



METALLICA MINERALS

CAPE YORK HMS & Bauxite

Low Cost Mine - Barge - Ship Strategy

SCONI

Emerging Resource Developer to Producer

ASX:MLM

121 Mining Investment
Shangri-La Hotel, HONG KONG
15 – 16 October 2014



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The **Cape York Heavy Mineral Sands (HMS) and Bauxite (Bx) Projects (Incl Urquhart Pt)** and the **SCONI Scandium-Cobalt-Nickel Project**, are at the exploration, advanced evaluation & feasibility stage & although reasonable care has been taken to ensure that the facts stated in this presentation are accurate & or that the opinions expressed are fair & reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness.

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Forward-looking statements are based on assumptions regarding Metallica Minerals Limited ("Metallica"), business strategies, plans and objectives of the Company for future operations and development and the environment in which the Metallica may operate.

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- The **Urquhart Point Project** is at an advanced evaluation and feasibility stage and reasonable care has been taken to ensure that the facts stated in this announcement are accurate and or that the opinions expressed are fair and reasonable. However, actual results may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.
- A key conclusion of the **Feasibility Study (FS)** which is based on forward looking statements is that the Urquhart HMS Project is considered to have positive economic potential and subject to funding the project is intended to be developed.

Technical information contained in this report has been compiled by Metallica Minerals Managing Director Mr Andrew Gillies B.Sc. & M. AUSIMM, who is a **competent person** & a member of the Australasian Institute of Mining & Metallurgy & have relevant experience to the mineralisation being reported on to qualify as Competent Persons as defined by the Australasian Code for Reporting of Minerals Resources & Reserves. Mr Gillies consents to the inclusion in this presentation of the matters based on the information in the form & context in which it appears.

***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

For further detailed information on the content of this presentation please also refer to the following ASX Releases dated: 20 May 2014, 17 June & 24 June 2014 & 11 July 2014, 1 & 27 August 2014, 29 & 30 September 2014



MLM Financial Overview

METALLICA'S VISION

Become a successful producer of zircon-rutile, bauxite & scandium-nickel-cobalt products

Financial Information

Share price (9 Oct 2014)	7.3c
Shares on Issue	166.8M
Market Cap (9 Oct 2014)	\$12.7M
Cash Position (9 Oct 2014) <i>No Debt</i>	~\$2.5M
*R & D Claim by Nov 2014	~\$0.5M

Major Shareholders

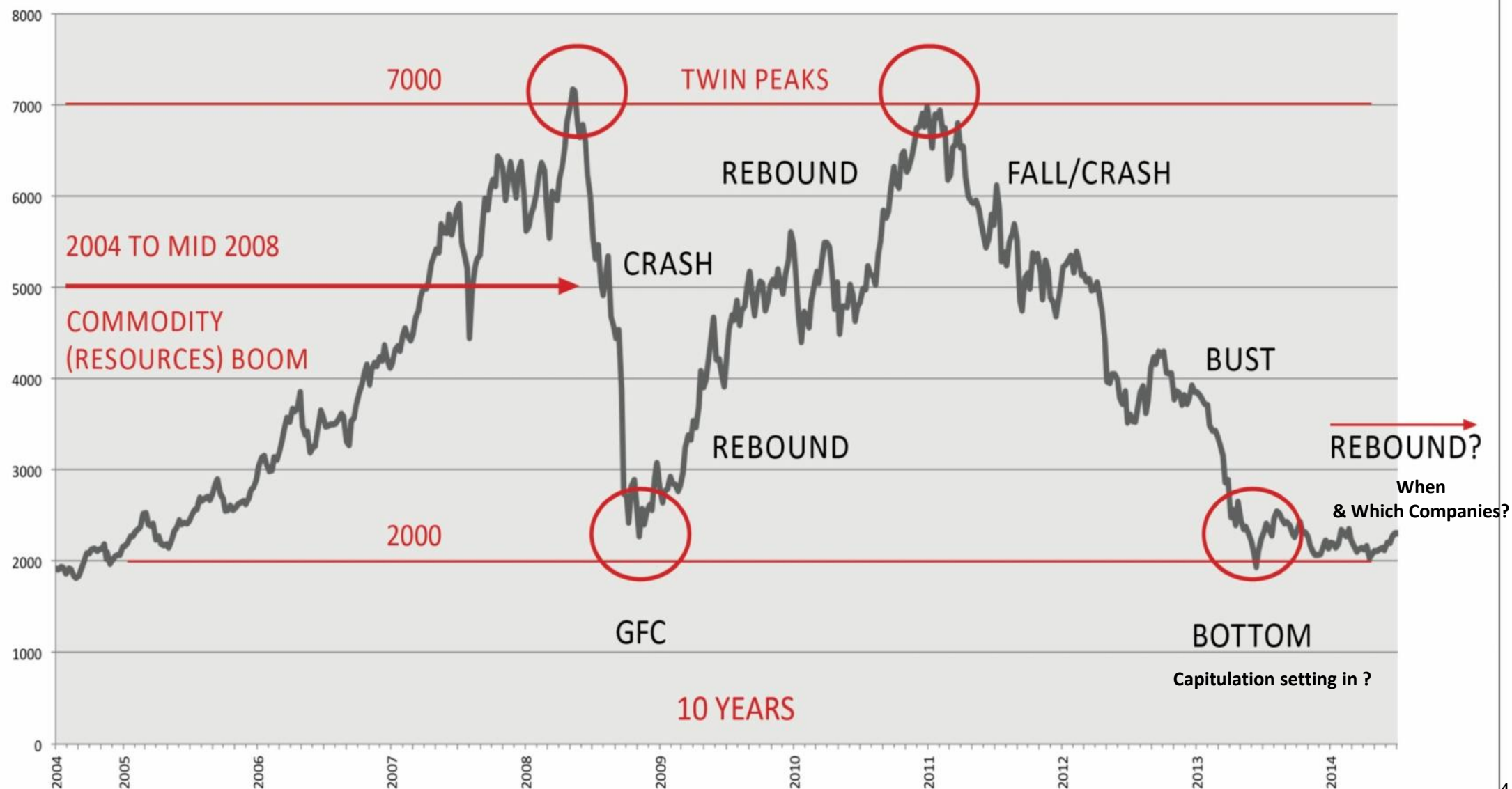
Jien Mining Pty Ltd	25%
Victorian Ferries Pty Ltd	10.8%
Golden Breed Pty Ltd	6.1%
Bondline Ltd	3.1%
Top 20 shareholders (2,100)	59%

Name	Position	Background	Experience
David Barwick	Non-Executive Chairman	Financial / Corporate	40+ years
Andrew Gillies	Managing Director - CEO	Geology / Mining / Corp Dev	27+ years
Barry Casson	Non-Executive Director	Financial / Corporate	40+ years
Wu Shu (Shu Zhang– Alternate)	Non-Executive Director	Engineering	30+ years
John Haley	CFO/Company Secretary	Financial	28+ years



Australian Junior Resources Sector Market

XSR : ASX SMALL RESOURCES JULY 2004 - JULY 2014





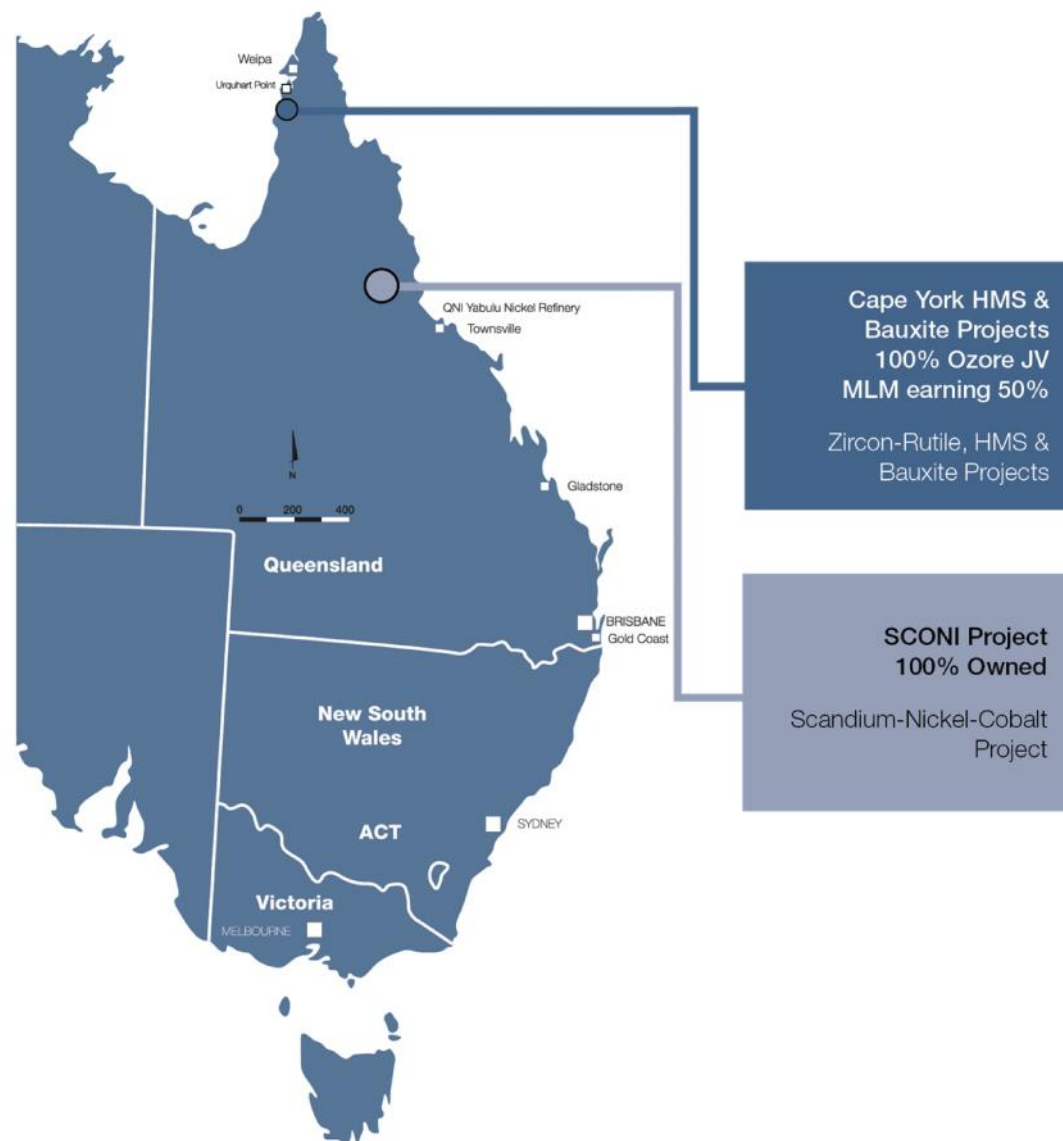
MLM Core Projects (100%)

- HMS – Zircon, Ti Minerals & Bauxite

Cape York HMS & Bauxite Project (100% Ozore earning 50%)

- Nickel – Cobalt – Scandium
SCONI (Sc-Co-Ni) Project

*All commodities
which China needs*





Cape York Tenure

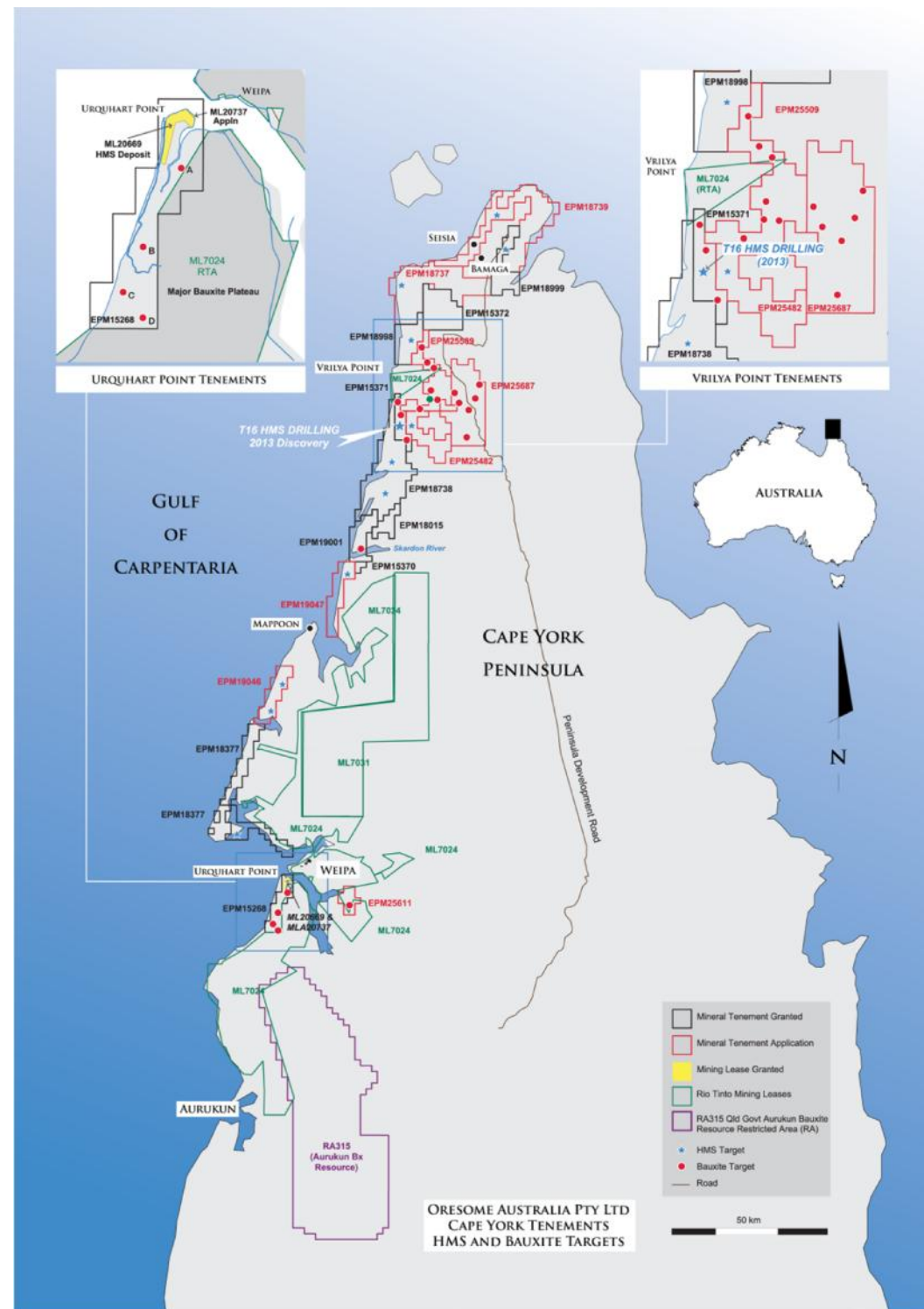
"Title is Vital"

- ✓ 2,500 sq km prospective exploration tenure
- ✓ 300 km coastal tenure
- ✓ Highly prospective HMS & Bauxite
- ✓ Incredible Urq Pt only HMS deposit in CY
- ✓ T16 HMS Discovery - first target tested, 160km north of Urq Pt



Photo looking east above the Urquhart Point mining lease and proposed HMS mining area (including barge loading sites) across the Embley River (a deep protected shipping channel), Weipa Port and Township. Further distance is Rio Tinto's Weipa bauxite mining and shipping operations.

