



# ORION METALS LIMITED (ASX: ORM)

## ACTIVITIES REPORT FOR QUARTER ENDING 30<sup>TH</sup> NOVEMBER 2013

### EXPLORATION ACTIVITIES

#### Project Updates

##### KILLI KILLI HILLS

###### RARE EARTH ELEMENT (REE) & GOLD PROJECT

200kms southeast of Halls Creek, WA

**E80/4029, E80/4197, E80/4556, E80/4558, E80/4559, E80/4596.**

All Killi Killi Hills tenure is 100% Orion Metals Limited owned.

No field work was carried out within the Killi Killi Hills group of tenements during the reporting period.

A planned RC drill program on lease E80/4197 was postponed pending successful completion of heritage surveys. The drill program was designed to test gold mineralisation identified from an earlier 2012 RC drill program (ORM ASX announcement 20<sup>th</sup> September 2012).

The Tanami Region is considered one of the world's major palaeoproterozoic gold provinces, with mineralisation events occurring within and proximal to a back arc environment created between the Halls Creek Orogen to the north west, and the Arunta Orogen in the south east.

The region is host to world class gold deposits and numerous smaller scale deposits collectively titled the Tanami Goldfields.

The Killi Killi Hills tenement package of Orion Metals is adjacent to this goldfield and contains anomalous gold results which warrant follow-up. Importantly, there is evidence of REE occurrence across the Killi Killi Hills tenure (ORM ASX announcement 21<sup>st</sup> June 2012) which has had to date only minimal testing.

Orion Metals Limited intend exploring these REE and gold opportunities in 2014, with an expanded regional exploration effort, backed with drilling.

##### BROUGHTON CREEK PROJECT

###### RARE EARTH ELEMENT (REE) – URANIUM PROJECT

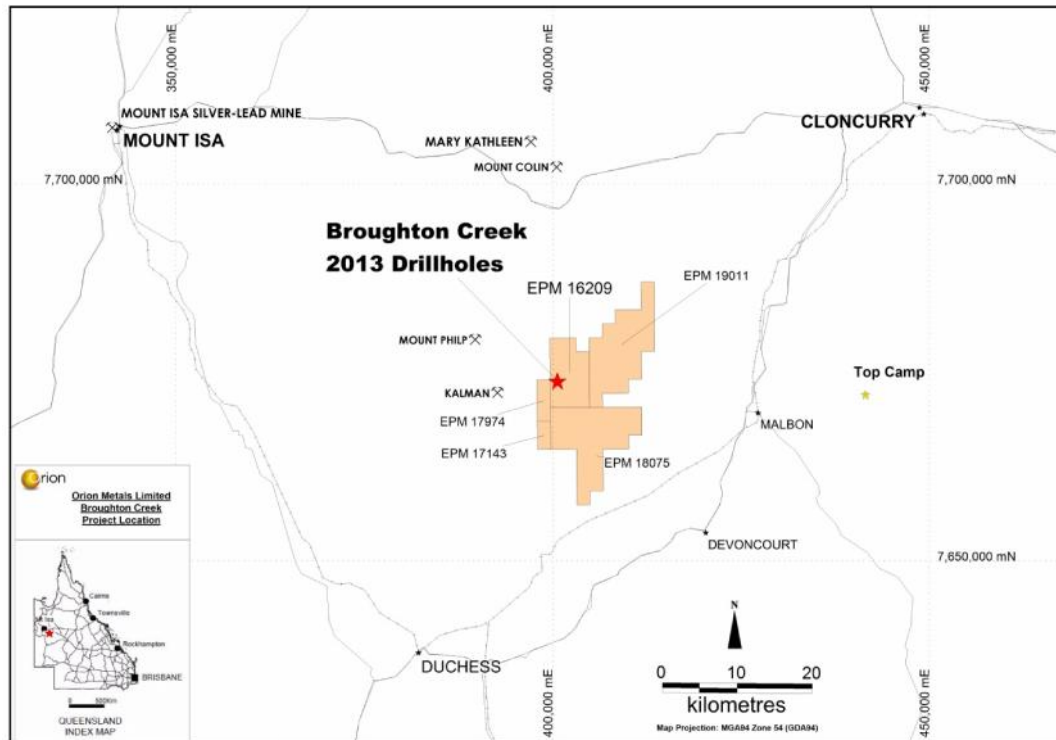
30kms south of Mary Kathleen, Queensland

**EPM 16209, EPM 17143, EPM 17974, EPM 19011, EPMA 18075.**

The Broughton Creek Project is a farm-in/joint venture between Orion Metals Limited and Broughton Minerals Pty Ltd. Orion Metals Limited is farming in to the Project and is currently in the earning period of the JV. Orion Metals Limited is manager of the project.

