

24<sup>th</sup> July 2014

## **JUNE QUARTERLY REPORT HIGHLIGHTS FOR THE QUARTER**

**MRL Corporation Limited**

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### **ASX Symbol**

MRFL, MRFO, MRFOA

### **Highlights:**

- **Successful completion of underwritten entitlement issue, raising \$1.492m.**
- **Executed drilling contract with GSMB in May 2014 and drilling commence 11 June 2014.**
- **Test work on remnant graphite samples from EL 228 demonstrated it is capable of being upgraded from 85.6% (TGC) to ~95.4% Total Graphite as Carbon (TGC) and (96.2% TC) with a single stage flotation and without any regrind optimisation.**
- **First drill hole (DHE228-01) was completed with assays results as high as 97.8% TGC (Total Graphitic Carbon) being returned with the first intersection, from 91.62m to 92.32m, averaging 94.1%TGC while the second interval, from 97.0m to 97.9m, averaged 97% TGC.**
- **Application for explosives license being submitted to allow underground exploration to continue into hard rock areas.**

MRL Corporation Ltd (ASX:MRFL; "MRL" or "the Company") is pleased to report its activities for the June 2014 quarter on its rapidly emerging vein graphite projects in Sri Lanka.

### **Entitlement Issue**

In May the Company successfully completed the entitlement issue which had been launched in the previous quarter. The issue was fully underwritten and this ensured the full \$1.492m was received.

### **Exploration**

In May 2014 the Company executed a drilling contract with the Geological Survey and Mines Bureau (GSMB) and commenced the first drill hole (DHE228-01) on 11 June 2014. This maiden drill hole proved to be very successful with outstanding high-grade assay results received for two of the reported intersections from drill hole DHE228-01. (ASX Releases – 25 June and 17 July 2014).

The exceptional results from this first hole confirmed the presence of high-grade vein graphite within the first licence to be systematically drill tested.

Individual results were as high as 97.8% TGC (Total Graphitic Carbon) with the first intersection, from 91.62m to 92.32m, averaging 94.1% TGC while the second interval, from 97.0m to 97.9m, averaged 97% TGC.

Full details of the results are provided in Appendix 1.

As detailed in the announcement on the 25<sup>th</sup> June 2014, further drilling results will be released as each diamond drill hole is completed and analytical results are obtained.

Due to the success of the Company's maiden drill hole DHE228-01, a second drill hole, DHE228-04, was designed to drill from the same location as DHE228-01, towards the south-east to test the southern extent of mineralisation at Pandeniya. Further holes will be drilled later in the drilling program to test the northern extensions.

Following the completion of DHE228-04, the drill rig will mobilise to location DHE228-02, and commence drilling towards the east, to test the main exploration target at Bopitiya. Drilling activities are currently taking place on a 'day shift' only basis due to limited resources available within the country.

### **The Quarter Ahead**

The Company has an exciting quarter's activities planned. These include;

- Continuation of drilling campaign with two planned deeper diamond drill holes (DHE228-01 & 02) under the main Bopitiya priority area and designed to intersect multiple vein sets. Further drill holes for both Pandeniya and Bopitiya are planned to establish dimensions of mineralised zones required for application to convert into an Industrial Mining License.
- Further exploration work towards drill targets on the Pujapatiya project areas
- Further geological reconnaissance, mapping and geophysics on the Company's other priority areas.
- Further analytical testing by Nagrom for upgrading the graphite material.

### **About MRL Corporation Ltd (ASX: MRF)**

*MRL is aiming to develop an underground mining operation to extract high-grade, crystalline vein graphite, which is unique to Sri Lanka. The Company holds exclusive rights to exploration licenses covering approximately 6,300 hectares in area, with historical workings located within nearly all license grids.*

### **About Graphite**

*Natural graphite occurs in three forms: amorphous graphite, flake graphite and the most rare and highest quality form being crystalline vein graphite. Sri Lanka is famed for being the only commercial producer of crystalline vein graphite (lump or Ceylon graphite), the highest quality of naturally occurring material in the world. The quality of vein graphite produced in the country has a purity level in excess of 90% TGC (Carbon as graphite) which means little upgrading and processing is required to make a high quality saleable product.*

