Titanium Sands Limited
ACN 009 131 533

Notice of General Meeting

General Meeting to be held at
Level 11, 216 St Georges Terrace
Perth, Western Australia on Friday 21 February 2020
commencing at 11am (WST).

Important

This Notice of General Meeting should be read in its entirety. If Shareholders are in doubt as to how to vote, they should seek advice from their professional adviser prior to voting.

Shareholders should refer to the Independent Expert's Report contained inside this Notice. A copy of the Independent Expert's Report is also accessible on the Company's website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

The Independent Expert has determined that the control transaction referred to in this Notice is **not fair but reasonable** to non-associated Shareholders.

NOTICE OF GENERAL MEETING

Notice is given that an General Meeting of the shareholders of Titanium Sands Limited ACN 009 131 533 (**Company**) will be held at Level 11, 216 St Georges Terrace, Perth Western Australia on 21 February 2020, commencing at 11.00am (WST).

The Explanatory Statement that accompanies and forms part of this Notice of Meeting describes in more detail the matters to be considered.

Resolution 1 – Issue of Shares and Seller Options to Seller

To consider and, if thought fit, to pass, with or without amendment, the following Resolution as an **ordinary resolution**:

"That, subject to the passing of Resolution 2, for the purposes of section 208 and item 7 of section 611 of the Corporations Act, and Listing Rules 10.1 and 10.11, and for all other purposes, approval is given for:

(a) the Company to issue to Caudan Management Services LLC (and/or its nominees):

(i) 312,500,000 Shares;

(ii) 208,750,000 Seller Options; and

(b) Caudan Management Services LLC (and/or its nominees) to acquire a Relevant Interest in the Company's Shares as a result of being issued Shares upon completion of the Share Sale Agreement (and as a result of being issued Shares upon conversion of Seller Options issued upon completion of the Share Sale Agreement), which increases Caudan Management Services LLC and its associates Voting Power in the Company:

(i) from 20% or below to more than 20%; and

(ii) from a starting point that is above 20% and below 90%,

as consideration for the Company acquiring 100% of the issued share capital in Bright Angel Ltd, on the terms and conditions set out in the Explanatory Statement.

Independent Expert's Report
Shareholders should carefully consider the Independent Expert's Report prepared by Pendragon Capital Ltd for the purposes of Shareholder approval required under item 7 of section 611 of the Corporations Act and Listing Rule 10.1 for this Resolution. The Independent Expert's Report comments on the fairness and reasonableness of the transaction to the non-associated Shareholders. The Independent Expert has determined that the transaction the subject of Resolutions 1 and 2 is **not fair but reasonable** to the non-associated Shareholders.

Voting exclusion statement
The Company will disregard any votes cast on this Resolution by the Seller (being Caudan Management Services LLC) and any other person who will receive a material benefit as a result of the transaction (which the Company has determined includes Gary Johnson Super Management Pty Ltd) and any associate of those persons (**excluded person**). However, this does not apply to a vote cast in favour of the Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on the Resolution, in accordance with directions given to the proxy or attorney to vote on the Resolution in that way; or
- the Chair of the meeting as proxy or attorney for a person who is entitled to vote on the Resolution, in accordance with a direction given to the Chair to vote on the Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:
    - the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an associate of a person excluded from voting, on the Resolution; and
    - the holder votes on the Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

Voting exclusion statement – Corporations Act
No votes may be cast in favour of this Resolution by:

- the person proposing to make the acquisition and their associates; or
- the persons (if any) from whom the acquisition is to be made and their associates.

Accordingly, the Company will disregard any votes cast on this Resolution by Caudan Management Services LLC and any of its associates.

Resolution 2 – Issue of Shares to Gary Johnson Super Management Pty Ltd

To consider and, if thought fit, to pass, with or without amendment, the following Resolution as an **ordinary resolution**:

> *"That, subject to the passing of Resolution 1, for the purposes of section 208 of the Corporations Act and Listing Rules 10.1 and 10.11, and for all other purposes, approval is given for the Company to issue to Gary Johnson Super Management Pty Ltd, 105,000,000 Shares in consideration for Gary Johnson Super Management Pty Ltd agreeing to terminate a convertible note agreement entered into with Bright Angel Ltd, on the terms and conditions set out in the Explanatory Statement."*

Independent Expert's Report

Shareholders should carefully consider the Independent Expert's Report prepared by Pendragon Capital Ltd for the purposes of Shareholder approval required under Listing Rule 10.1 for this Resolution. The Independent Expert's Report comments on the fairness and reasonableness of the transaction to the non-associated Shareholders. The Independent Expert has determined that the transaction the subject of Resolutions 1 and 2 is **not fair but reasonable** to the non-associated Shareholders.

Voting exclusion statement

The Company will disregard any votes cast on this Resolution by and Gary Johnson Super Management Pty Ltd and any other person who will receive a material benefit as a result of the transaction (which the Company has determined includes Caudan management Services LLC) and any associate of those persons (**excluded person**). However, this does not apply to a vote cast in favour of the Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on the Resolution, in accordance with directions given to the proxy or attorney to vote on the Resolution in that way; or
- the Chair of the meeting as proxy or attorney for a person who is entitled to vote on the Resolution, in accordance with a direction given to the Chair to vote on the Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:
    - the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an associate of a person excluded from voting, on the Resolution; and
    - the holder votes on the Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

Other Business

In accordance with section 250S(1) of the Corporations Act, Shareholders are invited to ask questions about or make comments on the management of the Company and to raise any other business which may lawfully be brought before the General Meeting.

By Order of the Board of Directors

James Searle
Managing Director
Titanium Sands Limited

15 January 2020

EXPLANATORY STATEMENT

Important information

This Explanatory Statement has been prepared for the information of the shareholders of Titanium Sands Limited ACN 009 131 533 (**Company**) in connection with the Resolutions to be considered at the General Meeting to be held at Level 11, 216 St Georges Terrace, Perth Western Australia on 21 February 2020, commencing at 11am (WST).

The purpose of this Explanatory Statement is to provide Shareholders with all information known to the Company, which is material to a decision on how to vote on the Resolutions in the accompanying Notice of Meeting.

This Notice and Explanatory Statement should be read in its entirety. If Shareholders are in doubt as to how to vote, they should seek advice from their professional adviser prior to voting.

Interpretation

Capitalised terms which are not otherwise defined in this Notice and Explanatory Statement have the meanings given to those terms in Section 4.

References to "$" and "in this Notice and Explanatory Statement are references to Australian currency unless otherwise stated.

References to time in this Notice and Explanatory Statement relate to the time in Perth, Western Australia.

Voting exclusion statements

Certain voting restrictions apply to the Resolution 1 as detailed beneath the Resolutions in the Notice.

Proxies

Please note that:

- a Shareholder entitled to attend and vote at the General Meeting is entitled to appoint a proxy;
- a proxy need not be a Shareholder;
- a Shareholder may appoint a body corporate or an individual as its proxy;
- a body corporate appointed as a Shareholder's proxy may appoint an individual as its representative to exercise any of the powers that the body may exercise as the Shareholder's proxy; and
- Shareholders entitled to cast two or more votes may appoint two proxies and may specify the proportion or number of votes each proxy is appointed to exercise, but where the proportion or number is not specified, each proxy may exercise half of the votes.

The enclosed Proxy Form provides further details on appointing proxies and lodging Proxy Forms. If a Shareholder appoints a body corporate as its proxy and the body corporate wishes to appoint an individual as its representative, the body corporate should provide that person with a certificate or letter executed in accordance with the Corporations Act authorising him or her to act as that company's representative. The authority may be sent to the Company or its share registry in advance of the General Meeting or handed in at the General Meeting when registering as a corporate representative.

To vote by proxy, please complete and sign the enclosed Proxy Form and send by:

- post to the Company at GPO Box 2517, Perth Western Australia 6831;
- facsimile to the Company on +61 (08) 9463 6103; or

- email to the Company Secretary at davidm@miningcorporate.com.au,

so that it is received by no later than 11am (WST) on 19 February 2020. Proxy Forms received later than this time will be invalid.

Voting entitlements

In accordance with Regulations 7.11.37 and 7.11.38 of the *Corporations Regulations 2001* (Cth), the Board has determined that a person's entitlement to vote at the General Meeting will be the entitlement of that person set out in the register of Shareholders as at 4pm (WST) on 19 February 2020. Accordingly, transactions registered after that time will be disregarded in determining a Shareholder's entitlement to attend and vote at the General Meeting.

1. PROPOSED TRANSACTION

1.1 Background

The Company entered into a share sale agreement with Caudan Management Services LLC (**Caudan**) dated 11 July 2019 under which Caudan agreed to sell, and the Company agreed to acquire, 100% of the issued share capital of Bright Angel Ltd (**BAL**) in consideration for the issue of 417,500,000 Shares and 208,750,000 Seller Options to nominees of Caudan.

Under a convertible note agreement dated 2 June 2017 (**Convertible Note Agreement**), BAL borrowed $500,000 from Gary Johnson Super Management Pty Ltd (**GJSM**) on terms which, in certain circumstances, entitled GJSM to convert the loan into shares in BAL.

On 22 November 2019, GJSM agreed with the Company, BAL and Caudan to terminate the Convertible Note Agreement and release BAL from all obligations under the Convertible Note Agreement in consideration for the issue of 105,000,000 Shares to GJSM. At the same time, the Company and Caudan agreed to vary the share sale agreement dated 11 July 2019 by reducing the number of Shares to be issued to nominees of Caudan by 105,000,000 Shares.

BAL is an unlisted company registered in Mauritius which, through its subsidiaries, holds four exploration licenses in Sri Lanka that are prospective for mineral sands adjacent to the Company's existing Manar Island Heavy Mineral Sands Project.

The issue of Shares to nominees of Caudan as part of the consideration payable for Caudan's shares in BAL will result in the Caudan's Voting Power in the Company increasing from 29.98% to 43.55%. In addition, the exercise of the Seller Options issued to nominees of Caudan as part of the consideration payable for Caudan's shares in BAL will result in the Caudan's Voting Power in the Company increasing from 29.98% to 50.79% (assuming all Seller Options are exercised and existing Class B Performance Shares convert). (It is noted that Caudan has directed the Company that from the consideration payable for Caudan's shares in BAL, 25,000,000 Shares and 25,000,000 Seller Options are to be issued to nominees that are not associates of Caudan.) Accordingly, the Company is seeking approval for the purposes of item 7 of section 611 of the Corporations Act to comply with the Chapter 6 of the Corporations Act in respect of the issue of Shares and Seller Options to Caudan.

1.2 Share Sale Agreement

The material terms of the share sale agreement dated 11 July 2019 (as varied by the SSA Variation Deed – see Section 1.3 below) (**Share Sale Agreement**) are as follows:

- Completion of the Proposed Transaction by the Company of BAL is subject to the following conditions (**Conditions Precedent**):
  - the Company notifying the Seller that it is satisfied with its due diligence investigation in relation to BAL and its subsidiaries (collectively, the **BAL Group**) and the assets of the BAL Group. This Condition Precedent was satisfied on 23 September 2019.
  - On or before 28 February 2020 (unless extended), Shareholders approving the Resolutions;
  - On or before 28 February 2020 (unless extended), an independent expert provides an independent expert's report that states that, in the opinion of the independent expert, the Proposed Transaction is at least fair and reasonable Shareholders (excluding Shareholders whose votes are to be disregarded). The Independent Expert (Pendragon Capital Ltd) has determined that the proposals as outlined in the Share Sale Agreement and Convertible Note Termination Deed (see below) are, on balance, **not fair but reasonable** to Shareholders not associated with the Seller or GJSM or their respective associates – the Independent Expert's Report is enclosed as Annexure 1 of this Notice and is also accessible on the Company's website www.titaniumsands.com.au (and, if requested by a Shareholder, the Company will

send the Shareholder a hard copy of the Independent Expert's Report at no cost). The Directors have decided to waive this Condition Precedent (which the Company is entitled to do unilaterally under the terms of the Share Sale Agreement) in light of the advantages set out in Section 1.11.

– On or before 28 February 2020 (unless extended), the Company and the Seller obtaining all other approvals from government agencies or third parties that are necessary for the Proposed Transaction to proceed. Other than Shareholders approving the Resolutions, the parties have determined that there are no additional approvals that are required in order for the Proposed Transaction to proceed.

- Upon completion of the Share Sale Agreement, the Seller will transfer 100% of the issued share capital in BAL to the Company for the purchase price.
- The purchase price is comprised of the following:
  – 312,500,000 Shares to be issued to Caudan; and
  – 208,750,000 Seller Options to be issued to Caudan.
- At Completion, the Company will also issue 105,000,000 Shares to GJSM .
- In addition, the BAL Group will agree to pay Caudan a 5% royalty on proceeds received from the sale of minerals from the four exploration licences comprising the BAL Tenure (net of transport and sales costs).
- Each Seller Option has an expiry date of 3 years from issue and will entitle the holder to subscribe for a Share for $0.05. Full terms of the Seller Options are contained in Schedule B.
- The Shares and Seller Options will be subject to an escrow restriction of 12 months and the Seller must procure that the nominees to whom the Shares and Restricted Securities will be issued, and GJSM, will execute restriction agreements.

The Share Sale Agreement also contains additional provisions which are considered standard for agreements of this nature, including warranties and indemnities given by the Seller in favour of the Company.

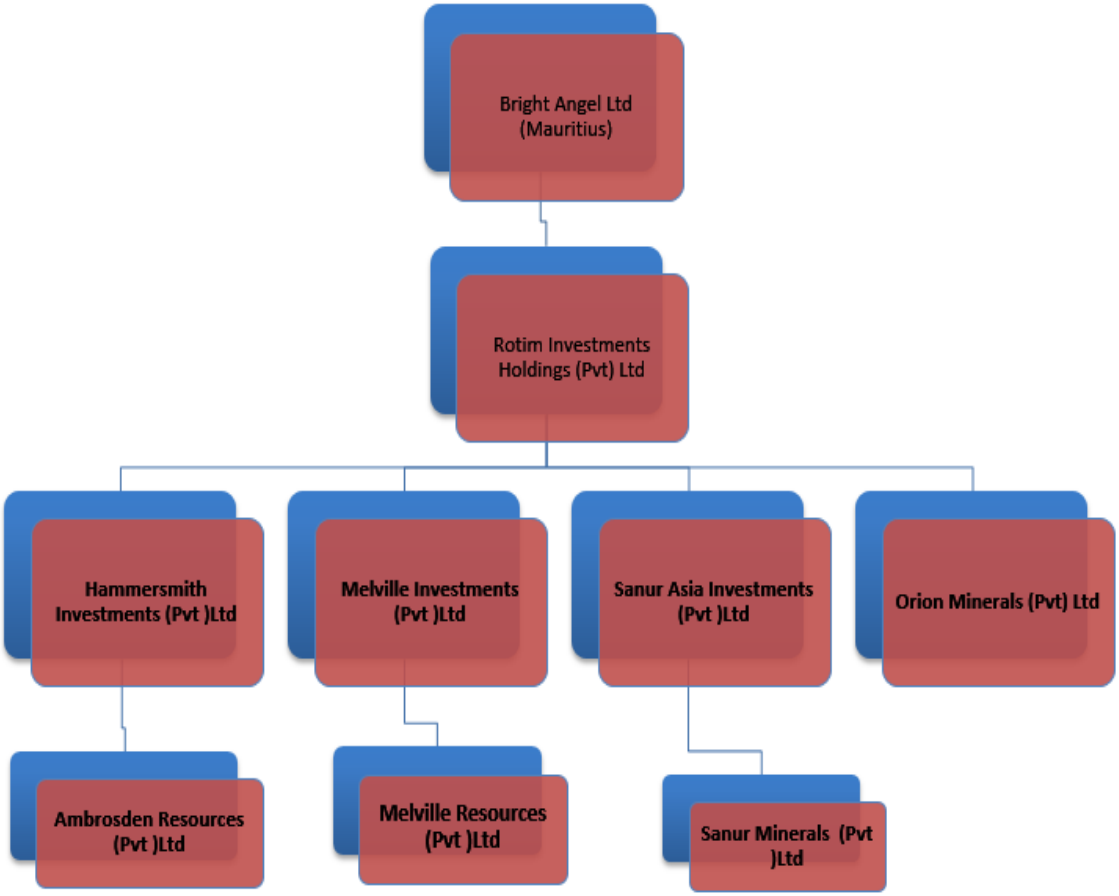
1.3 Termination of the Convertible Note Agreement

By a letter deed dated 22 November 2019 the following was agreed:

- GJSM, BAL, Caudan and the Company agreed that with effect on Completion, in consideration for the Company issuing GJSM 105,000,000 Shares, the Convertible Note Agreement will terminate and GJSM will release and discharge BAL from all obligations under the Convertible Note Agreement (**Convertible Note Termination Deed**). Under the Convertible Note Termination Deed, GJSM agrees to execute a restriction agreement under which the 105,000,000 Shares will be escrowed for 12 months.
- The Company agreed with Caudan that the share sale agreement dated 11 July 2019 will be varied so as to reduce the Shares to be issued to Caudan at Completion by 105,000,000 Shares, to make Completion conditional upon Shareholders approving the issue to GJSM of 105,000,000 Shares (in consideration for terminating the Convertible Note Agreement) and to require the Company to, at Completion, issue 105,000,000 Shares to GJSM (**SAA Variation Deed**).

1.4 Bright Angel Limited

The Company will, upon Completion of the Share Sale Agreement, be the legal and beneficial owner of all of the fully paid ordinary shares in the capital of Bright Angel Limited. The group structure of the BAL Group is set out below. All entities within the BAL Group are wholly owned.



Company	Place of registration
Caudan Management Services LLC	Delaware, United States
Bright Angel Limited	Mauritius
Rotim Investments Holdings (Pvt) Ltd	Sri Lanka
Sanur Asia Investments (Pvt) Ltd	Sri Lanka
Orion Minerals (Pvt) Ltd	Sri Lanka
Melville Investments (Pvt) Ltd	Sri Lanka
Hammersmith Investments (Pvt) Ltd	Sri Lanka
Sanur Minerals (Pvt) Ltd	Sri Lanka
Ambrosden Resources (Pvt) Ltd	Sri Lanka
Melville Resources (Pvt) Ltd	Sri Lanka

1.5 BAL Tenure

Overview

Titanium Sands Ltd has executed the Share Sale Agreement to acquire all the issued capital of Bright Angel Limited which, through its subsidiaries, holds four exploration licenses in Sri Lanka which cover areas prospective for heavy mineral sands. These exploration licenses are set out in Figure 1 below and Schedule A (**BAL Tenure**) are adjacent to the Company's existing Mannar Island Heavy Mineral Sands Project.

The BAL Tenure have 692 drill holes on them, on the basis of visual evidence of heavy mineral concentration 454 of the holes were sent for laboratory analysis. The laboratory results confirmed a consistent zone of high grade heavy mineral concentration extending through the BAL Tenure (Figure 1). As part of its due diligence investigations independent geologists GeoActiv Pty Ltd of South Africa were commissioned to provide a resource estimate compliant with Joint ore Reserves Committee (JORC) regulations and recommendations. The GeoActive resource has been reported in full JORC compliant form to the ASX on 18/09/2019. The resource reported for the BAL Tenure is as follows:

The Inferred mineral resource estimations for Area 2 for Mannar with a 2% lower THM cut-off.

Domain	Licence	Volume (Mm^3)	Tonnes (M)	THM %	Silt %	Oversize %	Ilm %	Leu %	Rut %	Zir %
1	EL352	1.83	3.21	4.04	0.62	2.40	2.03	0.30	0.10	0.09
	Sub Total	**1.83**	**3.21**	**4.04**	**0.62**	**2.40**	**2.03**	**0.30**	**0.10**	**0.09**
2	EL327	3.03	5.27	9.26	0.74	19.11	4.94	0.67	0.11	0.18
	EL328	7.91	13.77	7.59	0.80	16.41	3.53	0.58	0.10	0.13
	EL351	2.22	3.87	9.17	0.78	25.06	4.75	0.87	0.13	0.15
	EL352	3.01	5.24	6.37	0.61	14.87	1.99	0.37	0.07	0.07
	Sub Total	**16.18**	**28.15**	**7.89**	**0.75**	**17.82**	**3.67**	**0.60**	**0.10**	**0.13**
3	EL351	0.31	0.55	5.03	0.43	0.64	2.09	0.56	0.16	0.12
	Sub Total	**0.31**	**0.55**	**5.03**	**0.43**	**0.64**	**2.09**	**0.56**	**0.16**	**0.12**
Grand Total		**18.32**	**31.92**	**7.45**	**0.73**	**15.97**	**3.48**	**0.57**	**0.10**	**0.13**

Table 1 Summary of resource estimate reported in full to the ASX on 18/09/2019.

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 BAL Tenure 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.

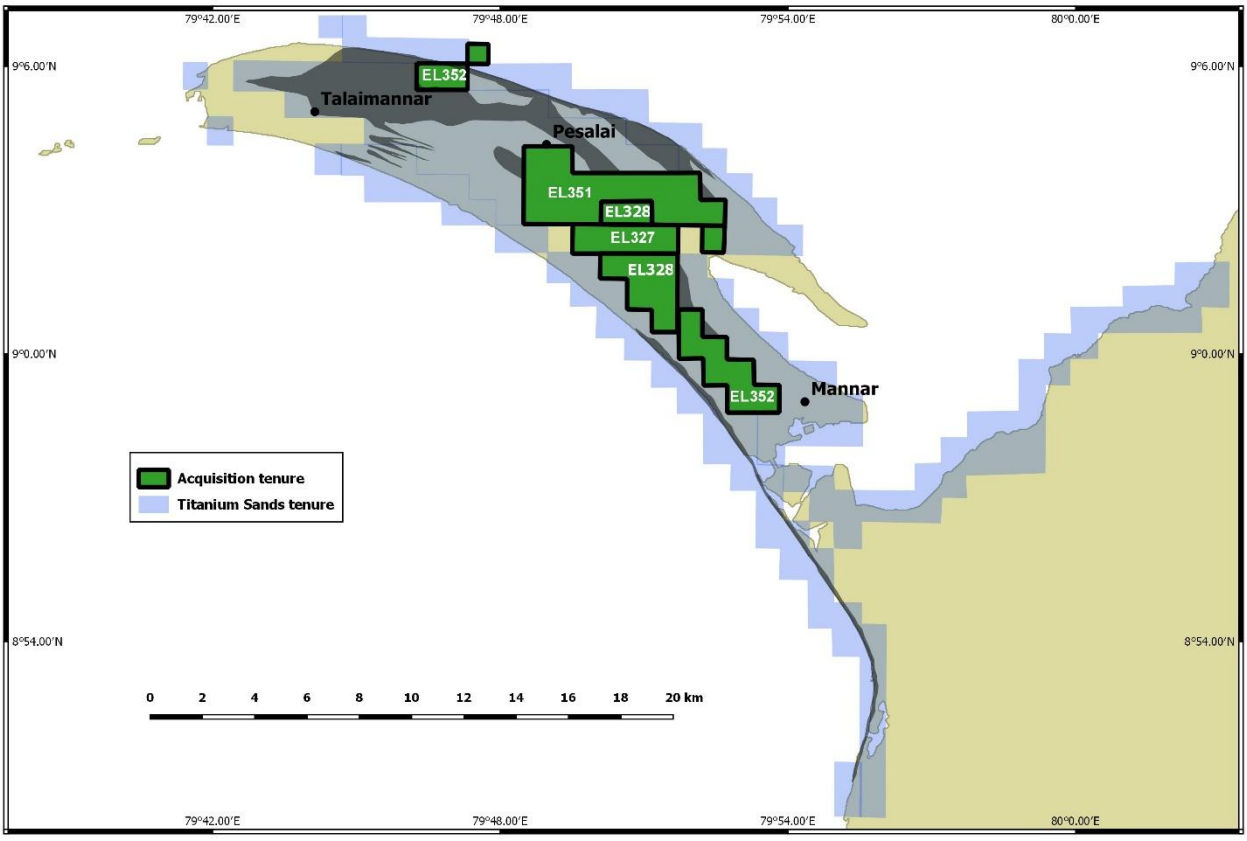


Figure 1 Titanium Sands Ltd tenure and BAL Tenure.

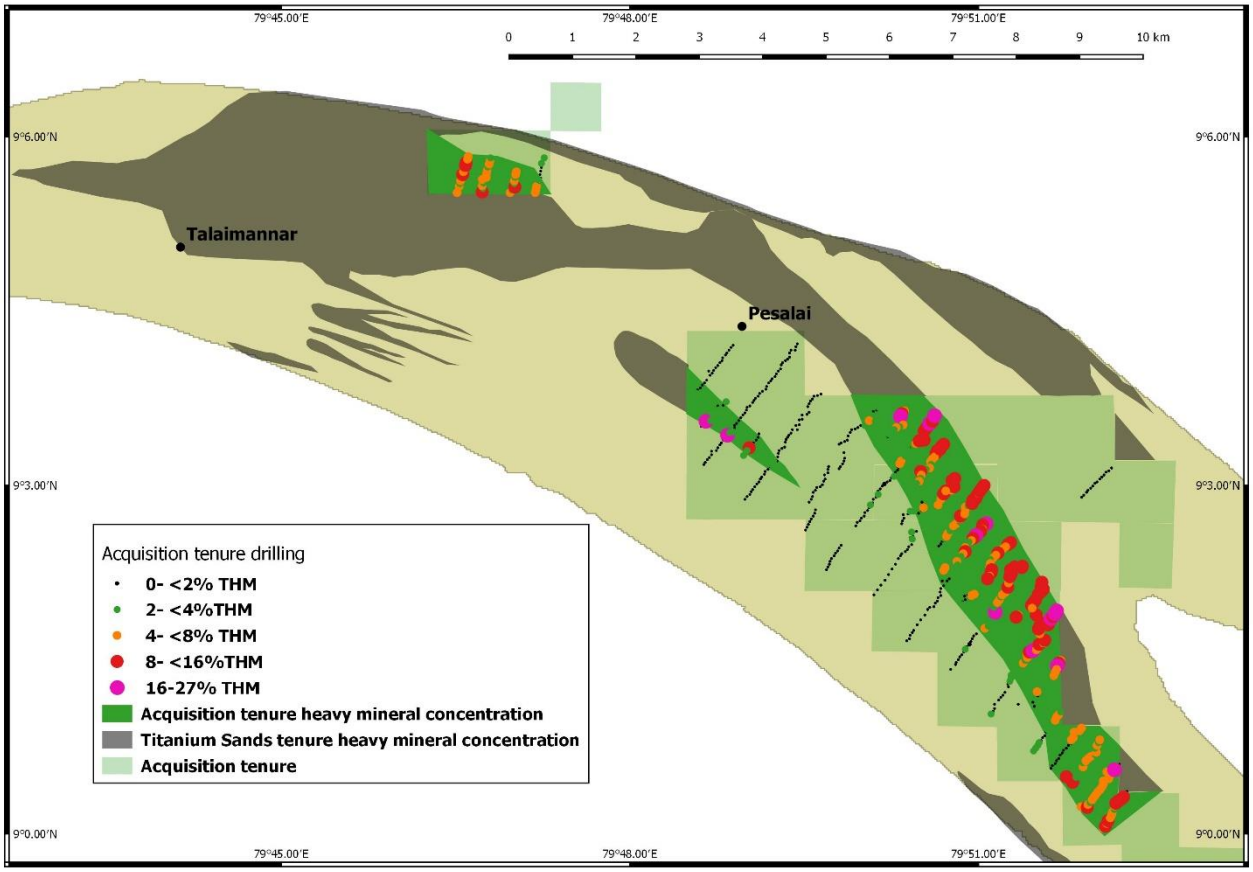


Figure 2 Drilling on Bright Angel Ltd licenses.

1.6 Financial information

Financial information in relation to the Company's acquisition of the BAL Group under the Proposed Transaction is set out in Schedule D.

1.7 Key risks

Shareholders should be aware that if the Resolutions are approved, the Company will be acquiring additional companies and assets which will expose the Company to various risk factors. These risks are both specific to the industry in which the Company operates and also relate to the general business and economic environment in which the Company will operate. An investment in the Company is not risk free and Shareholders should consider the risk factors described below, together with information contained elsewhere in this Explanatory Statement. The following is not intended to be an exhaustive list of the risk factors to which the Company will be exposed to.

Exploration, geological and development risks

Mineral exploration and development is a speculative and high-risk undertaking that may be impeded by circumstances and factors beyond the control of the Company. Success in this process involves (amongst other things):

- discovery and proving-up, or acquiring, an economically recoverable resource or reserve;
- access to adequate capital throughout the acquisition/discovery and project development phases;

- securing and maintaining title to mineral exploration projects;
- obtaining required development consents and approvals necessary for the acquisition, mineral exploration, development and production phases; and
- accessing the necessary experienced operational staff, the applicable financial management and recruiting skilled contractors, consultants and employees.

There can be no assurance that exploration of the BAL Tenure or any other exploration properties that may be acquired in the future will result in the discovery of an economic mineral resource. Even if an apparently viable mineral resource is identified, there is no guarantee that it can be economically exploited.

The exploration activities of the Company may be adversely affected by a range of factors including geological conditions, operational risks (as outlined in the next paragraph) and changing government laws and regulations. Further, whether positive income flows result from projects on which the Company will expend exploration and development capital is dependent on many factors including successful exploration, establishment of production facilities, cost control, commodity price movements, successful contract negotiations for production and stability in the local political environment.

In addition, significant expenditure may be required to establish necessary metallurgical and mining processes to develop and exploit any mineral reserves identified on the BAL Tenure. There is no assurance that the Company will have sufficient working capital or resources available to do this.

In the event that exploration programmes prove to be unsuccessful, the BAL Tenure may diminish in value, there will be a reduction in the cash reserves of the Company and relinquishment of part or all of the BAL Tenure may occur.

Future profitability

The Company's profitability will be impacted by, among other things, the success of its exploration and mining activities, economic conditions in the markets in which it operates, competition factors and any regulatory developments. Accordingly, the extent of future profits (if any) and the time required to achieve sustained profitability are uncertain and cannot be reliably predicted.

Operational risks

The operations of the Company may be affected by various factors, including:

- failure to locate or identify mineral deposits;
- failure to achieve predicted grades in exploration and mining;
- operational and technical difficulties encountered in mining;
- insufficient or unreliable infrastructure, such as power, water and transport;
- political or civil unrest, including outbreaks of violence or other hostilities
- difficulties in commissioning and operating plant and equipment;
- mechanical failure or plant breakdown;
- unanticipated metallurgical problems which may affect extraction costs;
- adverse weather conditions;
- industrial and environmental accidents;

- industrial disputes; and
- unexpected shortages or increases in the costs of consumables, spare parts, plant and equipment.

In particular, Sri Lanka does not have well developed and reliable infrastructure and services. This may impede and delay the Company's operations which are likely to result in increased costs of exploration and development of the BAL Tenure. This increase in cost may have an adverse effect on the Company's operations.

Limited operating history

The BAL Tenure has a very limited operating history. Although the Company's Directors have between them significant operational experience, the Company's ability to meet its objectives will be largely reliant upon the Company's ability to implement its current operational plans and take appropriate action to amend those plans in respect of any unforeseen circumstances that may arise.

Since the Company intends to continue investing in its exploration and development programme, the Directors anticipate making further losses in the foreseeable future. There can be no certainty that the Company will achieve or sustain profitability or achieve or sustain positive cash flow from its operating activities.

Sri Lankan country risk

The BAL Tenure is located in Sri Lanka and, following completion of the Share Sale Agreement, the Company will be subject to the risks associated with operating in that country, including various levels of political, economic and other risks and uncertainties.

Sri Lanka had been subject to a 26 year civil war which concluded in May 2009. Since the end of this conflict the government has enacted an ambitious program of economic development projects. In addition to efforts to reconstruct the economy, the government has resettled more than 95% of those civilians displaced during the final phase of the conflict and released the vast majority of the Liberation Tigers of Tamil Eelam (LTTE) combatants captured by the Government Security Forces.

More general risks include economic, social or political instability or change, hyperinflation, currency non-convertibility or instability and changes of law affecting foreign ownership, government participation, taxation, working conditions, rates of exchange, exchange control, exploration licensing, export duties, repatriation of income or return of capital, environmental protection, mine safety, labour relations as well as government control over mineral properties or government regulations that require the employment of local staff or contractors or require other benefits to be provided to local residents.

Failure to comply strictly with applicable laws, regulations and local practices relating to mineral rights applications and tenure, could result in loss, reduction or expropriation of entitlements, or the imposition of additional local or foreign parties as joint venture partners with carried or other interests.

Outcomes in courts in Sri Lanka may be less predictable than in Australia, which could affect the enforceability of contracts entered into by the Company or its subsidiaries in Sri Lanka.

The occurrence of these various factors and uncertainties cannot be accurately predicted and could have an adverse effect on the operations or profitability of the Company.

Access to the BAL Tenure

The right of the holder of an exploration license to enter onto the license to explore for minerals is subject to the consent of the occupier of the land and, where the land is proximate to certain specified locations, the ministry responsible for the protection of such locations.

Under Sri Lankan legislation, the Company may be required to enter into an agreement with the relevant landowner or occupier for the purpose of securing this consent prior to commencing any exploration activities on the affected areas within the BAL Tenure.

Restricted areas within BAL Tenure

Under the conditions of the BAL Tenure, the holder is not permitted to conduct exploration activities within forest boundaries (for certain licenses), nor any area specifically designated as ancient or protected monuments, archaeological reserves, national heritage wilderness areas, strict natural reserves, national parks, nature reserves, jungle corridors or botanical gardens.

Whilst the Company is not aware of the existence of any such restricted areas within the BAL Tenure, there is a risk that the Company's proposed exploration activities on the BAL Tenure may be affected if any areas within them fall within the above restricted categories.

Tenure risk

The BAL Tenure comprises tenements which are granted under and governed by the laws of Sri Lanka and are granted subject to conditions, including minimum annual expenditure commitments and reporting commitments. Similar conditions may be applied to future mining permits acquired by the Company or its subsidiaries. Failure to comply with these conditions may result in forfeiture of part of the BAL Tenure.

Further, the tenements comprising the BAL Tenure (and any additional future mining permits held by the Company) are subject to periodic renewal. Whist there is no reason to believe that such renewals will not be granted, the Company cannot guarantee that this will occur. New conditions may also be imposed on the BAL Tenure (and any additional future mining permits held by the Company) under the renewal process which may adversely affect the Company.

In addition, certain tenement applications comprising part of the BAL Tenure are yet to be granted. A failure to obtain their grant may negatively affect the value of the BAL Tenure.

Applications for renewal of two of the BAL Tenure have been lodged. The Company is not aware of any reason that these licenses will not have their tenure renewed for a further two years.

Government and regulatory risk

Operations by the Company may require approvals, consents or permits from government or regulatory authorities, including renewals of existing mining permits or title transfer to newly acquired mining permits, which may not be forthcoming or which may not be able to be obtained on terms acceptable to the Company.

Whilst there is no reason to believe that necessary government and regulatory approvals will not be forthcoming (other than as outlined above in respect of the Company's Sri Lankan operations), the Company cannot guarantee that those required approvals will be obtained. Failure to obtain any such approvals could mean the ability of the Company to prove-up, develop or operate any project or to acquire any project, may be inhibited or negated.

Commodity price and currency exchange risk

As the Company's potential earnings will be largely derived from the sale of mineral commodities, the Company's future revenues and cash flows will be impacted by changes in the prices and available markets of these commodities. Any substantial decline in the price of those commodities or in transport or distribution costs may have a material adverse effect on the Company and the value of its Shares.

Commodity prices fluctuate and are affected by numerous factors beyond the control of the Company. These factors include current and expected future supply and demand, forward selling by producers, production cost levels in major mineral producing centres as well as macroeconomic conditions such as inflation and interest rates.

Furthermore, the international prices of most commodities are denominated in United States dollars while the Company cost base will be in Australian dollars. Consequently changes in the Australian dollar exchange rate will impact on the earnings of the Company. The exchange rate is affected by numerous factors beyond the control of the Company, including international markets, interest rates, inflation and the general economic outlook.

Resource and reserve estimates

Even though a JORC Code compliant mineral resource has been discovered at the BAL Tenure, estimates in respect of that resource are expressions of judgement based on knowledge, experience and industry practice. Estimates which were valid when originally made may change appreciably when further information becomes available. Such resource estimates are by nature imprecise, depending on interpretations which may, with further exploration, prove to be inaccurate. Moreover, should the Company encounter ore bodies or formations which differ from those suggested by past sampling and analysis, resource estimates may have to be adjusted and any production plans altered accordingly which may adversely impact the Company's plans.

Results of studies

Subject to the results of exploration and testing programs to be undertaken, the Company may progressively undertake a number of studies in respect to the BAL Tenure. These studies may include scoping, pre-feasibility, definitive feasibility and bankable feasibility studies.

These studies will be completed within parameters designed to determine the economic feasibility of the BAL Tenure within certain limits. There can be no guarantee that any of the studies will confirm the economic viability of the BAL Tenure or the results of other studies undertaken by the Company (e.g. the results of a feasibility study may materially differ to the results of a scoping study).

Even if a study confirms the economic viability of the BAL Tenure, there can be no guarantee that the BAL Tenure will be successfully brought into production as assumed or within the estimated parameters in the feasibility study (e.g. operational costs and commodity prices) once production commences. Further, the ability of the Company to complete a study may be dependent on the Company's ability to raise further funds to complete the study if required.

Agents and contractors

The Directors are unable to predict the risk of financial failure or default or the insolvency of any of the contractors which will be used by the Company in any of its activities or other managerial failure by any of the other service providers used by the Company for any activity. Any default or insolvency is outside the Company's control and may have an adverse effect on the Company's operations.

Insurance

The Company intends to adequately insure its operations in accordance with industry practice. However, in certain circumstances, the Company's insurance may not be of a nature or level to provide adequate insurance cover. The occurrence of an event that is not covered or fully covered by insurance could have a material adverse effect on the business, financial condition and results of the Company.

Insurance of all risks associated with mineral exploration and production is not always available. Further, where coverage is available, the costs may be prohibitive.

Environmental risks

The Company's activities are subject to the environmental laws inherent in the mining industry and those specific to Sri Lanka. The Company intends to conduct its activities in an environmentally responsible manner and in compliance with all applicable laws. However, the Company may be the subject of accidents or unforeseen circumstances that could subject the Company to extensive liability.

In addition, environmental approvals may be required from relevant government or regulatory authorities before activities may be undertaken which are likely to impact the environment. Failure or delay in obtaining such approvals will prevent the Company from undertaking its planned activities. Further, the Company is unable to predict the impact of additional environmental laws and regulations that may be adopted in the future, including whether any such laws or regulations would materially increase the Company's cost of doing business or affect its operations in any area.

Rehabilitation of tenements

In relation to the Company's proposed operations, issues could arise from time to time with respect to abandonment costs, consequential clean-up costs, environmental concerns and other liabilities. In these instances, the Company could become subject to liability if, for example, there is environmental pollution or damage from the Company's exploration activities and there are consequential clean-up costs at a later point in time.

Climate change regulation

Mining of mineral resources is relatively energy intensive and is dependent on the consumption of fossil fuels. Increase regulation and government policy designed to mitigate climate change may adversely affect the Company's cost of operations and adversely impact the financial performance of the Company.

Dilution and reduced cash reserves

The consideration payable under the Share Sale Agreement and the Convertible Note Termination Deed is a combination of Shares and Seller Options. Therefore, the acquisition of the BAL Tenure will result in a significant dilution of the existing Shareholders. Upon completion of the Share Sale Agreement existing Shareholders will be diluted by approximately 34.9% (and by 47.5% on a fully diluted basis ie. if all Class B Performance Shares convert and all Existing Options and Seller Options are exercised).

The following table summarises the percentages by which the shareholdings of the existing Shareholders will be diluted in a number of different scenarios:

Scenario	Dilution
No Class B Performance Shares convert and no Existing Options or Seller Options are exercised	34.9%
No Class B Performance Shares convert and all Existing Options or Seller Options are exercised	46.3%
No Class B Performance Shares convert and no Existing Options are exercised but all Seller Options are exercised	44.6%
No Class B Performance Shares convert and all Existing Options are exercised but no Seller Options are exercised	37.2%
All Class B Performance Shares convert and no Existing Options are exercised but all Seller Options are exercised	45.9%
All Class B Performance Shares convert and all Existing Options are exercised but no Seller Options are exercised	38.9%
All Class B Performance Shares convert and no Existing Options or Seller Options are exercised	36.7%
All Class B Performance Shares convert and all Existing Options and Seller Options are exercised	47.5%

Counterparty risk

The Company's acquisition of the BAL Tenure is governed by the Share Sale Agreement. The ability of the Company to complete on the acquisition of the BAL Tenure will depend on the performance by the Seller of its obligation under the Share Sale Agreement. If the Seller defaults in the performance of its obligations under the Share Sale Agreement, it may be necessary for the Company to institute court proceedings to seek a legal remedy. Legal action instituted in Australia or overseas can be costly.

Contract Risk

The operations of the Company will require the involvement of a number of third parties, including suppliers, contractors and customers. With respect to these third parties, and despite applying best practice in terms of pre-contracting due diligence, the Directors are unable to completely avoid the risk of:

- financial failure or default by a participant in any joint venture to which the Company or its subsidiaries may become a party;
- insolvency, default on performance or delivery, or any managerial failure by any of the operators and contractors used by the Company or its subsidiaries in its exploration activities; or
- insolvency, default on performance or delivery, or any managerial failure by any other service providers used by the Company or its subsidiaries or operators for any activity.

Financial failure, insolvency, default on performance or delivery, or any managerial failure by such third parties may have a material impact on the Company's operations and performance. Whilst best practice pre-contracting due diligence is undertaken for all third parties engaged by the Company, it is not possible for the Company to predict or protect itself completely against all such contract risks.

Acquisitions

The Company may make acquisitions of, or significant investments in, companies or assets that are complementary to its business. Any such future transactions are accompanied by the risks commonly encountered in making acquisitions of companies or assets, such as integrating cultures and systems of operation, relocation of operations, short term strain on working capital requirements, achieving mineral exploration success and retaining key staff.

Safety

Safety is a fundamental risk for any exploration and production company in regards to personal injury, damage to property and equipment and other losses. The occurrence of any of these risks could result in legal proceedings against the Company and substantial losses to the Company due to injury or loss of life, damage or destruction of property, regulatory investigation, and penalties or suspension of operations. Damage occurring to third parties as a result of such risks may give rise to claims against the Company.

Litigation

The Company may in the ordinary course of business become involved in litigation and disputes, for example with service providers, customers or third parties infringing the Company's intellectual property rights. Any such litigation or dispute could involve significant economic costs and damage to relationships with contractors, customers or other stakeholders. Such outcomes may have an adverse impact on the Company's business, reputation and financial performance.

Share Market

Share market conditions may affect the value of the Company's quoted securities regardless of the Company's operating performance. The market price of the Shares may be subject to fluctuation and may be affected by many factors including but not limited to the following:

- general economic outlook;
- interest rates and inflation rates;
- currency fluctuations;
- mineral/commodity price fluctuations;
- changes in investor sentiment toward particular market sectors;
- the demand for, and supply of, capital;
- terrorism or other hostilities; and
- other factors beyond the control of the Company.

Commercialisation risks

Even if the Company discovers commercial quantities of minerals, there is a risk the Company will not achieve a commercial return. The Company may not be able to transport any minerals extracted from its operations at a reasonable cost or may not be able to sell the minerals to customers at a rate which would cover its operating and capital costs. There is also a risk that necessary regulatory approvals may not be obtained.

Competition risks

The industry in which the Company will be involved is subject to domestic and global competition. While the Company will undertake all reasonable due diligence in its business decisions and operations, the Company will have no influence or control over the activities or actions of its competitors, and such activities or actions may, positively or negatively, affect the operating and financial performance of the Company's projects and business.

Future capital needs

Additional funding beyond the funds raised under the Offer may be required by the Company to support its ongoing operations and development of the BAL Tenure. There can be no assurance that such funding will be available on satisfactory terms to the Company or at all. Any inability to obtain funding will adversely affect the business and financial condition of the Company and, consequently, its performance and ability to take advantage of opportunities to develop projects.

Further, any additional funding raised by issue of equity will be dilutive to the then current Shareholders. Equally, debt funding, if available in the future, may involve restrictions on financing and operating activities of the Company and its subsidiaries.

Key management

The responsibility of overseeing the day-to-day operations and the strategic management of the Company depends substantially on its senior management and its key personnel. The Company may be detrimentally affected if one or more of the key management or other personnel cease their engagement with the Company.

Changes to laws and regulations

The Company may be affected by changes to laws and regulations (in Australia, Sri Lanka and other countries in which the Company may operate) concerning property, the environment, superannuation, taxation trade practices and competition, government grants, incentive schemes, accounting standards and other matters. Such changes could have adverse impacts on the Company from a financial and operational perspective.

International operations

The Company initially intends to operate in Sri Lanka. The Company may also consider expanding into other markets internationally in the future. Therefore, the Company will be exposed to risks relating to operating in those countries. Many of these risks are inherent in doing business internationally, and will include, but are not limited to:

- changes in the regulatory environment;
- trade barriers or the imposition of taxes;
- difficulties with staffing or managing any foreign operations;
- issues or restrictions on the free transfer of funds;
- technology export or import restrictions; and
- delays in dealing across borders caused by customers or regulatory authorities.

Economic risks

The future viability of the Company is also dependent on a number of other factors affecting performance of all industries and not just the exploration and mining industries including, but not limited to, the following:

- general economic conditions;
- changes in Government policies, taxation and other laws;
- the strength of the equity and share markets in Australia and throughout the world, and in particular investor sentiment towards the commodities (resources) sector;
- movement in, or outlook on, interest rates and inflation rates; and
- natural disasters, social upheaval or war.

Force majure risk

Events may occur within or outside the markets in which the Company operates that could impact upon the global, Australian and Sri Lankan economies and the operations of the Company. These events include acts of terrorism, outbreaks of international hostilities, fires, pandemics, floods, earthquakes, labour strikes, civil wars, natural disasters, outbreaks of disease, and other man-made or natural events or occurrences that can have an adverse effect on the demand for the Company's services and its ability to conduct business. Given the Company has only a limited ability to insure against some of these risks, its business, financial performance and operations may be materially adversely affected if any of the events described above occurs.

1.8 Pro forma capital structure

The table below provides a summary of the capital structure of the Company at the date of this Notice and upon completion of the Share Sale Agreement.

Capital structure1	Existing	Post-Completion of Proposed Transaction
Existing Shares	778,649,471	778,649,471
Shares to be issued under the Share Sale Agreement and Convertible Note Termination Deed	-	417,500,000
Total Shares	778,649,471	**1,196,149,471**
Existing Options	44,285,714	44,285,714
Class B Performance Shares	33,333,333	33,333,333
Seller Options to be issued under the Share Sale Agreement	-	208,750,000
Fully diluted share capital	**856,268,518**	**1,482,518,518**

1.9 Pro forma statement of financial position

Assuming the Resolutions are passed and completion of the Share Sale Agreement occurs, the unaudited pro forma statement of financial position for the Company is set out in Schedule C.

1.10 Independent Expert's Report

The Independent Expert's Report assesses whether the acquisition of Shares and Seller Options by Caudan under the Share Sale Agreement and the acquisition of Shares by GJSM under the Convertible Note Termination Deed is, in each case, fair and reasonable to the Shareholders who are not associated with the Seller or GJSM or their respective associates. The Independent Expert's Report also contains an assessment of the advantages and disadvantages of the Proposed Transaction. This assessment is designed to assist Shareholders in reaching their voting decision on the Resolutions.

Pendragon Capital Ltd has prepared the Independent Expert's Report and has provided an opinion that it believes the proposals as outlined in the Share Sale Agreement and Convertible Note Termination Deed are, on balance, **not fair but reasonable** to Shareholders not associated with the Seller or GJSM or their respective associates. It is recommended that all Shareholders read the Independent Expert's Report in full which is enclosed as Annexure 1 of this Notice. A copy of the Independent Expert's Report is also accessible on the Company's website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

1.11 Advantages of the Proposed Transaction

The Directors are of the view that the following non-exhaustive list of advantages may be relevant to a Shareholder's decision on how to vote on the Resolutions (and Shareholders are also directed to the Independent Expert's Report which also contains an assessment of the advantages and disadvantages of the Proposed Transaction):

(a) The BAL Tenure contains, as part of the JORC compliant resources, a continuous high grade zone that adjoins and links several areas of high grade resources in the Company's existing

tenure. The combined areas of high grade resources offer the opportunity for an uninterrupted mining sequence in high grade material. This could have major economic benefits to the Company's Sri Lankan Project allowing for a continuous run of high grade resources being processed in the early stages of the Project.

(b) The significant increase in total resources arising from the Proposed Acquisition could potentially increase the life of the Company's Sri Lankan Project and consequently the economic return.

(c) The increased scale of the Company's Sri Lankan Project resulting from the Proposed Acquisition may offer considerable advantages in capital efficiency as a higher volume of mining and treatment commensurate with a larger resource could justify investment in a larger treatment plant with lower per unit of through put cost.

(d) A larger scale operation based on the increased resources also has the potential to have lower per unit mining, treatment and overhead costs.

(e) The Independent Expert has concluded that the proposals as outlined in the Share Sale Agreement and Convertible Note Termination Deed are, on balance, **not fair but reasonable** to Shareholders not associated with the Seller or GJSM or their respective associates.

1.12 Disadvantages of the Proposed Transaction

The Directors are of the view that the following non-exhaustive list of disadvantages of the Proposed Transaction may be relevant to a Shareholder's decision on how to vote on the Resolutions:

(a) The existing shareholders of Titanium Sands Ltd will have their shareholding diluted by the share to be issued as part of the Proposed Transaction.

(b) The Company and its Shareholders will be exposed to the risks associated with the BAL Group and the BAL Tenure including those risks set out in Section 1.7.

2. REGULATORY INFORMATION

2.1 Resolutions – Issue of Shares and Seller Option to Seller and issue of Shares to Gary Johnson Super Management Pty Ltd

Resolution 1 seeks Shareholder approval for the issue of 312,500,000 Shares and 208,750,000 Seller Options to Caudan as consideration for acquiring 100% of the issued share capital in BAL and Resolution 2 seeks Shareholder approval for the issue of 105,000,000 Shares to GJSM as consideration for terminating the Convertible Note Agreement.

Resolutions 1 and 2 are interconditional

Resolution 1 and Resolution 2 are interconditional which means that each of them will only take effect if both of them are approved by Shareholders. If either Resolution 1 or Resolution 2 are not passed then neither of the Resolutions will take effect and the Proposed Transaction will not proceed.

Takeover prohibition

Section 606 of the Corporations Act prohibits a person from acquiring a Relevant Interest in the issued voting shares of a listed company if the acquisition would result in that person's (or another person's) Voting Power in the company increasing:

- from 20% or below to more than 20%; or
- from a starting point that is above 20% and below 90%.

Voting Power

The Voting Power of a person in a company is determined in accordance with section 610 of the Corporations Act. It is aimed at grouping together and counting the percentage of all voting shares in a company that are controlled by a person and its associates (i.e. their Relevant Interests).

Relevant Interests

Section 608(1) of the Corporations Act provides that a person has a Relevant Interest in securities if that person:

- is the holder of the securities;
- has power to exercise, or control the exercise of, a right to vote attached to the securities; or
- has power to dispose of, or exercise control over the disposal of, the securities.

It is immaterial whether the power or control is direct or indirect, and it does not matter how remote the Relevant Interest is or how it arises. If two or more people can jointly exercise one of these powers, each of them is taken to have that power.

In addition, section 608(3) of the Corporations Act provides that, if a body corporate has a Relevant Interest in securities, a person will also have a Relevant Interest in those securities if:

- the person has Voting Power in the body which is above 20%; or
- the person controls the body.

Associates

In determining who is an associate for the purposes of calculating a person's Voting Power, section 12(2) of the Corporations Act provides that:

- the following entities are associates of a body corporate:
  - another body corporate which it controls;
  - another body corporate which controls it; and
  - another body corporate that is controlled by the same entity which controls it;
- a person will be an associate of another person if they have, or propose to enter into, a relevant agreement for the purpose of controlling or influencing:
  - the composition of a body's board; or
  - the conduct of the body's affairs; and
- a person will be an associate of another person if they are acting, or propose to act, in concert in relation to the affairs of a body.

Item 7 of section 611 of the Corporations Act

Item 7 of section 611 of the Corporations Act provides an exception to the prohibition in section 606 where the acquisition of the Relevant Interest has been approved by shareholders in general meeting, provided that:

- no votes are cast in favour of the resolution by the person proposing to make the acquisition or their associates; and
- shareholders are given all information known to the acquirer or the company that was material to the decision on how to vote.

The acquisition of Shares by Caudan as a result of being issued Shares at completion of the Share Sale Agreement, and Shares upon any exercise of Seller Options, will result in Caudan acquiring a Relevant Interest in the Company's Shares which will potentially increase its Voting Power in the Company:

- from 20% or below to more than 20%; and
- from a starting point that is above 20% and below 90%.

Under section 606(6) of the Corporations Act, a person is taken to acquire a Relevant Interest in voting shares in a company if securities in which the person already had a Relevant Interest become voting shares in the company. Therefore, in respect of the Seller Options, the acquisition occurs when the Seller Options are exercised (if at all) and Shares are issued upon the exercise of such Seller Options.

Based on certain assumptions, the maximum Voting Power that the Seller may obtain in the Company as a result of being issued Shares upon completion of the Share Sale Agreement, and Shares upon the exercise of Seller Options and the conversion of the existing Class B Performance Shares, is 50.79%. Please refer below for further information on the Voting Power that may be acquired by the Seller pursuant to the Share Sale Agreement. (It is noted that Caudan has directed the Company that from the consideration payable by the Company upon completion of the Share Sale Agreement, 25,000,000 Shares and 25,000,000 Seller Options are to be issued to nominees that are not associates of Caudan.)

Accordingly, Resolution 1 seeks Shareholder approval for the purposes of item 7 of section 611 of the Corporations Act in respect of the issue of Shares and Seller Options to Caudan and/or its nominees.