ASX:MLM





Signed JV Agreement Cape York HMS & Bx Project

- JV Agreement signed 31 July 2014 – funding Development to Production
- Private Chinese partner Ozore funding of A\$7.5 million into new 50:50 JV
- \$4.1M already received (another \$900k expected by end Oct)
- JV covers all Metallica's Heavy Mineral Sands (HMS) and Bauxite (Bx) holdings on Western Cape York
- Includes all funding to bring proposed \$6.5m Urquhart Point HMS mine development into production-targeted for mid 2015
- JV will also further explore priority T16 discovery and Bx (eg Urq Pt) targets on Cape York
- Metallica free carried to production at Urquhart (based on forecast expectations)
- Actively progressing & adding value to Cape York projects without having to directly dilute shareholders



Urquhart Point – HMS Development (Weipa)

- Urquhart Point Reserve & Positive FS (*See ASX Release 24 June 2014*)
- NPV of \$4.9 m & IRR of 69% - 5 year mine life
- 1 year payback on \$6.5M establishment cost
- Simple mine (<3m), basic 100-110tpHr processing (wet gravity-Spirals), barge conc. & ship operation
- Model uses TZMI Zircon-Ti Mineral forecast prices
- 0.85 long term FX rate, viable at higher FX rates
- Offtake in advanced negotiations
- Fully permitted, Ready for development
- Supply Contract signed with Consulmet – fixed price turnkey



West Cape York HMS & Bauxite Project

- Exceptional Regional Potential within 2,500 square km tenure 300km sandy coastlines adjoining Bx plateaus
- Modern day/recent version of Eucla & Murray Basin HMS
- T16 “zircon-rich HMS discovery” in late 2013
- >10 regional HMS targets – T16 was the first target drilled
- 15 Bx Exploration Targets* defined combined 47 to 138Mt
– further information see Table page 30 and ASX release 11 July 2014
- Grid/Resource spaced drilling planned late Oct - Nov 2014

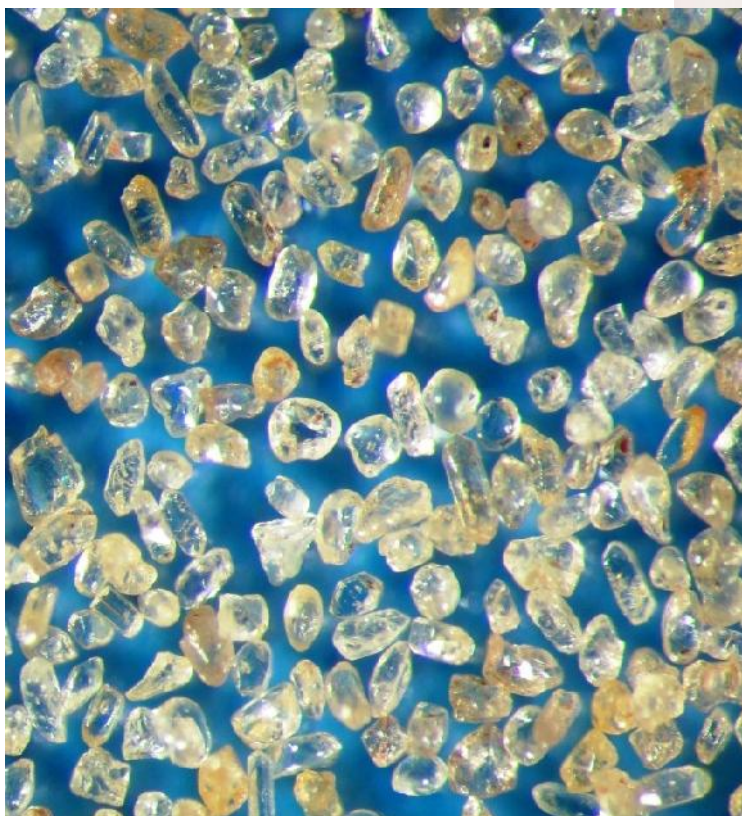
***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.



Urquhart Point Zircon & Rutile Specifications

Urquhart Point Primary Zircon Specifications

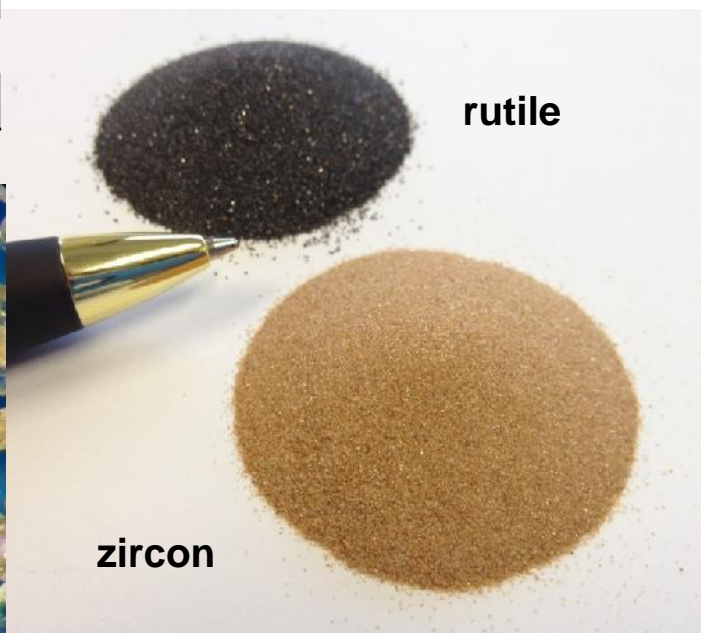
ZrO ₂ + HfO ₂ (%)	65.0 – 66.0
U + Th (ppm)	420 – 500
TiO ₂ (%)	0.05 – 0.10
Al ₂ O ₃ (%)	0.10 – 0.30
Fe ₂ O ₃ (%)	0.08 -0.10



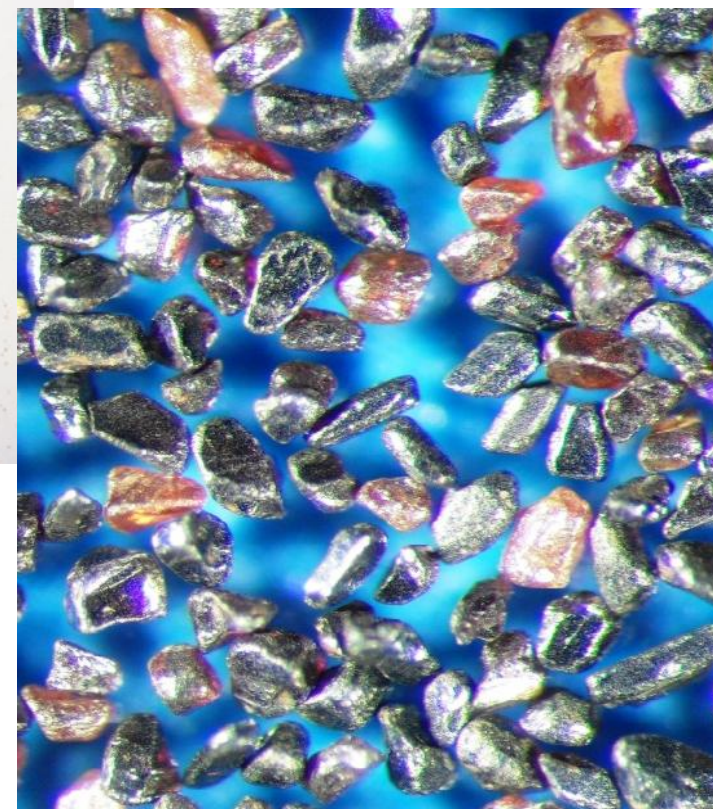
Microscope view of Urquhart Point rutile sand
ASX:MLM

Urquhart Point Primary Rutile Specifications

ZrO ₂ + HfO ₂ (%)	0.30 – 0.10
U + Th (ppm)	50- 100
TiO ₂ (%)	96.0 – 97.0
Al ₂ O ₃ (%)	0.20 – 0.30
Fe ₂ O ₃ (%)	0.25 – 0.30



The Urquhart Point Project will produce a HM concentrate containing high quality zircon and rutile mineral sands



Microscope view of Urquhart Point zircon sand



Urquhart Point HMS Reserve Estimate

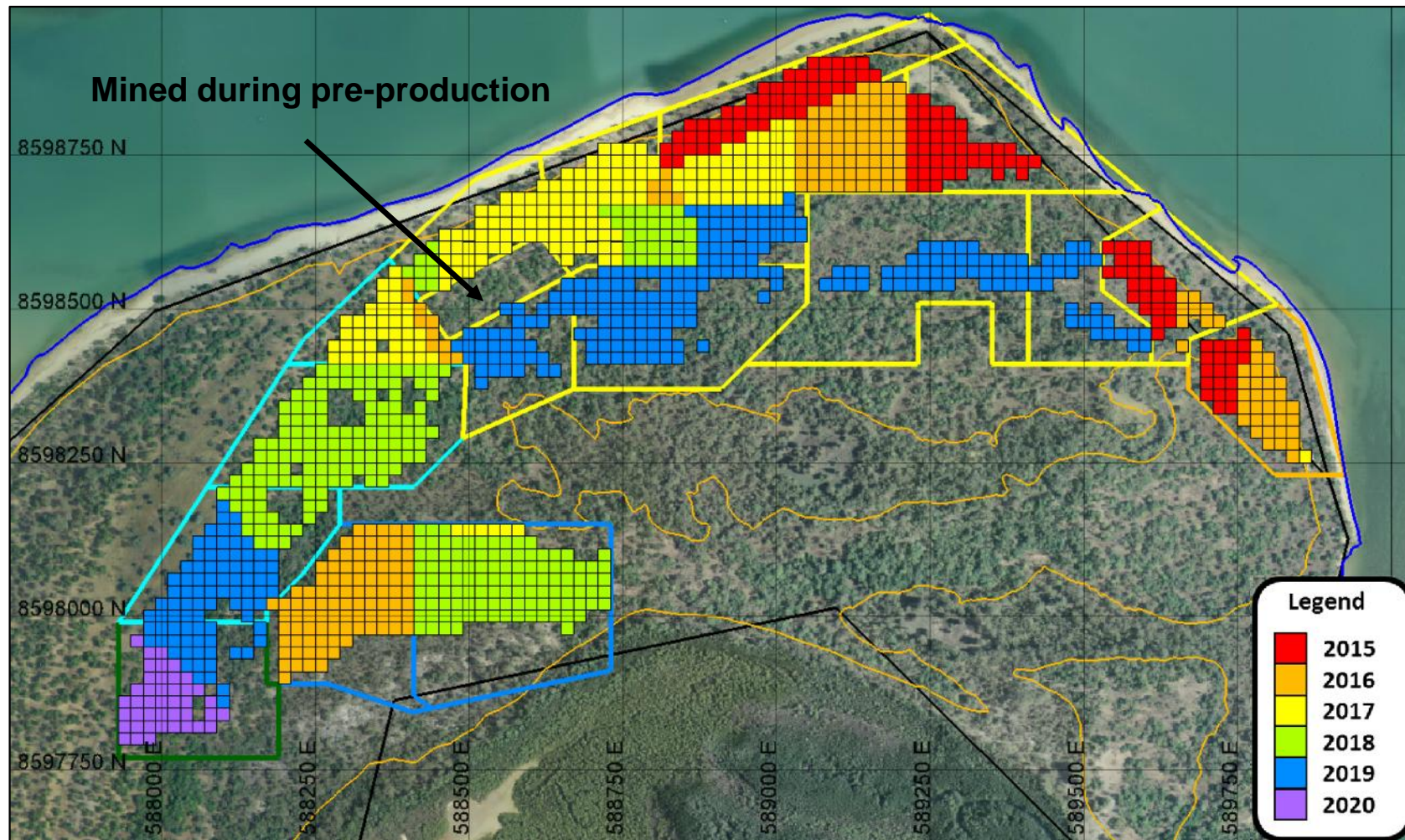
The HMS Reserves have been independently estimated by consultants IMC Mining Pty Ltd

Ore Reserve Category	Tonnes (kt)	Head Grade						HM Tonnage & Mineral Assemblage			
		HM %	OS %	Slimes %	Zircon %	Rutile %	Ilmenite %	HM (kt)	Zircon % of HM	Rutile % of HM	Ilmenite % of HM
Proved	967	10.6	8.1	1.0	1.2	1.4	1.4	102	11.1	13.7	12.9
Probable	210	4.8	6.7	1.2	0.9	0.6	0.7	10	17.7	13.2	14.4
Total	1,177	9.5	7.9	1.0	1.1	1.3	1.2	112	11.7	13.6	13.1