*Amorphous (micro crystalline) graphite is the least pure form of naturally occurring graphite and commercial deposits usually have a carbon content of 70-85%, and are found as lenses or lumps with flat fracture cleavages. It is normally formed by metamorphism of previously existing anthracite coal seams.*

**For further information:**

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Flake (crystalline) graphite is the more common form of graphite and typically has a carbon content in the range of 80-99%, and is usually formed in metamorphic rock in concentrations of 5%-12% of the ore body. Mining and processing of these deposits is similar to an open pit gold or copper mine, requiring 'large scale' mining and processing to extract the graphite. Large-scale mining and processing plants typically equates to high capital expenditures and relatively high operating costs.

Vein (crystalline) graphite is the purest form of graphite with TGC grades typically >90%, with some grade as high as 99.5% TGC. Mining vein graphite may be considered analogous to high-grade gold vein mining, requiring considerably less capital expenditure when compared to large-scale open pit mining. That is, development, mining equipment and processing plants will be of a significantly smaller scale. Operating unit costs will also be lower than those for typical large-scale open pit mining.

### **Nature of vein graphite**

Sri Lankan graphite deposition model is best described from the 'bottom up': tension fractures formed in the metamorphic sediments, caused by the folding of the sediments, creating 'conduits' for the hydrothermal deposition of high quality vein graphite. Historically, mining of these veins has found the veins generally increase in thickness and grade quality with increasing depth. Graphite veins generally dip steeply at  $-70^\circ$  to near vertical, enabling 'narrow vein' extraction mining techniques similar to those used on narrow vein, high-grade gold deposits. The method commonly used is an overhead retreat stoping technique where the high-grade vein graphite is mined and hauled to surface without contamination. The graphite selvages, in contact with the surrounding waste, is hauled to surface and stockpiled for upgrading. The balance of the waste is used to fill the floor of the stope.

Due to the nature of the vein graphite, it is anticipated vein widths of ~25cm, using narrow vein mining techniques can be economically extracted from underground operations.

The comparison chart below illustrates comparative 'metal equivalent' grades of precious metals with their assumed metallurgical recoveries as compared to Sri Lankan vein graphite.



Information in this report relating to Metallurgical interpretation, analysis, mineral distribution and recommendations has been compiled by Mr Denis Geldard, MAusIMM in consultation with Dr Slobodanka Vukcevic, Senior Metallurgist at Nagrom the Mineral Processors. Dr Slobodanka Vukcevic has sufficient experience and expertise relevant to this type of test work through her job experience and expertise and qualifies as a competent person in the field of metallurgy. Mr Geldard consents to the inclusion in the report of the matters based on the information reported in the form and context in which it appears.

Information in this report relating to Exploration Results is based on information compiled by Mr Denis Geldard, MAusIMM working in consultation with consulting Geologist Mr Gary Powell, MAusIMM and MRL's Senior Sri Lankan Geologist who has 35 years of vein graphite experience in Sri Lanka. Their experience is relevant to the type of deposit under consideration. Mr Geldard is signing as competent person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Geldard consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

#### Appendix 1 – Analytical Results DHE228-01 intersections & repeat samples.

Drill Hole	Sample Test #	Intersection : From (m) – To (m)		TC%	TGC%	Average TGC%
DHE228-01	Sample 1A - #1	91.62	92.32	93.0	92.8	94.1
DHE228-01	Sample 1A - #2	91.62	92.32	95.3	94.1	
DHE228-01	Sample 1A - #3	91.62	92.32	95.8	94.1	
DHE228-01	Sample 1A - #4	91.62	92.32	96.3	95.4	
DHE228-01	Sample 2A - #1	97.0	97.9	98.1	97.8	97.0
DHE228-01	Sample 2A - #2	97.0	97.9	98.5	96.1	