Prescribed information

The following information is required to be provided to Shareholders under the Corporations Act and *ASIC Regulatory Guide 74: Acquisitions approved by members* for the purposes of obtaining approval

under item 7 of section 611 of the Corporations Act. Shareholders are also referred to the Independent Expert's Report prepared by Pendragon Capital Ltd contained in Annexure 1 of this Notice. A copy of the Independent Expert's Report is also accessible on the Company's website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

Identity of the acquirer and its associates

The Shares and Seller Options to be issued to Caudan or nominees under Resolution 1 will be issued to nominees of the Seller domiciled in Mauritius, Seychelles or Australia (or such other jurisdiction agreed by the Company) in consideration for 100% of the issued capital in BAL. These nominees are Heedful Pty Ltd (5,000,000 Shares), Celtic Capital Pty Ltd (10,000,000 Shares and 5,000,000 Seller Options), Quattro Stagione Pty Ltd (10,000,000 Shares and 5,000,000 Seller Options), Vuna Nominees LLC (35,000,000 Shares) and Willis Holdings Ltd (252,500,000 Shares and 198,750,000 Seller Options). Vuna Nominees LLC and Willis Holding Ltd are associates of Caudan by virtue of being controlled by Robert Nelson (see below). Heedful Pty Ltd, Celtic Capital Pty Ltd and Quattro Stagione Pty Ltd are not associates of Caudan or Robert Nelson.

Caudan is controlled and beneficially owned by Robert Nelson who is a private investor with over 40 years of experience in the mining industry. Mr Nelson is the father in law of Jason Ferris who is a Non-Executive Director of the Company.

At the date of this Notice, Mr Nelson (and therefore Caudan) has a Relevant Interest in 233,410, 261 Shares and controls 33,333,333 Class B Performance Shares in each case held by Cuprum Holdings Limited which is controlled and beneficially owned by Mr Nelson and King George V Nominees Ltd which is beneficially owned by Mr Nelson as set out below. Other than Mr Nelson, the Company has been informed that the Seller does not have an associate relationship with any existing Shareholders.

In light of the above (and as set out in more detail below in the section "Effect on the acquirer's Voting Power), each of Robert Nelson, Cuprum Holdings Limited, King George V Nominees, Vuna Nominees LLC and Willis Holdings Limited are associates of Caudan. The Company has been advised by Caudan and GJSM that they are not associates of each other.

Effect on the acquirer's Voting Power

At the date of this Notice, Caudan and its associates have a Relevant Interest in 233,410,261 Shares, giving it Voting Power in the Company of 29.98%. These Shares are held by Cuprum Holdings Limited (218,445,261 shares) an associate of the Caudan because Mr Robert Nelson is a Director and shareholder of Cuprum and King George V Nominees Ltd (14,965,000 shares) an associate of Caudan because Mr Robert Nelson is the sole beneficiary of King George V Nominees Ltd.

The maximum Voting Power that Caudan may obtain in the Company as a result of being issued Shares upon completion of the Share Sale Agreement and Shares upon exercise of Seller Options, is 50.79%. Among other assumptions, this level of Voting Power would only be achieved if the 33,333,333 Class B Performance Shares held by Cuprum Holdings Limited convert into Shares. (It is noted that Caudan has directed the Company that from the consideration payable by the Company upon completion of the Share Sale Agreement, 25,000,000 Shares and 25,000,000 Seller Options are to be issued to nominees that are not associates of Caudan.)

The table below sets out the potential effect of the issue of Shares and Seller Options on the Caudan Voting Power in the Company.

	Caudan's and associates Relevant Interest in Shares	Total Shares on conversion/exercise	Caudan's Voting Power
Existing position	233,410,261[1]	778,649,471	29.98%
Issue of Shares upon completion of Proposed Transaction	520,910,261	1,196,149,471[2]	43.54%[2]
Issue of Seller Options upon completion of Proposed Transaction	719,660,261	1,404,899,471[3]	51.23%[3]
Exercise of Existing Options	719,660,261	1,449,185,185	49.66%
Conversion of Class B Performance Shares	752,993,594	1,472,518,518	50.79%

[1] 218,445,261 Shares are held by Cuprum Holdings Ltd and 14,965,000 Shares are held by King George V Nominees.
[2] 25,000,000 of the 312,500,000 Shares to be issued to Caudan or nominees under the Share Sale Agreement will be issued to nominees that are not associates of Caudan
[3] 10,000,000 of the 208,750,000 Seller Options that are to be issued to Caudan or nominees under the Share Sale Agreement will be issued to nominees that are not associates of Caudan

Reasons for the proposed acquisition

In accordance with the Share Sale Agreement, nominees of Caudan will acquire 312,500,000 Shares and the Seller Options in consideration of Caudan transferring all of the issued share capital in BAL to the Company. Upon completion of the Share Sale Agreement, the Company will wholly own BAL, which in turn (through its subsidiaries) owns the BAL Tenure. Summaries of the key advantages and disadvantages of the Proposed Transaction are set out in Sections 1.11 and 1.12.

Timing of the proposed acquisition

Nominees of Caudan will acquire 312,500,000 Shares upon completion of the Share Sale Agreement, which is anticipated to be on or about 28 February 2020. Caudan will acquire a Relevant Interest in 287,500,000 of those Shares once they have been issued (the remainder of those Shares will be issued to nominees who will not be associates of Caudan and thus Caudan will not have a Relevant Interest in those Shares).

Upon completion of the Share Sale Agreement, nominees of the Caudan will also acquire 208,750,000 Seller Options (of these, 10,000,000 Seller Options will be issued to nominees who will not be associates of Caudan and thus Caudan will not have a Relevant Interest in any Shares issued upon exercise of those Seller Options). However, the Seller Options issued to nominees of Caudan who are associates of Caudan will only give rise to a Relevant Interest in Shares if they are exercised in accordance with their terms. As the expiry date of the Seller Options is 3 years after their issue, any acquisition of Shares through the exercise of Seller Options will happen during the 3 year period following completion of the Agreement.

Material terms of the proposed acquisition

A summary of the key terms of the Share Sale Agreement is set out in Section 1.2, and a summary of the Proposed Transaction generally is set out in Section 1.

Other relevant agreements

Other than the Share Sale Agreement, no relevant agreements exist between the Company and Caudan, or any of its associates.

Acquirer's intentions regarding the future of the Company

Other than as disclosed elsewhere in this Notice, Caudan:

- has no current intention of making any changes to the business of the Company;
- does not propose to inject further capital into the Company;
- does not intend to change the employment arrangements of the Company;
- does not propose to transfer any assets between the Company and Caudan, or its associates;
- has no intention to otherwise redeploy the fixed assets of the Company; and
- does not intend to change the financial or dividend distribution policies of the Company.

These intentions are based on information concerning the Company, its business and the business environment which is known to Caudan at the date of this Notice. Final decisions regarding these matters will only be made by Caudan in light of material information and circumstances at the relevant time. Accordingly, the statements set out above are statements of current intention only, which may change as new information becomes available to them or as circumstances change.

Directors' interests

The Company has taken the view that Jason Ferris has a material personal interest in the Resolutions due to him being the son in law of Robert Nelson – the controller and beneficial owner of Caudan. No other Director has a material personal interest in the issue of Shares and Seller Options to Caudan under Resolution 1 or the issue of Shares to GJSM under Resolution 2.

Additional directors

There is no current intention of changing the Board in connection with the Resolutions.

Independent Expert's Report

The Independent Expert's Report assesses whether the acquisition of Shares by nominees of Caudan under the Share Sale Agreement is fair and reasonable to the Shareholders who are not associated with the Seller. The Independent Expert's Report also contains an assessment of the advantages and disadvantages of the proposed acquisition under the Share Sale Agreement. This assessment is designed to assist Shareholders in reaching their voting decision.

Pendragon Capital Ltd has prepared the Independent Expert's Report and has provided an opinion that it believes the proposals as outlined in the Share Sale Agreement and Convertible Note Termination Deed are, on balance, not fair but reasonable to Shareholders not associated with the Seller or GJSM or their respective associates. It is recommended that all Shareholders read the Independent Expert's Report in full which is enclosed as Annexure 1 of this Notice. A copy of the Independent Expert's Report is also accessible on the Company's website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

Section 208 of the Corporations Act

Section 208(1)(a) of the Corporations Act prohibits a company from giving a financial benefit (including an issue of securities) to a related party of the company without the approval of shareholders by a

resolution passed at a General Meeting at which no votes are cast in relation to the resolution in respect of any shares held by the related party or by an associate of the related party.

Caudan is a related party of the Company under section 228 of the Corporations Act as it is controlled by Robert Nelson, who is the father in law of Jason Ferris, who is a Director. GJSM is potentially a related party of the Company under section 228(7) of the Corporations Act which provides that an entity is a related party of a public company if the entity acts in concert with a related party of the public company on the understanding that the related party will receive a financial benefit if the public company gives the entity a financial benefit. Out of an abundance of caution, the Company is seeking Shareholder approval to the issue of Shares to GJSM, under Resolution 2 for the purposes of section 208 of the Corporations Act.

Out of an abundance of caution, rather than relying on the 'arm's length' exception in section 210 of the Corporations Act, the Company is seeking Shareholder approval to the issue of Shares and Seller Options to Caudan, and Shares to GJSM, under the Resolutions for the purposes of section 208 of the Corporations Act.

As required by section 219 of the Corporations Act, the following information is provided in relation to the Resolutions:

(a) **Related party to whom the financial benefit is to be given**

(i) Caudan Management Services LLC which is controlled and beneficially owned by Robert Nelson and its nominees to whom Shares and Seller Options will be issued under the Share Sale Agreement.

(ii) Gary Johnson Senior Management Pty Ltd.

(b) **Nature of the financial benefit**

(i) 312,500,000 Shares and 208,750,000 Seller Options to be issued to Caudan

(ii) 105,000,000 Shares to be issued to GJSM

(c) **Valuation of the financial benefit**

(i) Based on the 20 day VWAP as at 29 October 2019, which implies that each Share will initially have a market value of $$0.0175. Based on this Share price, the indicative value of the financial benefit to be given to Caudan in the nature of Shares is $5,468,750. However, the value of the benefit of the Shares will depend on the price at which the Shares trade on the ASX from time to time.

Using the Black & Scholes option model and based on the assumptions set out below, the 208,750,000 Seller Options to be issued to Caudan or nominees were ascribed the following value:

Valuation date	29 October 2019
Market price of Shares (20 day VWAP)	$0.0175
Exercise price	$0.05
Expiry date (length of time from issue)	3 years
Risk free interest rate	0.82%
Volatility (discount)	90.7%
Indicative value per Seller Option	$0.006

Total Value of Seller Options	$1,255,438

(ii) Based on the 20 day VWAP as at 29 October 2019, which implies that each Share will initially have a market value of $$0.0175. Based on this Share price, the indicative value of the financial benefit to be given to GJSM is $1,837,500.

(d) **Current Relevant Interest**

(i) Caudan and its associates currently have a Relevant Interest in 233,410,261 Shares.

(ii) GJSM and its associates currently have a Relevant Interest in 110,000,000 Shares.

(e) **Terms of the securities**

The Shares to be issued to Caudan and/or nominees and the Shares to be issued to GJSM will rank equally in all respects with existing Shares on issue.

The terms and conditions of the Seller Options to be issued to Caudan and/or nominees are set out in Schedule B.

(f) **Dilution**

Upon completion of the Share Sale Agreement, existing Shareholders will be diluted by approximately 34.9% and by 47.5% on a fully diluted basis ie. if all Class B Performance Shares remaining after Completion convert and all Existing Options and Seller Options are exercised).

The following table summarises the percentages by which the shareholdings of the existing Shareholders will be diluted in a number of different scenarios (subject to the assumptions above):

Scenario	Dilution
No Class B Performance Shares convert and no Existing Options or Seller Options are exercised	34.9%
No Class B Performance Shares convert and all Existing Options or Seller Options are exercised	46.3%
No Class B Performance Shares convert and no Existing Options are exercised but all Seller Options are exercised	44.6%
No Class B Performance Shares convert and all Existing Options are exercised but no Seller Options are exercised	37.2%
All Class B Performance Shares convert and no Existing Options are exercised but all Seller Options are exercised	45.9%
All Class B Performance Shares convert and all Existing Options are exercised but no Seller Options are exercised	38.9%
All Class B Performance Shares convert and no Existing Options or Seller Options are exercised	36.7%
All Class B Performance Shares convert and all Existing Options and Seller Options are exercised	47.5%

(g) **Consequences of Resolutions being passed or not being passed and opportunity costs to the Company in proceeding with the Proposed Acquisition**

If Shareholders do not approve the Resolutions then the Company will not be able to complete the Proposed Transaction and the Company will focus on exploration and development of its existing Manar Island Heavy Mineral Sands Project tenure.

If Shareholders approve the Resolutions then the Company will complete the Proposed Transaction and proceed to explore and develop the BAL Tenure acquired together with its existing Manar Island Heavy Mineral Sands Project tenure. The Company does not consider that there are any opportunity costs to the Company or benefits foregone by the Company in issuing Shares and Seller Options to Caudan, and the Shares to GJSM, under the Resolutions.

(h) **Intended use of funds raised**

(i) No funds will be raised from the issue of Shares and Seller Options to Caudan and/or its nominees as they are being issued as consideration for the acquisition of Caudan's interest in the issued share capital in BAL. If all the Seller Options are exercised, the Company will raise $10,437,500. It is the current intention of the Company to use these funds for project exploration and development.

(ii) No funds will be raised from the issue of Shares to GJSM as they are being issued as consideration for GJSM to agree to terminate, and release and discharge BAL's obligations under, the Convertible Note Agreement.

(i) **Directors' interests**

Jason Ferris has a material personal interest in the outcome of the Resolutions due to being the son-in-law of Robert Nelson, the controller and beneficial owner of the Caudan. No other Director has a material personal interest in the outcome of the Resolutions.

(j) **Directors' recommendations**

Jason Ferris abstains from expressing an opinion or making a recommendation on the Resolutions due to having a material personal interest in its outcome. Each other Director recommends that Shareholders vote in favour of the Resolutions for the reasons set out in Section 1.11.

(k) **Other information**

Other than as set out in this Explanatory Statement, there is no further information that is known to the Company or any of the Directors which Shareholders would reasonably require in order to decide whether or not it is in the Company's best interests to pass the Resolutions.

Listing Rule 10.1

Listing Rule 10.1 provides that an entity must ensure that neither it, nor any of its child entities, acquires a substantial asset from, or disposes of a substantial asset to, amongst other persons, a related party of the entity, a substantial holder (being a holding of 10% or more) or one of its associates, without the prior approval of shareholders.

An asset is substantial if its value, or the value of the consideration for it is, or in ASX's opinion is, 5% or more of the equity interests of the entity as set out in the latest accounts given to ASX under the Listing Rules. BAL and its assets constitute a 'substantial asset' for the purposes of the Listing Rules.

Caudan is a related party of the Company as it is controlled by Robert Nelson who is the father in law of Jason Ferris – a Non-Executive Director of the Company. Caudan is also a substantial holder of the Company as it has a Voting Power in the Company of more than 10%.

GJSF is an associate of Redaso Pty Ltd which is a substantial holder of the Company holding a Voting Power in the Company, as at the date of this Notice, of 14.13% and ASX has determined that ASX Listing Rule 10.1 should apply to the proposed issue of 105,000,000 Shares to GJSF in consideration for the termination of, and release and discharge of BAL's obligations under, the Convertible Note Agreement pursuant to the Convertible Note Termination Deed.

Therefore, the Company is required to obtain Shareholder approval for the purposes of Listing Rule 10.1 in order to complete the acquisition of BAL under the Share Sale Agreement and to issue of 105,000,000 Shares to GJSF in consideration for the termination of, and release and discharge of BAL's obligations under, the Convertible Note Agreement pursuant to the Convertible Note Termination Deed. Listing Rule 10.10.2 requires a notice of meeting containing a resolution under Listing Rule 10.1 to include a report on the transaction from an independent expert.

For the purposes of Listing Rule 10.5, the following information is provided to Shareholders in relation to the Resolutions:

(a) **Name of the person from whom the Company is buying the substantial asset**

(i) Caudan Management Services LLC.

(ii) Gary Johnson Super Management Pty Ltd

(b) **Relationship that requires shareholder approval**

(i) Caudan a related party of the Company under section 228 of the Corporations Act as it is controlled by Robert Nelson, who is the father in law of Jason Ferris, who is a Director. In addition, Robert Nelson, is a substantial holder of the Company with a Voting Power in the Company above 10%.

(ii) GJSM is potentially a related party of the Company under section 228(7) of the Corporations Act which provides that an entity is a related party of a public company if the entity acts in concert with a related party of the public company on the understanding that the related party will receive a financial benefit if the public

company gives the entity a financial benefit. In addition, GJSF is an associate of Redaso Pty Ltd which is a substantial holder of the Company holding a Voting Power in the Company, as at the date of this Notice, of 14.13%.

(c) **Details of the substantial asset being acquired by the Company**

(i) The substantial asset being acquired by the Company from Caudan is all of the fully paid ordinary shares in Bright Angel Limited which is the holding company of a group of companies which hold the BAL Tenure further details of which are set out in Sections 1.4, 1.5 and 1.6 above.

(ii) The substantial asset being acquired from GJSF is GJSF's agreement to terminate, and release and discharge BAL's obligations under, the Convertible Note Agreement pursuant to the Convertible Note Termination Deed further details of which are set out in Section 1.3 above.

(d) **Consideration for the acquisition**

(i) 312,500,000 Shares and 208,750,000 Seller Options to be issued to nominees of Caudan.

(ii) 105,000,000 Shares to be issued to GJSM

(e) **Source of funds to pay for the acquisition**

The acquisition will be funded by the issue of Shares and Seller Options,. No cash consideration is payable.

(f) **Timetable for the acquisition**

The acquisition will occur upon completion of the Share Sale Agreement, which is anticipated to be on or about 28 February 2020.

(g) **Issue price of the securities**

(i) Nil cash consideration as the Shares and Seller Options to be issued to nominees of Caudan are being issued as consideration for 100% of the issued share capital in BAL.

(ii) Nil cash consideration as the Shares to be issued to GJSM are being issued as consideration for GJSM to agree to terminate, and release and discharge BAL's obligations under, the Convertible Note Agreement.

(h) **Summary of material terms of agreement under which securities are issued**

(i) The issue of Shares and Seller Options to nominees of Caudan are issued pursuant to the Share Sale Agreement the key terms of which are summarised in Section 1.2 above.

(ii) The issue of Shares to GJSM are issued pursuant to the Convertible Note Termination Deed the key terms of which are summarised in Section 1.3 above.

(i) **Independent Expert's Report**

Pendragon Capital Ltd has prepared the Independent Expert's Report and has provided an opinion that it believes the proposals as outlined in the Share Sale Agreement and Convertible Note Termination Deed are, on balance, not fair but reasonable to Shareholders not associated with the Seller or GJSM or their respective associates. It is recommended that all Shareholders read the Independent Expert's Report in full which is enclosed as Annexure 1 of this Notice. A copy of the Independent Expert's Report is also accessible on the Company's

website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

Listing Rule 10.11

Listing Rule 10.11 provides that a company must not issue equity securities to a related party without the approval of holders of ordinary securities. Further, exception 14 of Listing Rule 7.2 states that approval pursuant to Listing Rule 7.1 is not required if shareholder approval is obtained under Listing Rule 10.11.

As set out above, Caudan is a related party of the Company for the purposes of section 228 of the Corporations Act (and its controller, Robert Nelson, is a substantial holder of the Company with a Voting Power in the Company above 5%). As also set out above, GJSM is potentially a related party of the Company under section 228(7) of the Corporations Act which provides that an entity is a related party of a public company if the entity acts in concert with a related party of the public company on the understanding that the related party will receive a financial benefit if the public company gives the entity a financial benefit.

Accordingly, Shareholder approval is sought under Listing Rule 10.11 to permit the issue of Shares and Seller Options to nominees of the Seller, and (from an abundance of caution) the issue of Shares to GJSM, as proposed under the Proposed Transaction.

If the Resolutions are approved, the Shares and Seller Options issued will not affect the capacity of the Company to issue securities in the next 12 months under Listing Rule 7.1 as those securities, once issued, will be excluded from the calculations under Listing Rule 7.1.

For the purposes of Listing Rule 10.13, the following information is provided to Shareholders in relation to the Resolutions:

(a) **Name of the person**

(i) Nominees of Caudan Management Services LLC domiciled in Mauritius, Seychelles or Australia (or as otherwise agreed by the Company), being Heedful Pty Ltd (5,000,000 Shares), Celtic Capital Pty Ltd (10,000,000 Shares and 5,000,000 Seller Options), Quattro Stagione Pty Ltd (10,000,000 Shares and 5,000,000 Seller Options), Vuna Nominees LLC (35,000,000 Shares) and Willis Holdings Ltd (252,500,000 Shares and 198,750,000 Seller Options).

(ii) Gary Johnson Super Management Pty Ltd.

(b) **Relationship that requires shareholder approval**

(i) Caudan a related party of the Company under section 228 of the Corporations Act as it is controlled by Robert Nelson, who is the father in law of Jason Ferris, who is a Director. In addition, Robert Nelson, is a substantial holder of the Company with a Voting Power in the Company above 5%.

(ii) GJSM is potentially a related party of the Company under section 228(7) of the Corporations Act which provides that an entity is a related party of a public company if the entity acts in concert with a related party of the public company on the understanding that the related party will receive a financial benefit if the public company gives the entity a financial benefit. From an abundance of caution, Shareholder approval is being sought under ASX Listing Rule 10.11.

(c) **Number and class of securities to be issued and summary of terms of securities if they are not fully paid ordinary securities**

(i) 312,500,000 Shares (being fully paid ordinary shares) and 208,750,000 Seller Options to be issued to nominees of Caudan. The terms and conditions of the Seller Options are set out in Schedule B.

(ii) 105,000,000 Shares (being fully paid ordinary shares) to be issued to GJSM.

(d) **Date by which the entity will issue the securities**

The Shares and Seller Options to be issued to nominees of Caudan and Shares to be issued to GJSM will be issued upon completion of the Share Sale Agreement, which is anticipated to be on or about 28 February 2020. In any event, however, no Shares or Seller Options will be issued later than 1 month after the Meeting (other than to the extent permitted by any waiver or modification of the Listing Rules).

(e) **Issue price of the securities**

(i) Nil cash consideration as the Shares and Seller Options to be issued to nominees of Caudan are being issued as consideration for 100% of the issued share capital in BAL.

(ii) Nil cash consideration as the Shares to be issued to GJSM are being issued as consideration for GJSM to agree to terminate, and release and discharge BAL's obligations under, the Convertible Note Agreement.

(f) **Purpose of the issue and intended use of funds raised**

(i) The purpose of the issue of Shares and Seller Options to nominees of Caudan is as consideration for the acquisition of all of the fully paid ordinary shares in Bright Angel Limited which is the holding company of a group of companies which hold the BAL Tenure further details of which are set out in Sections 1.4, 1.5 and 1.6 above. the acquisition. No funds will be raised from the issue of Shares and Seller Options to nominees of Caudan as the Shares and Seller Options. If all the Seller Options are exercised, the Company will raise $10,437,500. It is the current intention of the Company to use these funds for exploration and development of the Company's Sri Lankan Projects and general working capital.

(ii) The purpose of the issue of Shares to GJSF is as consideration for GJSF's agreement to terminate, and release and discharge BAL's obligations under, the Convertible Note Agreement pursuant to the Convertible Note Termination Deed further details of which are set out in Section 1.3. No funds will be raised from the issue of Shares to GJSM.

(g) **Issue of securities intended to remunerate or incentivise a director**

Whilst Caudan a related party of the Company under section 228 of the Corporations Act as set out in paragraph (d)(i) above and GJSM is potentially a related party of the Company under section 228(7) of the Corporations Act as set out in paragraph (d)(ii) above, neither the issue of Shares and Seller Options to nominees of Caudan nor the issue of Shares to GJSM are issued with the intention of remunerating or incentivising a director of the Company.

(h) **Summary of material terms of agreement under which securities are issued**

The issue of Shares and Seller Options to nominees of Caudan are issued pursuant to the Share Sale Agreement the key terms of which are summarised in Section 1.2 above.

The issue of Shares to GJSM are issued pursuant to the Convertible Note Termination Deed the key terms of which are summarised in Section 1.3 above.

Directors' recommendations

Jason Ferris abstains from expressing an opinion or making a recommendation on the Resolutions due to having a material personal interest in its outcome. Each other Director recommends that Shareholders vote in favour of the Resolutions.

3. OTHER INFORMATION

3.1 Scope of disclosure

The law requires that this Explanatory Statement sets out all other information that is reasonably required by Shareholders in order to decide whether or not it is in the Company's interests to pass the Resolutions and which is known to the Company.

The Company is not aware of any relevant information that is material to the decision on how to vote on the Resolutions other than as is disclosed in this Explanatory Statement or previously disclosed to Shareholders by the Company by notification to the ASX.

3.2 Directors' recommendations

The Directors unanimously recommend that Shareholders vote in favour of the Resolutions, other than to the extent that a Director abstains from expressing an opinion or making a recommendation due to having a material personal interest in the Resolutions, as disclosed in this Notice.

3.3 Voting intentions of the Chair

The Chair intends to vote all available proxies in favour of the Resolutions.

3.4 Taxation

The Proposed Transaction and the passing of the Resolutions may give rise to income tax implications for the Company and Shareholders. Shareholders are advised to seek their own taxation advice on the effect of the Resolutions on their personal position. Neither the Company, nor any Director or adviser to the Company accepts any responsibility for any individual Shareholder's taxation consequences on any aspect of the Proposed Transaction or the Resolutions.

3.5 ASIC and ASX disclaimer

The fact that the Notice, Explanatory Statement and any other relevant documentation has been received by ASX and ASIC is not to be taken as an indication of the merits of the Resolutions or the Company. ASIC, ASX and their respective personnel take no responsibility for the contents of such documentation or any decision a Shareholder may make in reliance on that documentation.

4. DEFINITIONS

Annexure means an annexure to this Explanatory Statement.

General Meeting or **Meeting** means the general meeting convened by this Notice of General Meeting.

ASIC means Australian Securities and Investments Commission.

ASX means ASX Limited ABN 98 008 624 691 or the Australian Securities Exchange, as the context requires.

BAL means Bright Angel Limited, a company registered in Mauritius.

BAL Group means BAL and its subsidiaries as set out in Section 1.4

BAL Tenure means the exploration licenses described in Section 1.5.

Existing Options means 30,000,000 unlisted options exercisable at $0.05 on or before 18 January 2021 and 14,285,714 unlisted options exercisable at $0.021 on or before 25 January 2021.

Board means the board of Directors.

Business Day means a day that is not a Saturday, Sunday, public holiday or bank holiday in Perth, Western Australia.

Caudan means Caudan Management Services LLC.

Chair means the chairperson of the Meeting.

Class B Performance Share means an existing performance share convertible into an ordinary share on the Company obtaining a grant of one or more mining licences in respect of all or part of the land the subject of the Sri Lankan Project.

Company means Titanium Sands Limited ACN 009 131 533.

Constitution means the constitution of the Company.

Convertible Note Agreement has the meaning given that term in Section 1.1.

Convertible Note Termination Deed has the meaning given that term in Section 1.3.

Corporations Act means the *Corporations Act 2001* (Cth).

Director means a director of the Company.

Equity Security has the meaning given that term in the Listing Rules.

Explanatory Statement means this explanatory statement including any schedules or annexures to the explanatory statement.

GJSM means Gary Johnson Super Management Pty Ltd.

Independent Expert or **Pendragon Capital Ltd** means the author of the Independent Expert's Report.

Independent Expert's Report means the Independent Expert's Report which is enclosed as Annexure 1 of this Notice. A copy of the Independent Expert's Report is also accessible on the Company's website: www.titaniumsands.com.au. If requested by a Shareholder, the Company will send the Shareholder a hard copy of the Independent Expert's Report at no cost.

JORC means the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition).

Listing Rules means the official listing rules of the ASX.

Notice of General Meeting or **Notice of Meeting** means the notice of general meeting attached to this Explanatory Statement.

Proposed Transaction means the proposed transaction set out in Section 1.1.

Proxy Form means the proxy form annexed to this Explanatory Statement and the Notice of General Meeting.

Resolutions means the resolutions to be put to the Shareholders as set out in the Notice.

SAA Variation Deed has the meaning given that term in Section 1.3.

Seller means Caudan.

Share means a fully paid ordinary share in the capital of the Company.

Share Sale Agreement means the share sale agreement dated 11 July 2019 between the Company and the Seller, as varied by the SSA Variation Deed, as described in section 1.2.

Shareholder means a holder of one or more Shares.

Sri Lankan Project means the existing exploration licenses held by the Company and its subsidiaries in various coastal districts of Sri Lanka that are prospective for mineral sands.

Voting Power has the meaning given to that term in the Corporations Act.

WST means Western Standard Time in Australia.

SCHEDULE A – BAL TENURE

	Status	Expiry	Area Km2
EL351	Renewed for 2nd 2yr	12/12/2021	15
EL352	Renewed for 2nd 2yr	12/12/2021	10
EL327	Renewed for 2nd 2yr	13/12/2020	5
EL328	Renewed for 2nd 2yr	13/12/2020	8

SCHEDULE B – TERMS OF SELLER OPTIONS

1. Each Seller Option entitles the holder to subscribe for one fully paid ordinary share in The Company (**Share**).

2. Each Seller Option will expire at 5.00pm Australian Western Standard Time) on the date that is 3 years from issue (**Expiry Date**).

3. Each Seller Option will have an exercise price equal to AU$0.05 (**Exercise Price**).

4. Subject to paragraph 8, Seller Options may be exercised at any time after the date of issue and prior to the Expiry Date. After this time, any unexercised Seller Options will automatically lapse.

5. Seller Options may be exercised by notice in writing to the Company (**Exercise Notice**) together with payment of the Exercise Price for each Seller Option being exercised. Any Exercise Notice for a Seller Option received by the Company will be deemed to be a notice of exercise of that Seller Option at the time of receipt. Cheques paid in connection with the exercise of Seller Option must be in Australian currency and crossed “Not Negotiable”.

6. Shares issued on exercise of Seller Options will rank equally in all respects with then existing fully paid ordinary shares in the Company.

7. Provided that the Company is quoted on ASX at the time, application will be made by the Company to ASX for quotation of the Shares issued upon exercise of the Seller Option.

8. Subject to paragraph 8, within 5 business days after the later of the following:
   a. receipt of an Exercise Notice given in accordance with these terms and conditions and payment of the Exercise Price for each Seller Option being exercised by the Company if the Company is not in possession of excluded information (as defined in section 708(7) of the Corporations Act); and
   b. the date the Company ceases to be in possession of excluded information with respect to the Company (if any) following the receipt of the Exercise Notice and payment of the Exercise Price for each Seller Option being exercised by the holder,

9. The Company will allot and issue the Shares pursuant to the exercise of the Seller Options and, to the extent it is able to do so:
   a. give ASX a notice that complies with section 708(5)(e) of the Corporations Act; and
   b. apply for official quotation on the ASX of the Shares issued pursuant to the exercise of the Seller Options.

10. Notwithstanding any other provision of these terms and conditions, exercise of Seller Options into Shares will be subject to the Company obtaining all required (if any) Shareholder and regulatory approvals for the purposes of issuing the Shares to the holder. If exercise of the Seller Options would result in any person being in contravention of section 606(1) of the Corporations Act then the exercise of each Seller Option that would cause the contravention will be deferred until such time or times that the exercise would not result in a contravention of section 606(1) of the Corporations Act. Holders must give notification to the Company in writing if they consider that the exercise of the Seller Options may result in will not result in contravention of section 606(1) of the Corporations Act, failing which the Company will be entitled to assume that the exercise of the Seller Options will no result in any person being in contravention of section 606(1) of the Corporations Act.

11. There are no participation rights or entitlements inherent in the Seller Options and holders will not be entitled to participate in new issues of capital offered to Shareholders during the currency of Seller Options. However, the Company will ensure that for the purposes of determining entitlements to any such issue, the record date will be at least four business days after the issue is announced. This is intended to give holders of Seller Options the opportunity to exercise their Seller Options prior to the announced record date for determining entitlements to participate in any such issue.

12. If the Company makes a bonus issue of Shares or others securities to existing Shareholders (other than an issue in lieu of satisfaction of dividends or by way of dividend reinvestment):
    a. the number of Shares which must be issued on the exercise of Seller Options will be increased by the number of Shares which the holder would have received if the holder had exercised the Seller Option before the record date for the bonus issue; and
    b. no change will be made to the Exercise Price.

13. If the Company makes an issue of Shares prorate to existing Shareholders there will be no adjustment to the Exercise Price.

14. If there is any reconstruction of the issued share capital of the Company, the rights of the holders may be varied to comply with ASX Listing Rules which apply to the reconstruction at the time of the reconstruction.

15. The Company will not apply for quotation of the Seller Options on ASX.

16. Seller Options can only be transferred with the prior written consent of the Company (which consent may be withheld in the Company's sole discretion.

SCHEDULE C – PRO FORMA STATEMENT OF FINANCIAL POSITION

	30/06/2019 AUDITED PROFORMA TSL Consolidated A$	30/06/2019 UNAUDITED PROFORMA BAL	Adjustments 1 Vendor Consideration	Adjustments Acquisition Adjustments	Adjustments 2 Share Issue	Pro Forma (UNAUDITED) A$
Current Assets						
Cash and cash equivalents	3,255,656	1,717	0	(1,717)	0	3,255,656
Trade and Other Receivables	82,128	677,314	0	(677,314)	0	82,128
Total Current Assets	**3,337,784**	**679,031**	**0**	**(679,030)**	**0**	**3,337,784**
Non-Current Assets						
Exploration and evalutation expenditure	6,647,935	1,852,038	8,562,991	(1,822,038)	0	15,240,926
Amount due from related party	0	447,758	0	(447,758)	0	0
Plant and equipment	166,863	0	0	0	0	166,863
Total Non-Current Assets	**6,814,798**	**2,299,796**	**8,562,991**	**(2,269,796)**	**0**	**15,407,789**
Total Assets	**10,152,582**	**2,978,827**	**8,562,991**	**(2,948,826)**	**0**	**18,745,573**
Current Liabilities						
Creditors and other payables	208,835	1,926,552	0	(1,896,552)	0	238,835
Long term liabilities	0	1,553,385	0	(1,553,385)	0	0
Total Current Liabilities	**208,835**	**3,479,937**	**0**	**(3,449,937)**	**0**	**238,835**
Total Liabilities	**208,835**	**3,479,937**	**0**	**(3,449,937)**	**0**	**238,835**
Net Assets	**9,943,747**	**(501,110)**	**8,562,991**	**501,111**	**0**	**18,506,738**
Equity						
Issued Capital	12,075,664	12	7,307,553	(12)	2,866,667	22,249,884
Reserves	2,900,052	(9,984)	1,255,438	9,984	(2,666,667)	1,488,823
Accumulated losses	(5,031,969)	(491,138)	0	491,138	(200,000)	(5,231,969)
Total Equity	**9,943,747**	**(501,110)**	**8,562,991**	**501,110**	**0**	**18,506,738**

Basis of preparation

The pro forma statement of financial position has been prepared in accordance with the recognition and measurement, but not all the disclosure requirements of the Australian equivalents to International Financial Reporting Standards ('AIFRS'), other authoritative pronouncements of the Australian Accounting Standards Board, Australian Accounting Interpretations and the Corporations Act 2001. The pro forma statement of financial position is also prepared on an accrual basis and is based on historic costs and does not take into account changing money values or, except where specifically stated, current valuations of non-current assets.

Adjustment 1

The acquisition of BAL has been treated as an 'asset acquisition' as BAL has not been deemed to be a business under AASB3: Business Combinations. Contributed equity is increased to account for the 417,500,000 Shares issued to the Seller and GJSM and the Options Reserve is increased to account for the 208,750,000 Seller Options issued to Caudan. For the purposes of compiling the pro-forma balance sheet, these Shares have been valued at $0.0175, being the 20 day VWAP as at 29 October 2019, and the Seller Options have been valued at $0.006 per Seller Option based on the Black-Scholes valuation.

As per the terms of the Share Sale Agreement, prior to Completion the Seller must arrange for the payment or forgiveness of liabilities of the BAL Group such that the aggregate amount of liabilities of the BAL Group at Completion does not exceed $30,000. Therefore, with the exception of $30,000 of trade and other payables all of the balances of BAL have been eliminated and exploration assets have been increased to account for the fair value of the Shares and Seller Options issued to the Seller.

Adjustment 2

Adjustment includes the issue of 10,000,000 Shares to CPS Capital Group approval for which was obtained at the Company's annual general meeting on 26 November 2019 and conversion of the 133,333,333 Class C Performance Shares into ordinary Shares upon meeting the performance milestone. The shares were issued on 20 December 2019 at a deemed issue price of $0.02 per share.

SCHEDULE D – BAL FINANCIAL INFORMATION

The financial statements for the financial year ended 31 March 2019 for Bright Angel Ltd have been prepared by Ranwatta & Co. in accordance with International Financial Reporting Standards and in compliance with the requirements of the Mauritius Companies Act 2001. Audited financial statements for earlier years have not been prepared.

The financial information in this Schedule D is presented in an abbreviated form insofar as it does not contain all of the disclosures, statements or comparative information as required by International Financial Reporting Standards that is usually provided in an annual report prepared in accordance with the Mauritius Companies Act 2001.

Consolidated Statement of Comprehensive Income

	31 March 2019
	USD$
Revenue	**-**
Direct Expense	**(444,455)**
Gross Profit	**(444,455)**
Other Income	**-**
Administrative Expenses	**(111,001)**
Finance Expense	**(33,936)**
Loss before Taxation	**(589,392)**
Income Tax Expense	**-**
Loss for the Year	**(589,392)**
Other Comprehensive Income	
Gain on currency revaluation	**2,222**
Total Comprehensive Income	**(587,170)**
Total Comprehensive Income attributable to	
- Owners of the company	**(587,170)**
- Non Controlling interest	**-**
	(587,170)

Consolidated Statement of Financial Position

	31 March 2019 USD$
Assets	
Non Current Assets	
Exploration & Evaluation Assets	**1,293,600**
Amounts Due from Related Party	**310,209**
	1,603,809
Current Assets	
Other Receivable	**475,006**
Cash & Cash Equivalent	**6,463**
	481,469
Total Assets	**2,085,278**
Equity & Liabilities	
Capital & Reserves	
Stated Capital	**8**
Accumulated Loss	**(353,279)**
Retranslation Reserve	**2,222**
Total Equity	**(351,049)**
Current Liabilities	
Trade & Other Payables	**1,771,919**
Long term Liabilities	**664,407**
	2,436,327
Total Equity & Liability	**2,085,278**

PROXY FORM

Titanium Sands Limited
ACN 009 131 533

I/We _____

Of _____

being a member of Titanium Sands Limited ACN 009 131 533 entitled to attend and vote at the General Meeting, hereby

Appoint _____

Name of Proxy

OR ☐ Chair of the General Meeting as your proxy

or failing the person so named or, if no person is named, the Chair of the General Meeting, or the Chair's nominee, to vote in accordance with the following directions, or, if no directions have been given, and subject to the relevant laws as the proxy sees fit, at the General Meeting to be held at 11.00am (WST) on 21 February 2020 at Level 11, 216 St Georges Terrace, Perth, Western Australia, and at any adjournment thereof.

Important for Resolution 1 and Resolution 2: The Company will disregard any votes cast on Resolution 1 and Resolution 2 by an excluded person as proxy on your behalf unless you are not an excluded person and you mark the appropriate box opposite Resolution 1 in the panel below (directing the person to vote for, against or to abstain from voting).

The Chair intends to vote all available proxies in favour of Resolution 1 and Resolution 2. If you have appointed the Chair as your proxy (or the Chair becomes your proxy by default), and you wish to give the Chair specific voting directions on Resolution 1 and/or Resolution 2, you should mark the appropriate box(es) opposite Resolution 1 and/or Resolution 2 (as applicable) in the panel below (directing the Chair to vote for, against or to abstain from voting).

OR

Voting on business of the General Meeting	**For**	**Against**	**Abstain**
Resolution 1- Issue of Shares and Seller Options to the Seller	☐	☐	☐
Resolution 2 – Issue of Shares to Gary Johnson Super Management Pty Ltd	☐	☐	☐

Note: If you mark the abstain box for a Resolution , you are directing your proxy not to vote on that Resolution on a show of hands or on a poll and your votes will not to be counted in computing the required majority.

If two proxies are being appointed, the proportion of voting rights this proxy represents is _____%

Signature of Member(s): **Date:** _____

Individual or Member 1	**Member 2**	**Member 3**
Sole Director/Company Secretary	**Director**	**Director/Company Secretary**

Contact Name: _____ **Contact Ph (daytime):** _____

Instructions for Proxy Form

1. Your name and address

Please print your name and address as it appears on your holding statement and the Company's share register. If Shares are jointly held, please ensure the name and address of each joint shareholder is indicated. Shareholders should advise the Company of any changes. Shareholders sponsored by a broker should advise their broker of any changes. Please note you cannot change ownership of your securities using this form.

2. Appointment of a proxy

You are entitled to appoint no more than two proxies to attend and vote on a poll on your behalf. The appointment of a second proxy must be done on a separate copy of the Proxy Form. Where more than one proxy is appointed, such proxy must be allocated a proportion of your voting rights. If you appoint two proxies and the appointment does not specify this proportion, each proxy may exercise half of your votes.

If you wish to appoint the Chair of the General Meeting as your proxy, please mark the box. If you leave this section blank or your named proxy does not attend the General Meeting, the Chair will be your proxy. A proxy need not be a Shareholder.

3. Voting on Resolutions

You may direct a proxy how to vote by marking one of the boxes opposite each item of business. Where a box is not marked the proxy may vote as they choose. Where more than one box is marked on an item your vote will be invalid on that item.

4. Signing instructions

You must sign this form as follows in the spaces provided:

- (**Individual**) Where the holding is in one name, the holder must sign.
- (**Joint holding**) Where the holding is in more than one name, all of the shareholders should sign.
- (**Power of attorney**) If you have not already lodged the power of attorney with the Company's share registry, please attach a certified photocopy of the power of attorney to this form when you return it.
- (**Companies**) Where the company has a sole director who is also the sole company secretary, this form must be signed by that person. If the company (pursuant to section 204A of the Corporations Act) does not have a company secretary, as sole director can also sign alone. Otherwise this form must be signed by a director jointly with either another director or a company secretary. Please indicate the office held by signing in the appropriate place.

If a representative of the corporation is to attend the meeting a "Certificate of Appointment of Corporate Representative" should be produced prior to admission.

5. Return of a Proxy Form

To vote by proxy, please complete and sign the enclosed Proxy Form (and any power of attorney and/or second Proxy Form) and return by:

- post to the Company at GPO Box 2517, Perth Western Australia 6831;
- facsimile to the Company on +61 (8) 9463 6103; or
- email to the Company Secretary at davidm@miningcorporate.com.au,

so that it is received by no later than 11.00am (WST) 19 February 2020.

Proxy Forms received later than this time will be invalid.

ANNEXURE 1 – INDEPENDENT EXPERT'S REPORT

Pendragon Capital Ltd

ABN 17 008 963 755

Australian Financial Services Licence Number 237 549

Independent Expert Report
Titanium Sands Limited

Prepared by Pendragon Capital Limited
Australian Financial Services Licence 237549

23 December 2019

FINANCIAL SERVICES GUIDE

Date Prepared 30 October 2019

Pendragon Capital Limited (ABN 17 008 963 755) **("Pendragon" or "we")** has been engaged by Titanium Sands Limited **("TSL" or "the Company")** to provide an Independent Expert's Report on the proposed issue of 417,500,000 shares in TSL as consideration for the acquisition of 100% of the share capital in Bright Angel Limited. A copy of our report is provided because you are a shareholder of TSL.

Financial Services Guide

This Financial Services Guide **("FSG")** has been prepared to assist retail investors:

- to decide whether the general financial product advice in our Report is appropriate to them; and
- to provide important information about us, the financial services we offer, how we are remunerated and our dispute resolution process.

Financial services we offer

Pendragon Capital Limited is the holder of Australian Financial Services Licence **("AFSL")** number 237549. The current AFSL conditions authorise Pendragon Capital Limited to, amongst other things, provide general financial product advice relating to securities to retail and wholesale investors.

General Financial Product Advice

In our Report, we only provide general financial product advice and do not take into account your personal objectives, financial situation or needs.

You should consider the appropriateness of the Report with respect to your own objectives, financial situation and needs before you act on the advice in the Report. Accordingly, it is up to you to determine whether you require any additional financial advice to satisfy your objectives, financial situation or needs.

We are engaged to provide a report in connection with a financial product of another person. Our report will include who has engaged us and a description of the nature of our engagement. Although you have not engaged us, you will be provided with a copy of our report as a retail investor because of your connection to the matters on which we have been engaged to report.

Remuneration and other benefits for our services

You have the right to be told of any remuneration, benefits or other interests Pendragon and your Adviser will receive which may influence the financial services provided.

We charge fees for providing reports. These fees have been agreed with, and will be paid by, the person who engages us to provide the report. Our fees are agreed and charged on an hourly basis or fixed fee basis depending on the engagement. Our fee has been quoted at a range of $12,000 to $14,000 (exclusive of GST) for this Report. This fee is not related in any way to the opinion we express in our Report.

Except for the fee disclosed above, Pendragon, including any of its directors, employees or associated entities will not receive any other fees or benefits, directly or indirectly, for or in connection with the provision of this Report.

Complaints process

As the holder of an AFSL, we are required to have a system for handling complaints from persons to whom we provide financial services.

If you have any complaints about the service provided to you, you should take the following steps:

a. Contact your Advisor to discuss your complaint.

b. If your complaint is not satisfactorily resolved within 3 days, please contact the Compliance Manager of Pendragon Capital Limited, on (08) 9426 0666 or put your complaint in writing and send it to PO Box 1288, Subiaco, WA 6904. The Compliance Manager will try to resolve your complaint quickly and fairly.

c. If, within 28 days of notifying the Compliance Manager, you are not satisfied with the outcome, then you have the right to refer the matter to:

Australian Financial Complaints Authority Limited
GPO Box 3
MELBOURNE VIC 3001

Telephone: 1800 931 678
Fax: (03) 9613 6399
Email: info@afca.org.au

Contents

23 December 2019

The Directors
Titanium Sands Limited
Level 11, 216 St Georges Terrace
PERTH WA 6000

Dear Directors

Independent Expert's Report to Shareholders of Titanium Sands Limited

1. Introduction

Titanium Sands Limited **("TSL" or "the Company")** has requested Pendragon Capital Limited **("Pendragon")** to prepare an Independent Expert's Report **("Report")** to advise the non-associated shareholders of TSL **("Non-associated Shareholders")** on the fairness and reasonableness of the potential acquisition of 100% of the share capital of Bright Angel Limited, an unlisted company registered in Mauritius **("BAL")**.

TSL is a public company listed on the Australian Securities Exchange **("ASX")**. The Company's primary focus is exploration licences and licence applications on Mannar Island in Sri Lanka that are prospective for mineral sands **("Mannar Island Heavy Mineral Sands Project")**.

On 11 July 2019, TSL entered into a share acquisition agreement **("Share Acquisition Agreement")** with Caudan Management Services LLC **("Caudan" or "Seller")** to acquire 100% of the issued capital of BAL in consideration for the issue of 417,500,000 Shares **("Consideration Shares")** (of which 25,000,000 Shares will be issued to nominees who are not associates of Caudan) and 208,750,000 Seller Options **("Seller Options")** to Caudan or nominees (of which 10,000,000 Seller Options will be issued to nominees who are not associates of Caudan). BAL, through its subsidiaries, holds four exploration licences in Sri Lanka that are prospective for mineral sands **("BAL Tenure")** adjacent to the Company's existing Mannar Island Heavy Mineral Sands Project.

Under a convertible note agreement dated 2 June 2017 **("Convertible Note Agreement")**, BAL borrowed $500,000 from Gary Johnson Super Management Pty Ltd **("GJSM")** on terms which, in certain circumstances, entitled GJSM to convert the loan into shares in BAL. By the letter dated 29 October 2019, GJSM agreed with the Company, BAL and Caudan to terminate the Convertible Note Agreement and release BAL from all obligations under the Convertible Note Agreement in consideration for the issue of 105,000,000 Shares to GJSM. At the same time, the Company, Caudan and GJSM agreed to vary the Share Acquisition Agreement by reducing the number of Shares to be issued to Caudan or nominees by 105,000,000 Shares to 312,500,000 Shares (of which 25,000,000 Shares will be issued to nominees who are not associates of Caudan) **("SAA Variation")**.

The Proposed Transaction **("Proposed Transaction")** is therefore:

- the acquisition by the Company of 100% of the issued share capital of BAL; and
- the termination and release of all obligations of the Convertible Note Agreement;

in consideration of:

- the issue of 287,500,000 Shares and 198,750,000 Seller Options to Caudan; and
- the issue of 25,000,000 Shares and 10,000,000 Seller Options to nominees of Caudan who are not associates of Caudan; and
- the issue of 105,000,000 Shares to GJSM **("GJSM Consideration Shares")**; and
- the BAL Group agreement to pay Caudan a 5% royalty on proceeds received (net of transport and sales costs) from the sale of minerals from the BAL Tenure.

Terms used in this Report have the same meaning as corresponding terms in the Notice of Meeting.

2. Summary and Opinion

2.1 Opinion

Based on our analysis, as outlined further in this Report, we have concluded that the Proposed Transaction is **not fair, but reasonable** to Non-associated Shareholders of TSL.

This section is a summary of our opinion and does not substitute for a complete reading of this Report.

We recommend that Shareholders carefully read all relevant documentation including any explanatory notes, contact their own professional advisors and consider their own specific circumstances before voting on the Proposed Transaction.

There are benefits and risks associated with implementing or not implementing the Proposed Transaction, the outcomes of which may not suit all Shareholders.

2.2 Fairness

Our assessed values of the TSL shares, pre and post the Proposed Transaction are summarised below:

	Section	Low $	Preferred $	High $
Value of a TSL Share prior to the Proposed Transaction on a control basis	9.5	0.0099	0.0110	0.0110
Value of a TSL share following the Proposed Transaction on a minority basis	11	0.0067	0.0084	0.0087

In accordance with the guidance set out in ASIC Regulatory Guide 111 **("RG 111")** for the purpose of complying with ASX Listing Rule 10.1, we consider the Proposed Transaction to **not be fair to Non-associated Shareholders of TSL**. We consider this as the low and high values of the TSL Shares prior to the Proposed Transaction are higher than the respective low and high values of the TSL Shares following the Proposed Transaction.

Refer to Section 12 of this Report for further information.

2.3 Reasonableness

A transaction that is not considered fair may still be considered reasonable if there are sufficient reasons for security holders to approve the Proposed Transaction.

In our analysis outlined in Section 13 of this Report, we detail the advantages and disadvantages of the Proposed Transaction and other considerations relevant to the Proposed Transaction.

In our opinion, the position of Shareholders if the Transaction is approved is more advantageous than the position if the Transaction is not approved. Accordingly, we believe that the Proposed Transaction is **reasonable** for Non-associated Shareholders.

A summary of our advantages and disadvantages considered are as follows:

Advantages	Disadvantages
TSL's fixed costs would be spread over more units of production and better amortised over a longer mine life;	The transaction is not fair to Non-associated Shareholders;
Increase in size of TSL operations would reasonably lead to lower costs of capital;	Dilution of existing Shareholders' interests;
The BAL Tenure adjoins existing high-grade resources in TSL's existing tenure;	The Seller's ownership will be 43.55% on an undiluted basis which means the Seller will have the ability to block special resolutions;
The directors of TSL have advised that the drill line spacing of the BAL Tenure has been substantially reduced, which is expected to lead to a reclassification of the resources on the BAL Tenure from Inferred to Indicated more quickly than if the drilling work had not already occurred;	The Seller may gain majority ownership in the Company by exercising the Seller Options;
The aggregation of the BAL Tenure with the Company's existing tenure may make dredge mining more economic;	TSL will become exposed to the risks associated with the BAL Group;
Net asset position will be strengthened;	The scale of TSL's operations will change, which may not fit shareholder objectives.
TSL Shareholders will be able to share in any future success of BAL.	

3. Scope of the Report

3.1 Scope

An independent expert must, in certain circumstances, be appointed to meet the requirements of the Corporations Act 2001 (Cth) **("Act")**, the ASX Listing Rules and the regulatory guides published by the Australian Securities and Investments Commission **("ASIC")**.

The matters to be considered at the general meeting and additional information regarding those matters are set out in details in the Notice of Meeting. These documents are important and should be read in conjunction with this Report and any other information provided to the Shareholders by TSL regarding the Proposed Transaction.

This Report is general financial product advice only and has been prepared without taking into account the objectives, risk profile, financial situation or needs of each individual Shareholder. Before acting in relation to their investment, Shareholders should consider the appropriateness of the advice having regard to their own objectives, financial situation or needs.

Approval or rejection of the Proposed Transaction is a matter for individual Shareholders. Shareholders who are in doubt as to the action they should take in relation to the Proposed Transaction should consult their own professional advisor.

3.2 Purpose of the Report

The purpose of this Report is to express Pendragon's opinion as to whether, for the purposes of Item 7 of Section 611 of the Act and ASX Listing Rule 10.1, the Proposed Transaction, being the acquisition of a substantial asset from a related party and substantial shareholder that would raise a person's voting power in the Company above 20%, is fair and reasonable to the Non-associated Shareholders of TSL. This Report cannot be used by any other person for any other reason or for any other purpose. A copy of this Report will accompany the Notice of Meeting to be sent to Shareholders.

We note that shareholder approval is being sought for both the issue of Shares and Seller Options to the Seller and the issue of Shares to GJSM.

<u>Section 606 and Section 611 of the Act</u>

Section 606(1) of the Act **("Section 606")** prohibits the acquisition of shares in a limited company if the acquisition would cause a person's voting power in that company to rise above 20%, unless the acquisition is exempt under Section 611 of the Act. The Proposed Transaction is a control transaction and is covered by Section 606 because prior to the Proposed Transaction the Seller has relevant interest in 233,410,261 Shares out of 778,649,471 Shares, giving it voting power in the Company of 29.98% which, upon completion of the Proposed Transaction, would rise to a relevant interest in 520,910,261 Shares out of 1,196,149,472 Shares on an undiluted basis, giving it voting power in the Company of 43.55% on an undiluted basis. This would rise further to a voting power in the Company of 50.79% (752,993,594 Shares out of 1,482,518,518 Shares) on a fully diluted basis. These figures exclude the 25,000,000 Shares and 10,000,000 Options to be issued to nominees of Caudan who are not associates of Caudan, as Caudan will not control or receive benefits from these Shares and Options.

Therefore, the Proposed Transaction will be prohibited by Section 606 unless exempted by Section 611 of the Act ("Section 611"). Section 611 permits acquisitions otherwise prohibited by Section 606 if the shareholders of that entity have agreed to the issue of such shares. This agreement must be by resolution passed at a general meeting at which no votes are cast in favour of the resolution by any party who is associated with the party acquiring the shares, or by the party acquiring the shares. Section 611 states that shareholders of the company must be given all information that is material to the decision on how to vote at the meeting.

