

ANNUAL REPORT ON EXPLORATION TO 27 FEBRUARY 2020.

EXPLORATION LICENCE: 7 / 2016

BLACKMANS LOOKOUT – BRIDPORT

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1 ABSTRACT:

This report provides an overview of the work carried out by Kassem Holdings Pty. Limited on Exploration Licence 7 / 2016 for the period between issue of the licence, 27 February 2017 and the forthcoming anniversary, 27 February 2020.

1.1 OBJECTIVE

The exploration objective is to confirm the dune system located northeast of an existing active extractive sand operation owned and operated by R. Sattler (1957 P/M) and another application owned by E J Hall (2062 P/M) are prospective.

1.2 METHODOLOGY

Work undertaken to date concentrated on proving the feasibility of accessing the dune systems, preliminary ecological work and limited sampling and testing of accessible sand sampling sites.

Future exploration will incorporate;

- direct representative sampling of the dune sand at selected sites;
- particle size distribution analysis of samples;
- further analysis for suitability for use as construction sand.

The area has sensitive natural and cultural values which prohibit access by vehicles other than quad bikes and machinery for the purposes of exploration. A quad bike will utilise existing tracks and clearings to access sample sites and samples will be taken with a hand auger. Composite samples will be collected by helicopter lift for sites that can only be accessed on foot.

1.3 RESULTS

No tests have been undertaken to date on the sand comprising the dune systems northeast of the Sattler and Hall operations. These operations are supplying or planning to supply construction sand for various construction applications and it is expected the resource in the northeast dunes will have similar characteristics.

1.4 RECOMMENDATIONS

It is recommended that the Licensee proceed with the works described in the current work program for EL 7/2016 which will result in reliable information on the quality and quantity of the construction sand resource located on the Waterhouse coastline.

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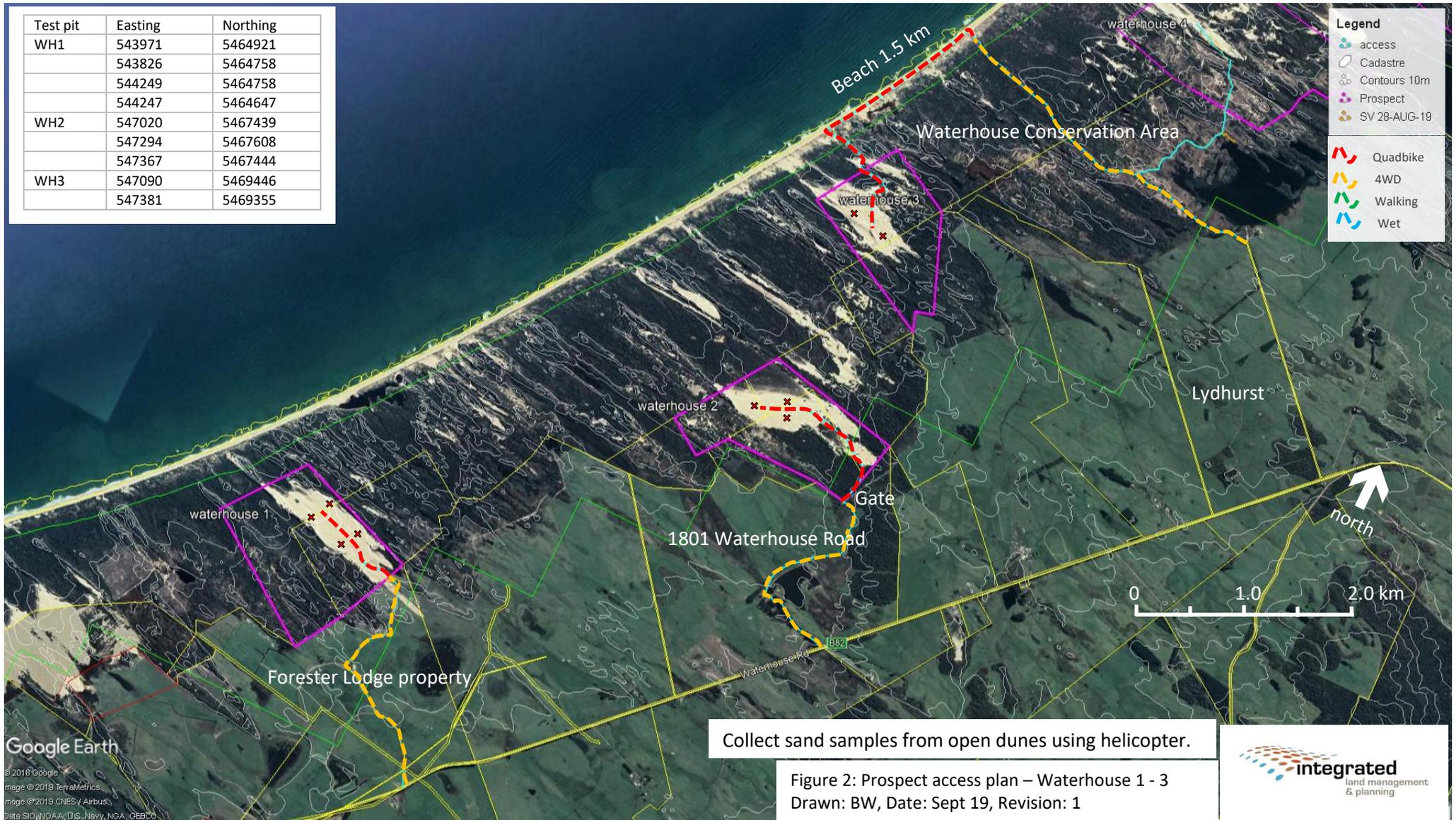
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FIGURE 1: PROSPECTIVE AREAS EL 7 / 2016