#### JORC TABLE 1 Report for EL228 Warakapola Pandeniya location Section 1 Sampling Techniques and Data

Criteria	Explanation
Sampling techniques	<ul style="list-style-type: none"> <li>Diamond core is collected and stored in core trays of 5m per tray. Vein graphite is readily identified visually (black in colour) and intersections recorded accordingly. Intersections will then be cut using a small hand held diamond saw under the supervision of MRL's Senior Sri Lankan Geologist and prepared for transport to Nagrom (Australia) for analysis.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>DH1 drill hole was drilled using NQ Double Tube (NQ2) due to lack of available NQ Triple Tube (NQTT) Diamond Drilling equipment in Sri Lanka at the start of the drilling campaign. It is anticipated future drilling will be undertaken utilising NQ Triple Tube (NQTT) drilling, once it becomes available</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Diamond core recovery is recorded between core runs and recorded by the geological crew in the Core Logging Record. The unconsolidated surface material will be drilled using rotary wash method until competent material is intersected</li> </ul>
Logging	<ul style="list-style-type: none"> <li>All holes are logged on site by MRL geological personnel under the supervision of MRL's Senior Sri Lankan Geologist, using MRL's Core Logging Procedure Manual.</li> <li>Logging will record geological and geotechnical observations, and is undertaken on a continual basis throughout the entire drill hole.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>Half-core intersections of Vein Graphite will be submitted for analysis to Nagrom laboratories in Perth Western Australia. The remaining half-core is stored in the core boxes.</li> <li>DH1 samples were NQ2, and future core samples will be NQTT. All future samples will be NQTT.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>All Vein Graphite core intersections will be analysed by Nagrom the Mineral Processors in Perth Western Australia. Nagrom will follow industry practice QA/QC procedures to ensure high quality sample assurance.</li> <li>Certified Sample Standards will be inserted routinely into sample analysis.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>All diamond core will be logged and photographed by MRL geologists under the supervision of MRL's Senior Sri Lankan Geologist. Independent consulting geologist Mr Gary Powell visited the MRL Pandeniya / Bopitiya site during June &amp; July and will return on a regular basis to oversee QA.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>All drill locations have been positioned using hand-held Garmin GPS systems. MRL has completed a full topographical survey of the Pandeniya – Bopitiya area of approximately 65</li> </ul>