ASIC Regulatory Guide 74 states that the obligation to supply shareholders with all information that is material can be satisfied by the non-associated directors of a company, by either:

- undertaking a detailed examination of a proposed transaction themselves, if they consider they have sufficient expertise; or
- by commissioning an independent expert's report.

The directors of TSL have commissioned this Report to satisfy this obligation.

Related party

ASX Listing Rule 10.11 requires that a listed entity must obtain shareholders' approval before issuing equity securities to a related party. In addition, Section 208(1) of the Act prohibits a company from giving a financial benefit (including an issue of securities) to a related party of the company without the approval of shareholders by a resolution passed at a general meeting at which no votes are cast in relation to the resolution in respect of any shares held by the related party or by an associate of the related party. For the purposes of ASX Listing Rule 10.1, a related party of an entity includes, amongst other persons, a person under the tests contained in Section 228 of the Act.

Robert Nelson is a controller and beneficial owner of the Seller and the father-in-law of Jason Ferris, who is a director of TSL. The Seller is a related party of the Company under Section 228 of the Act, as it is controlled by Robert Nelson. GJSM is a related party of the Company under Section 228(7) of the Act which provides that an entity is a related party of a public company if the entity acts in concert with a related party of the public company on the understanding that the related party will receive a financial benefit if the public company gives the entity a financial benefit.

Substantial asset and substantial shareholder

ASX Listing Rule 10.1 provides that an entity must ensure that it does not acquire a substantial asset from, or dispose of a substantial asset to, amongst other persons, a related party of the Company per ASX Listing Rule 10.1.1, or a substantial shareholder of the Company per ASX Listing Rule 10.1.3, without the prior approval of holders of the entity's ordinary shares. ASX Listing Rule 10.2 states that an asset is substantial if its value, or the value of the consideration for it is, or in ASX's opinion is, 5% or more of the equity interests of the entity as set out in the latest accounts given to the ASX under the listing rules.

The equity interests of the Company as defined by the ASX Listing Rules and as set out in the latest accounts given to ASX under the ASX Listing Rules was $9,943,747. As the value of the consideration for the Proposed Transaction is more than 5% (being $497,187) of the equity interests of the Company, the completion of the Transaction will result in the acquisition of a substantial asset.

For the purposes of ASX Listing Rule 10.1.3, a substantial shareholder is a person who has a relevant interest (either directly or through its associates), or had at any time in the 6 months before the transaction, in at least 10% of the total votes attached to the voting securities.

The Seller has relevant interest in 233,410,261 Shares, giving it voting power in the Company of 29.98%. Therefore, the Proposed Transaction will result in the acquisition of a substantial asset from a related party and a substantial Shareholder and the Company is therefore required to seek Shareholder approval under ASX Listing Rule 10.1.

ASX Listing Rule 10.10.2 requires a notice of meeting containing a resolution under ASX Listing Rule 10.1 to include a report on the transaction from an independent expert stating the expert's opinion as to whether the transaction is fair and reasonable to holders of the entity's ordinary securities whose votes are not to be disregarded.

3.3 Regulatory guidance

In determining whether the transaction is "fair and reasonable", we have considered RG 111, which sets out how experts should analyse a proposed transaction, the different valuation methodologies used by experts and the treatment of assumptions.

3.4 Fair and Reasonable

The term fair and reasonable does not have a legal definition. However, RG 111 establishes certain guidelines in respect of the preparation of expert's reports.

What is fair and reasonable for Non-associated Shareholders should be judged in all circumstances of the Proposed Transaction. The Report must compare the likely advantages and disadvantages for Non-associated Shareholders if the Proposed Transaction is agreed to and if it is not.

An offer is fair if the post-transaction value of a share on a minority basis is equal to or greater than the value of a share prior to the transaction on a control basis.

By definition, an offer is reasonable if it is fair. However, RG 111 provides that a transaction might also be reasonable despite not being fair if, on balance, the expert believes that the advantages of a proposed transaction outweigh the disadvantages for security holders.

4. Proposed Transaction

4.1 Conditions precedent

Completion of the Proposed Transaction is subject to a number of conditions, which are outlined in the Notice of Meeting.

4.2 Robert Nelson

The Seller is controlled and beneficially owned by Robert Nelson. Mr Nelson is the father-in-law of Jason Ferris who is a non-executive director of the Company. Mr Nelson has a relevant interest in 233,410,261 Shares and controls 33,333,333 Class B Performance Shares.

The Seller has relevant interest in 233,410,261 Shares, giving it voting power in the Company of 29.98%. These Shares are held by Cuprum Holdings Limited (218,445,261 Shares), an associate of the Seller because Mr Nelson is a Director and shareholder, and King George V Nominees Ltd (14,965,000 Shares), an associate of the Seller because Mr Nelson is a beneficiary.

The maximum voting power the Seller may obtain in the Company as a result of the Proposed Transaction is 52.36%.

4.3 Gary Johnson Super Management Pty Ltd

Under the Convertible Note Agreement, BAL borrowed $500,000 from GJSM on terms which, in certain circumstances, entitled GJSM to convert the loan into shares in BAL.

On 29 October 2019, GJSM agreed with the Company, BAL and the Seller to terminate the Convertible Note Agreement in exchange for the issue of 105,000,000 Shares to GJSM. At the same time, the Company and the Seller agreed to vary the Share Acquisition Agreement by reducing the number of Shares to be issued to the Seller by 105,000,000 Shares.

GJSM currently holds 14.13% of the voting power in TSL (12.85% on a fully diluted basis). Post-completion of the Proposed Transaction, GJSM will hold 17.97% of the voting power in TSL (14.5% on a fully diluted basis).

4.4 Non-associated Shareholders

The table below sets out the potential dilutionary effect of the Proposed Transaction on the voting power of Non-associated Shareholders in the Company.

Scenario	Dilution
No Class B Performance Shares convert, and no existing Options or Seller Options are exercised	34.9%
No Class B Performance Shares convert, and all existing Options and Seller Options are exercised	46.3%
No Class B Performance Shares convert, and no existing Options are exercised, but all Seller Options are exercised	44.6%
No Class B Performance Shares convert, and no Seller Options are exercised, but all existing Options are exercised	37.2%
All Class B Performance Shares convert, and no existing Options or Seller Options are exercised	45.9%
All Class B Performance Shares convert and all existing Options are exercised but no Seller Options are exercised	38.9%
All Class B Performance Shares convert, and no existing Options or all Seller Options are exercised	36.7%
All Class B Performance Shares convert, all Seller Options are exercised, and all existing Options are exercised	47.5%

4.5 Capital Structure

Following the Proposed Transaction, the potential changes in shareholding are summarised below:

4.5.1. *Undiluted*

Capital Structure of TSL following the Proposed Transaction on an undiluted basis	Non-associated Shareholders	Robert Nelson	Gary Johnson	Non-associated Nominees	Total
Shares on issue immediately prior to the Proposed Transaction	**435,239,210**	**233,410,261**	**110,000,000[1]**	**-**	**778,649,471**
% Shareholding held	**55.89%**	**29.98%**	**14.13%**	**0.00%**	**100.00%**
Consideration Shares issued to Seller & GJSM	-	287,500,000	105,000,000	25,000,000	417,500,000
Shares on issue following the Proposed Transaction	**435,239,210**	**520,910,261**	**215,000,000**	**25,000,000**	**1,196,149,471**
% Shareholding after Proposed Acquisition (undiluted)	**36.39%**	**43.55%**	**17.97%**	**2.09%**	**100.00%**

[1]100% held by Redaso Pty Ltd, which is an associate of GJSM.

4.5.2. *Fully Diluted*

Capital Structure of TSL following the Proposed Transaction on a diluted basis	Non-associated Shareholders	Robert Nelson	Gary Johnson	Nominees of Robert Nelson	Total
Shares on issue immediately prior to the Proposed Transaction	**435,239,210**	**233,410,261**	**110,000,000**[1]	**-**	**778,649,471**
% Shareholding held	**55.89%**	**29.98%**	**14.13%**	**0.00%**	**100.00%**
Options & Performance Shares on issue as at the date of this report	44,285,714[2]	33,333,333[3]			210,952,380
Expected Options & Performance Shares on issue immediately prior to the Proposed Transaction	**44,285,714**	**33,333,333**	**-**	**-**	**77,619,047**
Expected Shares & Options on issue immediately prior to the Proposed Transaction	**479,524,924**	**266,743,594**	**110,000,000**	**-**	**856,268,518**
% Shareholding held (fully diluted)	**56.00%**	**31.15%**	**12.85%**	**0.00%**	**100.00%**
Consideration Shares issued to Sellers		287,500,000	105,000,000	25,000,000	417,500,000
Seller Options issued to Sellers	-	198,750,000	-	10,000,000	208,750,000
Expected shares & options on issue following the Proposed Transaction	**479,524,924**	**752,993,594**	**215,000,000**	**35,000,000**	**1,482,518,518**
% shareholding after Proposed Acquisition (Fully Diluted)	**32.35%**	**50.79%**	**14.50%**	**2.36%**	**100.00%**

[1]*100% held by Redaso Pty Ltd, which is an associate of GJSM.*

[2]*Includes 14,285,714 unlisted options expiring 18 January 2021 with an exercise price of $0.021 each, and 30,000,000 unlisted options 100% held by the directors of TSL expiring 25 January 2021 with an exercise price of $0.05 each.*

[3]*Includes 33,333,333 Class B Performance Shares 100% held by Cuprum Holdings Limited, which is wholly controlled by Robert Nelson.*

5. Profile of TSL

5.1 Background

The Company was incorporated on 20 March 1985 and first listed on the ASX on 22 December 1988. Its name was changed to Titanium Sands Limited from Windimurra Vanadium Limited on 6 December 2016. Other former names include Precious Metals Australia Limited, Pacific Quest Limited, Pacific Quest Pty Ltd. and Tink Pty Ltd.

TSL's primary focus is the development of deposits rich in valuable heavy mineral sands. On 12 December 2018, TSL announced it had completed the acquisition of Srinel Holdings Limited **("Srinel")**, a company holding exploration licences that constitute the Mannar Island Heavy Mineral Sands Project. TSL is also evaluating new locations for the potential establishment of similar projects.

Through its subsidiaries, TSL holds five exploration licences totalling 164km. Of these, one licence is subject to an application for renewal. TSL has lodged the necessary documents for renewal of this licence. This report is being prepared on the basis that licence will be successfully renewed.

Name	Holder	Status	Expiry	Area Km^2
EL180/R/3	Applex Ceylon (Pvt) Ltd	Third 2yr term	12/12/2021	15
EL182/R/3	Applex Ceylon (Pvt) Ltd	Third 2yr term	12/12/2021	10
EL370	Kilsythe Exploration (Pvt) Ltd	Renewal pending for second two-year term	13/12/2019	
EL371	Hammersmith Ceylon (Pvt) Ltd	First 2yr term	13/12/2020	5
EL372	Hammersmith Ceylon (Pvt) Ltd	First 2yr term	13/12/2020	8

5.2 Board of Directors

5.2.1 *Dr James Searle – Managing Director*

Dr James Searle has 34 years' experience in base metals, precious metals and mineral sand deposits. He has led successful exploration, project development and operational teams in Australia, Africa, Northern Europe and Central Asia.

Dr Searle has a BSc(Hons) in soft and hard rock geology and a PhD from the University of Western Australia. He is a Member of the Australian Institute of Mining and Metallurgy.

He also has 22 years of experience in executive and non-executive Director roles on ASX-listed public company boards. Dr Searle is currently also a non-executive director of ASX-listed Kinetiko Energy Ltd.

5.2.2. *Mr Jason Ferris – Director*

Mr Jason Ferris is a director of Woodchester Capital and has 20 years of experience in corporate finance. He holds an AFSL and an Australian Credit licence. He has been involved in over $3 billion of property finance since 2005. He has held board positions in Australia, South Africa and the United Kingdom.

5.2.3. *Mr Lee Christensen – Non-executive Chairman*

Mr Lee Christensen is the Managing Director of Kase Funding Pty Ltd, an Australian based litigation funder. He also has over 30 years of experience as a lawyer, most recently as a Senior Partner at Dentons' Perth office.

5.2.4. *Mr David McEntaggart – Company Secretary*

Mr David McEntaggart is a Chartered Accountant and Chartered Secretary with over 10 years' experience in the resource industry and accounting profession in Australia and the UK. He provides services to a number of ASX-listed companies specialising in corporate compliance and financial accounting.

5.3 Major corporate events

On 29 December 2014, the Company announced that it had completed its due diligence and exercised its option to acquire 100% of the issued capital of Srinel from Cuprum in accordance with a pre-existing Option Agreement dated 19 March 2014 ("Srinel Acquisition"). This agreement was subsequently amended on 29 January 2016, 18 February 2016 and 28 September 2017.

On 11 February 2016, the Company announced that it had raised $180,000 under tranche 1 of its placement issuing 25,714,289 Shares at $0.007 per share.

On 30 November 2016, the Company announced it had passed a special resolution to change the Company's name from Windimurra Vanadium Limited to Titanium Sands Limited.

On 20 March 2017, the securities of TSL were suspended from official quotation on the ASX.

On 17 July 2017, TSL announced that it had raised $300,000 by way of sophisticated investor placement of 42,857,142 fully paid ordinary shares at $0.007 per share on a pre-consolidation basis (14,285,714 shares at $0.021 per share on a post-consolidation basis). Attaching options exercisable at $0.007 ($0.021 post-consolidation) expiring in 3 years were also issued on a 1-for-1 pro rata basis for each of these shares placed.

On 21 December 2017, TSL announced a Notice of Annual General Meeting seeking shareholder approval to execute the actions necessary to complete the Srinel Acquisition. These actions included;

- consolidating TSL's shares and options on a 1 for 3 basis;
- acquiring 100% of the issued share capital of Srinel Holdings Limited;
- issuing to Cuprum 58,095,239 Shares, 66,666,667 Class A Performance Shares, 33,333,333 Class B Performance Shares and 133,333,333 Class C Performance Shares;
- agreeing to pay Cuprum a 5% royalty on the amount received by TSL from the sale of mineral product extracted from mining activities on the Sri Lankan project, net of all transport and sales costs;

- making a cash payment of $182,571 and issuing 13,371,450 Shares at an issue price of $0.02 per Share to Cuprum in reimbursement of expenditure;

- raising up to $6,000,000 by issuing up to 300,000,000 Shares at an issue price of $0.02 each, with a minimum subscription of $5,000,000;

- issuing 20,000,000 Shares to Trident Capital (or nominees) in consideration of services provided to TSL in connection with the Proposed Transaction;

- issuing 30,000,000 Class B Options to the Directors of TSL to remunerate and incentivise their performance, and;

- re-complying with Chapters 1 and 2 of the Listing Rules and re-commencing trading on the ASX.

On 24 January 2018, TSL announced that resolutions were passed to approve all of the actions described in the Notice of Annual General Meeting.

On 12 December 2018, TSL announced that the Srinel Acquisition had been completed.

On 18 December 2018, TSL was reinstated to official quotation on the ASX.

On 19 February 2019, TSL announced that it had met the performance milestone required to convert the 66,666,667 Class A Performance Shares into ordinary shares in the company.

On 15 July 2019, TSL announced it had entered into a conditional sale agreement to acquire 100% of the share capital of BAL.

5.4 Historical Statement of Financial Position - TSL

Audited Financial Statements – Titanium Sands Limited Statement of Financial Position	**Audited Financial Statements 30/06/19 $**	**Audited Financial Statements 30/06/18 $**
Current assets		
Cash & cash equivalents	3,255,656	17,715
Restricted cash	-	542,984
Trade and other receivables	82,128	73,933
Total current assets	**3,337,784**	**634,632**
Non-current assets		
Exploration and evaluation expenditure	6,647,935	-
Plant & equipment	166,863	-
Investment in Srinel projects	-	599,149
Loan receivable	-	65,000
Total non-current assets	**6,814,798**	**664,149**
Total assets	**10,152,582**	**1,298,781**
Current liabilities		
Trade and other payables	(208,835)	(1,357,655)
Borrowings	-	(102,287)
Total current liabilities	**(208,835)**	**(1,459,942)**
Total liabilities	**(208,835)**	**(1,459,942)**
Net assets/(liabilities)	**9,943,747**	**(161,161)**
Equity		
Issued capital	12,075,664	3,559,868
Share based payment reserve	2,906,667	146,454
Foreign exchange translation reserve	(6,615)	-
Accumulated losses	(5,031,969)	(3,867,483)
Total equity	**9,943,747**	**(161,161)**

Source: TSL's Audited 2019 Annual Report and Audited 2018 Annual Report.

5.5 Historical Statement of Comprehensive Income – TSL

Audited Financial Statements – Titanium Sands Limited Statement of Comprehensive Income	**Audited Financial Statements 30/06/19 $**	**Audited Financial Statements 30/06/18 $**
Administrative expenses	(634,943)	(395,353)
Director fees	(244,250)	(168,000)
Debt forgiven	42,000	307,029
Share based payment expense	(93,546)	(146,454)
Impairment expense	(65,000)	-
Other expenses	(150,000)	-
Results from operating activities	**(1,145,739)**	**(402,778)**
Financial income	7,037	424
Financial expenses	(25,784)	(7,458)
Net finance (expenses)	**(18,747)**	**(7,034)**
(Loss) before income tax	**(1,164,486)**	**(409,812)**
Income tax expense	-	-
(Loss) for the period	**(1,164,486)**	**(409,812)**
Other comprehensive income **Items that may be reclassified to profit and loss** Exchange differences on translation of foreign operations	(6,615)	-
Other comprehensive income for the period	**(6,615)**	**-**
Total comprehensive loss for the period	**(1,171,101)**	**(409,812)**
(Loss per share) Basic and diluted loss per share (cents)	**(0.28)**	**(0.24)**

Source: TSL's Audited 2019 Annual Report and Audited 2018 Annual Report.

5.6 Capital Structure

The share structure of TSL as at 20 December 2019 is outlined below:

	Number
Total ordinary shares on issue	778,649,471
Top 20 shareholders	576,016,944
Top 20 shareholders - % of shares on issue	73.98%

Source: Share registry information

The ordinary shares held by the top 20 shareholders as at 20 December 2019 are detailed below:

Rank	Name	Ordinary Shares	Percentage of shares held (%)
1	CUPRUM HOLDINGS LIMITED	218,445,261	28.05%
2	REDASO PTY LTD <REDASO FAMILY A/C>	110,000,000	14.13%
3	HEEDFUL PTY LTD <ASSURED S/F A/C>	39,627,380	5.09%
4	J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	26,173,741	3.36%
5	EVERGLOW TECHNOLOGIES LLC	25,000,000	3.21%
6	SUNSET CAPITAL MANAGEMENT PTY LTD <SUNSET SUPERFUND A/C>	24,442,847	3.14%
7	GUYSCLIFFE LLC	15,000,000	1.93%
8	KING GEORGE V NOMINEES LTD	14,965,000	1.92%
9	HEEDFUL PTY LTD <ASSURED S/F A/C>	14,642,857	1.88%
10	MR LAURENT LEYENDECKER	12,714,000	1.63%
11	CHESTER ASSETS PTY LTD <CHESTER INVESTMENTS A/C>	10,000,000	1.28%
12	DRAGON FIRE HOLDINGS LTD	10,000,000	1.28%
13	MR PETER FITZGERALD	10,000,000	1.28%
14	OFFENSE PTY LTD <THE RESTRAINT S/FUND A/C>	10,000,000	1.28%
15	MEMPHIS HOLDINGS PTY LTD <SUPER FUND A/C>	7,500,000	0.96%
16	MR HOWARD WILLIAM OTTEN	7,000,000	0.90%
17	MR GLENN ANTHONY MASON	5,305,758	0.68%
18	MR SUNEEL BOMMIREDDY	5,100,100	0.65%
19	MR SAI MANOJ NAMBURU	5,100,000	0.65%
20	FERGUSON CORPORATION PTY LTD <FERGUSON'S FURNITURE S/F A/C>	5,000,000	0.64%
	Total ordinary shares held by significant shareholders	**576,016,944**	**73.98%**

Source: Share registry information

5.7 *Share Market Performance of TSL*

TSL shares are listed on the ASX. TSL was reinstated to official quotation on the ASX on 18 December 2018. The charts below show the share price movements and share trading volumes of TSL for the period since reinstatement ending 17 December 2019.

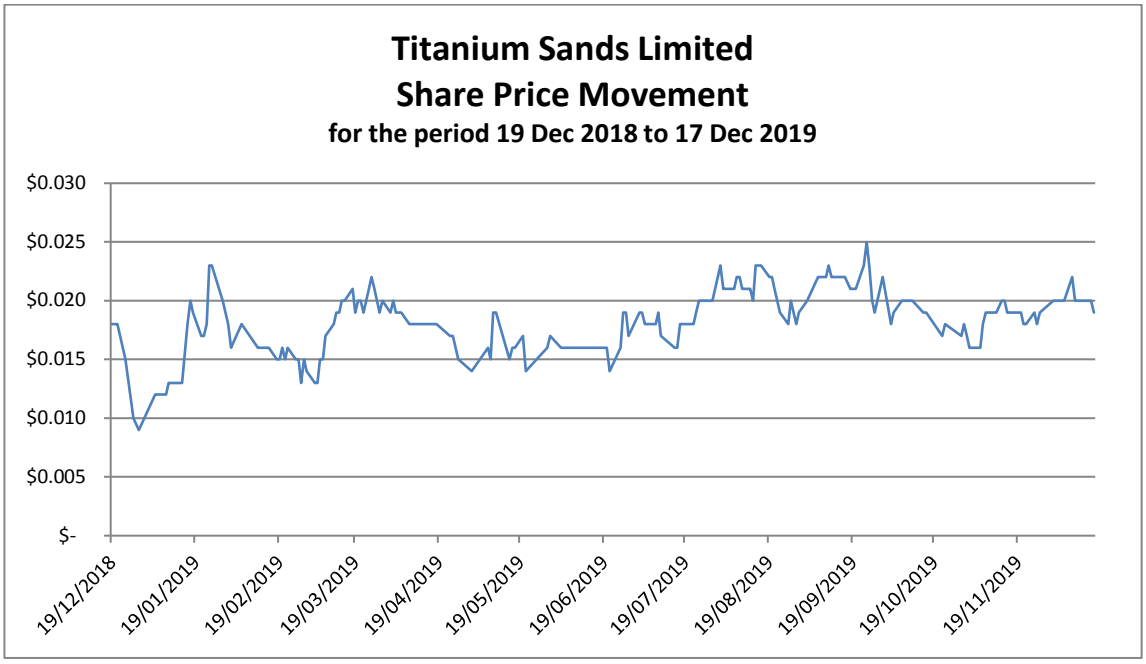


Table 5.7.1 TSL Share Price Movement

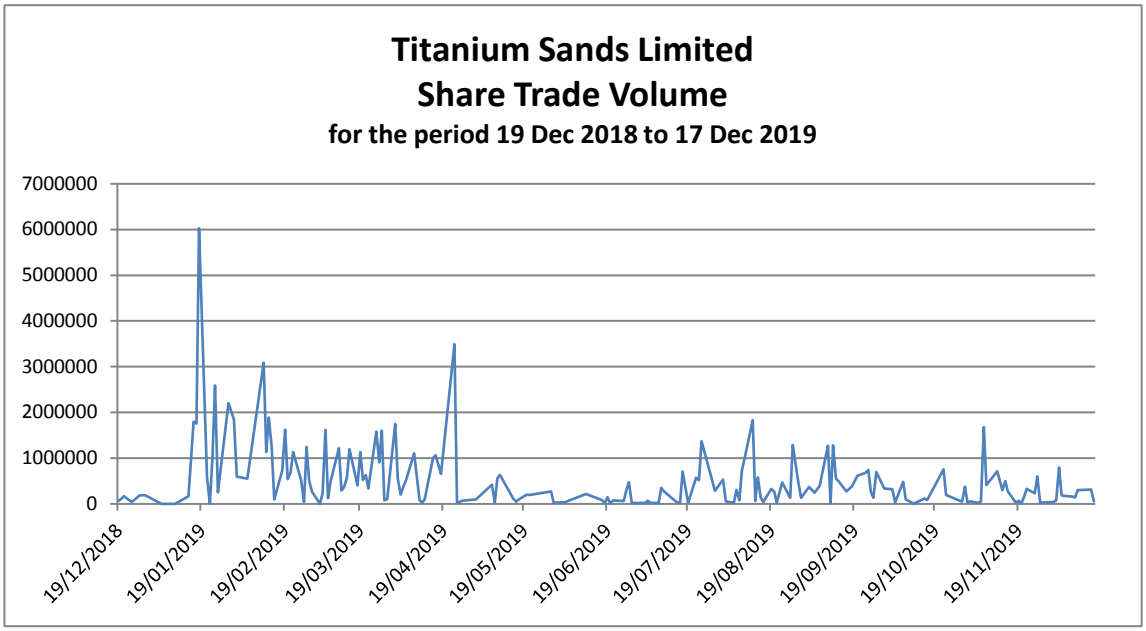


Table 5.7.2 TSL Trading Volume

The Proposed Transaction was announced on 15 July 2019, at which TSL's share price closed at $0.017. The most recent share price of TSL shares prior to the announcement was $0.017 at 10 July 2019. On the day after the announcement, 16 July 2019, TSL's share price remained at $0.016.

6. Profile of BAL

6.1 History – Bright Angel Limited

Through its subsidiaries, BAL holds four exploration licences in Sri Lanka covering prospective areas for heavy mineral sands. These exploration licences are adjacent to TSL's existing Mannar Island Heavy Mineral Sands Project.

Owner	Name	Status	Expiry	Area Km^2
Sanur Minerals Pvt Ltd	EL351	Granted 2nd 2yr	12/12/2021	15
	EL352	Granted 2nd 2yr	12/12/2021	10
Orion Minerals Pvt Ltd	EL327	Granted 2nd 2yr	13/12/2020	5
	EL328	Granted 2nd 2yr	13/12/2020	8

6.2 Historical Statement of Comprehensive Income - BAL

Audited Financial Statements – Bright Angel Limited Statement of Comprehensive Income	**Group31/03/19 (AUD)**	**Group31/03/19 (USD)**
Revenue	-	-
Direct expense	(609,200)	(444,455)
Gross Profit	**(609,200)**	**(444,455)**
Other income	-	-
Expenses		
Administration expenses	(152,145)	(111,001)
Finance expenses	(46,515)	(33,936)
Loss before Taxation	**(807,860)**	**(589,392)**
Income tax expense	-	-
Loss for the Year	**(807,860)**	**(589,392)**
Other Comprehensive Income		
Gain on currency retranslation	3,046	2,222
Total Comprehensive Income	**(804,814)**	**(587,170)**
Total Comprehensive Income attributable to owners of the company	**(804,814)**	**(587,170)**

Source: BAL Audited Accounts for the year ended 31 March 2019.

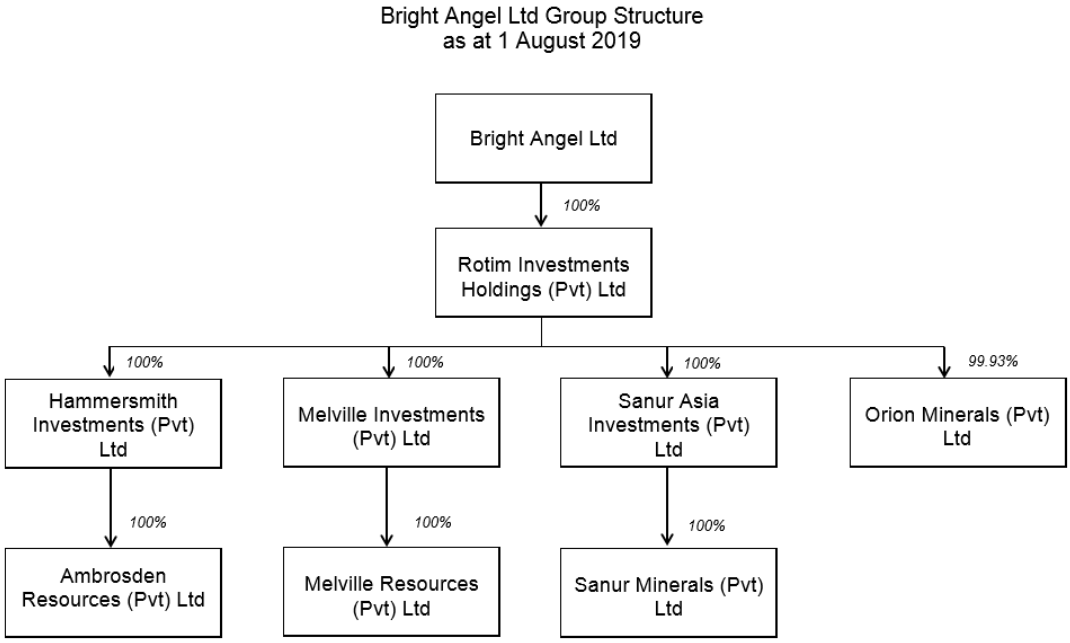
6.3 Historical Statement of Financial Position

Bright Angel Limited Group Statement of Financial Position	**Unaudited Group 30/06/19 (AUD)**	**Unaudited Group 30/06/19 (USD)**	**Audited Group 31/03/19 (AUD)**	**Audited Group 31/03/19 (USD)**
Assets				
Current Assets				
Other receivables	677,314	475,000	670,250	475,006
Cash & cash equivalents	1,717	1,204	9,120	6,463
Total Current Assets	**679,031**	**476,204**	**679,370**	**481,469**
Non-Current Assets				
Exploration & evaluation assets	1,852,038	1,298,834	1,825,314	1,293,600
Amount due from related party	447,758	314,013	437,716	310,209
Total Non-Current Assets	**2,299,796**	**1,612,847**	**2,263,030**	**1,603,809**
Total Assets	**2,978,827**	**2,089,051**	**2,942,400**	**2,085,278**
Liabilities				
Current Liabilities				
Long term liabilities	1,553,385	1,089,389	937,501	664,407
Trade & other payables	1,926,552	1,351,091	2,500,239	1,771,919
Total Current Liabilities	**3,479,937**	**2,440,480**	**3,437,740**	**2,436,326**
Non-Current Liabilities	-			
Total Non-Current Liabilities	-	-	-	-
Total Liabilities	**3,479,937**	**2,440,480**	**3,437,740**	**2,436,326**
Net Assets	**(501,111)**	**(351,429)**	**(495,340)**	**(351,048)**
Equity				
Capital & Reserves				
Stated capital	12	8	12	8
Retranslation reserve	(9,985)	(1)	(11,126)	2,222
Accumulated loss	(491,138)	(351,436)	(484,226)	(353,278)
Total Equity	**(501,110)**	**(351,429)**	**(495,340)**	**(351,048)**

Source: BAL management accounts for the three months ended 30 June 2019 and audited financial statements for the year ended 31 March 2019.

7. The BAL Group

The BAL Group **("BAL Group")** structure is;



With the exception of Orion Minerals (Pvt) Ltd **("Orion")**, all subsidiaries shown above list Mr Robert Nelson and Mr Wanniarachchi Priyantha Abeywardana as directors, and are wholly owned by their respective holding companies. Orion lists Mr Dilruk Malinda Galagoda, Mr Adrian Lee Neilson and Ms. Madduna Hallinnage Mangala Madurapriya as directors. Rotim Investments Holdings (Pvt) Ltd holds 99.93% of Orion, and Mr. Venkateswara Ravi Mohan Penumatsa holds 0.07% of Orion.

8. Valuation methodology

To estimate the fair market value of TSL before and after the Proposed Transaction we have considered common market practice and the valuation methodologies recommended in RG 111. There are a number of methods that can be used to value an entity including:

8.1 Discounted Cash Flow Method

This method values an entity by discounting the future net cash flows to their present day value using an appropriate discount rate. The discount rate is representative of the opportunity cost of capital being the expected rate of return that could be obtained by investing in equivalent risk investments. This method is generally appropriate where future cash flows can be projected with a reasonable degree of confidence.

8.2 Market Based Methods

8.2.1 Capitalisation of Maintainable Earnings

This method places a value on the entity by estimating the likely future maintainable earnings capitalised at a rate which reflects business outlook, business risk, investor expectations, future growth prospects and other factors specific to the entity. Use of this method relies on the availability and analysis of comparable market data.

8.2.2 Industry Specific Methods

Industry specific assumptions and comparisons can at times be used to form a valuation.

8.2.3 Availability of Alternative Offers

Where there are other similar offers, a comparison between offers can be used to determine the market value of the entity.

8.2.4 Quoted Market Price Basis (Market Value)

Where there is a ready market for securities such as the ASX through which shares are traded, recent prices at which shares are bought and sold may be taken as the market value of a security. Such market value includes all factors and influences that impact upon the ASX. The use of ASX pricing is more relevant where a share displays regular trading, in a liquid market.

This method relies on the efficient market hypothesis which states in general terms that the market price at any point in time should fully reflect available information given willing buyers and willing sellers.

8.3 Asset Based Methods

8.3.1 Liquidation of Assets Method

This method values a company based on the net value of its assets should they be sold in a distressed scenario.

8.3.2 Orderly Realisation of Assets Method

This method values an entity based on the net value of its assets should the assets be put to market and held out for a fair value sale price given the market and condition of the assets.

8.3.3 Net Tangible Asset Value on a Going Concern Value **("NTA")**

NTA is appropriate where the majority of assets consist of cash or passive investments. The combined market value of the entity's assets and liabilities is used to value the entity.

Each of these methods is appropriate in certain circumstances and often more than one approach is applied. RG 111 prescribes that when possible, an expert should use more than one valuation methodology.

The choice of methods depends on factors such as the nature of the business being valued, the return on the assets employed in the business, the valuation methodologies usually applied to value such businesses and the availability of required information.

8.4 Selection of Valuation Methodology - TSL shares prior to the Proposed Transaction

In selecting an appropriate valuation methodology to value TSL prior to the proposed Transaction, we have considered the following factors:

- TSL currently does not have any operating business generating cash flows. As such, capitalisation of earnings and discounted cash flows are inappropriate methods.

- a quoted market basis relies on a regulated and observable market where shares can be traded. TSL is listed on the ASX. TSL shares have traded with insufficient volume to give an accurate representation of the market value of the Company.

Based on the above factors, we believe that the appropriate valuation method to use is the net asset valuation methodology. All assets and liabilities of the entity are valued at market value under this methodology and this combined market value forms the basis for the entity's valuation.

8.4.1 Independent technical valuation - TSL

In valuing TSL's exploration assets, we have relied on the independent technical valuation performed by Continental Resource Management Pty Ltd ("Continental") dated 16 December 2019 in accordance with the Code of Technical Assessment of Mineral and Petroleum Assets and Securities for Independent Expert Reports 2015 **("Valmin Code")** and the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition **("JORC Code")**. A copy of Continental's full report is attached at Appendix 2.

8.5 Selection of valuation methodology – BAL

In selection an appropriate valuation methodology to value BAL, we have considered the following factors:

- BAL shares are not listed on any exchange and hence, there is no regulated and observable market where BAL shares are traded. Accordingly, we cannot value the shares of BAL using a quoted market-based method.

- BAL currently does not have any operating business generating cash flows. As such, capitalisation of earnings and discounted cash flows are inappropriate methods.

- being an exploration company, the core value of BAL is in its assets and in particular the exploration assets that its subsidiaries hold. Pendragon has obtained an independent technical valuation of the exploration assets owned by the BAL Group.

Based on the above factors, we believe that the appropriate valuation method to use is the net asset valuation methodology. All assets and liabilities of the entity are valued at market value under this methodology and this combined market value forms the basis for the entity's valuation.

8.5.1 Independent technical valuation - BAL

In valuing BAL's exploration assets, we have relied on the independent technical valuation performed by Continental dated 18 September 2019 in accordance with the Valmin Code and the JORC Code. A copy of Continental's full report is attached at Appendix 3.

8.6 Selection of valuation methodology – TSL share following the Proposed Transaction

In our assessment of the value of a TSL share following the Proposed Transaction we have chosen to employ the sum-of-the-parts methodology. The sum-of-the-parts methodology comprises:

- the value of a TSL Share prior to the Proposed Transaction based on the net asset valuation approach;
- the value of BAL (see section 10.1);
- the number of TSL Shares on issue following the Proposed Transaction, which will include the issue of the Consideration Shares to the Seller and GJSM;
- a minority discount is applied to the resulting value to arrive at the value of a TSL share following the Proposed Transaction on a minority interest basis (see Section 11.1).

9. Valuation of a TSL share prior to the Proposed Transaction

9.1 Quoted Market Basis

The most recent share trading history can provide evidence of the fair market value of the shares in a company where it is publicly listed. As TSL is listed on the ASX, a possible method for valuation of TSL is the quoted market price basis of valuation.

Market value is influenced by the market's perception of many factors including the value of assets, profitability, the industry within which the company operates, managerial skills within the company and future expectations for the company. These market perceptions can change significantly over a short period of time. Share prices are also influenced by the supply and demand for the shares.

To provide further analysis of the market prices for TSL Shares, we have considered the volume weighted average market price **("VWAP")** on the days with price data available as close as possible to a 10, 20, 30, 40, 50 and 60 day period to 30 October 2019.

Days	Low $	High $	Cumulative Volume Traded	As a % of Issued Shares	VWAP $
10	0.017	0.018	1,377,509	0.2168%	0.017
20	0.017	0.020	1,581,949	0.2490%	0.018
30	0.017	0.020	2,848,387	0.4483%	0.019
40	0.017	0.025	5,981,409	0.9415%	0.020
50	0.017	0.025	9,484,324	1.4929%	0.021
60	0.017	0.025	11,760,566	1.8511%	0.021

Table 9.1.1 Summary of TSL Share Price and Trade Volume

The VWAP indicates a low of $0.017 and a high of $0.021.

9.2 TSL Share Price at announcement date

In the 60 day period leading up to 15 July 2019, TSL Shares traded at a high of $0.019 and a low of $0.014.

On the announcement date of the Proposed Transaction TSL share price was $0.016 with a total of 635,316,138 shares outstanding. Multiplying these values produces a total market value of TSL's ASX listed shares prior to the transaction of $10,165,058.

9.3 TSL Share Liquidity

Per RG 111, an expert is to consider the quoted market price for listed securities when there is a deep and liquid market.

We consider the characteristics of a deep and liquid market to be:

- an active market which always has willing buyers when sellers choose to sell;
- securities can be sold without materially affecting the market price;
- there is regular trading in a company's securities;
- a minimum of approximately 1% of the company's securities are traded on a weekly basis; and
- there are no significant but unexplained movements in the security's price.

The share trading data, as outlined in table 9.1.1 above, indicates that TSL Shares displayed a low level of liquidity, with 0.2168% of TSL's current issued capital being traded over a 10-day period leading up to 30 October 2019.

Therefore, we do not consider the quoted market price method as an appropriate valuation method for TSL.

9.4 Net assets valuation of TSL

The net asset value methodology estimates the market value of an entity's securities based on the realisable value of its identifiable net assets. There are three net asset value methods:

- liquidation of assets method;
- orderly realisation of assets method; and
- net assets on a going concern method.

The asset-based method that we believe is appropriate to value the net assets of TSL is the net assets on a going concern method. The assets and liabilities are valued at market value and the resulting value of the net assets forms the basis for the entity's valuation.

The asset-based methods ignore the possibility that the entity's value could exceed the realisable value of its assets as they do not recognise any value of intangible assets. We believe due to the nature of the assets in TSL that the net asset value method is the most appropriate.

The estimated value of TSL's assets on a going concern basis is reflected below:

Net Asset Value of Titanium Sands Limited	**Audited Financial Statements 30 Jun 2019 $**	**TSL Technical Valuation**		
		Low Value $	**Preferred value $**	**High value $**
Current Assets				
Cash & cash equivalents	3,255,656	3,255,656	3,255,656	3,255,656
Trade and other receivables	82,128	82,128	82,128	82,128
Total Current Assets	**3,337,784**	**3,337,784**	**3,337,784**	**3,337,784**
Non-Current Assets				
Exploration and evaluation expenditure[1]	6,647,935	4,400,000	5,300,000	5,300,000
Plant and equipment	166,863	166,863	166,863	166,863
Total Non-Current Assets	**6,814,798**	**4,566,863**	**5,466,863**	**5,466,863**
Total assets	**10,152,582**	**7,904,647**	**8,804,647**	**8,804,647**
Current liabilities				
Trade and other payables	(208,835)	(208,835)	(208,835)	(208,835)
Total Current Liabilities	**(208,835)**	**(208,835)**	**(208,835)**	**(208,835)**
Total Liabilities	**(208,835)**	**(208,835)**	**(208,835)**	**(208,835)**
TSL Net Assets (100% Control Basis)	**9,943,747**	**7,695,812**	**8,595,812**	**8,595,812**
Shares on issue immediately prior to the Proposed Transaction	778,649,471	778,649,471	778,649,471	778,649,471
Value per share ($)	**$0.0128**	**$0.0099**	**$0.0110**	**$0.0110**

[1]These amounts reflect an adjustment for the TSL Technical Valuation. Refer to Section 9.4.2 for more information.

9.4.1 Control Premium

Per RG 111.43, when considering the value of a company's shares the expert should consider a premium for control. An acquirer could be expected to pay a premium for control due to the advantages they will receive should they obtain 100% control of another company.

A control premium is an amount that a buyer is usually willing to pay over the current market price of a publicly traded company in order to acquire a controlling share in that company. Control premiums are industry-specific and amounts between 10% and 50% can be applied. It is appropriate to consider all factors when deciding on a control premium that is to be applied.

Under the Act, control may be deemed to occur when a shareholder or group of associated shareholders control more than 20% of the issued capital of a company.

In accordance with RG 111.11, when assessing fairness, the expert should calculate the value of a company's shares as if 100% control were being obtained. The expert can then consider an allottee's practical level of control when considering reasonableness.

A control premium is implicit in the net asset valuation methodology, and consequently no adjustment for control premium is needed in the pre-transaction control basis valuation. See Section 11.1 for the adjustment to the post-transaction minority basis valuation reflecting a minority interest discount.

9.4.2 Independent valuation of mineral assets - TSL

We note that the Pro Forma Statement of Financial Position included as Schedule C of the Notice of Meeting includes a figure for exploration and evaluation expenditure held by TSL, reflecting the purchase consideration for the acquisition of Srinel Holdings Limited in addition to capitalised exploration costs.

We have not included this amount as we have instructed Continental (see Section 8.4.1) to provide an independent technical valuation of the exploration licences situated on Mannar Island, Sri Lanka which are owned by TSL. TSL's subsidiaries hold five exploration licences totalling 164km. Of these, one licence is subject to an application for renewal. TSL has lodged the necessary documents for renewal of this licence.

Continental estimated that the value of TSL's exploration licences is within a range of $4.4m to $5.3m, with a preferred value of $5.3m **("TSL Technical Valuation")**. The reasons for the positioning of the preferred values at the upper end of the valuation range are explained in the Valuation section of Continental's report. Continental's full report can be found at Appendix 2.

The range of values as assessed by Continental is set out below:

Titanium Sands Mineral Asset Valuation 16 December 2019	Low Value	High Value	Preferred Value
Comparative Transactions	$1.5m	$6.4m	$6.4m
Exploration Expenditure	$4.4m	$5.3m	$5.3m
Reasonableness Check - Yardstick Method	$4.4m	$8.8m	N/A
Valuation Summary	**$4.4m**	**$5.3m**	**$5.3m**

Source: Independent Valuation Report dated 16 December 2019 by Continental Resource Management Pty Ltd.

9.4.3 Adjustment for Royalty Obligations

All tenements are subject to payment of the following royalties:

- 4% (if retained within Sri Lanka) or 5% (if exported) imposed by the Geological Survey and Mines Bureau; and
- 5% of proceeds received (net of transport and sales costs) payable to the Seller.

Both technical valuations of the TSL assets and the BAL assets are based on a Market Approach (various comparative transactions) and a Cost Approach (exploration expenditure) for inferred resources as required by the JORC Code. They do not take into account any royalties.

No adjustment to values for the estimated effect of royalties has been made because;

- the level of royalties is the same for both the TSL assets and the BAL assets; and
- the difference between the royalties estimated to be paid in respect to the TSL assets and the BAL assets is unlikely to be material.

9.5 Conclusion as to the value of TSL Shares – pre-Proposed Transaction

We have assessed the total value of TSL Shares prior to the Proposed Transaction to be between a low value of $0.0099 per Share and a high value of $0.0110 per Share with a preferred value of $0.0110 per Share on a control basis.

10. Valuation of BAL

10.1 Net assets valuation of BAL

The net asset value methodology estimates the market value of an entity's securities based on the realisable value of its identifiable net assets. There are three net asset value methods:

- liquidation of assets method;
- orderly realisation of assets method; and
- net assets on a going concern method.

The asset-based method that we believe is appropriate to value the net assets of BAL is the net asset on a going concern method. The assets and liabilities are valued at market value and the resulting value of the net assets forms the basis for the entity's valuation.

The asset-based methods ignore the possibility that the entity's value could exceed the realisable value of its assets as they do not recognise value of intangible assets. We believe due to the nature of the assets in BAL that the net asset method is the most appropriate.

We have been provided the audited accounts of BAL as at 31 March 2019 and the management accounts of BAL at 30 June 2019. The values of BAL's assets (excluding exploration and evaluation expenditure) on a going concern basis are reflected below:

Proforma Balance Sheet of Bright Angel Limited Group	Unaudited 30 June 2019 (AUD) $	Unaudited Proforma Balance Sheet $
Current Assets		
Cash and cash equivalents[1]	1,717	-
Other receivables[1]	677,314	-
Total Current Assets	**679,031**	**-**
Non-Current Assets		
Exploration & evaluation assets	1,852,038	1,852,038
Amount due from related party[1]	447,758	-
Total Non-Current Assets	**2,299,796**	**1,852,038**
Total Assets	**2,978,827**	**1,852,038**
Current Liabilities		
Long term liabilities[2]	1,553,385	-
Trade and other payables[2]	1,926,552	30,000
Total Current Liabilities	**3,479,937**	**30,000**
Total Liabilities	**3,479,937**	**30,000**
Net Assets	**(501,110)**	**1,822,038**

[1]Existing cash and receivables are expected to be used to offset BAL liabilities. Any remaining balance is to be forgiven.

[2]The terms of the Share Acquisition Agreement stipulate that the Seller must ensure the aggregate liabilities of the BAL Group do not exceed $30,000 on completion of the acquisition.

10.2 Independent valuation of mineral assets - BAL

We note that the Pro Forma Statement of Financial Position included as Schedule C of the Notice of Meeting includes an adjustment to exploration and evaluation expenditure in relation to the issue of Consideration Shares and Seller Options under the Proposed Transaction.

We have not included this amount as we have instructed Continental (see Section 8.5.1) to provide an independent technical valuation of the exploration licences situated on Mannar Island, Sri Lanka which are owned by the BAL group. The BAL Group holds exploration licences totalling 38km^2, two of which are in the process of being renewed. All four licences are for tenements adjacent to existing tenements held by TSL. As detailed in Section 6.1, this Report has been prepared and issued on the assumption that EL 351 and EL 352 will be renewed.

Continental estimated that the value of the BAL Group's exploration licences is within a range of $2.7m to $4.0m, with a preferred value of $4.0m **("BAL Technical Valuation")**. The reasons for the positioning of the preferred values at the upper end of the valuation range are explained in the Valuation section of Continental's report. Continental's full report can be found at Appendix 3.

The range of values as assessed by Continental is set out below:

Bright Angel Mineral Asset Valuation 18 September 2019	**Low Value**	**High Value**	**Preferred Value**
Comparative Transactions	$0.9m	$4.0m	$4.0m
Reasonableness Check - Yardstick Method	$2.7m	$5.4m	$5.4m
Valuation Summary	**$2.7m**	**$4.0m**	**$4.0m**

Source: Independent Valuation Report dated 18 September 2019 by Continental Resource Management Pty Ltd.

Net Asset Value of Bright Angel Limited Group	**Proforma Balance Sheet (Section 10.1)**	**BAL Technical Valuation**		
		Low value $	**Preferred value $**	**High value $**
Current Assets				
Cash and cash equivalents	-	-	-	-
Other receivables	-	-	-	-
Total Current Assets	**-**	**-**	**-**	**-**
Non-Current Assets				
Exploration & evaluation assets[1]	1,852,038	2,700,000	4,000,000	4,000,000
Amount due from related party	-	-	-	-
Total Non-Current Assets	**1,852,038**	**2,700,000**	**4,000,000**	**4,000,000**
Total Assets	**1,852,038**	**2,700,000**	**4,000,000**	**4,000,000**
Current Liabilities				
Long term liabilities	-	-	-	-
Trade and other payables	30,000	30,000	30,000	30,000
Total Current Liabilities	**30,000**	**30,000**	**30,000**	**30,000**
Total Liabilities	**30,000**	**30,000**	**30,000**	**30,000**
Net Assets[2]	**1,822,038**	**2,670,000**	**3,970,000**	**3,970,000**

[1]These amounts reflect an adjustment for the BAL Technical Valuation.

[2]No adjustments to these values have been made for the effects of royalties. See Section 9.4.3 for more information.

The table above indicates that the net asset value of BAL is in a range of $2.67m and $3.97m, with a preferred value of $3.97m.

11. Valuation of a TSL Share following the Proposed Transaction

The value of a TSL Share following the Proposed Transaction, on a minority basis, has been determined using a sum-of-the-parts methodology as shown below:

	Low value	Preferred value	High value
Proforma Net Asset Value of TSL prior to the Proposed Transaction[1]	$7,695,812	$8,595,812	$8,595,812
Proforma Net Asset Value of BAL prior to the Proposed Transaction[2]	$2,670,000	$3,970,000	$3,970,000
Net Asset Value of TSL following the Proposed Transaction (control basis)	**$10,365,812**	**$12,565,812**	**$12,565,812**
Discount for minority interest[3]	23%	20%	17%
Net Asset Value of TSL following the Proposed Transaction (minority basis)	**$7,981,675**	**$10,052,650**	**$10,429,624**
Number of shares on issue following the Proposed Transaction[4]	1,196,149,471	1,196,149,471	1,196,149,471
Value of a TSL share following the Proposed Transaction (minority basis)	**$0.0067**	**$0.0084**	**$0.0087**

[1]These figures are taken from section 9.4.

[2]This figure is taken from section 10.1.

[3]Refer to Section 11.1 for more information.

[4]Refer to Section 11.2 for more information.

The table above indicates that the value of a TSL share following the Proposed Transaction on a minority basis is between $0.00067 and $0.0087 with a preferred value of $0.0084. In arriving at these values, the following inputs were applied to determine the net assets of TSL following the Proposed Transaction:

11.1 Discount for minority interest

The value of a TSL share following the Proposed Transaction derived under the sum-of-the-parts method is reflective of a controlling interest. This suggests that the acquirer obtains an interest in the Company that allows them to have individual influence in the operations and value of the Company.

However, if the Proposed Transaction is approved, Non-associated Shareholders will hold minority interests in TSL, meaning that their individual holding will not be considered significant enough to have an individual influence in the operations and value of the Company.

Based on this we have adjusted our sum-of-the-parts value of a TSL share following the Proposed Transaction to reflect a minority interest holding.

A minority interest is the inverse of a premium for control and is calculated using the formula 1 – [1 / (1 + Control Premium)].

In the table below we have reviewed the control premiums applied in previous independent expert reports assessing the fairness and reasonableness of similar transactions involving mining companies listed on the ASX;

Company	Date of Report	Control Premium
Kin Mining NL	1 July 2014	15% - 25%
MZI Resources Limited	8 January 2016	30% - 40%
Titanium Sands Limited	15 December 2017	20% - 30%
Tamari Gold NL	9 April 2018	30% - 40%
Crusader Resources Limited	30 April 2019	20% - 30%
Average		**23% - 33%**

The table indicates a range of premiums between 23% and 33%. However, since TSL has previously had a control premium of between 20% and 30% applied to a previous transaction of a similar nature with the Seller, we have chosen to apply this range. As such, we consider an appropriate minority discount to apply in our valuation of a TSL share following the Proposed Transaction is in the range of 17% and 23%.

11.2 Number of shares on issue following the Proposed Transaction

The number of shares on issue on an undiluted basis following the Proposed Transaction is shown below:

Number of shares on issue following the Proposed Transaction	Number
Number of expected shares on issue immediately prior to the Proposed Transaction	**778,649,471**
Consideration Shares issued under Proposed Transaction	417,500,000
Number of shares on issue following the Proposed Transaction	**1,196,149,471**

We believe it would be inappropriate to apply the number of shares on issue following the Proposed Transaction on a diluted basis because:

- the Class B Performance Shares held by entities controlled by the Seller will not convert into ordinary Shares until the development of TSL's mineral assets progresses significantly;
- the Seller Options to be granted to the Seller and the existing 30,000,000 Class B Options held by the Directors of TSL each have an exercise price of $0.05, which is significantly higher than the VWAP figures presented in Section 8 of this Report;
- the remaining existing 14,285,714 Class A Options each have an exercise price of $0.021 and represent less than 1% of the total amount of outstanding shares and options. Therefore, the exercise of these options would have an immaterial effect on the valuation.

12. Assessment of Fairness

Our assessed values of the TSL shares, pre and post the Proposed Transaction are summarised below:

	Section	Low $	Preferred $	High $
Value of a TSL Share prior to the Proposed Transaction on a control basis	9.5	0.0099	0.0110	0.0110
Value of a TSL share following the Proposed Transaction on a minority basis	11	0.0067	0.0084	0.0087

In accordance with the guidance set out in RG 111, and in the absence of any other ASX relevant information, for the purposes of complying with ASX Listing Rule 10.1, we consider the Proposed Transaction to **not be fair to Non-associated Shareholders of TSL**, as the low and high values of a TSL Share prior to the Proposed Transaction are higher than the respective low and high values of a TSL share following the Proposed Transaction on a minority basis.

13. Assessment of Reasonableness

Although we consider the Proposed Transaction to not be fair, RG 111 provides that a transaction might still be reasonable despite not being fair if the expert believes that there are sufficient reasons for security holders to accept the offer.

13.1 Advantages of approving the Proposed Transaction

We have considered the following advantages when assessing whether the Proposed Transaction is reasonable:

i. *Economies of Scale*

The size of TSL's existing mining resource is approximately 53 million tonnes. On 18 September 2019, TSL announced that a JORC compliant inferred Mineral Resource Estimate of approximately 32 million tonnes had been completed for the BAL Tenure. If the BAL Tenure was successfully acquired, this would bring TSL's total inferred resources to approximately 85 million tonnes.

