



METALLICA MINERALS

The Multi-Commodity Resource Development Company

For personal use only



NORNICO: Nickel-Cobalt & Scandium “Tri-Metal” Project



Noosa Mining Conference
14-15 July 2011

ASX:MLM



Disclaimer

Statements and material contained in this presentation, particularly those regarding possible or assumed future performance, production levels or rates, metal prices, resources or potential growth of Metallica Minerals Ltd, industry growth or other trend projections are, or may be, **Forward Looking Statements**. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties.

The NORNICO and Lucky Break Nickel Projects and the Weipa Heavy Mineral Sands projects are at the evaluation and feasibility stage and although reasonable care has been taken to ensure that the facts stated in this presentation are accurate and or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness.

Actual results and developments may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors.

At the date of this presentation Metallica Minerals holds approximately 45% of MetroCoal Limited which listed on the ASX on 4 December 2009, further information can be sourced from metrocoal.com.au

At the date of this presentation Metallica Minerals holds approximately 21% of Cape Alumina Ltd which listed on the ASX on 29 January 2009 and latest and more detailed information can be sourced from Cape Alumina and capealumina.com.au

At the date of this presentation Metallica Minerals holds approximately 15% of Orion Metals Limited, further information can be sourced from orionmetals.com.au

At the date of this presentation Metallica Minerals holds approximately 76% of Planet Metals Limited, further information can be sourced from planetmetals.com.au

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

This material is used for a company summary presentation only, for more detailed information the reviewer should seek company information as provided in Metallica's ASX releases, Annual and Quarterly Reports.

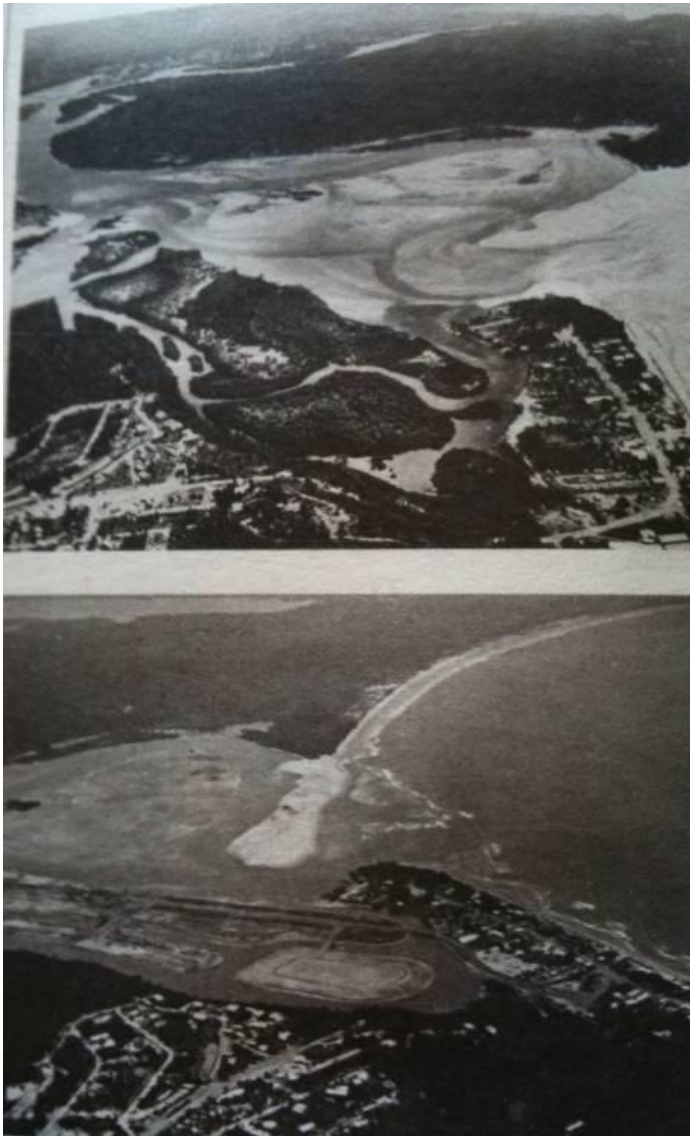
Technical information contained in this report has been compiled by Metallica Minerals Managing Director Mr Andrew Gillies B.Sc. M. AUSIMM and Metallica Minerals Ltd, who is a **competent person** and a member of the Australasian Institute of Mining and Metallurgy and have relevant experience to the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



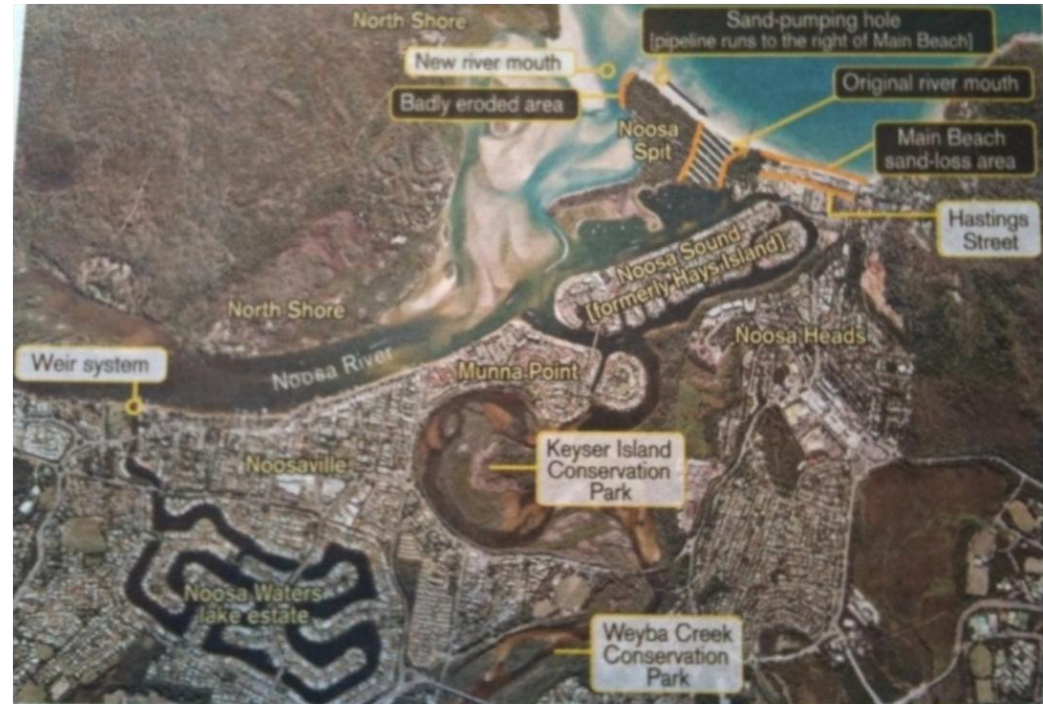
THE MULTI-COMMODITY RESOURCE COMPANY

ASX:MLM

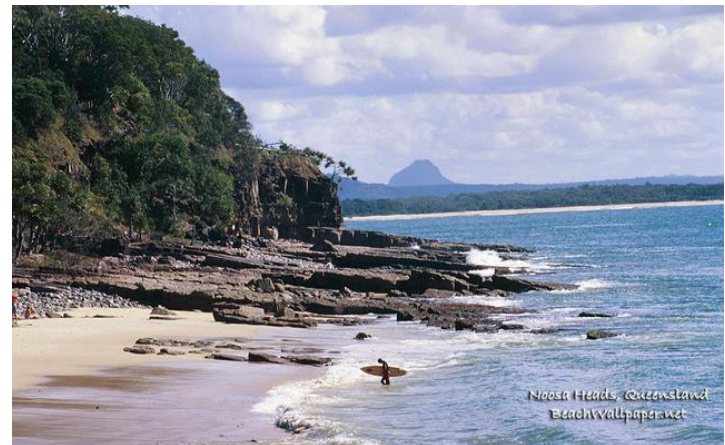
NOOSA.....then and now



1970's



Recent times



Noosa Heads, Queensland
BeachWallpaper.net



Metallica Minerals Limited

ASX Code: MLM

www.metallicaminerals.com.au

| | |
|-----------------------------------|------------|
| Share price (12 July 2011) | 42c |
| Shares on Issue ¹ | 117.1M |
| Market Cap | \$48M |
| Cash ² (31 March 2011) | \$4.31M |
| Investments | ~\$75.8M |

| Major Shareholders | |
|----------------------------|--------|
| Jien Mining Pty Ltd* | 19.48% |
| Golden Breed Ltd | 7.5% |
| RCF (Funds III LI & IV LP) | 6.1% |
| Top 20 shareholders | 56% |

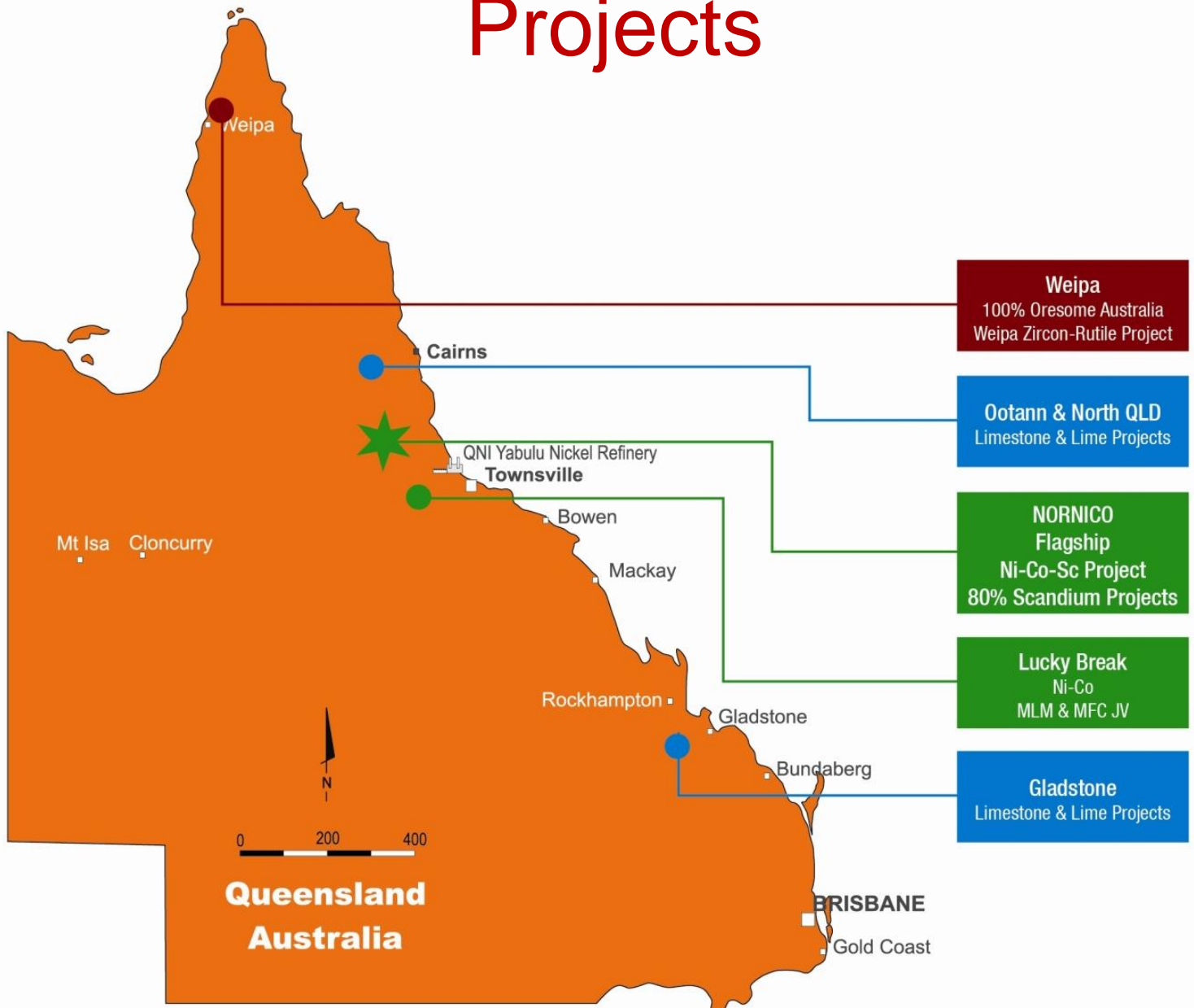
1. Post Rights Issue there will be 128.4M Shares on Issue.
2. Excluding \$4.9M gross proceeds from Rights Issue underwritten by RBS closed on 8th July 2011.



