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Company Announcements Office Australian Securities Exchange 10<sup>th</sup> Floor, 20 Bond Street SYDNEY NSW 2000

### MANNAR ASSAY RESULTS CONFIRM EXTENSIVE AREA OF HEAVY MINERALS

## HIGHLIGHTS

- The vendor of the Mannar Island project has received assay results from 382 drill holes which outline nearly continuous heavy mineral concentration over a strike length of 12km and a cross strike width of up to 3km.
- The heavy mineral zone has no overburden and extends down to the depth limit of the drilling at the water table.
- Individual drill hole weighted averages are up to 22% THM (total heavy minerals) and numerous plus 8% drill hole averages occur in high grade zones.

The vendor of the Mannar Island Heavy Mineral Sands Project Srinel Holdings Ltd has advised Titanium Sands Ltd ("**Company**") that laboratory results for 382 hand auger drill holes have been received from the Mannar Island Project in Sri Lanka (Figures 1 and 2). The results confirm visual logging observations at the time of drilling that there are extensive areas of heavy mineral concentration in the interior of Mannar Island adjacent to the previously announced heavy mineral resources.

The mineralization defined by the drilling results extends for a strike of 12km and has a cross strike width of up to 3km (Figure 2). It is up to 6m thick and averages around 1.5m. There is essentially no overburden and the mineralisation extends continuously down to the limit of the drilling at the water table. Drilling to date on the Mannar Project only extends down to the water table, the exploration potential for deeper mineralisation remains untested.

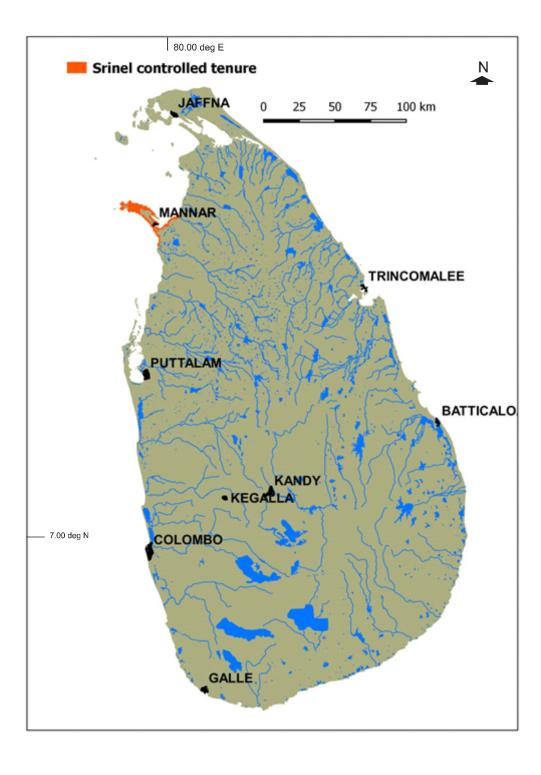


Figure 1 Location of the Mannar Island Project in Sri Lanka

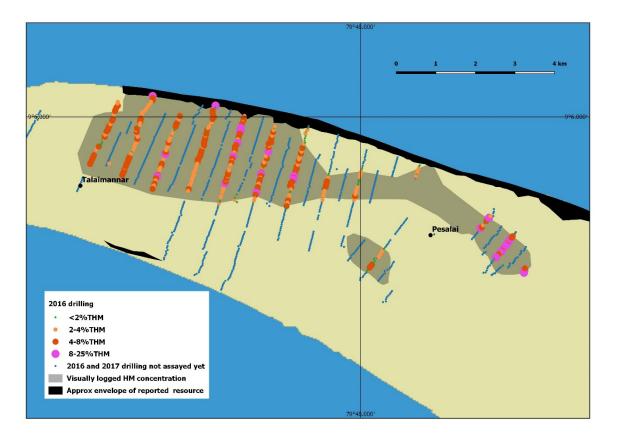


Figure 2 Summary illustration of 2016 and 2017 drilling and the assay results received.

