



ASX RELEASE

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5 FEBRUARY 2020

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**Directors**

Lee Christensen  
Dr James Searle  
Jason Ferris

**Ticket**

ASX: TSL

## ASSAY RESULTS SHOW MAJOR DEPTH RESOURCE POTENTIAL

- **Visual indications previously reported (ASX:TSL 27/9/19 and 20/12/19) are confirmed as assay results demonstrate potential major resource upgrade.**
- **RC aircore assay results identify heavy mineral concentrations down to 9m beneath the entire 8+ km long Domain 2 mineral resource zone previously reported<sup>1</sup>.**
- **The results are from the first 181 of the 473 RC aircore drill holes completed in mid-December 2019.**
- **Further RC aircore assay results to be released to the market as received over the coming weeks.**
- **Upgraded resource report will be finalised once all assay results have been compiled.**

**TSL Managing Director, Dr James Searle said :** *“These initial RC aircore results are extremely encouraging as they demonstrate the major depth potential to greatly increase the previously reported surface exposed mineralisation on the Mannar Island Project.”*

As previously reported (ASX:TSL 20/12/19) a total of 473 RC aircore drill holes were completed on the Mannar Island Project (Figure 1). The results from the first 181 holes received (Figure 2) include tenure that is being acquired subject to approval by shareholders at the EGM to be held on 21<sup>st</sup> of February 2020. Drilling was carried out as part of the due diligence investigations in 2019.

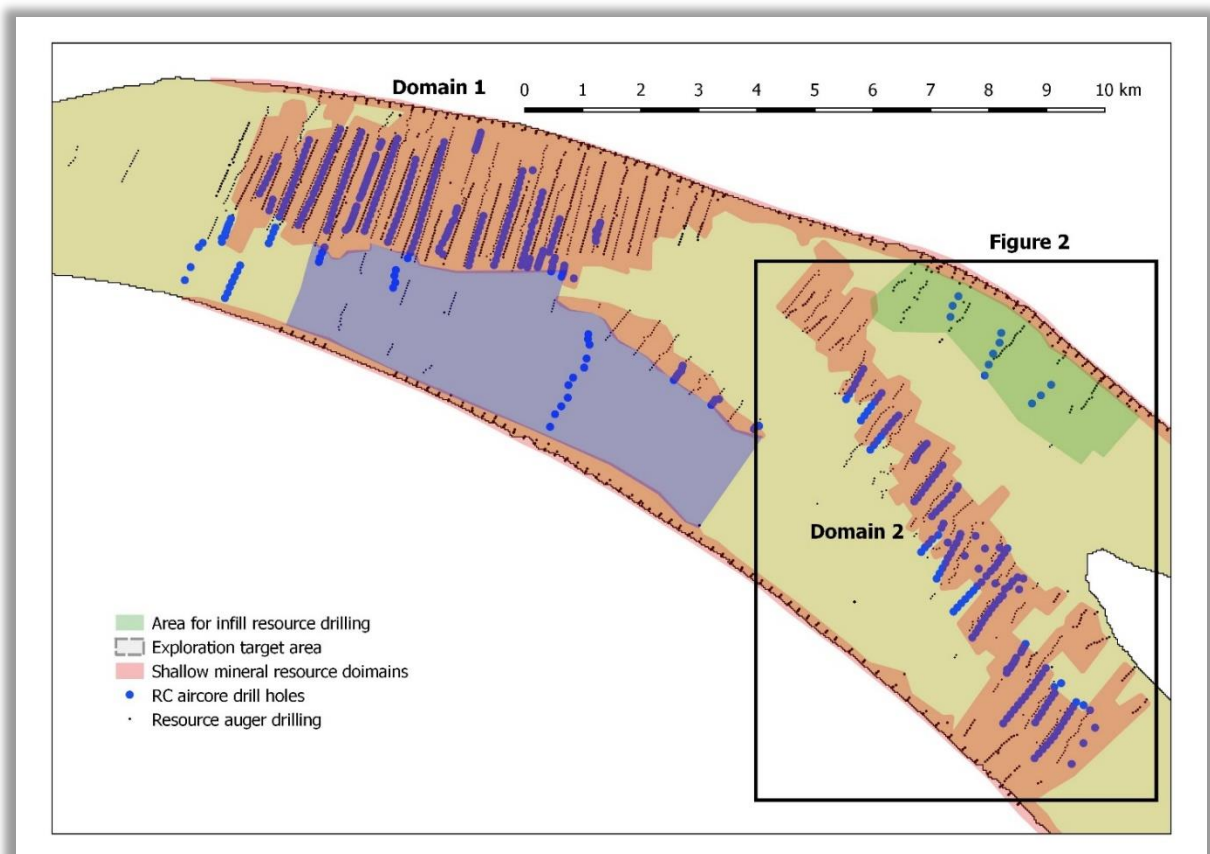
The assay results received from the first 181 RC aircore drill holes (Figure 2) have demonstrated the resource zone on Domain 2 is over 8km long and is underlain down to around 8 to 9m by unconsolidated sands with consistently between 3.2% and 7.6% Total Heavy Mineral (Figure 3).

The previously reported visual logging down to depths of 12m below surface within the target holes (Figure 3) indicate further heavy mineral concentration below the limit of accurate sampling in the RC aircore holes to date.

## DRILLING OBJECTIVES AND OUTCOMES

The RC Aircore drilling program was designed to test for below water table depth extension of the surface exposed mineral resource to a nominal depth of 12m. Sampling of the RC aircore drill holes every metre was undertaken from surface down to a depth where water recovery with the sample was judged to potentially compromise the accuracy of the sample. Typically this occurred at depths of around 8 to 9m below surface (Figure 3) . However visual logging of material from the drill holes was carried from surface to the nominal 12m target depth. Visual logging of the drilling indicated that almost all holes contained significant concentrations of heavy minerals all the way to the target depth of 12m. A further drill program utilising Sonic Core Drilling will be capable of sampling in water prone materials and would provide accurate samples below the 8-9m achieved by the RC aircore drilling. This will provide TSL with the potential to further significantly enhance the resource.

