

ACN 123 567 073

27 June 2014

CONDUCTOR DETECTED BY GROUND EM SURVEY AT PLATO PROSPECT IN FRASER RANGE

- Fixed loop electromagnetic (FLEM) survey over Plato identifies deep conductor, open to the south possible feeder sill or conduit
- ENT secures \$1.2 million for follow up FLEM and drilling at Fraser Range
- Including Plato, 7 high priority targets outlined for FLEM surveys
- Assays received for Plato diamond drill core PLRCD001, 003 & 006

Enterprise Metals Limited ("Enterprise"; "the Company", ASX: ENT) advises that it has received the results and interpretation of several fixed loop electromagnetic (FLEM) surveys over the Plato and Plato West prospects.

The FLEM survey over Plato has identified a deep conductor on the southern margin of Plato, which possibly relates to a feeder sill or conduit. This FLEM anomaly is open to the south and further FLEM surveying is required prior to drilling. The FLEM survey over Plato West detected no late time conductors.





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FLEM Survey – Bedrock Conductor Identified

Vortex Geophysics has completed fixed loop electromagnetic surveys over the Plato and Plato West prospects for Enterprise. Due to access problems, the planned FLEM survey at Plato East was not completed.

Readings were taken at 100m station intervals on lines 200m apart for each loop (1,000m by 1,000m). Each station had a minimum of three repeat readings. A total of 25 lines (250 stations) were surveyed (22.5 line km). The data has been processed and interpreted by an extern consultant. The locations of the fixed loops and reading stations are shown below in Figure 2.



Figure 2. Plato & Plato West, Location of Drill Traverse & FLEM Loops and Stations

Commentary on FLEM Survey

A late time bedrock conductor was observed at the southern end of Plato. The feature appears to have a different orientation to the Plato body and could represent a potential feeder sill or conduit.

Modelling of this data indicates the source has not been fully covered by the current survey. Additional surveys to the south are required to better define this feature. Additional surveys to the east and west of Plato are required to target potential vertical mineralization associated with the margin of the olivine-rich gabbro-norite. It was recommended that addition FLEM be undertaken prior to further drilling at Plato. No bedrock conductors were observed in the immediate vicinity of the RC/Diamond drilling.

No conductors were identified over the limited strike of the survey over Plato West. However, it was recommended that shallow drilling of Plato West be undertaken as a low priority to follow up anomalous soil geochemistry responses.

All of the area in coloured blue in Figure 1 is below 0.2pT/A in amplitude and is effectively the noise level of the FLEM system.

Preliminary Assays from Diamond Drill Core – Elevated Nickel-Copper

Preliminary laboratory assays have been received for diamond core "tails" of holes PLRC001, 003 and 006.

Hole **PLRCD001** displayed 2 narrow half-metre intervals of +1,000pmm nickel and elevated copper.

Hole PLRCD003 displayed 63m @ 1,360ppm Ni from 271m (bottom of RC hole) and a further 7m @ 1,490 ppm Ni and 334ppm Cu from 334m. These assays are consistent with the disseminated nickel and copper sulphides observed in the drill core. It should also be noted that the RC component of PLRC003 returned an interval of 62m @ 2,055ppm Ni from 208m to 270m. (Refer Figure 3)

Hole PLRDC006 displayed no nickel assays greater than 1,000ppm, which is consistent with the hole having drilled unmineralised gabbro-norite.

A summary of the diamond drill core assay results is shown in Table 1 below, and a summary of the mineralised RC sample results is shown in Table 2.

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Hole	From	Int	Av	Min	Max	Av	Min	Max	Av	Min	Max
ID	m	m	Ni	Ni	Ni	Cu	Cu	Cu	Со	Со	Со
PLRCD001	310.18	0.56	1088			508			81		
PLRCD001	359.9	0.65	2041			2056			111		
PLRCD003	271	63	1360	1211	1594	72	36	106	136	123	147
PLRCD003	334	7	1490	1166	2282	334	226	604	117	90	143

Table 1. Summary of Preliminary Assays from DC Tails Using 1,000ppm Ni Cut off All results in ppm. Averages rounded to nearest 1ppm.

Refer Appendix A &D and JORC Table 1 for sampling & analytical methods for diamond core samples?

Table 2. Summary of Assays from Mineralised RC Holes Using 1,000ppm Ni Cut off Averages rounded to nearest 1ppm.