* Subsidiary of Jilin HOROC Non Ferrous Metal Group



Metallica's Resource Development Projects



THE MULTI-COMMODITY RESOURCE COMPANY

ASX:MLM



Metallica Board of Directors (5) & CEO

Experienced | Talented | Dedicated

- David Barwick | Non-Executive Chairman
- Andrew Gillies | Managing Director
- John Haley | CFO Director/Company Sec
- Barry Casson | Non-Executive Director
- Wu Shu | Non-Executive Director (Tao Li | Alternate Director)



- Gavin Becker | CEO
Appointed 28 June 2011

L-R Tao Li, Barry Casson, Andrew Gillies,
David Barwick (seated), John Haley



Corporate Strategy

Mission & Vision

- Become a highly profitable resource developer & producer—**flagship NORNICO**
- **NORNICO Ni-Co-Sc “Tri-Metal” production targeted mid 2014**
- **Zircon-Rutile production targeted early 2013**
- Limestone/Lime projects ready for development awaiting market off-take
- High social, environmental and safety standards
- Deliver high returns for shareholders



Strategic Objectives

- **Generate Cashflow Business** (NORNICO, Weipa HMS, Limestone)
- Become **Ni-Co-Sc metal producer & world’s major producer of Sc**
- **Maximise our (4) ASX listed Investment** holdings (MTE, CBX, PMQ, ORM)
- Maintain adequate funding & high quality staff



NORNICO Ni-Co-Sc Project | MLM 100% Excellent Location

Flagship Project



Greenvale Township

THE MULTI-COMMODITY RESOURCE COMPANY

ASX:MLM



Table 1

NORNICO Ni-Co Resource Base

Containing approx **400,000t Nickel & 42,000t Cobalt**

Approximately 90% in Measured & Indicated

| Nickel-Cobalt Deposit | Million Tonnes (Mt) | Ni (%) | Co (%) | Insitu Contained Ni Metal | Insitu Contained Co Metal |
|-----------------------|---------------------|-------------|-------------|---------------------------|---------------------------|
| Bell Creek S | 9.12 | 0.97 | 0.07 | 88,086 | 6,040 |
| Bell Creek N | 2.30 | 0.83 | 0.03 | 19,090 | 621 |
| Bell Creek NW | 3.07 | 0.77 | 0.05 | 23,639 | 1,443 |
| The Neck | 0.84 | 0.84 | 0.03 | 7,056 | 218 |
| Minnamoolka | 7.08 | 0.80 | 0.04 | 56,408 | 2,872 |
| Kokomo | 16.20 | 0.67 | 0.12 | 107,910 | 19,450 |
| Greenvale Mine Site | 8.00 | 1.04 | 0.08 | 83,355 | 6,573 |
| Lucknow | 2.43 | 0.58 | 0.20 | 13,990 | 4,773 |
| TOTAL | 49.04 | 0.81 | 0.09 | 399,534 | 41,990 |

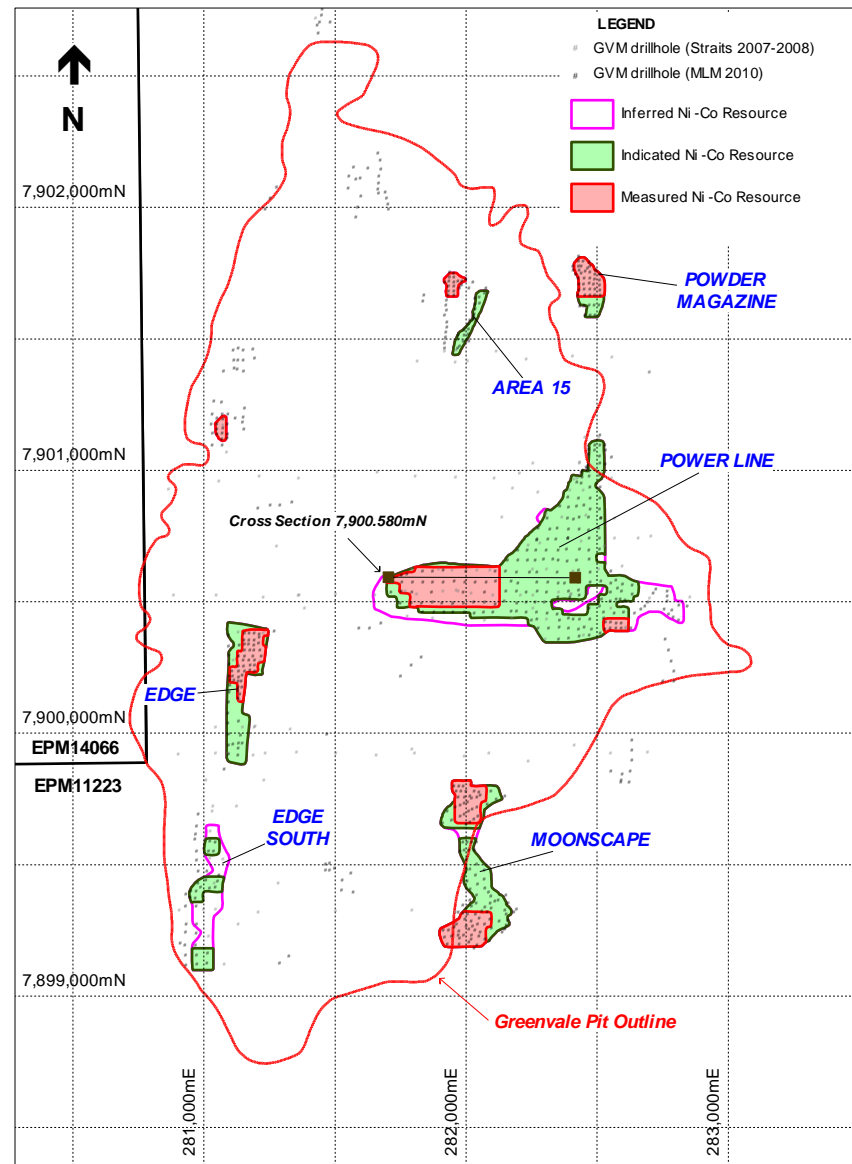
Note – using 0.7% NiEq (Ni+2Co) COG

See Table at end of this presentation providing individual breakdown of Measured, Indicated and Inferred resource categories.



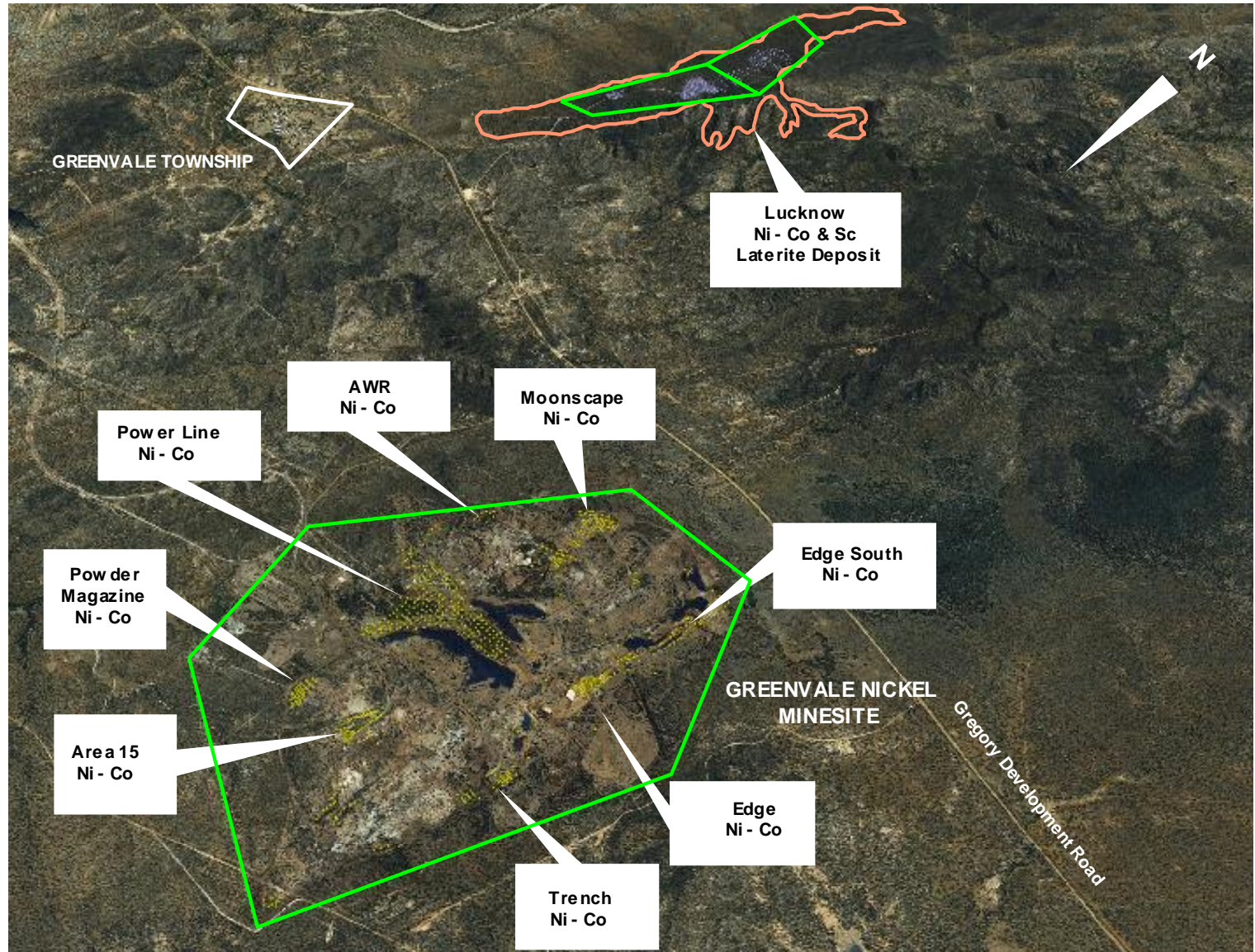
Proposed NORNICO – Ni-Co & Sc Greenvale Mine & Processing Site

- ✓ Remnant >1.2% NiEq (Ni+2Co) ores (~35g/tSc)
- ✓ Excellent processing site
- ✓ Established infrastructure
- ✓ Greenvale township 3km
- ✓ High scandium ores at Lucknow (8km) & Kokomo (55Km) > 200g/t Sc
- ✓ 3 metals recovered (Ni plus Co & Sc) using same HPAL process & plant (recovers > 90% Ni, Co & Sc)