Full tabulation of the RC aircore intercepts are contained in Appendix 1. Appendix 2 contains full JORC exploration results reporting compliance table.



**Figure 1 Location of the RC aircore drill holes.**

Further results from the remaining 292 RC aircore holes being analysed will be reported as they are received over the next few weeks.

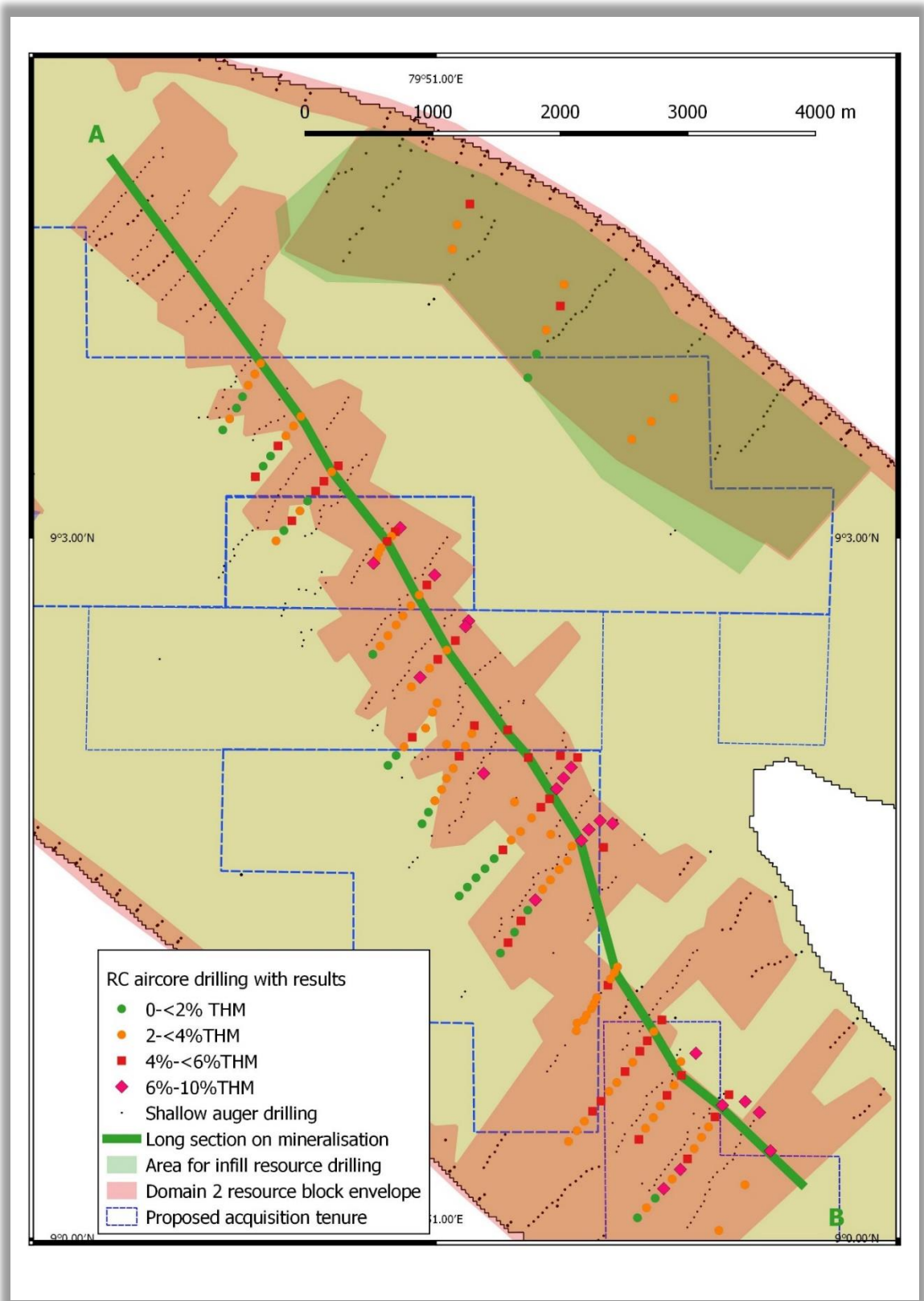
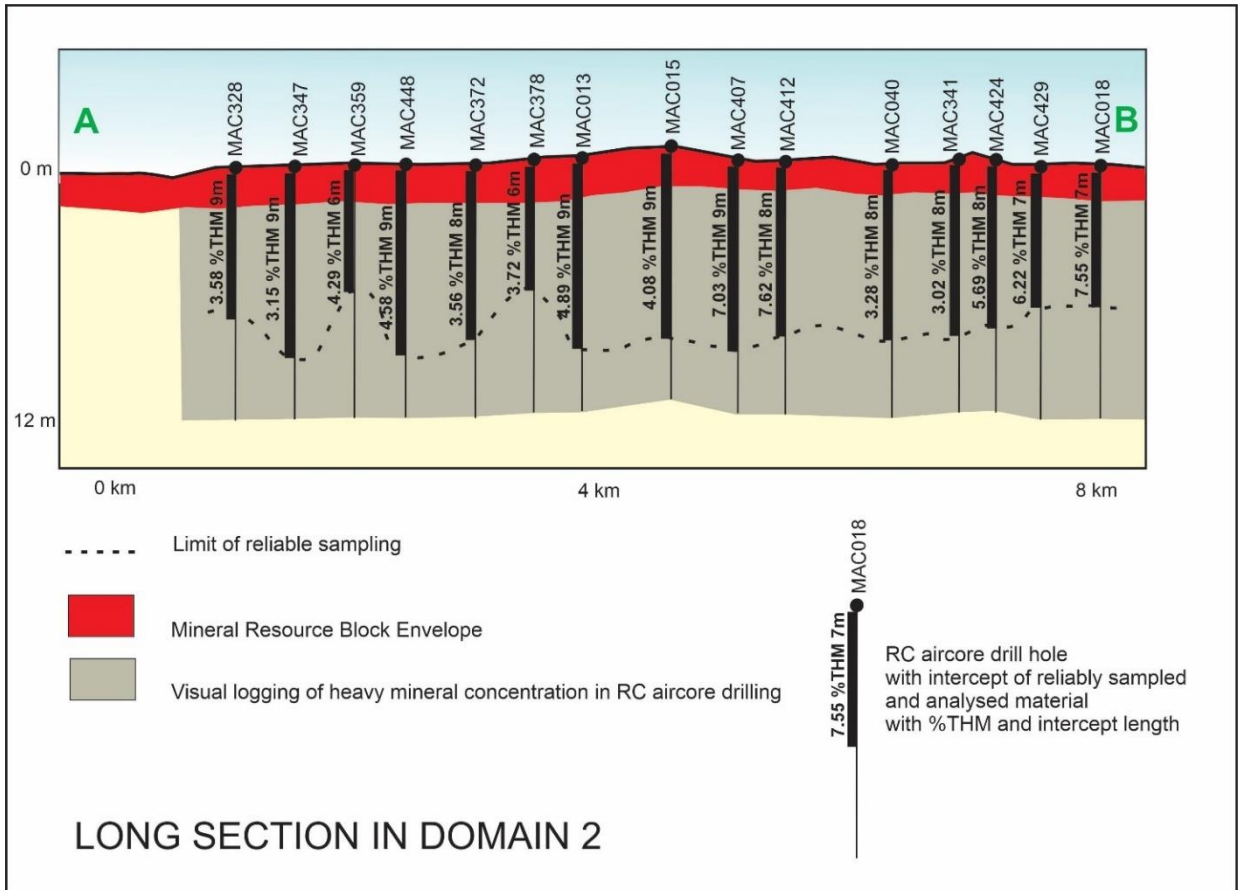


