>
RR10813	790,170	7,206,427	0.1	0.02	1.6	21.2	3.25	31.7	11.8	24	0.04
RR10811	199,084	7,198,302			5	120	30.36	60	5	80	
RR10810	199,110	7,198,377			10	120	35.05	<b>570</b>	5	250	

**Table 1 (continued)**

Sample No.	Easting m(E)	Northing m(N)	Au (ppm)	Ag (ppm)	As (ppm)	Cu (ppm)	Fe (%)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Bi (ppm)
RR10809	200,518	7,197,343			10	40	35.56	160	5	190	
RR10808	799,665	7,194,834			5	30	28.68	60	5	80	
RR10807	799,327	7,194,380			10	<b>310</b>	<b>38.19</b>	<b>360</b>	5	<b>450</b>	
RR10806	799,476	7,194,477			10	80	32.74	110	5	240	
RR10805	799,233	7,194,295			5	140	<b>35.67</b>	130	5	170	
RR10804	799,111	7,194,329			5	70	<b>35.74</b>	90	5	50	
RR10803	798,997	7,194,290			5	40	33.06	160	30	180	
RR10802	801,190	7,194,414			20	290	<b>45.88</b>	<b>460</b>	5	<b>850</b>	
RR10801	799,447	7,194,473			5	80	25.79	90	10	110	
M009	789,659	7,186,295	0.1	0.17	19	23	26.3	153.5	7.8	198	0.07
M008	789,662	7,186,297	0.1	0.12	25.1	28.1	18.45	164	4.5	96	0.03
M007	*199,227	7,196,424			5	50	32.46	70	5	290	
M006	*199,314	7,196,204			5	60	22.44	110	5	220	
M005	*199,221	7,196,296			5	5	28.42	<b>350</b>	5	360	
M004	*199,150	7,196,376			5	110	<b>40.15</b>	160	5	<b>490</b>	
M003	*198,722	7,195,259			10	80	<b>44.8</b>	210	40	<b>660</b>	
M002	*198,628	7,195,115			5	5	9.81	5	5	40	
M001	*198,564	7,195,133			10	90	15.42	10	5	110	

*N.B. Assay results for each element which fall within the top 10% of results (greater than the 90 percentile) are marked in bold text.*

*N.B. Grid coordinate system is GDA94 - MGA Zone50 unless denoted by \* which denotes grid coordinate system GDA94 - MGA Zone51.*

*Grab/rock chip samples are collected from outcrop and submitted to ALS Global Perth Laboratory for analysis. The entire sample is crushed to 70% passing 6mm or better, a 1 kilogram split is taken and pulverised to 85% passing 75 micron. A 25 gram sample is analysed for gold by Aqua Regia extraction with an inductively coupled plasma mass spectrometry (ICPMS) finish and a multi-element suite (Ag, Al, As, Au, B, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, Li, Mg, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) by Aqua Regia with an ICPMS finish.*

*Specimens with visible mineralisation are analysed by ore grade methods, i.e. a 25 gram sample is analysed for gold using Aqua Regia extraction with an atomic absorption spectroscopy (AAS) or inductively coupled plasma mass spectrometry (ICPMS) finish. If gold is greater than 100ppm, then the analyte is re-assayed using fire assay and AAS. The sample is also analysed for a multi-element suite of 48 or 51 elements (Ag, Al, As, Au, B, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, Li, Mg, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) by Aqua Regia with an ICPMS finish. Ore grade elements (Ag, As, Cu, Fe, Mn, Ni, Pb and Zn) are analysed using a four acid digest (HF-HNO<sub>3</sub>-HClO<sub>4</sub> digestion, HCl leach and ICP-AES).*

*Ironstone samples were submitted for iron suite analysis (Al<sub>2</sub>O<sub>3</sub>, As, Ba, CaO, Cl, Co, Cr<sub>2</sub>O<sub>3</sub>, Cu, Fe, K<sub>2</sub>O, MgO, Mn, Na<sub>2</sub>O, Ni, P, Pb, S, SiO<sub>2</sub>, Sn, Sr, TiO<sub>2</sub>, V, Zn, Zr, Total, LOI, LOI 1000) by x-ray diffraction (XRF) fusion and Loss On Ignition (LOI) determination using a Thermo Gravimetric Analyser (TGA).*

**TABLE 2: Marymia Project Soil Geochemical Sample Results – Statistical Analysis**

Element	Maximum Assay Value	Minimum Assay Value (LLD)	No. Samples	Samples ≥ 90 Percentile		Samples ≥ 99 Percentile	
				No of Samples	Assay Value at 90 percentile	No of Samples	Assay Value at 99 percentile
Au (ppm)	0.247	0.001	4,021			67	0.003
Ag (ppm)	3.71	0.01	4,022	943	0.03		
As (ppm)	135	0.1	4,022	413	7.8		
Cu (ppm)	452	0.2	4,022	405	34.3		
Fe (%)	19.85	0.01	4,022	403	6.62		
Ni (ppm)	1,280	0.2	4,022	403	23.89		
Pb (ppm)	85.5	0.2	4,022	415	11.7		
Zn (ppm)	117	2	4,022	446	31		
Bi (ppm)	2.28	0.01	4,022	417	0.33		

LLD refers to “lowest level of detection” applicable to the relevant analytical technique.

First pass soil sampling has been completed on 200 metre intervals on east-west oriented lines, spaced at 400 metres. Infill sampling is planned at 100 metre intervals by 100 metre spacing. A 100-200 gram sample is collected from the “B horizon” at approximately 10 centimetres depth at each sample location and sieved using a 10 mesh sieve. This sample is then placed into wet strength bags. Standards are inserted into the sample stream at a rate of 1 in 20 samples and field repeats are collected at a rate of 1 in 40 samples.

Samples are despatched to ALS Global Perth Laboratory and analysed for gold by trace element analysis and for ultra-trace level multi-element analysis. The entire sample is pulverised to 85% passing 75 micron or better and split using a riffle splitter. A 25 gram sample is analysed for gold by Aqua Regia extraction with an ICPMS finish and a multi-element suite (Ag, Al, As, Au, B, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, Li, Mg, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr) by Aqua Regia with an ICPMS finish.