In line with the terms of the Farm-in and Joint Venture Agreement with Broughton Minerals Pty Ltd, Orion Metals Limited have issued 250,000 shares to Broughton Minerals Pty Ltd following the issue of a Continuation Notice for the Exploration Year commencing 31<sup>st</sup> August, 2013.

**Figure 1. Broughton Creek JV Project Area and Tenement Location**



## **RC Drill Program**

During this quarter, Orion Metals Limited conducted a reconnaissance RC drill program on selected REE and Uranium anomalies across EPM 16209 (ORM ASX Announcement 29<sup>th</sup> November 2013).

EPM 16209 is one of five tenements covering a total area of 230 square kilometres. This package is contained within the Broughton Creek Joint Venture. (Figure 1).

The RC drill program (Table 1) comprising 17 drill holes ( a total of 1,476 metres of drilling) was designed to test radiometric anomalies identified by earlier detailed exploration work for potential uranium and REE mineralisation.

The radiometric anomalies drilled in this RC program (Figure 2) were well supported by ground based geochemical sampling, regional aero-magnetic surveys, and geological mapping. RC drilling of these anomalies determined the uraniferous veins and soil uranium occurrences did not have depth extent; rather occurred as discrete narrow veinlets and were locally enriched sub-surface.

## **Results**

Drilling results were generally of low order for REE and uranium, though there were some encouraging results for gold and base metals. Two anomalous gold results were returned from holes BCRC012 and BCRC013, with a best result of 2m @ 0.44 ppm in BCRC012, from 2m to 4m depth.

Copper anomalism was recorded in holes BCRC007, BCRC009, and BCRC011.

A best result of 2m @ 0.45% Cu from 66m – 68m in hole BCRC009 was recorded from a 10 metre wide weakly mineralised zone.

**Table 1. Broughton Ck Project RC Collar Locations**

Hole ID	Hole Type	Easting GDA94	Northing GDA94	RL* (m)	Azimuth (magnetic)	Dip (degrees)	Total Depth (metres)
BCRC001	RC	399951	7673906	315	308	-60	60
BCRC002	RC	399968	7673892	315	307	-60	60
BCRC003	RC	399946	7673898	315	308	-60	60
BCRC004	RC	400615	7674213	315	308	-60	90
BCRC005	RC	400638	7674193	315	309	-60	90
BCRC006	RC	400585	7674245	315	309	-60	78
BCRC007	RC	400331	7673851	315	308	-60	138
BCRC008	RC	400607	7673898	315	308	-60	132
BCRC009	RC	400568	7673947	315	308	-60	96
BCRC010	RC	400551	7673973	315	309	-60	78
BCRC011	RC	401538	7674355	315	309	-60	90
BCRC012	RC	401567	7674334	315	309	-60	90
BCRC013	RC	401939	7674137	315	309	-60	78
BCRC014	RC	401574	7673628	315	309	-60	78
BCRC015	RC	401368	7673373	315	329	-60	90
BCRC016	RC	401370	7673370	315	321	-70	78
BCRC017	RC	401904	7672873	315	307	-60	90

**Table 1:** RC collar coordinates, drill hole orientations. All coordinates in GDA94 Zone 54.

\* RL's not accurately recorded. An RL value has been extrapolated from adjacent historic drilling.