Figure 2 Domain 2 RC aircore drill hole results received.



**Figure 3 Long section (located on Figure 2) showing RC drilling results beneath existing mineral resource**



**Figure 4 Panning of RC aircore samples from below the water table, during logging at the Mannar Island Project. Dark material is heavy minerals.**

## OVERVIEW OF THE MANNAR ISLAND HEAVY MINERAL SAND PROJECT

The Mannar Island Heavy Mineral Sands Project is located in the dry north west of Sri Lanka. Mannar Island is a 26 km long by 5 km wide sand island joined to the Sri Lankan mainland by a 3 km road and rail causeway (Figure 5).

Sri Lanka is a stable democratic nation of ~21m people. The country is very supportive of foreign investment and has a favourable tax regime. Power, rail and road infrastructure extends across the country and Mannar Island. The Government is actively enhancing infrastructure in many locations including the North West where Mannar island is located (Figures 6 and 7).

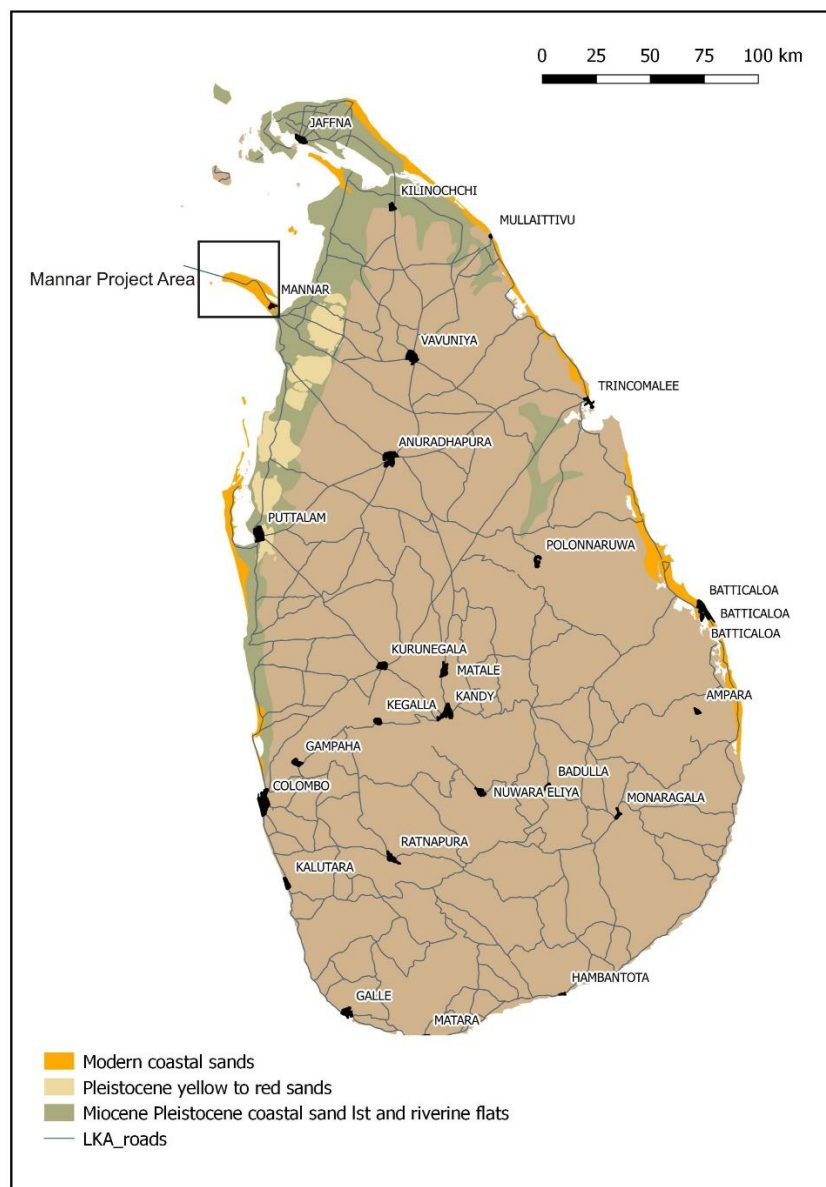


Figure 4 Location of the Mannar island Project in NW Sri Lanka

Regionally Sri Lanka is ideally situated for product export to all parts of Asia including China. It is situated on one of the Chinese belt and road maritime routes and as part of this a major new port has been developed at Hambantota. Other major ports are located at Trincomalee (north east coast) and Colombo.