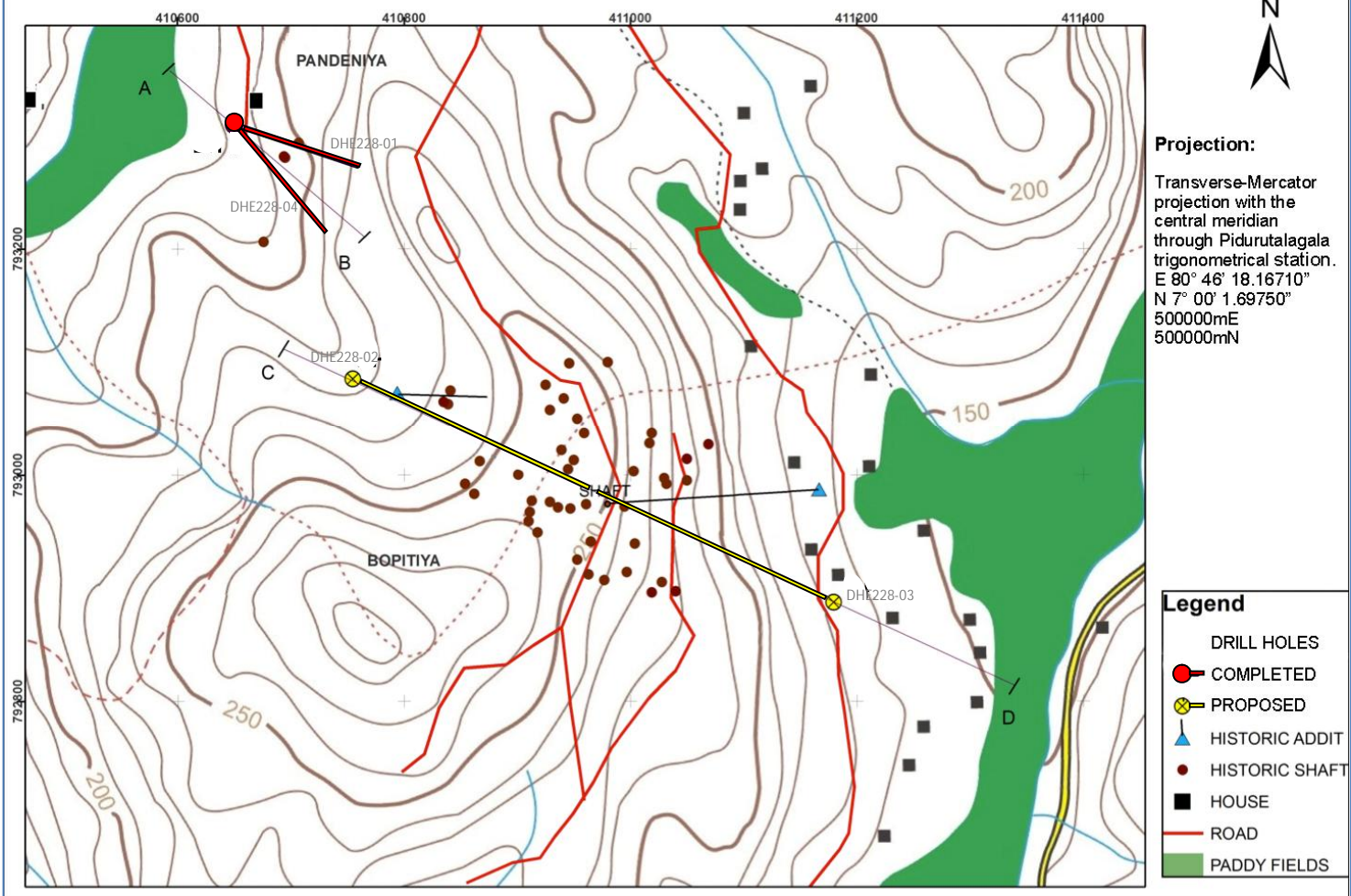
<b>Criteria</b>	<b>Explanation</b>
	Ha. All drill collars will be geo-referenced to the Sri Lankan Transverse Mercator Projection.
Data spacing and distribution	<ul style="list-style-type: none"> <li>Drill holes have been orientated in a position to intersect the expected vein mineralisation (based on historical shafts / adits and geophysical information) at the optimal angle for evaluation, whilst minimising land disturbance.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Diamond Core Drill holes are designed to intersect potential graphite vein mineralisation perpendicular to strike, wherever possible, whilst taking into account expected deviation in dip and azimuth.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>Core Samples are collected and stored in core trays under the supervision of MRL geological crews and then transported at the end of each day, and secured in a locked container at the MRL site facility for further detailed logging. Security is managed by MRL's Senior Sri Lankan Geologist and the MRL country General Manager.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>A review was undertaken by Mr Gary Powell of all procedures, including retrieving of core samples from the core tube, through to logging and storage of core samples, during a recent visit to Sri Lanka during drilling activities. Mr Powell will undertake further reviews into the future.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	Explanation																																				
Mineral tenement and land tenure status	<p>The Warakapola / Bopitiya / Pandeniya project exploration license areas EL228 are 100% owned by MRL Graphite (Pvt) Ltd. The exploration Licenses when granted have a two year term which can be renewed prior to the 2 year anniversary.</p> <table><tr><th>License No.</th><th>MRL Interest</th><th>Status</th><th>General Location</th></tr><tr><td>EL/225</td><td>100%</td><td>Granted</td><td>Central</td></tr><tr><td>EL/226</td><td>100%</td><td>Granted</td><td>Central</td></tr><tr><td>EL/227</td><td>100%</td><td>Granted</td><td>South Central</td></tr><tr><td>EL/228</td><td>100%</td><td>Granted</td><td>Central</td></tr><tr><td>EL/231</td><td>100%</td><td>Granted</td><td>South West</td></tr><tr><td>EL/243</td><td>100%</td><td>Granted</td><td>Central</td></tr><tr><td>EL/244</td><td>100%</td><td>Granted</td><td>South West</td></tr><tr><td>EL/262</td><td>100%</td><td>Granted</td><td>Central</td></tr></table> <ul style="list-style-type: none"><li>MRL Corporation Ltd has informed Mr Powell all granted licenses are in good standing and comply with the reporting requirements of the exploration licence.</li></ul>	License No.	MRL Interest	Status	General Location	EL/225	100%	Granted	Central	EL/226	100%	Granted	Central	EL/227	100%	Granted	South Central	EL/228	100%	Granted	Central	EL/231	100%	Granted	South West	EL/243	100%	Granted	Central	EL/244	100%	Granted	South West	EL/262	100%	Granted	Central
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EL/262	100%	Granted	Central																																		
Exploration done by other parties	<ul style="list-style-type: none"><li>Initial Exploration and Review of the Warakapola / Bopitiya / Pandeniya project was carried out by Geological Survey and Mines Bureau (GSMB) Technical Services (Pvt) Ltd with reports provided to MRL. MRL has established a regional office in the EL228 area to support the company geologists and underground exploration crews.</li><li>Historical mining has taken place with several shafts and adits evident.</li></ul>																																				