- The Ore Reserves are based on the following long term FOB prices: Zircon \$1,500/t, Rutile US\$1,200/t and Ilmenite US\$200/t
- Ore Reserves are based on a Zircon Equivalent cut-off grade of 0.90%.
-
- Zircon Equivalent = Zircon% + 0.8xRutile % + 0.13xIlmenite%. Recoveries used in the equivalence calculation are 98.2%, 98.0% and 95.8% for Zircon, Rutile and Ilmenite respectively.
- *For further information see ASX Release 24 June 2014*

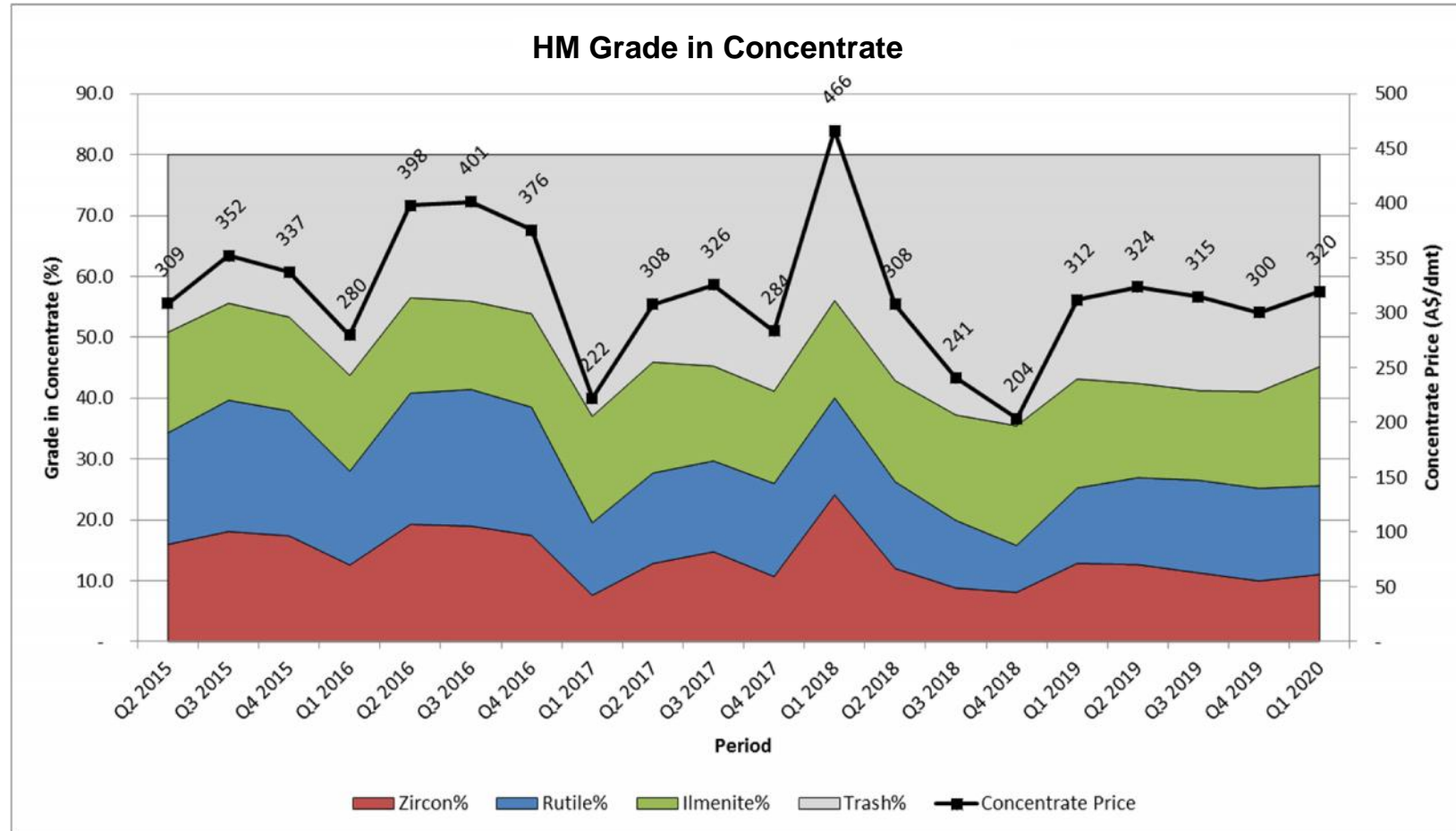


Mining Sequence of HMS Reserve Blocks





HM Concentrate Grade & Pricing Estimate



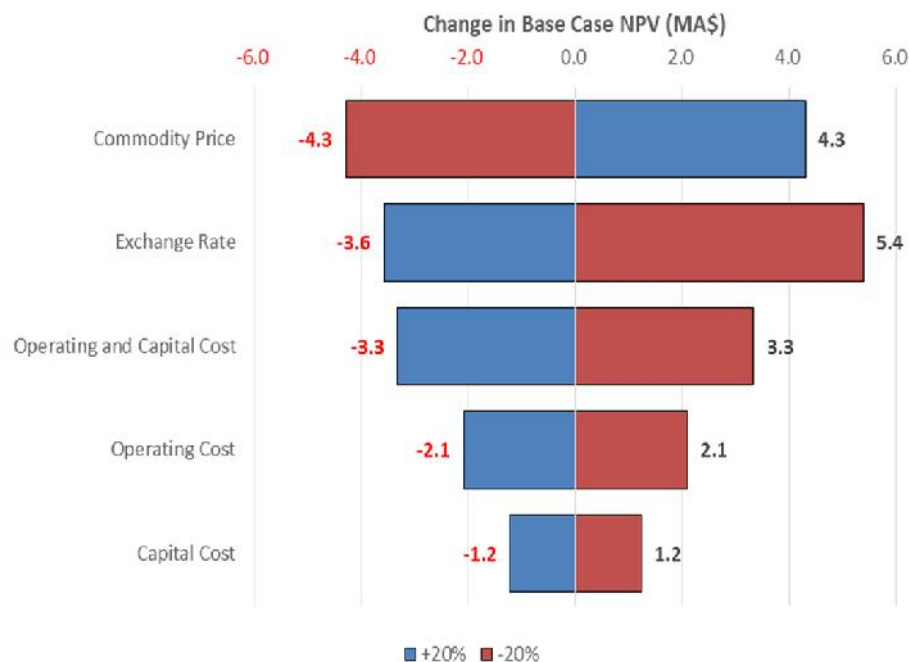


Urquhart Point HMS Project Financial Metrics

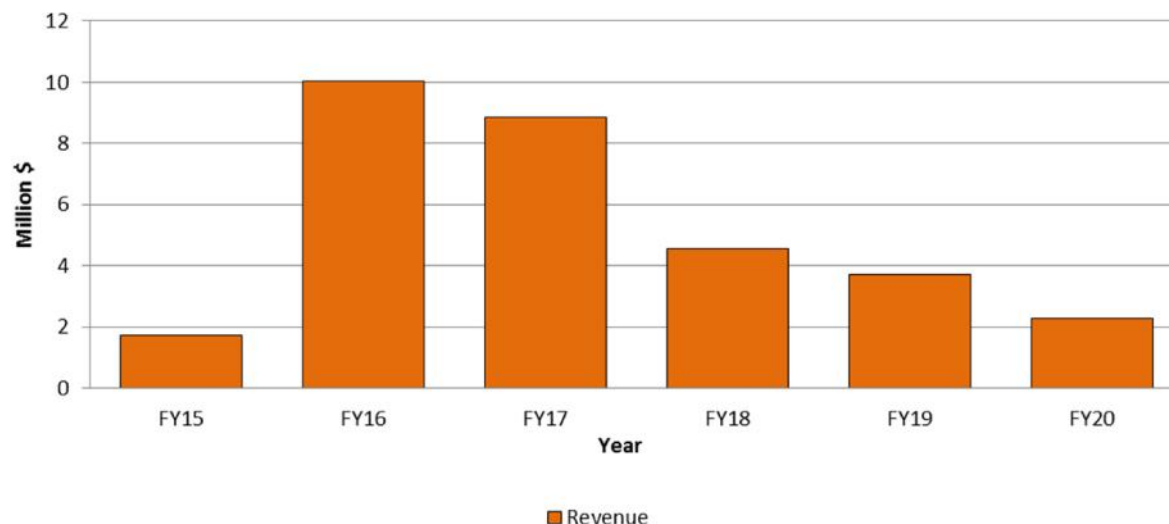
Key Metrics (June 14 – Feasibility Study)

Parameter	Quantity
NPV _{10%}	A\$4.9M
IRR	69%
Mine life	4.9 years
Capex estimate	A\$6.51M
Undiscounted cash-flow (after CAPEX)EBITDA	A\$7.3M

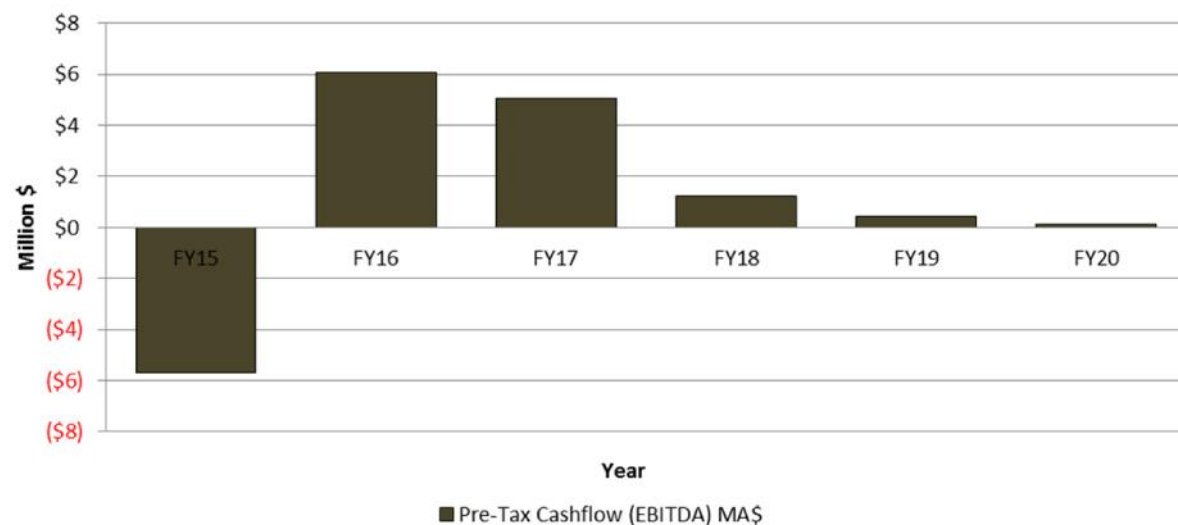
NPV Sensitivity Analysis



Net Revenue (A\$)



Undiscounted Cash Flow



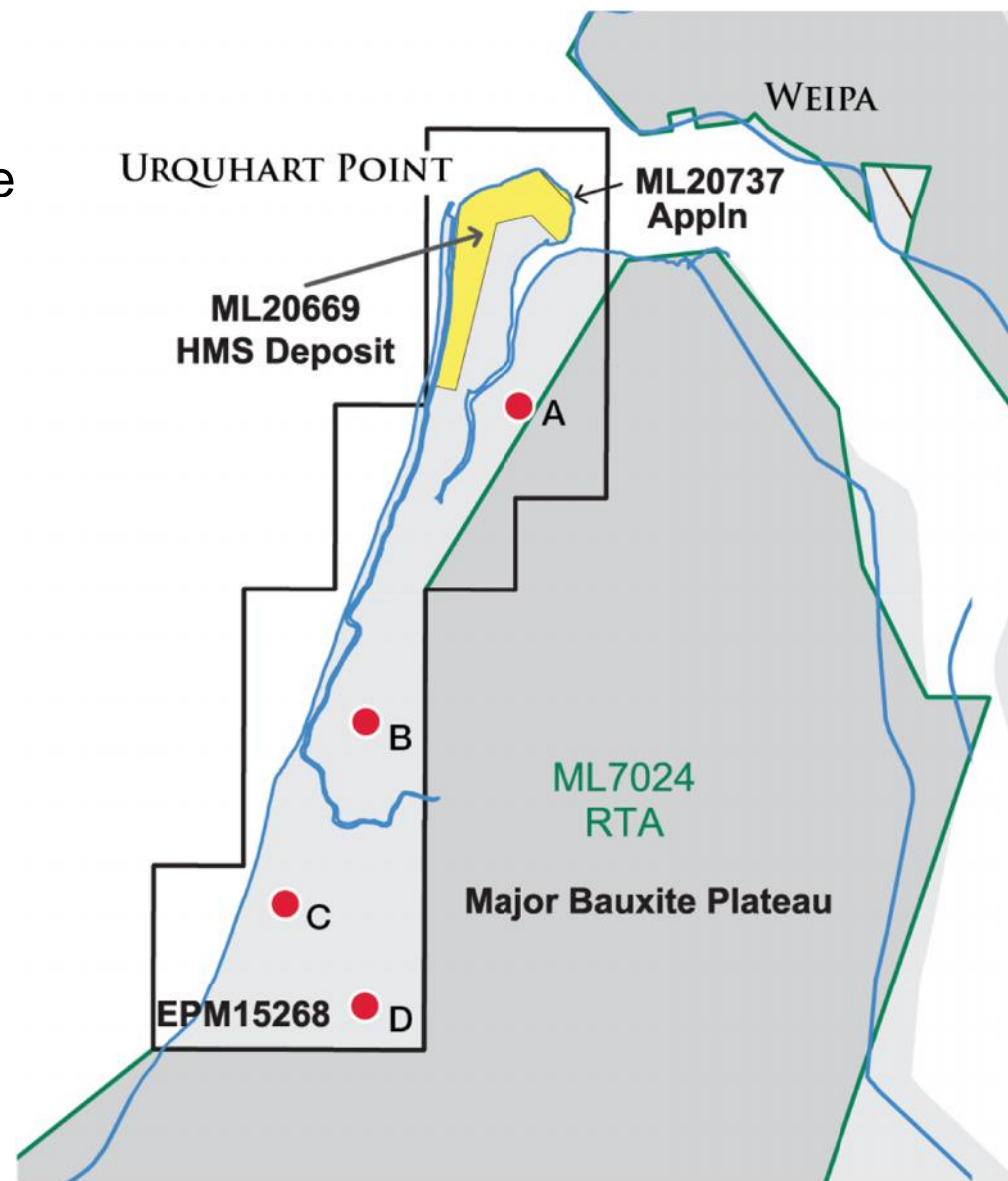


Urquhart Point HMS & Bx Project (near Weipa – Hub 1)