Titanium Sands Ltd has defined a substantial high grade inferred and indicated heavy Mineral Resource on Mannar Island of 90.03Mt at 6.60% Total Heavy Minerals (THM) ([ASX:TSL 28/01/20](#)). This includes 32.35Mt at 7.56% THM on tenure to be acquired subject to shareholder approval on the 21<sup>st</sup> of February 2020. The Company has completed further lateral and depth extension drilling to this resource using its own specially modified reverse circulation aircore drilling rig (Figure 8) and it is also anticipated the Company's scoping study will be completed in the first quarter of 2020.



**Figure 6 Rail track on Mannar Island that connects to the mainland network.**



**Figure 7 Road and power infrastructure leading to Mannar Island**



**Figure 8 RC aircore tractor mounted drilling rig owned and operated by Titanium Sands Ltd.**

**Ends-**

The Board of Directors of Titanium Sands Ltd authorised this announcement to be given to ASX.

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**Competent Persons and Compliance Statements**

Except where indicated, exploration results above have been reviewed and compiled by James Searle BSc (hons), PhD, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy, with over 37 years of experience in metallic and energy minerals exploration and development, and as such has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Searle is the Managing Director of Titanium Sands Limited and consents to the inclusion of this technical information in the format and context in which it appears.

**Previously Reported Information Footnotes**

This report includes information that relates to Exploration Results and Mineral Resources prepared and first disclosed under JORC Code 2012. The information was extracted from the Company's previous ASX announcements as follows:

<sup>1</sup> ASX announcement 28/01/20 **TSL achieves Indicated Resource Upgrade**

This announcement is available to view on the Company's website [www.titaniumsands.com.au](http://www.titaniumsands.com.au)

The Company confirms that it is not aware of any new information or data that materially affect the information included in the relevant market announcements and, in the case of estimates of the Proposed Tenure Acquisition or the Company's existing Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply with respect to the resource block model and total heavy mineral content and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the relevant original market announcements.

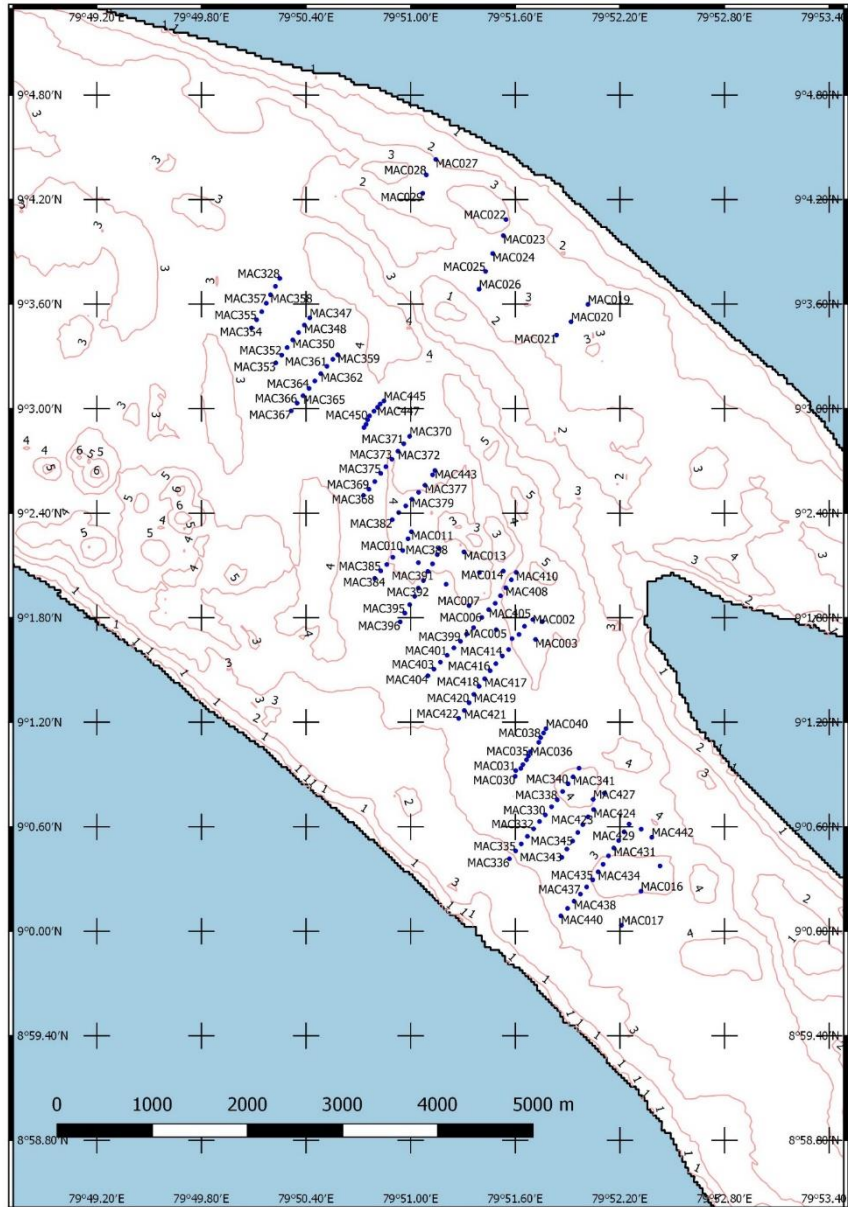
**Forward-Looking Statements**

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the Company's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should," "further" and similar expressions are forward-looking statements. Although the Company believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in additional Mineral Resources.