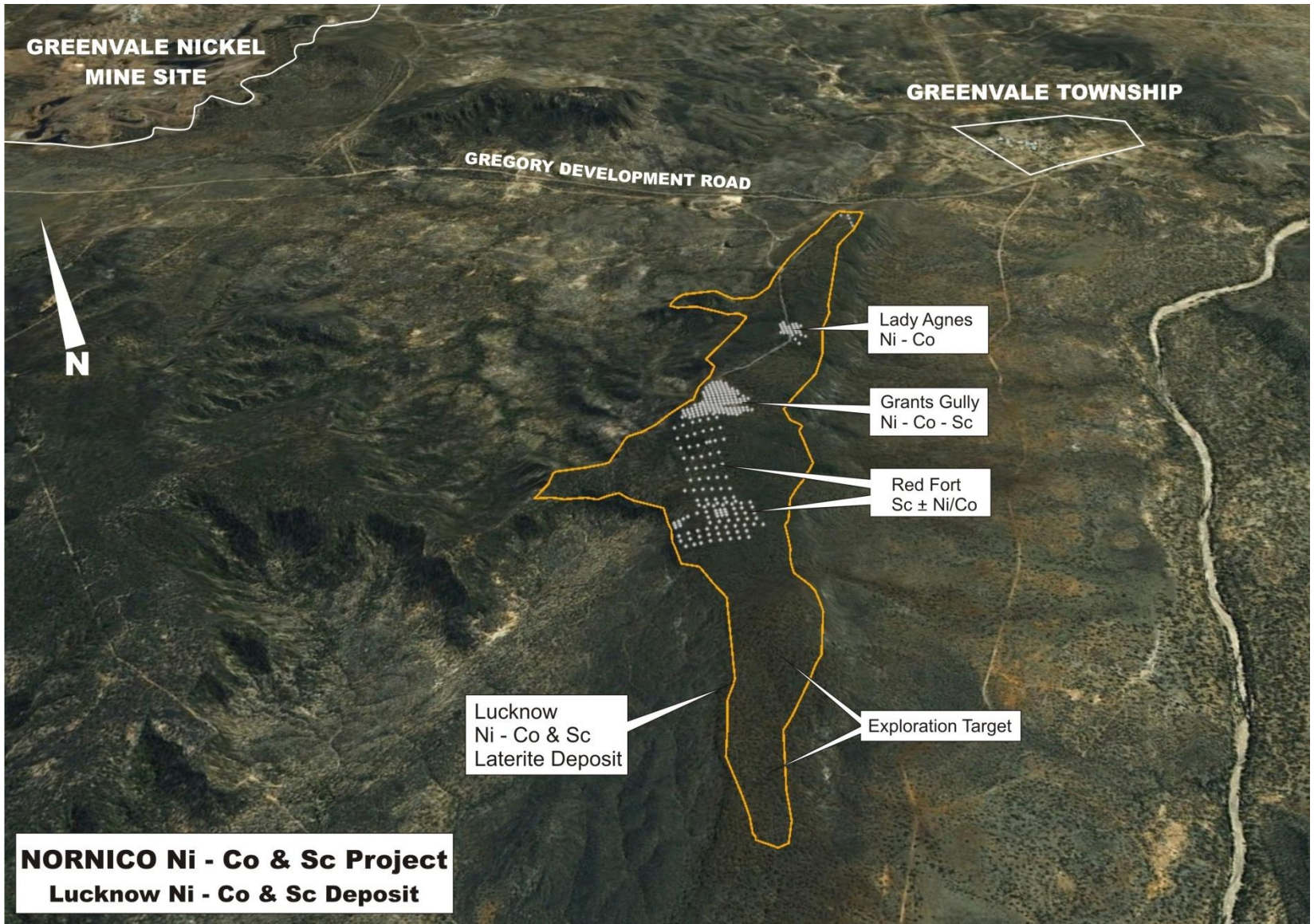


NORNICO – Greenvale Nickel Minesite looking ESE towards Greenvale township and the Lucknow deposit





NORNICO — looking N from Lucknow Ni-Co-Sc deposit to Greenvale Mine Site ~8km road distance





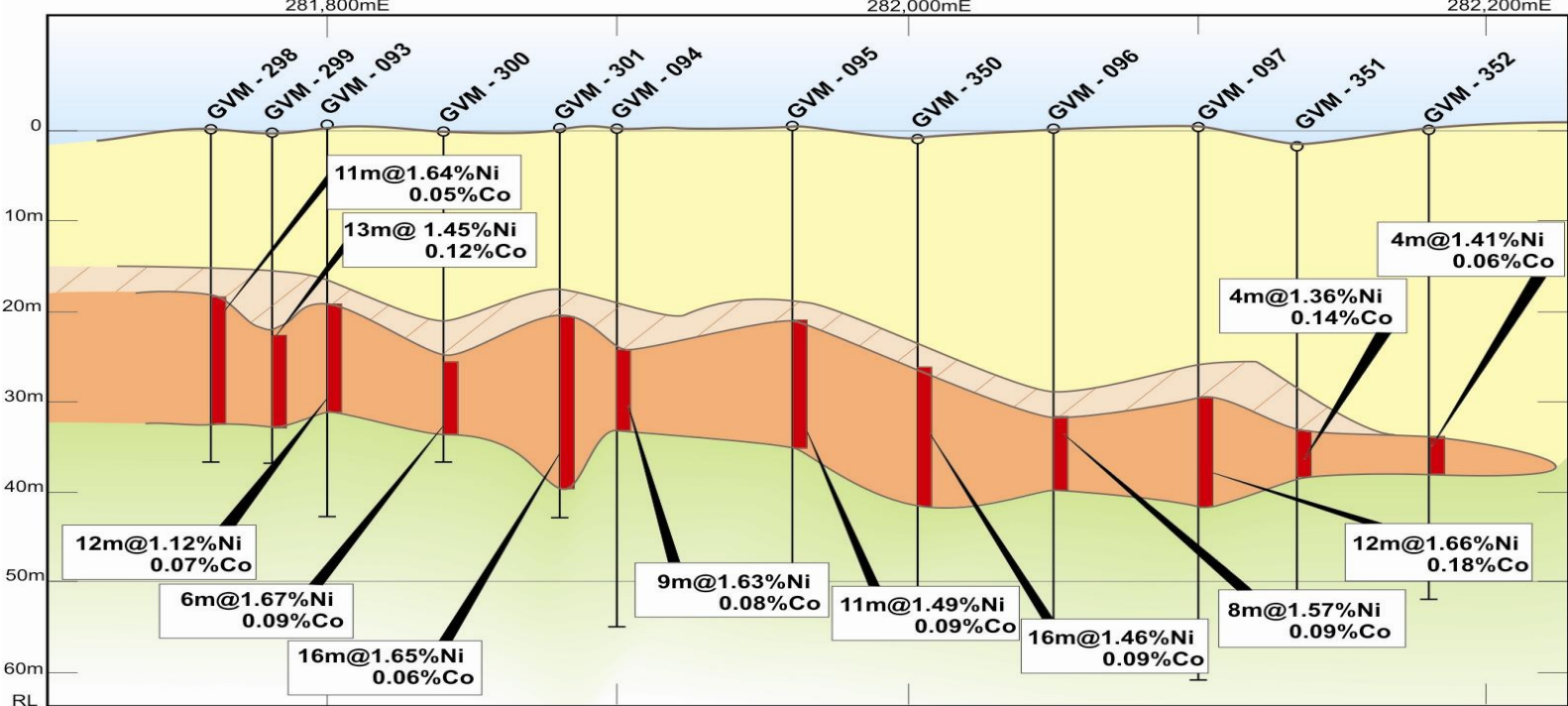
NORNICO Ni-Co & Sc

“Tri-Metal Project” – Enhanced Strategy

- Enhanced development strategy **using proven HPAL**
- **Increased plant size** to ~500kt Ni-Co-Sc ore/pa
- Delivers **economies of scale** – capital & operating cost benefits
- Metallurgical studies, flowsheet, feasibility studies will focus on **HPAL processing (more efficient, proven bankable technology)**
- Ensures the valuable high Sc (typically high Fe) ores can be treated with **>90% recovery & low acid consumption**
- Including **onsite acid & power plant** to provide acid, heat & electricity (cost benefits/lower op costs)
- Initial HPAL testwork indicates 90% Ni-Co + 85-95% Sc extraction from Ni-Co-Sc ores with **>95% extractions on high grade Sc ore (200g/t Sc)**
- Maiden **production targeted 2014** (~6,000t Ni+Co & > 40,000 kg Sc oxide)
- Positions Metallica to become the **worlds major and long term supplier of Sc**
- **Retaining AAL processing** option as a potential add-on process using surplus acid to boost future Ni production



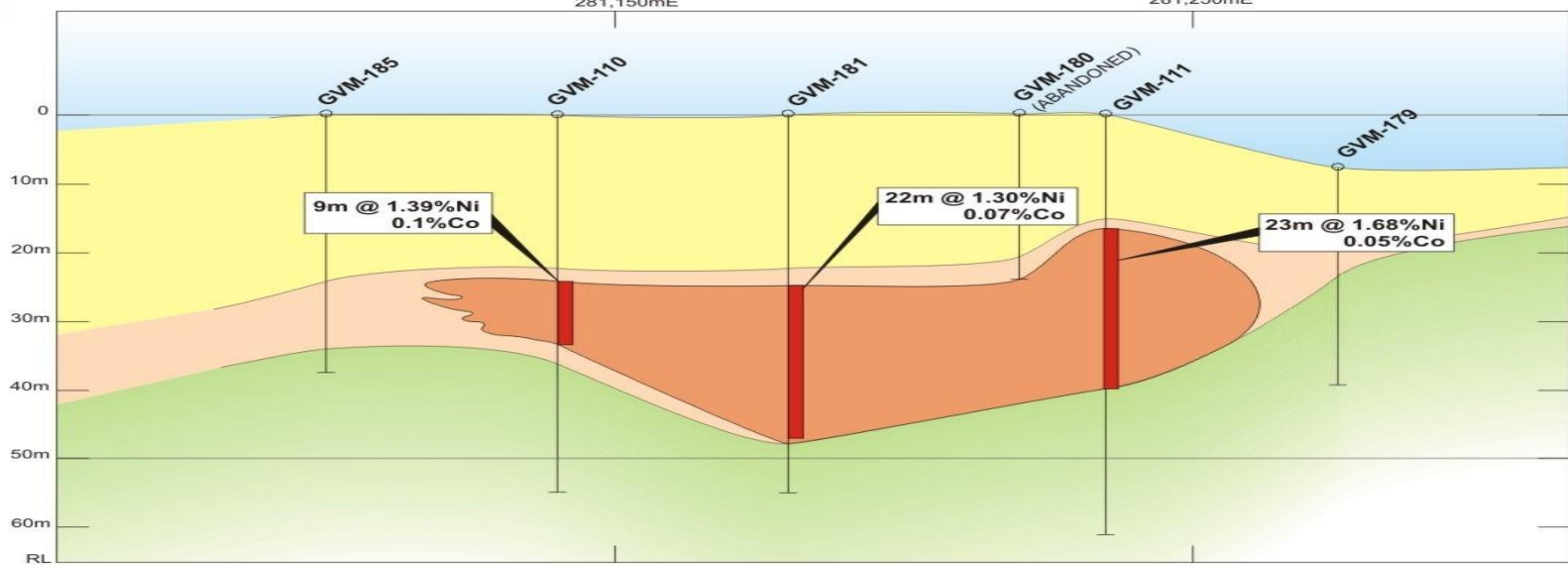
THE MULTI-COMMODITY RESOURCE COMPANY



Power Line - Cross Section
GREENVALE 7.900.620mN



- Hematite Zone (depleted in Nickel)
- Silica Box Zone (Low - Medium Ni)
- Strongly Ni - Co Mineralised Laterite



The Edge - Cross Section
GREENVALE 7,900,380mN



- Hematite Zone (depleted in Nickel)
- Weakly Ni - Co Mineralised Laterite
- Strongly Ni - Co Mineralised Laterite
- Weathered Ultra-Mafic Basement

Lucknow Ni-Co & Scandium (Sc) Project

For personal use only



Major Scandium Discovery Bonanza intercept 27m @ 882 g/t Sc (April 2010)

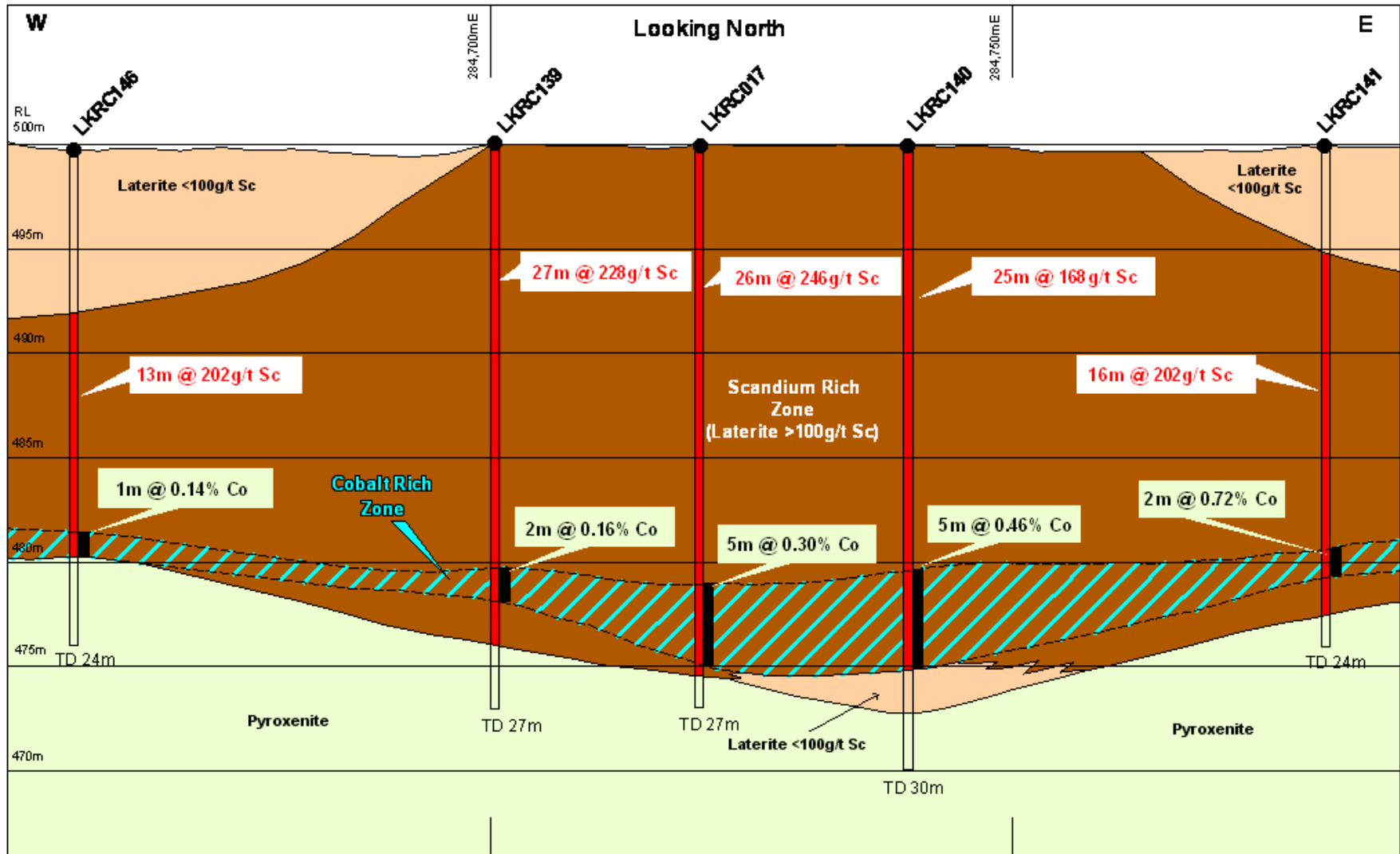
High grade scandium resource 4.12Mt @ 206g/t Sc