The drill hole results in summarised in Figure 2 are listed in full in Table 1. Sample intervals were 0.5m down hole and all samples from assayed holes were submitted as individual samples with no compositing. All assay results shown in Figure 2 and detailed in Table 1 from each drill hole were used to calculate the weighted average % total heavy mineral content for the hole. No lower or upper cut offs have been applied to the results or to exclude results from any drill hole.

These results are from the initial 800m by 50m drilling pattern and show the remarkable continuity between the 800m spaced lines of the mineralisation. The infill drilling carried out during 2017 will be analysed at a later date. Determination of the mineralogy of heavy mineral assemblages will also be undertaken, but visual logging indications are that it will be similar to the previously reported resources.

### BACKGROUND OF THE MANNAR ISLAND PROJECT

Titanium Sands Ltd is seeking to complete the acquisition of the Mannar Island Heavy Mineral Sands Project in Sri Lanka having previously exercised its option of the project. The transaction will see the acquisition of Srinel Holdings Ltd which holds two exploration licences and three exploration license applications in North West Sri Lanka. Completion of the transaction requires approval by the shareholders at a general meeting the Company is still progressing through the regulatory approvals and oversight process associated with calling a general meeting of shareholders. As of the date of this report the meeting remains to be held.

The Company looks forward to completing the acquisition of the Mannar island Project so it can complete the work necessary for an updated mineral resource statement and then to progress with evaluating the major exploration potential of the project both adjacent to the known mineralisation and immediately underlying beneath the water table.

\*An initial JORC inferred mineral resource of 10.3 Mt with total heavy mineral (THM) of 11.7% compiled by independent consultants was reported in full to the Australian Securities Exchange on the 22 April 2015. This resource was based on a historical drill hole data base of 785 auger drill holes and from the 115 holes drilled in early 2015. The drilling and the defined resource envelope was largely confined to within 150m of the Mannar Island shoreline. The Company confirms that this resource statement remains current in regards to the areas covered by the drilling used in the resource model.

Except where indicated, exploration results above have been reviewed and compiled by James Searle BSc (hons), PhD, a Member of the Australian Institute of Mining and Metallurgy, with over 34 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.

Table 1 Analysed Drill hole collar positions, total depths, and weighted Total Heavy Mineral Average %

DHID	N deg WGS84	E deg WGS84	End of hole m	W'ted av%THM	
MA083	9.089	79.742	1.40		3.13
MA084	9.091	79.747	1.40		4.47
MA085	9.091	79.747	1.50		2.77
MA086	9.092	79.747	1.50		2.91
MA087	9.092	79.739	1.50		1.63
MA089	9.092	79.739	1.50		2.35
MA090	9.093	79.739	1.25		3.51
MA091	9.093	79.740	1.70		4.33
MA092	9.093	79.740	1.50		1.92
MA093	9.094	79.740	1.25		1.41
MA094	9.094	79.741	0.75		0.51
MA095	9.095	79.741	1.75		1.23
MA096	9.095	79.741	1.50		3.23
MA097	9.095	79.741	1.25		4.58
MA098	9.096	79.741	1.75		3.29
MA099	9.096	79.741	1.50		2.27
MA100	9.097	79.742	1.40		4.47
MA101	9.097	79.742	1.15		6.93
MA102	9.098	79.742	2.20		5.63