## APPENDIX 1

Tabulation of all RC aircore drill holes in this report are contained below in Appendix Table 1 . The tabulation includes collar position in WGS 84 co-ordinates. Elevation of the drill collars have not been surveyed but will in due course be correlated with a digital terrain model (DTM). Drill hole locations and numbers are shown in Appendix Figure 1 below.



**Appendix Figure 1 Location of RC aircore drill holes being reported on.  
Appendix Table RC dill hole locations and intercepts.**

BH ID	N WGS84	E WGS84	Fr m	To m	Int m	THM %
MAC001	9.02961	79.86259	0	6.00	6.00	7.22
MAC002	9.02981	79.86169	0	6.00	6.00	6.07
MAC003	9.02791	79.86194	0	7.00	7.00	5.83
MAC004	9.02799	79.85969	0	6.00	6.00	3.80
MAC005	9.02884	79.85818	0	9.00	9.00	3.06
MAC006	9.03001	79.8568	0	9.00	9.00	3.37
MAC007	9.03115	79.85559	0	9.00	9.00	2.58
MAC008	9.03319	79.85339	0	1.50	1.50	7.33
MAC009	9.03526	79.85074	0	9.00	9.00	2.31
MAC010	9.03642	79.84925	0	1.50	1.50	3.65
MAC011	9.03822	79.85007	0	9.00	9.00	2.79
MAC012	9.0366	79.85273	0	6.00	6.00	4.25
MAC013	9.03629	79.8551	0	9.00	9.00	4.89
MAC014	9.03445	79.85886	0	10.00	10.00	5.39
MAC015	9.03432	79.85658	0	9.00	9.00	4.08
MAC016	9.00382	79.87202	0	9.00	9.00	4.00
MAC017	9.00056	79.87016	0	8.00	8.00	3.45
MAC018	9.00624	79.87384	0	7.00	7.00	7.55
MAC019	9.05997	79.86695	0	2.50	2.50	2.85
MAC020	9.05831	79.86534	0	3.00	3.00	2.32
MAC021	9.05704	79.86395	0	0.50	0.50	2.75
MAC022	9.06809	79.85912	0	8.00	8.00	2.43
MAC023	9.06656	79.85886	0	3.00	3.00	4.41
MAC024	9.06484	79.85785	0	1.00	1.00	2.28
MAC025	9.06313	79.85716	0	0.00	0.00	<2
MAC026	9.06143	79.85654	0	0.00	0.00	<2
MAC027	9.07384	79.85241	0	4.00	4.00	5.39
MAC028	9.07236	79.8515	0	1.50	1.50	3.64
MAC029	9.07061	79.85116	0	2.50	2.50	3.10
MAC030	9.01482	79.86	0	1.00	1.00	2.42
MAC031	9.01536	79.86005	0	1.50	1.50	2.95
MAC032	9.01557	79.86053	0	1.50	1.50	2.22
MAC033	9.01594	79.86073	0	1.50	1.50	2.88
MAC034	9.0164	79.86108	0	2.00	2.00	3.73
MAC035	9.01677	79.86127	0	8.00	8.00	2.89
MAC036	9.01718	79.86145	0	8.00	8.00	2.36
MAC037	9.01807	79.86225	0	2.00	2.00	4.10
MAC038	9.01851	79.86243	0	1.00	1.00	2.55
MAC039	9.01896	79.86271	0	8.00	8.00	3.19
MAC040	9.01937	79.86293	0	8.00	8.00	3.28
MAC041	9.08763	79.77382	0	11.00	11.00	3.02
MAC042	9.0873	79.77371	0	10.00	10.00	3.27
MAC043	9.08688	79.77357	0	10.00	10.00	3.27
MAC044	9.08583	79.7734	0	11.00	11.00	3.13
MAC045	9.08555	79.77309	0	11.00	11.00	3.22

MAC046	9.08475	79.77269	0	10.00	10.00	3.41
MAC047	9.08419	79.77245	0	10.00	10.00	2.43
MAC048	9.08383	79.77234	0	11.00	11.00	4.62
MAC050	9.08337	79.77214	0	11.00	11.00	3.52
MAC051	9.08299	79.77193	0	11.00	11.00	3.93
MAC328	9.06246	79.83749	0	7.00	7.00	3.58
MAC329	9.0617	79.83708	0	6.00	6.00	2.55
MAC330	9.01112	79.86288	0	2.00	2.00	3.82
MAC331	9.01049	79.86232	0	6.00	6.00	2.12
MAC332	9.00979	79.86176	0	2.00	2.00	4.43
MAC333	9.00907	79.86116	0	1.50	1.50	5.96
MAC334	9.00835	79.86057	0	1.50	1.50	2.61
MAC335	9.00768	79.86004	0	1.50	1.50	2.65
MAC336	9.00692	79.85944	0	1.50	1.50	2.27
MAC337	9.0119	79.86347	0	2.00	2.00	4.60
MAC338	9.01257	79.86402	0	7.00	7.00	3.02
MAC339	9.01336	79.86453	0	7.00	7.00	4.58
MAC340	9.0141	79.86506	0	7.00	7.00	5.18
MAC341	9.01476	79.86553	0	8.00	8.00	3.02
MAC342	9.01559	79.8661	0	8.00	8.00	4.88
MAC343	9.00706	79.86446	0	2.00	2.00	4.60
MAC344	9.00785	79.86493	0	9.00	9.00	2.22
MAC345	9.00862	79.86549	0	1.50	1.50	2.15
MAC346	9.00944	79.86598	0	8.00	8.00	3.50
MAC347	9.05868	79.84036	0	9.00	9.00	3.13
MAC348	9.05799	79.83984	0	2.00	2.00	3.64
MAC349	9.05728	79.83929	0	1.50	1.50	3.74
MAC350	9.05657	79.83873	0	2.00	2.00	5.05
MAC351	9.05584	79.8382	0	0.00	0.00	<2
MAC352	9.05512	79.83767	0	0.00	0.00	<2
MAC353	9.05437	79.83711	0	2.00	2.00	4.27
MAC354	9.05771	79.83479	0	0.00	0.00	<2
MAC355	9.0585	79.83528	0	1.50	1.50	2.42
MAC356	9.05927	79.83577	0	0.00	0.00	<2
MAC357	9.06008	79.8362	0	0.00	0.00	<2
MAC358	9.0609	79.8366	0	2.50	2.50	3.32
MAC359	9.05515	79.84303	0	6.00	6.00	4.29
MAC360	9.05472	79.84256	0	6.00	6.00	3.17
MAC361	9.05405	79.842	0	1.50	1.50	4.66
MAC362	9.05334	79.84141	0	2.00	2.00	4.27
MAC363	9.05264	79.84084	0	0.00	0.00	<2
MAC364	9.05193	79.84029	0	1.50	1.50	3.04
MAC365	9.05123	79.83972	0	1.50	1.50	4.76
MAC366	9.05052	79.83915	0	0.00	0.00	<2
MAC367	9.04979	79.83859	0	2.00	2.00	2.18
MAC368	9.04169	79.84549	0	0.00	0.00	<2