Test pit	Easting	Northing
WH1	543971	5464921
	543826	5464758
	544249	5464758
WH2	544247	5464647
	547020	5467439
	547294	5467608
WH3	547367	5467444
	547090	5469446
	547381	5469355



Google Earth

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 Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Waterhouse 1

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

Forester Lodge: Site Manager: Jarrod, ph: 0428 369 130

Andrew Beattie, mobile: 0419 522 147

Access:

Highly active dairy property; live electric fences, leave all gates and panels as you found them. Respect passage of livestock, do not alarm animals, lanes in poor condition.

Waterhouse 2

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

1801 Waterhouse Rd property:

Rodney Leonard, mobile: 0439 561 134

Access:

Active beef property; live electric fences, leave all gates and panels as you found them.

Quadbike access from gate, steep incline onto dune no clearing.

Waterhouse 3

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

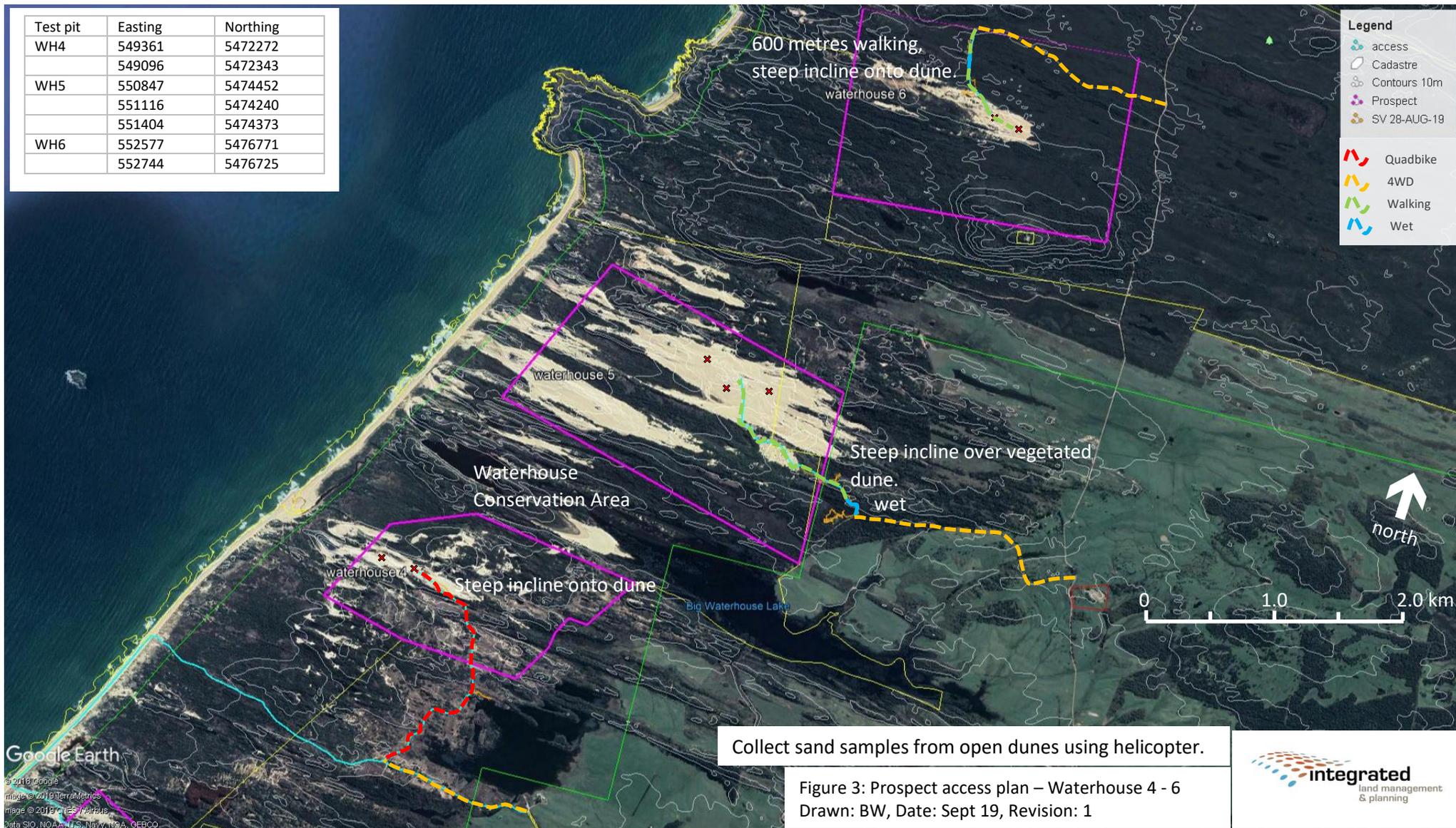
Access:

4WD access through conservation area on sand track, deep sand in places, proceed with caution.

Quadbike access onto beach. Work will occur within shorebird breeding season, keep quadbikes on tideline at low tide.



Test pit	Easting	Northing
WH4	549361	5472272
	549096	5472343
WH5	550847	5474452
	551116	5474240
	551404	5474373
WH6	552577	5476771
	552744	5476725



Collect sand samples from open dunes using helicopter.

Figure 3: Prospect access plan – Waterhouse 4 - 6
 Drawn: BW, Date: Sept 19, Revision: 1



Waterhouse 4

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

Access:

Public 4WD access track to turn-off north.

Seek permission to operate quadbikes on northern branch to dunes, signs indicate vehicles prohibited through rehabilitated area.

Steep incline at active dune face to access top of dune.

Waterhouse 5

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

Access:

Phytophthora cinnimomi management area – adopt Hygiene Protocol. Access from abandoned quarry, walking 80 m *Melaleuca ericifolia* threatened community (wet), 130 m *Allocasuarina verticillata*, 350 m *Acacia longifolia* steep in places over vegetated dunes.