- Fully permitted granted ML (yellow) covering Urquhart Pt HMS Resource/Reserve
- Urquhart Point EPM15268 also covers bauxite (bx) targets
- Urquhart Pt Tenements adjacent to huge bauxite resources held by RTA (South of Embley) & Qld Gov (Aurukun) Bx deposits
- Potential for accessing third party bauxite using Urquhart Pt barging/shipping infrastructure will be investigated



Working with TLO's from exploration to production

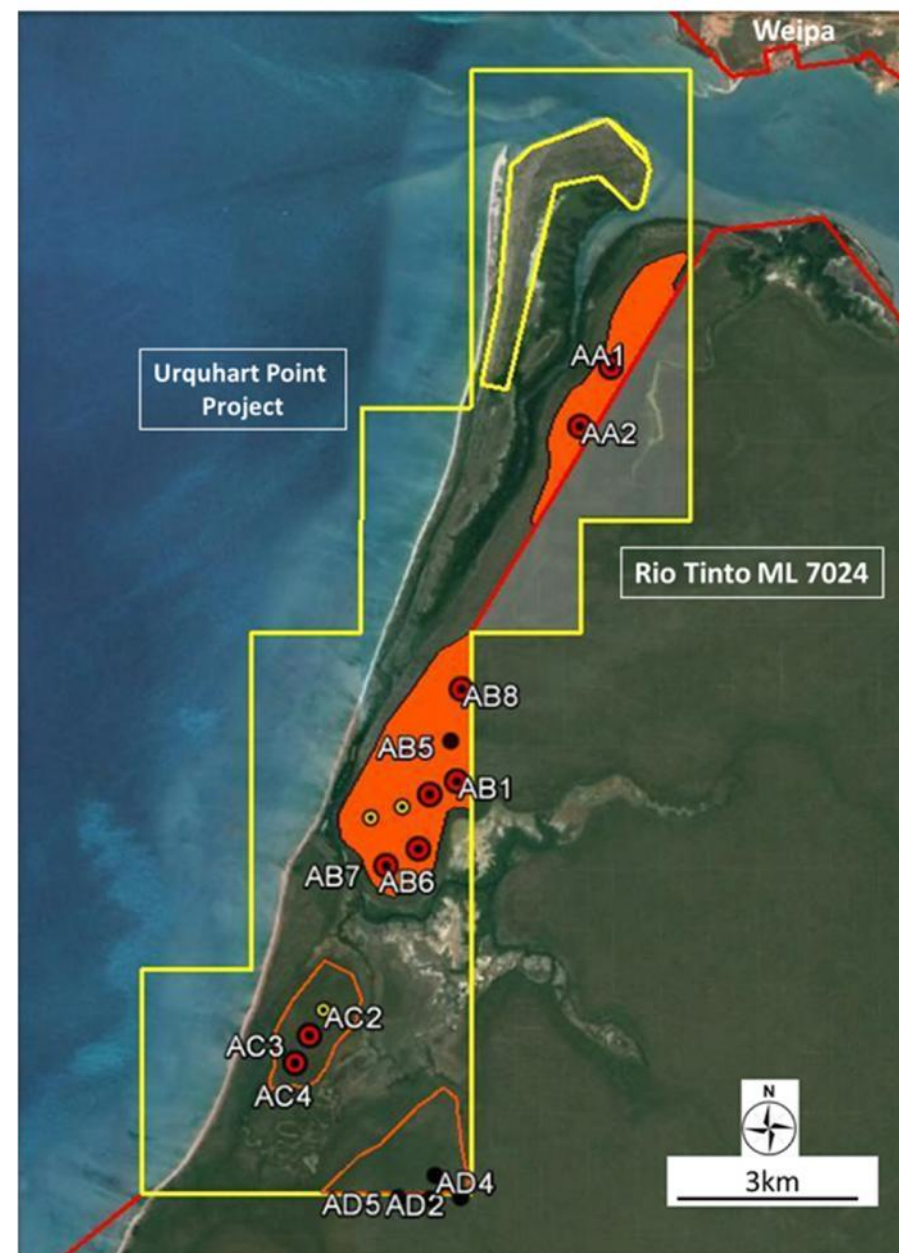


URQUHART POINT TENEMENTS



Dual HMS & Bauxite Focus at Urquhart Point

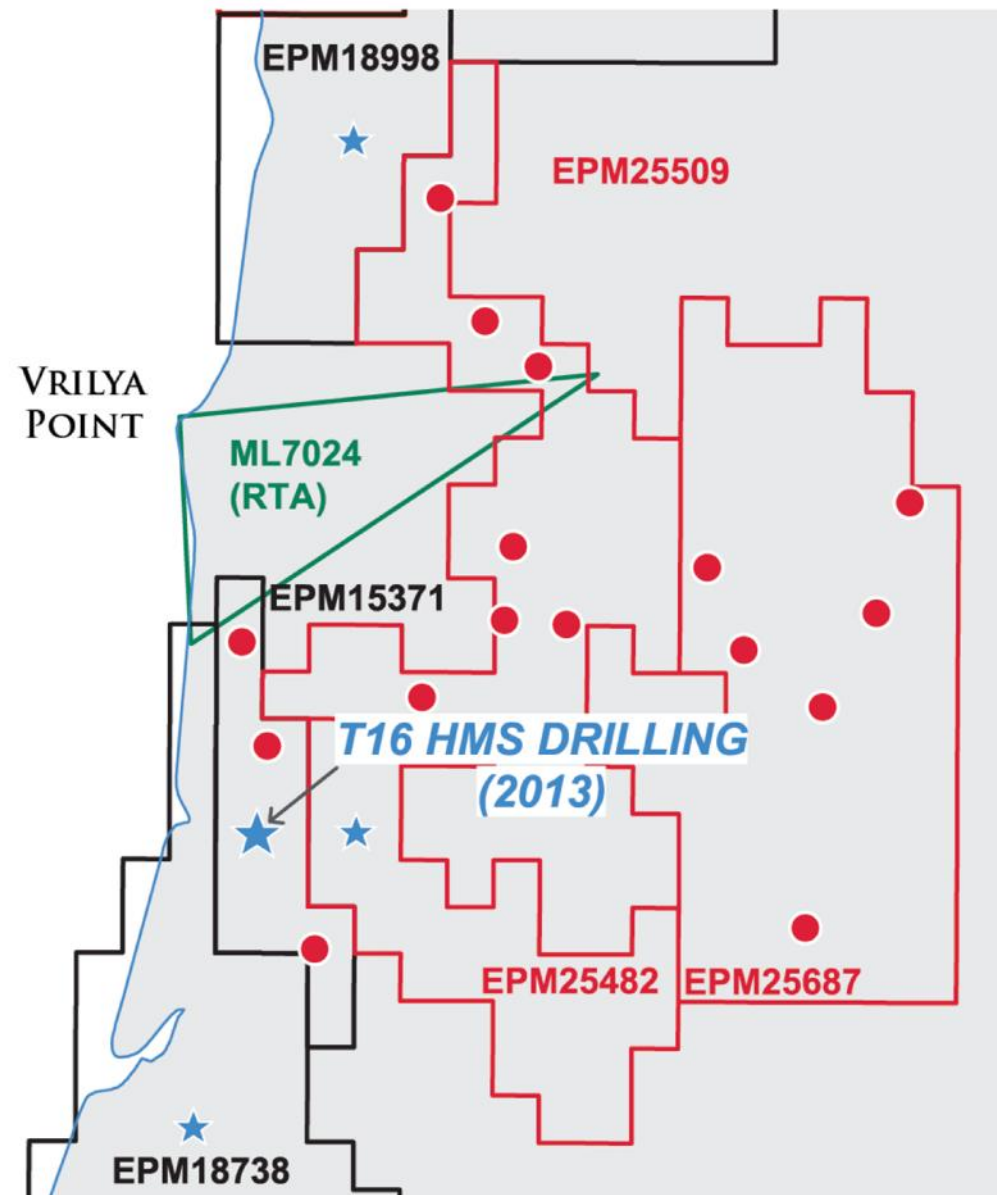
- Urquhart Point EPM15268 contains a granted Mining Lease (ML) covering the HMS Resource and also edges of a major bauxite plateau
- 4 Bx Plateau target areas A, B, C, D, orange polygons showing priority Exploration Target* 5-10Mt Bauxite
- Best areas from initial sampling was Areas A & B, covering 8km² – Follow-up drilling Planned September
 - **Area B** best result (8 auger holes) recorded 57% Al₂O₃ & 6% SiO₂
 - **Area A** best result (2 auger holes) recorded 53% Al₂O₃ & 12% SiO₂
- Potential for Direct Shipping Ore (DSO) Bauxite using proposed Urquhart Pt HMS barge-ship infrastructure nearby
- Urquhart Pt is very strategically located at tip of a major undeveloped bauxite plateau held by third parties (RTA & Qld Gov)





Vrilya Point HMS & Bx Project (160km N Weipa – Hub 2)

- RIO ML (green) covering portion of Vrilya Pt Bauxite deposit
- JV holds 5 EPM(black)/EPMA's (red) near Vrilya Pt cover numerous priority HMS & Bx targets
- Extensive Bx areas within tenure – need to establish quantity & quality by drilling
- Very good potential for very large Zircon rich HM deposits N & S Vrilya Pt (eg T16)
- Combined Vrilya Bauxite Exploration Target* of 42Mt to 128Mt Range
(See Table 1, Page 32)



VRILYA POINT TENEMENTS

* **Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

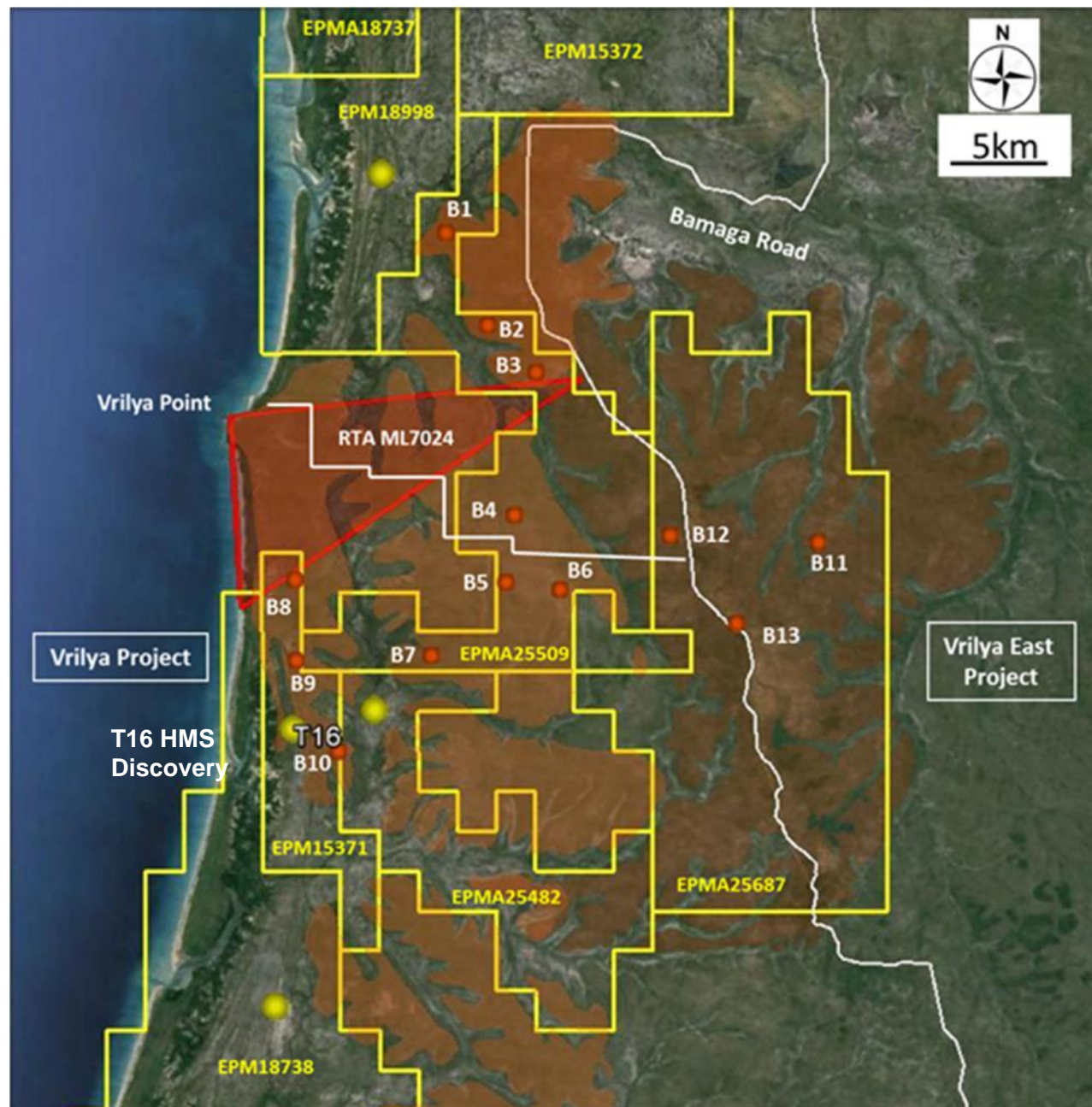


Vrilya & Vrilya East Project Exploration Targets*

- Vrilya & Vrilya East Project Tenements with outline of Government and Oresome mapped laterite/Bx plateaus (orange colour)
- 13 Identified bauxite Exploration Targets (**Orange** circles) & regional HMS exploration targets



Photo from helicopter showing extensive Vrilya East bauxite laterite plateaus targeted for grid drilling





Major Regional Exploration Opportunities (HMS & Bauxite)

1. Excellent scope to define major HMS (potentially a province) & Bx deposits.
2. Typically HMS & Bauxite deposits/projects are located close to each other and therefore potentially sharing and integrating exploration, feasibility, development, infrastructure and future costs (Mutual Cost Savings Expected).
3. Urquhart Point is proximate to large bauxite deposits (Rio & QLD Govt). There may be an opportunity to use the Urquhart Point infrastructure, established local relationships and existing Mining Leases to facilitate a bauxite mining, barging and shipping operation from Urquhart Point.