MAC369	9.04228	79.84602	0	1.00	1.00	2.85
MAC370	9.04735	79.8499	0	9.00	9.00	7.00
MAC371	9.04664	79.84934	0	8.00	8.00	4.06
MAC372	9.04592	79.84879	0	8.00	8.00	3.56
MAC373	9.04516	79.84821	0	9.00	9.00	2.59
MAC374	9.04444	79.84763	0	9.00	9.00	2.51
MAC375	9.04379	79.84715	0	1.50	1.50	3.65
MAC376	9.04302	79.84657	0	1.50	1.50	3.04
MAC377	9.04267	79.85137	0	6.00	6.00	5.69
MAC378	9.04199	79.85076	0	6.00	6.00	3.72
MAC379	9.04133	79.85012	0	6.00	6.00	5.28
MAC380	9.04069	79.84953	0	8.00	8.00	2.93
MAC381	9.04005	79.84886	0	1.50	1.50	6.41
MAC382	9.03937	79.84824	0	1.00	1.00	2.51
MAC383	9.03508	79.84772	0	1.50	1.50	2.15
MAC384	9.03376	79.84657	0	0.00	0.00	<2
MAC385	9.03447	79.84715	0	0.00	0.00	<2
MAC386	9.03577	79.8483	0	1.50	1.50	5.79
MAC387	9.03755	79.84975	0	1.50	1.50	2.27
MAC388	9.03603	79.85255	0	7.00	7.00	2.63
MAC389	9.03514	79.85209	0	9.00	9.00	2.50
MAC390	9.03442	79.85165	0	1.50	1.50	5.61
MAC391	9.03355	79.85122	0	1.50	1.50	2.62
MAC392	9.03283	79.85074	0	5.00	5.00	2.63
MAC393	9.03204	79.85039	0	8.00	8.00	2.48
MAC394	9.03124	79.84991	0	1.00	1.00	2.71
MAC395	9.03042	79.84945	0	0.00	0.00	<2
MAC396	9.02959	79.849	0	0.00	0.00	<2
MAC397	9.02904	79.85602	0	8.00	8.00	2.81
MAC398	9.02842	79.85535	0	6.00	6.00	2.87
MAC399	9.02773	79.85477	0	1.00	1.00	4.47
MAC400	9.0271	79.85414	0	0.00	0.00	<2
MAC401	9.02639	79.85349	0	0.00	0.00	<2
MAC402	9.02574	79.85285	0	0.00	0.00	<2
MAC403	9.02507	79.85223	0	0.00	0.00	<2
MAC404	9.02444	79.85165	0	0.00	0.00	<2
MAC405	9.03077	79.85747	0	6.00	6.00	4.27
MAC406	9.03137	79.85809	0	7.00	7.00	5.70
MAC407	9.03209	79.85859	0	9.00	9.00	7.03
MAC408	9.03286	79.85909	0	9.00	9.00	6.28
MAC409	9.03362	79.85963	0	6.00	6.00	9.01
MAC410	9.03433	79.86009	0	6.00	6.00	5.15
MAC411	9.02917	79.86089	0	7.00	7.00	7.80
MAC412	9.02839	79.86036	0	8.00	8.00	7.62
MAC413	9.02695	79.85937	0	7.00	7.00	3.99
MAC414	9.02633	79.85877	0	8.00	8.00	3.45

MAC415	9.02559	79.85815	0	7.00	7.00	3.23
MAC416	9.02492	79.8576	0	7.00	7.00	2.44
MAC417	9.02415	79.85708	0	1.50	1.50	6.98
MAC418	9.02342	79.85654	0	0.00	0.00	<2
MAC419	9.02266	79.85605	0	1.50	1.50	4.71
MAC420	9.02185	79.85559	0	0.00	0.00	<2
MAC421	9.02111	79.85513	0	1.00	1.00	4.11
MAC422	9.02036	79.85459	0	0.00	0.00	<2
MAC423	9.0102	79.86646	0	7.00	7.00	4.38
MAC424	9.01163	79.86749	0	8.00	8.00	5.69
MAC425	9.01093	79.86696	0	7.00	7.00	3.45
MAC426	9.01321	79.86852	0	7.00	7.00	6.73
MAC427	9.01261	79.86745	0	7.00	7.00	3.98
MAC428	9.01025	79.87088	0	8.00	8.00	5.67
MAC429	9.0095	79.87041	0	7.00	7.00	6.22
MAC430	9.00867	79.86989	0	7.00	7.00	4.17
MAC431	9.00795	79.86942	0	8.00	8.00	3.89
MAC432	9.00721	79.86892	0	7.00	7.00	3.95
MAC433	9.0064	79.8684	0	6.00	6.00	3.18
MAC434	9.00567	79.86792	0	2.00	2.00	5.53
MAC435	9.00491	79.86742	0	1.50	1.50	9.14
MAC436	9.00423	79.86683	0	6.00	6.00	3.26
MAC437	9.00354	79.86623	0	2.00	2.00	6.43
MAC438	9.00286	79.86562	0	0.00	0.00	<2
MAC439	9.00218	79.865	0	8.00	8.00	2.12
MAC440	9.00146	79.86436	0	0.00	0.00	<2
MAC441	9.00976	79.87204	0	8.00	8.00	8.25
MAC442	9.00898	79.87305	0	9.00	9.00	7.46
MAC443	9.04408	79.85232	0	6.00	6.00	7.38
MAC444	9.04367	79.8521	0	6.00	6.00	6.93
MAC445	9.05073	79.84744	0	8.00	8.00	6.34
MAC446	9.05044	79.84709	0	7.00	7.00	4.54
MAC447	9.05012	79.84683	0	9.00	9.00	3.82
MAC448	9.04975	79.8465	0	9.00	9.00	4.45
MAC449	9.0493	79.84608	0	6.00	6.00	3.65
MAC450	9.04893	79.84589	0	5.00	5.00	2.58
MAC451	9.0485	79.84574	0	5.00	5.00	3.03
MAC452	9.04819	79.84554	0	1.00	1.00	7.64