Significant results from the RC program are detailed in the following tables:

Table 2: Broughton Ck Project RC Drilling Results: >0.10% Total Rare Earth Oxides

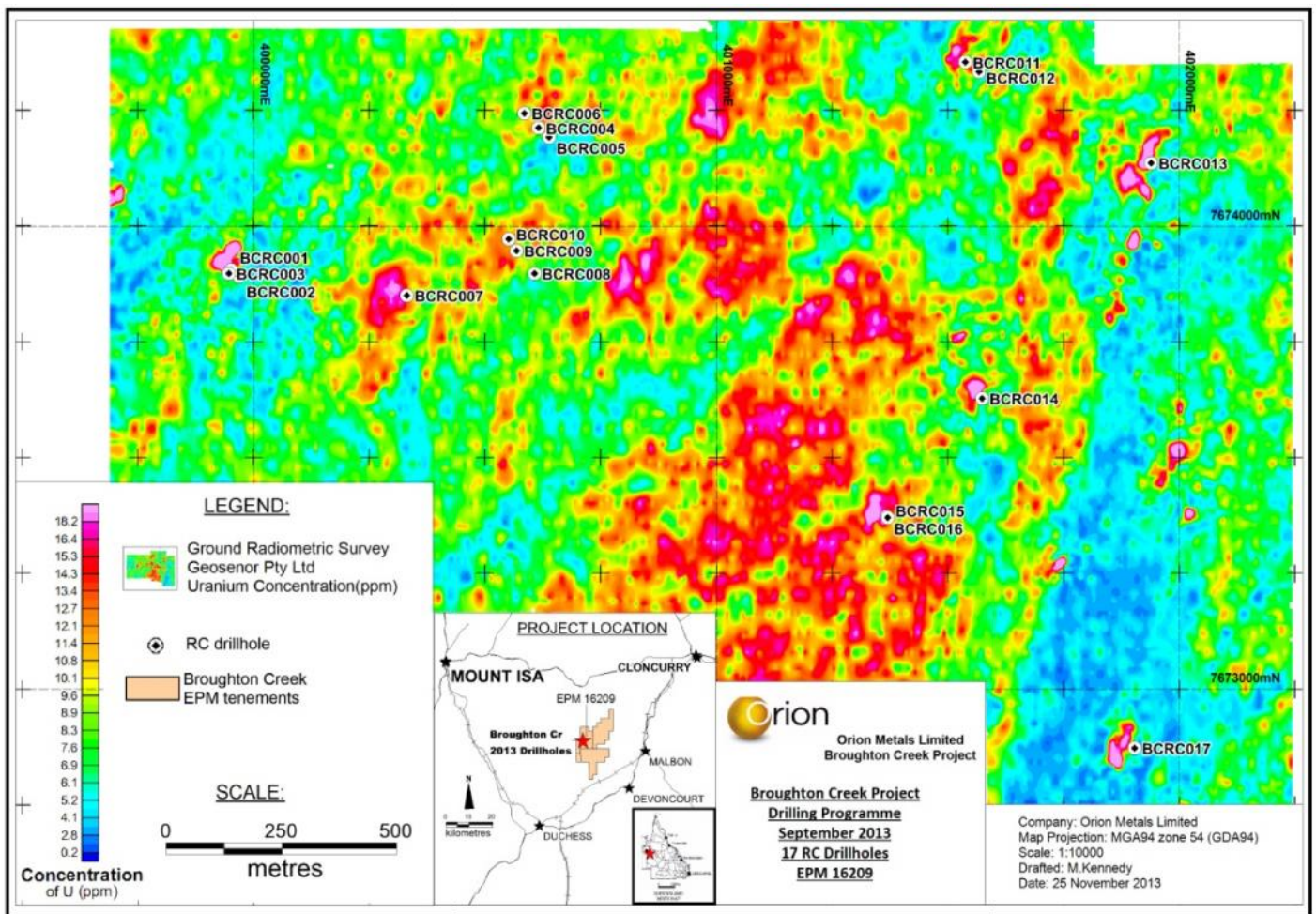
Table 3: Broughton Ck Project RC Drilling Program Significant Uranium Results

Table 4: Broughton Ck Project RC Drilling Program Significant Gold Results

Table 5: Broughton Ck Project RC Drilling Program Significant Copper Results

(For additional tables, figures, and complete JORC Table 1 detail, refer ORM: ASX Announcement 29<sup>th</sup> November, 2013.)

Figure 2: Broughton Creek JV, EPM 16209. RC Drill Collars with Radiometric Image



## Further Work

Planned for the next quarter is a re-assessment of the REE and uranium opportunity in the Broughton Creek JV Project area, and expand the exploration initiative. Also, the anomalous gold and copper results will require follow up exploration. A geochemical review has commenced.

## Tenement Update

Following technical reviews between Joint Venture Partner Broughton Minerals Pty Ltd and Orion Metals Limited, it was determined that the prospectivity of tenement EPM 17974 had diminished following results of recent drilling.