> 1.2 million kg Sc oxide (Red Fort zone) see following slides



Scandium Ore Cross Sections

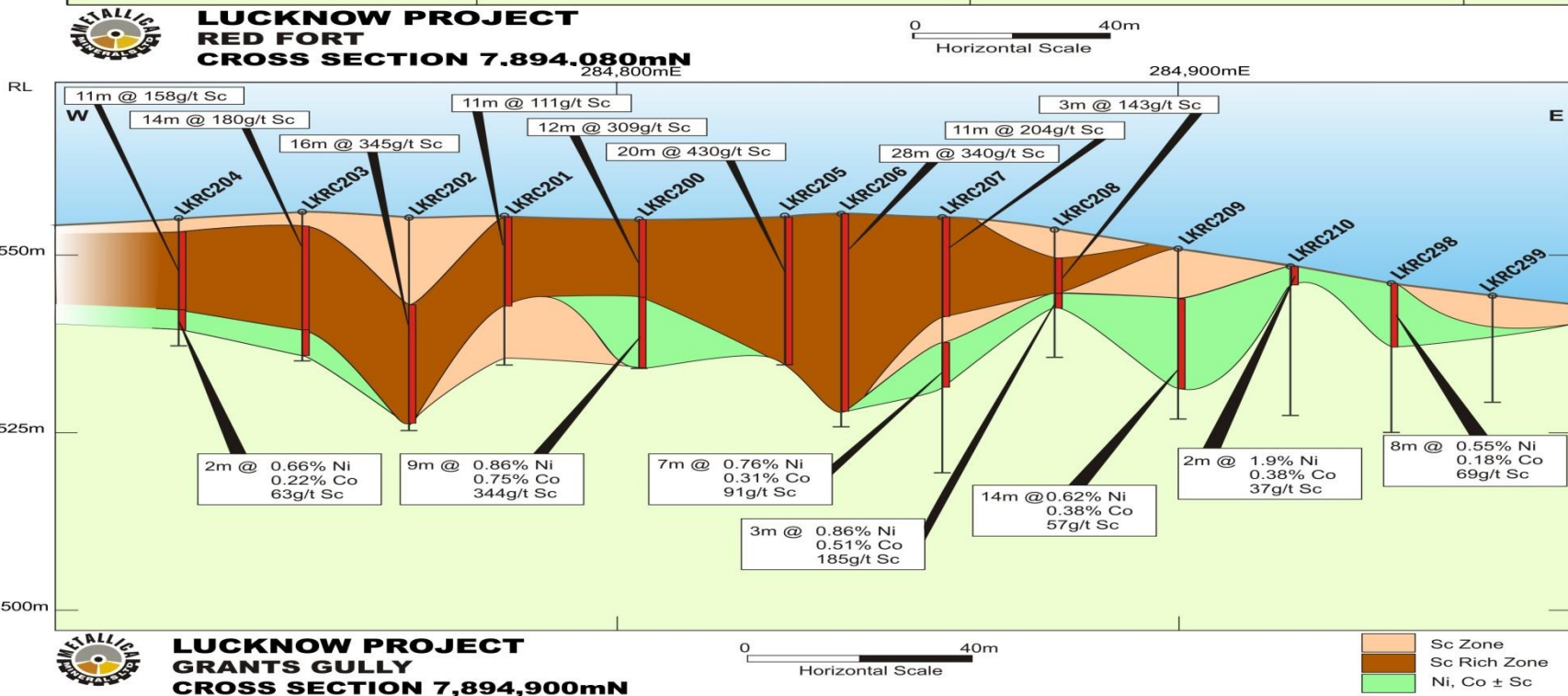
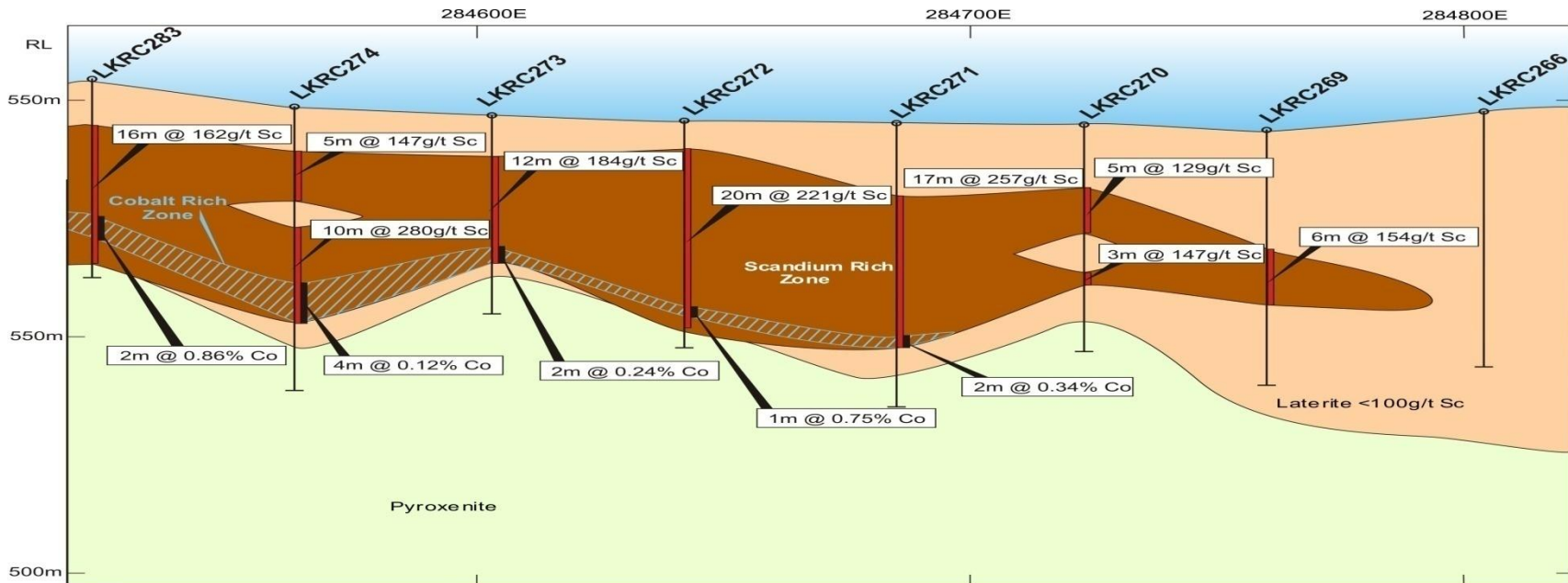
THE MULTI-COMMODITY RESOURCE COMPANY



RED FORT SCANDIUM (Sc) ZONE
CROSS SECTION THROUGH HIGH GRADE SCANDIUM ZONE



THE MULTI-COMMODITY RESOURCE COMPANY



ASX:MLM



NORNICO – Scandium Resource base

- Metallica holds **2 of the 3 worlds only defined Sc Resources** (other in NSW)
- 1. **Lucknow** 6.24Mt @ 169 g/t Sc for 1,580 tonnes Sc_2O_3 (70 g/t Sc cog) including 4.12Mt @ 206g/t Sc (120 g/t Sc cog) - resource open to south (Measured 0.51 Mt @ 239 g/t Sc, Indicated 1.77 Mt @ 209 g/t Sc, Inferred 1.84 Mt @ 194 g/t Sc)
- 2. **Kokomo** 9.0Mt @ 109g/t Sc for 1,500 tonnes Sc_2O_3 (70 g/t Sc cog)

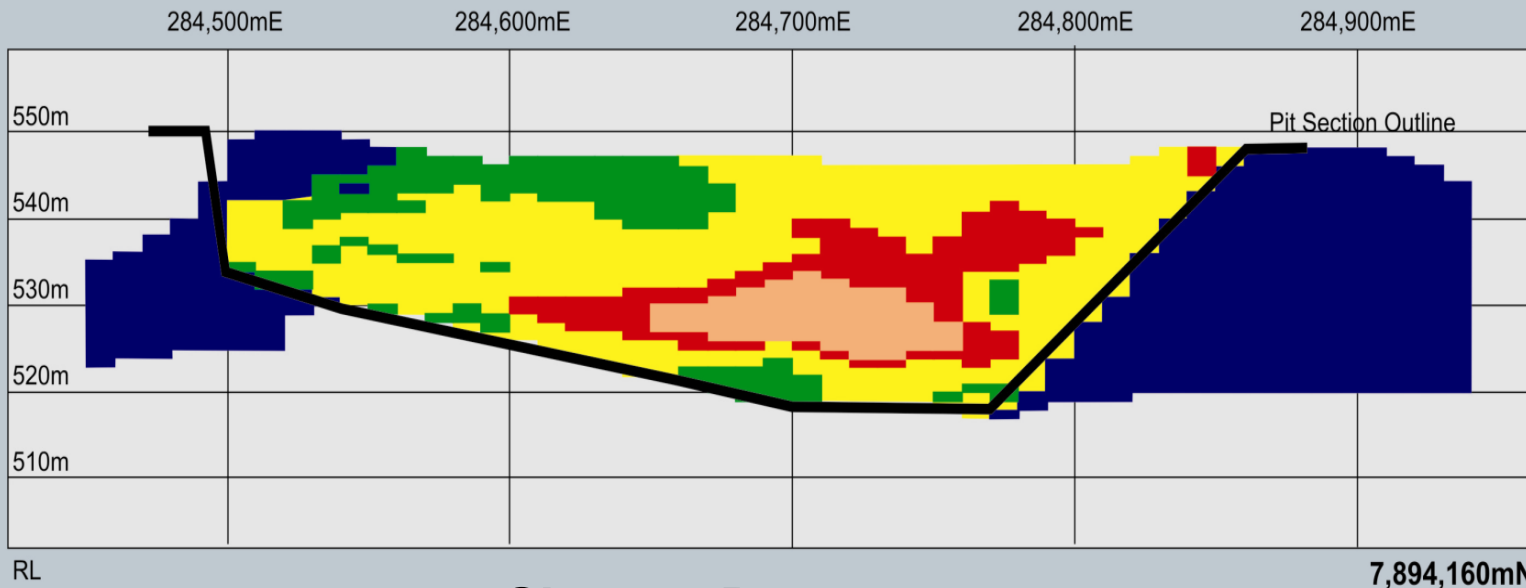
Combined Sc resource 15.1Mt @ 133g/t Sc (70g/t Sc cog)

(See Kokomo & Lucknow scandium resource breakdown at the back of this presentation)