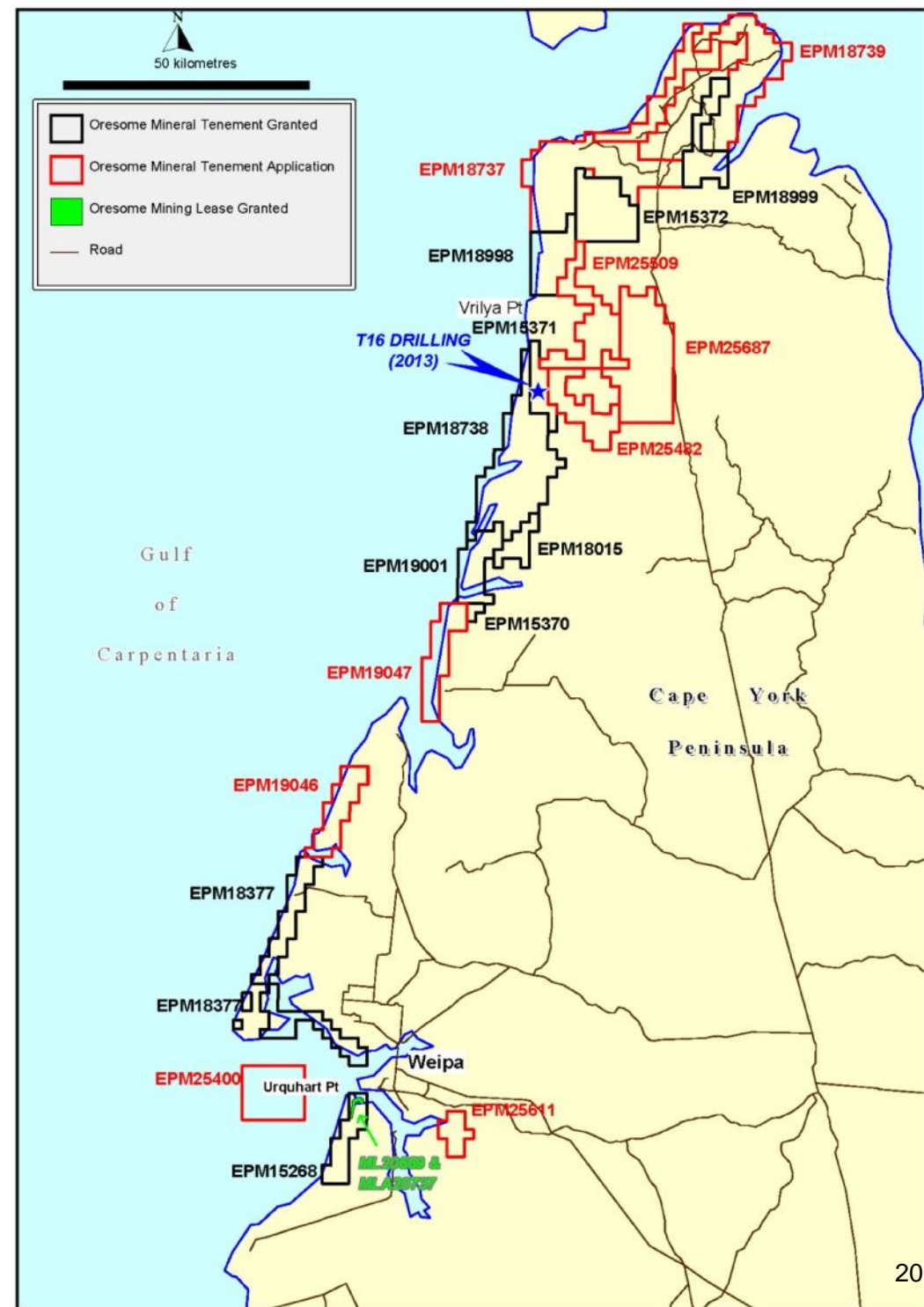
ASX:MLM





Huge Regional HMS Potential - Starting with T16

- 2,500 sq km prospective tenure
- Highly prospective for HMS & Bx deposits
- 300 km coastal belt (near Weipa to the tip of CYP)
- T16 Regional project 160km N of Urquhart Point – first regional target tested – resulted in Discovery
- T16 is one of many HMS targets (>20) along 300km of coastal belt from Weipa to tip Cape York
- Drilling to commence late Oct 2014



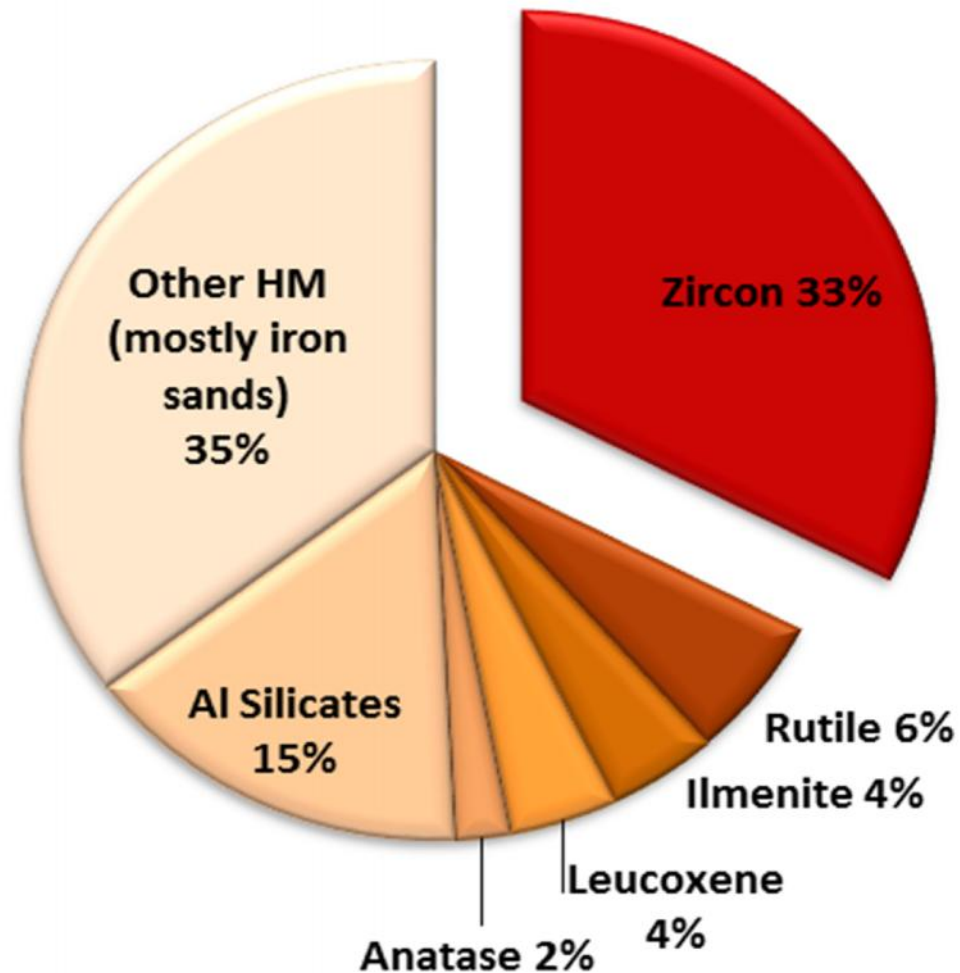


Summary of the T16 HM Assemblage Analysis of Composited Samples of 35 drill holes (Zircon rich 33% of HM, 16% Ti Minerals : 49% VHM)

HM Assemblage

- 49% valuable HM(VHM)
- 33% high quality Zircon

T16 - Average Heavy Mineral Proportions

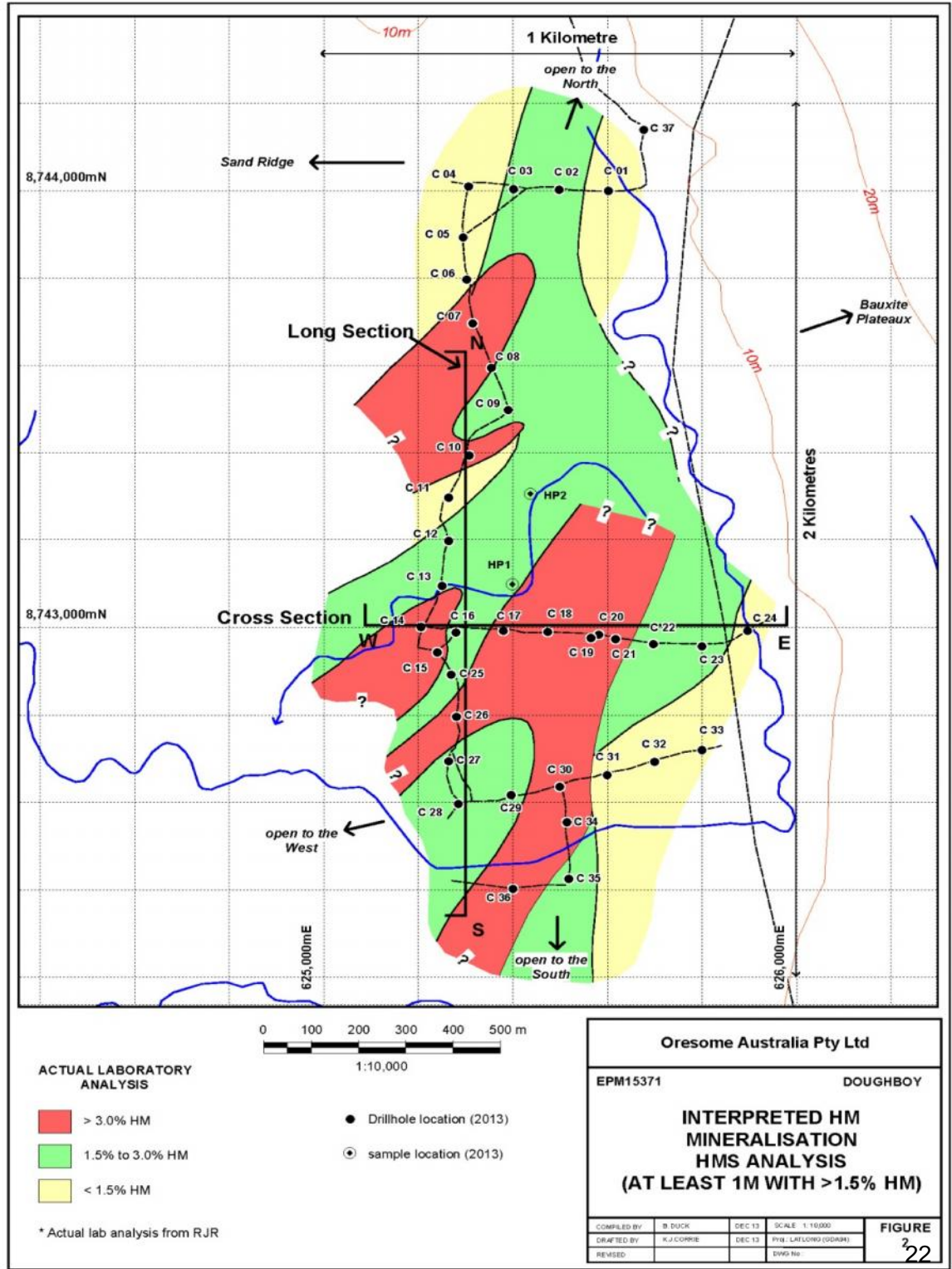




T16 HMS Discovery

- Significant mineralisation drilled over 1.8km x 800m area open in most directions
- All 36 holes intersected significant HM mineralisation (>1%HM)
- 49% HM is Zircon (33%) & Ti Mineral (16%)
- All 36 auger holes drilled (average depth 3.7m) on T16 recorded significant (HM) mineralisation.
- 24 holes ended with samples recording over 1% HM.
- T16 HM mineralisation is within fine quartz sand with generally low slimes, average 1.7%HM, HM containing 33% Zircon, 16% Ti Minerals (49% VHM)
- Only a very small portion of the total T16 prospect area has to date been drilled.