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	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA104	9.098	79.742	0.95	3.87
MA105	9.099	79.743	2.85	3.61
MA106	9.099	79.743	2.20	4.9
MA107	9.100	79.743	1.35	4.37
MA109	9.100	79.743	2.00	3.66
MA110	9.101	79.743	2.30	2.24
MA111	9.101	79.743	1.70	4.29
MA112	9.102	79.744	1.70	4.99
MA113	9.102	79.744	1.75	5.12
MA114	9.103	79.744	1.90	7.84
MA115	9.103	79.744	1.80	3.72
MA116	9.103	79.744	2.00	2.76
MA117	9.105	79.752	1.60	10.63
MA118	9.104	79.752	3.00	6.96
MA119	9.104	79.752	3.00	4.62
MA120	9.103	79.752	2.50	3.85
MA121	9.103	79.752	1.40	2.94
MA122	9.103	79.751	2.00	2.77
MA123	9.102	79.751	1.30	2.87
MA124	9.102	79.751	1.40	2.47
MA125	9.102	79.750	1.25	2.95
MA126	9.101	79.750	1.25	3.38
MA127	9.101	79.750	1.50	3.89
MA128	9.101	79.750	1.25	3.67
MA129	9.100	79.750	1.90	3.62
MA130	9.100	79.749	2.00	4.54
MA131	9.099	79.749	3.00	5.43
MA132	9.099	79.749	1.50	4.63
MA133	9.103	79.767	1.30	14.41
MA134	9.102	79.767	1.50	1.33
MA135	9.102	79.766	1.90	1.43
MA136	9.101	79.766	1.60	5.08
MA137	9.092	79.747	1.35	1.5
MA138	9.092	79.748	1.45	2.41
MA139	9.093	79.748	1.45	2.82
MA140	9.093	79.748	2.45	2.47
MA141	9.094	79.748	2.30	3.17
MA141 MA142	9.094	79.748	1.60	2.67
MA142 MA143	9.095	79.749	1.50	2.5
MA145 MA144	9.095	79.749	1.30	4.01
MA144 MA145	9.095	79.749	1.50	3.47
MA145 MA146	9.095	79.749	1.50	2.75
MA140 MA147	9.090	79.749	2.45	5.05
IVIA147	9.097	19.140	2.45	5.05

	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA149	9.097	79.749	2.70	4.14
MA150	9.098	79.749	3.00	1.92
MA151	9.098	79.749	2.00	3.43
MA152	9.099	79.749	2.30	3.02
MA153	9.090	79.755	0.90	2.09
MA154	9.091	79.755	1.45	2.47
MA155	9.091	79.755	1.30	1.6
MA156	9.091	79.755	1.50	9.18
MA157	9.092	79.755	1.30	5.19
MA158	9.092	79.755	1.50	3.64
MA159	9.093	79.755	1.40	2.15
MA160	9.093	79.756	1.80	2.59
MA161	9.094	79.756	1.50	2.69
MA162	9.094	79.756	1.50	7.75
MA163	9.094	79.756	1.50	2.24
MA164	9.095	79.756	1.25	2.63
MA165	9.095	79.756	1.50	3.02
MA166	9.096	79.756	1.20	1.96
MA167	9.096	79.757	1.25	2.27
MA168	9.097	79.757	2.00	2.36
MA169	9.097	79.757	1.80	1.9
MA170	9.097	79.757	1.40	1.34
MA171	9.098	79.757	1.50	5.56
MA172	9.098	79.758	1.85	5.44
MA173	9.099	79.758	2.00	4.21
MA175	9.099	79.758	4.00	3.35
MA176	9.100	79.758	6.00	3.25
MA177	9.100	79.758	5.75	4.34
MA178	9.097	79.765	1.25	4.73
MA179	9.090	79.763	0.60	4.27
MA180	9.090	79.762	0.75	5.85
MA181	9.091	79.763	0.75	4.88
MA182	9.091	79.763	1.00	4.02
MA183	9.091	79.763	0.70	4.96
MA184	9.092	79.763	1.00	4.35
MA185	9.092	79.763	0.85	6.18
MA187	9.093	79.764	1.75	3.56
MA188	9.093	79.764	0.60	5.21
MA189	9.094	79.764	0.70	4.76
MA190	9.094	79.764	0.50	7.04
MA191	9.095	79.764	0.50	7.2
MA192	9.095	79.764	0.50	4.45
MA193	9.096	79.764	1.00	3.41