The BAL resources estimated and modelled are contiguous with a high-grade resource previously defined on the Mannar Island Heavy Mineral Sands Project. Once brought to production, the increased scale of the Mannar Island Heavy Mineral Sands Project may offer considerable advantages in capital efficiency as a higher volume of mining and treatment commensurate with a larger resource could justify investment in a larger treatment plant with lower per unit of through put cost.

A larger scale operation based on the increased resources also has the potential to lower per unit mining, treatment and overhead costs.

ii. *Extension of Mine Life*

The BAL Tenure contains, as part of the JORC compliant resources, a continuous high-grade zone that adjoins and links several areas of high-grade resources in the Company's existing tenure. The combined areas of high-grade resources offer the opportunity for an uninterrupted mining sequence in high grade material. This could have major economic benefits to the Company's Mannar Island Heavy Mineral Sands Project allowing for a continuous run of high-grade resources being processed in the early stages of the project.

The significant increase in total resources arising from the Proposed Transaction could potentially increase the life of the Company's Mannar Island Heavy Mineral Sands Project and consequently the economic return.

iii. *Progression from an Inferred Resource to an Indicated Resource*

As detailed in Continental's report, a major factor impacting the valuation of mineral assets is their classification as either inferred, indicated, measured, probable or proven. The BAL Tenure has been classified as inferred primarily based on the drill hole density.

The directors of TSL have advised that the drill line spacing of the BAL Tenure has since been substantially reduced, which is expected to lead to a reclassification of the BAL resource from inferred to indicated more quickly than if the drilling work had not already occurred.

iv. *Dredge Mining Potential*

The analysed drill holes indicate that there is significant potential for resource extensions below the water table. The aggregation of the two projects may make dredge mining below the water table more economic.

v. *Other Advantages*

We have also considered the following advantages when assessing whether the Proposed Transaction is reasonable:

- TSL shareholders can share in any future success of BAL;
- the Proposed Transaction will strengthen the Balance Sheet of TSL which may increase the Company's ability to raise additional funds.

13.2 Disadvantages of approving the Proposed Transaction

If the Proposed Transaction is approved, in our opinion, the potential disadvantages to Shareholders include those listed below:

- we have assessed that the Proposed Transaction is not fair to Non-associated Shareholders;
- the issue of the Consideration Shares and Seller Options will have a dilutionary effect on Non-associated Shareholders. Non-associated Shareholders' ownership in the Company will be diluted by a percentage between 34.9% and 47.5%;
- the Proposed Transaction changes the scale of TSL activities, resulting in additional risk factors which may not be consistent with the objectives of Non-associated TSL Shareholders;
- the Company and its Shareholders will be exposed to the risks associated with the BAL Group and the BAL Tenure including those risks set out in Section 1.7 of the Notice of Meeting;
- the Seller may gain a majority ownership in the Company through the exercise of Performance Shares and/or Seller Options;
- the issue of Consideration Shares will give Caudan and its associates Voting Power in excess of 30%, allowing them to block special resolutions.

13.3 Practical Level of Control

Per RG 111.27, we have also assessed the practical level of control that the Seller will obtain as a result of the Proposed Transaction. An acquirer could be expected to pay a premium for control due to the advantages they will receive should they obtain 100% control of another company.

The Seller is currently TSL's second largest shareholder, holding 29.98% of the Shares in the Company. The Proposed Transaction will increase the Seller's holding to 43.55%, or 50.79% on a fully diluted basis.

The Seller will be the largest shareholder in the Company following the Proposed Transaction and can potentially gain a majority interest if all existing Performance Shares and Seller Options are exercised. It is noted that the top 20 Shareholders other than the Seller and GJSM control 29.87% of the Company prior to the Proposed Transaction, and that they will control 19.86% of the Company immediately after completion of the Proposed Transaction.

The performance milestone for the conversion of 33,333,333 Class B Performance Shares held by the Seller into ordinary shares in the Company has not yet been met, as the Company has not yet been granted one or more mining licences in respect of all or part of the land the subject of the Mannar Island Heavy Mineral Sands Project.

The 14,285,714 existing Class A Options issued to Non-associated Shareholders as a result of the Srinel Acquisition have an exercise price of $0.021 each and an expiry date at 25 January 2021. The 20-day VWAP of TSL's Shares at 29 October 2019 was $0.0175. It is unclear whether or not that these options will be exercised prior to expiry.

The 30,000,000 existing Class B Options issued to the Directors of TSL as a result of the Srinel Acquisition have an exercise price of $0.05 each and an expiry date at 18 January 2021.

Therefore, while the Seller is likely to have significant influence, it is our opinion that the Seller will not be able to exercise a similar level of control as if it held 100% of TSL. On an undiluted basis, the Seller will have a similar level of control as it had prior to the Proposed Transaction, except that the Seller will have sufficient holdings (43.55%) in the Company to block special resolutions. If all remaining Options and Performance Shares are exercised, then the Seller will hold sufficient interest (50.79%) in the Company to independently pass ordinary resolutions and block special resolutions.

13.4 Alternative Proposals

We are unaware of any alternative proposal that might offer the Shareholders of TSL a premium over the value, resulting from the Proposed Transaction.

13.5 Conclusion of Reasonableness Assessment

We have considered the advantages and disadvantages of approving the Proposed Transaction and it is our opinion that the Proposed Transaction is **reasonable** to the Non-associated Shareholders of TSL.

14. Financial Benefit to a related party

Caudan and GJSM are to receive a financial benefit from the Proposed Transaction, valued as follows:

Value to related parties following the Proposed Transaction	Low Value	Preferred Value	High Value
Caudan			
Consideration Shares to be issued	287,500,000	287,500,000	287,500,000
Net asset value of TSL per share following the Proposed Transaction (Section 11)	$0.0067	$0.0084	$0.0087
Net Asset Value of Consideration Shares	$1,918,432	$2,416,200	$2,506,808
Black-Scholes Valuation of Seller Options[1]	$1,195,298	$1,195,298	$1,195,298
Value to Caudan	**$3,113,730**	**$3,611,498**	**$3,702,106**
GJSM			
Consideration Shares to be issued	105,000,000	105,000,000	105,000,000
Net asset value of TSL per share following the Proposed Transaction (Section 11)	$0.0067	$0.0084	$0.0087
Net Asset Value of Consideration Shares[2]	$700,645	$882,438	$915,530
Value of debt being terminated	($500,000)	($500,000)	($500,000)
Value to GJSM	**$200,645**	**$382,438**	**$415,530**

[1]Refer to Section 14.1 for more information.

[2]Refer to Section 4.3 for more information.

The total value of the Consideration Shares & Seller Options on a NAV per Share basis that Caudan will be receiving is between a low value of $3,113,730 and a high value of $3,702,106 with a preferred value of $3,611,498 on an undiluted basis. The total value of the Consideration Shares on a NAV per Share basis that GJSM will be receiving is between a low value of $200,645 and a high value of $415,530 with a preferred value of $382,438 on an undiluted basis.

14.1 Value of the Seller Options

Pursuant to RG 111, we have applied the Black-Scholes pricing model to determine the total value of the Seller Options. The estimated value of the Seller Options per the Black-Scholes model has been outlined below:

Consideration Option Valuation	**Black-Scholes**
Asset Price[1]	$0.0175
Strike Price	$0.05
Time to maturity	3
Risk-free rate (r)[2]	0.82%
Dividend Yield (d)[3]	0%
Cost of carry (r – d)	0.82%
Volatility[4]	90.76%
Price per option	**$0.0060**
Number of Seller Options[5]	198,750,000
Total value of Seller Options	**$1,195,298**

[1]This is the 20-day VWAP of a TSL Share at 29 October 2019.

[2]Since the time to maturity for the Seller Options will be three years, we have used a risk-free rate equal to the yield on an Australian Government three-year bond at 29 October 2019, being the date of the commissioning of this Report.

[3]Since TSL is not a company that has paid any dividends in the 2018 & 2019 financial years, we have set the dividend yield to 0%.

[4]The volatility metric we have used has been sourced from a March 2019 Risk Measurement Report commissioned by Sirca Limited, which stated the monthly standard deviation of TSL's market capitalisation to be 26.2. This figure has been annualised and converted to a percentage to arrive at 90.76%.

[5]This figure excludes the 10,000,000 Seller Options to be issued to non-associated nominees of the Seller.

15. Conclusion

We have considered the terms of the Proposed Transaction as outlined in the body of this Report and have concluded that the Proposed Transaction is **not fair, but is reasonable to the Non-associated Shareholders of TSL**. This means that it is our opinion that the advantages of the Proposed Transaction for the Company will sufficiently outweigh the disadvantages and the decline in value of a TSL Share held by a Non-associated Shareholder that will occur as a result of the transaction.

16. Sources of information

This Report has been based on the following information:

- Notice of Meeting
- Continental Resource Management's Independent Technical Valuations of Srinel's and BAL's respective Mannar Mineral Sands Projects.
- Share Acquisition Agreement dated 11 July 2019 between Titanium Sands Limited and Caudan Management Services LLC.
- Amended Share Acquisition Agreement dated 29 October 2019 between Titanium Sands Limited and Caudan Management Services LLC.
- Tri-partisan agreement between GJSM, TSL and the Seller dated 29 October 2019.
- TSL's Annual Report for the year ended 30 Jun 2019.
- TSL's Top 20 Share Register at 17 July 2019.
- ASIC Regulatory Guide 74: Acquisitions approved by members.
- ASIC Regulatory Guide 111: Content of expert reports.
- ASIC Regulatory Guide 112: Independence of experts.
- APES 225: Valuation Services.
- AASB 6: Exploration and evaluation expenditure.
- BAL's Audited Accounts for the year ended 31 Mar 2019.
- BAL's Management Accounts for the year ended 30 Jun 2019.
- Corporations Act 2001.
- Various ASX announcements by TSL.
- Discussions and correspondence with the directors & company secretary of TSL.

17. Independence

Pendragon is entitled to receive a fee for the completion of this Report (excluding GST and reimbursement of out of pocket expenses). The fee is not contingent on the conclusion, content or future use of this Report. Except for this fee, Pendragon has not received and will not receive any pecuniary or other benefit whether direct or indirect in connection with the preparation of this report.

Pendragon has been indemnified by TSL in respect of any claim arising from Pendragon's reliance on information provided by TSL, including the non-provision of material information, in relation to the preparation of this Report.

Prior to accepting this engagement Pendragon has considered its independence with respect to TSL and any of their respective associates with reference to ASIC Regulatory Guide 112 'Independence of Experts'. In Pendragon's opinion it is independent of TSL and their respective associates.

A draft of this Report was provided to TSL and its advisors for confirmation of the factual accuracy of its contents. No significant changes were made to this Report as a result of this review.

18. Indemnity

Pendragon has been provided with an indemnity from TSL in the following form:

> "*TSL indemnifies Pendragon and any employees or associates from any claims arising out of any omission or any misstatement in relation to any material provided (or which, being relevant, is not provided) by TSL"*

19. Qualifications

Pendragon holds Australian Financial Services Licence number 237549 issued by ASIC. Pendragon has experience in the provision of corporate finance advice. Mr Keith Platel, the director responsible for and signing this Report, is a Fellow of the Institute of Chartered Accountants and has many years' experience in company valuations and reports. The Financial Services Guide from Pendragon is available to investors upon request.

20. Disclaimers and Consents

This Report has been prepared at the request of TSL for inclusion in its Notice of Annual General Meeting for Shareholders to be forwarded to Shareholders in relation to the Proposed Transaction.

Pendragon hereby consents to this Report accompanying the Notice of Annual General Meeting for TSL Shareholders. Pendragon takes no responsibility for the contents of the Notice of Annual General Meeting other than this Report. This Report has been prepared for the Directors of TSL to forward to Shareholders, and apart from such use, neither the whole nor any part of this Report may be used for any other purpose.

In providing our opinion, we have relied on information provided by Directors of TSL. Where financial forecasts have been provided, it should be noted that there are likely to be differences to actual results due to various and unpredictable commercial and external factors.

Pendragon has not independently verified the information supplied to us and it has not conducted anything in the nature of an audit of TSL. Pendragon has no reason to believe that any information relied on by us is incorrect or incomplete. The opinions and statements in this Report are given in good faith and in the reasonable belief they are not false, misleading or incomplete.

Yours sincerely

Keith Platel
Director

PENDRAGON CAPITAL LIMITED

APPENDIX 1 – GLOSSARY OF TERMS

Reference	Definition
Act	The Corporations Act (2001)
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
BAL	Bright Angel Limited
BAL Group	Bright Angel Limited, Rotim Investments Holdings (Pvt) Ltd, Hammersmith Investments (Pvt) Ltd, Ambrosden Resources (Pvt) Ltd, Melville Investments (Pvt) Ltd, Sanur Asia Investments (Pvt) Ltd, Sanur Minerals (Pvt) Ltd & Orion Minerals (Pvt) Ltd
BAL Technical Valuation	The valuation range reported in the Independent Technical Valuation Report commissioned by Continental for the valuation of the exploration licences held by the BAL Group
BAL Tenure	The exploration licences described in Section 6.1.
Caudan	Caudan Management Services LLC
Company	Titanium Sands Limited ACN 009 131 533
Consideration Shares	312,500,000 fully paid ordinary shares in the Company
Continental	Continental Resource Management Pty Ltd
Convertible Note Agreement	A convertible note agreement dated 2 June 2019 under which BAL borrowed $500,000 from GJSM on terms which in certain circumstances entitled GJSM to convert the loan into shares in BAL.
JORC Code	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition)
General Meeting	The General Meeting referred to in the Notice of Meeting that will take place on DD December 2019
GJSM	Gary Johnson Super Management Pty Ltd
GJSM Consideration Shares	105,000,000 fully paid ordinary shares in the Company
Mannar Island Heavy Mineral Sands Project	Mannar Island Heavy Mineral Sands Project in Sri Lanka
Non-associated Shareholders	Shareholders of TSL not associated with the Sellers of Bright Angel Limited
Notice of Meeting	The Notice of Meeting dated DD November 2019 to which this Report has been included as Annexure 1
NTA	Net Tangible Assets on a Going Concern Value
Orion	Orion Minerals (Pvt) Ltd
Pendragon	Pendragon Capital Limited
Proposed Transaction	The proposal to acquire 100% of the issued share capital in Bright Angel
Report	This Independent Expert's Report prepared by Pendragon Capital Limited
RG 111	ASIC Regulatory Guide 111: Content of expert reports (March 2011)
SAA Variation	The Variation to the Share Sale Agreement dated 29 October 2019
Seller	Caudan Management Services LLC
Seller Options	208,750,000 options to subscribe for a fully paid share in the Company, 198,750,000 of which are to be issued to the Seller and 10,000,000 of which are to be issued to non-associated nominees of the Seller
Share Acquisition Agreement	The agreement to acquire 100% of the issued capital of BAL in consideration for the issue of 417,500,000 Shares and 208,750,000 Options in TSL dated 11 July 2019.
Srinel	Srinel Holdings Limited
Srinel Acquisition	Acquisition of 100% issued capital of Srinel from Cuprum Holdings Limited (December 2018)
TSL	Titanium Sands Limited ACN 009 131 533
TSL Technical Valuation	The valuation range reported in the Independent Technical Valuation Report commissioned by Continental for the valuation of the exploration licences held by TSL
Valmin Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (2015 Edition)
VWAP	Volume weighted average market price

TECHNICAL VALUATION REPORT

TITANIUM SANDS LIMITED'S

MANNAR MINERAL SANDS PROJECT

SRI LANKA

Prepared for

Pendragon Capital Ltd (AFSL 237 549)

Report Number WA19/12

Author: **J.J.G. Doepel**

BSc (Hons), GradDipForSci, DipTeach, MAusIMM, MAIG

Principal Geologist

Continental Resource Management Pty Ltd

Signature: 

DATE: 16 December 2019

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EXECUTIVE SUMMARY

Pendragon Capital Ltd ("Pendragon") requested that Continental Resource Management Pty Ltd ("CRM") provide a valuation ("Valuation Report") of Titanium Sands Limited's ("TSL" or "Company") Mineral Assets within its Mannar Island Project Sri Lankan tenements ("Tenements"). The Valuation Report is to be included in an Independent Expert's Report ("IER"), being prepared by Pendragon Capital Ltd ("Pendragon"). The IER is to be included in the Company's Notice of Meeting seeking shareholder approval for the acquisition of 100% of the shares in Bright Angel Limited.

TSL's Mannar Island Project Mineral Assets comprise five granted Exploration Licences ("ELs"), situated on Mannar Island, NW Sri Lanka.

The tenements have been explored for heavy mineral sands by auger-drill programmes during 2017 and 2018. Inferred Resources of 53.09Mt @ 6.63% Total Heavy Minerals have been estimated within the tenements. The estimation was carried out and reported in 2019, in accordance with the 2012 JORC Code, by the independent geological consultant GeoActiv Pty Ltd ("GeoActiv").

CRM's valuation of the tenements within TSL's Mineral Asset is based upon exploration expenditure within the tenements and upon an analysis of comparable transactions: with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves.

CRM's assigned values for the Mineral Asset are set out in Table 1.

Table 1 Mineral Asset Valuation

Valuation Method	Low Value ($M)	Preferred Value ($M)	High Value ($M)
Comparative Transactions	1.5	6.4	6.4
Exploration Expenditure	4.4	5.3	5.3

CRM has carried out a reasonableness check on these values by means of a yardstick method, the results of which are set out in Table 2.

Table 2 Reasonableness Check Values

Reasonableness Check	Low Value ($M)	High Value ($M)
	4.4	8.8

CRM considers that the yardstick values used for the Reasonableness Check indicate that both the Preferred Value obtained from the Comparative Transaction Method and that obtained from the Exploration Expenditure Method is fair and reasonable, i.e. that both $6.4M and $5.3M are fair and reasonable values.

CRM ascribes the value of the Mineral Asset to be within the range $4.4M to $5.3M, as this range is common to the ranges of both valuation methods. It ascribes a preferred value of $5.3M, which is the upper end of the range, as:

- It is apparent that further systematic drilling would enable additional resources to be estimated below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Statement of Valuation

CRM considers the value of the Mineral Asset to be within the range of $4.4 million to $5.3 million, with a preferred value of $5.3 million.

CRM further considers that both the range of values and the preferred value are fair and reasonable evaluations of the Mineral Asset.

The Valuation Date is as at 13th December 2019 and this report is issued on 16th December 2019.

INTRODUCTION

Pendragon Capital Ltd ("Pendragon") requested that Continental Resource Management Pty Ltd ("CRM") provide a valuation ("Valuation Report") of Titanium Sands Limited's ("TSL" or "Company") Mineral Assets within its Mannar Island Project Sri Lankan tenements ("Tenements"). The Valuation Report is to be included in an Independent Expert's Report ("IER"), being prepared by Pendragon Capital Ltd ("Pendragon"). The IER is to be included in the Company's Notice of Meeting seeking shareholder approval for the acquisition of 100% of the shares in Bright Angel Limited.

TSL's Mannar Island Project Mineral Assets comprise five granted Exploration Licences ("ELs"), situated on Mannar Island, NW Sri Lanka.

The tenements have been explored for heavy mineral ("HM") sands by auger-drill programmes during 2017 and 2018. Inferred Resources of 53.09Mt @ 6.63% Total Heavy Minerals were subsequently estimated within the tenements. The estimation was carried out and reported in 2019, in accordance with the 2012 JORC Code, by the independent geological consultant GeoActiv Pty Ltd ("GeoActiv"). More recently an initial air-core ("AC") drilling programme has been initiated with the tenements.

All monetary figures stated in this Valuation Report are expressed in Australian dollars (AUD) unless indicated otherwise. Similarly, all coordinates included in this report are stated in the Universal Transverse Mercator (UTM) Zone 44 N - World Geodetic System (WGS) 84 coordinate system, unless indicated otherwise.

The Valuation Date is as at 13th December 2019 and this report is issued on 16th December 2019.

Compliance with the VALMIN and JORC Codes

The Report has been prepared in accordance with the VALMIN Code, which is binding upon Members of the Australian Institute of Geoscientists ("AIG") and the Australasian Institute of Mining and Metallurgy ("AusIMM"), the JORC Code, and the rules and guidelines issued by such bodies as the Australian Securities and Investments Commission ("ASIC") and ASX that pertain to IERs.

The author has taken due note of the rules and guidelines issued by such bodies as ASIC and ASX, including ASIC Regulatory Guide 111 – Content of Expert Reports, and ASIC Regulatory Guide 112 – Independence of Experts.

The valuation and the preparation of the Valuation Report has been primarily carried out by John Doepel, Director and Principal Geologist of CRM, a practitioner with the requisite qualifications, standing, and experience, who is considered to be a Specialist under the requirements of Section 2.1 of the VALMIN Code (2015). He is also considered to be a Competent Person under the terminology of the JORC Code (2012).

Location

The project location is shown on Figure 1. Mannar Island is approximately 225km north of Sri Lanka's capital, Colombo. Mannar Island is joined to the mainland by both highway and railway, through Anuradhapura, the capital city of the North Central Province.

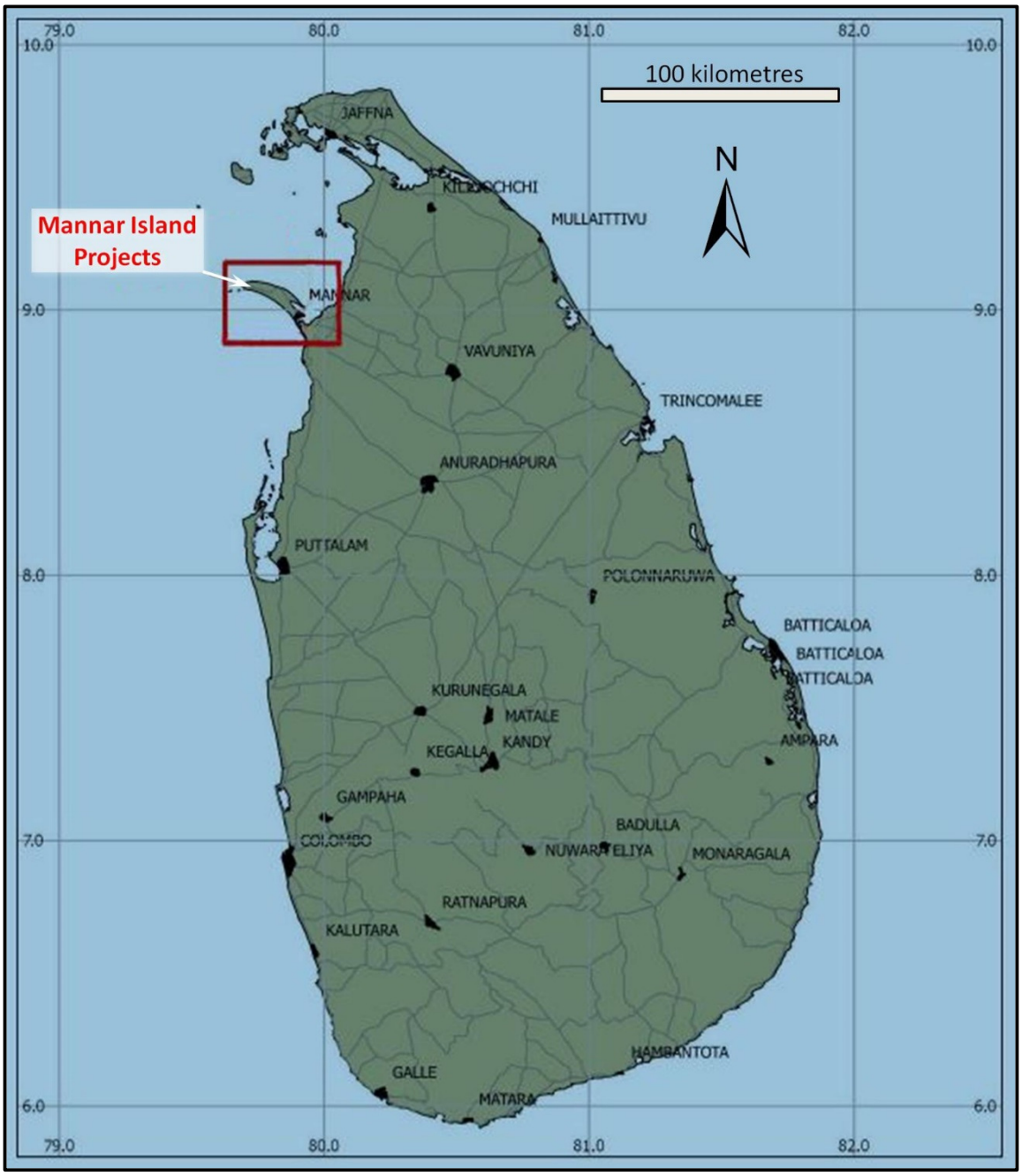

Figure 1 Sri Lanka – showing Project Location

Sources of Data

TSL provided CRM with tenement details including licence documents for the granted tenements, relevant technical reports, maps, GIS data, drilling database, original assay files from the 2017 and 2018 drill programmes, and a digital file of the ore block model ("OBM").

TSL has also provided CRM with a statement that there are no material or significant statutory, technical, environmental, political, anthropological, historical, or commercial matters, of which they TSL is aware and about which it has not informed CRM, that may present an obstacle to the exploration or development of the tenements.

Site Inspection

CRM did not visit the Project, as is CRM's experience of heavy mineral deposits that little additional information was to be gained from a site inspection that could not be obtained from available satellite imagery and the information that had been supplied by TSL. The Independent Geological Report by Siebrits and Badenhorst (2019b), of GeoActiv consultants, describes and provides photos of the near surface heavy mineral mineralisation that is visible within the Mannar Island tenement areas. Further, clear details of the topography, land use, and infrastructure are visible on Google Earth images.

Valuation Approach and Methods

For this Mineral Asset Valuation, it is CRM's opinion that the valuation should be based both upon the exploration that has been carried out over the tenements for heavy minerals and upon the Mineral Resources within the tenements.

With respect to the Mineral Resources:

1. The Mineral Resources should be valued on the basis of their Valuable Heavy Minerals ("VHM") content, rather than on the basis of their Total Heavy Minerals ("THM") content; and
2. The Mineral Resources should be valued on the basis of their mineral assemblage.

The valuation of the Mineral Resources is based upon an analysis of comparable transactions; with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves.

A Yardstick Method check was carried out to confirm that the valuation was reasonable. The method involved the use of the estimated heavy mineral ("HM") resources, current mineral prices, and an accepted discount for resource category.

MINERAL ASSET

Description

TSL's Mannar Island Project Mineral Asset comprises five granted Exploration Licences ("ELs"), situated on Mannar Island, NW Sri Lanka.

Tenure and Status

TSL's Mannar Mineral Sands Project comprises five granted ELs, one of which is subject to an application for renewal. Details of these tenements are shown in Table 3. They are held by Applex Ceylon (Pvt) Ltd ("Applex"), Kilsythe Explration (Pvt) Ltd ("Kilsythe"), and Hammersmith Ceylon (Pvt) Ltd ("Hammersmith"). All three companies are wholly owned subsidiaries of TSL.

Table 3 Project Tenure

Tenement	Holder or Applicant	Status	Validity From	Validity To	Area (km^2)
EL 180 /R /3	Applex	Third two-year term	5/03/2019	4/03/2021	45
EL 182 /R /3	Applex	Third two-year term	5/03/2019	4/03/2021	26
EL 370	Kilsythe	Renewal pending for second two-year term	14/12/2017	13/12/2019	40
EL 371	Hammersmith	First two-year term	26/02/2018	25/02/2020	4
EL 372	Hammersmith	First two-year term	26/02/2018	25/02/2020	49

This valuation has been prepared and issued on the assumption that this information is correct, that the tenements are lawfully allowable, and that EL's 370, 371 and EL 372 will be renewed. TSL has lodged the necessary documents for renewal of EL 370.

An Exploration License grants the license-holder the exclusive right to explore for all mineral categories authorized by the license. The initial three project tenements give the holder the exclusive right to explore for Mineral Sand. ELs 371 and 372 give the holder the exclusive right to explore for Heavy Mineral Sand. Exploration licences are for two-year terms, which may be renewed four times for further two-year periods.

Royalties

The GSMB classifies mineral sands as industrial minerals, the royalty rates for which are 4% if not exported and 5% if exported (GSMB, 2010a). Commodity levies are also applicable on the export of mineral sands concentrates as follows (EDB, 2014):

- Ilmenite LKR1650/t
- Rutile LKR2200/t
- Other titanium concentrates LKR1100/t
- Zircon LKR550/t

Tenement Locations

The tenement locations are shown on Figure 2, a satellite image of the Mannar Island area.

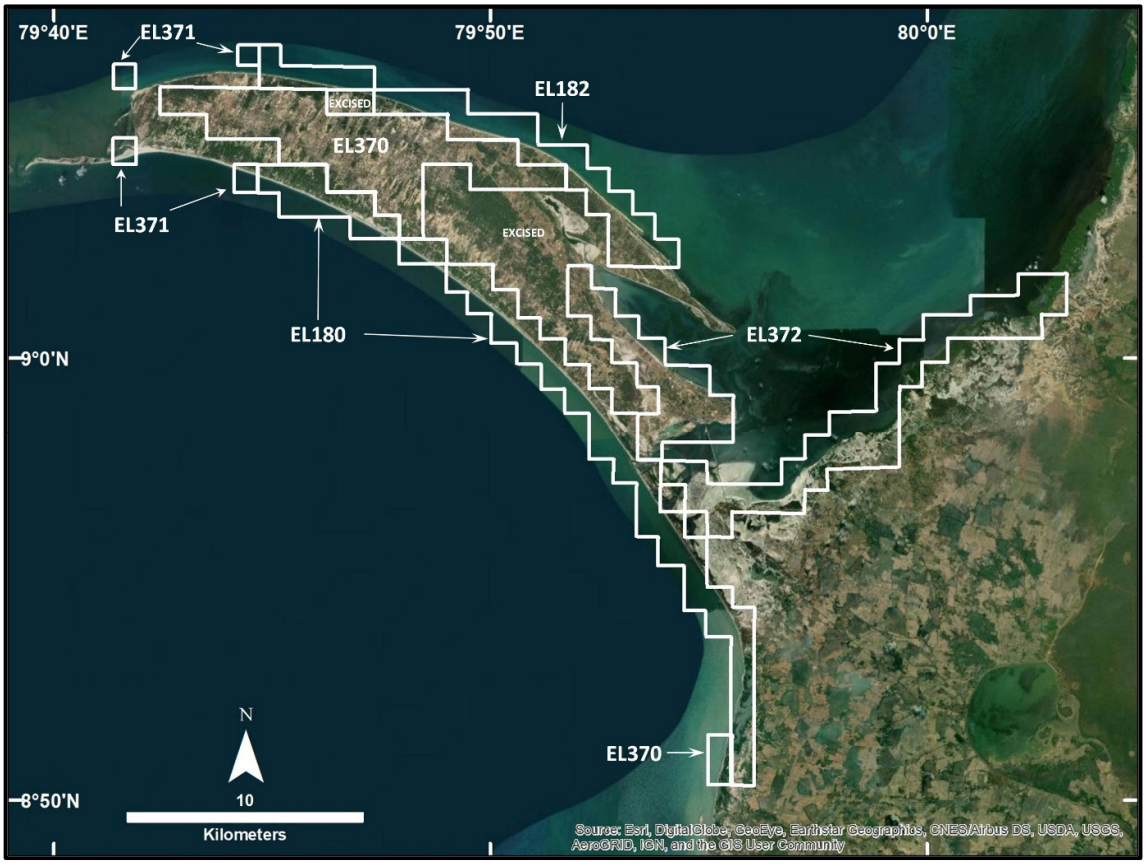

Figure 2 Tenement locations over satellite image

GEOLOGY

Sri Lankan Geology

Most of Sri Lanka is made up of Precambrian metamorphic and granitic rocks. Granulite facies rocks of the Highland Complex (gneisses, sillimanite-graphite gneisses, quartzite, marbles, and some charnokites) extend across the centre of the island from southwest to northeast; and amphibolite facies gneisses, granites, and granitic gneisses of the Vinjayan and Wanni Complexes occur in the eastern and southeastern lowlands and in the northwest respectively (Figure 3).

The coastal regions of the northern portion of the island contain more recent sediments: lithified Miocene limestones and sandstones and younger largely unconsolidated Quaternary units. The limestone units are reportedly irregular, underlain by sandstone units and lie unconformably on the Precambrian basement. The Quaternary units consist of clastic sediments in the form of largely unconsolidated beach sands, dune sands, and lagoonal and estuarine sediments.

Heavy minerals are widely distributed in the basement complexes typically as fine disseminations, particularly within gneisses, granulites, pegmatites, dolomites, and quartz veins. These heavy minerals include the valuable heavy minerals ilmenite, rutile, zircon, monazite, and garnet. Erosion of the basement rocks, down-river transport to the coast, and longshore movement by currents and waves has led to the accumulation of heavy mineral deposits in the coastal sands (Figure 4).

Figure 3 Geological Map of Sri Lanka

Figure 4 Sri Lankan Heavy Mineral Deposits and Occurrences

The Pullmoddai Deposit has been mined by Lanka Mineral Sands Limited ("LMSL") since 1959 (Herath, 2008); Iluka Resources Limited ("Iluka") has completed a scoping study on its Puttalam Deposits, which contain 689Mt at an average grade of 8.2% HM (Iluka, 2013); and Capital Metals Limited is developing its Oluvil Deposit, which contains 17.2Mt @ 17.6% THM (Capital Metals, 2017).

Project Geology

The project tenements are situated on Mannar Island. A portion of the 1.100,000 Geological Map of the area is shown as Figure 5.

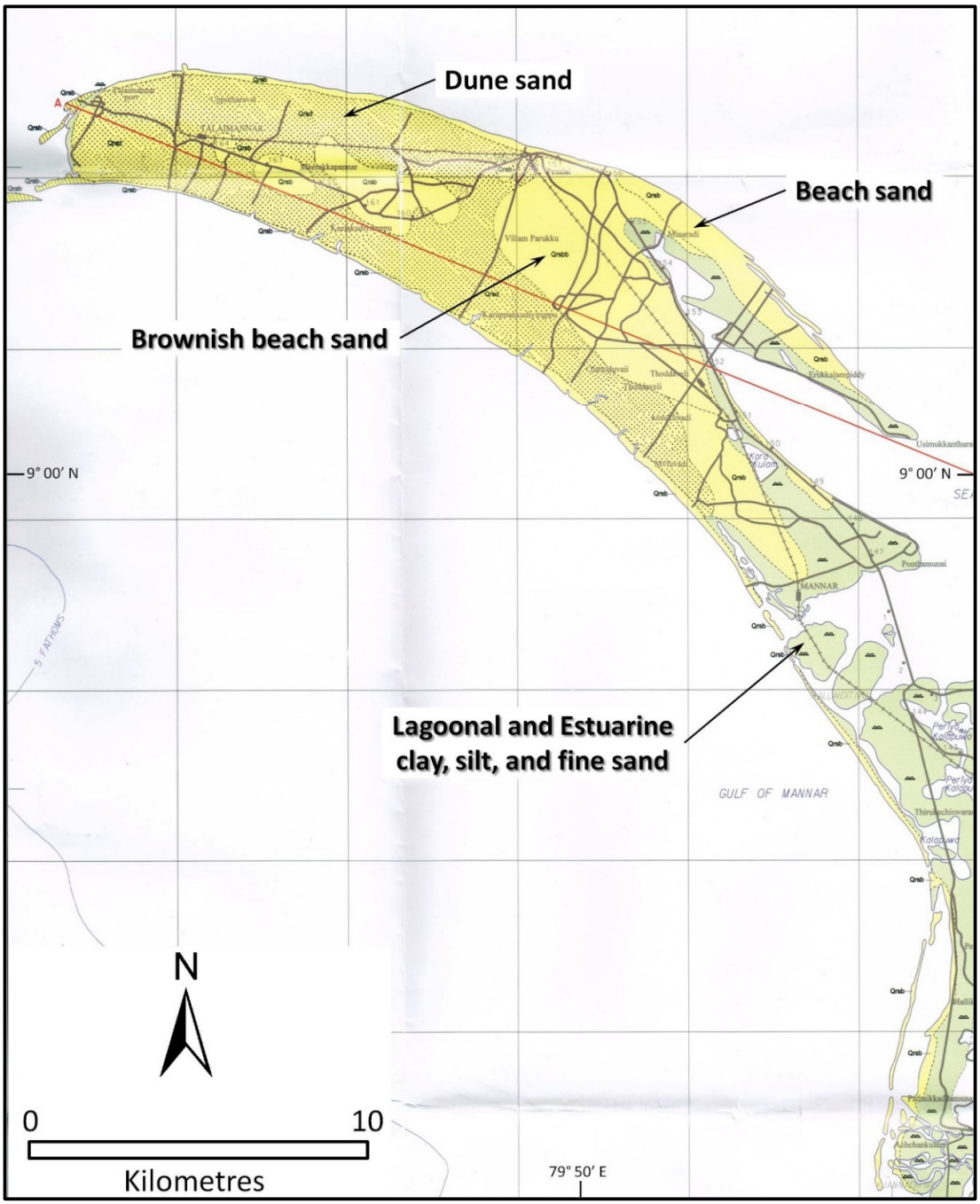

Figure 5 Geological Map of Mannar Island (after GSMB, 2010b)

The geological units within the project area are all Quaternary in age. They comprise active beach and sea-floor sands, younger white dune sands, finer-grained lagoonal and estuarine deposits, and older red or brown sands (both beach and dunal). Figure 6 displays a diagrammatic cross-section through Mannar Island, showing the relationship between these units. Heavy mineral mineralisation is present

within both the younger and older beach sand units. The cross-section was published by the Sri Lankan Geological Survey and Mines Bureau ("GSMB") in 2010. Recent TSL drilling has shown the presence of mineralised beach sand beneath the dune sand unit. The drilled sands of the TSL Licenses are generally very clay poor, with an average -45 micron clay content of just over 1%.

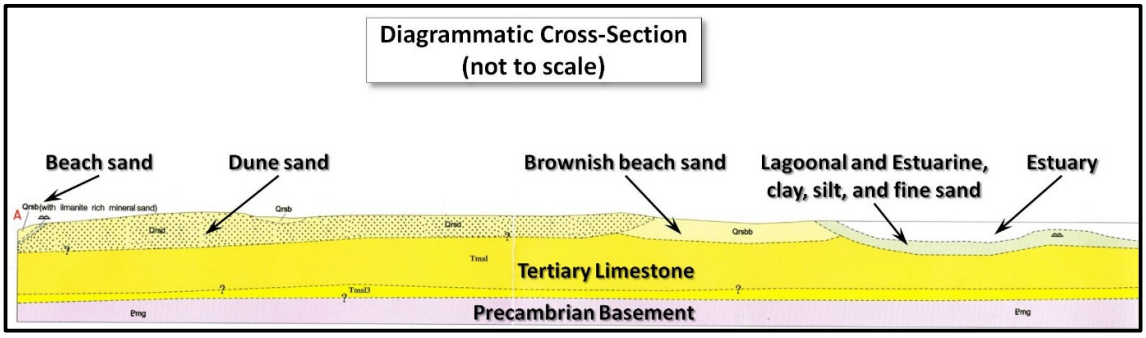

Figure 6 Diagrammatic geological section along Mannar Island (after GSMB, 2010b)

Geological Model

TSLs understanding of the Mannar Island heavy mineral mineralisation is given in the following geological model, copied from TSL's 18 September 2019 ASX release.

Mannar Island is a 30km long by 5km wide Holocene (less than 12,000 years BP) sand island. The Mannar Island Holocene stratigraphy is at least 10m thick and consists of repeated sequences of nearshore , beach and dune facies sands with minor lenses of lagoonal and embayment silts and muds. Development of the island over the Holocene Epoch has been driven by the seasonally opposing transport trends from north and the south localising sedimentary accumulation on a southeast to northwest axis extending out into the waters of Palk Strait that separate Sri Lanka from India. The source of the Mannar Island sediments and the entrained heavy minerals has been the reworking and redeposition of older Pleistocene (2.6 million to 12,000 years BP) river and coastal sand bodies on the adjacent mainland coast.

In addition to the heavy minerals the accumulating Holocene sands of Mannar Island are dominated by quartz and garnet sand grains. Carbonate materials are a minor component. The Holocene sequences drilled to date at Mannar Island are essentially unconsolidated with only minor very local patches of light carbonate cementation. Further out into Palk Strait the modern to Holocene sediments have increasing amounts of carbonate and cemented limestone and coral reef shoals.

Concentration of the heavy mineral component in the Mannar Island stratigraphy has been by selective shallow water current transport, beach and near beach facies wave and current action and wind winnowing in the overlying dune and beach ridges (Figure 6). The combination of all three concentration mechanisms has resulted in very broad (2km to 3km wide) and continuous (over more than 20km long by up to 4km wide) area of heavy mineral accumulation.

The shallow drilling down to the water table at 1m to 3m below land surface has intersected heavy mineral concentrations in the near beach, beach and overlying beach ridge and dune sands. While other beach and dune sequences deposited at lower past sea levels will occur below the present water table, deeper parts of the Holocene sequence will be more dominated by finer sands and heavy minerals concentrated and deposited in shallow water.

MANNAR ISLAND HEAVY MINERAL EXPLORATION

Exploration for heavy mineral sands has been carried out on Mannar Island since 2011.

TSL Tenements

This section is sourced, and largely copied from, 2014, 2015, and 2019 reports by GeoActiv (Badenhorst, 2014; Siebrits and Badenhorst, 2015; & Siebrits and Badenhorst, 2019a).

Supreme 2011

In July 2011, Technical Consultants of Supreme Solutions (Pvt) Ltd ("Supreme") reportedly completed a preliminary field visit to the island and collected an unspecified number of mineral sand samples from tidal, beach and berm zones. These samples were subject to mineralogical analysis and returned 5% to 25% heavy minerals.

GSMB 2011

In October and November 2011, a fieldwork exploration programme was carried out by the Sri Lankan Geological Survey & Mines Bureau ("GSMB"). Observational traverses were followed by auger-hole sampling across the tidal, beach and berm zones throughout much of the licences at a spacing of 10m to 60m on lines 200m apart perpendicular to the coastline. Of note is that the auger-hole sampling programme only encompassed a narrow section of the foreshore sediments, with very few holes located in the backshore sediments. In the tidal zone, each hole was typically drilled to a depth of 0.3m with a single sample being collected from each hole. In the beach zone, each hole was typically drilled to a depth of 1.0m with two samples being collected from each hole (0m to 0.5m and 0.5m to 1.0m). In the berm zone, each hole was typically drilled to a depth of 2.0m with between one and three samples were collected from each hole (0m to 0.5m, 0.5m to 1.0m and 1.0m to 2.0m m).

The samples were provided to Supreme and subsequently submitted to the VV Minerals (Pvt) Ltd laboratory in Tamil Nadu, India for mineralogical analysis. Heavy mineral separation and analysis was conducted on the -2mm +63µ fraction. The HM contents of the samples are displayed in Figure 7

Significantly, the GSMB did drill two outlying auger-holes in EL 180 that were located about 750m inland (Figure 7). Hole PP/DU99 was drilled to a depth of 2m and averaged 6.9% HM. Hole PP/BM103 was also drilled to 2m and averaged 12.4% HM. The grade within both holes was greater than the grade within nearby holes closer to the coast.

GeoActiv 2014

GeoActiv visited EL 180, EL 181, and EL 182 during March 2014 and confirmed the presence of heavy minerals within the areas drilled by GSMB (Figure 8).

During July and August 2014 GeoActiv carried out exploration on behalf of Srinel within EL180, EL 182, and EL 203 (Siebrits and Badenhorst, 2015). The programme was designed to:

- Drill infill holes where there were gaps in the GSMB data;
- Twin a reasonable percentage of the GSMB drill-holes;
- Do some minor checking of mineralisation inland of the GSMB drilling;
- Drill some of the areas and holes deeper than managed by GSMB; and
- Conduct some preliminary handheld auger drilling within EL 203.

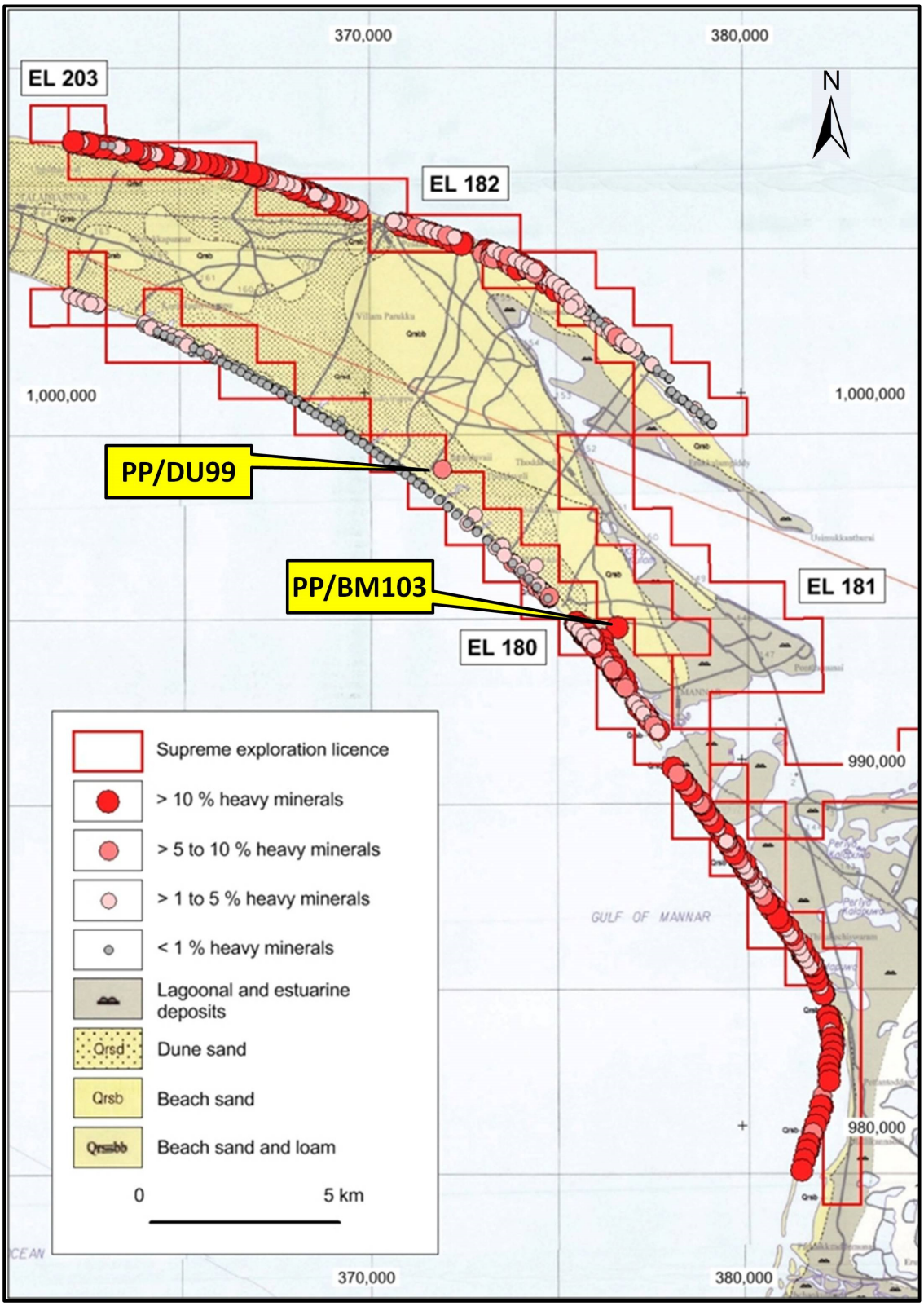

Figure 7 2011 Auger-hole results (from Badenhorst, 2014)

Figure 8 Pit dug into HM mineralisation within berm area (from Badenhorst, 2014)

Analytical work was to consist of TBE heavy fraction separation, followed by magnetic separation work to generate the different magnetic and non-magnetic fractions, followed by quantitative XRF and optical microscope work to determine the HM assemblage. Defendable QAQC procedures were to be carried out.

GeoActiv was also contracted to commission a satellite based (GeoEye) Digital Terrain Model ("DTM") and to carry out a "JORC compliant" resource estimation.

The exploration programme and the resource estimation were reported by Siebrits and Badenhorst (2015). They stated, "The exploration programme met all initial goals, ultimately proving the presence of significant amounts of heavy mineral mineralisation within the licenses."

A hand-held auger was used for the drilling, with a total of 103 new holes and 31 twinned holes drilled within the three licenses. The programme used a similar geological logging and sampling process to that carried out by the GSMB. The GeoActiv auger did manage to generally penetrate deeper than did the GSMB drilling (NS06 within EL182 was drilled to 3.7m), but below the water table sample recovery again presented difficulties.

Significantly, the deepest hole drilled, NS06, averaged 9.6% HM from 0m to 2m, 4.2% HM from 2m to 3.5m, and 2.6% from 3.5m to its base at 3.7m. NS06 was drilled within EL 182, about 270m inland.

Figure 9 shows the locations of the holes drilled during the programme.

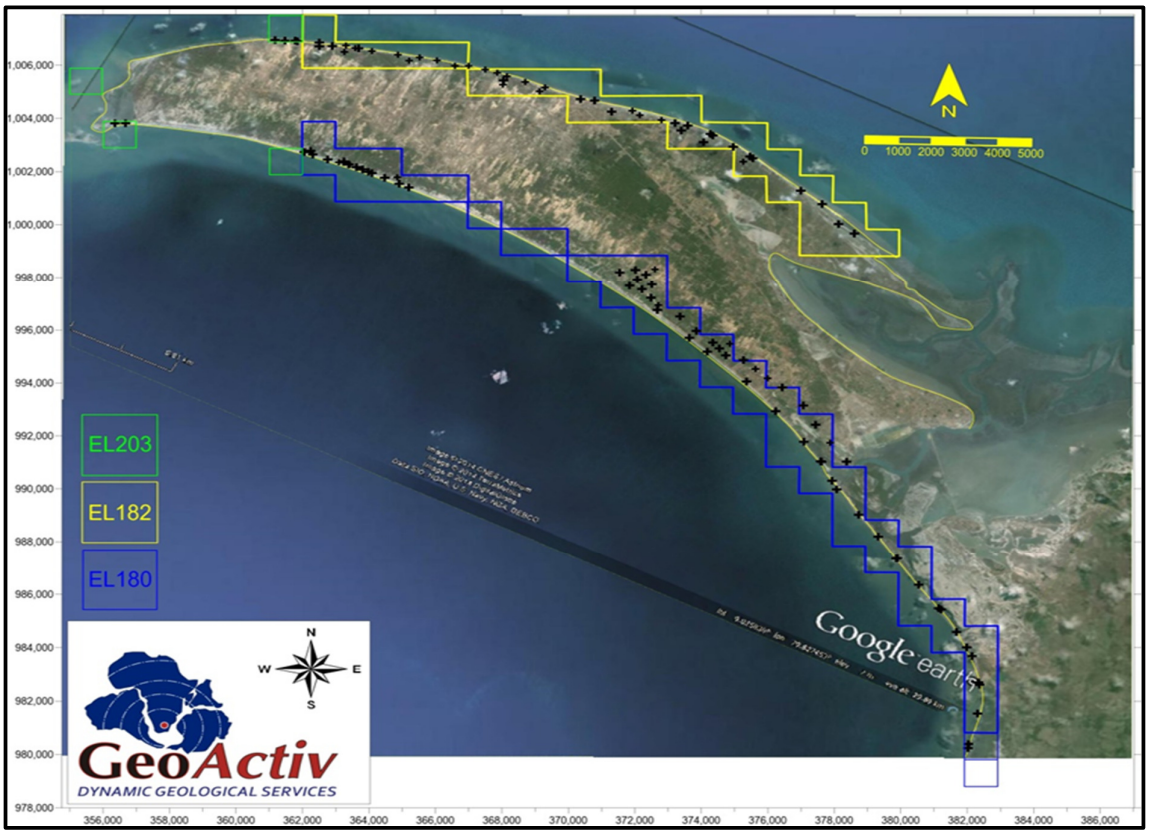

Figure 9 Locations of 2014 drill-holes (from Siebrits and Badenhorst, 2015)

The samples were analysed by Scientific Services CC in Cape Town, South Africa.

410 of the 468 samples were assumed by geological examination to have HM contents of at least 1% HM. These were de-slimed and subjected to TBE separation on the -1mm +45µ fraction.

Subsequently 152 composites were prepared from the heavy mineral fractions. The composites were subjected to magnetic separation into four separate fractions. The three main fractions from nine initial samples underwent mineralogical examination by Reyneke (2015), who estimated the average composition of the nine heavy mineral concentrates to be 45.7% Ilmenite, 12.7% Leucoxene, 2.5% Rutile, and 2.4% Zircon.

GeoActiv compared the THM% results from the 2011 GSMB and the GeoActiv 2014 drilling campaigns. The reported 0.5m composites from the earlier drilling had a mean THM content of 10.93%; and the 0.5m composites from the later drilling returned a mean content of 9.30%, i.e. 85% of the former. Consequently, GeoActiv decided to apply a factor of 85% to the THM% values from the earlier drilling and to use the derived values for its resource estimation.

GeoActiv 2015 Resource Estimate

GeoActiv (Pty) Ltd ("GeoActiv") prepared an Inferred Mineral Resource Estimation of the Mannar Mineral Sands Project for Srinel Holdings Limited (Siebrits and Badenhorst, 2015). The resource was announced to the ASX on 22 April 2015 by WVL. The resource, at a lower block cut-0ff of 2% THM, is set out in Table 4. Its location is shown in Figure 10.

Table 4 2015 Inferred Resources within TSL tenements at 2% THM lower cut-off

EL Area	Tonnes	%THM	%Silt	%Oversize	%Ilm*	%Leu*	%Rut	%Zir
180	4 049 063	11.78	1.89	12.06	5.61	1.35	0.13	0.24
182	5 978 984	11.67	2.17	6.79	5.49	1.32	0.22	0.28
203	304 063	11.71	2.69	1.15	5.42	1.50	0.25	0.25
Grand Total	**10 332 109**	**11.71**	**2.08**	**8.69**	**5.54**	**1.34**	**0.18**	**0.26**

GeoActiv stated, "As with the historic work, the new exploration programme was largely restricted to a narrow strip around the beach area, the drilling depth was also restricted due to the drilling technique and water table. Significant potential exists to increase the resource inland, but also to depth."

