

**Subsidiary Companies** 

NORNICO Pty Ltd ACN 065 384 045 | Oresome Australia Pty Ltd ACN 071 762 484 | Greenvale Operations Pty Ltd ACN 139 136 708 Lucky Break Operations Pty Ltd ACN 126 272 580 | Scandium Pty Ltd ACN 138 608 894 | Phoenix Lime Pty Ltd ACN 096 355 761

## 22nd December 2010

# **ASX Announcement**

# NORNICO-Greenvale Ni-Co Project (QId) Final Drilling Results & Project Update

- The Last Drill Hole Assay Results for Greenvale now received
- Resource Upgrade for Greenvale and Lucknow being undertaken
- Updated resource estimate now due by late December / early January
- Satellite Imagery, Processing and survey modelling completed
- Metallurgical testwork ongoing

Metallica Minerals Limited (ASX: "MLM") is pleased to announce the assay results for the remaining 78 drill holes from the Phase Two drilling program (GVM418 to GVM 779 which comprised 362 holes totalling 7,693m), on the Greenvale project which have not been previously reported.

Results have now been received for the remaining holes, GVM702 to GVM779. Results for holes GVM418 to 701 have been previously released to the ASX on the 9<sup>th</sup> of November and the 8<sup>th</sup> December 2010.

Drill hole locations are shown on **Figure 2** and a complete set of results for holes GVM702 to 779 are included in **Table 3** at the back of this release.

Better results for holes GVM 702 to GVM 779 are detailed below:

#### The Power Line:

GVM724, 7m @ 1.56% Ni and 0.16% Co (1.88% NiEq<sup>1</sup>) from 40m GVM770, 5m @ 1.39% Ni and 0.04% Co (1.47% NiEq) from 1m GVM771, 14m @ 1.82% Ni and 0.10% Co (2.02% NiEq) from 0m GVM772, 3m @ 1.81% Ni and 0.10% Co (2.01% NiEq) from 0m

<sup>&</sup>lt;sup>1</sup> The NiEq value equates to Ni+2Co, this is based on a Nickel values of \$9/lb and a Co value of \$18 / lb, scandium (Sc) has **not** been used in the equivalency equation.



#### Area 15

GVM726, 9m @ 1.89% Ni and 0.03% Co (1.95% NiEq) from 0m GVM727, 8m @ 1.51% Ni and 0.04% Co (1.59% NiEq) from 0m GVM727, 7m @ 2.19% Ni and 0.05% Co (2.29% NiEq) from 0m GVM761, 4m @ 2.84% Ni and 0.04% Co (2.92% NiEq) from 0m GVM764, 3m @ 1.50% Ni and 0.03% Co (1.56% NiEq) from 0m

## Moonscape

GVM 712, 6m @ 1.09% Ni and 0.29% Co (1.67% NiEq) from 33m GVM 713, 9m @ 0.88% Ni and 0.34% Co (1.56% NiEq) from 23m GVM 714, 7m @ 1.25% Ni and 0.31% Co (1.87% NiEq) from 3m GVM 717, 6m @ 1.10% Ni and 0.20% Co (1.50% NiEq) from 6m

#### The Trench

GVM 743, 11m @ 1.71% Ni and 0.14% Co (1.99% NiEq) from 0m

Satellite imagery to obtain more detailed topographic information for the Greenvale and Lucknow areas has been completed and processed to provide an up to date digital terrain model (DTM). The DTM will be used in the updated resource model to refine ore boundaries especially around excavated voids in the Greenvale Mine Site. A low resolution satellite image for Greenvale and Lucknow is presented as **Figure 3**. Incorporating this data into the resource model has delayed finalising the resource estimation.

Work is well advanced on updating the Greenvale resource using the new Phase 2 drill data, a draft resource estimate is expected to be issued prior to Christmas and this will then be finalised and released to the market in mid - January.

## **Background**

The Greenvale Mine operated for 18 years from 1974 to 1992, mining ore from a 3 km² area, and produced 40 million tonnes (Mt) of nickel laterite ore grading 1.56% Ni and 0.12% Co. Metallica is focusing its current exploration on Greenvale's remnant high grade mineralisation by drilling out known zones of remnant ore and also exploring within the mine area for new zones (partly explaining why a number of drill hole results in this campaign did not generate significant results (NSR), **Refer Table 3.** 

The Greenvale Ni-Co Laterite project is located approximately 240km from Townsville in north Queensland and forms part of Metallica's NORNICO Project, see **Figure 1.** 



The existing Greenvale Indicated and Inferred Resource (September 2010) stands at 4.5Mt @ 1.12% Ni and 0.08% Co (1.28% NiEq) with a higher grade zone of 1.43Mt at 1.39% Ni and 0.11% Co (1.61 % NiEq). See **Tables 1 and 2** for the breakdown of the resource categories.