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DHID	N deg WGS84	E deg WGS84	End of hole m	W'ted av%THM
MA195				1.95
MA195 MA196	9.097 9.097	79.765 79.765	0.75 1.50	3.74
MA197	9.098	79.765	3.50	2.54
MA198	9.098	79.765	1.40	2.16
MA199	9.098	79.766	1.70	1.66
MA200	9.099	79.766	1.70	3.38
MA201	9.099	79.766	3.60	3.64
MA202	9.100	79.766	2.50	6.48
MA203	9.100	79.766	1.50	5.74
MA204	9.101	79.766	0.50	5.52
MA205	9.100	79.773	0.50	2.38
MA206	9.100	79.773	0.50	5.24
MA207	9.099	79.773	1.15	4.68
MA208	9.099	79.773	3.70	3.51
MA209	9.098	79.773	1.75	5.36
MA210	9.098	79.773	1.00	7.57
MA211	9.097	79.772	1.00	8.13
MA212	9.097	79.772	0.50	8.58
MA213	9.097	79.772	0.50	8.15
MA214	9.096	79.772	0.50	4.53
MA215	9.096	79.772	0.75	7.3
MA216	9.095	79.772	0.50	4.41
MA217	9.095	79.772	0.50	3.93
MA218	9.094	79.772	0.35	3.47
MA219	9.094	79.772	0.50	9.32
MA220	9.094	79.771	0.40	5.04
MA221	9.093	79.771	0.35	5.21
MA222	9.093	79.771	0.50	5.14
MA223	9.092	79.771	0.50	6.69
MA224	9.092	79.771	0.50	2.9
MA225	9.091	79.771	0.65	3.39
MA226	9.091	79.771	0.50	8.85
MA227	9.090	79.770	0.50	7.59
MA228	9.090	79.770	0.20	2.59
MA229	9.089	79.770	0.50	4.9
MA230	9.089	79.770	0.40	2.9
MA231	9.089	79.778	1.50	3.76
MA232	9.089	79.778	2.00	4.72
MA233	9.090	79.778	1.00	3.46
MA234	9.090	79.778	1.00	3.64
MA235	9.090	79.778	0.50	4.79
MA236	9.091	79.778	0.50	3.61

79.778

0.65

9.091

MA237

3.25

DHID	N deg WGS84	E deg WGS84	End of hole m	W'ted av%THM
MA239	9.092	79.779	0.75	9.7
MA240	9.092	79.779	0.73	3.09
MA241	9.093	79.779	0.50	4.5
MA242	9.093	79.779	0.60	3.29
MA243	9.094	79.779	0.75	6
MA244	9.094	79.779	1.00	7.22
MA245	9.095	79.779	0.50	4.1
MA246	9.095	79.780	1.40	5.53
MA247	9.096	79.780	0.50	3.45
MA248	9.096	79.780	0.75	3.31
MA249	9.097	79.780	0.45	4.09
MA250	9.097	79.780	0.35	2.53
MA251	9.097	79.780	0.50	1.91
MA252	9.098	79.780	0.80	2.41
MA253	9.088	79.785	0.80	5.05
MA254	9.089	79.785	1.00	4.35
MA255	9.089	79.786	1.00	3.51
MA256	9.089	79.786	0.90	2.23
MA257	9.090	79.786	0.85	4.07
MA258	9.090	79.786	0.65	3.58
MA259	9.091	79.786	0.35	3.34
MA260	9.091	79.786	0.50	3.36
MA261	9.092	79.786	1.20	5.34
MA262	9.092	79.786	1.00	3.04
MA263	9.092	79.786	0.70	3.67
MA264	9.093	79.787	0.70	5.07
MA265	9.093	79.787	0.70	1.52
MA266	9.094	79.787	0.70	2.56
MA267	9.094	79.787	0.70	1.41
MA268	9.095	79.787	0.50	0.88
MA269	9.095	79.787	0.75	0.86
MA270	9.096	79.787	0.50	0.34
MA271	9.096	79.787	0.60	2.2
MA272	9.097	79.787	0.30	1.09
MA273	9.097	79.788	0.50	2.47
MA274	9.097	79.788	0.75	1.3
MA305	9.088	79.800	1.45	1.2
MA306	9.088	79.800	1.30	1.39
MA307	9.087	79.800	1.00	2.91
MA308	9.087	79.800	0.70	2.83
MA320	9.089	79.814	1.90	1.33
MA321	9.088	79.813	4.50	0.83
MA322	9.088	79.813	3.10	2.03
MA322	9.088	79.813	3.10	2.03