Geology	<ul style="list-style-type: none"><li>Warakapola / Bopitiya / Pandeniya</li><li>Geologically, the area covered by the selected grid units belong to the Wannu Complex of Sri Lanka. The Wannu Complex is mainly characterised by thick sequences of orthogneisses, comprising amphibolite, migmatitic, granitic and granodioritic gneisses. These rocks represent a series of antiformal and synformal structures. A characteristic feature of the exploration area is the alignment of identified abandoned graphite mines / pits within a NNW-SSE trending corridor.,(GSMB 2013)</li></ul>																																				
Drill hole Information	<p>Planned Diamond Core Drill Holes</p> <table><tr><th>Drill Hole</th><th>Easting</th><th>Northing</th><th>Dip / Azimuth</th><th>Hole Depth</th><th>Comments</th></tr><tr><td>DHE228-01</td><td>135,857</td><td>219,465</td><td>55 °/ 109°</td><td>125m</td><td>Completed</td></tr><tr><td>DHE228-02</td><td>135,950</td><td>219,250</td><td>50 °/ 115°</td><td>300 - 325m</td><td>Setup</td></tr><tr><td>DHE228-03</td><td>136,375</td><td>219,052</td><td>50 °/ 295°</td><td>300 - 325m</td><td>Planned</td></tr><tr><td>DHE228-04</td><td>135,857</td><td>219,465</td><td>50 °/ 140°</td><td>125m</td><td>Drilled</td></tr></table> <ul style="list-style-type: none"><li>All Diamond Core Drill holes are planned to be accurately surveyed for dip and azimuth using a GlobalTech Pathfinder multi-shot, electronic, down hole survey tool.</li><li>A GlobalTech core orientation tool is being used to orientate the core during the drilling.</li></ul>	Drill Hole	Easting	Northing	Dip / Azimuth	Hole Depth	Comments	DHE228-01	135,857	219,465	55 °/ 109°	125m	Completed	DHE228-02	135,950	219,250	50 °/ 115°	300 - 325m	Setup	DHE228-03	136,375	219,052	50 °/ 295°	300 - 325m	Planned	DHE228-04	135,857	219,465	50 °/ 140°	125m	Drilled						
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Data aggregation methods	<ul style="list-style-type: none"><li>Intersections of diamond core containing vein graphite will be visually selected for analytical testing with accurate lengths recorded to ensure 100% of mineralisation is analysed and reported.</li></ul>																																				
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"><li>Planned Drill hole orientation is based on observations from historical shafts / adits and geophysics, and planned to intersect any vein graphite mineralisation as close to perpendicular as practical.</li></ul>																																				
Diagrams	<p>Appendix 1 – Analytical results for DHE228-01</p> <p>Refer Figure 1 for location plan for Schematic of Core Drilling Locations.</p> <p>Refer Figure 2 for Schematic section view of Core Drilling Locations and graphite intersections.</p>																																				

<i>Criteria</i>	<i>Explanation</i>
Balanced reporting	<ul style="list-style-type: none"> <li>• MRL Corporation Ltd will endeavour to produce balanced reports accurately detailing the results from any exploration activities.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>• No other substantive exploration data is available at this time.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>• MRL Corporation Ltd intends to complete further site investigations on its other licenses. Following the completion of this drilling program MRL will evaluate the results and plan the next phase of exploration for the Pandeniya / Bopitiya exploration location.</li> </ul>

# SCHEMATIC CORE DRILLING LOCATIONS EL-228





**SCHEMATIC CORE DRILLING LOCATIONS OF EL-228**  
**SECTION A-B & C-D**