■ For further information see ASX Release dated 22 January 2014
 ASX:MLM





Simple Mine-Barge-Ship Strategy (1)

- Simple shallow dig, basic processing, truck, barge, ship HM Con & Bx
- Low Capex, low start up cost, relatively quick startup (start small & grow)
- Focus only on accessible HMS & DSO Bauxite deposits (coastal)
- Close to bargable river-creek/mouths & protected deep waters (ships)



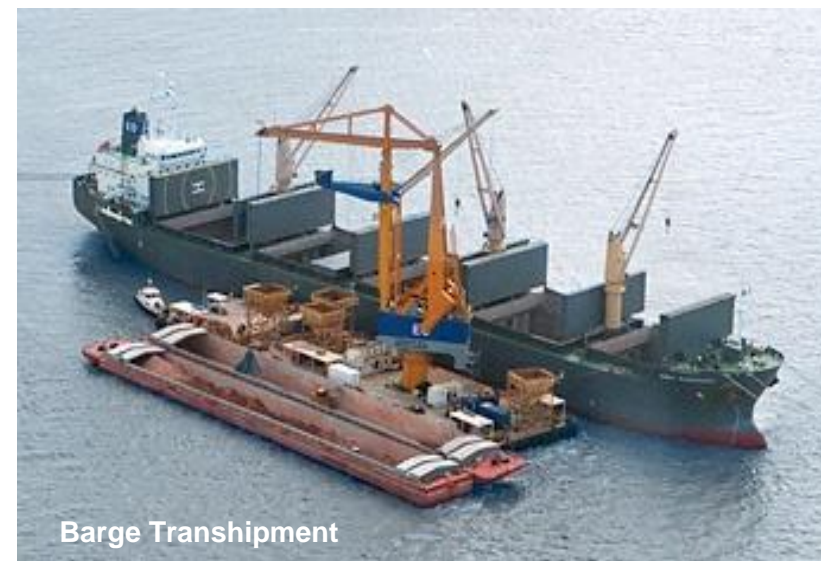
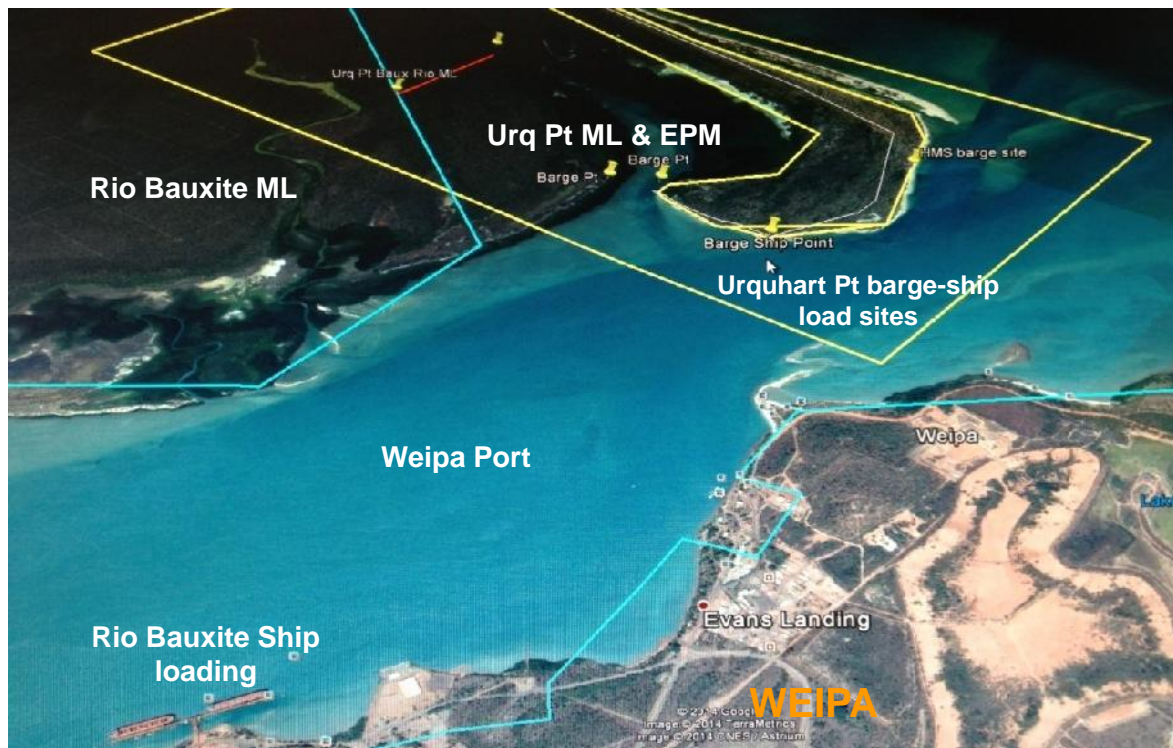
Barge in deep ship channel next to Urquhart Pt

Barge in landed drill rig on Urquhart Pt beach

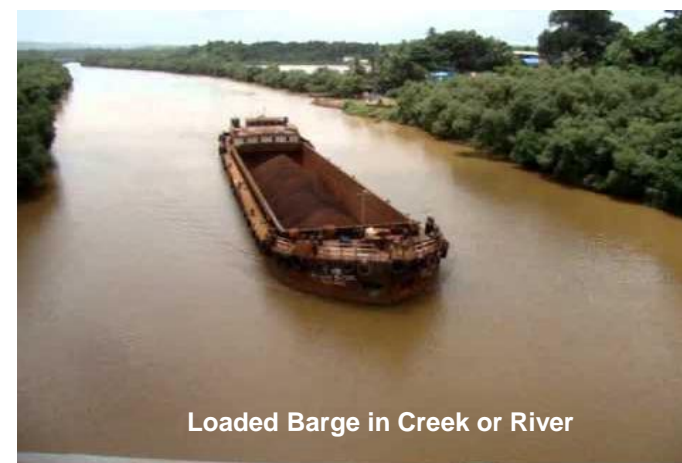


Simple Mine-Barge-Ship Strategy (2)

Photos that encapsulate strategy



Barge Transhipment



Loaded Barge in Creek or River

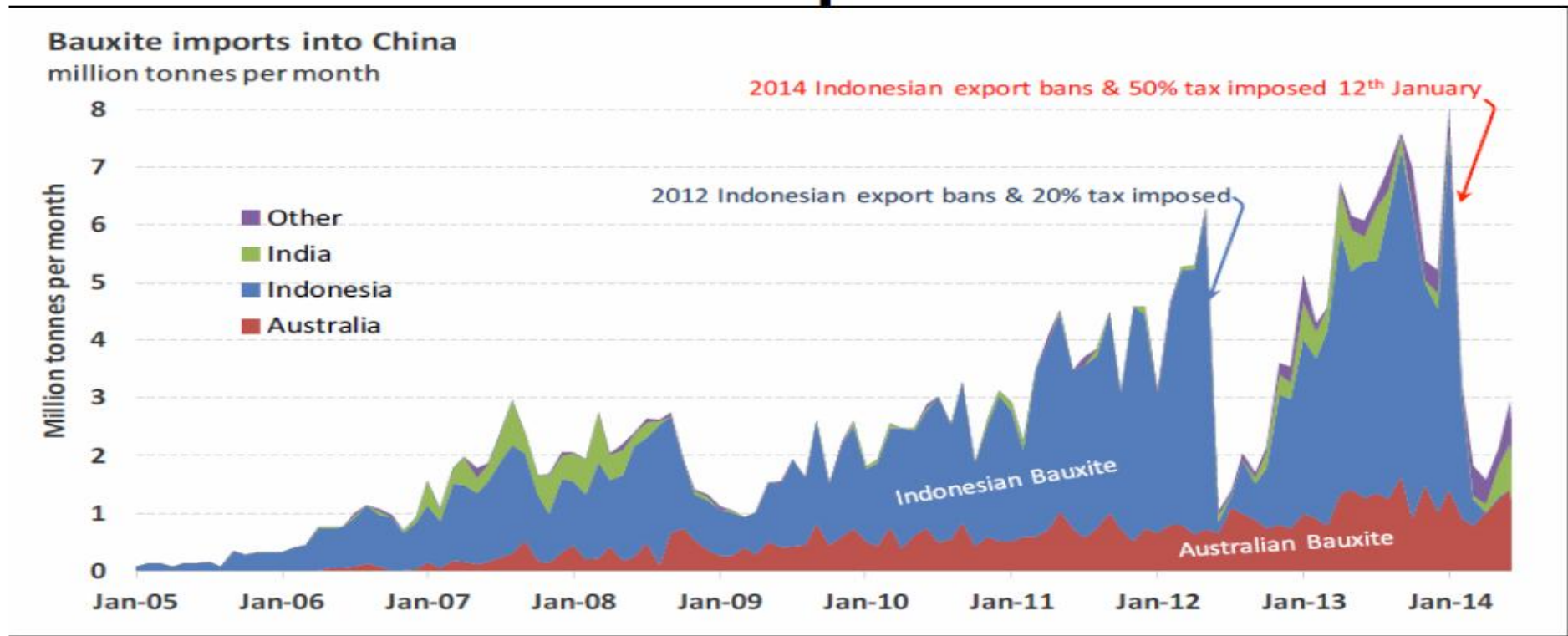
Barge in navigable
creek or river





Bauxite Market Outlook - Indonesian Bx Bans, (2013 supplied $\frac{3}{4}$ Chinese Imports), Forecasts Increasing Demand & Price

Bauxite Volumes Imported into China



Source: ABX Quarterly Report June 2014

- Indonesia, the largest global exporter has implemented an export ban on bauxite and other minerals unless they are processed. This is a major opportunity for Queensland to replace this supply

- ✓ Increasing bauxite demand and prices are expected to intensify due to the simultaneous major reduction in bauxite supply from Indonesia and India, and increased demand for alumina to supply rising aluminium production and consumption in China, India and Middle East.