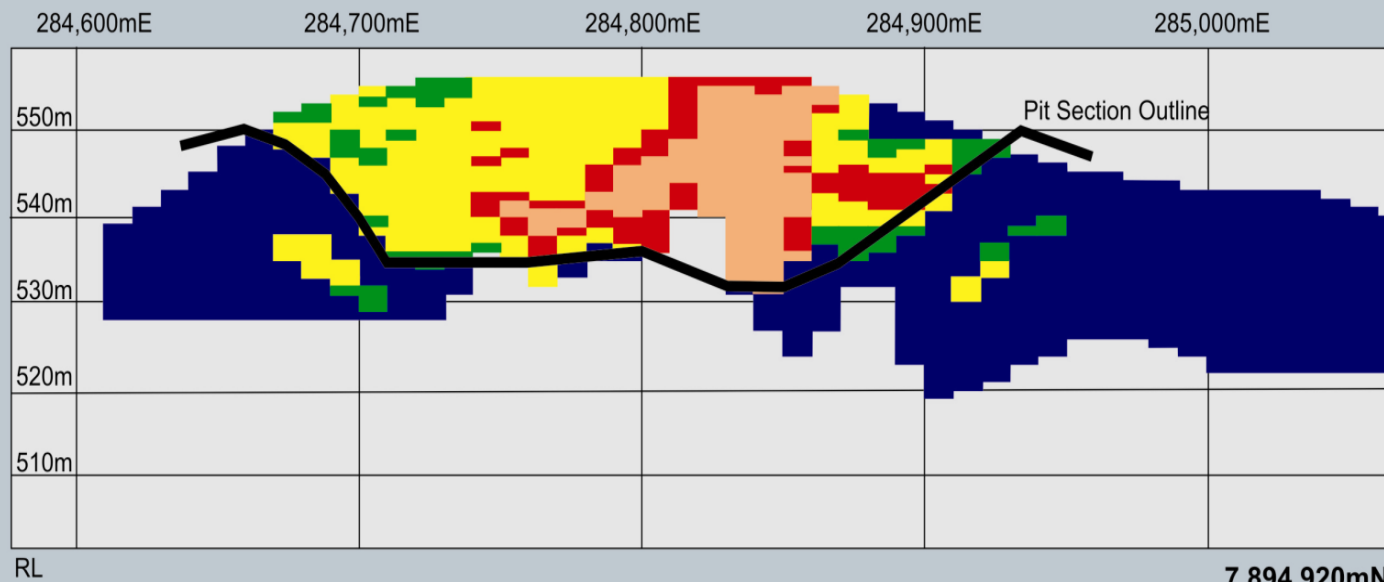
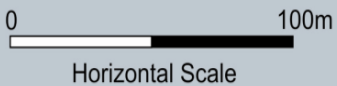
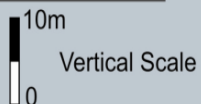
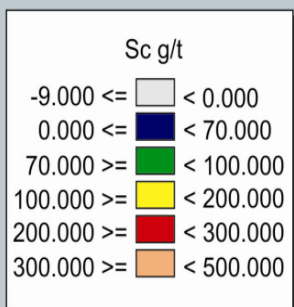
- Bonanza grade zones can be targeted early **0-27m @ 882 g/t Sc**
- > 2,000 t Sc metal or > **3,000 t Sc_2O_3** to a maximum of 50m depth
- Sc associated with hydrated iron oxide in laterite **highly amenable to acid leach extraction** (85 to 95% recovery)
- **Scandium Oxide** (Sc_2O_3 99.9% purity) priced around **US\$1,500 – 2,000/kg**



NORNICO - Lucknow - Scandium Rich Block Model Ore Cross Sections



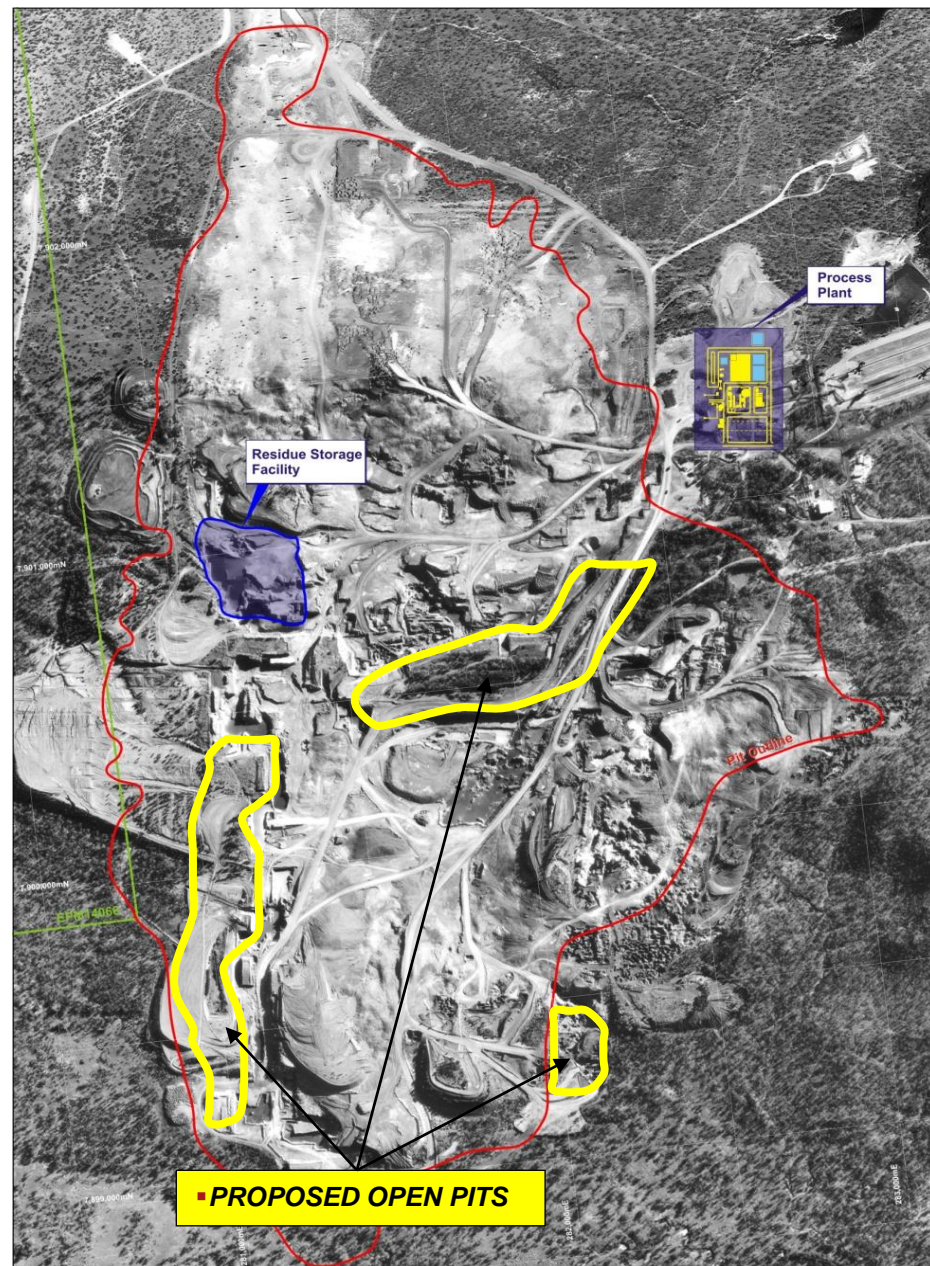
Shallow Resources



THE MULTI-COMMODITY RESOURCE COMPANY

NORNICO Project Site

- Greenvale Ni mine site ~1992 photo
- Proposed HPAL & acid + power plant site
- Residue Storage
- Initial open pits on remnant Ni-Co resources < 55M depth
- Easy access to Ni-Co & Ni-Co-Sc & Sc ores
- Excellent potential for high blended Ni-Co & Sc grades in early years to maximise revenue for early capital pay back

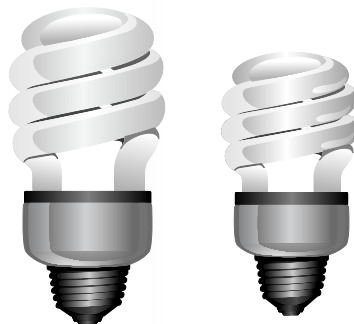


Element 21 – Scandium “The Enhancer”

(80% MLM/20% SRL)



Fuel Cells



Lighting



Scandia stabilised Zirconia



Al – Sc Alloys



- **Scandium (Sc)** the scarce & valuable Rare Earth Element (REE)
- Metallica discovered **2 large high grade Sc Deposits** (Lucknow & Kokomo)
- Major Capex and Opex cost benefits of **Sc recovered together with Ni & Co**
- **Substantial market potential** & enquiry for Sc oxide
- **Potential to become the worlds major supplier Sc Oxide & Sc products**



A new “Spice Metal” to Enhance Industry and Life

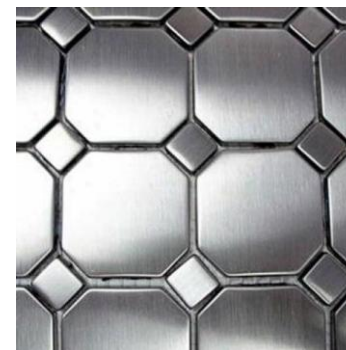


Scandium has unique properties that will enhance our future

- 1. High strength/lighter Sc-Aluminium alloy frames** = better transport frames eg. commercial & military aircraft, cars, bikes etc provides more efficiency & means less energy/fuel & better reliability
- 2. Better fuel cells** = more efficient electricity + heating & less CO₂ than conventional fossil fuel electricity
- 3. Better lighting** by creating artificial natural sunlight = brighter for less electricity

Sc has similar properties to other important commonly used strategic tech metals such as Titanium, Zircon & Yttrium

“Opportunity to develop a whole new strategic technology metal market – that’s waiting for reliable Sc delivery”



Tech Metal

Scandium Oxide (Sc_2O_3) Applications & Market

(1) Sc-Al Alloys

- Even small quantities (<1%Sc) significantly increases strength of aluminium alloys (Al-Sc-Zr)
- Improves weldability & reduces heat cracking
- Allows for stronger, lighter frames/structures
- Improved corrosion resistance



Al-Sc alloys are light & stronger

- **Sc is a potent grain refiner** 0.3% Sc plus Zirconium (3Sc:1Zr) considerably improves strength, durability, plasticity, weldability & corrosion resistance
- Soviet Military (70-80's) used Sc-Al alloys – Ballistic Missiles & MIG jets
- Major benefits for transportation industries (automotive, aircraft, aerospace, marine), sporting & structural industries

Scandium Oxide (Sc_2O_3) Applications & Market

(2) Solid Oxide Fuel Cells (SOFC)

- Natural Gas or H_2 fuel source & air are chemically converted into electricity, heat, water & CO_2
- Scandium Stabilized Zirconia (SSZ) most efficient SOFC & at lower temperature (performance gains) & extended life for SOFC's
- SOFC electric transportation as well as fixed electricity generators in home, business or town (gas connected) & selling excess electricity to grid
- Home size SOFC approx size of dishwasher



Bank of fuel cells for business



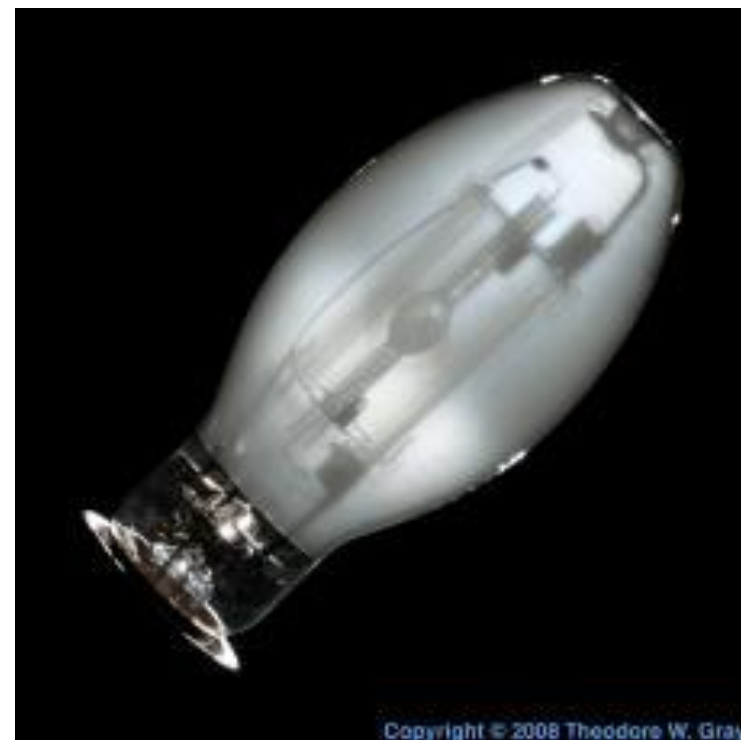
Inside fuel cell



Scandium Oxide (Sc_2O_3) Applications & Market

(3) Lighting

- Responsible for broad spectrum of White Light
- Artificial-natural sunlight – Sc bearing metal halide lamps (commonly used on film sets)
- Energy saving: More lumens/AMP or same lumen's for less electricity
- A 65 year old person requires 10 x more light to read same text as a 10 year old <http://www.microsun.com>



Copyright © 2008 Theodore W. Gray

> Lumens for < Electricity



Scandium Oxide (Sc_2O_3) Applications & Market

(4) Supply & Demand

- Current market from Soviet stockpiles (1980's) ~3 to 5tpa Sc_2O_3 , plus small scale Sc production from Russia, Ukraine & China ~ 2 to 5 tpa Sc_2O_3
- Currently no mining or primary scandium supply. (solely from stockpiles and some by-product U, W, production) prices > US\$ 1,500/ Kg Sc_2O_3 (99.9% purity)
- Current Scandium use is severely restricted by its scarcity & lack of reliable supply
- Current primary uses of scandium today is high-end sporting goods (e.g. Bicycles), aerospace, hand guns, specialised lighting and fuel cell development

“Metallica has potential to produce 40,000kg – 150,000kg Scandium Oxide Sc_2O_3 p.a. starting 2014”

- Excellent opportunity to create a whole new strategic metal market, waiting to happen for highly efficient SOFC, Sc-Al alloys & metal halide lighting applications
- Demand expected to grow dramatically once long term reliable supply established, particularly SOFC & Sc-Al alloys for high value, price inelastic applications (*)
- Due to scarcity, high potency, small quantities used in valuable applications, the price is likely to remain high

Hence the opportunity!