DHID	N deg WGS84	E deg WGS84	End of hole m	W'ted av%THM
MA324	9.087	79.813	2.25	3.5
MA325	9.087	79.813	2.25	1.87
MA326	9.087	79.813	2.23	2.3
MA328	9.080	79.738	0.60	6.16
MA329	9.089	79.738	0.00	5.66
MA329 MA330				4.46
MA331	9.090 9.091	79.738 79.738	0.70	4.48
MA332	9.091	79.738	0.80	5.28
		79.745		3.52
MA333	9.086		0.70	
MA334	9.087	79.745	0.70	4.06 4.16
MA335 MA336	9.087 9.087	79.745 79.746	1.00	5.86
			0.60	
MA337	9.088	79.746	0.70	4.32
MA338	9.088	79.746	0.75	3.72
MA339	9.089	79.746	0.60	5.27
MA340	9.089	79.746	0.65	5.24
MA341	9.090	79.746	0.60	5.74
MA342	9.090	79.746	0.50	5.75
MA343	9.090	79.747	0.50	5.57
MA344	9.091	79.747	0.45	5.18
MA345	9.090	79.754	0.60	1.89
MA346	9.089	79.754	0.70	4.87
MA347	9.089	79.754	1.50	4.52
MA348	9.088	79.754	0.65	3.87
MA349	9.088	79.754	1.25	2.96
MA350	9.088	79.754	0.50	3.2
MA351	9.087	79.753	1.00	3.23
MA352	9.087	79.753	0.70	4.48
MA353	9.086	79.753	0.80	8.46
MA354	9.086	79.753	1.00	6.26
MA355	9.085	79.753	0.85	3.75
MA356	9.085	79.753	0.50	2.67
MA357	9.085	79.753	0.50	4.5
MA358	9.084	79.752	0.70	3.42
MA359	9.084	79.752	0.75	3.06
MA360	9.083	79.752	0.75	4.21
MA367	9.065	79.802	0.75	1.11
MA368	9.065	79.802	1.00	1.36
MA369	9.065	79.802	0.50	7.47
MA370	9.066	79.802	0.60	5.4
MA371	9.066	79.803	1.00	4.86
MA372	9.066	79.803	1.25	1.84
MA373	9.067	79.803	1.00	1.64