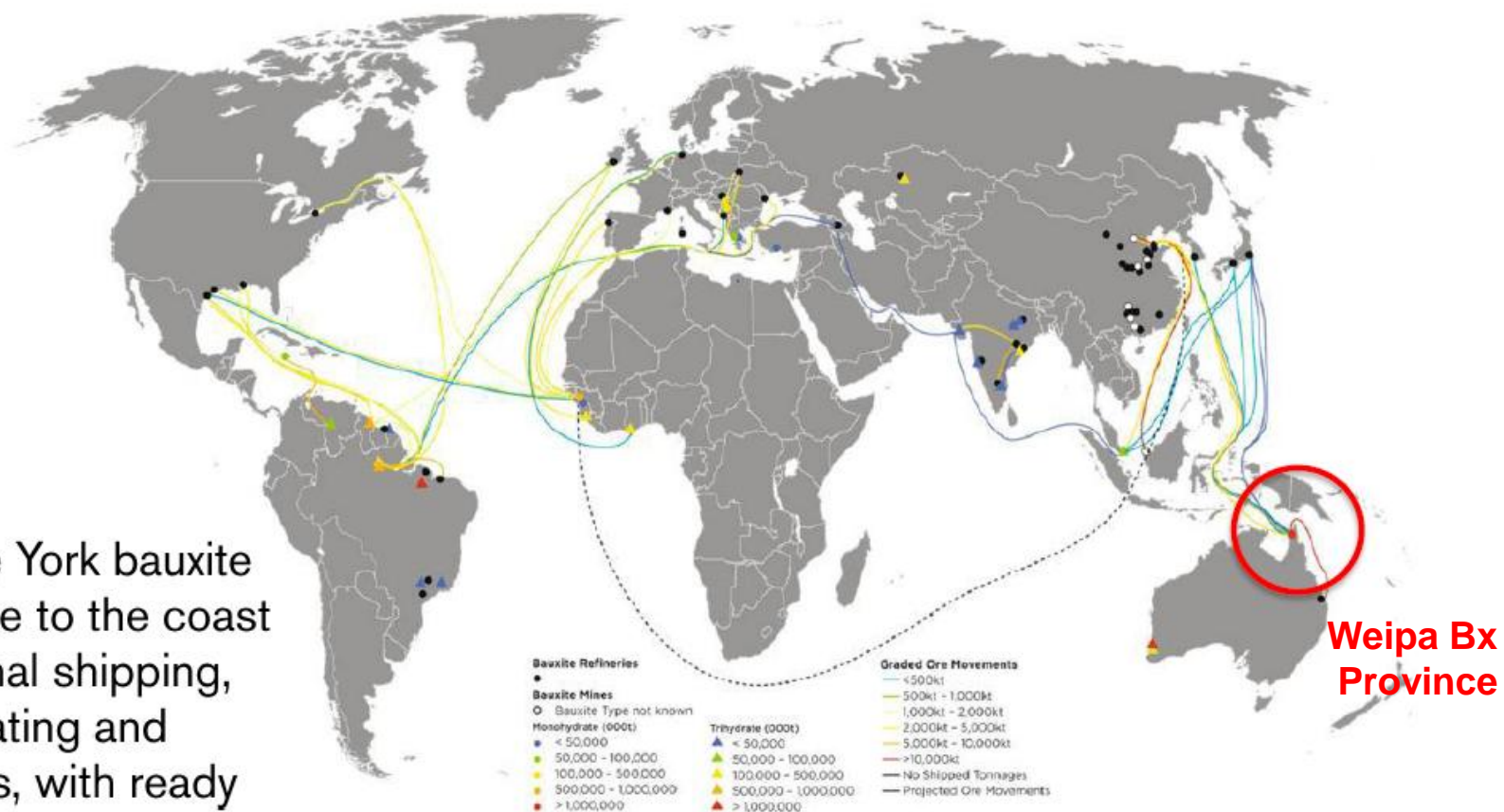


Weipa Bauxite Advantage

Well Known Quality, Coastal & Relatively Close to China

Global Bauxite Shipping Route

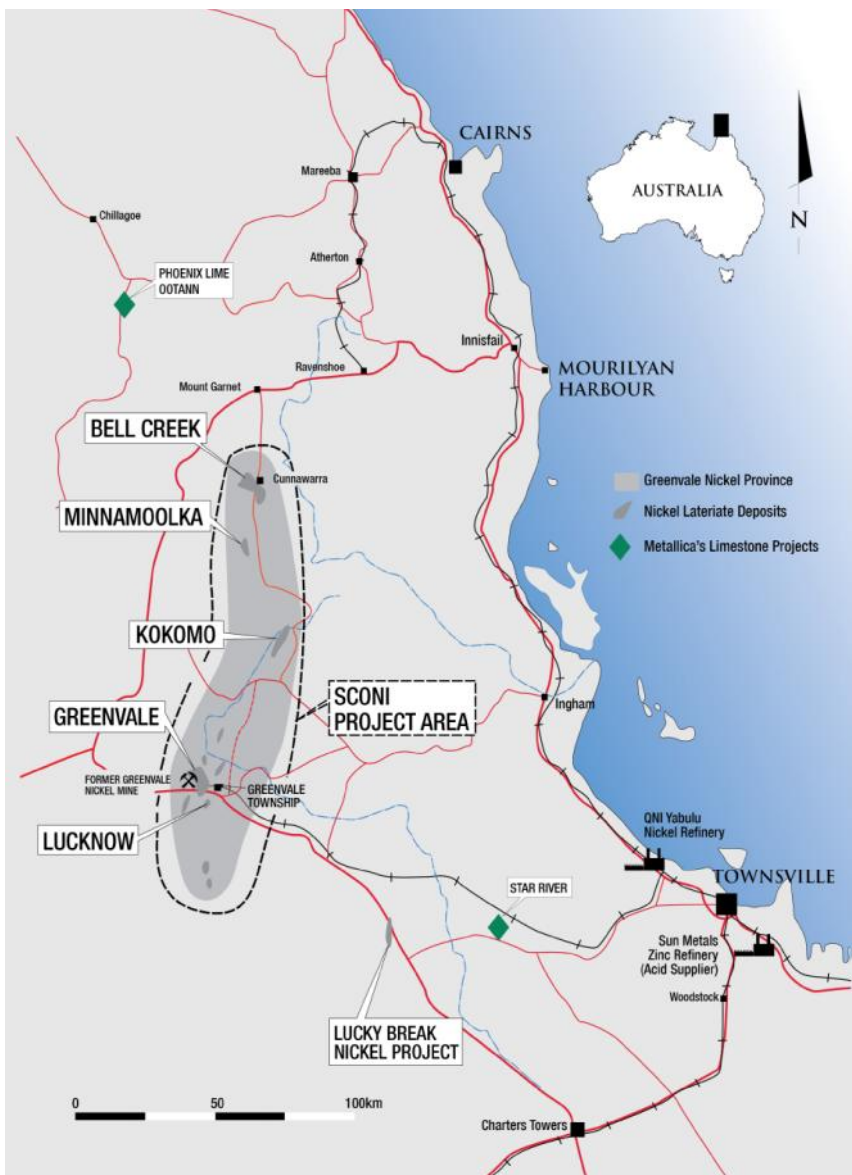
Western Cape York bauxite is located close to the coast and international shipping, lowering operating and transport costs, with ready access to ship-borne trade to China or the Middle East



Source: Alufer



SCONI Scandium-Cobalt-Nickel Tri-metal Project



- ✓ Greenvale – Ideal location
- ✓ Established JORC Ni-Co & Sc laterite Resources – 89Mt combined resources containing 514kt Ni, 55kt Co, 4,300t Sc metals (see Tables back this presentation p 33-36)
- ✓ Historical Greenvale nickel mine site - Mined 1974 – 92 produced 40Mt @ 1.56% Ni, 0.12% Co (containing 624,000t Ni & 48,000t Co)
- ✓ Low sovereign risk country
- ✓ Close proximity to industrial services & port in Townsville
- ✓ Good metallurgical ore types, own Sc recovery IP
- ✓ Low environmental impact & strong community support



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THANK YOU

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Urquhart Point HMS Resource Estimate

■ Global Mineral Resource – 0% HM COG

See ASX Release dated 20 May 2014

COG = 0% HM								
Resource Category	Tonnes	HM%	HM Tonnes	OS%	Slimes%	Zircon %	Rutile %	Ilmenite %
Measured	1,945,360	6.92	134,529	13.83	1.07	10.2	12.5	12.5
Indicated	1,365,440	4.60	62,746	15.33	1.15	11.4	10.9	13.2
Total	3,310,800	5.96	197,275	14.45	1.11	10.6	12.0	12.7

■ Mineral Resource constrained by mining lease and environmental buffers – 0% HM COG

COG = 0% HM								
Resource Category	Tonnes	HM%	HM Tonnes	OS%	Slimes%	Zircon %	Rutile %	Ilmenite %
Measured	1,882,960	6.57	123,716	14.17	1.07	9.7	12.0	12.4
Indicated	1,345,840	4.60	61,930	15.41	1.16	11.4	10.9	13.2
Total	3,228,800	5.75	185,646	14.68	1.11	10.3	11.6	12.7

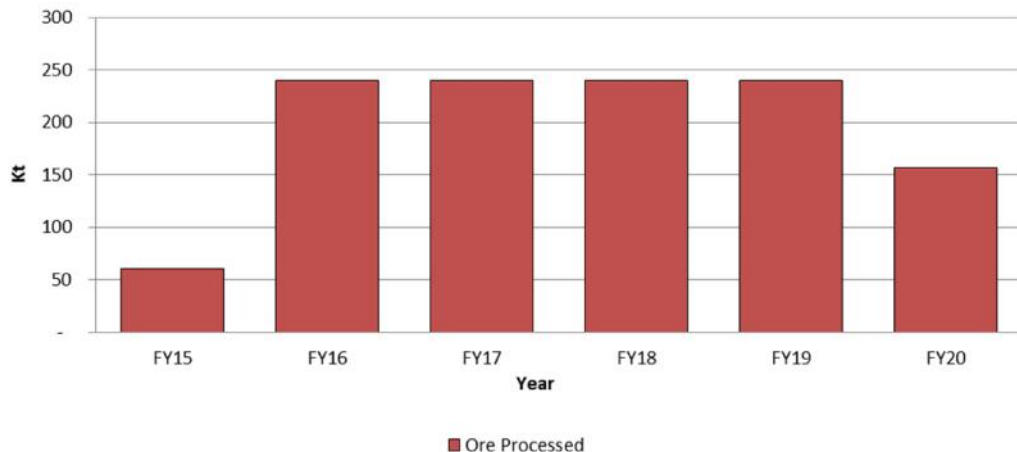
■ Mineral Resource constrained by mining lease and environmental buffers – 2% HM COG

COG = 2% HM								
Resource Category	Tonnes	HM%	HM Tonnes	OS%	Slimes%	Zircon %	Rutile %	Ilmenite %
Measured	1,781,360	6.85	122,090	12.46	1.03	9.8	12.0	12.4
Indicated	1,305,680	4.70	61,335	14.44	1.15	11.4	10.9	13.2
Total	3,087,040	5.94	183,425	13.30	1.08	10.3	11.6	12.7

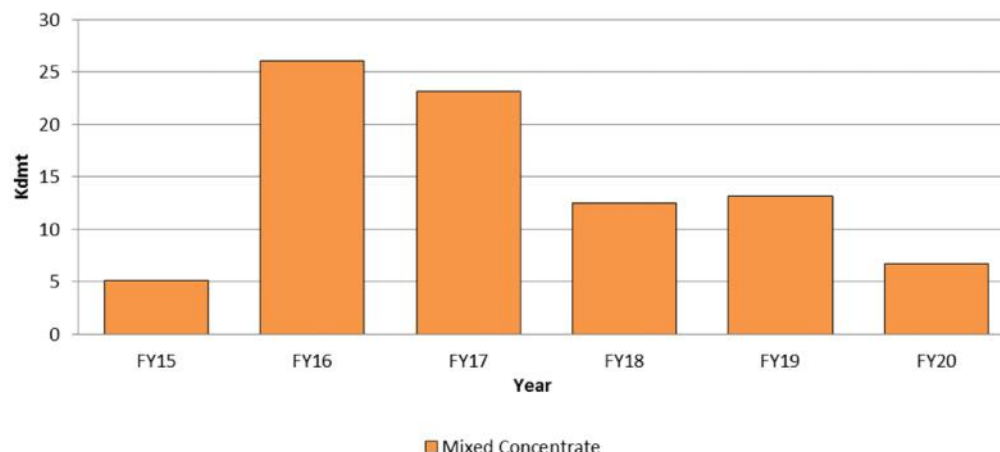


Annual Urquhart Pt Production Forecast - Physicals

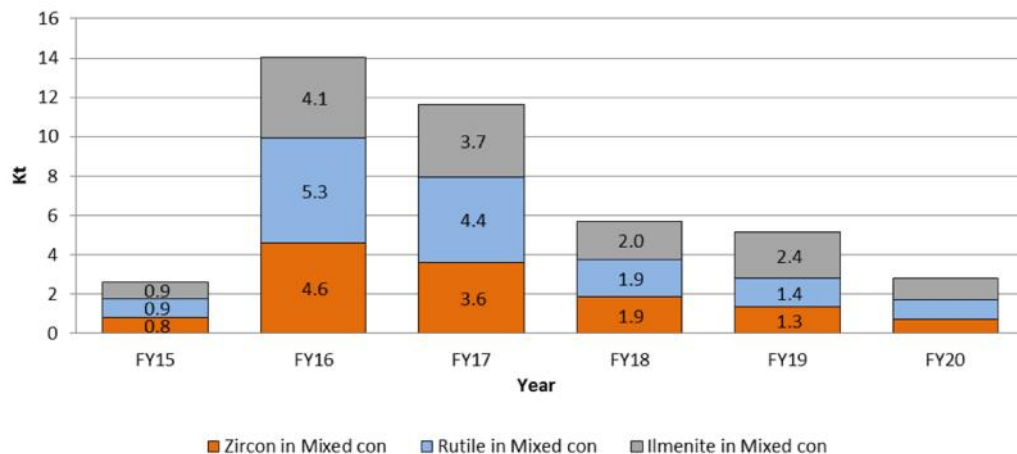
Ore Processed



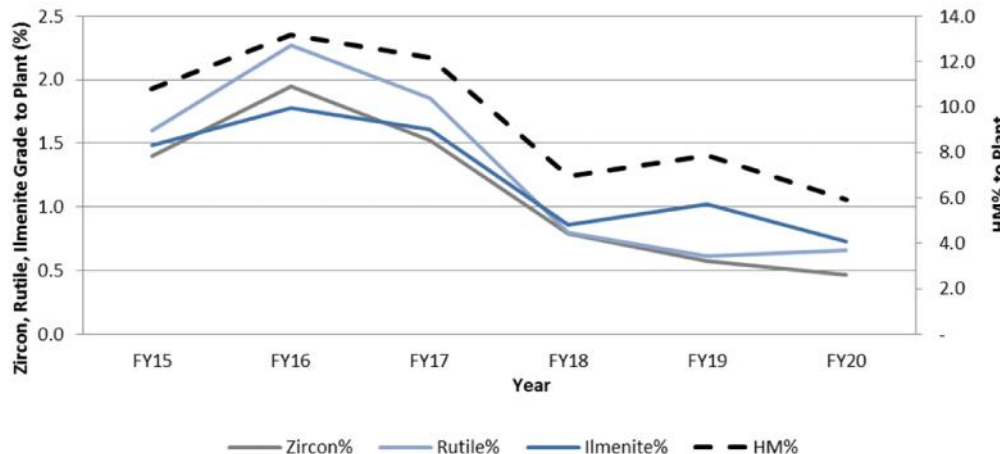
Concentrate Tonnes



Total Zircon, Rutile and Ilmenite in Mixed Con



Grade to Plant (HM%, Zircon%, Rutile%, Ilmenite%)

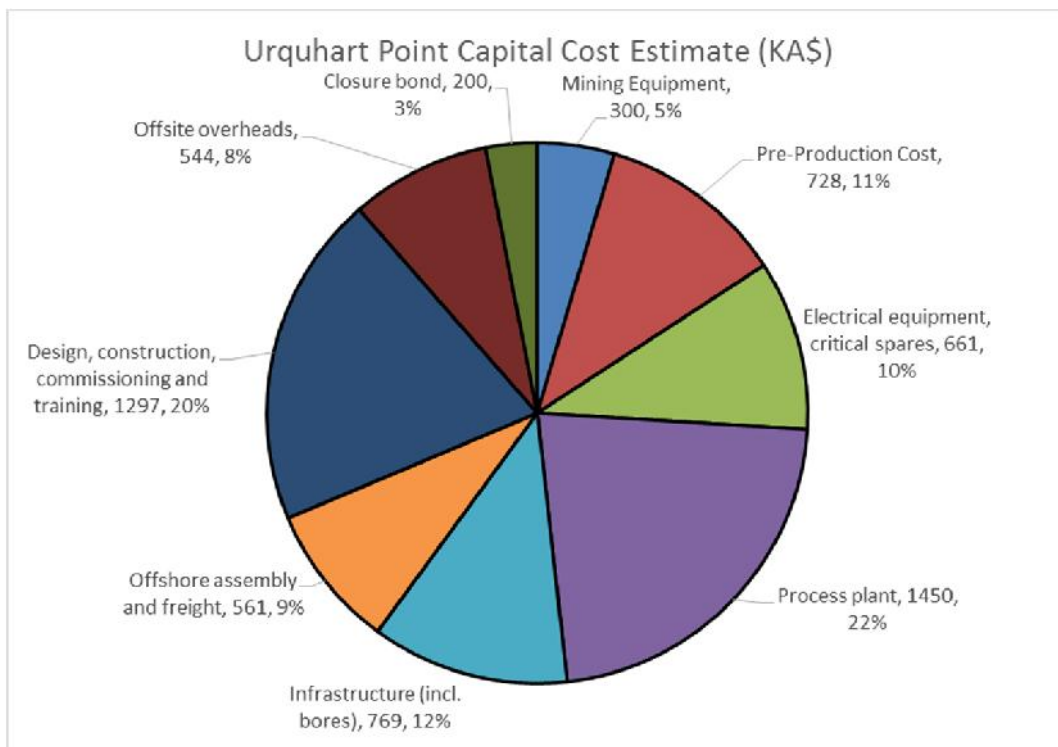




Urquhart Point HMS Project Capital Cost Estimate

Capital Item	A\$ '000
Mining Equipment	300
Pre-Production Cost	728
Electrical equipment, critical spares	661
Process plant	1450
Infrastructure (incl. bores)	769
Offshore assembly and freight	561
Design, construction, commissioning and training	1297
Offsite overheads	544
Closure bond	200
Total	6,510

- The capital costs have been prepared to a -10%/+20% accuracy level and are quoted in 2014 Australian dollars
- The capital cost estimate includes the plant design, construction, commissioning and the training of operational personnel.