Waterhouse 6

Contacts:

Conservation Area:

Parks & Wildlife Service, mobile: 0427 560 451

Access:

Phytophthora cinnimomi management area – adopt Hygiene Protocol. 4WD access on unnamed track off Homestead Road. Walking 450 m low coastal heath, 60 m *Melaleuca ericifolia* threatened community (wet), 100 m *Acacia longifolia* low vegetation. Steep incline to access top of dunes.

2 INTRODUCTION:

TABLE 1: TENEMENT DETAILS

Exploration Licence	7 / 2016
Name	Blackmans Lookout
Location	6 sites between 11 and 24 kilometres NE of Bridport
Reporting period	27/02/2019 to 27/02/2020
Licence holder	Kassem Holding Pty Limited

Exploration licence 7/2016 covers a total of 63 square kilometre blocks covering the Waterhouse coast from the boundary of the Sattler lease in the southwest to Ransons Beach in the northeast. Six obvious surface expressions of aeolian dune sand were identified from aerial imagery and have been confirmed by ground reconnaissance work. The exploration licence was applied for on the 6 May 2016 and granted for a period of five years on 27 February 2017.

The objective of the exploration work for EL 7 / 2016 is to investigate a similar expression of dune sand adjacent to the Sattler and Hall operations and confirm similar processes were responsible for the dunes and that the sand has similar properties. The sand deposit could then be a source of construction sand for the Tasmanian market and if quantities were proven a potential resource for an export market.

3 REVIEW OF PREVIOUS WORK

3.1 PREVIOUS EXPLORATION

Assessment documentation referring to the Sattler operation states that testing and analysis of the sand contained within the mining lease 1957 P/M resource area is suitable for construction purposes. These documents state the sand is also ideal for export to service the construction market in NSW.

There is no record of the resource potential of the dune systems under consideration being assessed previously.

3.2 DURING THE LIFE OF THIS LICENCE

During the licence period the following background work was undertaken:

- Limited sampling on sites on the existing mining lease on a sand resource believed to be similar in characteristic to the target resource.
- Particle size distribution (PSD) analysis on samples.
- Evaluation of PSD tests to determine suitability for sand for concrete.
- Feasibility study considering viable deposits within the exploration licence area.

- Contact and negotiations with landowners on the Waterhouse Road side of the licence area to facilitate access to the sand resource for exploration.
- Planning for reconnaissance field work to prove assumptions relating to access, dune condition, resource characteristics and prospectivity.

4 EXPLORATION WORK COMPLETED DURING THIS PERIOD

The following works have been undertaken to inform the development of the current work program application:

- Desk top ecological critical constraints assessment for the EL area: - Ecological Consulting Options Tasmania.
- Desk top mapping study to predict the most prospective site for potential future mining lease applications: - Integrated Land Management & Planning.
- Consideration of access routes through private and public land and research of individuals, companies and agencies to contact to negotiate access: - Integrated Land Management & Planning.
- Consideration of prospective sites, proposed bulk sampling locations and access routes for Aboriginal cultural heritage: - Aboriginal Heritage Tasmania.
- Evaluation of desk top mapping for prospectivity, ecological assessment, landowner consent to traverse land and preliminary contact with interested parties: - Kassem Holdings Pty. Limited.
- Reconnaissance field survey and ground truthing of proposed access routes and prospective sites: - Integrated Land Management & Planning.

5 DISCUSSION OF RESULTS

The desktop ecological critical constraints assessment report is included in this document as Appendix 1.

This assessment found the following were critical constraints and needed consideration in all future site works:

- Some prospective areas were contained within *Phytophthora cinnamomic* (Pc) management areas, future onsite works would be informed by a weed and disease management plan (WDMP) and particular measures were required to mitigate the threat of spreading Pc. WDMP will be applied in accordance with guidelines (DPIPWE, 2015).
- Likewise, the threat of spreading weeds should be controlled with a WDMP.
- Any access or ground disturbing work should be evaluated by Aboriginal Heritage Tasmania.