	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA375	9.089	79.762	1.00	2.95
MA376	9.089	79.762	1.00	3.04
MA377	9.088	79.762	0.90	2.25
MA378	9.088	79.762	0.80	2.02
MA379	9.088	79.762	1.00	3.62
MA380	9.087	79.761	1.00	3.17
MA381	9.087	79.762	1.10	3.99
MA382	9.086	79.761	2.25	3.98
MA383	9.086	79.761	1.00	3.08
MA384	9.085	79.761	2.50	2.41
MA385	9.085	79.761	1.25	2.23
MA386	9.085	79.761	5.25	2.01
MA387	9.084	79.761	1.00	3.14
MA388	9.084	79.761	1.00	2.81
MA389	9.083	79.760	0.95	7.28
MA390	9.083	79.760	1.75	3.87
MA397	9.080	79.767	0.80	2.46
MA398	9.081	79.768	0.80	1.22
MA399	9.081	79.768	0.90	1.73
MA400	9.081	79.768	0.75	3.81
MA401	9.082	79.768	0.85	3.03
MA403	9.083	79.768	0.80	2.08
MA404	9.083	79.768	0.80	2.77
MA405	9.084	79.768	0.85	2.01
MA406	9.084	79.769	0.85	2.7
MA407	9.084	79.769	0.75	3.14
MA408	9.085	79.769	0.80	8.67
MA409	9.085	79.769	0.75	4.39
MA410	9.086	79.769	0.70	3.08
MA411	9.086	79.769	0.90	4.17
MA412	9.086	79.769	0.90	3.22
MA413	9.087	79.769	0.90	4.63
MA414	9.087	79.770	0.90	6.43
MA415	9.088	79.770	0.85	3.26
MA416	9.088	79.770	0.40	3.81
MA418	9.088	79.778	1.75	1.73
MA419	9.088	79.777	1.40	3.17
MA420	9.087	79.777	1.00	5.4
MA421	9.087	79.777	1.25	15.2
MA422	9.086	79.777	1.25	5.5
MA423	9.086	79.777	2.25	2.62
MA424	9.086	79.777	1.00	4.21
MA425	9.085	79.777	1.00	4.19

	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA427	9.084	79.776	0.75	2.33
MA428	9.084	79.776	1.00	4.03
MA429	9.083	79.776	0.90	5.89
MA430	9.083	79.776	1.00	6.79
MA431	9.083	79.776	1.00	17.52
MA432	9.082	79.776	0.90	4.13
MA433	9.082	79.776	0.80	1.75
MA434	9.081	79.776	0.75	2.51
MA435	9.081	79.775	0.80	2.88
MA450	9.088	79.785	1.50	6.83
MA451	9.087	79.785	1.40	5.89
MA452	9.087	79.785	1.25	6.91
MA453	9.086	79.785	1.40	9.52
MA454	9.086	79.785	1.00	5.32
MA455	9.086	79.785	1.40	22.51
MA456	9.085	79.784	1.25	5.6
MA457	9.085	79.784	1.50	4.25
MA458	9.084	79.784	1.00	5.55
MA459	9.084	79.784	2.00	4.65
MA460	9.083	79.784	1.00	3.18
MA461	9.083	79.784	1.00	1.55
MA462	9.083	79.784	0.95	1.48
MA463	9.082	79.784	1.25	2.54
MA464	9.082	79.783	1.15	3.53
MA465	9.081	79.783	1.00	2.52
MA466	9.081	79.783	0.85	5.07
MA467	9.080	79.783	0.90	3.83
MA468	9.080	79.783	0.80	0.6
MA469	9.079	79.783	1.00	5.97
MA470	9.079	79.783	1.00	1.89
MA488	9.087	79.793	1.00	1.56
MA489	9.087	79.793	1.75	1.56
MA490	9.086	79.792	1.50	3.37
MA491	9.086	79.792	0.80	2.46
MA492	9.085	79.792	1.30	4.89
MA493	9.085	79.792	0.80	5.38
MA494	9.084	79.792	1.00	5.36
MA495	9.084	79.792	0.85	4.09
MA496	9.083	79.791	0.80	1.96
MA497	9.083	79.792	1.00	3.77
MA498	9.083	79.792	1.00	3
MA499	9.082	79.792	1.00	3.05
MA500	9.082	79.791	0.80	2.14