**Appendix 2**  
**JORC TABLES sections 1 and 2**

The drilling was undertaken by Sri Lankan and South African geologists and a drilling team directed by Dr James Searle Managing Director of The Company, BSc (hons), PhD, a Member of the Australian Institute of Mining and Metallurgy. Dr Searle is responsible for the compiled JORC compliance tabulated below as well as the technical summaries and descriptions contained in the body of this announcement. Dr Searle has over 37 years of experience in metallic and energy minerals exploration and development, and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Dr Searle consents to inclusion of this information in the format and context in which it appears.

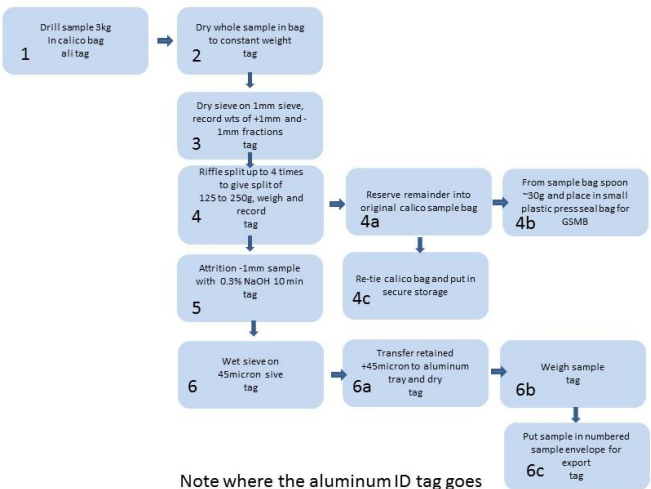
**Section 1 Sampling Techniques and Data**  
(Criteria in this section apply to all succeeding sections.)

<b>Criteria</b>	<b>Explanation</b>	<b>Commentary</b>
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>• Aspects of the determination of mineralisation that are Material to the Public Report. In</li> </ul>	<ul style="list-style-type: none"> <li>• 100% of recovered sample collected and bagged at drill site.</li> <li>• Sample interval down hole every 1.0m above the water table and every 1m below the water table or part interval.</li> <li>• Sampling was only undertaken down to depth where water influx into the hole was considered such that it compromised the sample accuracy.</li> <li>• Visual logging of heavy minerals was however carried out to the termination depth of the hole. Total heavy mineral content content supported by hand lenses, settling bottles and panning dish.</li> <li>• Previous experience indicates that the site geologist can with a high degree of certainty judge if the sample has significant heavy mineral concentration, which in this deposit is considered to be over 2% Total Heavy Mineral</li> </ul>

Criteria	Explanation	Commentary
	<p>cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</p>	
<p><i>Drilling techniques</i></p>	<ul style="list-style-type: none"> <li>• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>• Tractor mounted RC aircore running HQ rods and inner tubes.</li> <li>• Face sampling bit.</li> <li>• Cyclone outlet sample collection.</li> <li>• System air purged each sample interval.</li> <li>• Air supply kept to a minimum to ensure efficient removal of sample from the bit face with minimal surrounding draw.</li> <li>• Sample recoveries for each sample interval noted.</li> <li>• All holes vertical.</li> <li>• Material being drilled unconsolidated and only very locally lightly cemented.</li> </ul>

Criteria	Explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>• Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>• Weight of sample recovered logged against estimate of 100% recovery weight.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• Recovered samples logged in standardized format for all relevant visual parameters including sediment, rounding, sorting etc.</li> <li>• Logging of visual parameters qualitative but referenced to standard parameter sheets.</li> <li>• All drill hole samples logged at drill site.</li> <li>• No sampling where water influx created slurring of sample.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether</i></li> </ul>	<p>Sample preparation procedures being undertaken:</p> <ul style="list-style-type: none"> <li>• Dried samples weighed and sieved to remove oversize (&gt;1mm).</li> <li>• Oversize weighed.</li> <li>• Sub sample of 125 to 250g riffle split.</li> <li>• 12 chute riffle splitter. Sample loaded evenly into splitter on top of removable baffle to ensure optimal split across the splitter.</li> <li>• Sample deslimed (&lt;45 micron).</li> <li>• Sample dried to constant weight and reweighed.</li> </ul>