As a consequence, this marginally located tenement comprising of 3 sub-blocks will be relinquished in December 2013.

**Table 2: Broughton Ck Project RC Drilling Results: >0.10% Total Rare Earth Oxides**

Hole ID	East GDA94	North GDA94	Hole Depth (m)	From (m)	To (m)	Interval (m)	LREO %	*HREO %	Y2O3 (ppm)	TREO % (incl Y2O3)
BCRC001	399951	7673906	60	NSR						
BCRC002	399968	7673892	60	58.00	60.00	2.00	0.096	0.008	105.41	0.114
BCRC003	399946	7673898	60	NSR						
BCRC004	400615	7674213	90	NSR						
BCRC005	400638	7674193	90	NSR						
BCRC006	400585	7674245	78	NSR						
BCRC007	400331	7673851	138	4.00	6.00	2.00	0.084	0.008	127	0.104
				6.00	8.00	2.00	0.083	0.007	121.539	0.103
BCRC008	400607	7673898	132	NSR						
BCRC009	400568	7673947	96	66.00	68.00	2.00	0.113	0.004	64.77	0.124
BCRC010	400551	7673973	78	68.00	70.00	2.00	0.077	0.009	145.415	0.101
BCRC011	401538	7674355	90	NSR						
BCRC012	401567	7674334	90	NSR						
BCRC013	401939	7674137	78	NSR						
BCRC014	401574	7673628	78	NSR						
BCRC015	401368	7673373	90	NSR						
BCRC016	401370	7673370	78	NSR						
BCRC017	401904	7672873	90	74.00	76.00	2.00	0.088	0.005	87.63	0.101
				84.00	86.00	2.00	0.144	0.002	29.591	0.149

**Table 2:** Summary of Light (LREE), Heavy (HREE), and Total Rare Earth Oxide (TREO) results. Lower cutoff 0.1% TREO + Y. \*Y excluded from HREO calculations. Maximum consecutive internal dilution set at 2m. LREE = lanthanum (La) + cerium (Ce) + praseodymium (Pr) + neodymium (Nd) + samarium (Sm). HREE = europium (Eu) + gadolinium (Gd) + terbium (Tb) + dysprosium (Dy) + holmium (Ho) + erbium (Er) + thulium (Th) + ytterbium (Yb) + lutetium (Lu). Note: Sc is included as a result with the LREO, but not inclusive of the LREO calculation. NSR indicates No Significant Results for the drill hole.

**Table 3: Broughton Ck Project RC Drilling Program: Significant Uranium Results**

Hole ID	East GDA94	North GDA94	Hole Depth (m)	From (m)	To (m)	Interval (m)	U (ppm)				
BCRC001	399951	7673906	60	NSR							
BCRC002	399968	7673892	60								
BCRC003	399946	7673898	60								
BCRC004	400615	7674213	90								
BCRC005	400638	7674193	90								
BCRC006	400585	7674245	78								
BCRC007	400331	7673851	138								
BCRC008	400607	7673898	132	NSR							
BCRC009	400568	7673947	96					80.00	82.00	2.00	181
BCRC010	400551	7673973	78					56.00	58.00	2.00	387
BCRC011	401538	7674355	90								
BCRC012	401567	7674334	90								
BCRC013	401939	7674137	78								
BCRC014	401574	7673628	78								
BCRC015	401368	7673373	90								
BCRC016	401370	7673370	78								
BCRC017	401904	7672873	90								

**Table 3:** A 100ppm lower cut was applied. Maximum consecutive internal dilution set at 2m. NSR indicates No Significant Results for the drill hole. Results rounded to whole numbers.



**Table 4: Broughton Ck Project RC Drilling Program: Significant Gold Results**

Hole ID	East GDA94	North GDA94	Hole Depth (m)	From (m)	To (m)	Interval (m)	Au (ppm)
BCRC001	399951	7673906	60	NSR			
BCRC002	399968	7673892	60				
BCRC003	399946	7673898	60				
BCRC004	400615	7674213	90				
BCRC005	400638	7674193	90				
BCRC006	400585	7674245	78				
BCRC007	400331	7673851	138				
BCRC008	400607	7673898	132				
BCRC009	400568	7673947	96				
BCRC010	400551	7673973	78				
BCRC011	401538	7674355	90				
BCRC012	401567	7674334	90	2.00	4.00	2.00	0.44
BCRC013	401939	7674137	78	84.00	86.00	2.00	0.10
BCRC014	401574	7673628	78	NSR			
BCRC015	401368	7673373	90				
BCRC016	401370	7673370	78				
BCRC017	401904	7672873	90				

**Table 4:** A 0.10ppm lower cut was applied. Maximum consecutive internal dilution set at 2m. NSR indicates No Significant Results for the drill hole. Results rounded to 2 decimal places.