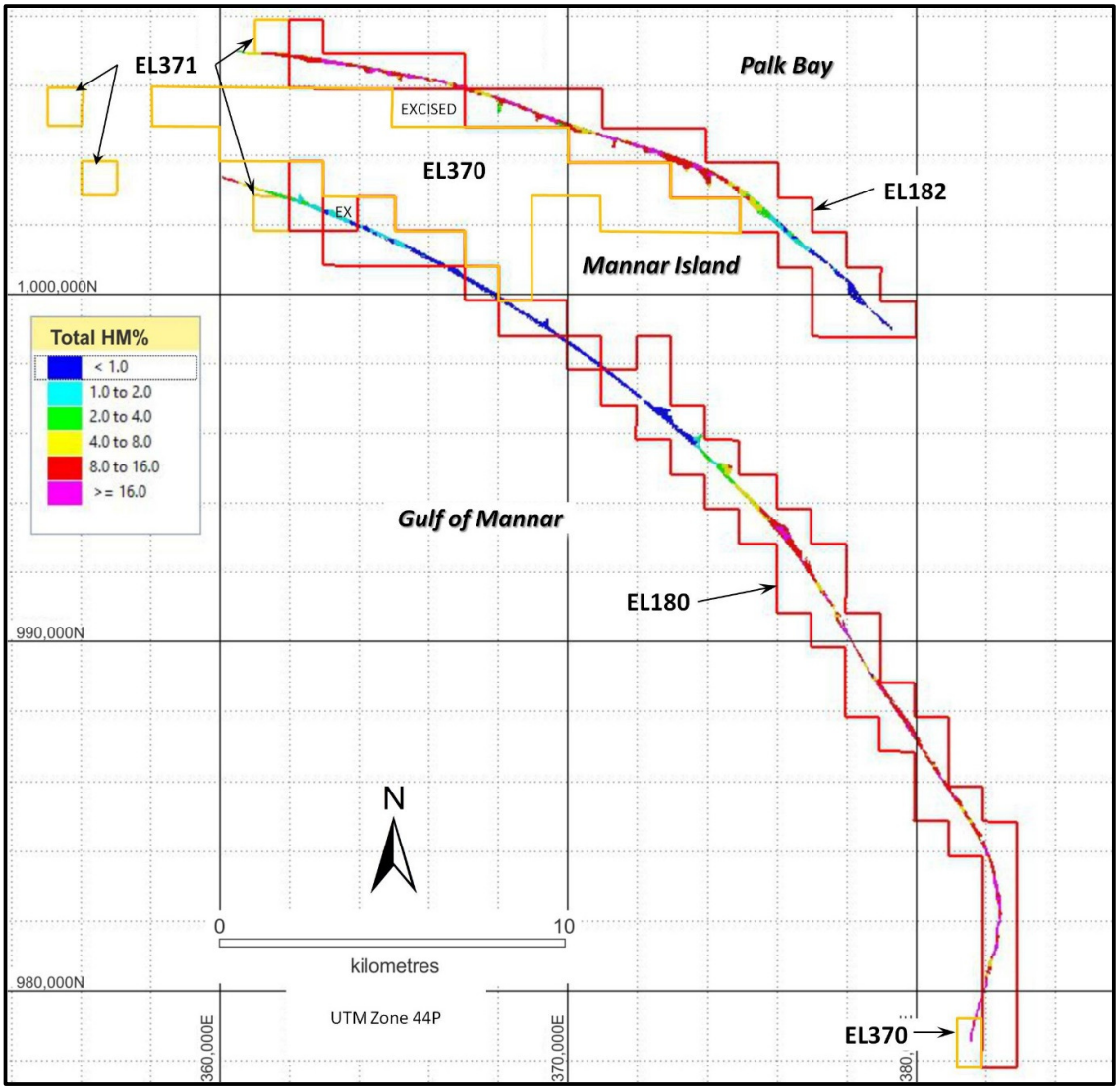

Figure 10 Plan of 2015 OBM – coloured by THM% (from Siebrits and Badenhorst, 2015)

Srinel 2016-2017 Drilling

Srinel Holdings Ltd ("Srinel") carried out a programme of hand auger drilling during 2016 and 2017 (Doepel, 2018). Analyses were carried out on samples from the 849 of the holes that contained visual HM concentration. Holes were drilled to the water table. Their average depth was 1.59m and the maximum hole depth was 6m.

The drilled mineralisation appears to have a strike length of around 12km and to extend up to 2.5km inland (Figure 11). 80% of the holes returned at least 2% THM, had an average grade of 4.9% THM, and a weighted average grade of 5.2% THM. The maximum THM content was 26.6%. Mineralisation was present from the surface.

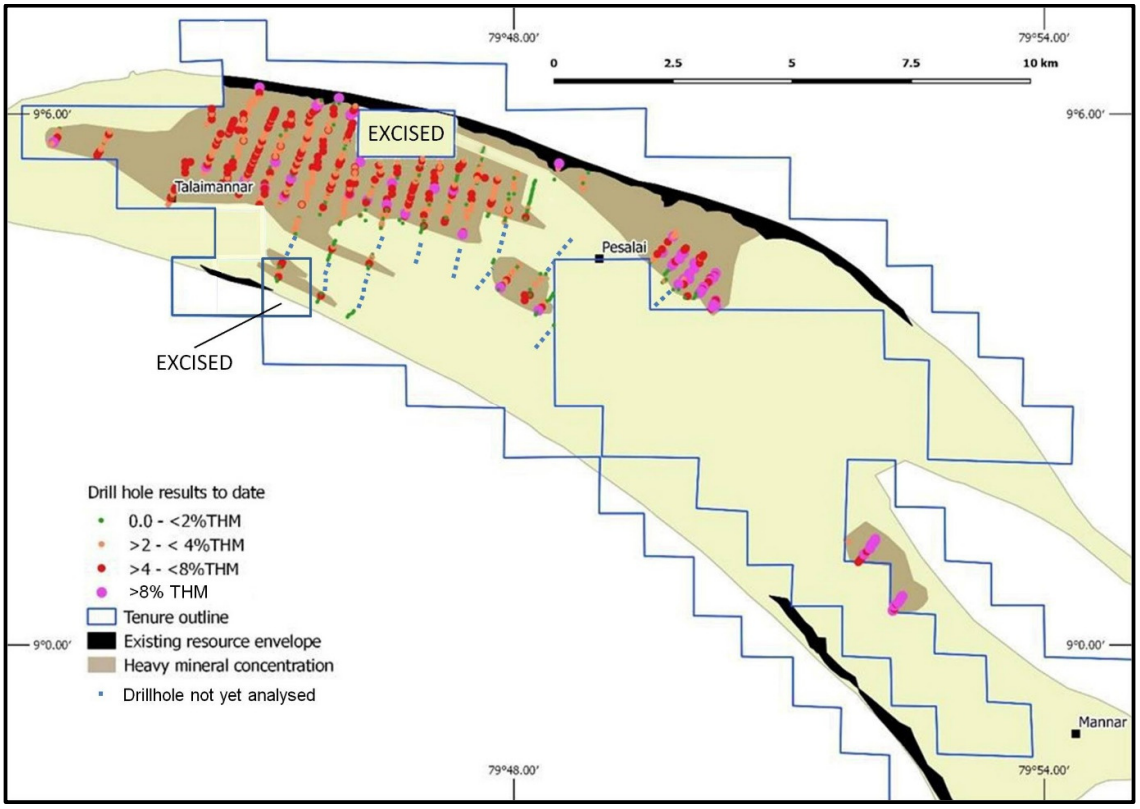

Figure 11 2016 and 2017 auger-hole results (after TSL announcements)

GeoActiv 2017 QAQC Drilling

GeoActiv carried out a QAQC due diligence 53-hole twin drilling programme during August 2017 (GeoActiv was not involved in the initial programme). The drilling was carried out to the exact documented procedures used by the client, using same staff. The work took place under the supervision of Kobus Badenhorst of GeoActiv. As this drilling programme took place in a very dry period and the ground water table was lower, several of the holes manage to obtain deeper depths than during the exploration drilling programme.

Bulk Density Determinations

During the site work by GeoActiv in 2017, bulk density determinations were carried out at 55 sites directly adjacent to the exploration drill-holes. The sites were spread throughout the TSL licenses. Square 0.5m deep holes were carefully dug and the extracted sand weighed wet and dry. The sides of the holes were lined out with very thin plastic sheeting and the volume of the holes were determined

by measuring the volume of water needed to fill the holes. In several of the sites another hole was done at the base of the first 0.5 m hole to a total depth of 1.0 m, with a total of 59 tests carried out

The results indicated an SG of 1.76 t/m^3 for the mineralisation within Domain 1, of 1.74 within Domain 2, and of 1.75 within Domain 3 (see Figure 12).

Analysis

Initial sample preparatory work was done at the office in Pesalai on Mannar Island. Desliming at -45 microns and oversize removal at +1mm took place there. Duplicates were prepared from about every 20th sample. Kobus Badenhorst conducted an audit of the facility and found the procedures were being followed diligently, with weight information collected at all the applicable stages of the process and that the sampling equipment and sample handling where appropriate.

The +45micron -1mm samples were then couriered to Scientific Services CC ("SS") in Cape Town, South Africa. Duplicate samples were also sent to Diamantina Laboratory in Perth for laboratory referee checks. The sample size for the HM determination varied from 150g to 250g.

The THM percentage was defined as: THM% = heavy minerals weight / (slime weight + sand weight + oversize weight) * 100. The THM% determined by SS was calculated using the slime weight + sand weight + oversize weight that were determined on Mannar to report the THM% of the original sample.

Mineralogy 2018

Reyneke (2018) carried out mineralogical investigations on four composite HM concentrates obtained from the 2017 drilling. The concentrates came from eight drill-holes, of which six were within excised tenure (see Figure 2). Each composite was separated into three fractions; Magnetic, Magnetic Other, and Non-Magnetic. Each sub-sample was split and analysed by XRF, micro-phase XRD, and point-counting. The results were used to estimate the mineral assemblages within the resource estimate that was to be carried out on both the TSL and Bright Angel licences.

Results included:

- The Valuable Heavy Mineral ("VHM") content averaged 63%;
- Micro-phase analysis of 17 ilmenite grains gave an average TiO_2 content of 52.6%;
- Micro-phase analysis of 10 leucoxene grains gave an average TiO_2 content of 70%; and
- Micro-phase analysis of 21 zircon grains gave an average ZrO_2 content of 66.5%.

2019 MINERAL RESOURCE ESTIMATION

This section is sourced, and largely copied from, a 2019 report by GeoActiv (Siebrits and Badenhorst, 2019a).

Introduction

TSL commissioned GeoActiv (Pty) Ltd to conduct a Resource Model, a Mineral Resource statement, and a JORC compliancy Report on the Heavy Mineral Sands exploration licenses they hold on Mannar Island. GeoActiv referred to this tenure as Area 1.

The mineralisation within the TSL tenure is continuous with that within the adjoining Bright Angel tenure (GeoActiv Area 2). The resource modelling for both areas was carried out within the same OBMs.

Three OBMs were constructed: Domain 1 OBM, Domain 2 OBM, and Domain 3 OBM (Figures 12 and 16). Figure 15 shows the domain boundaries and the 2016-2018 drill results within the TSL tenure.

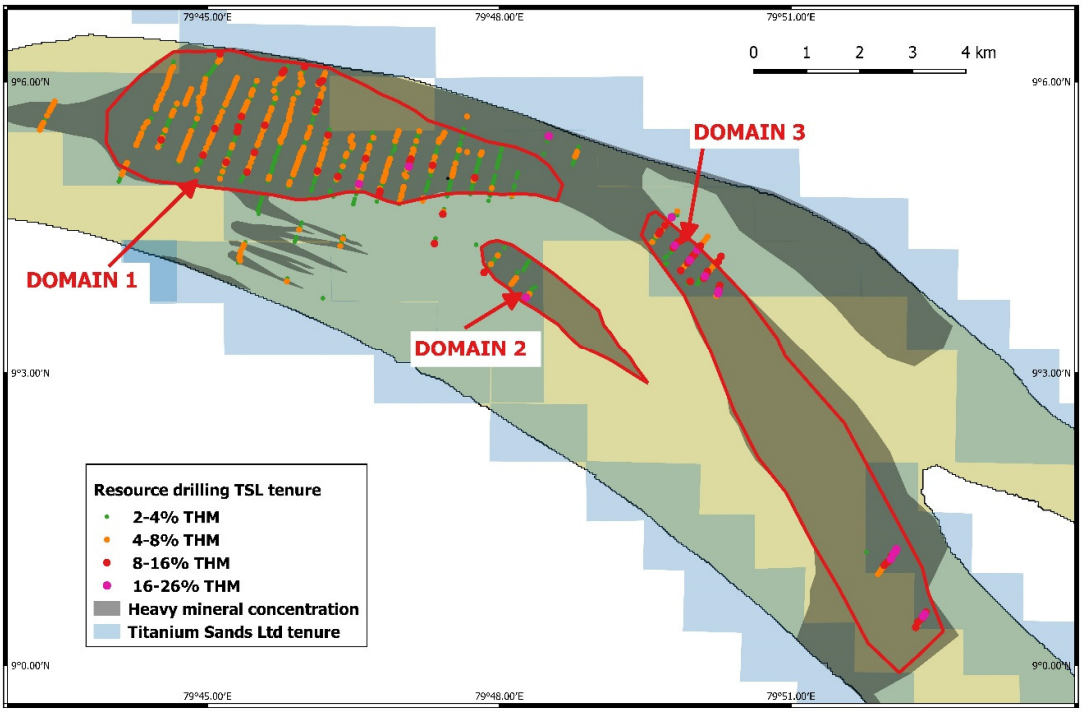

Figure 12 Mannar Island mineralisation, Auger-hole HM results within TSL tenements, and Domains used for 2019 resource estimation

Modelling

All drill-holes containing >= 2% THM were used to delineate the mineralisation domains. A detailed digital terrain model ("DTM") that covered the exploration areas was used for the top of the mineralisation per domain with the domain boundaries clipped onto it. The mineralised area was generally extended to half the distance of the distance between the drilling lines. The end depths of the drill-holes were used as the floor of the mineralised areas for which wireframes were created.

Input assays were composited to 0.5m intervals.

Resource Estimation

Siebrits and Badenhorst (2019a) stated,

"Grade interpolation was implemented with hard boundary conditions by domain area. The recent 0.5 m composite data per domain was used for the estimation of the THM, silt and oversize. The 0.5 m composite data of the magnetic separation and XRF data were used for the estimation of the variables; CI_yield, MO_yield, NM_yield, CI_TiO2, MO_TiO2, NM_TiO2 and NM_ZrO2. Inverse distance to the power of 3 was used for *in situ* grade interpolation for all the variables in the three domains.

Calculated attributes were created in the block model for the calculating of the minerals; ilmenite, leucoxene, rutile and zircon…"

Block Model Parameters

A single block model was created with parent block size of 100m x 100m x 2m and sub-block size of 25m x 25m x 0.5m. The resource blocks were constrained by the boundaries of the DTM and the water table.

Specific Gravity ("SG")

GeoActiv applied a SG of 1.76 t/m^3 to the mineralisation within Domain 1, 1.74 within Domain 2, and 1.75 within Domain 3.

Ore Block Model

A plan of the resultant OBM is presented in Figure 16, coloured by grade. The resource mineralisation extends into the adjacent proposed acquisition tenure.

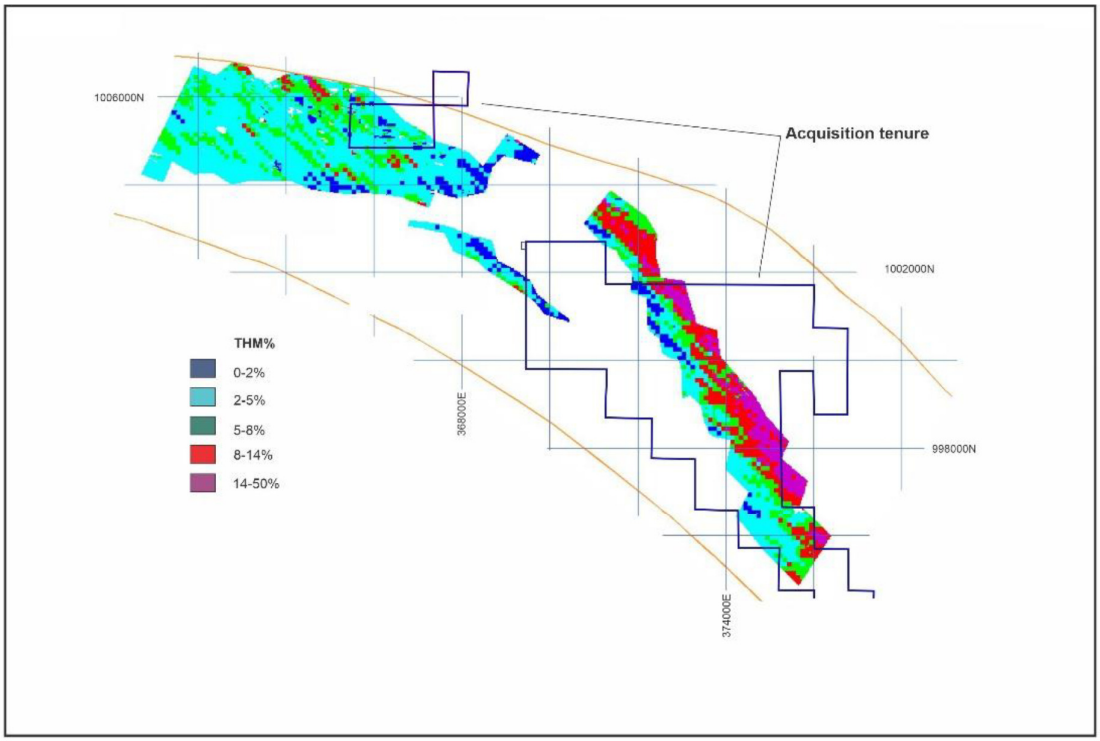

Figure 13 Plan of 2019 OBM within TSL and proposed acquisition tenements – coloured by THM% (from Siebrits and Badenhorst, 2019a)

The estimated resources for Domains 1, 2 and 3 within the TSL tenure are set out in Table 5.

Table 5 TSL Inferred Resources at 2% THM lower block cut-off grade

Domain	Licence	Volume (Mm^3)	Tonnes (M)	THM %	Silt %	Oversize %	Ilm %	Leu %	Rut %	Zir %
1	EL182	5.07	8.92	5.16	1.88	9.76	2.45	0.45	0.12	0.13
	EL370E	1.43	2.52	3.01	0.55	3.80	1.29	0.24	0.07	0.05
	EL370W	11.35	19.98	4.16	0.56	1.50	1.86	0.35	0.10	0.09
	Sub Total	**17.85**	**31.42**	**4.35**	**0.93**	**4.03**	**1.98**	**0.37**	**0.11**	**0.10**
2	EL180	0.15	0.25	3.62	0.50	8.11	1.20	0.18	0.04	0.03
	EL181	1.60	2.78	12.81	0.63	24.08	6.45	0.96	0.16	0.25
	EL182	0.001	0.001	5.36	1.22	10.34	2.63	0.99	0.09	0.15
	EL370E	3.92	6.82	7.74	0.87	20.85	3.58	1.17	0.12	0.17
	Sub Total	**5.66**	**9.85**	**9.06**	**0.80**	**21.43**	**4.32**	**1.08**	**0.13**	**0.19**
3	EL370W	0.85	1.48	3.55	0.40	0.65	1.66	0.31	0.09	0.08
	Sub Total	**0.85**	**1.48**	**3.55**	**0.40**	**0.65**	**1.66**	**0.31**	**0.09**	**0.08**
Grand Total		**24.36**	**42.76**	**5.41**	**0.88**	**7.92**	**2.51**	**0.53**	**0.11**	**0.12**

Resource Statement

The 2019 resource estimate, at a lower block cut-0ff of 2% THM, is set out in Table 6, along with the 2015 estimate.

Table 6 2015 and 2019 Inferred Resources within TSL tenements at 2% THM lower cut-off

Estimate	Tonnes (M)	THM %	Silt %	Oversize %	Ilmenite %	Leucoxene %	Rutile %	Zircon %
2015	10.33	11.71	2.08	8.69	5.54	1.34	0.18	0.26
2019	42.76	5.41	0.88	7.92	2.51	0.53	0.11	0.12
Totals	**53.09**	**6.63**	**1.11**	**8.07**	**3.10**	**0.69**	**0.12**	**0.15**

TSL's Mannar Island Heavy Mineral Project contains total **Inferred Resources of 53.09Mt @ 6.63% THM**, 1.11% clay, and 8.07% oversize.

TSL 2018 - 2019 EXPLORATION

TSL carried out a further hand auger drilling programme during 2018 within the area of the resources reported in 2019. The majority of the programme consisted of infill drilling within the existing resource envelope, reducing the drilling pattern to 50m spaced holes on 200m spaced lines, with the intention of upgrading the resource from Inferred to Indicated status (TSL ASX Announcement August 15, 2019). Extensional drilling was also carried out to the east and southeast of Pesalai. The locations of the holes are shown on Figure 14.

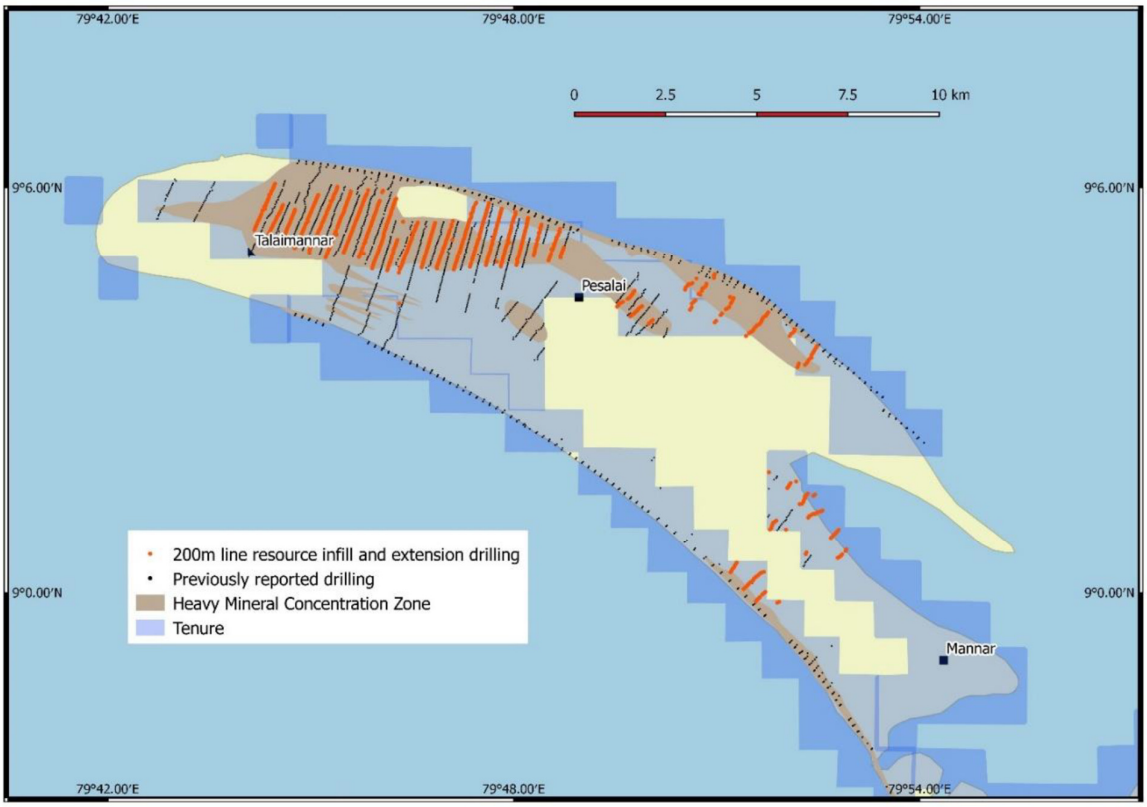

Figure 14 2018 infill and extensional auger-drill hole locations (from TSL ASX announcement 15/08/2019)

Results from 357 of the drill holes have been received to date (Figure 15). Of the 357 drill holes analysed, 330 returned intercepts between 2% and 24% THM. Of these 126 were located outside the previously defined resource. All these mineralised intercepts are from surface. Drilling was to the water table at 2m to 5m depth.

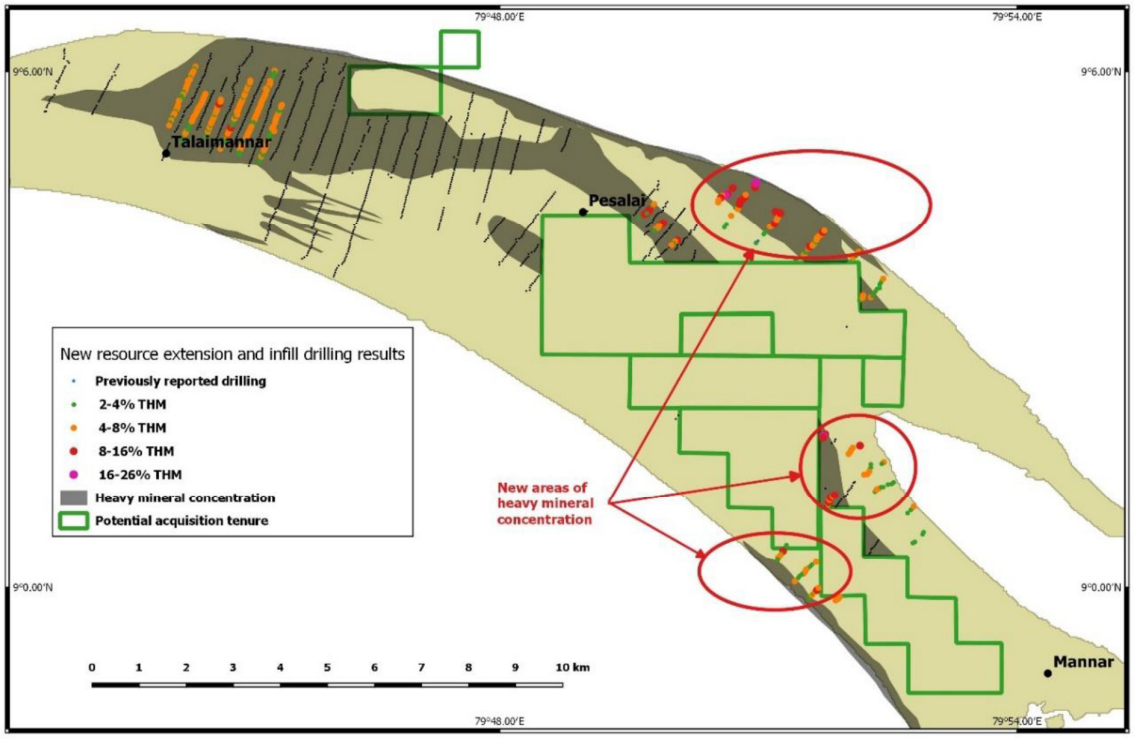

Figure 15 2018 infill and extensional auger-drill results (from TSL ASX announcement 15/08/2019)

The infill lines confirmed the tenor of the mineralisation in the previous lines.

TSL 2019 Air-core Drilling

In August 2019 TSL commenced a 550 to 600 hole air-core drilling program to test beneath the existing shallow high grade resources, which are above the water table**.** To mid- October 255 holes were completed for a total of 3048m. Holes were drilled into both TSL tenure and proposed acquisition tenure (Figure 16). Nominal target depth for the program was 12m below surface, which equates to 9 to 10m below the water table and the overlying high-grade resource blanket. The planned programme is scheduled for completion in December.

Of the 255 holes, all but 22 were found to contain significant to very significant THM concentrations below the water table. The visual logging of THM % is shown in Figure 16. The results indicate that there is the potential for the delineation of further significant resources beneath the existing near-surface resources.

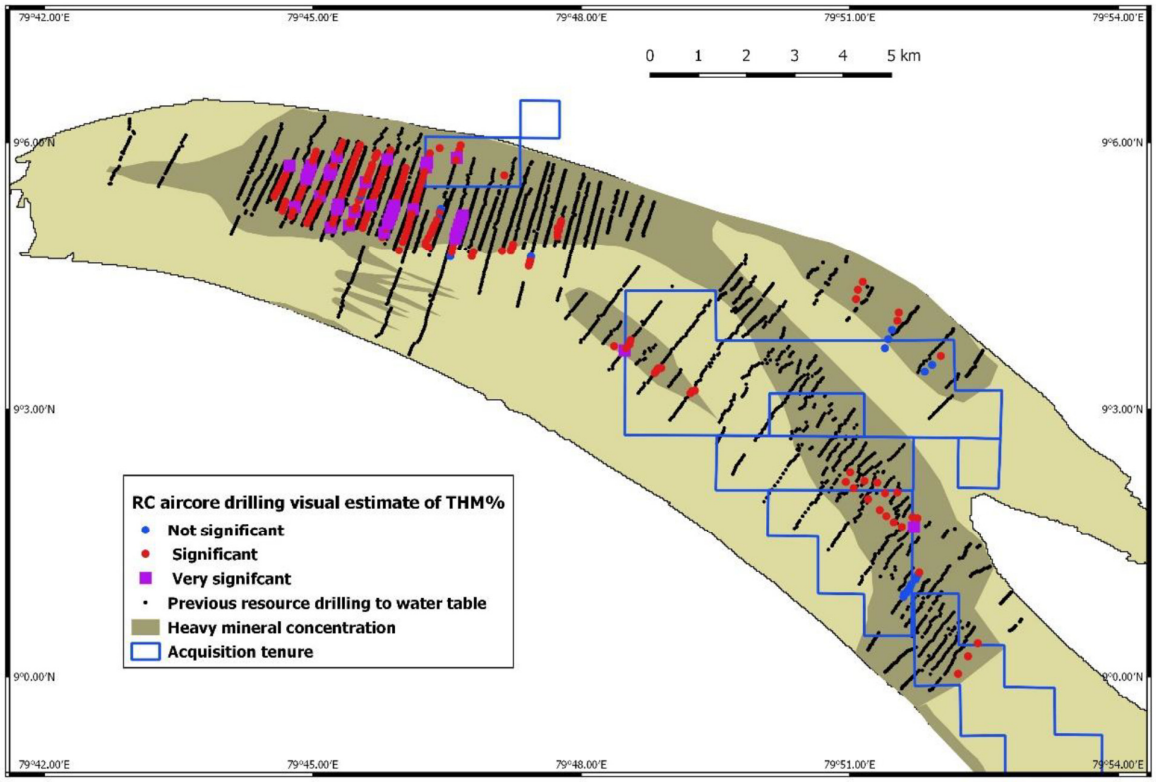

Figure 16 Air-core drilling August to October 2019 showing visual estimates of THM% (from TSL ASX announcement 30th October 2019)

Laboratory results have been received for the first 52 holes. The results confirm the visual logging of THM%, with the average laboratory result being 13% higher than the visual estimate. Figure 17 is a graph of THM% versus sample depth for the 379 results received to date from holes drilled within TSL tenure. It is clear that significant HM mineralisation is present down to a depth of at least 10m.

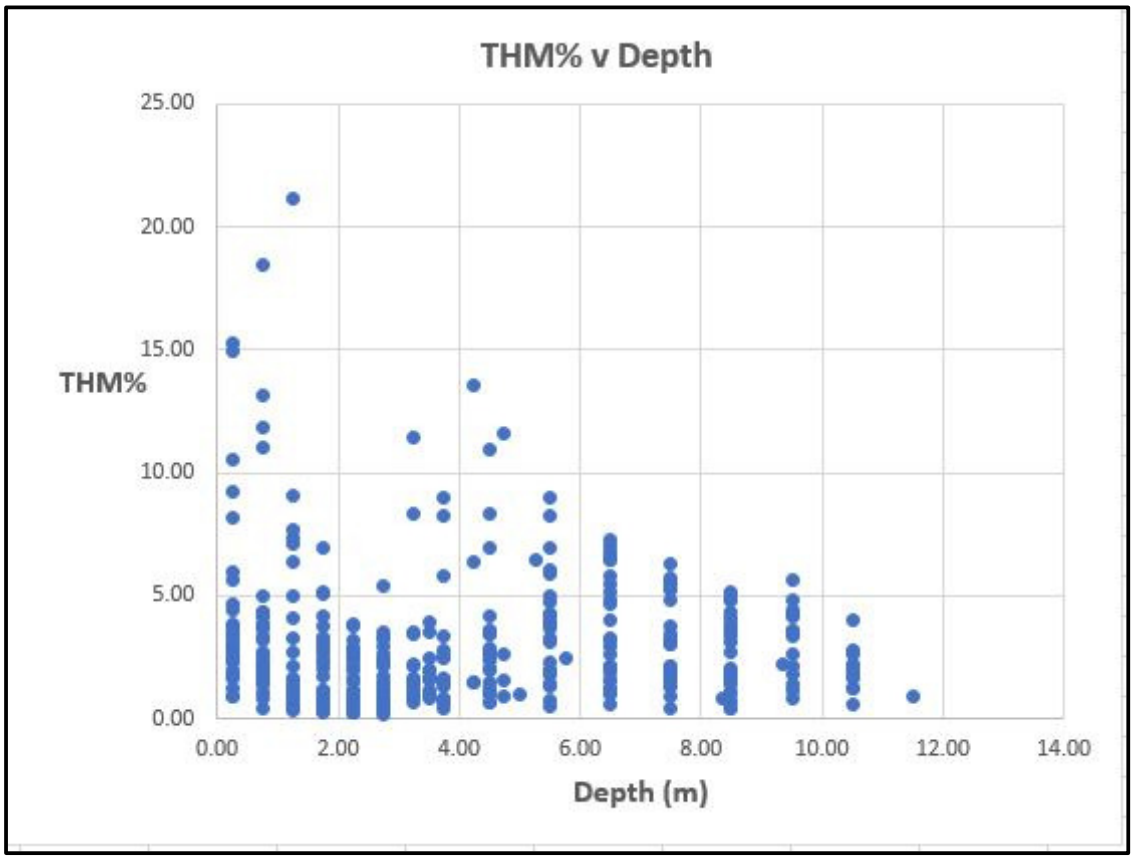

Figure 17 Graph of THM% versus Depth for analysed air-core samples within TSL tenure

Figure 18 shows analytical results on drill-hole locations to 1st December 2019.

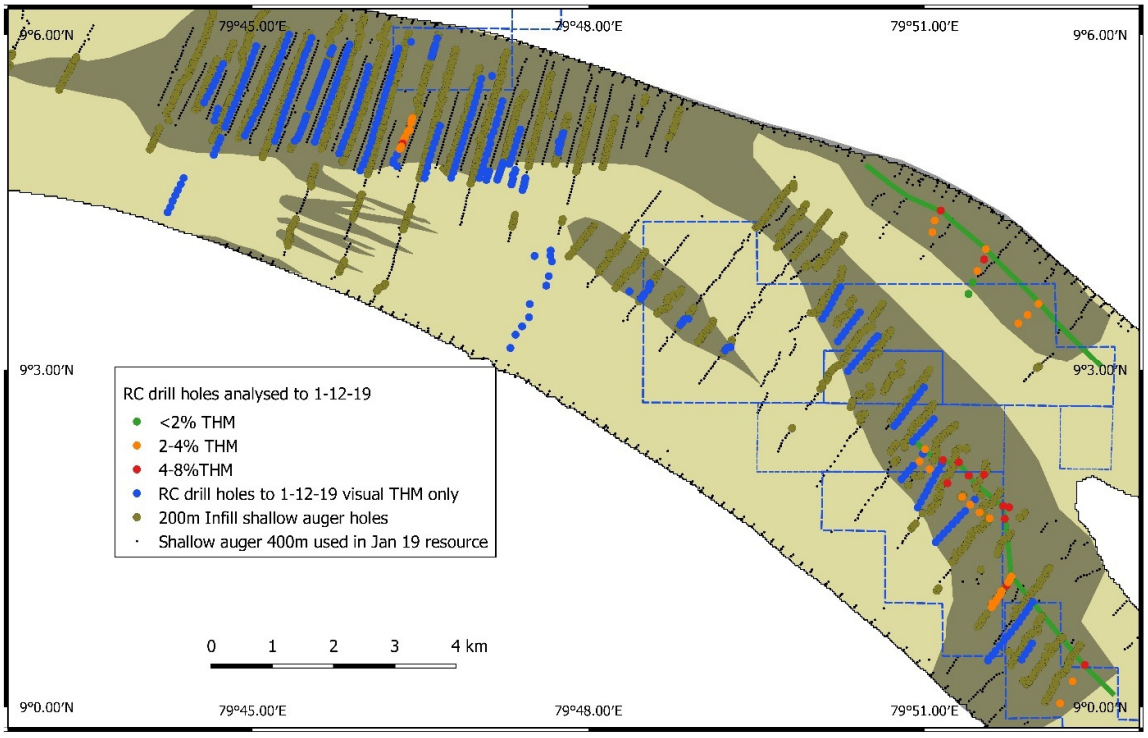

Figure 18 Air-core analytical results to 1st December 2019

Visual estimations from the 17 holes in the two southern-most lines in the west (shown as blue dots on Figure 18) show significant THM% between 4m and 12m depth. The observationsw indicate significant potential for increased resources.

COMMENTS ON EXPLORATION & RESOURCES

Exploration Coverage

Although the hand-auger exploration drilling has systematically covered significant portions of the tenure and has clearly shown the distribution and THM grades down to the water-table in these areas (Figure 18), the recent deeper air-core holes that were drilled away from the area of systematic coverage have shown the potential for significant additional areas of resource; and those deeper holes within the areas of already delineated shallow resources clearly show the potential for significant additional significant resources below the shallow water table.

Drilling, Sampling, and Testing Methodologies

The drilling and sampling methodologies, as described by Siebrits and Badenhorst (2019a), were reasonable to achieve good standard sampling above the water table, which was the base of drilling.

The laboratory separations, as described by Siebrits and Badenhorst (2019a), were carried out to industry standards and the results from them should adequately reflect the grade of the mineralisation.

GeoActiv carried out the twin-hole drill programme of 53 holes. The average HM grade of the GeoActiv samples was 1% lower than that of the 2017 samples.

Quality Assurance Quality Control ("QAQC") samples were inserted according to industry standards by GeoActiv and by the laboratory.

Drilling Coverage

The hand-auger drill coverage, as shown on Figure 12, adequately sampled the HM mineralisation in above the water table and was adequate to provide grade data for the estimation of the Inferred Resources in the area covered.

The hand-auger programme, however, did not test potential mineralisation below the water table, which the recent air-core drilling has shown contains significant mineralisation. Nor did it test the full area of the tenements, although it should be noted that some of the undrilled tenure is urban or sub-urban.

Resource Estimation

The resource estimation carried out by GeoActiv was well documented and was carried out to industry standards. The interpolation methodology was suitable for the deposits, the block size suitable for the sample spacing, and the sample compositing was also suitable.

CRM has reviewed the input and output grades, both globally and locally, and found them to be comparable.

For the global comparisons, CRM examined the statistics provided by GeoActiv for the composited input assays and the output block grades for the three domains. For Domain 1 the input assays averaged 2.8% lower than the output grades; for Domain 2, 14% lower; and, for Domain 3, 17.5% higher.

For the local comparisons, CRM loaded the drill-hole database and the OBM into the mining and exploration software program Micromine; and then viewed sections through the deposit, comparing the drill-hole HM grades with the interpolated block grades. CRM found that the variation in block model grades followed the variation in input assay grades.

CRM is of the opinion that the grade of the estimated resources reasonably reflects the grade of the mineralisation within the resource boundaries.

Resource Classification

Siebrits and Badenhorst (2019a) classified the resources as Inferred, stating, "The resource classification was primarily based on the drillhole density and the variability of the data. The drillhole lines were generally 400 m apart and the drillholes 50 m apart on the drilling lines. This gave a good coverage of the areas to be able to create the three domains. The high variances of the variables lower the confidence of the estimates in the block model. The high variability of the field duplicates, referee lab duplicates and between the twinned drillholes, result in a lower confidence in the estimates. The highest variances were within the oversize % and it directly influences the THM %. No QAQC were done on the oversize %, except with the twinned drillholes where the precision and accuracy was poor. With all the above taken into account, all the Mineral Resources were classified as Inferred."

CRM agrees with this classification, as, although the tonnage, grade, and mineral content have been estimated with a degree of confidence, they have not been estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit, which would have enabled them to be classified as Indicated.

CRM is of the opinion that the recently released drill results have shown continuity of mineralisation throughout the resource area.

The VHM mineral assemblage is appropriate for standard industry separation processes, the estimated slimes content (1.11%), which is low compared to many other deposits, and the fact that the mineralisation extends to the surface throughout the deposit, makes the potential for the economic viability of the deposit high. Given these Modifying Factors it is reasonable to expect that the VHMs could be recovered economically. CRM envisages no significant technical risks for the deposits.

VALUATION

For this Mineral Asset Valuation, it is CRM's opinion that:

1. The Mineral Resources should be valued on the basis of their Valuable Heavy Minerals, rather than on the basis of their Total Heavy Minerals; and
2. The Mineral Resources should be valued on the basis of their mineral assemblage.

The valuation is based upon:

1. An analysis of comparable transactions, with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves; and
2. Exploration Expenditure on the Mineral Asset.

A Yardstick Method check was carried out to confirm that the valuation was fair and reasonable. The method involved the use of the estimated HM Resources, current mineral prices, and an accepted discount for resource category.

Previous Valuation

CRM carried out a previous valuation of TSL's Mannar Island Project Mineral Assets in November 2017 (Doepel, 2017).

CRM considered the value of the Mineral Assets to be within the range of $1.8 million to $4.35 million, with a preferred value of $3.1 million. The Mineral Assets valued were restricted to those tenements that had been granted (ELs 180 and 182). The valuation was based upon exploration expenditure to November 2017 and Inferred Resources of 10.3Mt @ 11.7% THM.

This current valuation is based upon five granted tenements, exploration expenditure to December 2019, and Inferred Resources of 53.1Mt @ 6.6% THM.

Comparable Transactions

CRM has examined eleven transactions involving HM deposits. The transactions took place between 2010 and 2017.

To compare the different transactions, CRM converted the various mineral assemblages to "Ilmenite Equivalent %" ("Il Eq %"), using the following factors:

- <54% TiO_2 Ilmenite 0.9
- Ilmenite 1
- Garnet 1.1
- Altered Ilmenite 1.75
- HiTi 3.2
- Leucoxene 4.35
- Rutile 4.5
- Zircon 5.8

For example, a deposit containing only zircon as a valuable HM grading 2% would be given an Il Eq grade of 11.6% (2 x 5.8); and a deposit grading 2% ilmenite and 2% zircon would be given an Il Eq grade of 13.6% [(2 x 1) + (2 x 5.8)]

The factors were based on the following USD prices, ascertained on or about 28 September 2017 (Industrial Minerals, 2017):

- <54% TiO_2 Ilmenite $160
- Ilmenite $160 - 185
- Garnet $190
- Altered Ilmenite $300
- HiTi $550
- Leucoxene $700 - 800
- Rutile $710 - 850
- Zircon $950 – 1050

The transactions are briefly described below and are summarised in Table 4. They are ordered in terms of decreasing grade, with the Bright Angel's Mannar Island Deposit included.

In the case of TSL's Mannar Island Deposit, however, recent prices have been used to determine its Ilmenite equivalent grade, based upon figures for standard products supplied by TZMI on 31st July 2019 :

Product	Low (US$/t FOB)	High (US$/t FOB)	Mean (US$/t)	Ratio
Sulfate ilmenite	145	240	192.5	0.9
Chloride ilmenite	180	250	215	1
Bulk rutile	1000	1140	1070	5
Leucoxene (70-90% TiO2)	270	1000	270*	1.25
Zircon (65-66% ZrO2)	1420	1640	1530	7.1

* Mannar Island Leucoxene analyses averaged 70% TiO_2

Metal Sands' Cooljarloo Joint Venture

In July 2011 Image Resources NL ("Image") purchased Metal Sands Pty Ltd's 30% interest in Image's Cooljarloo Joint Venture for $100,000 cash and 3M Image shares (subject to a 1 year escrow) (ASX:IMA announcement 29 July 2011). At the time Image shares had been trading around 44c. Applying a 10% discount to this price for the escrow period, CRM assumes that the 3M shares had a value of $1.188M; and that the total consideration had a value of $1.288M.

The Joint Venture, in the Perth Basin, WA, contained the Atlas Deposit, which had, at a 2.0% cut-off, Indicated and Measured Resources of 0.878Mt of HM with an assemblage comprising 56% Ilmenite, 3% HiTi, 1.1% Leucoxene, 7.0% Rutile, and 10.6% Zircon, for an Il Eq grade of 13.7% and Il Eq tonnage of 1.37Mt. The resources were 5% Indicated and 95% Measured.

As the transaction was for a 30% interest in the deposit, the consideration of $1.288M was for 0.49Mt of Il Eq HM, which gives a value of $2.63/t.

Image Resources' Perth Basin Projects

In April 2015 Image announced the signing of a non-binding Memorandum of Understanding ("MOU") with Murray Zircon Pty Ltd ("Murray Zircon") whereby Murray Zircon would acquire 42% of Image's consequently expanded shares. Image's major assets were its Perth Basin Boonanarring and Atlas HM Deposits (ASX:IMA announcement 30 April 2014). A major point of the agreement was for Murray Zircon to provide plant and equipment valued at ca. $20M; and CRM assumes that the transaction had this value. The transaction was settled in June 2016.

At the time of the announcement the Boonanarring and Atlas Deposits had a mining inventory containing 2.135Mt of HM grading 50.1% Ilmenite, 4.2% Leucoxene, 5.1% Rutile, and 19.0% Zircon. 92% of the inventory was of Probable Reserves and the reminder was of Inferred Resources ((Image 2015 Annual Report). CRM has estimated that the inventory had an Il Eq grade of 16.0% and contained VHMs of equivalent value to 4.30Mt of Ilmenite.

In addition to the Boonanarring and Atlas Deposits, Image's Gingin Nth, Gingin Sth, Cooljarloo Nth, and Red Gully Deposits had Total Resources containing 1.905Mt HM (Image 2015 Annual Report). CRM has estimated that these resources had an Il Eq grade of 9.6% and contained VHMs of equivalent value to 3.04Mt of Ilmenite. The contained tonnes of Il Eq minerals comprised 4% Measured Resources, 78% Indicated Resources, and 18% Inferred Resources.

For Image's total mining inventory and resources, the contained tonnes of Il Eq minerals comprised 54% Probable Reserves, 2% Measured Resources, 32% Indicated Resources, and 12% Inferred Resources.

As the transaction was for a 42% interest in the Image, CRM has assumed the $20M to be for 42% of Image's total mining inventory and resources, i.e. for 42% of 7.34Mt of Il Eq HM 3.08Mt). Thus, CRM values the transaction at $6.49/t Il Eq HM.

Iluka Resources' Gingin Deposit

In March 2011 Image reached agreement to acquire four Mining Leases from Iluka Resources Limited ("Iluka") in consideration for $190,000 cash and 1.2M Image shares (subject to a 1 year escrow) (ASX:IMA announcement 9 March 2011). At the time Image shares had been trading around 45c. Applying a 10% discount to this price for the escrow period, CRM assumes that the 1.2M shares had a value of $486,000; and that the total consideration had a value of $676,000.

The Mining Leases were in the Perth Basin, WA near Gingin. They contained four deposits that together had resources at a 2.5% HM cut-off, of 0.955Mt HM with an assemblage comprising 58.9% Ilmenite, 7.7% Leucoxene, 3.4% Rutile, and 11.3% Zircon, for an Il Eq grade of 11.6% and Il Eq tonnage of 1.65Mt. The resources were 26% Inferred, 44% Indicated, and 30% Measured.

As the transaction was for a 100% interest in the deposits, the consideration of $0.676M for 1.65Mt of Il Eq HM gives a value of $0.41/t.

Relentless Resources's Murray Basin Deposits

In June 2017 Broken Hill Prospecting Ltd ("BHM") announced the transfer of BHM's 50% Participating interest in the Farm-In and Joint Venture Agreement between BHM and Relentless Resources Limited ("RRL") (ASX:BPL announcement 28 June 2017). The agreement was for $2.35M. The agreement was settled in September 2017.

The agreement covered tenements containing the Copi North and Magic HM Deposits, which, at the time of the announcement, had Indicated and Inferred Resources containing 1.47Mt HM, the combined assemblage of which contained 52% Ilmenite, 12% Zircon, 9% Rutile, and 10% Leucoxene. CRM has estimated that the resources had an Il Eq grade of 10.7% and contained VHMs of equivalent value to 3.12Mt of Ilmenite, of which 53% was Inferred and 47% was Indicated.

As the transaction was for a 50% interest in the tenements, the $2.35M can be assumed to be for 1.56Mt of Il Eq HM, or $1.51/t.

Image Resources' Cyclone Extended Project 2014

In November 2014 Diatreme Resources Limited ("Diatreme") announced the execution of a conditional purchase agreement with Image whereby Diatreme would acquire Image's remote WA Eucla Basin tenement that included the Cyclone Extended HM resource (ASX:DRX announcement 11 Nov. 2014). The agreement was for 0.435M cash plus an 1% royalty at an agreed value of $0.435M. CRM assumes that the transaction had a value of $0.87. The agreement was settled in March 2015.

At the time of the announcement the Cyclone Extended Deposit had reported Indicated Resources of 25.7Mt @ 3.2 % HM (using a 2.0% HM cut-off) for 0.819Mt of HM, the assemblage of which contained 20% Zircon, 12% Rutile plus Leucoxene, 39% HiTi, and 21% Altered Ilmenite. CRM has estimated that the resources had an Il Eq grade of 10.6% and contained VHMs of equivalent value to 2.71Mt of Ilmenite.

As the transaction was for a 100% interest in the deposit, the $0.87M can be assumed to be for 2.71Mt of Il Eq HM, or $0.32/t.

Austpac Resources' WIM 150 Deposit

In August 2012, Austpac Resources N.L. ("Austpac") agreed to sell its 100% interest in EL 4521 to Orient Zirconic Resources (Australia) Pty Ltd ("Orient Zircon") for $7.5M, subject to the consent of Australian Zircon N.L. ("AZC") as farminee. AZC had the right to earn 80% of the WIM 150 Deposit, which is within the tenement, by completing a Bankable Feasibility Study. AZC announced on 6 September 2013 that it had earnt the 80%. CRM assumes that Austpac and Orient Zircon were aware that this was likely to happen and that the $7.5M was for a likely 20% of the deposit.

In August 2012 the deposit had, at a cut-off of 2% HM, 750Mt of Reserves, containing 7.5Mt of Rutile & HiTi, 12.5Mt Ilmenite, and 5.1Mt Zircon, for an Il Eq grade of 9.4% and Il Eq tonnage of 70.2Mt.

As CRM assumes that the transaction was for a 20% interest in the project, the consideration of $7.5M for 14Mt of Il Eq HM gives a value of $0.54/t.

Diatreme Resources' Cyclone Zircon Project 2013

In July 2013 Diatreme announced a Farm-in Commitment for its Cyclone Zircon Project, which is in the remote Eucla Basin of WA. The farm-in was for $2.0M to earn a 6% Equity in the project (ASX:DRX announcement 26 July 2013). The agreement was signed in January 2014 and payments were completed in September 2014. The farm-in was to Perpetual Mining Holding Limited.

At the time of the July 2013 announcement the Cyclone Deposit had Probable Reserves of 97Mt @ 2.5% HM for 2.41Mt of HM, the assemblage of which contained 32% Zircon, 3% Rutile, 7% Leucoxene, 21% HiTi, 10% Altered Ilmenite, and 23% Silica bearing Ti-oxides. CRM has estimated that the Reserves had an Il Eq grade of 8.2% and contained VHMs of equivalent value to 7.96Mt of Ilmenite.

As the transaction was for a 6% interest in the deposit, the $2M can be assumed to be for 0.478Mt of Il Eq HM, or $4.18/t.

Tiomin's Kwale Project, Kenya

In February 2010 Base Iron Ltd ("Base") announced that it had entered into a binding heads of agreement to acquire the Kwale Mineral Sands Project from Tiomin Resources Inc (ASK:BSE announcement 26 February 2010). The consideration was US$3M (ca. $3.3M AUD) and a 2% royalty. For the purpose of this valuation CRM assumes that the value of the royalty was equal to twice the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at $9.9M

The project is situated in Kenya, 50km from an existing deep-water port. Base stated that the project had been the subject of a Definitive Feasibility Study and that all material project approvals, permits, and licences required for development were in place. Proven and Probable Reserves (of which 53% were Proven) contained 9.22Mt Il Eq HM, at a grade of 6.5% Il Eq (Langridge *et al*, 2006, p. 45).

As the transaction was for a 100% interest in the project, the assumed consideration of $9.9M for 9.22Mt of Il Eq HM gives a value of $1.07/t.

Altura Mining's Balline Garnet Project

In February 2014, Altura Mining Limited ("Altura") advised that it had agreed to sell its Balline Garnet Project to Garnet Australia Pty Ltd for a cash consideration of $4.5M (ASX:AJM announcement 20 Feb. 2014).

The project is situated about 120km by road north of the port of Geraldton in WA. At the time, the project was at a pre-feasibility stage, and had Probable Ore reserves of 3.7Mt of HM, the assemblage comprising 77% Garnet, 0.6% Rutile, 1.6% Ilmenite, and 13.8% Altered Ilmenite, for an Il Eq of 4.2Mt. The Il Eq grade of the reserves was 6.4%.

As the transaction was for a 100% interest in the project, the assumed consideration of $4.5M for 4.2Mt of Il Eq HM gives a value of $1.07/t

TSL's Mannar Island Project

TSL's Mannar Island Project tenements contain, at a 2.0% cut-off, Inferred Resources of 53.09Mt of HM with an assemblage comprising 47% Ilmenite, 10% Leucoxene, 1.8% Rutile, and 2.3% Zircon, for an Il Eq grade of 5.32% and Il Eq tonnage of 2.82Mt.

Governor Well's Governor Broome Deposit – 80%

In Sept 2011 Astro Resources NL ("Astro") acquired 80% equity in Governor Well Minerals Scott Coastal Plain Mineral Sands Project east of Augusta, WA (ASX:ARO announcement 20 September 2011). The consideration was $1M cash, 200M shares with a 1-year escrow period, and 1.5% net royalty. The shares had been trading at $0.004. Applying a 10% discount to this price for the escrow period, CRM assumes that the 200M shares had a value of $0.72M and that the cash plus shares portion of the consideration had a total value of $1.72M. For the purpose of this valuation CRM assumes that the value of the royalty was equal to 1.5 times the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at 2.5 x $1.72M or $4.3M.

The significant deposit within the Project was the Governor Broome Deposit, which had an Inferred Resource containing 1.94Mt HM with an assemblage comprising 63.5% Ilmenite, 4.1% Rutile, and 4.3% Zircon, for an Il Eq grade of 5.6% and Il Eq tonnage of 2.87Mt.