Oresome – Current Regional Bauxite Exploration Targets*

Project	Permit	Discrete Targets	Insitu mineralisation tonnage range (Mt) ⁽²⁾	Total Al ₂ O ₃ (%) ⁽³⁾	Total SiO ₂ (%) ⁽³⁾
Urquhart					
Point	EPM15268	2	5 to 10	43-55	5-18
Vrilya	EPM15371	3	2 to 6	40-47	insufficient data ¹
	EPMA25509	7	12 to 36	40-48	10-19 ¹
Vrilya East					
	EPMA25687	3	28 to 86	40-43	insufficient data ¹
TOTAL		15	47 to 138		

¹ previous exploration reports SiO₂ data incomplete

² range based on measured areas of target plateaus, minimum thickness of ≥0.5m bauxite, estimated average thickness of 1.5m from previous exploration data and bulk density value of 1.5

³ based on screened sample assay results.

***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

For Further Information on Cape York Bauxite exploration and exploration targets see – *ASX Release dated 11 July 2014.*



For further details see ASX Release 21 October 2013 **Lucknow Scandium Resource**

Lucknow Scandium Resource using a 120g/t COG (excluding Ni-Co Resource)						
Description	Tonnes (Mt)	Sc (g/t)	Ni (%)	Co (%)	Fe (%)	Mg (%)
Measured	0.6	231	0.30	0.08	31.6	1.6
Indicated	5.1	191	0.23	0.06	34.9	1.1
Inferred	0.04	130	0.10	0.01	29.5	0.5
Totals	5.7	195	0.23	0.06	34.5	1.1

Competent Person's Statement

The SCONI Scandium-Cobalt-Nickel project Mineral Resource estimate(s) is based upon and accurately reflects data compiled, validated or supervised by Mr John Horton, Principal Geologist FAusIMM (CP) who is a full time employee of Golder Associates Pty Ltd. Mr Horton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Horton consents to the inclusion of this information in the form and context in which it appears in this document.

For full details on the SCONI scandium and nickel cobalt resource see Metallica ASX release – 21 October 2013



Southern Deposits Sc & Ni-Co Resource Statement

JORC 2012 - [For further details see ASX Release 21 October 2013](#)



Southern Deposits – COG NiEq (Ni + 1.5Co + 0.01Sc) = 0.7%								
Description	Tonnes (Mt)	Ni (%)	Co (%)	Sc (g/t)	Ni Metal (kt)	Co Metal (kt)	Sc Metal (t)	Equivalent Sc Oxide (t)
Kokomo								
Measured	2.2	0.57	0.11	80	12.2	2.5	173	265
Indicated	17.2	0.56	0.09	49	95.8	15.5	843	1,292
Inferred	10.2	0.36	0.04	59	36.7	4.5	603	924
Totals	29.5	0.49	0.08	55	144.8	22.4	1,619	2,483
Greenvale (Insitu & Dumps)								
Measured	5.4	0.77	0.06	39	41.6	3.3	208	319
Indicated	10.5	0.70	0.05	36	74.3	5.3	379	581
Inferred	11.5	0.42	0.03	44	48.8	4.0	509	780
Totals	27.4	0.60	0.04	40	164.8	12.7	1,097	1,682
Lucknow								
Measured	1.7	0.45	0.10	103	7.9	1.8	180	276
Indicated	10.6	0.27	0.07	128	28.5	7.2	1,357	2,081
Inferred	1.5	0.40	0.07	41	5.8	1.0	60	92
Totals	13.8	0.31	0.07	116	42.2	10.0	1,597	2,449
Combined Southern Deposits (COG 0.7%)								
Measured	9.3	0.66	0.08	60	61.7	7.6	561	860
Indicated	38.3	0.52	0.07	67	198.7	28.0	2,580	3,957
Inferred	23.2	0.39	0.04	51	91.4	9.6	1,172	1,797
Totals	70.7	0.50	0.06	61	351.8	45.2	4,313	6,615

Southern Deposits – COG NiEq = 1.0% (Ni + 1.5 Co + 0.01 Sc)								
Description	Tonnes (Mt)	Ni (%)	Co (%)	Sc (g/t)	Ni Metal (kt)	Co Metal (kt)	Sc Metal (t)	Equivalent Sc Oxide (t)
Combined Southern Deposits (COG 1.0%)								
Measured	6.2	0.79	0.10	73	48.8	6.2	451	691
Indicated	23.2	0.56	0.08	92	129.5	19.5	2,140	3,282
Inferred	6.6	0.49	0.06	67	32.9	3.9	445	682
Totals	36.1	0.59	0.08	84	211.2	29.5	3,036	4,656



Northern Deposits Ni-Co Resource Statement



Northern Deposits – COG NiEq (Ni + 1.5Co) = 0.7%					
Description	Tonnes (Mt)	Ni (%)	Co (%)	Ni Metal (kt)	Co Metal (kt)
Bell Creek South					
Measured	7.8	0.96	0.07	75.5	5.1
Indicated	0.1	0.81	0.05	1.2	0.1
Totals	8.0	0.96	0.06	76.7	5.2
Bell Creek North					
Indicated	2.0	0.86	0.03	16.8	0.5
Totals	2.0	0.86	0.03	16.8	0.5
Bell Creek Northwest					
Indicated	2.5	0.81	0.05	20.1	1.2
Totals	2.5	0.81	0.05	20.1	1.2
The Neck					
Indicated	0.4	0.84	0.03	3.5	0.1
Totals	0.4	0.84	0.03	3.5	0.1
Minnamoolka					
Indicated	4.7	0.82	0.05	38.3	2.1
Inferred	0.9	0.78	0.04	6.7	0.3
Totals	5.5	0.82	0.04	45.0	2.4
Combined Northern Deposits					
Measured	7.8	0.96	0.07	75.5	5.1
Indicated	9.7	0.83	0.04	79.9	4.0
Inferred	0.9	0.78	0.04	6.7	0.3
Totals	18.4	0.88	0.05	162.1	9.4

Notes to Resource Statements

1. Scandium is typically sold as an oxide product. Hence the equivalent scandium oxide has been calculated at 1.534 times contained scandium metal.
2. The resources for the Southern Deposits of Lucknow, Greenvale and Kokomo are reported at a cut-off grade (COG) of NiEq 0.7% (Ni + 1.5Co + 0.01Sc). This NiEq COG formula has been calculated using commodity prices of US\$10/lb nickel, US\$15/lb cobalt and US\$1,500/kg scandium oxide, and recoveries of 90% for all three metals. Metallica indicates that the metallurgical testwork to date provides reasonable potential for the nickel, cobalt and scandium to be recovered at similar recoveries to those achieved in the testwork.
3. The Mineral Resources for the Northern Deposits of Bell Creek South, Bell Creek North, Bell Creek Northwest, Minnamoolka and The Neck are reported at a COG of NiEq 0.7% (Ni + 1.5Co). This NiEq COG formula has been calculated using commodity prices of US\$10/lb nickel and US\$15/lb cobalt, and recoveries of 90% for both nickel and cobalt.
4. No scandium content was estimated in the Northern deposits as Sc assays are generally not available. From limited data there is good indication the Northern deposits are relatively low in Sc (generally between 5 and 30 g/t Sc).
5. Variations in total may be present due to rounding factors.
6. For further details on the SCONI scandium and nickel cobalt resource see Metallica ASX release SCONI Mineral Resource upgrade – 21 October 2013

Technical information and exploration results contained in this report have been compiled by Metallica Minerals Ltd full time employee Andrew Gillies B.Sc MAusIMM in the position of Managing Director. Mr Gillies has sufficient experience that is relevant to the style of mineralisation being reported on to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Minerals Resources and Ore Reserves. Mr Gillies consents to the inclusion in this report of the matters based on the information in the form and context in which it appears

The SCONI Scandium-Cobalt-Nickel project Mineral Resource estimate(s) is based upon and accurately reflects data compiled, validated or supervised by Mr John Horton, Principal Geologist FAusIMM (CP) and is a full time employee of Golder Associates Pty Ltd. Mr Horton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Horton consents to the inclusion of this information in the form and context in which it appears in this presentation.

For further details see ASX Release 21 October 2013



Combined SCONI Mineral Resource

For further details see ASX Release 21 October 2013

SCONI
Scandium • Cobalt • Nickel

Total SCONI Project Mineral Resources - COG NiEq (Ni + 1.5Co + 0.01Sc) = 0.7%								
Deposit	Tonnes (Mt)	Nickel (Ni) %	Cobalt (Co) %	Scandium (Sc) g/t	Ni Metal (kt)	Co Metal (kt)	Sc Metal (t)	Sc Oxide (t)
Kokomo								
Total	29.5	0.49	0.08	55	144.8	22.4	1,619	2,483
Greenvale In-situ								
Total	16.3	0.73	0.05	38	118.8	8.9	614	941
Greenvale dumps and stockpiles								
Total	11.1	0.42	0.03	44	46	3.8	483	741
Lucknow								
Total	13.8	0.31	0.07	116	42.2	10	1,597	2,449
Combined SCONI South Project Resource								
Measured	9.3	0.66	0.08	60	61.7	7.6	561	860
Indicated	38.3	0.52	0.07	67	198.7	28.0	2,580	3,956
Inferred	23.2	0.39	0.04	51	91.4	9.6	1,172	1,798
Total	70.7	0.50	0.06	61	351.8	45.2	4,313	6,615
Bell Creek South								
Total	8.0	0.96	0.06	-	76.7	5.2	-	-
Bell Creek North								
Total	2.0	0.96	0.03	-	16.8	0.5	-	-
Bell Creek Northwest								
Total	2.5	0.81	0.05	-	20.1	1.2	-	-
The Neck (part Bell Creek)								
Total	0.4	0.84	0.03	-	3.5	0.1	-	-
Minnamoolka								
Total	5.5	0.82	0.04	-	45	2.4	-	-
Combined SCONI Northern deposits Resource								
Measured	7.8	0.96	0.07	-	75.5	5.1	-	-
Indicated	9.7	0.83	0.04	-	79.9	4.0	-	-
Inferred	0.9	0.78	0.04	-	6.7	0.3	-	-
Total	18.4	0.88	0.05	-	162.1	9.4	-	-
Combined SCONI (Southern and Northern deposits) Resource								
Measured	17.1	0.8	0.07	33	137.3	12.7	561	860
Indicated	48.0	0.58	0.07	54	278.6	32.0	2,580	3,957
Inferred	24.0	0.41	0.04	49	98.1	9.9	1,172	1,797
Total	89.1	0.58	0.06	48	514	54.5	4,313	6,615

Northern deposits Sc grade is typically low (5-30 g/t Sc), therefore no Sc Resource estimated. Resultant Sc grade for combined SCONI (South and North) Project is therefore low.

Variations in totals may be due to rounding factors.

Total SCONI Project Mineral Resources - COG NiEq (Ni + 1.5Co + 0.01Sc) = 1.0%								
Deposit	Tonnes (Mt)	Nickel (Ni) %	Cobalt (Co) %	Scandium (Sc) g/t	Ni Metal (kt)	Co Metal (kt)	Sc Metal (t)	Sc Oxide (t)
Kokomo								
Total	13.9	0.56	0.10	80	77.4	14.2	1,108	1,699
Greenvale In-situ								
Total	9.5	0.95	0.07	39	90.3	6.9	365	560
Greenvale dumps and stockpiles								
Total	2.6	0.58	0.05	40	15.1	1.3	103	158
Lucknow								
Total	10.1	0.28	0.07	145	28.4	7.3	1,459	2,238
Combined SCONI South Project Resource								
Measured	6.2	0.79	0.10	73	48.8	6.2	451	691
Indicated	23.2	0.56	0.08	92	129.5	19.5	2,140	3,281
Inferred	6.6	0.49	0.06	67	32.9	3.9	445	682
Total	36.1	0.59	0.08	84	211.2	29.5	3,036	4,656
Bell Creek South								
Total	3.6	1.21	0.08	-	43.3	3.0	-	-
Bell Creek North								
Total	0.4	1.16	0.04	-	4.8	0.1	-	-
Bell Creek Northwest								
Total	0.4	1.05	0.06	-	4.5	0.3	-	-
The Neck (part Bell Creek)								
Total	0.1	1.17	0.03	-	0.9	0.02	-	-
Minnamoolka								
Total	1.0	1.07	0.08	-	11.0	0.8	-	-
Combined SCONI Northern deposits Resource								
Measured	3.6	1.21	0.08	-	43.0	3.0	-	-
Indicated	1.9	1.09	0.06	-	20.4	1.2	-	-
Inferred	0.1	1.04	0.07	-	1.0	0.1	-	-
Total	5.5	1.16	0.08	-	64.5	4.3	-	-
Combined SCONI (Southern and Northern deposits) Resource								
Measured	9.8	0.94	0.09	46	91.9	9.2	451	691
Indicated	25.1	0.60	0.08	85	149.9	20.7	2,140	3,281
Inferred	6.7	0.50	0.06	66	33.9	3.9	445	682
Total	41.6	0.66	0.08	73	275.7	33.8	3,036	4,656

Northern deposits Sc grade is typically low (5-30 g/t Sc), therefore no Sc Resource estimated. Resultant Sc grade for combined SCONI (South and North) Project is therefore low.

Variations in totals may be due to rounding factors.