	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA502	9.081	79.791	1.00	2.46
MA527	9.081	79.798	0.75	2.02
MA528	9.081	79.799	0.70	2.33
MA529	9.082	79.799	1.00	5.37
MA530	9.082	79.799	0.70	2.91
MA531	9.083	79.799	1.00	3.31
MA532	9.083	79.799	1.00	2.4
MA533	9.084	79.799	0.85	2.12
MA534	9.084	79.799	1.25	2.36
MA535	9.084	79.799	1.05	0.92
MA536	9.085	79.799	0.80	1.25
MA537	9.085	79.800	1.00	1.18
MA538	9.086	79.800	0.90	1.78
MA539	9.086	79.800	1.00	2.43
MA540	9.087	79.800	0.95	2.31
MA541	9.068	79.804	0.80	1.25
MA542	9.068	79.804	0.80	2.19
MA543	9.068	79.804	1.00	2.12
MA544	9.069	79.805	1.00	3.85
MA545	9.069	79.805	1.00	3.14
MA546	9.069	79.805	0.90	3.66
MA547	9.070	79.805	0.60	1.25
MA548	9.070	79.806	0.85	1.6
MA672	9.074	79.827	1.40	1.7
MA673	9.074	79.828	2.00	11.05
MA674	9.069	79.833	1.90	17.2
MA675	9.069	79.832	2.10	10.97
MA676	9.069	79.832	2.00	3.37
MA677	9.068	79.832	2.00	4.16
MA678	9.068	79.831	2.00	1.35
MA679	9.068	79.831	1.50	8.11
MA680	9.067	79.831	1.60	1.1
MA681	9.067	79.830	1.75	0.92
MA1072	9.064	79.838	2.25	21.78
MA1073	9.065	79.838	2.50	13.13
MA1074	9.065	79.838	2.05	7.89
MA1076	9.070	79.833	2.30	5.39
MA1077	9.070	79.833	2.30	12.87
MA1078	9.071	79.834	2.50	14.93
MA1079	9.072	79.834	2.50	6.13
MA1080	9.072	79.834	2.30	8.7
MA1081	9.072	79.835	2.45	6.34
MA1082	9.073	79.835	2.20	4.46

	N deg	E deg	End of	W'ted
DHID	WGS84	WGS84	hole m	av%THM
MA1087	9.075	79.828	2.45	2.76
MA1089	9.076	79.829	2.75	1.74
MA1090	9.076	79.829	2.35	6.73
MA1092	9.077	79.830	2.05	15.78
MA1093	9.077	79.830	2.05	3.67
MA1098	9.080	79.772	1.60	1.3
MA1099	9.081	79.771	1.50	3.04
MA1100	9.081	79.771	1.50	1.48
MA1101	9.082	79.772	1.65	1.41

#### Appendix 1 JORC TABLE 1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.) All drilling, sampling and sample splitting procedures were designed and audited by Dr James Searle, the Competent Person named in the body of this report.

	mes Searle, the Competent Person na	amed in the body of this report.
Criteria	Explanation	Commentary
Sampling techniques	<ul> <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 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.</li> </ul>	<ul> <li>100% of recovered sample collected, riffle split, and bagged at drill site.</li> <li>Sample interval down hole every 0.5m or part interval.</li> <li>No sampling below water table.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core</li> </ul>	<ul> <li>Hand auger, vertical, Dormer type shell auger 75mm, 382 holes reported here, maximum depth 6m</li> </ul>

Criteria	Explanation	Commentary
	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.).	All holes vertical.
Drill sample recovery	<ul> <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> <li>Weight of sample recovered logged against estimate of 100% recovery weight.</li> <li>For the hand auger holes, re- entry depth of auger tip noted against depth achieved before auger withdrawn to recover sample. Hole abandoned if more 3cm of fall back in hole noted.</li> </ul>
Logging	<ul> <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> <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> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples dried and split at dedicated site preparation facility using a riffle splitter, one pass 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>Custody chain of samples maintained from drill site to controlled storage and to air freight shipper delivered direct to Cape Town laboratory.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters</li> </ul>	<ul> <li>Sample desliming (-45mic) and oversize screening (&gt;1mm) carried out at dedicated site preparation facility.</li> <li>Standardardized procedures for sieving, weighing and drying.</li> </ul>