Hole	From	Int	Ni	Cu	Со	S	Cr
ID	m	m	ppm	ppm	ppm	%	ppm
PLRC002	4	4	1016	51	140	N/A	572
PLRC002	60	8	1058	72	124	N/A	209
PLRC002	76	8	1375	155	136	0.11	1108
PLRC002	87	20	1595	209	135	0.18	1686
PLRC003	208	62	2055	596	120	0.75	1439

*Refer Appendix B & C and JORC Table 1 for sampling & analytical methods or RC samples

<u>Revised Schematic Cross Section – Nickel-Copper Host Rocks</u>

The Company has now combined the geological logging, assay results from RC chips and diamond core (DC) and petrological studies of drill chips to produce a revised schematic cross section. Refer Figure 3 below.

As previously reported, thin sections of five RC chip samples and polished mounts of nine RC chip samples from PLRC002 and PLRC003 displaying visible sulfides were examined petrographically by a consultant. It was concluded that the chip samples are all mafic granulites derived from norite, gabbronorite and olivine-bearing gabbronorite protoliths, and that these drill chip samples were originally **cumulate mafic rocks in a layered mafic complex**.

All fourteen observed samples carried sulphides that appear to be primary sulfides in terms of their mineralogy, with the typical assemblage being pyrrhotite with subordinate chalcopyrite and pentlandite.

The presence of magmatic sulphides in the Plato rocks suggests that further exploration should be directed at locating more primitive, relatively olivine-rich, feeder-type sills and conduit rocks, such as the picritic sills that host the giant Norils'k Ni-Cu deposit.



Figure 3. Plato, Revised Schematic Geological Cross Section with Assays from RC & DC Samples

Additional Targets – Exploration Priorities

From analysis of the geology, geochemistry and geophysics of the Plato body, the Company concluded that the relatively **olivine rich units** (containing disseminated nickel and copper sulphides) of the gabbro-norite complex are essentially non-magnetic, while the **host gabbro-norite** is strongly magnetic. In addition, the olivine rich units are softer than the surrounding rocks and weather more readily (and more deeply) due to the sulphides combining with groundwater to form acidic conditions.

This conclusion has led to a re-appraisal of the Company's low level detailed 100m line spaced airborne magnetic data, to identify magnetic lows which could represent feeder sills or conduits containing massive sulphides. This Company's previous soil sampling results and HeliTEM data were also re-appraised.

The early channel HeliTEM data had identified areas of deeper weathering and/or palaeochannel development, which could signify acid leaching due to the presence of sulphides. This phenomena was observed at Plato (refer Figure 3) and has been well documented in the greenstone hosted gold deposits of the Eastern Goldfields. The Company has identified 7 targets (including Plato) which warrant further investigation via EM surveys and drilling. These targets are shown in Figure 4.



Figure 4. "Magnetic Low" Targets over 1st VD Magnetic Image

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These targets are tabulated below in Table 3, and Figure 5 shows the location of palaeochannels and deep weathering as identified from the early channels of the Company's HeliTEM survey. It should be noted that surface geochemistry was ineffective at Plato East and Oceanus due to deeper weathering and cover.

	Ni, Cu, Co Geochemistry	U/Mafic Rocks	Mag Low Signature	EM Conductors	Ni / Cu Sulphides
Plato	Yes	Yes	Yes	Yes	Yes
Plato West	Yes	To be tested	Yes	No	Target
Plato East	Cover	To be tested	Yes	To be surveyed	Target
Heart	Yes	To be tested	Yes	To be surveyed	Target
Oceanus	Cover	To be tested	Yes	To be surveyed	Target
Titan	Yes	To be tested	Yes	To be surveyed	Target
Highway	Yes	To be tested	Yes	To be surveyed	Target

Table 3. Magnetic Low/ Geochemical Targets with Potential for Olivine Rich Feeder Sills

Figure 5. Palaeochannels (red/green) Identified from HeliTEM Survey over 1st VD Magnetic Image



Funding Secured for Next Phase of FLEM Surveying and Drilling

On 23rd June 2014 the Company announced that it resolved to raise approximately \$1 million to undertake further FLEM surveys and drilling at Plato and surrounding nickel sulphide targets.

The Company has now accepted offers of \$1.2 million through the placement of 24 million shares at 5 cents per share (with a 1:2 attaching option exercisable at 10 cents on or before 30 June 2016 ("Placement").