(*) Where high performance characteristics far outweigh price considerations



NORNICO – Importance of Scandium

Higher Returns

- **3 Metals:** Ni + Co + Sc making NORNICO unique
- Sc as a co-product is potential nickel laterite game changer **with expected ~35-40% additional revenue income** coming from Sc co-production
- **Higher revenues / Tonne ore***

| Example of average Ni-Co-Sc ore | 1.0 % Ni | 0.1% Co | 67g/t Sc (100g/t Sc ₂ O ₃) | Combined Ni + Co + Sc VALUE |
|---------------------------------|----------|---------|---|------------------------------------|
| Contained value \$/t ore | \$220 | \$33 | \$151 | \$404/t ore |

- 3 Metal bearing Ni, Ni-Co, Ni-Co-Sc, Sc-Co & Sc (ie >200 g/t Sc) ores can be easily **blended to further maximise revenues**

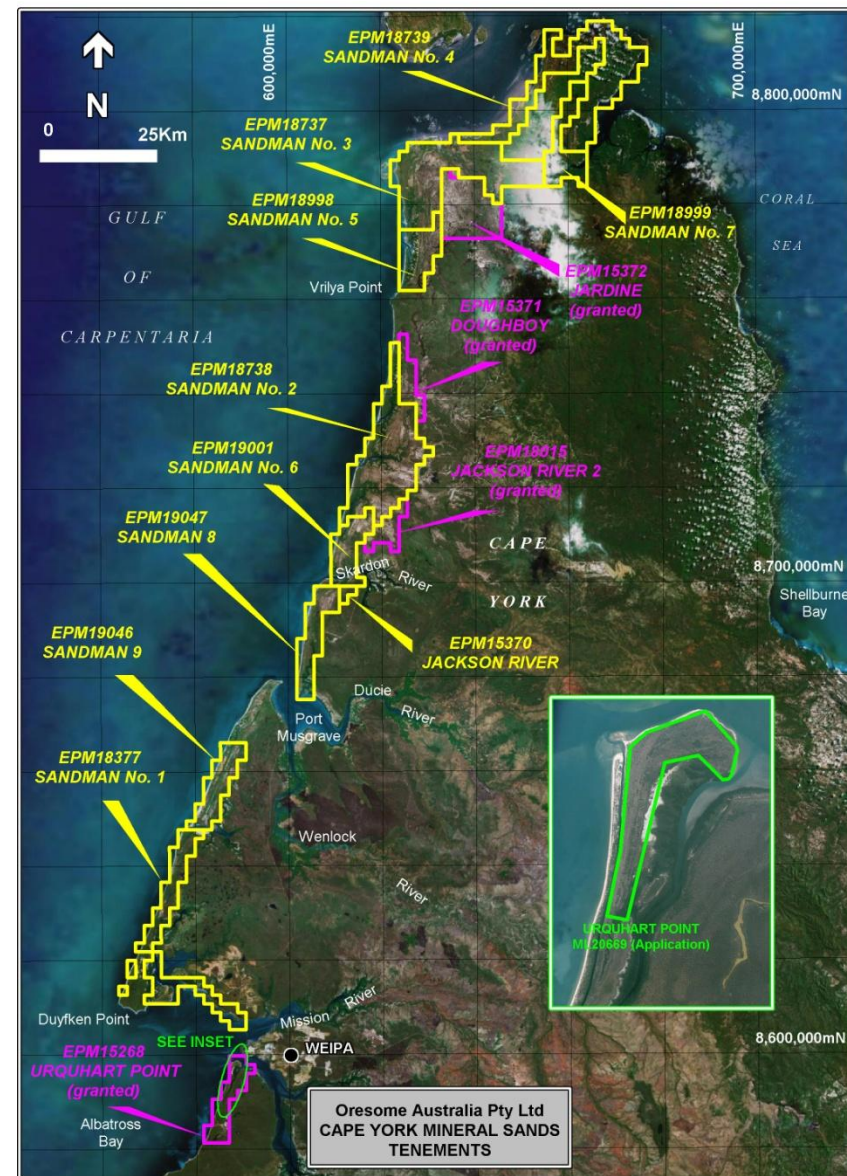
**Calculation assumes: US\$10/lb Ni, US\$20/lb Co, US\$1,600/kg Sc Oxide, US\$/AUD\$ 90c, 90% recovery Ni & Co, 85 % recovery Sc*

Ni & Sc 100% price paid, Co 75% price paid (Cobalt Sulphide)



Oresome Australia (MLM 100%) Zircon & Rutile Projects

- 100% owned Weipa Cape York Heavy Mineral Sands (HMS) – Zircon & Rutile Project
- Urquhart Point Mining Lease applied for over shallow high grade Zircon-Rutile deposit
- Over 2,000km² of EPM's/EPMA's
- Feasibility & EIS process started
- Zircon-Rutile production targeted early 2013





Metallica's 3 Prime Assets

1. **NORNICO Ni-Co & Sc (Flagship) – 100%MLM**

Ni-Co Resource 49Mt @ 0.81% Ni, 0.09% Co
containing approx. **400,000 Ni & 42,000 Co metal**

PLUS

Scandium Resource 15Mt @ 133g/t Sc (Lucknow & Kokomo)
containing approx **3,000,000kgs Sc oxide**

2. **Zircon + Rutile HMS projects - 100% MLM**

Weipa Zircon-Rutile HMS Project

3. **~\$75M worth ASX Listed investments**

MTE + CBX + ORM + PMQ



Core Projects Going Forward

NORNICO Ni-Co-Sc

- Exploration & Resources studies completed
- Mining Studies, Golder Associates – Current/July
- Project Scope/Venture Analysis, Vector/Ausenco - July
- Feasibility Studies plan to commence late 2011
- Mining Lease Applications
- Complete Feasibility Studies & Permitting late 2012
- Financing/Sc Offtake finalised late 2012/early 2013
- Start development early 2013 (subject to FS)
- Targeted production Ni-Co & Sc mid 2014

Weipa Zircon-Rutile

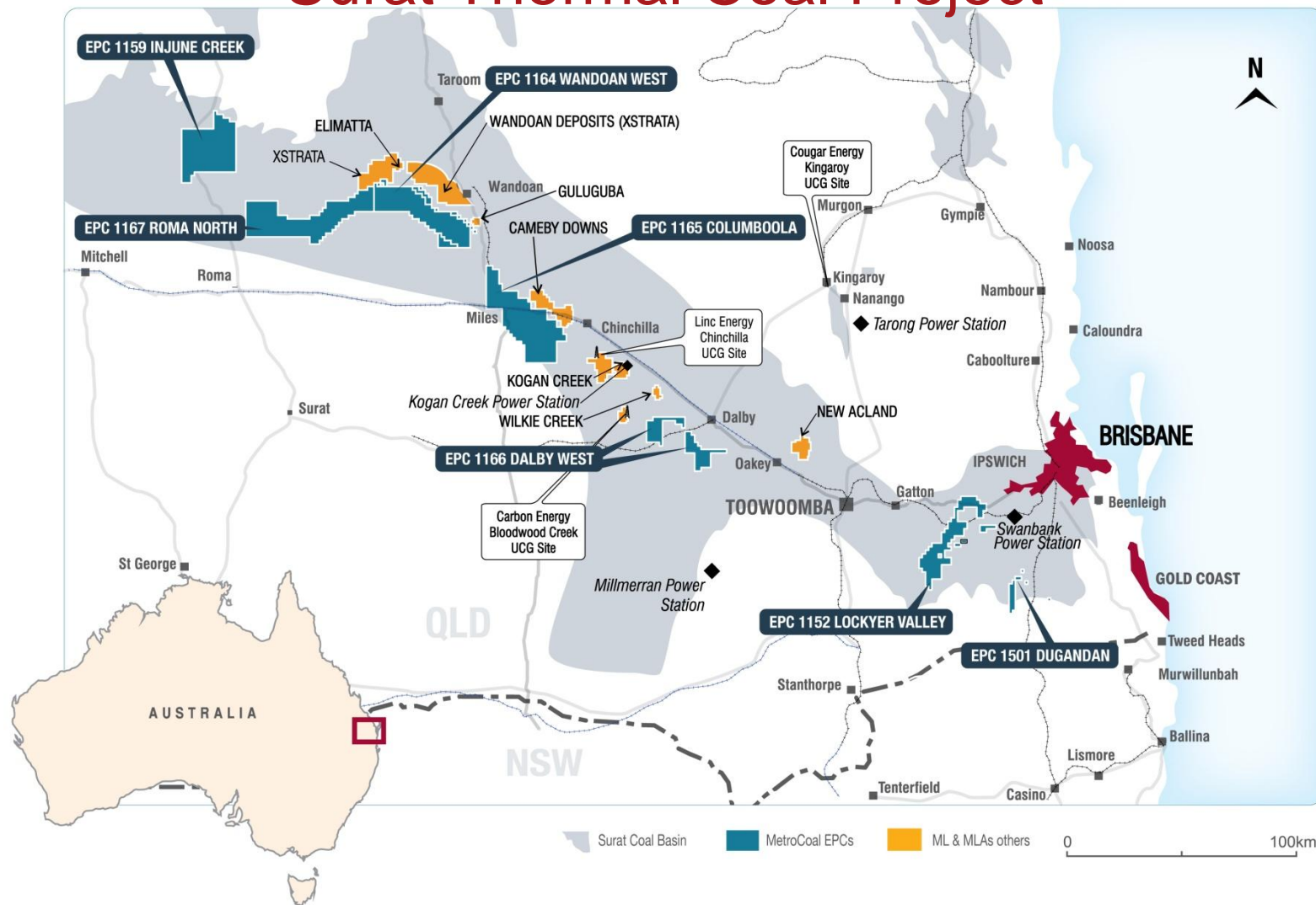
- Mining Leases application done, permitting commenced
- TLO Compensation negotiations & EIS commenced
- Feasibility Study commenced – RJ Robbins & Assoc/Calder
- Targeted production early 2013