The results of the PSD tests undertaken on limited samples are included in this document as Appendix 2.

Analysis and evaluation of the PSD test results determined the sand sampled from another source but believed to be similar in origin and character was suitable for construction sand for concrete. The results of this evaluation are presented in an excel spreadsheet included as Appendix 3.

The following work is continuing while the Licensee is waiting for a work program to be approved:

- Full field ecological survey of access routes and prospective sites for ecological values timed to coincide with the flowering time for some significant plants that are expected to be found in the region.

6 FUTURE EXPLORATION WORK

The following work will take place commencing February – April 2020:

- Full LIDAR survey of the prospective areas and surrounding land to produce accurate terrain models of the dunes systems and calculate the expected volume of the resource at each site.
- On ground work program to recover between 10 and 40, 5 kg samples at each prospective area. At prospective sites that can be reached on existing quad bike tracks the samples will be taken using a hand auger, and transported out on the quad bike. All samples will be taken out by helicopter for sites not accessible on existing tracks.
- All the samples will be subjected to a full range of laboratory analysis to prove the source material has consistent properties suitable for a variety of construction applications.

7 ENVIRONMENTAL MANAGEMENT

Preliminary assessment of critical constraints informed all work completed within this period:

- Onsite access evaluation proceeded under a thorough cleaning protocol using 'Phytoclean' and complying with washdown guidelines (NRM South, March 2010) before and after access to all sites.
- No vegetation was disturbed and all sites were access on foot, no track or grid cutting.
- A desktop Aboriginal assessment produced maps showing critical sites to avoid but no site-specific surveys were requested at this time.

8 EXPENDITURE

TABLE 2: EXPENDITURE 2019 PERIOD

	Item	Activity	Amount
1.	Geoscience		
	Geology		0
	Geochemistry	Particle size distribution analysis (2018 period)	2 800
	Geophysics		0
	Remote sensing	Evaluating sites and preparing proposals	2 200
2.	Drilling & gridding		
	Gridding		0
	Drilling	Proving access to sites and preparation of work program application	2 500
3.	Land access		
	Land access	Negotiations with Forester Lodge, Andrew Beattie, Rodney Leonard, Parks & Wildlife Service.	4 800
4.	Rehabilitation		
	Works	No disturbance	0
5.	Feasibility studies		
	Site access	Field reconnaissance analysis	3 300
	Critical constraints	Ecological critical constraints analysis	2 500
6.	Other		
	Equipment	Phytoclean, cleaning equipment consumables vehicle hire	200
7.	Administration		
			2 000
8.	Total exploration costs (period 2019)		20 300

TABLE 3: EXPENDITURE 2020 PERIOD

	Item	Activity	Amount
1.	Geoscience		
	Geology		0
	Geochemistry	Particle size distribution analysis (64 tests)	8 960
	Geophysics		0
	Remote sensing	Remote survey including photogrammetry and classified LiDAR processing	36 300
2.	Drilling & gridding		
	Gridding		0
	Drilling	On-ground exploration work program to prepare composite samples (16 sites)	8 000
3.	Land access		
	Land access	Liaison with landowners & PWS	1 500
	Ecological assessment	Ecological field survey and values assessment report	12 000
	Helicopter assist	To recover composite samples from sites with no quadbike access	8 000
4.	Rehabilitation		
	Works	No disturbance	0
5.	Feasibility studies		
			0
6.	Other		
	Equipment	Quad bike hire	1 200
7.	Administration		
			4 000
8.	Total exploration costs (period 2020)		79 960

9 REFERENCES

DPIPWE. (2015). *Weed and Disease Planning and Hygiene Guidelines - Preventing the spread of weeds and disease in Tasmania*. Hobart: DPIPWE.

NRM South. (March 2010). *Keeping it Clean: A Tasmanian Field Manual to Prevent the Spread of Freshwater Peasts and Pathogens*. Hobart: NRM South.