The Placement will settle under the Company's existing 15% capacity pursuant to ASX Listing Rule 7.1. This will comprise 24 million shares and 12 million options. A Notice of Meeting will be sent to all shareholders in due course. The General Meeting is anticipated to be held in July 2014.

Fraser Range Work Program

Funds raised from the Placement will be primarily used to progress high impact exploration at the Fraser Range Project, as well as for general working capital purposes.

Enterprise intends to undertake further ground EM (GEM) surveys followed by an initial 3,000 metres of RC drilling at the Fraser Range Project. The GEM surveys will commence in early July 2014 followed by RC drilling, focusing on Plato and other nearby targets.

YRyan

Dermot Ryan Managing Director

Competent Persons statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Dermot Ryan, who is an employee of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

The information in this report that relates to Geophysical Exploration Results is based on information compiled by Mr Bill Robertson, who is the Principal of geophysical consultancy Value Adding Resources Pty Ltd. Mr Robertson is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Robertson consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

APPENDIX A

Analytical Methods for Half NQ Diamond Core Samples Reported

Assay Method	MA4010	MA4010	MA4010
Elements	Со	Cu	Ni
Units	ppm	ppm	ppm
Lower Detection Limit	1	1	1
Upper detection Limit	10000	10000	10000

Four acid digestion: 34 Elements ICP-OES Package

APPENDIX B

Analytical Methods for 4m RC Composite Samples Reported

Assay Method	AR2510	AR2510	AR2510
Elements	Со	Cu	Ni
Units	ppm	ppm	ppm
Lower Detection Limit	1	1	1
Upper detection Limit	10000	10000	10000

*25 gram aqua regia digest followed by ICP-OES on 31 elements

APPENDIX C

Analytical Methods for 1m RC Samples Reported

Assay Method	MA4010	MA4010	MA4010	MA4010	
Elements	Со	Cu	Ni	Cr	S
Units	ppm	ppm	ppm	ppm	%
Lower Detection Limit	1	1	1	1	0.01
Upper detection Limit	10000	10000	10000	10000	5

Four acid digestion: 34 Elements ICP-OES Package

APPENDIX D

Full Analytical Methods & Elements used for Diamond Core Samples & 1m RC Samples

	MA4010							
Elements	Ag	Al	As	Ва	Ве	Bi	Ca	Cd
Unit Codes	ppm	%	ppm	ppm	ppm	ppm	%	ppm
Lower Detection	0.5	0.01	2	5	0.5	5	0.01	1
Upper Detection	100	10	10000	10000	1000	10000	25	1000

	MA4010							
Elements	Ce	Со	Cr	Cu	Fe	К	La	Li
Unit Codes	ppm	ppm	ppm	ppm	%	%	ppm	ppm
Lower Detection	20	1	1	1	0.01	0.01	20	1
Upper Detection	500	10000	10000	10000	50	10	1000	1000

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	MA4010							
Elements	Mg	Mn	Мо	Na	Ni	Р	Pb	S
Unit Codes	%	ppm	ppm	%	ppm	ppm	ppm	%
Lower Detection	0.01	2	1	0.01	1	20	2	0.01
Upper Detection	20	10000	10000	10	10000	10000	10000	5

	MA4010							
Elements	Sb	Sc	Sn	Sr	Те	Ti	TI	V
Unit Codes	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm
Lower Detection	2	1	5	1	2	0.01	10	2
Upper Detection	10000	10000	10000	10000	500	10	1000	10000

	MA4010	MA4010
Elements	W	Zn
Unit Codes	ppm	ppm
Lower Detection	1	2
Upper Detection	10000	10000

Four acid digestion: mixture of hydrofluoric, nitric, perchloric and hydrochloric acids. 34 Elements ICP-OES Package

APPENDIX E

Parameters for Fixed Loop EM Survey

Fraser Range
Plato
Vortex VTX-100
90 Amps
0.5 Hz
SMARTem24
SMARTFluxgate

Component Directions

Z Component: +ve up

X Component: +ve towards 90⁰ (east)

Y Component: +ve towards 0⁰ (north)