MetroCoal – MTE (MLM 45%) Tenements

MLM holds 80M shares

Surat Thermal Coal Project



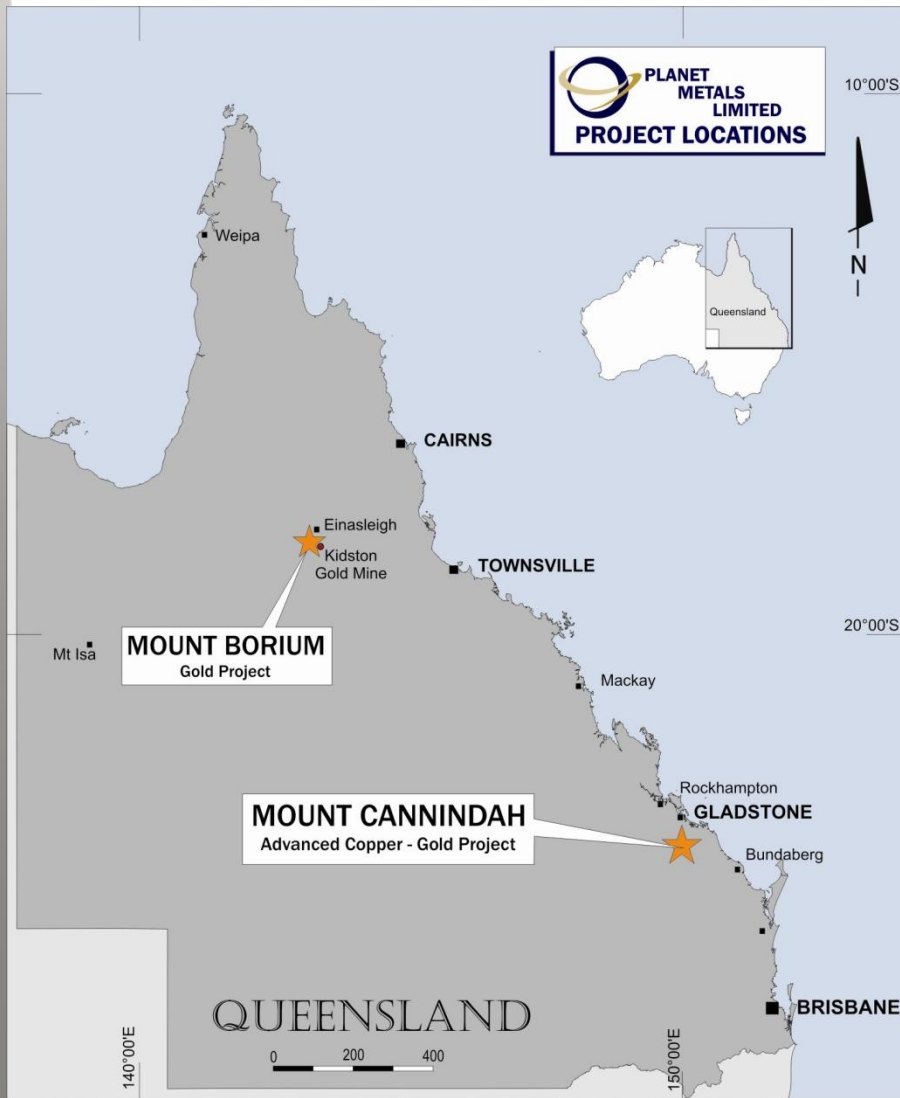
~4,000km tenements covering coal bearing strata



Planet Metals Ltd - PMQ (MLM 76%*)

MLM holds 45.5M shares

MLM distributing 23.4M PMQ shares as part of June/July MLM Rights Issue. Post RI MLM will retain ~ 37%



- Completion of Sale of Wolfram Camp Project - \$7M (\$3.5M cash & 3.5M Deutsche Rohstoff Shares)
(see ASX release 11 May 2011)
- PMQ Cash Position ~\$3.9M (30/06/11)
- Focus on Mt Cannindah Cu-Au JV & Mt Borium Au projects & the Cu & Au sector

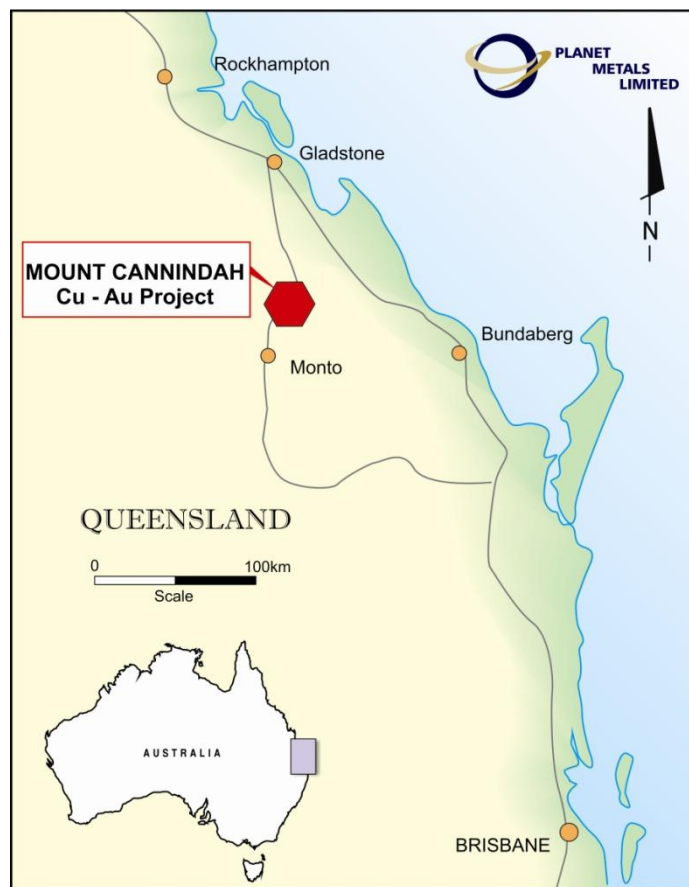


THE MULTI-COMMODITY RESOURCE COMPANY

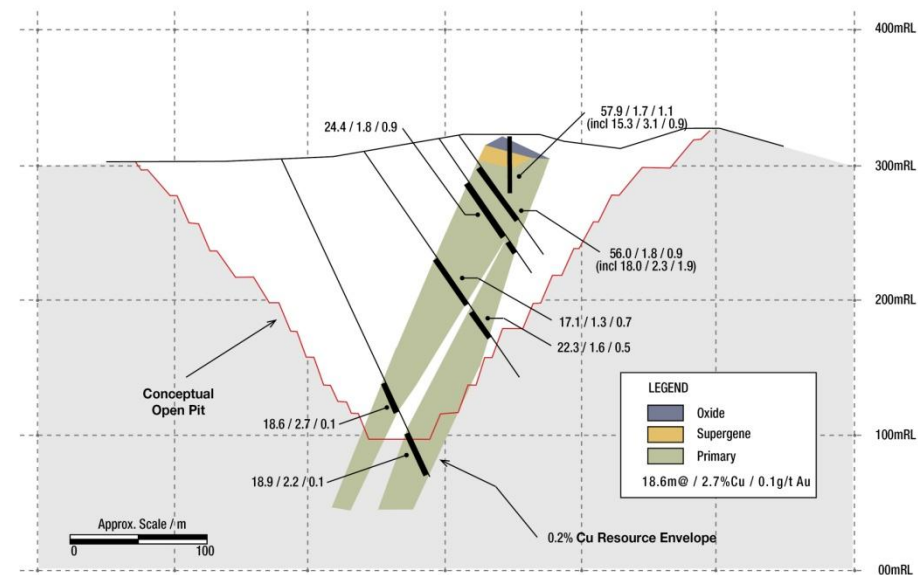


Planet Metals Limited (MLM 76%)

- 100% Mt Cannindah Cu-Au
- Large porphyry Cu-Au system
- Excellent exploration upside
- Nine granted mining leases covering 6km²
- JV with Drummond Gold (ASX:DGO) earning up to 75%
- Drilling commenced



Mount Cannindah Mine - Typical Cross Section



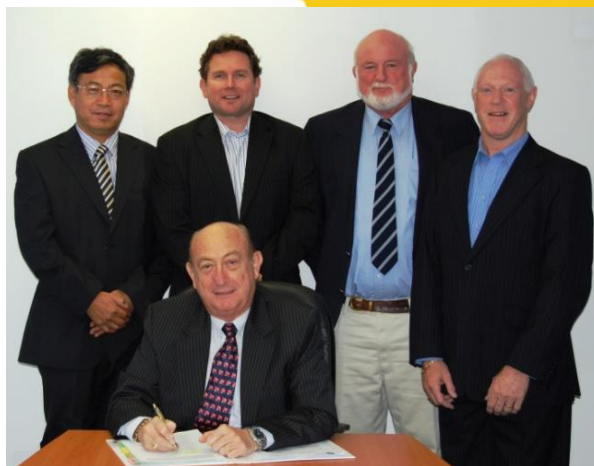
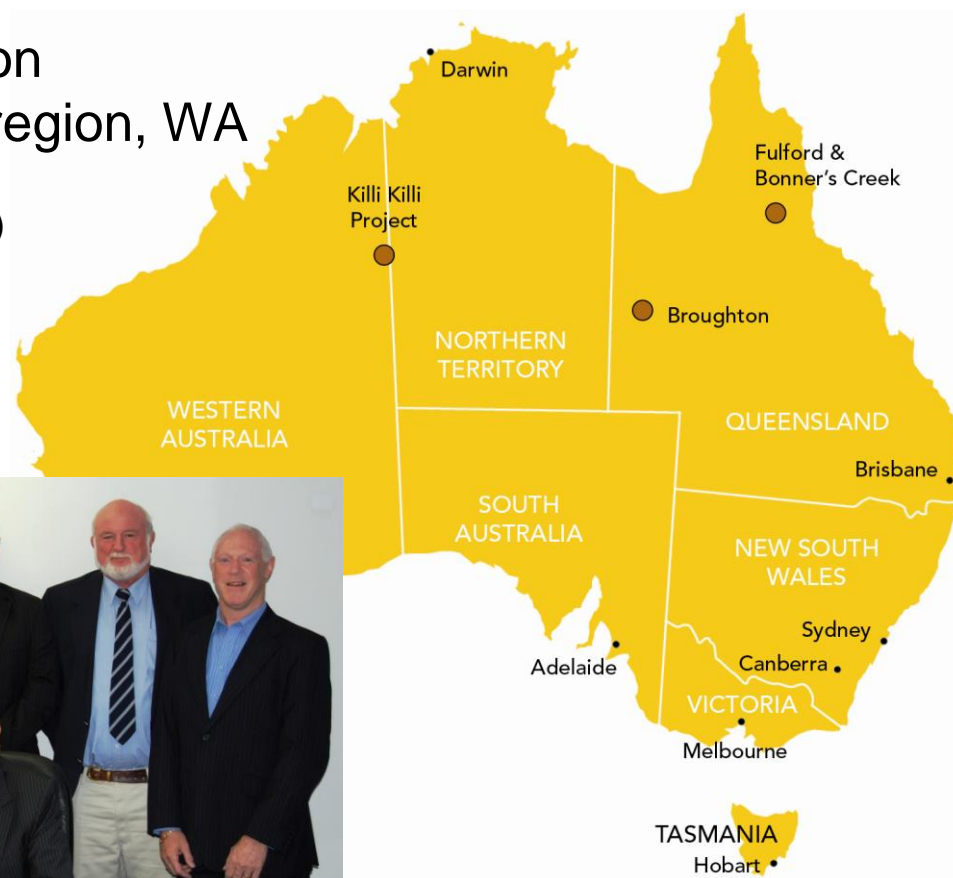


Orion Metals LTD - ORM (MLM 15%)

MLM holds 11.8M shares

Gold & Rare Earth Element (REE) Explorer

- 30 hole RC drilling program completed in December 2010 confirming high REE and Gold mineralisation at Killi Killi Hills discovery
- REE & Au Tenement acquisition program continues in Tanami region, WA
- Current cash ~\$4.4M (31/05/2011)
- 79.6 M shares on issue
- Mcap – ~16M (20c)
- Drilling in progress on Killi Killi & Tanami REE/ Gold projects