Criteria	Explanation	Commentary
	<ul> <li>used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>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)</li> </ul>	<ul> <li>Prepared 125 to 250g .45mic and &lt;1mm sample consigned to Scientific Services Ltd laboratory in Cape Town.</li> <li>Blanks and laboratory standards run and reported for every 50<sup>th</sup> analysis.</li> </ul>
Verification of sampling and assaying	<ul> <li>and precision have been established.</li> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data,</li> </ul>	<ol> <li>Independently supervised repeat drilling of 1 in 20 twin holes showing significant heavy mineral mineralisation has been completed and will be</li> </ol>
	<ul> <li>data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>analysed separately in due course.</li> <li>2. One in 20 duplicate samples from splitting and sample preparation will be will be submitted for separate analysis.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill collars located using GPS WGD84 to an accuracy typically of better than 6m</li> <li>Topographic control determined from subsequent survey and DTM tie in is being undertaken.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drilling spacing varying from 50m to 100m along lines at 400m nominal separations along the mineralisation trend.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <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 or 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.</li> </ul>

Criteria	Explanation	Commentary
		Separation of the drill lines along the paleo shoreline orientations reflects the much greater along shore dimensions of any potentially economic strands.
Sample security	The measures taken to ensure sample security.	<ul> <li>Custody of samples documented, and integrity of packaging monitored.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Twinned hole results and duplicated sample splits and samples from twinned holes are being used to demonstrate QA/QC

# Section 2 Reporting of Exploration Results

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

Criteria	Explanation	
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Granted exploration licenses and accepted unique tenure applications.</li> <li>No known overriding interests at this stage other than expected access agreements with affected private land owners.</li> <li>Normal state royalty regime.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Previously reported to the ASX.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Holocene to Modern coastal sand deposit hosted heavy mineral sands</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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</li> </ul>	<ul> <li>Tabulation of all drill hole information contained within Table 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	
J	Competent Person should clearly	
Data aggregation methods	<ul> <li>explain why this is the case.</li> <li>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.</li> <li>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.</li> <li>The assumptions used for any maximum and/or minimum grade results.</li> </ul>	<ul> <li>No cutting of high grades.</li> <li>Weighted averages of all assays from all samples in each drill holes reported in Table 1.</li> <li>No lower cut off grades applied.</li> <li>Results are Total Heavy Miner % of whole sample.</li> <li>No mineralogical analysis being reported at this time.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>reporting of metal equivalent values should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	Heavy mineral zones in beach sediments are flat or only very shallowly dipping. All drill holes were vertical and intersected the entire portion of the mineralisation blanket between land surface and the limit of the drilling at the water table
Diagrams Balanced reporting	<ul> <li>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.</li> <li>Where comprehensive reporting of all Exploration Results is not</li> </ul>	<ul> <li>Plans of drill hole locations subject of this announcement are provided.</li> <li>Sectional representations not considered relevant as the drill depths were rarely more than 2m.</li> <li>All holes drilled are shown in Figure 2. All holes assayed</li> </ul>
	practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>and reported on in this announcement are shown in Figure 2 and listed in Table 1.</li> <li>Holes drilled in 2016 and 2017 but not yet assayed are also shown in Figure 1. The collar positions of all holes drilled have been previously reported.</li> </ul>
Other substantive exploration data	<ul> <li>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;</li> </ul>	• Not applicable at this time.

Criteria	Explanation	
Further work	<ul> <li>bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> <li>The nature and scale of planned</li> </ul>	Analysis of the remaining drill
ruiunei work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Analysis of the remaining drill holes that show visual signs of heavy mineral concentration will be analysed in due course.</li> <li>Mineralogical analysis of the heavy mineral fraction will be undertaken.</li> <li>A revised mineral resource estimate will be undertaken when all appropriate mineralogical and QA/QC work is completed.</li> <li>Further exploration of Mannar Island adjacent to and under the known mineralisation will be undertaken.</li> </ul>