Criteria	Explanation	Commentary
	<p><i>sampled wet or dry.</i></p> <ul style="list-style-type: none"> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Custody chain of samples maintained from drill site to controlled storage.</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied</i></li> </ul>	<p>The initial drying (at between 80 to 105 degrees C via gas oven), de-sliming and oversize removal was conducted at the site Prep Facility on Mannar Island. The procedures are shown below.</p>  <pre> graph TD     1[1 Drill sample 3kg in calico bag all tag] --&gt; 2[2 Dry whole sample in bag to constant weight tag]     2 --&gt; 3[3 Dry sieve on 1mm sieve, record wts of +1mm and - 1mm fractions tag]     3 --&gt; 4[4 Riffle split up to 4 times to give split of .125 to 250g, weigh and record tag]     4 --&gt; 4a[4a Reserve remainder into original calico sample bag]     4 --&gt; 4b[4b From sample bag spoon ~30g and place in small plastic press seal bag for GSMB]     4 --&gt; 5[5 Attrition -1mm sample with 0.3% NaOH 10 min tag]     4a --&gt; 4c[4c Re-tie calico bag and put in secure storage]     5 --&gt; 6[6 Wet sieve on 45micron sieve tag]     6 --&gt; 6a[6a Transfer retained +45micron to aluminum tray and dry tag]     6a --&gt; 6b[6b Weigh sample tag]     6b --&gt; 6c[6c Put sample in numbered sample envelope for export tag]   </pre> <p>Note where the aluminum ID tag goes</p> <p>Analytical work on the tetra bromoethane (TBE) based THM determination and subsequent magnetic separation work will be done by</p>

Criteria	Explanation	Commentary
	<p><i>and their derivation, etc.</i></p> <ul style="list-style-type: none"> <li>• <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i></li> </ul>	<p>Scientific Services C.C., Cape Town. XRF work was done on the fractions of the magnetic separation samples</p> <ul style="list-style-type: none"> <li>• The determination of THM % sample concentrate using TBE at a specific gravity (SG) of 2.95, are as follows:</li> <li>• TBE is placed into the glass flask up to the indicated mark.</li> <li>• Place approximate 1 scoop of sample into the flask.</li> <li>• Wash down the sides of the flask and impeller with TBE to ensure all material is in the TBE.</li> <li>• Run the mixer for about 10 seconds.</li> <li>• Wash down again to ensure no material is 'hung'.</li> <li>• Run the impeller mixer repeatable in 10 second bursts until sure that all heavies have been liberated.</li> <li>• Allow to stand for 5-10 minutes or until no more material cascades to bottom.</li> <li>• Once the discharge pipe is clear of suspended material release the tube to allow the concentrate to be captured in the filter paper. Store this labeled filter paper.</li> <li>• Process any remaining sample as above ensuring no concentrate is lost.</li> <li>• Finally flush out the floats by opening the tube and allowing the floats to fall into filter paper – allow this to stand capturing all the TBE which will be reused at a later stage.</li> <li>• Wash all concentrates and floats thoroughly with acetone to reclaim as much TBE as possible.</li> <li>• After the concentrate filter is acetone rinsed and dried, transfer the concentrate very carefully into a bag by opening the filter paper ensuring nothing is lost.</li> <li>• Place the floats into the waste drums unless specified by the client to do otherwise.</li> <li>• Check the SG of the TBE with the density tracers provided and re-use as appropriate.</li> </ul>
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<p>Verification procedures to be undertaken.</p> <ol style="list-style-type: none"> <li>1. Independently supervised repeat drilling will twin between 5 and 10% of holes showing significant heavy mineral mineralisation.</li> <li>2. One in 20 duplicate samples from splitting and sample preparation submitted for separate analysis.</li> </ol>
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill collars located using GPS WGD84 to an accuracy typically of better than + or- 5m</li> </ul>

Criteria	Explanation	Commentary
	<p><i>used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Topographic control to be determined from subsequent DTM tie in.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole spacing at this stage has been nominally on line 800m apart with drill holes 50m apart.. Subsequent RC aircore drilling will be on 50m hole spacing on lines in between the existing shallow auger drilling at 400m and 200m line spacing.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this</i></li> </ul>	<ul style="list-style-type: none"> <li>• Shoreline concentrated heavy minerals when preserved by net coastal progradation seaward form strands of mineralisation that can vary from 10s to hundreds of metres wide but many hundreds of metres and kilometres long. Drill lines are therefore optimally oriented across the trend direction of the paleo shoreline positions. Drill hole spacing along the lines were designed to find HM strands as narrow as 25 to 50m wide. Separation of the drill lines along the paleo shoreline orientations reflects the much greater along shore dimensions of any potentially economic strands.</li> <li>• The RC aircore drilling below the dune and strand line deposit is intersecting near beach and nearshore shallow water current sorted and concentrated heavy mineral bearing sands and silts.</li> </ul>

Criteria	Explanation	Commentary
	<i>should be assessed and reported if material.</i>	
<i>Sample security</i>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Custody of samples documented, and integrity of packaging monitored.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Duplicated sample splits and samples from twinned holes will be used to demonstrate QA/QC</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>Granted exploration licenses.</li> <li>5% royalty to vendor.</li> <li>5% state royalty regime if exported, 4% not exported..</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>Acknowledged in referenced announcements.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Holocene to Modern coastal sand deposit hosted heavy mineral sands</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tabulation of all drill hole information contained within Appendix 1 of the announcement above, with the exception of RL which will be provided later when a DTM is available. At this time collar elevation is considered not material due to the lack of significant elevation changes over the area.</li> </ul>

Criteria	Explanation	
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li> <li><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>Intercepts calculated on the basis of total heavy mineral grades greater than or equal to visually estimated 2% total heavy mineral.</li> <li>No aggregation of sub grade results into reported intercepts.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i></li> </ul>	<ul style="list-style-type: none"> <li>Heavy mineral zones in beach sediments are flat or only very shallowly dipping. All drill holes were vertical.</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>Plans of drill hole locations historical and subject of this announcement are provided.</li> <li>Sectional representations above showing the relationship of previously defined near surface resources and the current RC aircore drilling..</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>All holes being reported on drilled on the stated tenure with locations shown in Figure2 in the main text of the announcement. Collar positions and intercepts listed in Appendix 1</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>Not applicable.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>Further drilling will test further lateral and depth extensions of the areas of mineralisation defined to date.</li> </ul>

Criteria	Explanation	
	<ul style="list-style-type: none"><li data-bbox="438 232 948 403"><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li></ul>	<ul style="list-style-type: none"><li data-bbox="1018 232 1442 315">Shown in the figures and maps in the main body of the announcement</li></ul>