Figure 1: Location Map.



#### **Future Work**

New work planned for Greenvale to March 2011 includes:

- Greenvale and Lucknow resource update – expected late December, using data from the recently completed drilling program, (Holes GVM 418 to GVM779)
- Ongoing Metallurgical and Beneficiation testwork
- Progressing mining lease permitting
- Landowner and TLO meetings
- Wet Season environmental baseline studies
- Completion of the revised NORNICO stage 1 Scoping Study (MarkII)

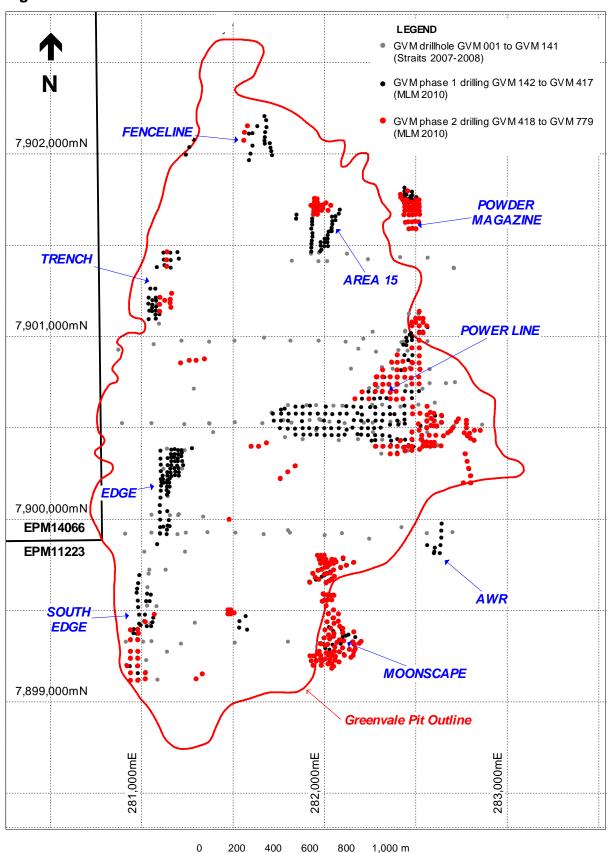
## For further information

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Technical information and exploration results contained in this report has been compiled by Metallica Minerals Ltd full time employees Andrew Gillies in the position of Managing Director and Metallica Minerals Ltd Exploration Manager, Mr Pat Smith MSc. B.Sc (Hons). Mr Gillies and Mr Smith are members 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 and Mr Smith consent to the inclusion in this report of the matters based on the information in the form and context in which it appears



Figure 2: Greenvale Mine Site - Drill Hole Locations

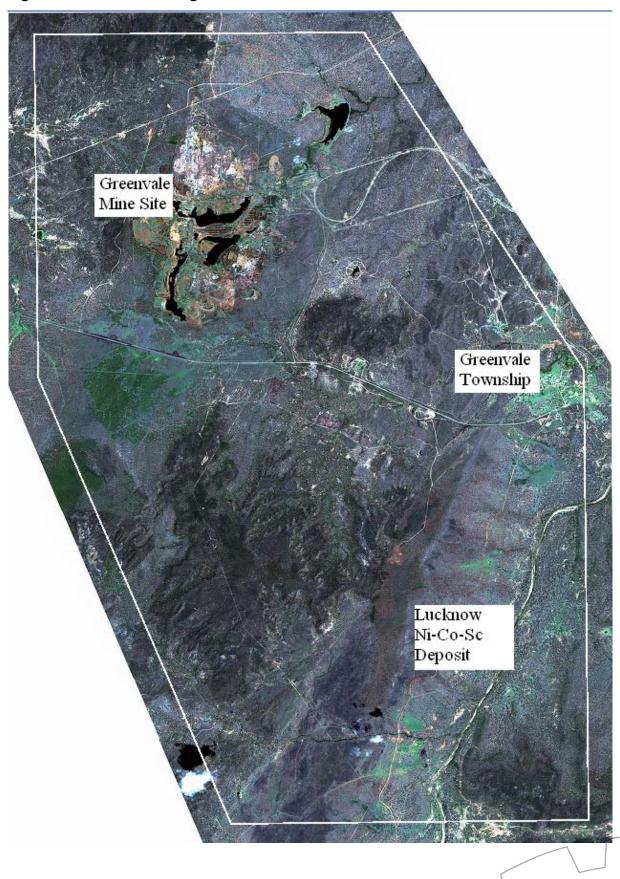




GREENVALE NICKEL MINE SITE DRILLHOLE LOCATIONS



Figure 3: Satellite Image – Greenvale and Lucknow – December 2010





# TABLE 1: GREENVALE NI-Co RESOURCE (USING DATA FROM HOLES GVM001 TO GVM 417)

(September 2010, Using a 0.70% NiEq COG)