Table I - FLEM Traverses

Loop	Easting	Easting	Northing	Distance
	Min	Max	Line	m
1	490800	491700	6432900	0.9
1	490800	491700	6433100	0.9
1	490800	491700	6433300	0.9
1	490800	491700	6433500	0.9
1	490800	491700	6433700	0.9
2	490200	491100	6433300	0.9
2	490200	491100	6433500	0.9
2	490200	491100	6433700	0.9
2	490200	491100	6433900	0.9
2	490200	491100	6434100	0.9
3	490050	490950	6434300	0.9
3	490050	490950	6434500	0.9
3	490050	490950	6434700	0.9
3	490050	490950	6434900	0.9
3	490050	490950	6435100	0.9
7	487600	488500	6433800	0.9
7	487600	488500	6434000	0.9
7	487600	488500	6434200	0.9
7	487600	488500	6434400	0.9
7	487600	488500	6434600	0.9
8	488100	489000	6434800	0.9
8	488100	489000	6435000	0.9
8	488100	489000	6435200	0.9
8	488100	489000	6435400	0.9
8	488100	489000	6435600	0.9
				22.5

Plato					
Loop 1		Loop 2		Loop 3	
MGA94mE	MGA94mN	MGA94mE	MGA94mN	MGA94mE	MGA94mN
490750	6433800	490150	6434200	490000	6435200
491750	6433800	491150	6434200	491000	6435200
491750	6432800	491150	6433200	491000	6434200
490750	6432800	490150	6433200	490000	6434200

Table II - Transmitter Loop Co-ordinates

Plato West

Loop 7		Loop 8		
MGA94mE	MGA94mN	MGA94mE	MGA94mN	
487550	6434700	488050	6435700	
488550	6434700	489050	6435700	
488550	6433700	489050	6434700	
487550	6433700	488050	6434700	

Table III - Channel Times

Turn off Ramp : 1.0ms

Channel	Time Start	Time End	Channel	Time Start	Time End
1	1.087	1.112	21	7.618	9.509
2	1.109	1.140	22	9.217	11.564
3	1.135	1.173	23	11.201	14.115
4	1.167	1.215	24	13.664	17.282
5	1.208	1.267	25	16.722	21.214
6	1.258	1.332	26	20.519	26.095
7	1.320	1.412	27	25.232	32.155
8	1.398	1.511	28	31.083	39.678
9	1.494	1.635	29	38.348	49.018
10	1.613	1.788	30	47.366	60.614
11	1.761	1.978	31	58.562	75.009
12	1.945	2.215	32	72.462	92.880
13	2.173	2.508	33	89.719	115.067
14	2.456	2.872	34	111.142	142.611
15	2.808	3.324	35	137.738	176.806
16	3.244	3.885	36	170.757	219.259
17	3.786	4.582	37	211.749	271.963
18	4.459	5.447	38	262.640	337.394
19	5.294	6.521	39	325.819	418.625
20	6.331	7.854			

Channel times in ms from the start of the turn off ramp.