**Table 5: Broughton Ck Project RC Drilling Program: Significant Copper Results**

Hole ID	East GDA94	North GDA94	Hole Depth (m)	From (m)	To (m)	Interval (m)	Cu %	Intercept
BCRC001	399951	7673906	60	NSR				
BCRC002	399968	7673892	60					
BCRC003	399946	7673898	60					
BCRC004	400615	7674213	90					
BCRC005	400638	7674193	90					
BCRC006	400585	7674245	78					
BCRC007	400331	7673851	138	38.00	40.00	2.00	0.19	4m @ 0.15% Cu
				40.00	42.00	2.00	0.11	
BCRC008	400607	7673898	132	NSR				
BCRC009	400568	7673947	96	58.00	60.00	2.00	0.12	4m @ 0.12% Cu
				60.00	62.00	2.00	0.11	
				66.00	68.00	2.00	0.45	
BCRC010	400551	7673973	78	NSR				
BCRC011	401538	7674355	90	4.00	6.00	2.00	0.22	4m @ 0.22% Cu
				6.00	8.00	2.00	0.22	
BCRC012	401567	7674334	90	NSR				
BCRC013	401939	7674137	78					
BCRC014	401574	7673628	78					
BCRC015	401368	7673373	90					
BCRC016	401370	7673370	78					
BCRC017	401904	7672873	90					

**Table 5:** A 0.1% lower cut was applied. Maximum consecutive internal dilution set at 2m. NSR indicates No Significant Results for the drill hole. Results rounded to 2 decimal places..



## **FULFORD PROJECT & BONNOR CREEK**

### **RARE EARTH ELEMENT (REE), TIN, TUNGSTEN PROJECT**

**Northeast of Mt Surprise, North Queensland**

**EPM 17011, EPM 18449, EPM 18850, EPM 17891, EPMA 18331, MLA 30128.**

Tenement EPM 18850, 100% owned by Orion Metals Limited, was finally granted 21<sup>st</sup> October, 2013 for a period of 5 years. It is the largest tenement of the Fulford Creek Project comprising of 100 sub-blocks.

It is prospective for REE, tin, tungsten, copper, silver and gold.

No field work was carried out within the Fulford Project area during the reporting period.

## **TOP CAMP**

### **GOLD COPPER PROJECT**

**40km south of Cloncurry, North Queensland**

**ML 2764, ML 2785, ML 2786, ML 2792.**

No field work was carried out within the Top Camp leases during the reporting period.

## **CORPORATE**

### **Board Update**

Orion Metals Limited announced on the 22<sup>nd</sup> of November 2013, Mr. Conglin Yue's appointment as Executive Chairman and Chief Executive Officer of Orion Metals Limited. This promotion and expansion of duties follows the resignation and departure of Orion's General Manager Mr. Peng Huang, and Chief Operating Officer Mr. Chris Creagh.

Mr. Yue is currently Executive Chairman of Northern Minerals Limited, and Chairman and CEO of Australia Conglin International Investment Group ("Conglin Group").

Mr. Yue intends leading an expansion of Orion's activities into 2014, and is looking forward to the opportunity to be more directly involved with Orion Metals Limited.

### **Staff Update**

To advance Orion Metals exploration efforts, Mr. Yue has appointed an Exploration Manager, Mr. Peter Brookes. Mr. Brookes brings to Orion Metals Limited over 20 years of exploration experience.

### **Financial**

Cash balance as at 30<sup>th</sup> November 2013 is \$1.50m.