CLASSIFICATION	Mt	Ni %	Co %	NiEq %	Fe %	Sc g/t
Indicated	3.2	1.16	0.08	1.31	22.0	35
Inferred	1.3	1.03	0.09	1.21	23.0	39
Total	4.5	1.12	0.08	1.28	23.0	36

The above resource conforms to JORC guidelines for the reporting of mineral resources. The resources have been classed as either Indicated or Inferred based on geological continuity, sample intervals and drill hole spacing. Parts of the resource may be classed as Measured once additional bulk density data has been obtained. The Indicated resource is sufficient for preliminary pit design and scheduling. The Mineral resource estimate is appropriate for a selective open pit mining scenario, but does not account for mining dilution or mining losses.

# TABLE 2: GREENVALE Ni-Co RESOURCE (USING DATA FROM HOLES GVM001 TO GVM 417)

(September 2010, Using a 1.40% NiEq COG)

CLASSIFICATION	Mt	Ni %	Co %	NiEq %	Fe %	Sc g/t
Indicated	1.10	1.42	0.11	1.63	22.0	33
Inferred	0.33	1.23	0.15	1.52	24.0	40
Total	1.43	1.39	0.11	1.61	22.0	34

Figure 4: Ariel View of the Greenvale Ni-Co Deposit



# **Greenvale Assay Results: GVM702 to GVM779**

Hole Number	Northing	Easting	Depth	From	То	Intercept	Ni (%)	Co (%)	Sc (ppm)	Fe (%)	Mg (%)	NiEq %
GVM702	282501	7901691	12	NSR								
GVM703	282520	7901689	5	NSR								
GVM704	282519	7901727	8	NSR								
GVM705	282521	7901671	23	0	3	3	0.80	0.12	46	29.13	1.85	1.04
and				12	21	9	1.35	0.03	22	14.77	8.76	1.41
GVM706	282481	7901668	23	15	23	8	1.01	0.07	27	17.57	4.15	1.15
GVM707	282463	7901668	18	NSR								
GVM708	282436	7901668	24	10	12	2	1.05	0.04	29	18.90	5.16	1.13
and				14	20	6	1.03	0.04	27	17.45	6.14	1.11
GVM709	282443	7901628	21	2	4	2	1.50	0.06	31	21.80	6.84	1.62
and				16	18	2	1.18	0.04	28	18.90	3.02	1.26
GVM710	281938	7899202	21	NSR								
GVM711	281983	7899201	39	30	35	5	1.29	0.04	28	22.90	3.64	1.37
GVM712	282043	7899253	42	23	29	6	0.97	0.20	20	16.88	3.89	1.37
and				33	39	6	1.09	0.29	16	12.41	2.78	1.67
GVM713	281980	7899236	36	12	21	9	0.89	0.17	32	24.44	1.47	1.23
and				23	32	9	0.88	0.34	20	16.90	2.64	1.56
GVM714	281942	7899254	15	3	10	7	1.25	0.31	48	33.30	1.82	1.87
GVM715	281965	7899264	24	0	5	5	0.94	0.19	45	27.26	3.89	1.32
and				10	12	2	0.44	0.22	15	11.15	1.17	0.88
GVM716	281928	7899225	42	15	28	13	0.62	0.32	18	16.88	1.85	1.26
and				31	41	10	1.55	0.04	22	15.88	4.63	1.63
GVM717	281922	7899254	36	0	6	6	1.10	0.20	35	25.26	2.97	1.50
and				15	17	2	0.81	0.15	22	19.10	3.03	1.11
and				21	31	10	0.74	0.15	24	19.26	2.50	1.04
GVM718	282201	7899334	12	NSR								
GVM719	282191	7899321	9	NSR								
GVM720	282459	7901629	24	8	10	2	1.40	0.03	29	14.95	6.60	1.46
and				16	19	3	1.17	0.04	18	19.80	4.07	1.25
GVM721	282479	7901630	15	NSR								
GVM722	282498	7901632	21	1	8	7	0.70	0.11	18	11.52	4.84	0.92
and				8	11	3	1.19	0.09	29	15.70	6.90	1.37
GVM723	282517	7901631	9	NSR								