JORC Code, 2012 Edition – Table 1 report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Drillingtechnique	 Initially 6 Reverse Circulation (RC) drill holes with face sampling hammer bit.at the Plato prospect. Subsequently, 4 NQ diamond core tails drilled.
Drill sample recovery	 For 6 RC holes, recoveries were logged visually as a volume percentage. Each RC sample was split into 10% (for laboratory analysis) and 90% into a large green plastic bag through a triple tier splitter. Whole RC sample obtained. For DC holes, 100% core recovery obtained
Logging	 RC drill chips & DC drill core have been geologically logged to a level of detail deemed appropriate for mineral exploration. RC & DC drill logs record lithology, mineralogy, mineralisation, weathering, colour and other appropriate features. All RC& DC logging is quantitative. 6 RC drill holes reported were logged in full NQ Diamond core from holes PLRCD001, 003, 005 & 006 were geologically logged.
Sub-sampling techniques and sample preparation	 Diamond core was marked up for half core diamond sawing. RC samples were cyclone split. Samples were collected mostly dry. The sample preparation of RC samples follows industry best practice. All samples will be pulverized to a minimum of 85% passing 75 microns. RC samples are collected at 1m intervals from a cyclone and split into 10% and 90% representative samples. 4mSamples of equal volume were composited from 1 metre 90% green bag samples using a spear. In house blank and duplicate sampleswere inserted as 1 in 20 samples to be analysed with each batch of samples. Samples sizes are appropriate to the size of the RC chips. All RC & DC samples were sent to Minanalytical Laboratory for geochemical analysis.
Quality of assay data and laboratory tests	 The analytical technique used a mixed acid digest on 4m RC composite samples and 4 acid digest on 1 metre RC samples. The analytical technique used a 4 acid digest on 0.2 metre and 1 metre diamond core samples. For RC samples, 1 in 20 samples was a Company duplicate. No Company standards were used. The Company has relied upon Minanalytical Laboratory for standards and QA/QC.
Verification of sampling and assaying	 The sampling techniques were reviewed in the field by the Managing Director. Significant intersections of the RC chips and diamond core were visually verified by the Managing Director and an independent technical consultant. There have been no been twinned holes to date. Primary sampling and logging data was collected by excel templates using flat files. No Adjustments or Calibrations were made to the assay data reported. Parameters for Plato & Plato West Fixed Loop EM Survey Transmitter: Vortex VTX-100 Current: 90 Amps Base Frequency: 0.5 Hz Receiver: SMARTem24 Sensor: SMARTFluxgate Component Directions Z Component: +ve up X Component: +ve towards 900 (east) Y Component: +ve towards 00 (north)
Location of data points	 Drillhole collars were located by GPS. Elevation values were in AHD. Expected accuracy is +/- 3m for northing and easting and +/-10m for elevation coordinates. The grid system is GDA94(MGA), zone 51 The GPS is +/- 5m. A digital terrain model has been derived from data collected during the airborne magnetic survey of the whole tenement.
Data spacing and distribution	 The nominal drill hole spacing is 200m on northings at Plato prospect. There is insufficient data to establish geological and grade continuity at this stage. Mineralised intervals have been analysed at 1 metre, and non-mineralised samples were composited at 4 metre intervals for analysyis.

Orientation of data in relation to geological structure	 There is no outcrop on which to base geological control. The drill section is arbitrarily east- west. Drill intersections are not true widths.
Sample security	 Chain of custody is managed by Toll Ipec and then Minanalyical Laboratory. RC Samples were stored at drill site and then delivered by Enterprise personnel to Toll Ipec for transport to the Perth laboratory.
	 Preliminary logging of Diamond drill core was undertaken in the field, and core was then transported to Perth by Company personnel for detailed logging and core sawing.
Audits or reviews	No audits or reviews are required at this early stage of exploration

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	 The drilling is located wholly within Exploration Licence E63/1281. The tenement is 100% owned by Enterprise Metals Ltd The tenement is granted and in good standing with no known impediments to exploration.
Exploration done by other parties	No known exploration by other parties on Plato Prospect.
Geology	Plato occurs within the Albany-Fraser Orogen which consists of gneiss, mafic rocks including gabbro with significant garnet in the metamorphic rocks.
	• Further drilling and assaying is required to fully assess the geology and style of mineralisation.
	 Preliminary mineralogy and petrology studies completed suggest that host rocks at Plato are mafic granulites derived from norite, gabbronorite and olivine-bearing gabbronorite protoliths, and that these drill chip samples were originally cumulate mafic rocks in a layered mafic complex.
	 All observed samples carried sulphides that appear to be primary sulfides in terms of their mineralogy, with the typical assemblage being pyrrhotite with subordinate chalcopyrite and pentlandite.
Drill hole Information	Refer to Figure 2 for drill hole locations.
Data aggregation methods	• Where assays were composited for summary purposes, all assays were weighted by equal interval (1 m or 4m)
	No use of metal equivalents has been used in this report
Relationship between mineralisation widths	 The geometry of mineralisation is not known fully at this early stage. Intercents are of holes, drilled at -70 din. These are not true, thicknesses.
and intercept lengths	 Downhole lengths only are reported. These are not true widths.
Diagrams	Revised Schematic cross section only at this early stage of exploration.
Balanced reporting	All significant results are reported.
	• All 1 metre and 4 metre RC assay results and DC assay results reported for elements relevant to magmatic nickel sulphide search.
Other substantive	Previous exploration results at Plato reported in ENT:ASX releases dated:
exploration data	 19/3/2013, 20/11/2012, 17/09/2012 19/03/2013, 20/11/2012, 17/09/2012
Further work	At this stage, geology and mineralisation at Plato are not well understood.
	 Diamond core (DC) was drilled to allow DHEM surveys and provide drill core for geology and petrology.