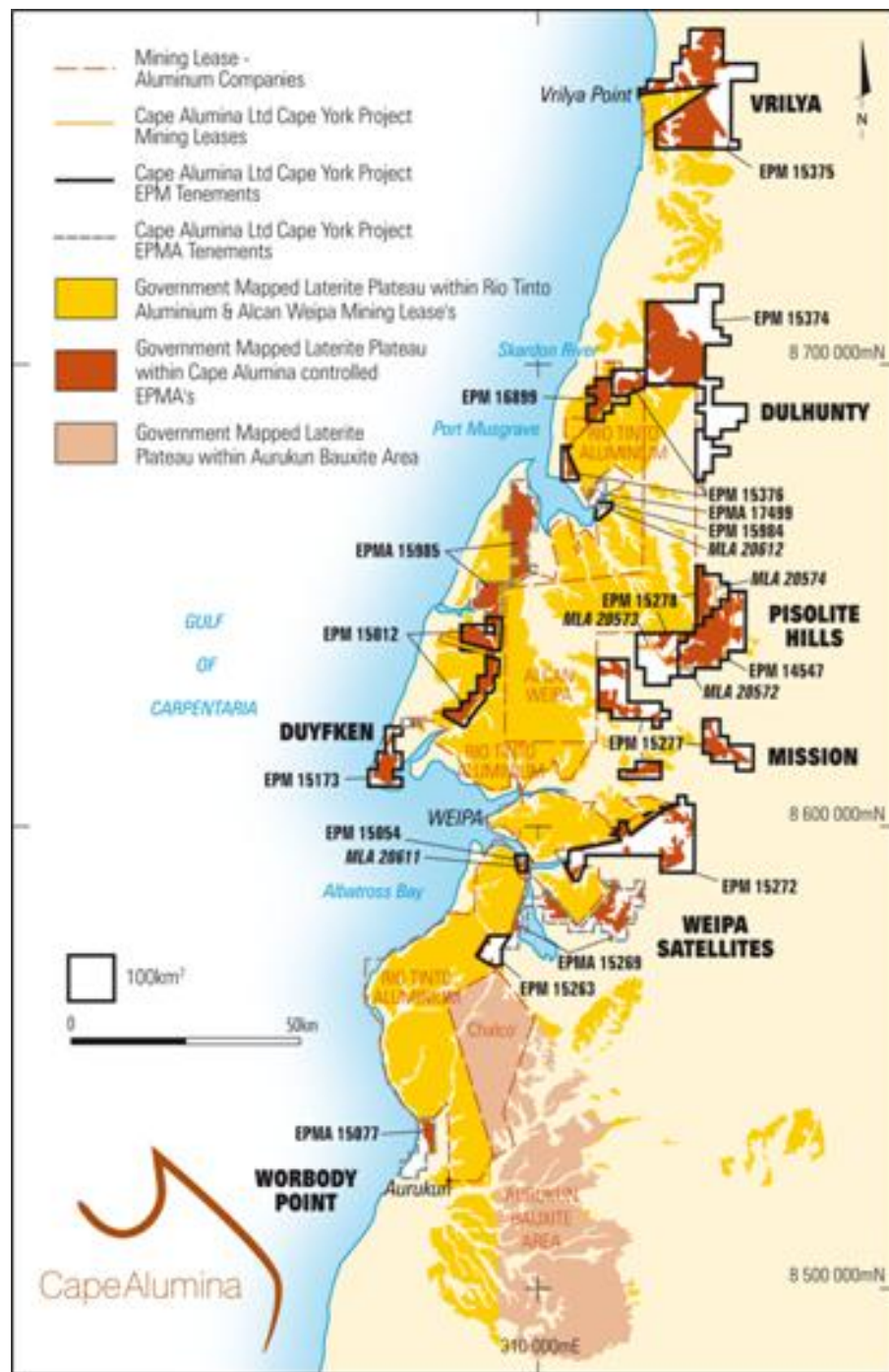




Cape Alumina - CBX

MLM holds 26,867,621 CBX shares
(MLM ~21%)

- 100% owned Weipa Bauxite Project
- New focus on Bauxite Hills deposits
- Pisolite Hills Project on hold





Metallica's Strategic Value ASX Investments



| ASX Code | Commodity | Company | MLM % | No. Shares MLM hold | Share Price | Market Value |
|--|--------------|-----------------------------|-------|---------------------|-------------|----------------|
| MTE | Coal | MetroCoal 176,683,663 | 45.3% | 80,000,000 | 79c | \$63.2 |
| CBX | Bauxite | Cape Alumina 129,050,803 | 20.8% | 26,867,621 | 22c | \$5.9 |
| PMQ* | Copper Gold | Planet Metals 59,717,114 | 76.2% | 45,483,749* | 9.7c | \$4.4 |
| ORM | Gold & REE's | Orion Metals 79,597,443 | 14.9% | 11,866,658 | 19.5c | \$2.3 |
| Total Listed Investments | | | | | | \$75.8M |
| Cash at Bank* (28/04/2011) | | | | | | \$4.1 |
| Cash & Total Listed Investments | | | | | | \$79.9 |
| Shares on Issue* (MLM) | | | | | | 117.1 |
| MLM Cash & Listed Investments/share | | | | | | \$0.68 |

\$79.9M value **before**

+ NORNICO Ni-Co-Sc

+ Zircon-Rutile

+ Limestone

Discover the 'Hidden Value' in Metallica Minerals

* As at 12 July 2011 before effect of MLM's 1:10 Rights Issue for extra 11.7M shares issued & \$4.9M raised. MLM will hold ~38% of PMQ.



THE MULTI-COMMODITY RESOURCE COMPANY

NORNICO Ni-Co Resource Base

| Nickel Deposit | Million Tonnes (Mt) | Ni (%) | Co (%) | Fe (%) | Mg (%) | In situ contained Ni metal | In situ contained Co metal |
|-----------------------------|---------------------|-------------|-------------|--------------|--------------|----------------------------|----------------------------|
| Bell Creek South | | | | | | | |
| Measured | 8.85 | 0.97 | 0.07 | 11.70 | 7.50 | 85,845 | 5,930 |
| Indicated | 0.27 | 0.83 | 0.04 | 8.50 | 9.10 | 2,241 | 111 |
| Inferred | | | | | | | |
| Totals | 9.12 | 0.97 | 0.07 | 11.61 | 7.55 | 88,086 | 6,040 |
| Bell Creek North | | | | | | | |
| Measured | | | | | | | |
| Indicated | 2.3 | 0.83 | 0.03 | 8.60 | 7.70 | 19,090 | 621 |
| Inferred | | | | | | | |
| Totals | 2.3 | 0.83 | 0.03 | 8.60 | 7.70 | 19,090 | 621 |
| Bell Creek Northwest | | | | | | | |
| Measured | | | | | | | |
| Indicated | 3.07 | 0.77 | 0.047 | 15.70 | 5.20 | 23,639 | 1,443 |
| Inferred | | | | | | | |
| Totals | 3.07 | 0.77 | 0.05 | 15.70 | 5.20 | 23,639 | 1,443 |
| The Neck | | | | | | | |
| Measured | | | | | | | |
| Indicated | 0.84 | 0.84 | 0.026 | 8.80 | 6.50 | 7,056 | 218 |
| Inferred | | | | | | | |
| Totals | 0.84 | 0.84 | 0.03 | 8.80 | 6.50 | 7,056 | 218 |
| Minnamoolka | | | | | | | |
| Measured | | | | | | | |
| Indicated | 5.92 | 0.8 | 0.044 | 11.30 | 10.60 | 47,360 | 2,605 |
| Inferred | 1.16 | 0.78 | 0.023 | 8.90 | 10.20 | 9,048 | 267 |
| Totals | 7.08 | 0.80 | 0.04 | 10.91 | 10.53 | 56,408 | 2,872 |



| Nickel Deposit | Million Tonnes (Mt) | Ni (%) | Co (%) | Fe (%) | Mg (%) | In situ contained Ni metal | In situ contained Co metal |
|----------------------------------|---------------------|-------------|-------------|--------------|-------------|----------------------------|----------------------------|
| Kokomo | | | | | | | |
| Measured | 1.3 | 0.81 | 0.17 | 20.40 | 4.60 | 10,530 | 2,210 |
| Indicated | 11.7 | 0.66 | 0.12 | 21.90 | 3.20 | 77,220 | 14,040 |
| Inferred | 3.2 | 0.63 | 0.1 | 19.10 | 3.00 | 20,160 | 3,200 |
| Totals | 16.2 | 0.67 | 0.12 | 21.23 | 3.27 | 107,910 | 19,450 |
| Greenvale Mine Site | | | | | | | |
| Measured | 2.63 | 1.08 | 0.09 | 22.00 | 3.90 | 28,404 | 2,367 |
| Indicated | 4.47 | 1.03 | 0.08 | 21.00 | 4.50 | 46,041 | 3,576 |
| Inferred | 0.90 | 0.99 | 0.07 | 19.00 | 5.50 | 8,910 | 630 |
| Totals | 8.0 | 1.04 | 0.08 | 21.10 | 4.42 | 83,355 | 6,573 |
| Lucknow | | | | | | | |
| Measured | 0.86 | 0.66 | 0.17 | 24.30 | 2.20 | 5,676 | 1,462 |
| Indicated | 0.82 | 0.52 | 0.23 | 22.50 | 2.10 | 4,264 | 1,886 |
| Inferred | 0.75 | 0.54 | 0.19 | 23.10 | 2.10 | 4,050 | 1,425 |
| Totals | 2.43 | 0.58 | 0.20 | 23.32 | 2.14 | 13,990 | 4,773 |
| Combined NORNICO Resource | | | | | | | |
| Measured | 13.64 | 0.96 | 0.09 | 15.31 | 6.20 | 130,455 | 11,969 |
| Indicated | 29.39 | 0.77 | 0.08 | 17.46 | 5.57 | 226,911 | 24,500 |
| Inferred | 6.01 | 0.70 | 0.09 | 17.62 | 4.65 | 42,168 | 5,522 |
| Totals | 49.04 | 0.81 | 0.09 | 16.88 | 5.63 | 399,534 | 41,990 |

• Notes:

[See next slide for competent persons statement](#)

1. Above categories all calculated using a 0.70% NiEq (Ni+2Co) cut-off grade.

2. Block models for the above resources estimates were constructed by filling wire frame surfaces representing nickel laterite mineralisation boundary with 10m by 10m by 1m blocks. Nickel (Ni) grades were estimated by ordinary kriging using various search radius, depending on the drill spacing of the deposit. A minimum of 4 and a maximum of 15 composites were used to estimate each block, with a maximum of 3 composites from any 1 drill hole. Therefore, at least 3 drill holes were used to estimate block grade values. At Bell Creek South, Minnamoolka and Kokomo a nominal 0.3% Ni mineralised envelope was used as a hard boundary for Ni and Co block grade estimation. Hard boundaries were also used between the laterite and basement zones.

3. Variations due to rounding factors.

4. Iron (Fe) and magnesium (Mg) are included to indicate the overall ore quality, as both metals influence acid consumption as well as dissolved Fe, Mg and other metals, which are contaminants to nickel loaded pregnant solution which is treated to produce a marketable nickel and cobalt intermediate product. As a rule, the lower the Fe and Mg in the laterite ore the better metallurgy and the ore is more suited to heap leach processing.



Scandium Resource

| Project | Tonnes (Mt) | Sc Grade (g/t) | Sc Metal (kg) |
|-----------------------|--------------|----------------|------------------|
| Lucknow | | | |
| Measured | 0.72 | 197 | 141,840 |
| Indicated | 2.67 | 171 | 456,570 |
| Inferred | 2.85 | 159 | 453,150 |
| TOTAL | 6.24 | 169 | 1,051,560 |
| Kokomo | | | |
| Measured | 0.7 | 154 | 107,800 |
| Indicated | 3.8 | 121 | 459,800 |
| Inferred | 4.4 | 91 | 400,400 |
| TOTAL | 8.9 | 109 | 968,000 |
| COMBINED TOTAL | 15.14 | 133 | 2,019,560 |

Note: using 70 g/t Sc cut off grade

Straits Resources Ltd have 20% of Scandium Ore rights



Competent Person Statement

- **Technical information and exploration results** contained in this report has been compiled by Metallica Minerals Ltd full time employee Andrew Gillies (B.Sc Geology) in the position of Managing Director. Mr Gillies is a member of the Australasian Institute of Mining and Metallurgy and has relevant experience to the mineralisation being reported on to qualify as Competent Persons as defined by the Australasian Code for Reporting of Minerals Resources and 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 **NORNICO project Mineral Resource estimate(s)** is based upon and accurately reflects data compiled, validated or supervised by Mr John Horton, Principal Geologist, who is a Member of the Australasian Institute of Mining and Metallurgy and 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 2004 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.



METALLICA MINERALS

A Multi-Commodity Resource Development Company

For personal use only

METALLICA SUBSIDIARIES

NORNICO PTY LTD | 100% MLM

GREENVALE OPERATIONS PTY LTD | MLM 100%

LUCKY BREAK OPERATIONS PTY LTD | MLM 100%

SCANDIUM PTY LTD | MLM 100%

PHOENIX LIME PTY LTD | MLM 100%

ORESOME AUSTRALIA PTY LTD | MLM 100%

THANK
YOU

ASX:MLM

NICKEL-COBALT-SCANDIUM + COAL + BAUXITE + COPPER-GOLD