Hole Number	Northing	Easting	Depth	From	То	Intercept	Ni (%)	Co (%)	Sc (ppm)	Fe (%)	Mg (%)	NiEq %
GVM724	282243	7900661	53	40	47	7	1.56	0.16	39	27.21	3.80	1.88
GVM725	281927	7901720	6	0	2	2	2.02	0.02	12	7.89	7.56	2.06
GVM726	281962	7901720	24	0	9	9	1.89	0.03	16	10.07	6.68	1.95
and				13	18	5	1.24	0.03	16	10.51	5.07	1.30
GVM727	281944	7901721	12	0	8	8	1.51	0.04	17	10.64	6.70	1.59
GVM728	281978	7901721	15	0	7	7	2.19	0.05	17	11.04	6.81	2.29
GVM729	281993	7901723	24	7	14	7	1.38	0.03	11	7.97	12.59	1.44
and				17	19	2	1.68	0.05	17	12.14	6.19	1.78
GVM730	282051	7899197	33	15	21	6	0.82	0.22	69	36.12	4.70	1.26
GVM731	282040	7899559	6	NSR								
GVM732	282018	7899559	6	NSR								
GVM733	282001	7899559	9	3	5	2	1.31	0.01	30	16.05	5.08	1.33
GVM734	282393	7900702	39	TBA								
GVM735	282440	7900779	41	30	37	7	1.22	0.03	26	13.62	7.71	1.28
GVM736	282476	7900777	30	NSR								
GVM737	281984	7901694	9	NSR								
GVM738	281991	7901707	12	NSR								
GVM739	282009	7901732	8	NSR								
GVM740	282035	7901719	15	0	4	4	1.34	0.03	15	11.03	6.02	1.40
GVM741	282020	7901694	15	9	11	2	1.01	0.03	28	20.20	8.16	1.07
GVM742	281162	7901161	15	NSR								
GVM743	281158	7901203	15	0	11	11	1.71	0.14	26	21.65	7.32	1.99
GVM744	281157	7901185	6	NSR								
GVM745	281164	7901239	9	NSR								
GVM746	281099	7901139	15	NSR								
GVM747	281098	7901177	15	NSR								
GVM748	281100	7901217	9	NSR								
GVM749	281128	7901199	12	NSR								
GVM750	281138	7901422	9	NSR								
GVM751	281137	7901386	9	NSR								
GVM752	281139	7901465	9	NSR								
GVM753	281214	7900857	12	4	7	3	1.06	0.04	25	16.73	4.78	1.14
GVM754	281261	7900872	15	NSR								
GVM755	281299	7900872	15	NSR								
GVM756	281344	7900879	6	NSR								

Hole Number	Northing	Easting	Depth	From	То	Intercept	Ni (%)	Co (%)	Sc (ppm)	Fe (%)	Mg (%)	NiEq %
GVM757	281945	7901757	9	NSR								
GVM758	281946	7901739	15	1	8	7	1.42	0.04	17	9.92	5.41	1.50
GVM759	281943	7901704	9	0	6	6	1.18	0.03	14	9.64	3.04	1.24
GVM760	281942	7901686	6	NSR								
GVM761	281941	7901669	9	0	5	5	1.23	0.07	13	10.30	5.48	1.37
GVM762	281963	7901738	12	0	4	4	2.84	0.04	13	8.89	7.02	2.92
GVM763	281961	7901754	9	NSR								
GVM764	281963	7901704	9	0	3	3	1.50	0.03	14	9.07	5.11	1.56
GVM765	281962	7901685	6	NSR								
GVM766	281963	7901671	6	NSR								
GVM767	282794	7900472	6	NSR								
GVM768	282822	7900488	6	NSR								
GVM769	282853	7900487	6	NSR								
GVM770	282799	7900445	15	1	6	5	1.39	0.04	15	12.28	1.09	1.47
GVM771	282819	7900433	15	0	14	14	1.82	0.10	18	13.78	7.48	2.02
GVM772	282783	7900456	12	0	3	3	1.81	0.10	17	10.26	8.79	2.01
GVM773	281507	7899489	15	NSR								
GVM774	281489	7899482	21	2	4	2	1.25	0.09	22	13.20	3.59	1.43
and				7	10	3	1.22	0.05	12	8.30	4.87	1.32
GVM775	281473	7899482	12	NSR								
GVM776	281473	7899504	15	2	4	2	1.05	0.07	12	10.50	6.03	1.19
and				6	9	3	1.24	0.08	14	12.17	7.62	1.40
GVM777	281489	7899506	15	NSR								
GVM778	281298	7899129	15	NSR								
GVM779	281332	7899154	12	NSR								