### **Competent Person Declaration.**

*The information in this report that relates to Exploration Results or Mineral Resources is based on information compiled by Mr Peter Brookes, a full-time employee of Orion Metals Limited, who is a member of the Australian Institute of Geoscientists. Mr Brookes has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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". Mr Brookes consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*



## TENEMENT SCHEDULE

### Orion Metals Limited (ORM) Tenement Schedule (at 30th November 2013)

Tenement	Project Name	Registered Holder	Status	Granted	Expiry	Sub - blocks	Commodity	Minimum Expenditure
E80/4029	Killi Killi Hills	RRI * 100%	Granted	16/04/2009	15/04/2014	10	REE, Au, U	\$30,000
E80/4197	Killi Killi Hills	RRI * 100%	Granted	15/10/2009	14/10/2014	3	REE, Au, U	\$20,000
E80/4556	Tanami	RRI * 100%	Granted	6/03/2013	5/03/2018	22	REE, Au, U	\$22,000
E80/4558	Tanami East	RRI * 100%	Granted	13/12/2012	12/12/2017	5	REE, Au, U	\$15,000
E80/4559	Gardner Range West	RRI * 100%	Granted	13/12/2012	12/12/2017	7	REE, Au, U	\$20,000
E80/4596	Selby Hills	RRI * 100%	Granted	13/12/2012	12/12/2017	113	REE, Au, U	\$113,000
EPMA 18331	Fulford Creek	ORM 100%	Application	9/10/2009		42	REE, W, Sn	N/A
EPM 18850	Fulford Creek	ORM 100%	Granted	21/10/2013	20/10/2018	100	REE, W, Sn	\$50,000
EPM 18449	Bonnor Creek	ORM 100%	Granted	14/05/2013	13/05/2018	25	REE, W, Sn	\$50,000
EPM 17011	Black Springs Creek	J. W. Withers ** 100%	Granted	16/06/2008	15/06/2011 Renewal lodged	4	All Minerals	\$35,000
EPM 17891	Black Springs Creek	J. W. Withers ** 100%	Granted	23/07/2013	22/07/2018	8	All Minerals	\$2,500
EPM 16209	Broughton Creek	Broughton Minerals Pty Ltd 100%	Granted	27/03/2008	26/03/2016	14	REE, U	\$200,000
EPM 17974	Broughton Creek	Broughton Minerals Pty Ltd 100%	Granted	28/02/2011	27/02/2014	3	REE, U	\$5,000
EPM 17143	Broughton Creek	Broughton Minerals Pty Ltd 100%	Granted	17/12/2009	16/12/2015	2	REE, U	\$20,000
EPM 19011	Broughton Creek	Broughton Minerals Pty Ltd 100%	Granted	28/06/2012	27/06/2015	26	REE, U	\$30,000
EPMA18075	Broughton Creek	CNW Pty Ltd 100%	Application	1/12/2011		27	REE, U	N/A
Mining Leases	Project Name	Registered Holder	Status	Granted	Expiry	Area (Ha)	Commodity	Minimum Expenditure
ML 2764	Top Camp	ORM 100%	Granted	19/01/1989	31/01/2015	103	Au, Cu	N/A
ML 2785	Top Camp	ORM 100%	Granted	6/02/1992	28/02/2017	129.2	Au, Cu	N/A
ML 2786	Top Camp	ORM 100%	Granted	15/02/1990	28/02/2016	70	Au, Cu	N/A
ML 2792	Top Camp	ORM 100%	Granted	6/02/1992	28/02/2017	103.5	Au, Cu	N/A
MLA 30218	Dickson Creek	J. W. Withers ** 100%	Application	15/09/2008		32.5	All Minerals	N/A

Note: \*Rich Resources Pty Ltd is a wholly owned subsidiary of Orion Metals Limited

\*\* Subject to Royalty.





## **CORPORATE DIRECTORY**

### **ORION METALS LIMITED**

**ASX Code:           ORM**

**ABN:                   89 096 142 737**

### **Issued Capital as at 30 November 2013**

92,597,443 shares issued & listed

500,000 unlisted options

402 shareholders

### **Top 20 shareholders**

Hold 93.3% of listed shares

### **Largest shareholders**

Conglin Group / Mr Conglin Yue 69.7%

Jien Mining Pty Ltd 15.2%

### **Board**

Mr Conglin Yue – Executive Chairman & CEO

Ms Yanchun Wang - Director

Dr Tao Li - Director

Mr Bin Cai - Executive Director & CFO

### **Management**

Mr Bill Lyne - Company Secretary

### **Contact Details**

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