As the transaction was for an 80% interest in the deposit, the consideration of $4.3M was for 2.3Mt of Il Eq HM, which gives a value of $1.87/t.

Governor Well's Governor Broome Deposit – 20%

In August 2013 Astro entered into an agreement to acquire the remaining 20% shareholding in Governor Well Minerals Scott Coastal Plain Mineral Sands Project east of Augusta, WA (ASX:ARO announcement 15 August 2013). The consideration was $0.75M cash and 1.5% net royalty. For the purpose of this valuation CRM assumes that the value of the royalty was equal to 1.5 times the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at 2.5 x $0.75M or $1.875M.

The significant deposit within the Project was the Governor Broome Deposit, which by August 2013 had Inferred Resources containing 6.68Mt HM with an assemblage comprising 52.6% Ilmenite, 6.2% Secondary Ilmenite, 3.5% Leucoxene, 1.7% HiTi, and 5.3% Zircon, for an Il Eq grade of 5.0% and Il Eq tonnage of 7.67Mt.

As the transaction was for a 20% interest in the deposit, the consideration of $1.875M was for 1.53Mt of Il Eq HM, which gives a value of $1.22/t.

Adjustment for Classification

The value of a deposit, in addition to its grade, depends upon the classification of its contained Mineral Resources or Ore Reserves. CRM has adjusted the Il Eq values per tonne of the transactions by multiplying them by the following factors, to reflect the notional value of each transaction if the deposit had only been explored to enable the estimation of Inferred Resources:

- Inferred Resources Il Eq% x 1
- Indicated Resources Il Eq% x 0.67
- Measured Resources Il Eq% x 0.5
- Probable Reserves Il Eq% x 0.4
- Proven Reserves Il Eq% x 0.33

For example, a deposit containing Indicated Resources with an Il Eq value of $2/t, would have the value adjusted to a $/t Inferred Equivalent value of $1.34/t (2 x 0.67).

The adjusted values are set out in Table 7 in which the final column displays the adjusted $/t of Il Eq HM on an Inferred Resource basis.

Discussion of Comparable Transactions

Table 7 Summary of Comparable Transactions

Vendor	Project	Classification	Transaction $M	Il Eq %	Il Eq Mt[1]	$/t	$/t Inf. Eq
Metal Sands	Cooljarloo	95 % Measured 5% Ind.	1.29	15.3	0.49	2.63	1.33
Image	Perth Basin	Reserves to Inferred	20	12.5	3.08	6.49	3.26
Iluka	Perth Basin	Indicated	0.676	11.6	1.65	0.41	0.27
BPL	Murray Basin	47% Indicated 53% Inferred	2.35	10.7	1.56	1.51	1.22
Image	Cyclone Ext.	Indicated	0.87	10.6	2.71	0.32	0.21
Austpac	WIM 150	Reserves	7.5	9.4	14	0.54	0.21
Diatreme	Cyclone	Probable Reserve	2	8.2	0.478	4.18	1.67
Tiomin	Kwale	53 % Proven Reserve 47% Probable Res.	9.9	6.5	9.22	1.07	0.43
Altura	Balline	Probable Reserve	4.5	6.4	4.22	1.07	0.43
Governor Well	Governor Broome	Inferred	1.87	5.6	2.29	1.11	1.11
TSL	***Mannar***	***Inferred***		**5.3**	**2.82**		
Governor Well	Governor Broome	Inferred	1.875	5.0	1.53	1.22	1.22

Note: [1]: Il Eq Mt is tonnage of transaction

For three of the transactions (shaded grey in Table 7), the calculated $/t values would, if applied to the Mannar Island Project, give unreasonably low values for the Project ($0.46M or $0.35M). They were therefore not included in further analysis.

For the remaining eight transactions there is, as would be expected, a general relationship between grade and price per tonne of Il Eq HM. This is shown in Figure 19, a log normal plot of price/t versus grade.

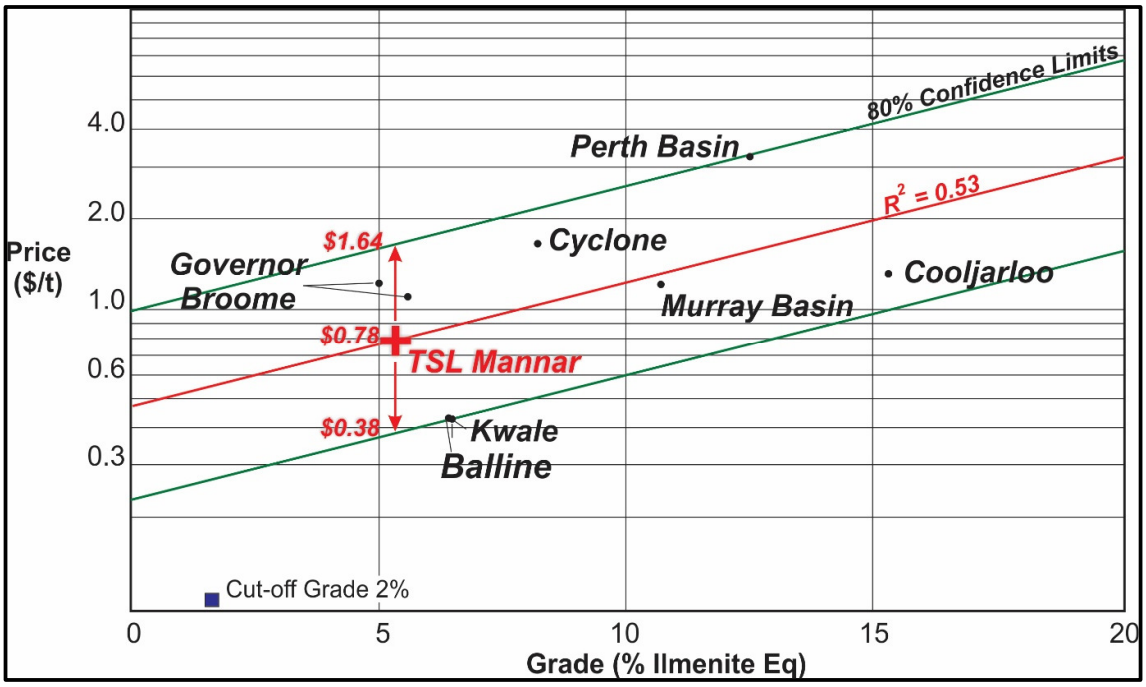

Figure 19 Plot of Comparable Transactions (Price/t v Grade) – using 2017 Ilmenite prices

The grade of the TSL Mannar Island Resource is shown in Figure 19, plotted within a trend channel that CRM has used to interpolate high and low range $/t values for the Project, based on the Il Eq. grade of the resources. The high value is $1.64/t, the low value is $0.38/t, and the value interpolated from the trend line is $0.78/t. As the tenements contain resources totalling 2.82Mt Il Eq HM, the value of the Mineral Assets within them could be taken to be between $1.07M and $4.62M.

However, these values are based on an ilmenite price of US$172.50 per tonne and an exchange rate of A$ 1= US0.77 for an ilmenite price of A$224/t. The current ilmenite price is of the order of US$215/t and A$1=US0.69c for an ilmenite price of A$312/t, an increase of 39% over the October 2017 price.

The value of the Mineral Assets should be increased accordingly, and **CRM ascribes the Comparable Transaction derived value of the Mineral Asset to be within the range of $1.5M to $6.4M. It ascribes the preferred value to be $6.4M,** at the upper end of the range**,** as

- It is apparent that further systematic drilling would enable additional resources to be estimated below the water table, within both the area of the current resources and within the sparsely drilled southern portion of EL 370 and of the inland area of EL 180 (see Figures 2 and 18); and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Exploration Expenditure

The VALMIN Code indicates that a cost-based method is appropriate for valuation of an exploration project. Under this method, the previous exploration expenditure is assessed as either improving or decreasing the potential of the project. A prospectivity enhancement multiplier ("PEM") may be used to apply a factor that is related to the success of the exploration expenditure in terms of project to advancement. The PEM ranking criteria set out in Table 8 are commonly used.

Table 8 PEM Values

PEM Range	Criteria
0.2 – 0.5	Exploration has downgraded the potential
0.5 – 1.0	Exploration has maintained the potential
1.0 – 1.3	Exploration has slightly increased the potential
1.3 – 1.5	Exploration has considerably increased the potential
1.5 – 2.0	Limited preliminary drilling intersected interesting mineralised intersections
2.0 – 2.5	Detailed drilling has defined targets with potential economic interest
2.5 – 3.0	An Inferred Mineral Resource has been estimated

Exploration costs to November 2017

As reported in CRM's November 2017 Valuation (Doepel, 2017), exploration costs to that date totalled AUD **$791,000**.

Exploration costs November 2017 to December 2018

TSL has been unable to supply detailed expenditure for exploration carried out from November 2017 to December 2018, which was carried out by Srinel. However, work carried out and its approximate costs are known and are set out below.

GSMB Fees

The Issuance fees for the initial two years of an EL are 1000 Sri Lankan Rupees ("LKR") / ha (GSMB, 2010a). Thus, the issuance fees for ELs 370, 371, and 372 totalled 8.8M LKR (say, $71,100). (The Sri Lankan Rupee ("SKR") AUD exchange rate on 9 December 2019 was 124 LKR = 1 AUD).

Renewal fees for ELs 180 and 182 were 71,000 LKR; approximately $600.

Auger drilling and sample preparation

Auger drilling and sample preparation during 2018 cost approximately $220,000. 61% of the holes were drilled within the TSL tenure and thus $135,000 is applicable expenditure.

Heavy Mineral Analysis

Heavy mineral analysis of 3255 samples from the TSL tenure was carried out in the SS Cape Town laboratory at a cost of approximately $42,000.

The total of these items is $249,000. CRM considers that an addition of 20% of this figure should be added for administration costs (20 % is the amount allowed by the WA Department of Mines, Industry Regulation and Safety as a legitimate administration cost for tenement expenditure). CRM considers applicable tenement expenditure for November 2017 to December 2018 is thus **$299,000**.

Exploration costs 2019

TSL has provided CRM with detailed expenditure for exploration during 2019. The expenditure considered by CRM to be applicable to TSL's tenure is listed below:

- Resource estimation 12,402
- Metallurgical work 24,550
- HM analysis 133,750
- Drilling 225,514
- Geological consulting 153,970
- Other 944

Sub-Total = 551,130
20% Admin = 110,226
Total = **$661,356**

Total Exploration Expenditure

Adding the three expenditures gives a total of **$1,751,000**.

As Inferred Mineral Resources have been estimated, it is appropriate to use a PEM of between 2.5 and 3. Further, as recent deeper drilling has shown mineralisation at depth, which can be expected to increase the resource, it appears reasonable to use the upper end of the range as the multiplier for the preferred value.

CRM ascribes the Exploration Expenditure derived value of the Mineral Asset to be within the range of $4.4M to $5.3M. It ascribes the preferred value to be $5.3M, at the upper end of the range**,** as

- It is apparent that further systematic drilling would enable additional resources to be estimated below the water table, within both the area of the current resources and within the sparsely drilled southern portion of EL 370 and of the inland area of EL 180 (see Figures 2 and 18); and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Reasonableness Check

CRM considers that it is appropriate to use a Yardstick Method as a check on the valuations produced by the Comparable Transaction and Exploration Expenditure methods.

Yardstick valuation factors have been commonly applied to Mineral Resources and Ore Reserves, with 0.5% to 1% of the spot price being the usual factor applied to Inferred Resources.

As TSL's Mannar Island resources are classified as Inferred, an appropriate factor would thus be in the range of 0.5% to 1%.

The resources within the tenements are 53.09Mt @ 3.1% Ilmenite, 0.69% Leucoxene, 0.12% Rutile, and 0.15% Zircon, which equate to 1.646Mt Ilmenite, 0.366Mt Leucoxene, 0.064Mt Rutile, and 0.080Mt Zircon. Prices for these minerals (based on an USD : AUD rate of 0.69) are of the order of, respectively, $279, $391, $1551, and $2217. The yardstick calculations are set out in Table 9.

Table 9 Project Resources - Yardstick Calculations

Mineral	Tonnes	Price (AUD)	$ Value x 0.5%	$ Value x 1%
Ilmenite	1,646,000	279	2,296,000	4,592,000
Leucoxene	366,000	391	715,000	1,431,000
Rutile	64,000	1551	497,000	993,000
Zircon	80,000	2217	887,000	1,774,000
Totals			**4,395,000**	**8,790,000**

Thus, a yardstick valuation of the tenements is in the range of $4.4M to $8.8M.

Discussion

The assigned values for the Mineral Assets are set out in Table 10 and those of the Reasonableness Check in Table 11.

Table 10 Mineral Asset Valuations

Valuation Method	Low Value ($M)	Preferred Value ($M)	High Value ($M)
Comparative Transactions	1.5	6.4	6.4
Exploration Expenditure	4.4	5.3	5.3

Table 11 Reasonableness Check Values

Reasonableness Check	Low Value ($M)	High Value ($M)
	4.4	8.8

CRM considers that the yardstick values used for the Reasonableness Check indicate that both the Preferred Value obtained from the Comparative Transaction Method and that obtained from the Exploration Expenditure Method is fair and reasonable, i.e. that both $6.4M and $5.3M are fair and reasonable values.

CRM ascribes the value of the Mineral Asset to be within the range $4.4M to $5.3M, as this range is common to the ranges of both valuation methods. It ascribes a preferred value of $5.3M, which is the upper end of the range, as:

- It is apparent that further systematic drilling would enable additional resources to be estimated below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Statement of Valuation

CRM considers the value of the Mineral Asset to be within the range of $4.4 million to $5.3 million, with a preferred value of $5.3 million.

CRM further considers that both the range of values and the preferred value are fair and reasonable evaluations of the Mineral Asset.

The Valuation Date is as at 13th December 2019.

REFERENCES

Badenhorst, J.N., 2014, *Independent Geological Report describing the Windimurra Vanadium Limited heavy mineral sands exploration licences, Sri Lanka*, GeoActiv rpt, March 2014, unpub.

Capital Metals, 2017, https://www.weare121.com/121mininginvestment-hk/clients/capital-metals/, accessed Nov 10 2017.

Doepel, J.J.G., 2017, *Technical Valuation Report, Srinel Holdings Limited, Mannar Mineral Sands Project, Sri Lankar*, CRM Rpt WA17/08.

Doepel, J.J.G., 2018, *Prospectus Geological Report, Titanium Sands Limited, Mannar Mineral Sands Project, Sri Lankar*, CRM Rpt WA18/02.

EDB, 2014, *Cesses imposed under the Sri Lanka Export Development Act No. 40 of 1979*, Export Development Board (EDB) Sri Lanka, Dec. 2014.

GSMB, 2010a, *Compendium, Mines and Minerals Act, No. 33 of 1992 as Amended by Act, No. 66 of 2009 & Relevant Regulations*, Geological Survey and Mines Bureau (Sri Lanka), April 2010.

GSMB, 2010b, *SRI LANKA 1:100 000 Geology (Provisional Map Series) TALAIMANNAR – PALAMPIDDI Sheet 3.*

Herath, M.M.J.M., 2008, *Beach Mineral Sands in Sri Lanka, Occurrence, Global Trends and Current Issues*, Geological Survey & Mines Bureau, Colombo-Sri Lanka.

Iluka, 2013, *Acquisition of Sri Lankan Tenement and Heavy Mineral Resource Base*, ASX Announcement, 5 August 2013 (unpub).

Image, 2015, *Image Resources N.L., 2015 Annual Report*, ASX Release 25 Sept, 2015.

Langridge *et al*, 2006, *Kwale Mineral Sands Project, Amended Technical Report*, Ausenco Limited rpt for Tiomin Kenya Limited, May 2006, unpub

Reyneke, L., 2015, *Mineralogical examination of magnetic separation fractions produced from a HM-bearing deposit, Sri-Lanka*, Laboratory for Microscopy and Microanalysis, University of Pretoria Rpt (unpub). *(Not sighted, but referenced by Siebtits and Badenhorst, 2015).*

Reyneke, L., 2018, *Mineralogical characterization of magnetic separation fractions produced from a HM-bearing deposit, Mannar Island, Sri-Lanka*, (unpub).

Siebrits, B. and Badenhorst, J.N.., 2015, *The Mineral Resource Estimation on the Mannar Mineral Sands Project, Srinel Holdings Limited, Sri Lanka,* GeoActiv Rpt, April 2015 (unpub).

Siebrits, B. and Badenhorst, J.N., 2019a, *Mineral Resource Update Estimation for Titanium Sands Ltd on the Mannar Mineral Sands Project, Sri Lanka,* GeoActiv Rpt, Jan 2019 (unpub).

Siebrits, B. and Badenhorst, J.N., 2019b, *The Mineral Resource Estimation of Bright Angel Ltd on the Mannar Mineral Sands Project, Sri Lanka,* GeoActiv Rpt, July 2019 (unpub).

GLOSSARY OF TECHNICAL TERMS AND ABBREVIATIONS

Air-core	A method of drilling by which a sample of unconsolidated material cut by i steel or tungsten blades is brought to the surface using high pressure air and a dual-walled drill pipe.
Amphibolite facies	A classification of metamorphic rocks which formed under conditions of moderate to high temperatures (500° C, or about 950° F, maximum) and pressures. Amphibole, diopside, plagioclase, epidote, garnet, and wollastonite are minerals typically found in these rocks.
ASX	Australian Stock Exchange Market
Auger	A method of drilling by which a sample of unconsolidated material is brought to the surface up the inclined flights of an auger.
Backshore	The zone of the shore or beach above the high-water line, acted upon only by severe storms or exceptionally high tides.
Basement	The oldest layer of igneous and metamorphic rocks in the earth's crust, covered by layers of more recent, usually unconformably overlain sedimentary rocks.
Berm	The terrace of a beach that has formed in the backshore, above the water level at high tide. Berms are commonly found on beaches that have fairly coarse sand and are the result of the deposition of material by low-energy waves.
Charnockite	Charnockite is a granofels that contains orthopyroxene, quartz, and feldspar. Charnockite is frequently described as an orthopyroxene granite.
Clastic	A sedimentary rock composed of grains or fragments derived at a different locality.
Clay	A rock or mineral fragment or a detrital particle of any composition with a diameter <4 microns.
Composite	A number of discrete samples collected from a body of material into a single homogenized sample for the purpose of analysis.
Concentrate	Heavy mineral concentrates are usually prepared by tabling or wet sieving a very large sample of till or stream sediments (up to 20 kg may be routine). The heavy mineral concentrate collected at this stage is then further processed with heavy liquids using methylene iodide (SG = 3.3). The resultant concentrate then is separated into magnetic and non-magnetic fractions and it is the non-magnetic fraction which is usually analysed.
Cut-off grade	The lowest grade of mineralised material that qualifies as ore or resource in a given deposit.
De-slimed	Clay-sized particles have been removed from mineralisation
Digital terrain model (DTM)	A digital terrain model (DTM) provides a bare earth representation of terrain or surface topography and can be described as a three – dimensional representation of a terrain surface consisting of X, Y, Z

	coordinates stored in digital form. It includes not only heights and elevations but other geographical elements and natural features such as rivers, ridge lines, etc.
Dolomite	Dolomite is an anhydrous carbonate mineral composed of calcium magnesium carbonate, ideally $CaMg(CO_3)_2$. The term is also used for a sedimentary carbonate rock composed mostly of the mineral dolomite.
Estuarine	Derived from the word estuary. An estuary is a partially enclosed coastal body of brackish water with one or more rivers or streams flowing into it, and with a free connection to the open sea.
Exploration Licence	An Exploration Licence grants the license-holder the exclusive right to explore for all mineral categories authorized by the license.
Facies	Sedimentary facies are bodies of sediment that are recognizably distinct from adjacent sediments that resulted from different depositional environments.
Feasibility study	An extensive technical and financial study to assess the commercial viability of a project. The definitive feasibility study provides the basis for the decision on whether in fact further study is required, whether the project is worth pursuing or whether to advance the project to design and construction. A pre-feasibility study of a project is a precursor to a feasibility study. Its purpose is to examine the size, cost and value of the main components of the project in sufficient detail to ensure there is a solid basis for proceeding to the more costly and rigorous feasibility study.
Foreshore	The seaward-sloping area of a shore that lies between the average high tide mark and the average low tide mark.
g	Gram
Garnet	An aluminosilicate metamorphic mineral.
GIS	Geographic information system. It is a system designed to capture, store, manipulate, analyse, manage, and present spatial or geographic data.
Gneiss	High-grade metamorphic rock composed of alternating bands respectively rich in light and dark coloured minerals
Google Earth	Google Earth is a computer program that renders a 3D representation of Earth based primarily on satellite imagery. The program maps the Earth by superimposing satellite images, aerial photography, and GIS data onto a 3D globe, allowing users to see cities and landscapes from various angles.
Grade	Expression of relative quality of mineralisation (e.g. high-grade) or of numerical quality (e.g. 1.2% Ni).
Granitic	Descriptive term used for igneous rocks with a holocrystalline texture and anhedral constituents of a similar grainsize, composed chiefly of orthoclase and albite feldspars and of quartz, usually with lesser amounts of one or more other minerals, as mica, hornblende, or augite.
Granulite	A granular high-grade metamorphic rock formed as a result of extreme heat and pressure at depth beneath the Earth's surface.

Granulite facies	A classification of metamorphic rocks which formed under the most intense temperature-pressure conditions.
Graphite	Graphite is a naturally-occurring form of crystalline carbon. Chemical symbol C. It is a native element mineral found in metamorphic and igneous rocks.
Heavy mineral (HM)	An accessory detrital mineral of a sedimentary rock, of high specific gravity (> 2.9 t/m^3), e.g., magnetite, ilmenite, zircon, rutile.
Heavy mineral assemblage	The suite of heavy minerals contained in a deposit.
HiTi	High grade titanium with a TiO_2 content of 70% to 95%, sometimes produced by blending rutile and leucoxene.
Ilmenite	A titanium-iron oxide mineral ($FeTiO_3$).
Indicated Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
Inferred Mineral Resource	That part of a Mineral Resource for which tonnage, grade, and mineral content can be estimated with a low level of confidence.
JORC Code	The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition). Prepared by The Joint Ore Reserves Committee. A compliance standard for professional and public reporting of Ore Reserves and Mineral Resources.
Kg	Kilogram
Lagoonal	Derived from the word lagoon. A lagoon is a shallow body of water separated from a larger body of water by barrier islands or reefs.
Leucoxene	A titanium oxide-rich heavy mineral formed by the alteration of ilmenite.
Limestone	A sedimentary rock composed principally of the mineral calcium carbonate.
Lithified	The process by which a sediment composed of individual particles is converted into a coherent rock through cementation or compaction.
Lithium	Chemical element with symbol Li. It is the lightest metal and the lightest solid element.
Loam	Soil composed mostly of sand, silt, and a smaller amount of clay.
Logging	The practice of making a detailed record (a log) of the geological formations penetrated by a borehole.
Longshore movement	Longshore drift from longshore current is a geological process that consists of the transportation of sediments along a coast parallel to the shoreline, which is dependent on oblique incoming wind direction.
M	Million

Marble	A metamorphic rock consisting largely of calcium and or magnesium carbonate; formed by the metamorphism of limestone or dolomite.
Measured Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.
Metamorphic	Descriptive of rock that has been altered by physical and chemical processes involving heat, pressure and/or fluids.
Mineral assemblage	Group of minerals commonly associated with another.
Mineral Asset	All property including (but not limited to) tangible property, intellectual property, mining and exploration Tenure and other rights held or acquired in connection with the exploration, development of and production from those Tenures. This may include the plant, equipment and infrastructure owned or acquired for the development, extraction and processing of Minerals in connection with that Tenure.
Mineral deposit	Mineral deposits are naturally occurring accumulations or concentrations of metals or minerals of sufficient size and concentration that might, under favourable circumstances, have economic value. Economic concentrations of metals or other mineral commodities are known as ore.
Mineralisation	The concentration of metals and their minerals within a body of rock.
Mineralogical	Connected with the scientific study of minerals.
Mineral Resource	In-situ mineral occurrence for which there are reasonable prospects for eventual economic extraction. The location, quality, quantity, grade, geological characteristics, and continuity are known, estimated, or interpreted from specific geological evidence and knowledge. A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction.
-2mm +63µ fraction	Particles, that are greater than 63µ (micron) and less than 2mm in size.
Miocene	The epoch of geological time within the Cenozoic Era between about 5 and 23 million years ago.
Monazite	A rare phosphate mineral with a chemical composition of $(Ce,La,Nd,Th)(PO_4,SiO_4)$. It usually occurs in small isolated grains, as an accessory mineral in igneous and metamorphic rocks such as granite, pegmatite, schist, and gneiss.
(Ore) block model (OBM)	An (ore) block model is created using geostatistics and the geological data gathered through drilling of the prospective ore zone. The block model is essentially a set of specifically sized "blocks" in the shape of the mineralised orebody. Although the blocks all have the same size, the characteristics of each block differ. Once the block model has been developed and analysed, it is used to determine the ore resources and

	reserves (with project economics considerations) of the mineralised orebody.
Ore Reserve	The economically minable part of a Measured and/or Indicated Mineral Resource.
Overburden	In mining, overburden is the material that lies above an area that lends itself to economical exploitation, i.e. above the orebody.
Pegmatite	Very coarse-grained igneous intrusive body, usually granitic and in dyke or sill form; may contain economically important minerals.
Precambrian	That portion of geological time older than about 545 million years ago.
Probable Reserve	A measured and/or indicated mineral resource which is not yet proven, but where technical economic studies show that extraction is justifiable at the time of the determination and under specific economic conditions.
Proven Reserve	A measured mineral resource, where technical economic studies show that extraction is justifiable at the time of the determination and under specific economic conditions.
%	Percent
QAQC	QA/QC is the combination of quality assurance, the process or set of processes used to measure and assure the quality of a product, and quality control, the process of ensuring products and services meet consumer expectations.
Optical Microscope	The optical microscope, often referred to as the light microscope, is a type of microscope that commonly uses visible light and a system of lenses to magnify images of small objects. Light from a mirror is reflected up through the specimen, or object to be viewed, into the powerful objective lens, which produces the first magnification. The image produced by the objective lens is then magnified again by the eyepiece lens, which acts as a simple magnifying glass.
Quaternary	The period of geological time from about 2.6 million years ago to the present.
Quartz	A mineral composed of silicon and oxygen atoms in a continuous framework of SiO_4 silicon–oxygen tetrahedra, with each oxygen being shared between two tetrahedra, giving an overall chemical formula of SiO_2.
Quartzite	A granular metamorphic rock composed predominantly of quartz; derived from quartz sandstone.
Recovery (mineral/ore recovery)	Liberation of the valuable minerals from the ore matrix.
Resource category	Category of a mineral resource, such as Inferred, Indicated, Measured, Proven or Probable.
Resource modelling	Creating a model of a mineral resource through assessment of the quantity and quality of the data available including database management and verification, the creation of 2D and/or 3D geological and mineralisation

	models for the deposit, statistical and geostatistical analyses of the data and the determination of the most appropriate grade and density interpolation methods.
Royalty	A payment to the owner of mineral rights for the privilege of extracting the mineral from the ground based on a lease agreement. The royalty payment is based on a portion of earnings from production and varies depending on the type of mineral and the market conditions.
Rutile	A mineral containing titanium dioxide (TiO_2).
Sandstone	A sedimentary rock composed primarily of sand sized grains.
Scoping study	A scoping study is a preliminary study to define a possible metallurgical circuit of a project.
Sediment	Naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water, or ice or by the force of gravity acting on the particles.
Sillimanite	Sillimanite is an aluminosilicate mineral with the chemical formula Al_2SiO_5.
Silt	Silt is granular material of a size between sand and clay.
Specific gravity (SG)	The term specific gravity refers to the ratio of the density of a solid or liquid to the density of water at 4 degrees Celsius.
Strike length	Length of a geological feature with a horizontal plane.
T	Ton
Tenement	A granted tenement provides permission to perform certain activities on the land.
Tenure	A tenement holding
Tertiary	The period of geological time from 66 million to 2.6 million years ago.
Tetrabromoethane (TBE)	A halogenated hydrocarbon, chemical formula $C_2H_2Br_4$.
Tidal	Zone above water level at low tide and underwater at high tide.
TiO_2	Titanium dioxide
Topography	The distribution of shapes and features of land surfaces.
Total heavy minerals (THM)	Total heavy minerals (concentrate). Components are typically ilmenite, leucoxene, rutile, zircon, garnet, iron-sulphides, and iron oxides.
Twin (Twinned holes)	A pair of parallel holes drilled close together.
Unconformably	The attribute of a series of younger strata that do not succeed the underlying older rocks in age or in parallel position, as a result of a long period of erosion or non-deposition.
Unconsolidated	Loosely arranged material, not compacted.
VALMIN Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (2015 Edition). Prepared by The VALMIN

	Committee. A compliance standard for professional and public reporting of Mineral Asset valuations.
Valuable heavy minerals (VHM)	Heavy minerals with economic value. The principal valuable heavy minerals are ilmenite, leucoxene, rutile, and zircon.
µ or µm	Micron; a millionth of a metre.
Water table	The water table is the upper surface of the zone of saturation.
XRD	X-ray powder diffraction (XRD) is a rapid analytical technique primarily used for phase identification of a crystalline material and can provide information on unit cell dimensions. The 53nalysed material is finely ground, homogenized, and average bulk composition is determined.
XRF	An X-ray fluorescence (XRF) spectrometer is an x-ray instrument used for routine, relatively non-destructive chemical analyses of rocks, minerals, sediments and fluids. It works on wavelength-dispersive spectroscopic principles that are similar to an electron microprobe. It is typically used for bulk analyses of larger fractions of geological materials. The relative ease and low cost of sample preparation, and the stability and ease of use of x-ray spectrometers make this one of the most widely used methods for analysis of major and trace elements in rocks, minerals, and sediment.
Yardstick method	The method involves the use of the estimated HM Resources, current mineral prices, and an accepted discount for resource category.
Zircon	A mineral belonging to the group of nesosilicates. Its chemical name is zirconium silicate and its corresponding chemical formula is $ZrSiO_4$.
ZrO_2	Zirconium dioxide

DECLARATION

The information in this report that relates to Technical Assessment and Valuation of Mineral Assets reflects information compiled and conclusions derived by J. John G. Doepel, who is a Member of The Australasian Institute of Mining and Metallurgy and of the Australian Institute of Geoscientists. Mr Doepel, a Principal Geologist with Continental Resource Management Pty Ltd ("CRM"), has more than 35 years experience as a geologist in the mineral industry and more than ten years' recent and relevant experience in relation to mineral sand deposits. Further he has more than five years recent and relevant experience in the valuation of Mineral Assets. Mr Doepel holds a Bachelor of Science with Honours and a Graduate Diploma in Forensic Science from the University of Western Australia; and a Diploma of Teaching from the Western Australian Institute of Technology.

Mr Doepel has sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and to the activity which he is undertook to qualify as a Specialist Practitioner as defined in the 2015 edition of the 'Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets'. Mr Doepel consents to the inclusion in the report of the matters based on his information in the form and context in which they appear.

The report provides a fair representation of Technical Assessment and Valuation reported within it. The statements and opinions contained in this report are given in good faith and in the belief that they are not false or misleading. The conclusions are based on the reference date of the 13 December 2019 and could alter over time depending on exploration and metallurgical testwork results, commodity and currency prices, and other relevant market factors.

Where Mineral Resources and Ore Reserves are referred to, the terminology is consistent, unless specifically stated to the contrary, with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as per the Joint Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Australian Mining Industry Council and dated December 2012. The report is written to conform to the AusIMM's Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports (Valmin Code) as revised 2015.

Mr Doepel has previously provided consulting services to the Company with respect to the Mannar Island Project Heavy Mineral Project. No member or employee of CRM is, or is intended to be, a director, officer or other direct employee of the Company. No member or employee of CRM has, or has had, any share-holding, or the right (whether enforceable or not) to subscribe for securities, or the right (whether legally enforceable or not) to nominate persons to subscribe for securities in the Company. There is no agreement or understanding between CRM and the Company as to CRM performing further work for the Company.

Fees for the preparation of this report are being charged at a commercial rate, the payment of which are not contingent upon the conclusions of the report. They total about $7000.

Yours faithfully

John Doepel
Continental Resource Management Pty Ltd

16th December 2019

TECHNICAL VALUATION REPORT

BRIGHT ANGEL LIMITED'S

MANNAR MINERAL SANDS PROJECT

SRI LANKA

Prepared for

Pendragon Capital Ltd (AFSL 237 549)

Report Number WA18/07

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DATE: 18 September 2019

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EXECUTIVE SUMMARY

Titanium Sands Limited ("TSL" or "Company") requested that Continental Resource Management Pty Ltd ("CRM") provide an Independent Valuation Report ("Valuation Report") on the Mineral Assets within the Sri Lankan tenements ("Tenements") to be acquired by the Company from Bright Angel Limited ("Bright Angel"). The Valuation Report is to be included in an Independent Expert's Report ("IER"), being prepared by Pendragon Capital Ltd ("Pendragon"). The IER is to be included in the Company's Notice of Meeting seeking shareholder approval for the acquisition of the Tenements.

Bright Angel's Mannar Island Project Mineral Assets comprise four granted Exploration Licences ("ELs"), situated on Mannar Island, NW Sri Lanka.

The tenements have been explored for heavy mineral sands by auger-drill programmes during 2017 and 2018. Inferred Resources of 31.9Mt @ 7.45% Total Heavy Minerals have been estimated within the four granted tenements. The estimation was carried out and reported in 2019, in accordance with the 2012 JORC Code, by the independent geological consultant GeoActiv Pty Ltd ("GeoActiv").

CRM's valuation of the four granted tenements within Bright Angel's Mineral Asset is based upon an analysis of comparable transactions: with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves.

CRM's assigned values for the Mineral Asset are set out in Table 1.

Table 1 Mineral Asset Valuation

Valuation Method	Low Value ($M)	Preferred Value ($M)	High Value ($M)
Comparative Transactions	0.9	4.0	4.0

CRM has carried out a reasonableness check on these values by means of a yardstick method, the results of which are set out in Table 2.

Table 2 Reasonableness Check Values

	Low Value ($M)	Preferred Value ($M)	High Value ($M)
Reasonableness Check	2.7	5.4	5.4

CRM considers that the yardstick check values indicate that values within the upper end of the range of values obtained from the Comparative Transaction Method are fair and reasonable, i.e. values between $2.7M and $4.0M.

With respect to the positioning of the preferred values at the upper end of the valuation ranges;

- It is apparent that further systematic drilling would enable additional resources to be estimated above the water table, as both along-strike and across-strike extensions;
- There is potential for further resources to be present below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Statement of Valuation

CRM considers the value of the Mineral Asset to be within the range of $2.7 million to $4.0 million, with a preferred value of $4.0 million.

CRM further considers that both the range of values and the preferred value are fair and reasonable evaluations of the Mineral Asset.

The Valuation Date is as at 3rd September 2019 and this report is issued on 18th September 2019.

INTRODUCTION

Titanium Sands Limited ("TSL" or "Company") requested that Continental Resource Management Pty Ltd ("CRM") provide an Independent Valuation Report ("Valuation Report") on the Mineral Assets within the Sri Lankan tenements ("Tenements") to be acquired by the Company from Bright Angel Limited ("Bright Angel"). The Valuation Report is to be included in an Independent Expert's Report ("IER"), being prepared by Pendragon Capital Ltd ("Pendragon"). The IER is to be included in the Company's Notice of Meeting seeking shareholder approval for the acquisition of the Tenements.

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All monetary figures stated in this Valuation Report are expressed in Australian dollars (AUD) unless indicated otherwise. Similarly, all coordinates included in this report are stated in the Universal Transverse Mercator (UTM) Zone 44 N - World Geodetic System (WGS) 84 coordinate system, unless indicated otherwise.

The Valuation Date is as at 3rd September 2019 and this report is issued on 18th September 2019.

Compliance with the VALMIN and JORC Codes

The Report has been prepared in accordance with the VALMIN Code, which is binding upon Members of the Australian Institute of Geoscientists ("AIG") and the Australasian Institute of Mining and Metallurgy ("AusIMM"), the JORC Code, and the rules and guidelines issued by such bodies as the Australian Securities and Investments Commission ("ASIC") and ASX that pertain to IERs.

The author has taken due note of the rules and guidelines issued by such bodies as ASIC and ASX, including ASIC Regulatory Guide 111 – Content of Expert Reports, and ASIC Regulatory Guide 112 – Independence of Experts.

The valuation and the preparation of the Valuation Report has been primarily carried out by John Doepel, Director and Principal Geologist of CRM, a practitioner with the requisite qualifications, standing, and experience, who is considered to be a Specialist under the requirements of Section 2.1 of the VALMIN Code (2015). He is also considered to be a Competent Person under the terminology of the JORC Code (2012).

Location

The project location is shown on Figure 1. Mannar Island is approximately 225km north of Sri Lanka's capital, Colombo. Mannar Island is joined to the mainland by both highway and railway, through Anuradapura, the capital city of the North Central Province.

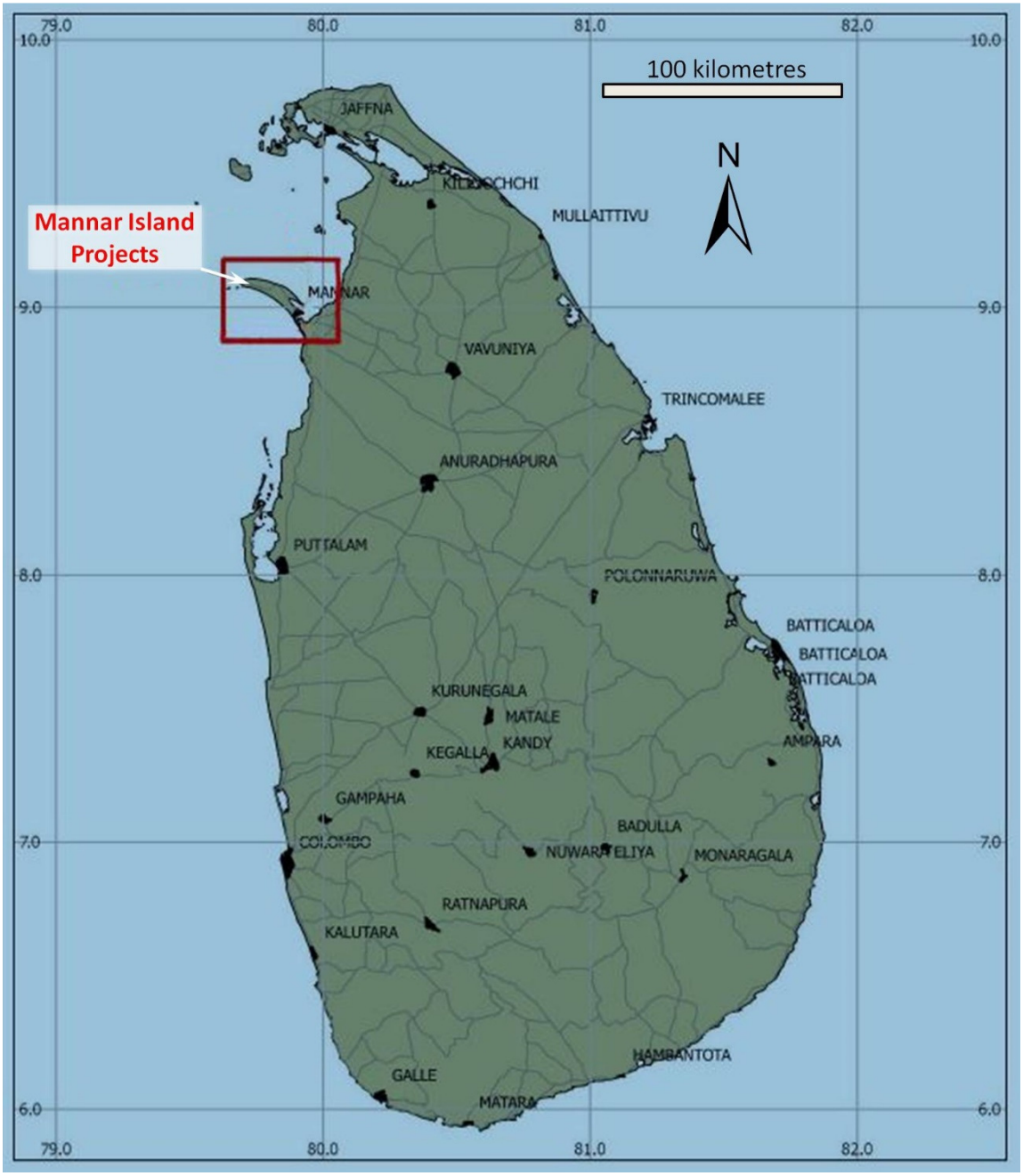

Figure 1 Sri Lanka – showing Project Location

Sources of Data

TSL provided CRM with details of the proposed acquisition of Bright Angel by TSL, tenement details including licence documents for the granted tenements, a legal report on the tenure ownership, relevant technical reports, maps, GIS data, drilling database, original assay files from the 2017 and 2018 drill programmes, and a digital file of the ore block model ("OBM").

TSL has also provided CRM with statement that there are no material or significant statutory, technical, environmental, political, anthropological, historical, or commercial matters, of which they

TSL is aware and about which it has not informed CRM, that may present an obstacle to the exploration or development of the tenements.

Site Inspection

CRM did not visit the Project, as is CRM's experience of heavy mineral deposits that little additional information was to be gained from a site inspection that could not be obtained from available satellite imagery and the information that had been supplied by TSL. The Independent Geological Report by Siebrits and Badenhorst (2019b), of GeoActiv consultants, describes and provides photos of the near surface heavy mineral mineralisation that is visible within the Mannar Island tenement areas. Further, clear details of the topography, land use, and infrastructure are visible on Google Earth images.

Previous Valuation

TSL has informed CRM that no previous valuation of the Mineral Asset has been carried out.

Valuation Approach and Methods

For this Mineral Asset Valuation, it is CRM's opinion that:

1. The Valuation should only be based on Mineral Resources within the granted tenements;
2. The Mineral Resources should be valued on the basis of their Valuable Heavy Minerals ("VHM") content, rather than on the basis of their Total Heavy Minerals ("THM") content; and
3. The Mineral Resources should be valued on the basis of their mineral assemblage.

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The valuation is based upon an analysis of comparable transactions; with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves.

A Yardstick Method check was carried out to confirm that the valuation was reasonable. The method involved the use of the estimated HM Resources, current mineral prices, and an accepted discount for resource category.

MINERAL ASSET

Description

Bright Angel's Mannar Island Project Mineral Asset comprises four granted Exploration Licences ("ELs"), situated on Mannar Island, NW Sri Lanka.

Tenure and Status

Bright Angel's Mannar Mineral Sands Project comprises four granted Els, two of which are subject to an application for renewal. Details of these tenements are shown in Table 3. They are held by Orion Minerals (Pvt) Ltd ("Orion") and Sanur Minerals (Pvt) Ltd ("Sanur"), Sri Lankan entities that are wholly owned and controlled by Bright Angel (Mauritius).

Table 3 Project Tenure

Tenement	Holder or Applicant	Status	Validity From	Validity To	Area (km^2)
EL 327 /R /1	Orion	Second two-year term	14/12/2018	13/12/2020	5
EL 328 /R /1	Orion	Second two-year term	14/12/2018	13/12/2020	8
EL 351	Sanur	Renewal pending for second two-year term	15/05/2017	14/05/2019	15
EL 352	Sanur	Renewal pending for second two-year term	06/07/2017	05/07/2019	10

CRM has received a copy of a Legal Report on the Licences written by Anuradha M. W. Gunawardana, Attorney-at-Law, Colombo, Sri Lanka documenting the legal status of the tenements. The report is dated 28 August 2019. This valuation has been prepared and issued on the assumption that this information is correct, that the tenements are lawfully allowable, and that EL 351 and EL 352 will be renewed.

An Exploration License grants the license-holder the exclusive right to explore for all mineral categories authorized by the license. The four project tenements give the holder the exclusive right to explore for Mineral Sand. Exploration licences are for two-year terms, which may be renewed four times for further two-year periods.

Registration Fees

The Issuance fees for the initial two years of an EL are 1000 Sri Lankan Rupees ("LKR")/ha (GSMB, 2010a). Thus, the issuance fees for the four granted licences totalled 3.8M LKR (say, $31,667). (The Sri Lankan Rupee ("SKR") AUD exchange rate on 12 August 2019 was 120SKR = 1AUD)

The renewal fees for the second two-year term of an EL are 1000 LKR/km^2/year. Thus the annual fees for the four granted Els will total about $320.

Exploration Commitments

During the initial two years of an EL the annual minimum value of acceptable documented technical work is 20,000 LKR/km^2/year. This amount doubles for each subsequent two-year period (GSMB, 2010a). Current granted tenement expenditure is thus 1.52M LKR ($12,700).

Royalties

The GSMB classifies mineral sands as industrial minerals, the royalty rates for which are 4% if not exported and 5% if exported (GSMB, 2010a). Commodity levies are also applicable on the export of mineral sands concentrates as follows (EDB, 2014):

- Ilmenite LKR1650/t
- Rutile LKR2200/t
- Other titanium concentrates LKR1100/t
- Zircon LKR550/t

Tenement Locations

The tenement locations are shown on Figure 2.

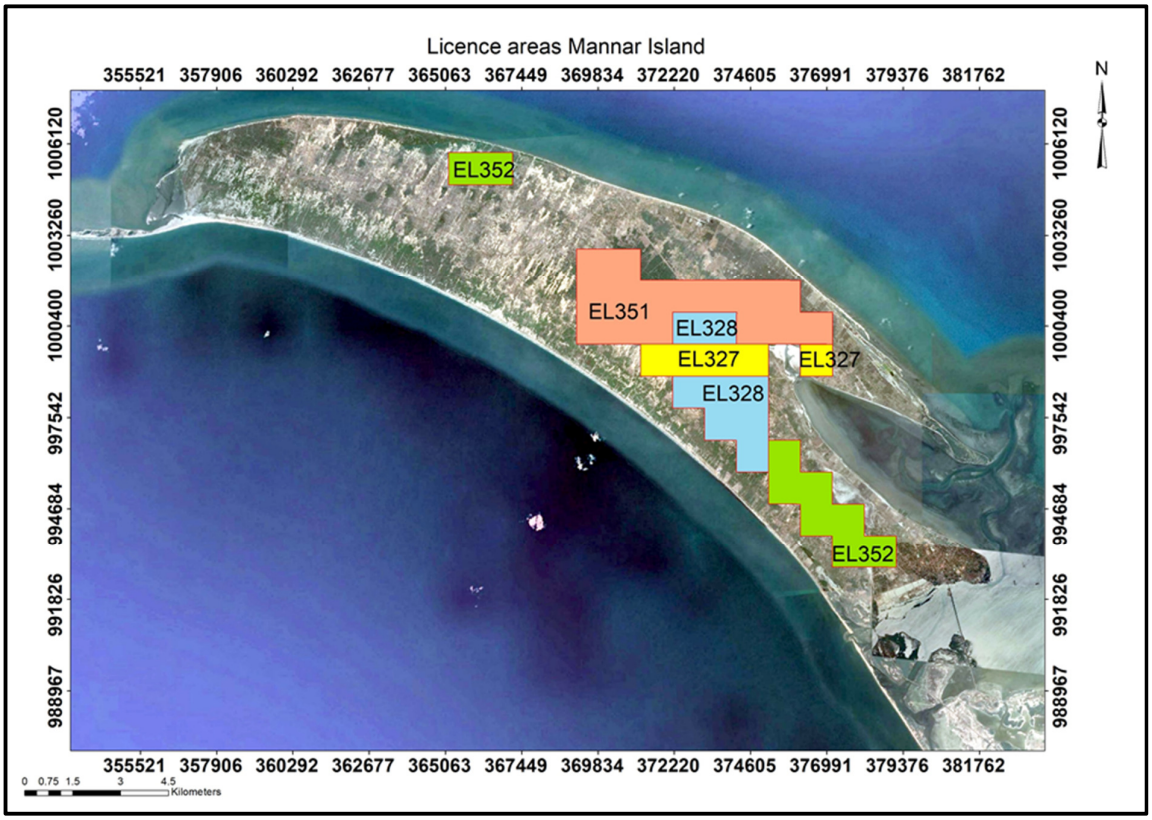

Figure 2 Tenement locations over Google Earth Image

GEOLOGY

Sri Lankan Geology

Most of Sri Lanka is made up of Precambrian metamorphic and granitic rocks. Granulite facies rocks of the Highland Complex (gneisses, sillimanite-graphite gneisses, quartzite, marbles, and some charnokites) extend across the centre of the island from southwest to northeast; and amphibolite facies gneisses, granites, and granitic gneisses of the Vinjayan and Wanni Complexes occur in the eastern and southeastern lowlands and in the northwest respectively (Figure 3).

The coastal regions of the northern portion of the island contain more recent sediments: lithified Miocene limestones and sandstones and younger largely unconsolidated Quaternary units. The limestone units are reportedly irregular, underlain by sandstone units and lie unconformably on the Precambrian basement. The Quaternary units consist of clastic sediments in the form of largely unconsolidated beach sands, dune sands, and lagoonal and estuarine sediments.

Heavy minerals are widely distributed in the basement complexes typically as fine disseminations, particularly within gneisses, granulites, pegmatites, dolomites, and quartz veins. These heavy minerals include the valuable heavy minerals ilmenite, rutile, zircon, monazite, and garnet. Erosion of the basement rocks, down-river transport to the coast, and longshore movement by currents and waves has led to the accumulation of heavy mineral deposits in the coastal sands (Figure 4).

Figure 3 Geological Map of Sri Lanka

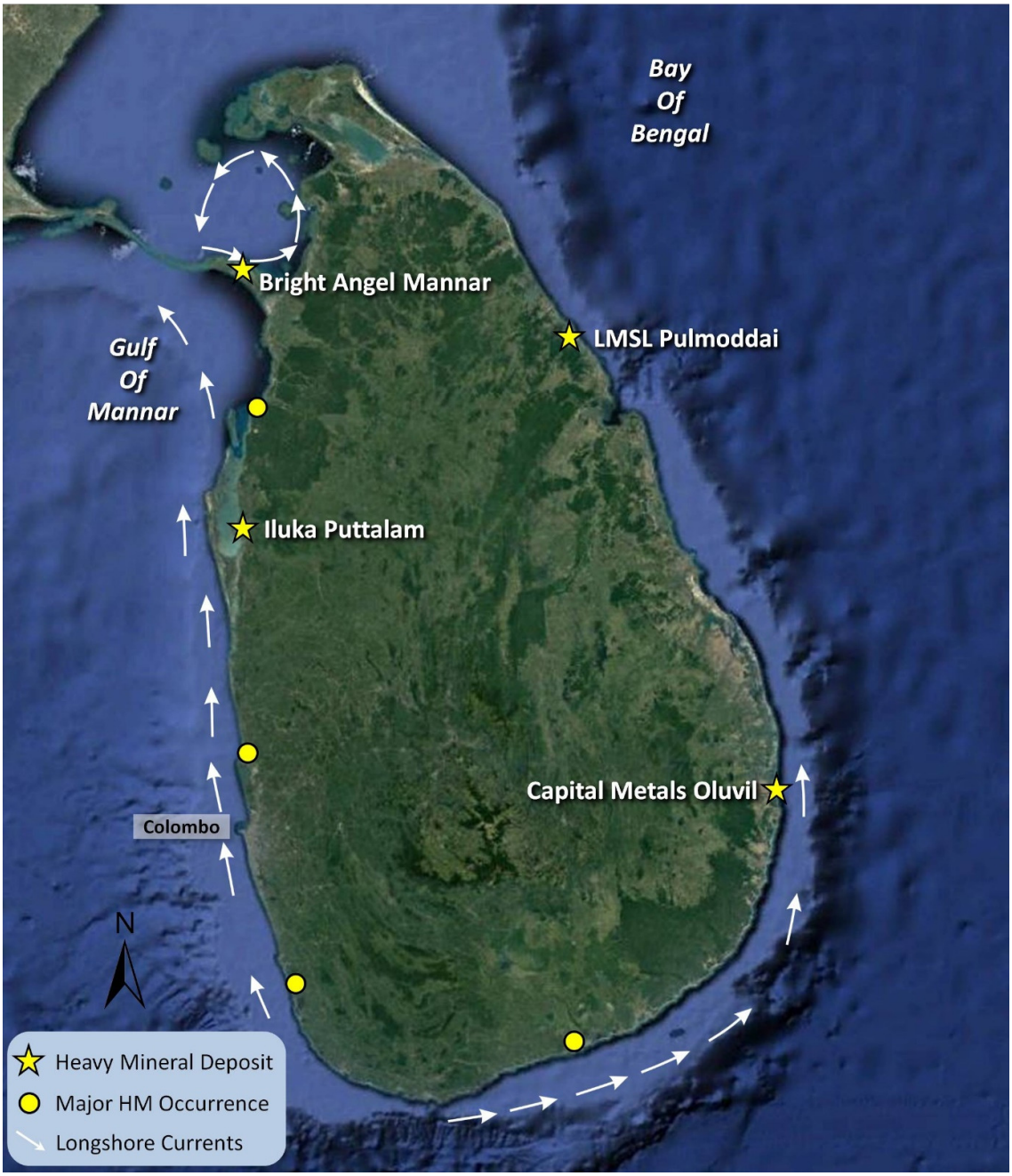

Figure 4 Sri Lankan Heavy Mineral Deposits and Occurrences

The Pullmoddai Deposit has been mined by Lanka Mineral Sands Limited ("LMSL") since 1959 (Herath, 2008); Iluka Resources Limited ("Iluka") has completed a scoping study on its Puttalam Deposits, which contain 689Mt at an average grade of 8.2% HM (Iluka, 2013); and Capital Metals Limited is developing its Oluvil Deposit, which contains 17.2Mt @ 17.6% THM (Capital Metals, 2017).

Project Geology

The project tenements are situated on Mannar Island. A portion of the 1.100,000 Geological Map of the area is shown as Figure 5.

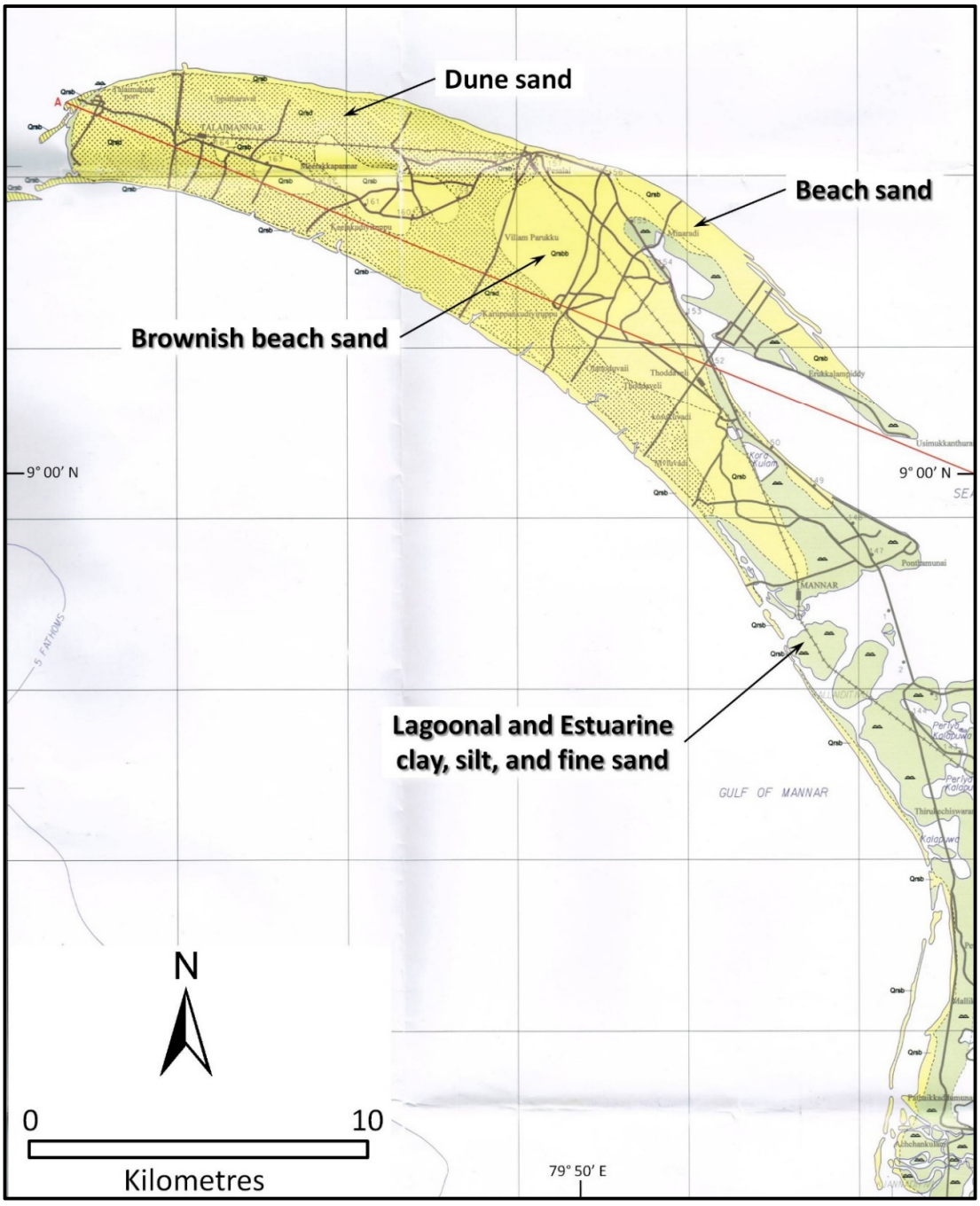

Figure 5 Geological Map of Mannar Island (after GSMB, 2010b)

The geological units within the project area are all Quaternary in age. They comprise active beach and sea-floor sands, younger white dune sands, finer-grained lagoonal and estuarine deposits, and older red or brown sands (both beach and dunal). Figure 6 displays a diagrammatic cross-section through

Mannar Island, showing the relationship between these units. Heavy mineral mineralisation is present within both the younger and older beach sand units. The drilled inland sands of the Bright Angle Licenses are generally very silt/fines (-45 micron) poor, with an average silt content of less than 1%. The drilled material included a reasonable portion of oversize material (+1mm), in the order of 19%.

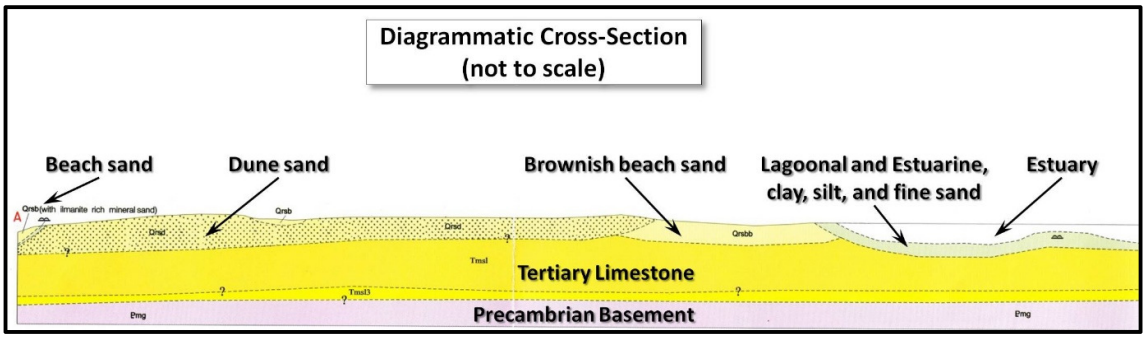

Figure 6 Diagrammatic geological section along Mannar Island (after GSMB, 2010b)

MANNAR ISLAND HEAVY MINERAL EXPLORATION

Exploration for heavy mineral sands has been carried out on Mannar Island since 2011.

TSL Tenements

This section is sourced, and largely copied from, 2014, 2015, and 2019 reports by GeoActiv (Badenhorst, 2014; Siebrits and Badenhorst, 2015; & Siebrits and Badenhorst, 2019a).

Supreme 2011

In July 2011, Technical Consultants of Supreme Solutions (Pvt) Ltd ("Supreme") reportedly completed a preliminary field visit to the island and collected an unspecified number of mineral sand samples from tidal, beach and berm zones. These samples were subject to mineralogical analysis and returned 5% to 25% heavy minerals.

GSMB 2011

In October and November 2011, a fieldwork exploration programme was carried out by the Sri Lankan Geological Survey & Mines Bureau ("GSMB"). Observational traverses were followed by auger-hole sampling across the tidal, beach and berm zones throughout much of the licences at a spacing of 10m to 60m on lines 200m apart perpendicular to the coastline. Of note is that the auger-hole sampling programme only encompassed a narrow section of the foreshore sediments, with very few holes located in the backshore sediments. In the tidal zone, each hole was typically drilled to a depth of 0.3m with a single sample being collected from each hole. In the beach zone, each hole was typically drilled to a depth of 1.0m with two samples being collected from each hole (0m to 0.5m and 0.5m to 1.0m). In the berm zone, each hole was typically drilled to a depth of 2.0m with between one and three samples were collected from each hole (0m to 0.5m, 0.5m to 1.0m and 1.0m to 2.0m m).

The samples were provided to Supreme and subsequently submitted to the VV Minerals (Pvt) Ltd laboratory in Tamil Nadu, India for mineralogical analysis. Heavy mineral separation and analysis was conducted on the -2mm +63µ fraction. The HM contents of the samples are displayed in Figure 7

Significantly, the GSMB did drill two outlying auger-holes in EL 180 that were located about 750m inland (Figure 7). Hole PP/DU99 was drilled to a depth of 2m and averaged 6.9% HM. Hole PP/BM103 was also drilled to 2m and averaged 12.4% HM. The grade within both holes was greater than the grade within nearby holes closer to the coast.

GeoActiv 2014

GeoActiv visited EL 180, EL 181, and EL 182 during March 2014 and confirmed the presence of heavy minerals within the areas drilled by GSMB (Figure 8).

During July and August 2014 GeoActiv carried out exploration on behalf of Srinel within EL180, EL 182, and EL 203 (Siebrits and Badenhorst, 2015). The programme was designed to:

- Drill infill holes where there were gaps in the GSMB data;
- Twin a reasonable percentage of the GSMB drill-holes;
- Do some minor checking of mineralisation inland of the GSMB drilling;
- Drill some of the areas and holes deeper than managed by GSMB; and
- Conduct some preliminary handheld auger drilling within EL 203.

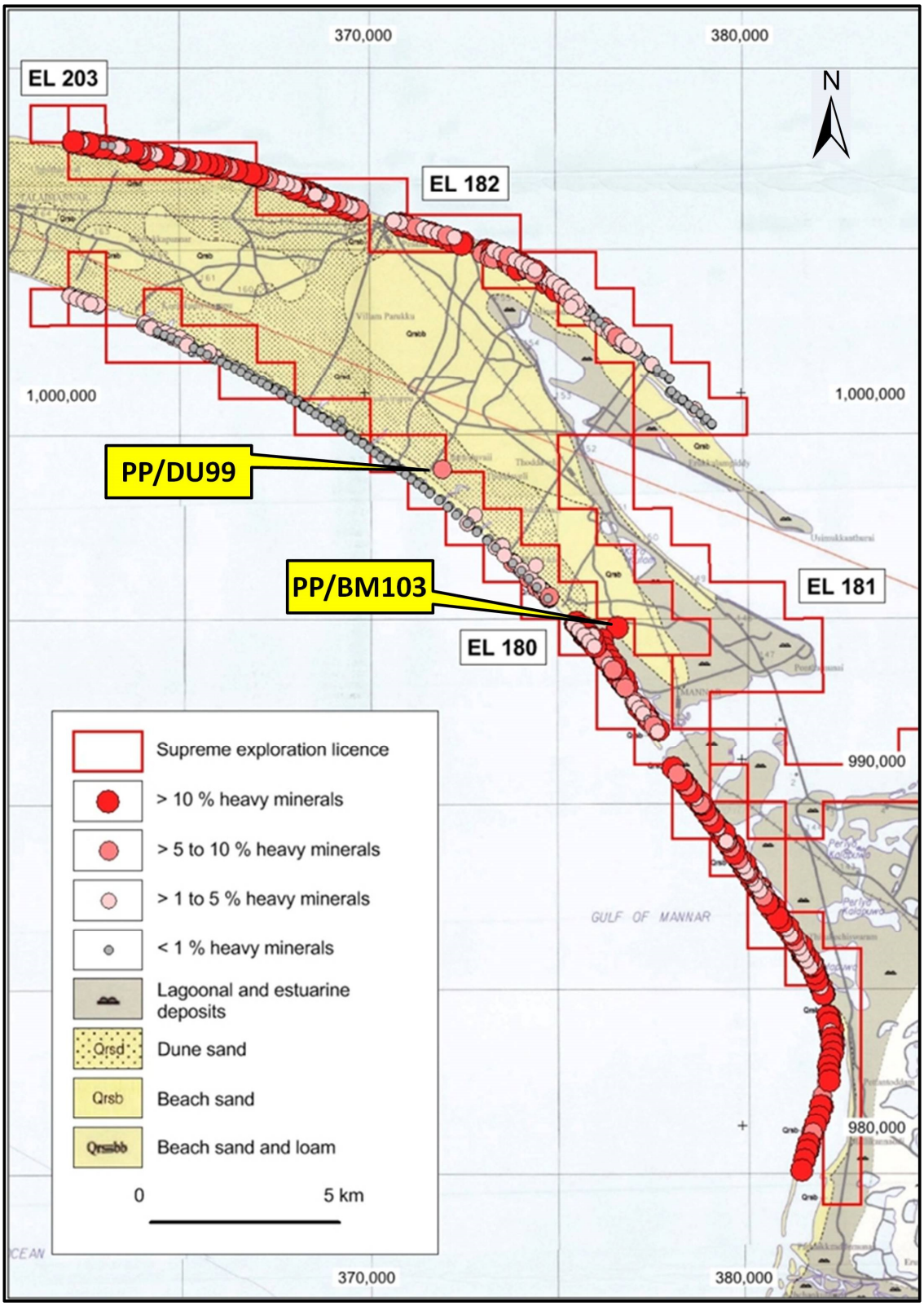

Figure 7 2011 Auger-hole results (from Badenhorst, 2014)

Figure 8 Pit dug into HM mineralisation within berm area (from Badenhorst, 2014)

Analytical work was to consist of TBE heavy fraction separation, followed by magnetic separation work to generate the different magnetic and non-magnetic fractions, followed by quantitative XRF and optical microscope work to determine the HM assemblage. Defendable QAQC procedures were to be carried out.

GeoActiv was also contracted to commission a satellite based (GeoEye) Digital Terrain Model ("DTM") and to carry out a "JORC compliant" resource estimation.

The exploration programme and the resource estimation were reported by Siebrits and Badenhorst (2015). They stated, "The exploration programme met all initial goals, ultimately proving the presence of significant amounts of heavy mineral mineralisation within the licenses."

A hand-held auger was used for the drilling, with a total of 103 new holes and 31 twinned holes drilled within the three licenses. The programme used a similar geological logging and sampling process to that carried out by the GSMB. The GeoActiv auger did manage to generally penetrate deeper than did the GSMB drilling (NS06 within EL182 was drilled to 3.7m), but below the water table sample recovery again presented difficulties.

Significantly, the deepest hole drilled, NS06, averaged 9.6% HM from 0m to 2m, 4.2% HM from 2m to 3.5m, and 2.6% from 3.5m to its base at 3.7m. NS06 was drilled within EL 182, about 270m inland.

Figure 9 shows the locations of the holes drilled during the programme.

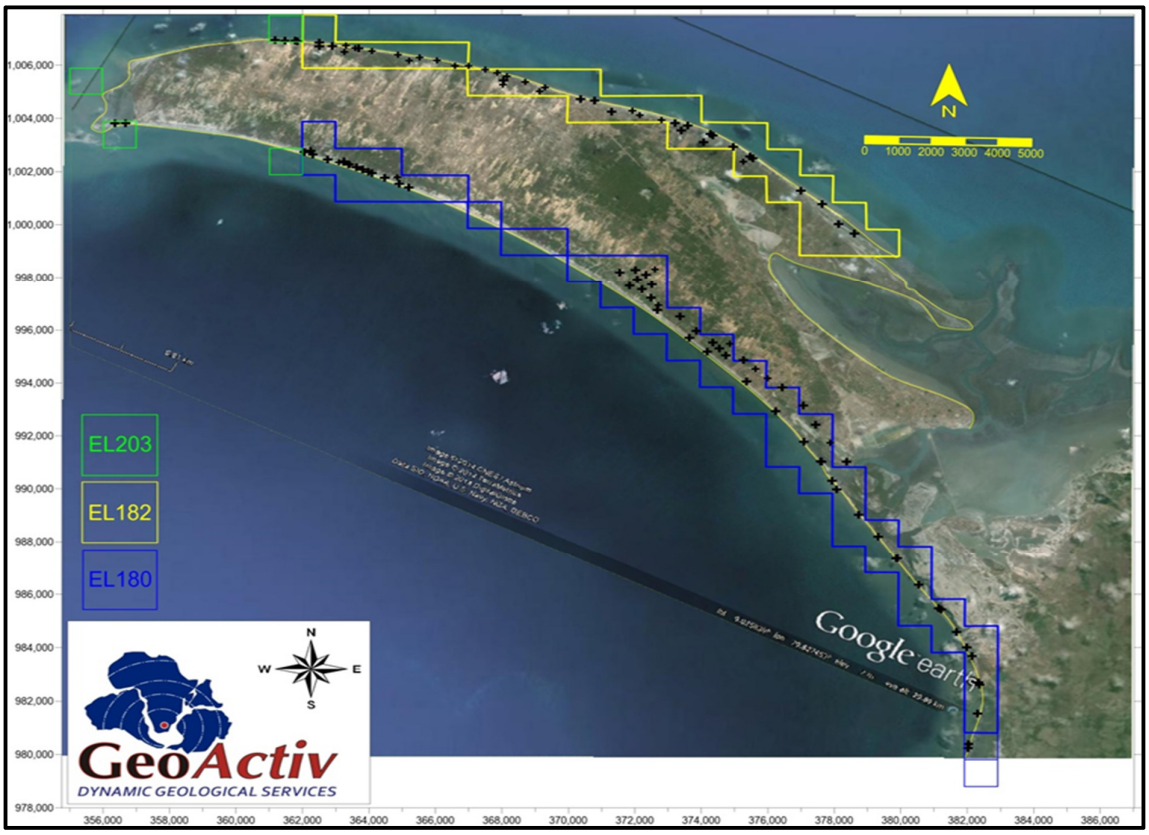

Figure 9 Locations of 2014 drill-holes (from Siebrits and Badenhorst, 2015)

The samples were analysed by Scientific Services CC in Cape Town, South Africa.

410 of the 468 samples were assumed by geological examination to have HM contents of at least 1% HM. These were de-slimed and subjected to TBE separation on the -1mm +45µ fraction.

Subsequently 152 composites were prepared from the heavy mineral fractions. The composites were subjected to magnetic separation into four separate fractions. The three main fractions from nine initial samples underwent mineralogical examination by Reyneke (2015), who estimated the average composition of the nine heavy mineral concentrates to be 45.7% Ilmenite, 12.7% Leucoxene, 2.5% Rutile, and 2.4% Zircon.

GeoActiv compared the THM% results from the 2011 GSMB and the GeoActiv 2014 drilling campaigns. The reported 0.5m composites from the earlier drilling had a mean THM content of 10.93%; and the 0.5m composites from the later drilling returned a mean content of 9.30%, i.e. 85% of the former. Consequently, GeoActiv decided to apply a factor of 85% to the THM% values from the earlier drilling and to use the derived values for its resource estimation.

GeoActiv 2015 Resource Estimate

GeoActiv (Pty) Ltd ("GeoActiv") prepared an Inferred Mineral Resource Estimation of the Mannar Mineral Sands Project for Srinel Holdings Limited (Siebrits and Badenhorst, 2015). The resource was announced to the ASX on 22 April 2015 by WVL. The resource, at a lower block cut-0ff of 2% THM, is set out in Table 4. Its location is shown in Figure 10.

Table 4 2015 Inferred Resources within TSL tenements at 2% THM lower cut-off

EL Area	Tonnes	%THM	%Silt	%Oversize	%Ilm*	%Leu*	%Rut	%Zir
180	4 049 063	11.78	1.89	12.06	5.61	1.35	0.13	0.24
182	5 978 984	11.67	2.17	6.79	5.49	1.32	0.22	0.28
203	304 063	11.71	2.69	1.15	5.42	1.50	0.25	0.25
Grand Total	**10 332 109**	**11.71**	**2.08**	**8.69**	**5.54**	**1.34**	**0.18**	**0.26**

GeoActiv stated, "As with the historic work, the new exploration programme was largely restricted to a narrow strip around the beach area, the drilling depth was also restricted due to the drilling technique and water table. Significant potential exists to increase the resource inland, but also to depth."

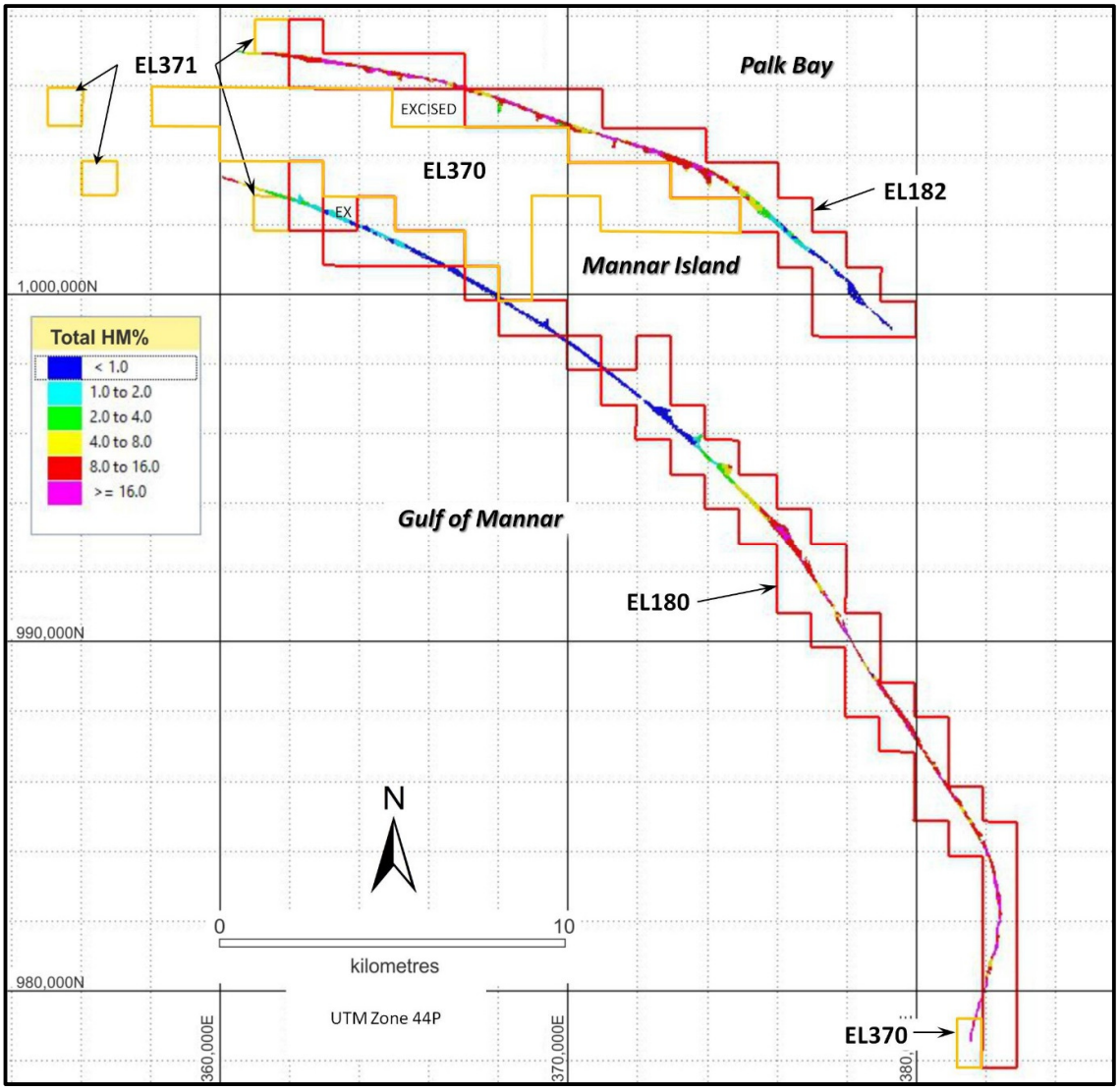

Figure 10 Plan of 2015 OBM – coloured by THM% (from Siebrits and Badenhorst, 2015)

Srinel 2016-2017 Drilling

Srinel Holdings Ltd ("Srinel") carried out a programme of hand auger drilling during 2016 and 2017 (Doepel, 2018). Analyses were carried out on samples from the 849 of the holes that contained visual HM concentration. Holes were drilled to the water table. Their average depth was 1.59m and the maximum hole depth was 6m.

The drilled mineralisation appears to have a strike length of around 12km and to extend up to 2.5km inland (Figure 11). 80% of the holes returned at least 2% THM, had an average grade of 4.9% THM, and a weighted average grade of 5.2% THM. The maximum THM content was 26.6%. Mineralisation was present from the surface.

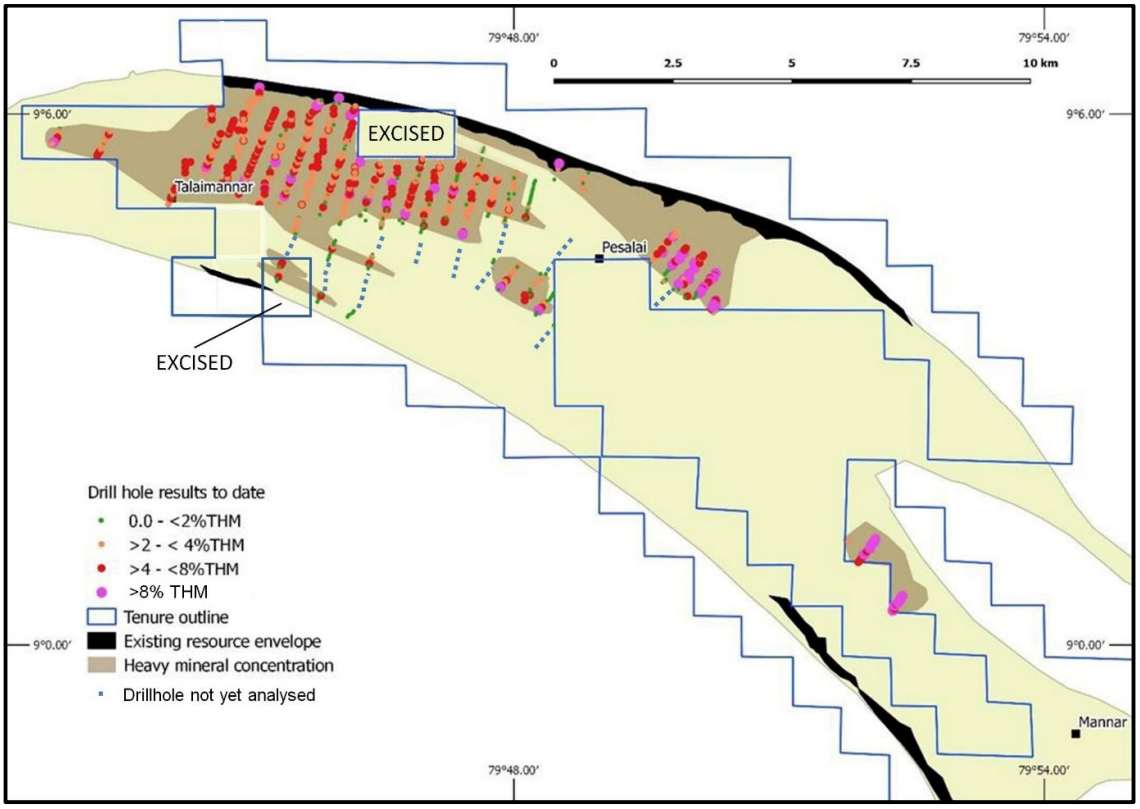

Figure 11 2016 and 2017 auger-hole results (after TSL announcements)

TSL Resources

Following the 2016 and 2017 drilling campaigns, GeoActiv carried out an Inferred Resource estimate for the mineralisation within the newly drilled area of TSL's Mannar Mineral Sands Project (Siebrits and Badenhorst (2019a). The new resource estimate, at a lower block cut-0ff of 2% THM, is set out in Table 5, along with the 2015 estimate.

Table 5 2015 and 2019 Inferred Resources within TSL tenements at 2% THM lower cut-off

Estimate	Tonnes (M)	THM %	Silt %	Oversize %	Ilmenite %	Leucoxene %	Rutile %	Zircon %
2015	10.33	11.71	2.08	8.69	5.54	1.34	0.18	0.26
2019	42.76	5.41	0.88	7.92	2.51	0.53	0.11	0.12
Totals	**53.09**	**6.63**	**1.11**	**8.07**	**3.10**	**0.69**	**0.12**	**0.15**

Figure 12 displays the 2019 OBM coloured by THM%.

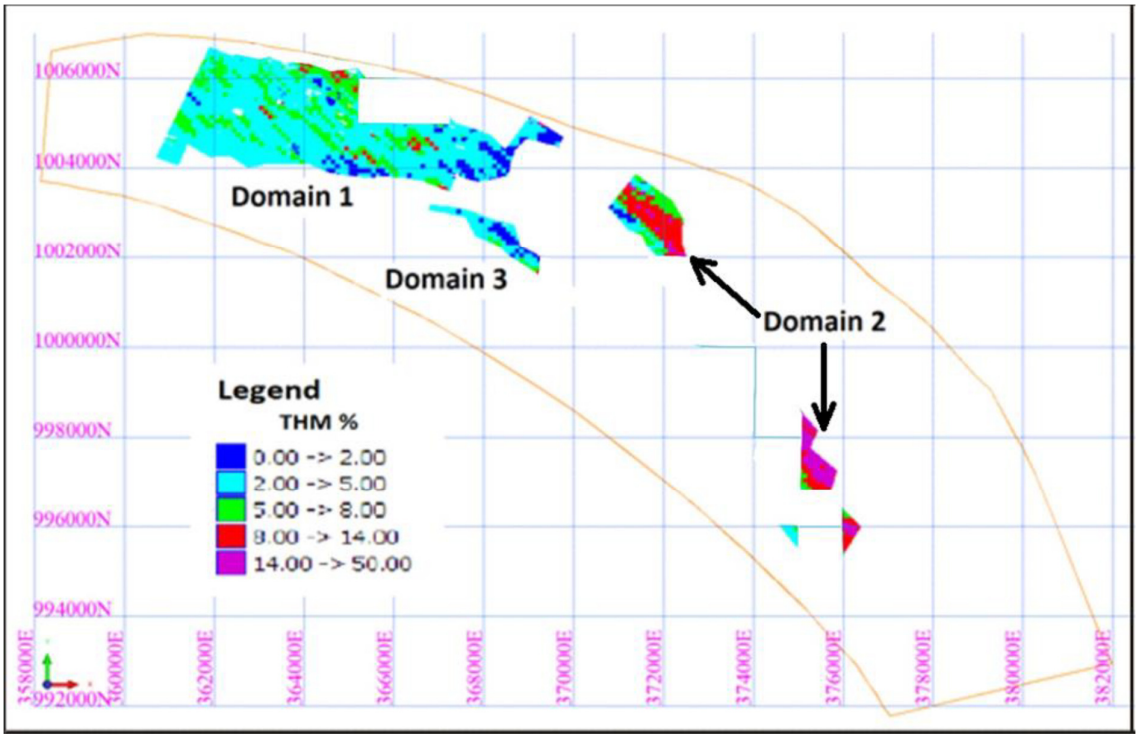

Figure 12 Plan of 2019 OBM within TSL tenements – coloured by THM% (from Siebrits and Badenhorst, 2019a)

TSL 2018 Drilling

TSL carried out a further hand auger drilling programme during 2018 within the area of the resources reported in 2019. The majority of the programme consisted of infill drilling within the existing resource envelope, reducing the drilling pattern to 50m spaced holes on 200m spaced lines, with the intention of upgrading the resource from Inferred to Indicated status (TSL ASX Announcement August 15, 2019). The locations of the holes are shown on Figure 13.

Results from 357 of the drill holes have been received to date (Figure 14). Of the 357 drill holes analysed, 330 returned intercepts between 2% and 24% THM. Of these 126 were located outside the previously defined resource. All these mineralised intercepts are from surface. Drilling was to the water table at 2m to 5m depth.

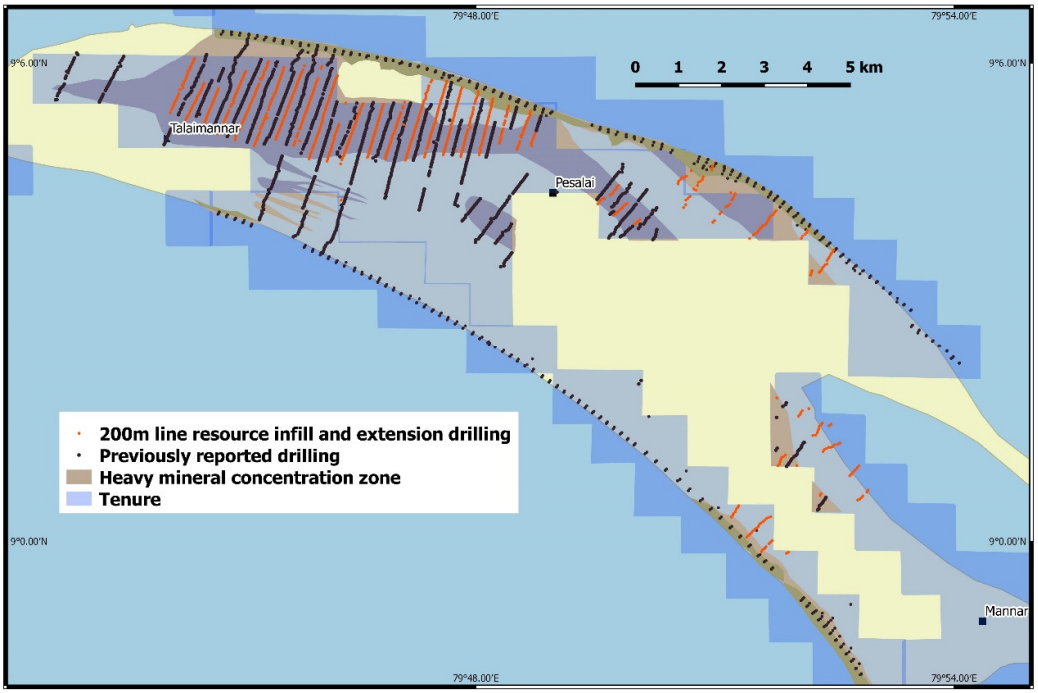

Figure 13 TSL 2018 Infill Drilling (from TSL ASX Announcement 15/08/2019)

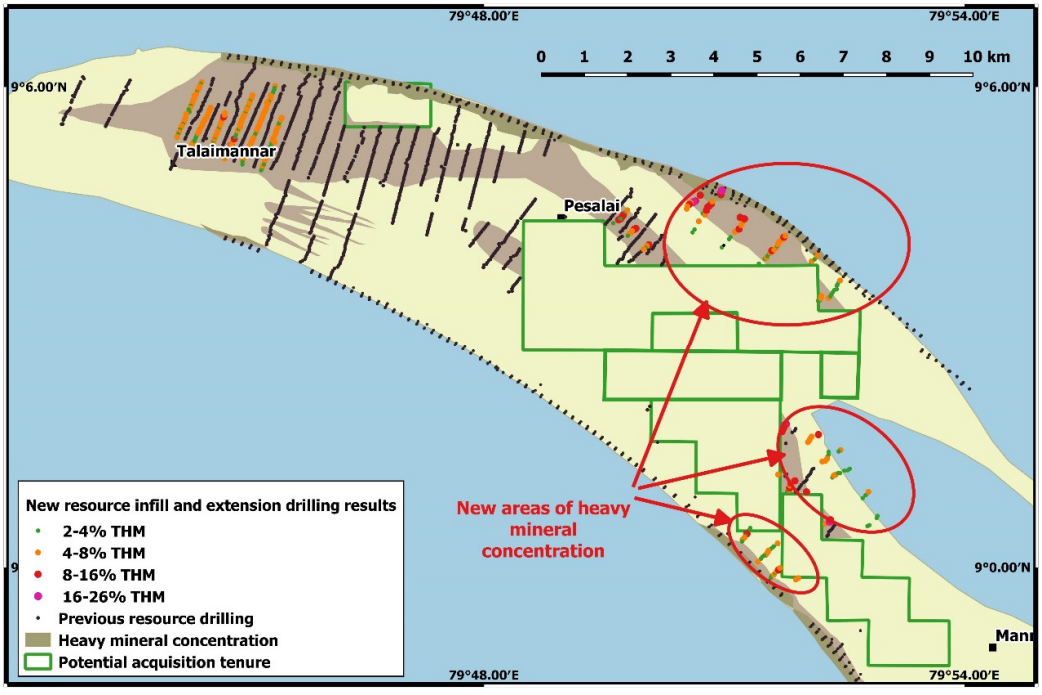

Figure 14 TSL 2018 Drilling Results (from TSL ASX Announcement 15/08/2019)

Bright Angel Exploration

No known historic exploration work had been conducted within the Bright Angel licenses prior to the work reported in this document.

The following exploration details have been summarised from Siebrits and Badenhorst (2019b).

2017-2018 Drilling

Bright Angel conducted hand-held auger drilling in 2017 and 2018 within all four of its ELs. Exploration was phased, with the initial drill lines at approximate 800m spacing with holes every 50m. Infill drilling was carried out in areas of significant mineralisation to bring the line spacing to 400m. The positioning of the infill drilling was based on the visual heavy mineral estimates of the first phase drilling. Drilling took place to the depth of the water table, which averaged 1.87m. Drilling below the water table was not possible with the equipment used and hole depths varied from 0.3m to 3.8m. Sample lengths were 0.5m.

A total of 692 holes were drilled within the ELs. Samples from 454 of the holes were sent for analytical work at Scientific Services in Cape Town, South Africa. The visual field Total Heavy Mineral percentage (THM%) estimation was used in determining which holes were to be analysed. The analytical results were then carefully checked and additional analyses done where analytical results were requested of non-analysed drill-holes that were likely to still have significant THM content. A significant proportion of the drill-holes were still in mineralisation at the top of the water table level where drilling stopped, with 275 of the 454 holes returning >1% THM from the bottom-of-hole sample; and 184 holes returning >2% THM at the end of the hole. Significant depth extension to the mineralisation is therefore possible. Along strike, potential extension to the mineralisation exists to the southeast, beyond the last line drilled (Figure 14).

GeoActiv carried out a QAQC due diligence 24-hole twin drilling programme during August 2017 (GeoActiv was not involved in the initial programme). The drilling was carried out to the exact documented procedures used by the client, using same staff. The work took place under the supervision of Kobus Badenhorst of GeoActiv. As this drilling programme took place in a very dry period and the ground water table was lower, several of the holes manage to obtain deeper depths than during the exploration drilling programme. Figure 13 shows the QAQC drilling team and the auger equipment used.

Bulk Density Determinations

During the site work by Kobus Badenhorst, Bulk Density determinations were carried out at 31 sites directly adjacent to the exploration drill-holes. The sites were spread throughout the Bright Angel licenses. Square 0.5m deep holes were carefully dug and the extracted sand weighed wet and dry. The sides of the holes were lined out with very thin plastic sheeting and the volume of the holes were determined by measuring the volume of water needed to fill the holes. In most of the sites another hole was done at the base of the first 0.5 m hole to a total depth of 1.0 m, with a total of 61 tests done on the Bright Angel licenses.

The results indicated an SG of 1.76 t/m^3 for the mineralisation within Domain 1, of 1.74 within Domain 2, and of 1.75 within Domain 3.

Figure 15 Hand-held auger drilling – twin-hole programme 2018

Analysis

Initial sample preparatory work was done at the office in Pesalai on Mannar Island. Desliming at -45 microns and oversize removal at +1mm took place there. Duplicates were prepared from about every 20th sample. Kobus Badenhorst conducted an audit of the facility and found the procedures were being followed diligently, with weight information collected at all the applicable stages of the process and that the sampling equipment and sample handling where appropriate.

The +45micron -1mm samples were then couriered to Scientific Services CC ("SS") in Cape Town, South Africa. Duplicate samples were also sent to Diamantina Laboratory in Perth for laboratory referee checks. The sample size for the HM determination varied from 150g to 250g.

The THM percentage was defined as: THM% = heavy minerals weight / (slime weight + sand weight + oversize weight) * 100. The THM% determined by SS was calculated using the slime weight + sand weight + oversize weight that were determined on Mannar to report the THM% of the original sample.

The THM% results are shown on Figures 14 and 15. On Figure 14 the black circles show the hole locations from which samples were not analysed because of their visual HM grades being ascertained to be <1%.

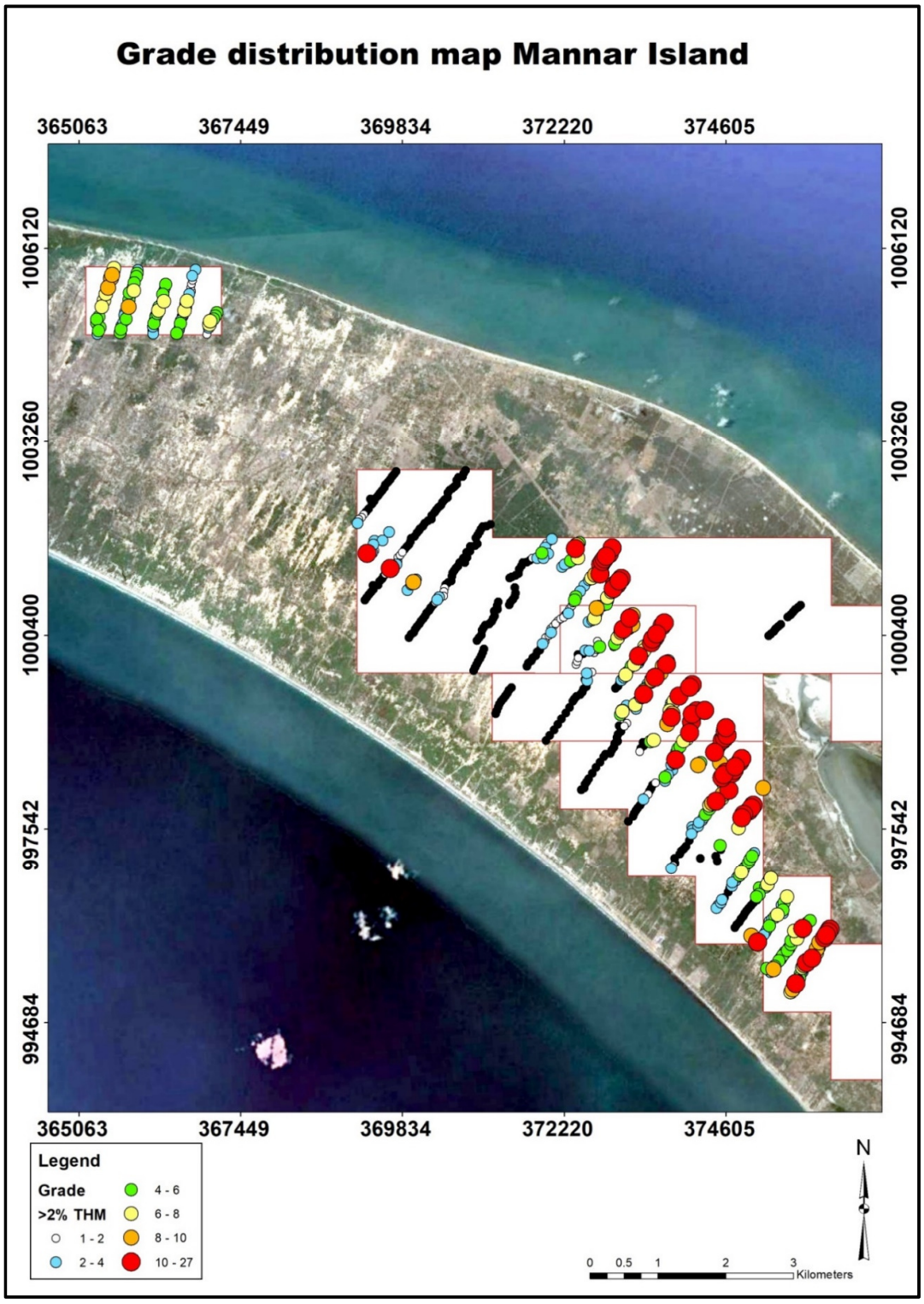

Figure 16 Drill-hole locations with %THM Grades – Black circles indicate low visual HM grades

Mineralogy 2018

Reyneke (2018) carried out mineralogical investigations on four composite HM concentrates obtained from the 2017 drilling. The concentrates came from eight drill-holes, of which six were within the

Bright Angel tenure. Each composite was separated into three fractions; Magnetic, Magnetic Other, and Non-Magnetic. Each sub-sample was split and analysed by XRF, micro-phase XRD, and point-counting. The results were used to estimate the mineral assemblages within the resource estimate that was to be carried out on both the TSL and Bright Angel licences.

Results included:

- The Valuable Heavy Mineral ("VHM") content averaged 63%;
- Micro-phase analysis of 17 ilmenite grains gave an average TiO_2 content of 52.6%;
- Micro-phase analysis of 10 leucoxene grains gave an average TiO_2 content of 70%; and
- Micro-phase analysis of 21 zircon grains gave an average ZrO_2 content of 66.5%.

MINERAL RESOURCE ESTIMATION

This section is sourced, and largely copied from a 2019 report by GeoActiv (Siebrits and Badenhorst, 2019b).

Introduction

Bright Angel, commissioned GeoActiv (Pty) Ltd to conduct a Resource Model, a Mineral Resource statement, and a JORC compliancy Report on the four Heavy Mineral Sands exploration licenses they hold on Mannar Island: EL327, EL328, EL351 and EL352. GeoActiv referred to this tenure as Area 2.

The mineralisation within the Bright Angel tenure is continuous with that within the adjoining TSL tenure (GeoActiv Area 1). The resource modelling for both areas was carried out within the same OBMs.

Three OBMs were constructed: Domain 1 OBM, Domain 2 OBM, and Domain 3 OBM (Figures 12 and 16). Figure 15 shows the domain boundaries and the drill results within the Bright Angel tenure.

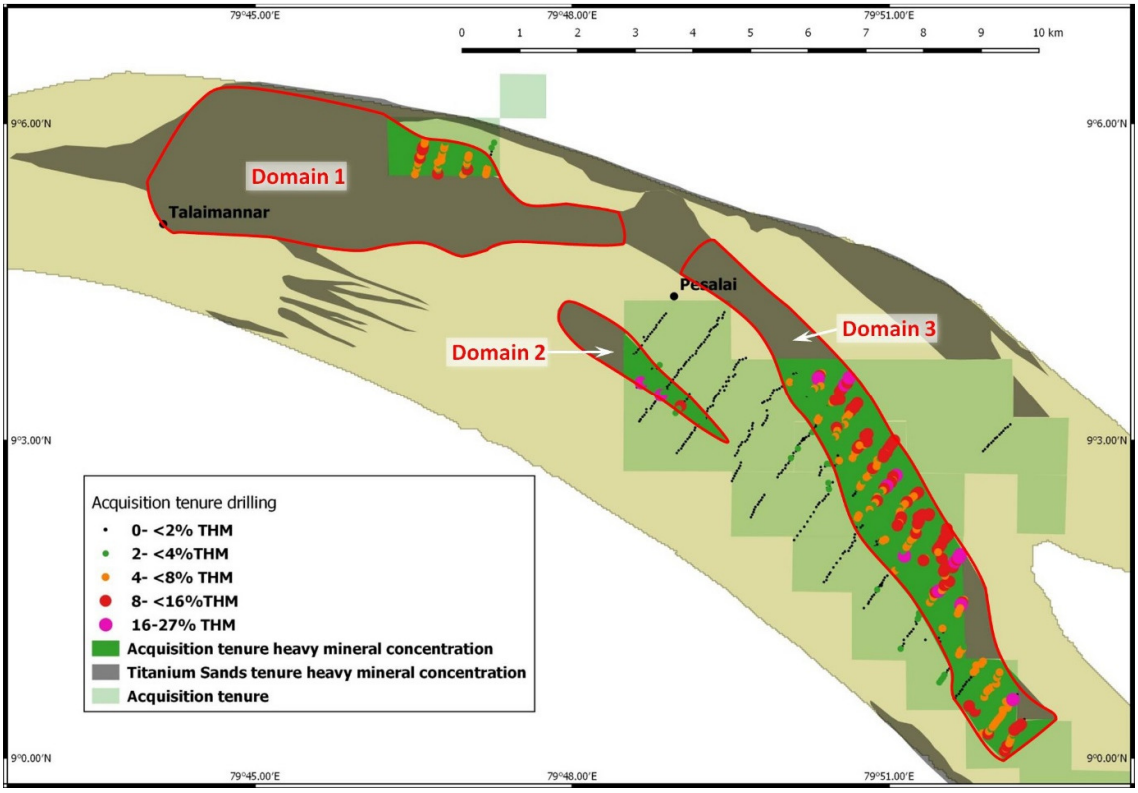

Figure 17 Mannar Island mineralisation, Auger-hole HM results within Bright Angel tenements, and Domains used for resource estimation

Modelling

All drill-holes containing >= 2% THM were used to delineate the mineralisation domains. A detailed digital terrain model ("DTM") that covered the exploration areas was used for the top of the mineralisation per domain with the domain boundaries clipped onto it. The mineralised area was

generally extended to half the distance of the distance between the drilling lines. The end depths of the drill-holes were used as the floor of the mineralised areas for which wireframes were created.

Input assays were composited to 0.5m intervals.

Resource Estimation

Siebrits and Badenhorst (2019b) stated,

"Grade interpolation was implemented with hard boundary conditions by domain area. The recent 0.5 m composite data per domain was used for the estimation of the THM, silt and oversize. The 0.5 m composite data of the magnetic separation and XRF data were used for the estimation of the variables; CI_yield, MO_yield, NM_yield, CI_TiO2, MO_TiO2, NM_TiO2 and NM_ZrO2. Inverse distance to the power of 3 was used for *in situ* grade interpolation for all the variables in the three domains.

Calculated attributes were created in the block model for the calculating of the minerals; ilmenite, leucoxene, rutile and zircon…"

Block Model Parameters

A single block model was created with parent block size of 100m x 100m x 2m and sub-block size of 25m x 25m x 0.5m. The resource blocks were constrained by the boundaries of the DTM and the water table.

Specific Gravity ("SG")

GeoActiv applied a SG of 1.76 t/m^3 to the mineralisation within Domain 1, 1.74 within Domain 2, and 1.75 within Domain 3.

Ore Block Model

A plan of the resultant OBM is presented in Figure 16, coloured by grade.

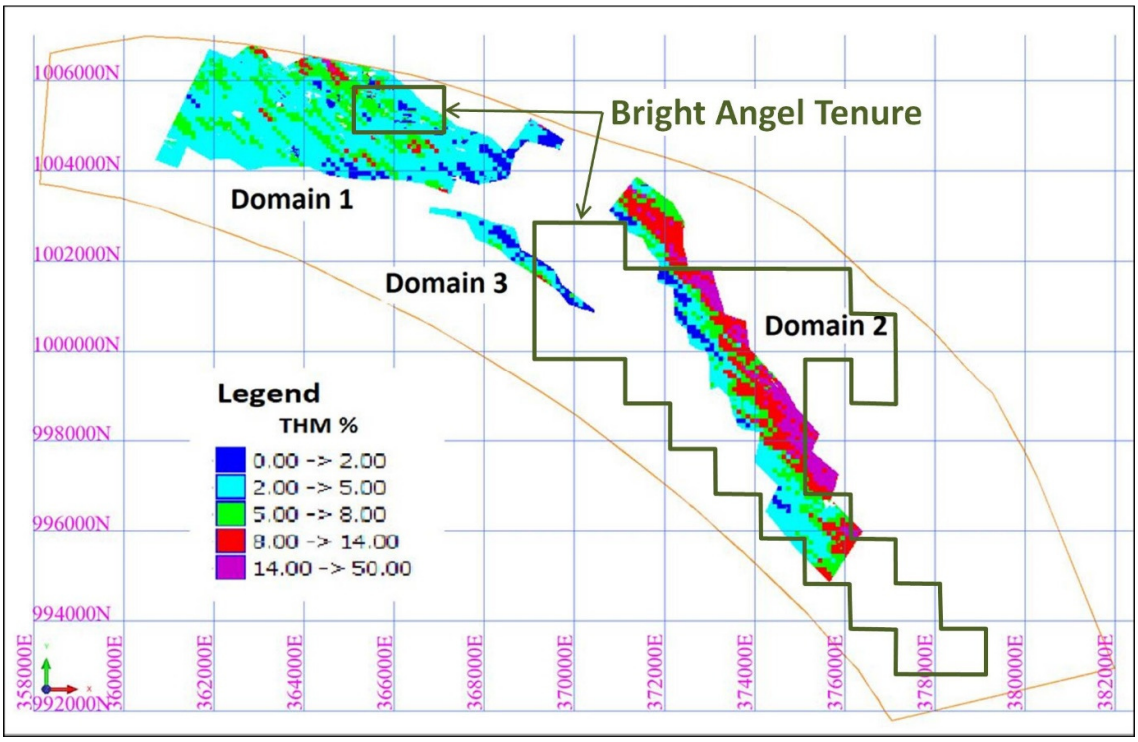

Figure 18 OBM coloured by THM%

Resource Statement

The estimated resources within the Bright Angel tenure are set out in Table 6.

Table 6 Bright Angel Inferred Resources at 2% THM lower block cut-off grade

Domain	Licence	Volume (Mm^3)	Tonnes (M)	THM %	Silt %	Oversize %	Ilm %	Leu %	Rut %	Zir %
1	EL352	1.83	3.21	4.04	0.62	2.40	2.03	0.30	0.10	0.09
	Sub Total	**1.83**	**3.21**	**4.04**	**0.62**	**2.40**	**2.03**	**0.30**	**0.10**	**0.09**
2	EL327	3.03	5.27	9.26	0.74	19.11	4.94	0.67	0.11	0.18
	EL328	7.91	13.77	7.59	0.80	16.41	3.53	0.58	0.10	0.13
	EL351	2.22	3.87	9.17	0.78	25.06	4.75	0.87	0.13	0.15
	EL352	3.01	5.24	6.37	0.61	14.87	1.99	0.37	0.07	0.07
	Sub Total	**16.18**	**28.15**	**7.89**	**0.75**	**17.82**	**3.67**	**0.60**	**0.10**	**0.13**
3	EL351	0.31	0.55	5.03	0.43	0.64	2.09	0.56	0.16	0.12
	Sub Total	**0.31**	**0.55**	**5.03**	**0.43**	**0.64**	**2.09**	**0.56**	**0.16**	**0.12**
Grand Total		**18.32**	**31.92**	**7.45**	**0.73**	**15.97**	**3.48**	**0.57**	**0.10**	**0.13**

2018 Drilling

As part of due diligence investigations being undertaken by TSL it carried out a further hand auger drilling programme during 2018 within the area of the resources reported in 2019. A total of 329 drill holes were analysed (Figure 19). As for the 2018 programme carried out on adjoining TSL tenure, the majority of the programme consisted of infill drilling within the existing resource envelope, reducing the drilling pattern to 50m spaced holes on 200m spaced lines, with the intention of upgrading the resources from Inferred to Indicated status. The results confirm the continuity of the high grade heavy mineral zone over a strike length of at least 8km and up to 2km wide through the Bright Angel tenure (TSL ASX Announcement August 12, 2019).

The high-grade zone in the acquisition tenure adjoins and extends the heavy mineral concentration zones in the existing Titanium Sands tenure (Figure 19).

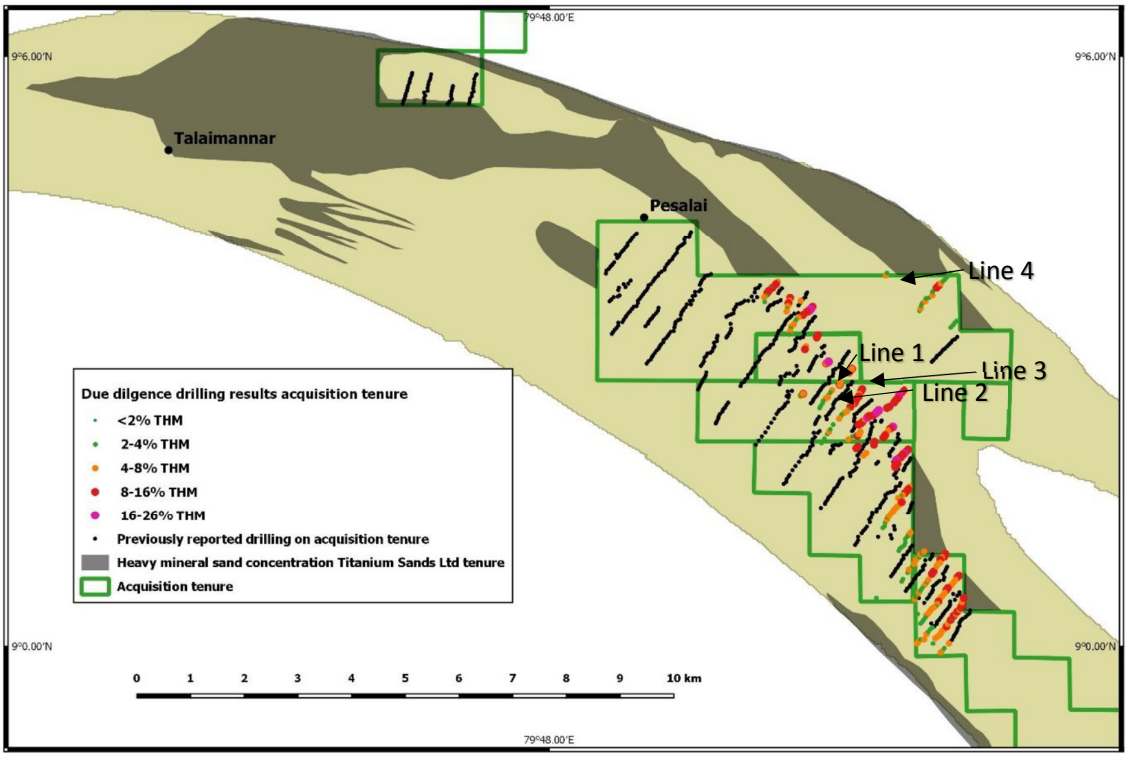

Figure 19 Bright Angel Tenure - 2018 Infill Drilling Results (from TSL ASX Announcement 12/08/2019)

The infill lines confirmed the tenor of the mineralisation in the previous lines. For example, see Figures 20 and 21, cross-sections on adjoining lines, about 200m apart. Note that the vertical exaggeration on Figures 20 to 23 is x 20. The cross-section locations are shown on Figure 19. .

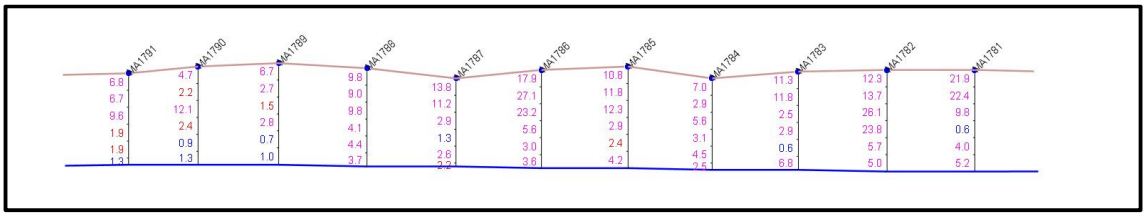

Figure 20 Line 1 Cross-section - 2017 Drill-holes

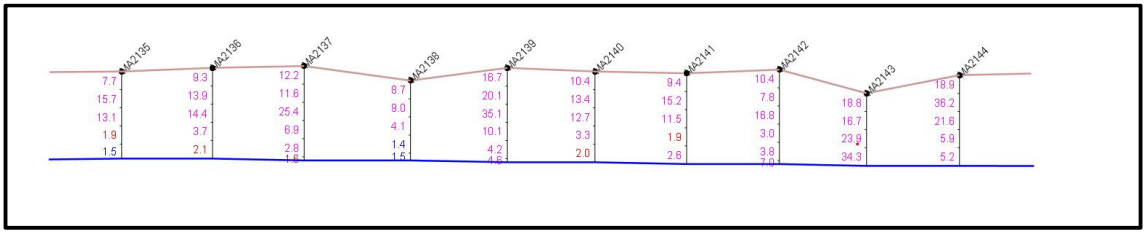

Figure 21 Line 2 Cross-section - 2018 Drill-holes

A few drill-lines extended to the northeast of the previously drilled trend, including those lines shown as Lines 3 and 4 on Figure 19. Line 3 intersected high-grade mineralisation along its length, as shown in Figure 22, a cross-section along the line.

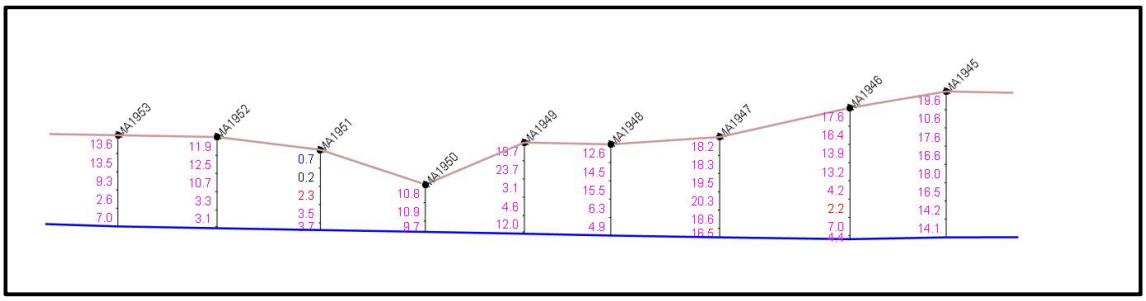

Figure 22 Line 3 Cross-section - 2018 Drill-holes

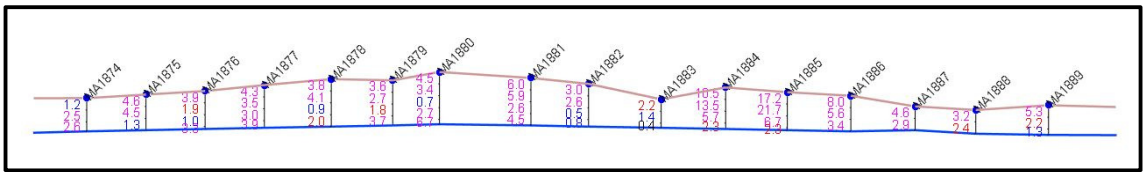

Figure 23 Line 4 Cross-section - 2018 Drill-holes

COMMENTS ON EXPLORATION & RESOURCES

Exploration Coverage
The exploration drilling within the Bright Angel tenure has systematically covered much of the tenure; and has clearly shown the distribution and THM grades down to the water-table in these areas (Figure 19). The few lines of holes that were drilled away from the area of systematic coverage have shown the potential for additional areas of resource.

Drilling, Sampling, and Testing Methodologies
The drilling and sampling methodologies, as described by Siebrits and Badenhorst (2019b), were reasonable to achieve good standard sampling above the water table, which was the base of drilling.

The laboratory separations, as described by Siebrits and Badenhorst (2019b), were carried out to industry standards and the results from them should adequately reflect the grade of the mineralisation.

GeoActiv carried out the twin-hole drill programme of 25 holes. The average HM grade of the GeoActiv samples was 4% lower than that of the 2017 holes at 9.3% THM as against 9.7% THM.

Quality Assurance Quality Control ("QAQC") samples were inserted according to industry standards by GeoActiv and by the laboratory.

Siebrits and Badenhorst (2019b) state:

- The field duplicate samples show acceptable precision for the THM % …… with no obvious bias …. The samples have better than 85% of the duplicate pairs HARD (half the absolute relative difference) value below a 20% precision limit for the THM; and
- Duplicate samples were sent to Diamantina Laboratory in Perth for laboratory referee checks. The 52 laboratory duplicates were analysed for only the THM % …. the Scientific Services values are on average about 0.5 % lower than Diamantina values. The precision are only marginal with 80% of the duplicate pairs HARD value below a 20% precision limit.

Drilling Coverage
The drill coverage, as shown on Figures 16 and 17, adequately sampled the HM mineralisation in the area covered above the water table and was adequate to provide grade data for the estimation of the Inferred Resources in these areas.

The programme, however, did not test potential mineralisation below the water table. Nor did it test the full area of the tenements, with the south-eastern extension to Domain 2 being open within EL352 for about 4km within EL352, although only the first 1.5km of this length is not largely urban or sub-urban (Figure 24). Similarly, the mineralisation is open to the northeast, but, similarly, a proportion of this area is sub-urban.

In summary, there is potential for extensions to the resource both to the southeast and the northeast. There is also definite exploration potential for deeper beach and back-beach facies with heavy mineral concentrations beneath the present water table, both within the area of the present resource and within already drilled areas that have been shown to not contain near surface mineralisation above the water table.

Figure 24 EL352 showing drill-holes and urban or sub-urban areas (dark green)

Resource Estimation

The resource estimation carried out by GeoActiv was well documented and was carried out to industry standards. The interpolation methodology was suitable for the deposits, the block size suitable for the sample spacing, and the sample compositing was also suitable.

CRM has reviewed the input and output grades, both globally and locally, and found them to be comparable.

For the global comparisons, CRM examined the statistics provided by GeoActiv for the composited input assays and the output block grades for the three domains. For Domain 1 the input assays averaged 2.8% lower than the output grades; for Domain 2, 14% lower; and, for Domain 3, 17.5% higher.

For the local comparisons, CRM loaded the drill-hole database and the OBM into the mining and exploration software program Micromine; and then viewed sections through the deposit, comparing the drill-hole HM grades with the interpolated block grades. CRM found that the variation in block model grades followed the variation in input assay grades.

CRM believes that the SGs used (1.74 to 1.76t/m^3) may be slightly conservative. An industry standard is to use the formula SG = 1.686 + (0.0108 x HM%). If this formula had been used, the tonnage would have been larger by around 1.3%.

CRM is of the opinion that the grade of the estimated resources reasonably reflects the grade of the mineralisation within the resource boundaries.

Resource Classification

Siebrits and Badenhorst (2019b) classified the resources as Inferred, stating, "The resource classification was primarily based on the drillhole density and the variability of the data. The drillhole lines were generally 400 m apart and the drillholes 50 m apart on the drilling lines. This gave a good coverage of the areas to be able to create the three domains. The high variances of the variables lower the confidence of the estimates in the block model. The high variability of the field duplicates, referee lab duplicates and between the twinned drillholes, result in a lower confidence in the estimates. The highest variances were within the oversize % and it directly influences the THM %. No QAQC were done on the oversize %, except with the twinned drillholes where the precision and accuracy was poor. With all the above taken into account, all the Mineral Resources were classified as Inferred."

CRM agrees with this classification, as, although the tonnage, grade, and mineral content have been estimated with a degree of confidence, they have not been estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit, which would have enabled them to be classified as Indicated.

CRM is of the opinion that the recently released drill results have shown continuity of mineralisation throughout the resource area.

The VHM mineral assemblage is appropriate for standard industry separation processes, the estimated silt content (0.73%) is low compared to many other deposits, and the fact that the mineralisation extends to the surface throughout the deposit makes the potential for the economic viability of the deposit high. Given these Modifying Factors it is reasonable to expect that the VHMs could be recovered economically. CRM envisages no significant technical risks for the deposits.

VALUATION

For this Mineral Asset Valuation, it is CRM's opinion that:

1. The Mineral Resources should be valued on the basis of their Valuable Heavy Minerals, rather than on the basis of their Total Heavy Minerals; and
2. The Mineral Resources should be valued on the basis of their mineral assemblage.

The valuation is based upon an analysis of comparable transactions, with consideration given to the mineral assemblages, valuable heavy mineral grades, deposit sizes, and classification of Mineral Resources and Ore Reserves.

A Yardstick Method check was carried out to confirm that the valuation was fair and reasonable. The method involved the use of the estimated HM Resources, current mineral prices, and an accepted discount for resource category.

Comparable Transactions

CRM has examined eleven transactions involving HM deposits. The transactions took place between 2010 and 2017.

To compare the different transactions, CRM converted the various mineral assemblages to "Ilmenite Equivalent %" ("Il Eq %"), using the following factors:

- <54% TiO_2 Ilmenite 0.9
- Ilmenite 1
- Garnet 1.1
- Altered Ilmenite 1.75
- HiTi 3.2
- Leucoxene 4.35
- Rutile 4.5
- Zircon 5.8

For example, a deposit containing only zircon as a valuable HM grading 2% would be given an Il Eq grade of 11.6% (2 x 5.8); and a deposit grading 2% ilmenite and 2% zircon would be given an Il Eq grade of 13.6% [(2 x 1) + (2 x 5.8)]

The factors were based on the following USD prices, ascertained on or about 28 September 2017 (Industrial Minerals, 2017):

- <54% TiO_2 Ilmenite $160
- Ilmenite $160 - 185
- Garnet $190
- Altered Ilmenite $300
- HiTi $550
- Leucoxene $700 - 800
- Rutile $710 - 850
- Zircon $950 – 1050

The transactions are briefly described below and are summarised in Table 4. They are ordered in terms of decreasing grade, with the Bright Angel's Mannar Island Deposit included.

In the case of the Bright Angel Deposit, however, current prices have been used to determine its Ilmenite equivalent grade, based upon figures for standard products supplied by TZMI on 31st July 2019:

Product	Low (US$/t FOB)	High (US$/t FOB)	Mean (US$/t)	Ratio
Sulfate ilmenite	145	240	192.5	0.9
Chloride ilmenite	180	250	215	1
Bulk rutile	1000	1140	1070	5
Leucoxene (70-90% TiO2)	270	1000	270*	1.25
Zircon (65-66% ZrO2)	1420	1640	1530	7.1

* Mannar Island Leucoxene analyses averaged 70% TiO_2

Metal Sands' Cooljarloo Joint Venture

In July 2011 Image Resources NL ("Image") purchased Metal Sands Pty Ltd's 30% interest in Image's Cooljarloo Joint Venture for $100,000 cash and 3M Image shares (subject to a 1 year escrow) (ASX:IMA announcement 29 July 2011). At the time Image shares had been trading around 44c. Applying a 10% discount to this price for the escrow period, CRM assumes that the 3M shares had a value of $1.188M; and that the total consideration had a value of $1.288M.

The Joint Venture, in the Perth Basin, WA, contained the Atlas Deposit, which had, at a 2.0% cut-off, Indicated and Measured Resources of 0.878Mt of HM with an assemblage comprising 56% Ilmenite, 3% HiTi, 1.1% Leucoxene, 7.0% Rutile, and 10.6% Zircon, for an Il Eq grade of 13.7% and Il Eq tonnage of 1.37Mt. The resources were 5% Indicated and 95% Measured.

As the transaction was for a 30% interest in the deposit, the consideration of $1.288M was for 0.49Mt of Il Eq HM, which gives a value of $2.63/t.

Image Resources' Perth Basin Projects

In April 2015 Image announced the signing of a non-binding Memorandum of Understanding ("MOU") with Murray Zircon Pty Ltd ("Murray Zircon") whereby Murray Zircon would acquire 42% of Image's consequently expanded shares. Image's major assets were its Perth Basin Boonanarring and Atlas HM Deposits (ASX:IMA announcement 30 April 2014). A major point of the agreement was for Murray Zircon to provide plant and equipment valued at ca. $20M; and CRM assumes that the transaction had this value. The transaction was settled in June 2016.

At the time of the announcement the Boonanarring and Atlas Deposits had a mining inventory containing 2.135Mt of HM grading 50.1% Ilmenite, 4.2% Leucoxene, 5.1% Rutile, and 19.0% Zircon. 92% of the inventory was of Probable Reserves and the reminder was of Inferred Resources ((Image 2015 Annual Report). CRM has estimated that the inventory had an Il Eq grade of 16.0% and contained VHMs of equivalent value to 4.30Mt of Ilmenite.

In addition to the Boonanarring and Atlas Deposits, Image's Gingin Nth, Gingin Sth, Cooljarloo Nth, and Red Gully Deposits had Total Resources containing 1.905Mt HM (Image 2015 Annual Report). CRM has estimated that these resources had an Il Eq grade of 9.6% and contained VHMs of equivalent value to 3.04Mt of Ilmenite. The contained tonnes of Il Eq minerals comprised 4% Measured Resources, 78% Indicated Resources, and 18% Inferred Resources.

For Image's total mining inventory and resources, the contained tonnes of Il Eq minerals comprised 54% Probable Reserves, 2% Measured Resources, 32% Indicated Resources, and 12% Inferred Resources.

As the transaction was for a 42% interest in the Image, CRM has assumed the $20M to be for 42% of Image's total mining inventory and resources, i.e. for 42% of 7.34Mt of Il Eq HM 3.08Mt). Thus, CRM values the transaction at $6.49/t Il Eq HM.

Iluka Resources' Gingin Deposit

In March 2011 Image reached agreement to acquire four Mining Leases from Iluka Resources Limited ("Iluka") in consideration for $190,000 cash and 1.2M Image shares (subject to a 1 year escrow) (ASX:IMA announcement 9 March 2011). At the time Image shares had been trading around 45c. Applying a 10% discount to this price for the escrow period, CRM assumes that the 1.2M shares had a value of $486,000; and that the total consideration had a value of $676,000.

The Mining Leases were in the Perth Basin, WA near Gingin. They contained four deposits that together had resources at a 2.5% HM cut-off, of 0.955Mt HM with an assemblage comprising 58.9% Ilmenite, 7.7% Leucoxene, 3.4% Rutile, and 11.3% Zircon, for an Il Eq grade of 11.6% and Il Eq tonnage of 1.65Mt. The resources were 26% Inferred, 44% Indicated, and 30% Measured.

As the transaction was for a 100% interest in the deposits, the consideration of $0.676M for 1.65Mt of Il Eq HM gives a value of $0.41/t.

Relentless Resources's Murray Basin Deposits

In June 2017 Broken Hill Prospecting Ltd ("BHM") announced the transfer of BHM's 50% Participating interest in the Farm-In and Joint Venture Agreement between BHM and Relentless Resources Limited ("RRL") (ASX:BPL announcement 28 June 2017). The agreement was for $2.35M. The agreement was settled in September 2017.

The agreement covered tenements containing the Copi North and Magic HM Deposits, which, at the time of the announcement, had Indicated and Inferred Resources containing 1.47Mt HM, the combined assemblage of which contained 52% Ilmenite, 12% Zircon, 9% Rutile, and 10% Leucoxene. CRM has estimated that the resources had an Il Eq grade of 10.7% and contained VHMs of equivalent value to 3.12Mt of Ilmenite, of which 53% was Inferred and 47% was Indicated.

As the transaction was for a 50% interest in the tenements, the $2.35M can be assumed to be for 1.56Mt of Il Eq HM, or $1.51/t.

Image Resources' Cyclone Extended Project 2014

In November 2014 Diatreme Resources Limited ("Diatreme") announced the execution of a conditional purchase agreement with Image whereby Diatreme would acquire Image's remote WA Eucla Basin tenement that included the Cyclone Extended HM resource (ASX:DRX announcement 11 Nov. 2014). The agreement was for 0.435M cash plus an 1% royalty at an agreed value of $0.435M. CRM assumes that the transaction had a value of $0.87. The agreement was settled in March 2015.

At the time of the announcement the Cyclone Extended Deposit had reported Indicated Resources of 25.7Mt @ 3.2 % HM (using a 2.0% HM cut-off) for 0.819Mt of HM, the assemblage of which contained 20% Zircon, 12% Rutile plus Leucoxene, 39% HiTi, and 21% Altered Ilmenite. CRM has estimated that the resources had an Il Eq grade of 10.6% and contained VHMs of equivalent value to 2.71Mt of Ilmenite.

As the transaction was for a 100% interest in the deposit, the $0.87M can be assumed to be for 2.71Mt of Il Eq HM, or $0.32/t.

Austpac Resources' WIM 150 Deposit

In August 2012, Austpac Resources N.L. ("Austpac") agreed to sell its 100% interest in EL 4521 to Orient Zirconic Resources (Australia) Pty Ltd ("Orient Zircon") for $7.5M, subject to the consent of Australian Zircon N.L. ("AZC") as farminee. AZC had the right to earn 80% of the WIM 150 Deposit, which is within the tenement, by completing a Bankable Feasibility Study. AZC announced on 6 September 2013 that it had earnt the 80%. CRM assumes that Austpac and Orient Zircon were aware that this was likely to happen and that the $7.5M was for a likely 20% of the deposit.

In August 2012 the deposit had, at a cut-off of 2% HM, 750Mt of Reserves, containing 7.5Mt of Rutile & HiTi, 12.5Mt Ilmenite, and 5.1Mt Zircon, for an Il Eq grade of 9.4% and Il Eq tonnage of 70.2Mt.

As CRM assumes that the transaction was for a 20% interest in the project, the consideration of $7.5M for 14Mt of Il Eq HM gives a value of $0.54/t.

Diatreme Resources' Cyclone Zircon Project 2013

In July 2013 Diatreme announced a Farm-in Commitment for its Cyclone Zircon Project, which is in the remote Eucla Basin of WA. The farm-in was for $2.0M to earn a 6% Equity in the project (ASX:DRX announcement 26 July 2013). The agreement was signed in January 2014 and payments were completed in September 2014. The farm-in was to Perpetual Mining Holding Limited.

At the time of the July 2013 announcement the Cyclone Deposit had Probable Reserves of 97Mt @ 2.5% HM for 2.41Mt of HM, the assemblage of which contained 32% Zircon, 3% Rutile, 7% Leucoxene, 21% HiTi, 10% Altered Ilmenite, and 23% Silica bearing Ti-oxides. CRM has estimated that the Reserves had an Il Eq grade of 8.2% and contained VHMs of equivalent value to 7.96Mt of Ilmenite.

As the transaction was for a 6% interest in the deposit, the $2M can be assumed to be for 0.478Mt of Il Eq HM, or $4.18/t.

Tiomin's Kwale Project, Kenya

In February 2010 Base Iron Ltd ("Base") announced that it had entered into a binding heads of agreement to acquire the Kwale Mineral Sands Project from Tiomin Resources Inc (ASK:BSE announcement 26 February 2010). The consideration was US$3M (ca. $3.3M AUD) and a 2% royalty. For the purpose of this valuation CRM assumes that the value of the royalty was equal to twice the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at $9.9M

The project is situated in Kenya, 50km from an existing deep-water port. Base stated that the project had been the subject of a Definitive Feasibility Study and that all material project approvals, permits, and licences required for development were in place. Proven and Probable Reserves (of which 53% were Proven) contained 9.22Mt Il Eq HM, at a grade of 6.5% Il Eq (Langridge *et al*, 2006, p. 45).

As the transaction was for a 100% interest in the project, the assumed consideration of $9.9M for 9.22Mt of Il Eq HM gives a value of $1.07/t.

Altura Mining's Balline Garnet Project

In February 2014, Altura Mining Limited ("Altura") advised that it had agreed to sell its Balline Garnet Project to Garnet Australia Pty Ltd for a cash consideration of $4.5M (ASX:AJM announcement 20 Feb. 2014).

The project is situated about 120km by road north of the port of Geraldton in WA. At the time, the project was at a pre-feasibility stage, and had Probable Ore reserves of 3.7Mt of HM, the assemblage comprising 77% Garnet, 0.6% Rutile, 1.6% Ilmenite, and 13.8% Altered Ilmenite, for an Il Eq of 4.2Mt. The Il Eq grade of the reserves was 6.4%.

As the transaction was for a 100% interest in the project, the assumed consideration of $4.5M for 4.2Mt of Il Eq HM gives a value of $1.07/t

Bright Angel's Mannar Island Project

Bright Angel's Mannar Island Project tenements contain, at a 2.0% cut-off, Inferred Resources of 2.378Mt of HM with an assemblage comprising 47% Ilmenite, 7.7% Leucoxene, 1.3% Rutile, and 1.7% Zircon, for an Il Eq grade of 5.3% and Il Eq tonnage of 1.69Mt.

Governor Well's Governor Broome Deposit – 80%

In Sept 2011 Astro Resources NL ("Astro") acquired 80% equity in Governor Well Minerals Scott Coastal Plain Mineral Sands Project east of Augusta, WA (ASX:ARO announcement 20 September 2011). The consideration was $1M cash, 200M shares with a 1-year escrow period, and 1.5% net royalty. The shares had been trading at $0.004. Applying a 10% discount to this price for the escrow period, CRM assumes that the 200M shares had a value of $0.72M and that the cash plus shares portion of the consideration had a total value of $1.72M. For the purpose of this valuation CRM assumes that the value of the royalty was equal to 1.5 times the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at 2.5 x $1.72M or $4.3M.

The significant deposit within the Project was the Governor Broome Deposit, which had an Inferred Resource containing 1.94Mt HM with an assemblage comprising 63.5% Ilmenite, 4.1% Rutile, and 4.3% Zircon, for an Il Eq grade of 5.6% and Il Eq tonnage of 2.87Mt.

As the transaction was for an 80% interest in the deposit, the consideration of $4.3M was for 2.3Mt of Il Eq HM, which gives a value of $1.87/t.

Governor Well's Governor Broome Deposit – 20%

In August 2013 Astro entered into an agreement to acquire the remaining 20% shareholding in Governor Well Minerals Scott Coastal Plain Mineral Sands Project east of Augusta, WA (ASX:ARO announcement 15 August 2013). The consideration was $0.75M cash and 1.5% net royalty. For the purpose of this valuation CRM assumes that the value of the royalty was equal to 1.5 times the value of the cash component, based on the Image Resources' Cyclone Extended 1% Royalty being valued by Image and Diatreme to be equal to the cash component of their transaction. Thus, CRM values the transaction at 2.5 x $0.75M or $1.875M.

The significant deposit within the Project was the Governor Broome Deposit, which by August 2013 had Inferred Resources containing 6.68Mt HM with an assemblage comprising 52.6% Ilmenite, 6.2% Secondary Ilmenite, 3.5% Leucoxene, 1.7% HiTi, and 5.3% Zircon, for an Il Eq grade of 5.0% and Il Eq tonnage of 7.67Mt.

As the transaction was for a 20% interest in the deposit, the consideration of $1.875M was for 1.53Mt of Il Eq HM, which gives a value of $1.22/t.

Adjustment for Classification

The value of a deposit, in addition to its grade, depends upon the classification of its contained Mineral Resources or Ore Reserves. CRM has adjusted the Il Eq values per tonne of the transactions by multiplying them by the following factors, to reflect the notional value of each transaction if the deposit had only been explored to enable the estimation of Inferred Resources:

- Inferred Resources Il Eq% x 1
- Indicated Resources Il Eq% x 0.67
- Measured Resources Il Eq% x 0.5
- Probable Reserves Il Eq% x 0.4
- Proven Reserves Il Eq% x 0.33

For example, a deposit containing Indicated Resources with an Il Eq value of $2/t, would have the value adjusted to a $/t Inferred Equivalent value of $1.34/t (2 x 0.67).

The adjusted values are set out in Table 7 in which the final column displays the adjusted $/t of Il Eq HM on an Inferred Resource basis.

Discussion of Comparable Transactions

Table 7 Summary of Comparable Transactions

Vendor	Project	Classification	Transaction $M	Il Eq %	Il Eq Mt[1]	$/t	$/t Inf. Eq
Metal Sands	Cooljarloo	95 % Measured 5% Ind.	1.29	15.3	0.49	2.63	1.33
Image	Perth Basin	Reserves to Inferred	20	12.5	3.08	6.49	3.26
Iluka	Perth Basin	Indicated	0.676	11.6	1.65	0.41	0.27
BPL	Murray Basin	47% Indicated 53% Inferred	2.35	10.7	1.56	1.51	1.22
Image	Cyclone Ext.	Indicated	0.87	10.6	2.71	0.32	0.21
Austpac	WIM 150	Reserves	7.5	9.4	14	0.54	0.21
Diatreme	Cyclone	Probable Reserve	2	8.2	0.478	4.18	1.67
Tiomin	Kwale	53 % Proven Reserve 47% Probable Res.	9.9	6.5	9.22	1.07	0.43
Altura	Balline	Probable Reserve	4.5	6.4	4.22	1.07	0.43
Governor Well	Governor Broome	Inferred	1.87	5.6	2.29	1.11	1.11
Bright Angel	***Mannar***	***Inferred***		**5.3**	**1.69**		
Governor Well	Governor Broome	Inferred	1.875	5.0	1.53	1.22	1.22

Note: [1]: Il Eq Mt is tonnage of transaction

For three of the transactions (shaded grey in Table 6), the calculated $/t values would, if applied to the Mannar Island Project, give unreasonably low values for the Project ($0.46M or $0.35M). They were therefore not included in further analysis.

For the remaining eight transactions there is, as would be expected, a general relationship between grade and price per tonne of Il Eq HM. This is shown in Figure 17, a log normal plot of price/t versus grade.

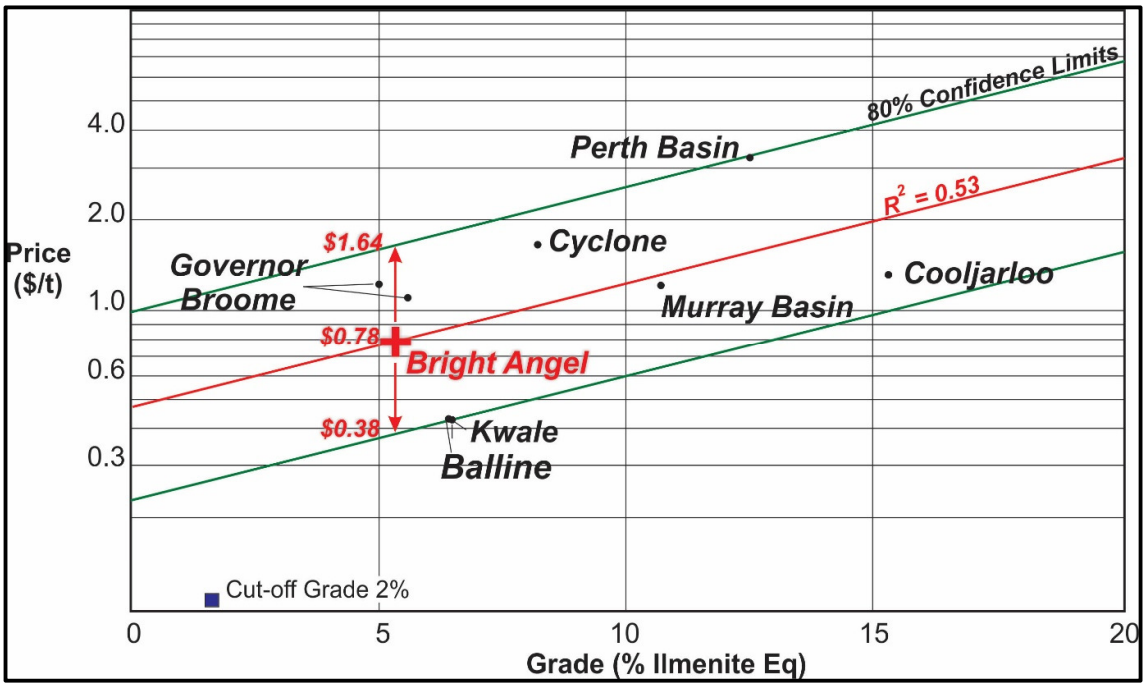

Figure 25 Plot of Comparable Transactions (Price/t v Grade) – using 2017 Ilmenite prices

The grade of the Bright Angel Mannar Island Resource is shown in Figure 17, plotted within a trend channel that CRM has used to interpolate high and low range $/t values for the Project, based on the Il Eq. grade of the resources. The high value is $1.64/t, the low value is $0.38/t, and the value interpolated from the trend line is $0.78/t. As the tenements contain resources totalling 1.69Mt Il Eq HM, the value of the Mineral Assets within them could be taken to be between $0.64M and $2.77M.

However, these values are based on an ilmenite price of US$172.50 per tonne and an exchange rate of A$ 1= US0.77 for an ilmenite price of A$224/t. The current ilmenite price is of the order of US$215/t and A$1=US0.67c for an ilmenite price of A$321/t, an increase of 43% over the October 2017 price.

The value of the Mineral Assets should be increased accordingly, and **CRM ascribes the Comparable Transaction derived value of the Mineral Asset to be within the range of $0.9M to $4.0M. It ascribes the preferred value to be $4.0M,** at the upper end of the range**,** as

- It is apparent that further systematic drilling would enable additional resources to be estimated above the water table, as both along-strike and across-strike extensions;
- There is potential for further resources to be present below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Exploration Expenditure

The VALMIN Code indicates that a cost-based method is appropriate for valuation of an exploration project. Under this method, the previous exploration expenditure is assessed as either improving or decreasing the potential of the project. A prospectivity enhancement multiplier ("PEM") may be used to apply a factor that is related to the success of the exploration expenditure in terms of project to advancement. The PEM ranking criteria set out in Table 8 are commonly used.

Table 8 PEM Values

PEM Range	Criteria
0.2 – 0.5	Exploration has downgraded the potential
0.5 – 1.0	Exploration has maintained the potential
1.0 – 1.3	Exploration has slightly increased the potential
1.3 – 1.5	Exploration has considerably increased the potential
1.5 – 2.0	Limited preliminary drilling intersected interesting mineralised intersections
2.0 – 2.5	Detailed drilling has defined targets with potential economic interest
2.5 – 3.0	An Inferred Mineral Resource has been estimated

As Inferred Mineral Resources have been estimated within all four tenements, it is appropriate to use a PEM of between 2.5 and 3. Further, as further drilling would be expected to increase the resource, it appears reasonable to use the upper end of the range as the multiplier for the preferred value.

TSL has, however, informed CRM that it has been unable to supply detailed expenditure figures for the Bright Angel tenements. Without such details, CRM would be unable to form a judgement as to the applicability of the expenditure. It is of the opinion that it can therefore not use this method to value the Mineral Assets.

Reasonableness Check

CRM considers that it is appropriate to use a Yardstick Method as a check on the valuations produced by the Comparable Transaction and Exploration Expenditure methods.

Yardstick valuation factors have been commonly applied to Mineral Resources and Ore Reserves, with 0.5% to 1% of the spot price being the usual factor applied to Inferred Resources.

As Bright Angel's Mannar Island resources are classified as Inferred, an appropriate factor would thus be in the range of 0.5% to 1%.

The resources within the Bright Angel tenements are 31.9Mt @ 3.48% Ilmenite, 0.57% Leucoxene, 0.1% Rutile, and 0.13% Zircon, which equate to 1.111Mt Ilmenite, 0.182Mt Leucoxene, 0.032Mt Rutile, and 0.041Mt Zircon. Prices for these minerals (based on an USD : AUD rate of 0.67) are of the order of, respectively, $285, $405, $1595, and $2285. The yardstick calculations are set out in Table 9.

Table 9 Project Resources - Yardstick Calculations

Mineral	Tonnes	Price (AUD)	$ Value x 0.5%	$ Value x 1%
Ilmenite	1,111,000	285	1,583,000	3,166,000
Leucoxene	182,000	405	359,000	738,000
Rutile	32,000	1595	252,000	510,000
Zircon	41,000	2285	461,000	937,000
Totals			**2,675,000**	**5,351,000**

Thus, a yardstick valuation of the tenements is in the range of $2.7M to $5.4M.
CRM ascribes a preferred value of $5.4M, which is the upper end of the range, as:

- It is apparent that further systematic drilling would enable additional resources to be estimated above the water table, as both along-strike and across-strike extensions;
- There is potential for further resources to be present below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Discussion
The assigned values for the Mineral Assets are set out in Table 10 and those of the Reasonableness Check in Table 11.

Table 10 Mineral Asset Valuations

Valuation Method	Low Value ($M)	Preferred Value ($M)	High Value ($M)
Comparative Transactions	0.9	4.0	4.0

Table 11 Reasonableness Check Values

Reasonableness Check	Low Value ($M)	Preferred Value ($M)	High Value ($M)
	2.7	5.4	5.4

CRM considers that the yardstick check values indicate that values within the upper end of the range of values obtained from the Comparative Transaction Method are fair and reasonable, i.e. values between $2.7M and $4.0M.

It is noted again, that with respect to the positioning of the preferred values at the upper end of the valuation ranges;

- It is apparent that further systematic drilling would enable additional resources to be estimated above the water table, as both along-strike and across-strike extensions;
- There is potential for further resources to be present below the water table; and
- The very low slimes content of the mineralisation and the lack of overburden would make both treatment and mining relative low cost.

Statement of Valuation

CRM considers the value of the Mineral Asset to be within the range of $2.7 million to $4.0 million, with a preferred value of $4.0 million.

The Valuation Date is as at 3rd September 2019.

REFERENCES

Badenhorst, J.N., 2014, *Independent Geological Report describing the Windimurra Vanadium Limited heavy mineral sands exploration licences, Sri Lanka*, GeoActiv rpt, March 2014, unpub.

Capital Metals, 2017, https://www.weare121.com/121mininginvestment-hk/clients/capital-metals/, accessed Nov 10 2017.

Doepel, J.J.G., 2018, *Prospectus Geological Report, Titanium Sands Limited, Mannar Mineral Sands Project, Sri Lankar*, CRM Rpt WA18/02.

EDB, 2014, *Cesses imposed under the Sri Lanka Export Development Act No. 40 of 1979*, Export Development Board (EDB) Sri Lanka, Dec. 2014.

GSMB, 2010a, *Compendium, Mines and minerals Act, No. 33 of 1992 as Amended by Act, No. 66 of 2009 & Relevant Regulations*, Geological Survey and Mines Bureau (Sri Lanka), April 2010.

GSMB, 2010b, *SRI LANKA 1:100 000 Geology (Provisional Map Series) TALAIMANNAR – PALAMPIDDI Sheet 3.*

Herath, M.M.J.M., 2008, *Beach Mineral Sands in Sri Lanka, Occurrence, Global Trends and Current Issues*, Geological Survey & Mines Bureau, Colombo-Sri Lanka.

Iluka, 2013, *Acquisition of Sri Lankan Tenement and Heavy Mineral Resource Base*, ASX Announcement, 5 August 2013 (unpub).

Image, 2015, *Image Resources N.L., 2015 Annual Report*, ASX Release 25 Sept, 2015.

Langridge *et al*, 2006, *Kwale Mineral Sands Project, Amended Technical Report*, Ausenco Limited rpt for Tiomin Kenya Limited, May 2006, unpub

Reyneke, L., 2015, *Mineralogical examination of magnetic separation fractions produced from a HM-bearing deposit, Sri-Lanka*, Laboratory for Microscopy and Microanalysis, University of Pretoria Rpt (unpub). *(Not sighted, but referenced by Siebtits and Badenhorst, 2015).*

Reyneke, L., 2018, *Mineralogical characterization of magnetic separation fractions produced from a HM-bearing deposit, Mannar Island, Sri-Lanka*, (unpub).

Siebrits, B. and Badenhorst, J.N.., 2015, *The Mineral Resource Estimation on the Mannar Mineral Sands Project, Srinel Holdings Limited, Sri Lanka,* GeoActiv Rpt, April 2015 (unpub).

Siebrits, B. and Badenhorst, J.N., 2019a, *Mineral Resource Update Estimation for Titanium Sands Ltd on the Mannar Mineral Sands Project, Sri Lanka,* GeoActiv Rpt, Jan 2019 (unpub).

Siebrits, B. and Badenhorst, J.N., 2019b, *The Mineral Resource Estimation of Bright Angel Ltd on the Mannar Mineral Sands Project, Sri Lanka,* GeoActiv Rpt, July 2019 (unpub).

GLOSSARY OF TECHNICAL TERMS AND ABBREVIATIONS

Auger	A method of drilling by which a sample of unconsolidated material is brought to the surface up the inclined flights of an auger.
Amphibolite facies	A classification of metamorphic rocks which formed under conditions of moderate to high temperatures (500° C, or about 950° F, maximum) and pressures. Amphibole, diopside, plagioclase, epidote, garnet, and wollastonite are minerals typically found in these rocks.
ASX	Australian Stock Exchange Market
Backshore	The zone of the shore or beach above the high-water line, acted upon only by severe storms or exceptionally high tides.
Basement	The oldest layer of igneous and metamorphic rocks in the earth's crust, covered by layers of more recent, usually unconformably overlain sedimentary rocks.
Berm	The terrace of a beach that has formed in the backshore, above the water level at high tide. Berms are commonly found on beaches that have fairly coarse sand and are the result of the deposition of material by low-energy waves.
Charnockite	Charnockite is a granofels that contains orthopyroxene, quartz, and feldspar. Charnockite is frequently described as an orthopyroxene granite.
Clastic	A sedimentary rock composed of grains or fragments derived at a different locality.
Clay	A rock or mineral fragment or a detrital particle of any composition with a diameter <4 microns.
Composite	A number of discrete samples collected from a body of material into a single homogenized sample for the purpose of analysis.
Concentrate	Heavy mineral concentrates are usually prepared by tabling or wet sieving a very large sample of till or stream sediments (up to 20 kg may be routine). The heavy mineral concentrate collected at this stage is then further processed with heavy liquids using methylene iodide (SG = 3.3). The resultant concentrate then is separated into magnetic and non-magnetic fractions and it is the non-magnetic fraction which is usually analysed.
Cut-off grade	The lowest grade of mineralised material that qualifies as ore or resource in a given deposit.
Feasibility study	An extensive technical and financial study to assess the commercial viability of a project. The definitive feasibility study provides the basis for the decision on whether in fact further study is required, whether the project is worth pursuing or whether to advance the project to design and construction. A pre-feasibility study of a project is a precursor to a feasibility study. Its purpose is to examine the size, cost and value of the main components of the project in sufficient detail to ensure there is a solid basis for proceeding to the more costly and rigorous feasibility study.

De-slimed	Clay-sized particles have been removed from mineralisation
Digital terrain model (DTM)	A digital terrain model (DTM) provides a bare earth representation of terrain or surface topography and can be described as a three – dimensional representation of a terrain surface consisting of X, Y, Z coordinates stored in digital form. It includes not only heights and elevations but other geographical elements and natural features such as rivers, ridge lines, etc.
Dolomite	Dolomite is an anhydrous carbonate mineral composed of calcium magnesium carbonate, ideally $CaMg(CO_3)_2$. The term is also used for a sedimentary carbonate rock composed mostly of the mineral dolomite.
Estuarine	Derived from the word estuary. An estuary is a partially enclosed coastal body of brackish water with one or more rivers or streams flowing into it, and with a free connection to the open sea.
Exploration License	An Exploration License grants the license-holder the exclusive right to explore for all mineral categories authorized by the license.
Foreshore	The seaward-sloping area of a shore that lies between the average high tide mark and the average low tide mark.
g	Gram
Garnet	An aluminosilicate metamorphic mineral.
GIS	Geographic information system. It is a system designed to capture, store, manipulate, analyse, manage, and present spatial or geographic data.
Gneiss	High-grade metamorphic rock composed of alternating bands respectively rich in light and dark coloured minerals
Google Earth	Google Earth is a computer program that renders a 3D representation of Earth based primarily on satellite imagery. The program maps the Earth by superimposing satellite images, aerial photography, and GIS data onto a 3D globe, allowing users to see cities and landscapes from various angles.
Grade	Expression of relative quality of mineralisation (e.g. high-grade) or of numerical quality (e.g. 1.2% Ni).
Granitic	Descriptive term used for igneous rocks with a holocrystalline texture and anhedral constituents of a similar grainsize, composed chiefly of orthoclase and albite feldspars and of quartz, usually with lesser amounts of one or more other minerals, as mica, hornblende, or augite.
Granulite	A granular high-grade metamorphic rock formed as a result of extreme heat and pressure at depth beneath the Earth's surface.
Granulite facies	A classification of metamorphic rocks which formed under the most intense temperature-pressure conditions.
Graphite	Graphite is a naturally-occurring form of crystalline carbon. Chemical symbol C. It is a native element mineral found in metamorphic and igneous rocks.

Heavy mineral (HM)	An accessory detrital mineral of a sedimentary rock, of high specific gravity (> 2.9 t/m^3), e.g., magnetite, ilmenite, zircon, rutile.
Heavy mineral assemblage	The suite of heavy minerals contained in a deposit.
HiTi	High grade titanium with a TiO_2 content of 70% to 95%, sometimes produced by blending rutile and leucoxene.
Ilmenite	A titanium-iron oxide mineral ($FeTiO_3$).
Indicated Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
Inferred Mineral Resource	That part of a Mineral Resource for which tonnage, grade, and mineral content can be estimated with a low level of confidence.
JORC Code	The Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition). Prepared by The Joint Ore Reserves Committee. A compliance standard for professional and public reporting of Ore Reserves and Mineral Resources.
Kg	Kilogram
Lagoonal	Derived from the word lagoon. A lagoon is a shallow body of water separated from a larger body of water by barrier islands or reefs.
Leucoxene	A titanium oxide-rich heavy mineral formed by the alteration of ilmenite.
Limestone	A sedimentary rock composed principally of the mineral calcium carbonate.
Lithified	The process by which a sediment composed of individual particles is converted into a coherent rock through cementation or compaction.
Lithium	Chemical element with symbol Li. It is the lightest metal and the lightest solid element.
Loam	Soil composed mostly of sand, silt, and a smaller amount of clay.
Logging	The practice of making a detailed record (a log) of the geological formations penetrated by a borehole.
Longshore movement	Longshore drift from longshore current is a geological process that consists of the transportation of sediments along a coast parallel to the shoreline, which is dependent on oblique incoming wind direction.
M	Million
Marble	A metamorphic rock consisting largely of calcium and or magnesium carbonate; formed by the metamorphism of limestone or dolomite.
Measured Mineral Resource	That part of a Mineral Resource for quantity, grade (or quality), densities, shape and physical characteristics are estimated with with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Metamorphic	Descriptive of rock that has been altered by physical and chemical processes involving heat, pressure and/or fluids.
Mineral assemblage	Group of minerals commonly associated with another.
Mineral Asset	All property including (but not limited to) tangible property, intellectual property, mining and exploration Tenure and other rights held or acquired in connection with the exploration, development of and production from those Tenures. This may include the plant, equipment and infrastructure owned or acquired for the development, extraction and processing of Minerals in connection with that Tenure.
Mineral deposit	Mineral deposits are naturally occurring accumulations or concentrations of metals or minerals of sufficient size and concentration that might, under favourable circumstances, have economic value. Economic concentrations of metals or other mineral commodities are known as ore.
Mineralisation	The concentration of metals and their minerals within a body of rock.
Mineralogical	Connected with the scientific study of minerals.
Mineral Resource	In-situ mineral occurrence for which there are reasonable prospects for eventual economic extraction. The location, quality, quantity, grade, geological characteristics, and continuity are known, estimated, or interpreted from specific geological evidence and knowledge. A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction.
-2mm +63µ fraction	Particles, that are greater than 63µ (micron) and less than 2mm in size.
Miocene	The epoch of geological time within the Cenozoic Era between about 5 and 23 million years ago.
Monazite	A rare phosphate mineral with a chemical composition of $(Ce,La,Nd,Th)(PO_4,SiO_4)$. It usually occurs in small isolated grains, as an accessory mineral in igneous and metamorphic rocks such as granite, pegmatite, schist, and gneiss.
(Ore) block model (OBM)	An (ore) block model is created using geostatistics and the geological data gathered through drilling of the prospective ore zone. The block model is essentially a set of specifically sized "blocks" in the shape of the mineralised orebody. Although the blocks all have the same size, the characteristics of each block differ. Once the block model has been developed and analysed, it is used to determine the ore resources and reserves (with project economics considerations) of the mineralised orebody.
Ore Reserve	The economically minable part of a Measured and/or Indicated Mineral Resource.
Overburden	In mining, overburden is the material that lies above an area that lends itself to economical exploitation, i.e. above the orebody.

Pegmatite	Very coarse-grained igneous intrusive body, usually granitic and in dyke or sill form; may contain economically important minerals.
Precambrian	That portion of geological time older than about 545 million years ago.
Probable Reserve	A measured and/or indicated mineral resource which is not yet proven, but where technical economic studies show that extraction is justifiable at the time of the determination and under specific economic conditions.
Proven Reserve	A measured mineral resource, where technical economic studies show that extraction is justifiable at the time of the determination and under specific economic conditions.
%	Percent
QAQC	QA/QC is the combination of quality assurance, the process or set of processes used to measure and assure the quality of a product, and quality control, the process of ensuring products and services meet consumer expectations.
Optical Microscope	The optical microscope, often referred to as the light microscope, is a type of microscope that commonly uses visible light and a system of lenses to magnify images of small objects. Light from a mirror is reflected up through the specimen, or object to be viewed, into the powerful objective lens, which produces the first magnification. The image produced by the objective lens is then magnified again by the eyepiece lens, which acts as a simple magnifying glass.
Quaternary	The period of geological time from about 2.6 million years ago to the present.
Quartz	A mineral composed of silicon and oxygen atoms in a continuous framework of SiO_4 silicon–oxygen tetrahedra, with each oxygen being shared between two tetrahedra, giving an overall chemical formula of SiO_2.
Quartzite	A granular metamorphic rock composed predominantly of quartz; derived from quartz sandstone.
Recovery (mineral/ore recovery)	Liberation of the valuable minerals from the ore matrix.
Resource category	Category of a mineral resource, such as Inferred, Indicated, Measured, Proven or Probable.
Resource modelling	Creating a model of a mineral resource through assessment of the quantity and quality of the data available including database management and verification, the creation of 2D and/or 3D geological and mineralisation models for the deposit, statistical and geostatistical analyses of the data and the determination of the most appropriate grade and density interpolation methods.
Royalty	A payment to the owner of mineral rights for the privilege of extracting the mineral from the ground based on a lease agreement. The royalty payment is based on a portion of earnings from production and varies depending on the type of mineral and the market conditions.

Rutile	A mineral containing titanium dioxide (TiO_2).
Sandstone	A sedimentary rock composed primarily of sand sized grains.
Scoping study	A scoping study is a preliminary study to define a possible metallurgical circuit of a project.
Sediment	Naturally occurring material that is broken down by processes of weathering and erosion, and is subsequently transported by the action of wind, water, or ice or by the force of gravity acting on the particles.
Sillimanite	Sillimanite is an aluminosilicate mineral with the chemical formula Al_2SiO_5.
Silt	Silt is granular material of a size between sand and clay.
Specific gravity (SG)	The term specific gravity refers to the ratio of the density of a solid or liquid to the density of water at 4 degrees Celsius.
Strike length	Length of a geological feature with a horizontal plane.
T	Ton
Tenement	A granted tenement provides permission to perform certain activities on the land.
Tenure	A tenement holding
Tertiary	The period of geological time from 66 million to 2.6 million years ago.
Tetrabromoethane (TBE)	A halogenated hydrocarbon, chemical formula $C_2H_2Br_4$.
Tidal	Zone above water level at low tide and underwater at high tide.
TiO_2	Titanium dioxide
Topography	The distribution of shapes and features of land surfaces.
Total heavy minerals (THM)	Total heavy minerals (concentrate). Components are typically ilmenite, leucoxene, rutile, zircon, garnet, iron-sulphides, and iron oxides.
Twin (Twinned holes)	A pair of parallel holes drilled close together.
Unconformably	The attribute of a series of younger strata that do not succeed the underlying older rocks in age or in parallel position, as a result of a long period of erosion or non-deposition.
Unconsolidated	Loosely arranged material, not compacted.
VALMIN Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (2015 Edition). Prepared by The VALMIN Committee. A compliance standard for professional and public reporting of Mineral Asset valuations.
Valuable heavy minerals (VHM)	Heavy minerals with economic value. The principal valuable heavy minerals are ilmenite, leucoxene, rutile, and zircon.
µ or µm	Micron; a millionth of a metre.
Water table	The water table is the upper surface of the zone of saturation.

XRD	X-ray powder diffraction (XRD) is a rapid analytical technique primarily used for phase identification of a crystalline material and can provide information on unit cell dimensions. The 55nalysed material is finely ground, homogenized, and average bulk composition is determined.
XRF	An X-ray fluorescence (XRF) spectrometer is an x-ray instrument used for routine, relatively non-destructive chemical analyses of rocks, minerals, sediments and fluids. It works on wavelength-dispersive spectroscopic principles that are similar to an electron microprobe. It is typically used for bulk analyses of larger fractions of geological materials. The relative ease and low cost of sample preparation, and the stability and ease of use of x-ray spectrometers make this one of the most widely used methods for analysis of major and trace elements in rocks, minerals, and sediment.
Yardstick method	The method involves the use of the estimated HM Resources, current mineral prices, and an accepted discount for resource category.
Zircon	A mineral belonging to the group of nesosilicates. Its chemical name is zirconium silicate and its corresponding chemical formula is $ZrSiO_4$.
ZrO_2	Zirconium dioxide

DECLARATION

The information in this report that relates to Technical Assessment and Valuation of Mineral Assets reflects information compiled and conclusions derived by J. John G. Doepel, who is a Member of The Australasian Institute of Mining and Metallurgy and of the Australian Institute of Geoscientists. Mr Doepel, a Principal Geologist with Continental Resource Management Pty Ltd ("CRM"), has more than 35 years' experience as a geologist in the mineral industry and more than ten years' recent and relevant experience in relation to mineral sand deposits. Further he has more than five years recent and relevant experience in the valuation of Mineral Assets. Mr Doepel holds a Bachelor of Science with Honours and a Graduate Diploma in Forensic Science from the University of Western Australia; and a Diploma of Teaching from the Western Australian Institute of Technology.

Mr Doepel has sufficient experience relevant to the Technical Assessment and Valuation of the Mineral Assets under consideration and to the activity which he is undertook to qualify as a Specialist Practitioner as defined in the 2015 edition of the 'Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets'. Mr Doepel consents to the inclusion in the report of the matters based on his information in the form and context in which they appear.

The report provides a fair representation of Technical Assessment and Valuation reported within it. The statements and opinions contained in this report are given in good faith and in the belief that they are not false or misleading. The conclusions are based on the reference date of the 3 September 2019 and could alter over time depending on exploration and metallurgical testwork results, commodity and currency prices, and other relevant market factors.

Where Mineral Resources and Ore Reserves are referred to, the terminology is consistent, unless specifically stated to the contrary, with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves as per the Joint Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Australian Mining Industry Council and dated December 2012. The report is written to conform to the AusIMM's Code and Guidelines for Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports (Valmin Code) as revised 2015.

No member or employee of CRM is, or is intended to be, a director, officer or other direct employee of the Company. No member or employee of CRM has, or has had, any share-holding, or the right (whether enforceable or not) to subscribe for securities, or the right (whether legally enforceable or not) to nominate persons to subscribe for securities in the Company. There is no agreement or understanding between CRM and the Company as to CRM performing further work for the Company. Fees for the preparation of this report are being charged at a commercial rate, the payment of which are not contingent upon the conclusions of the report. They total about $14,000.

Yours faithfully

John Doepel
Continental Resource Management Pty Ltd

18th September 2019