

Thursday, 6 July 2023

Ref: 305398\_L01\_Rev0

The General Manager  
Kentish Council  
69 High Street  
Sheffield TAS 7306  
Email: council@Kentish.tas.gov.au

Dear Sir

### Representation to Draft Kentish Local Provisions Schedule – Tasmanian Planning Scheme

Veris Australia Pty Ltd has been engaged by Robert Sushames, owner of 230 James Road, Acacia Hills (FR50682/1, 177003/1 and 113034/1) to submit a representation on his behalf in respect to the Draft Kentish Local Provisions Schedule.

The subject site is comprised of three (3) property titles with a combined area of 157.81ha (FR50682/1 – 37.35ha, FR177003/1 – 59.44ha and FR113034/1 – 61.02ha). It is identified as class 6 land which is defined within the Land Capability Handbook 1999 as:

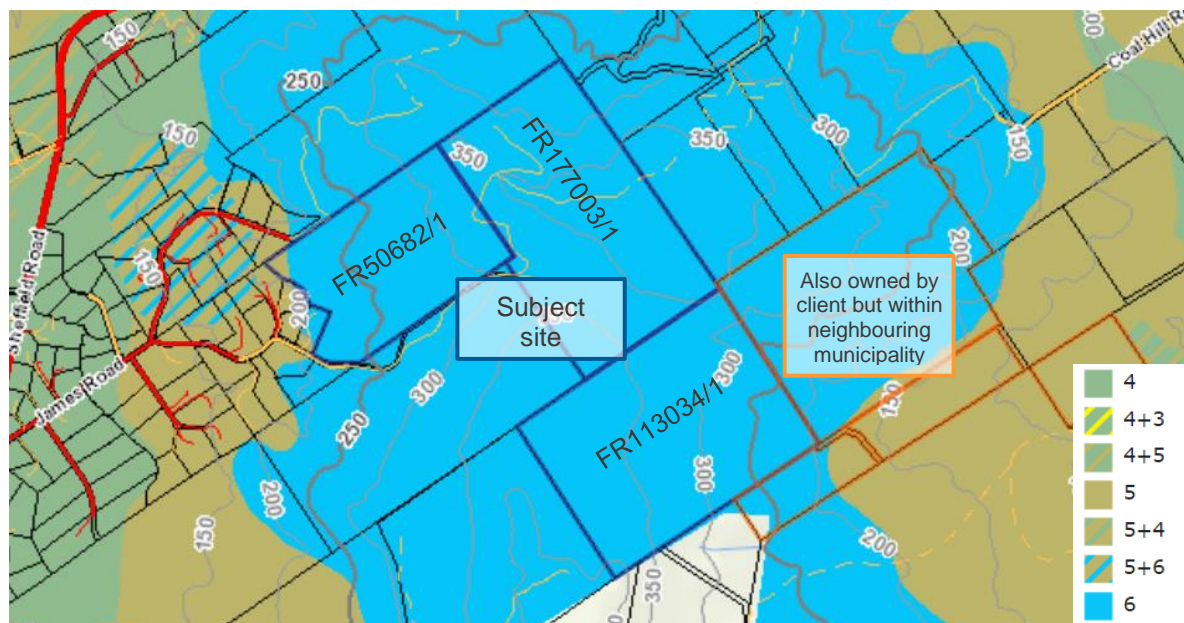


FIGURE 1: LAND CAPABILITY

#### Class 6:

“Land marginally suitable for grazing because of severe limitations. This land has low productivity, high risk of erosion, low natural fertility or other limitations that severely restrict agricultural use. This land should be retained under its natural vegetation cover.”

The subject land has access off James Road. A dwelling is located on FR177003/1 utilising an extension of James Road as access located partially within an existing road reserve.

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## PROPOSED ZONE

The Draft Kentish LPS proposes to apply the Agriculture Zone to the subject land.

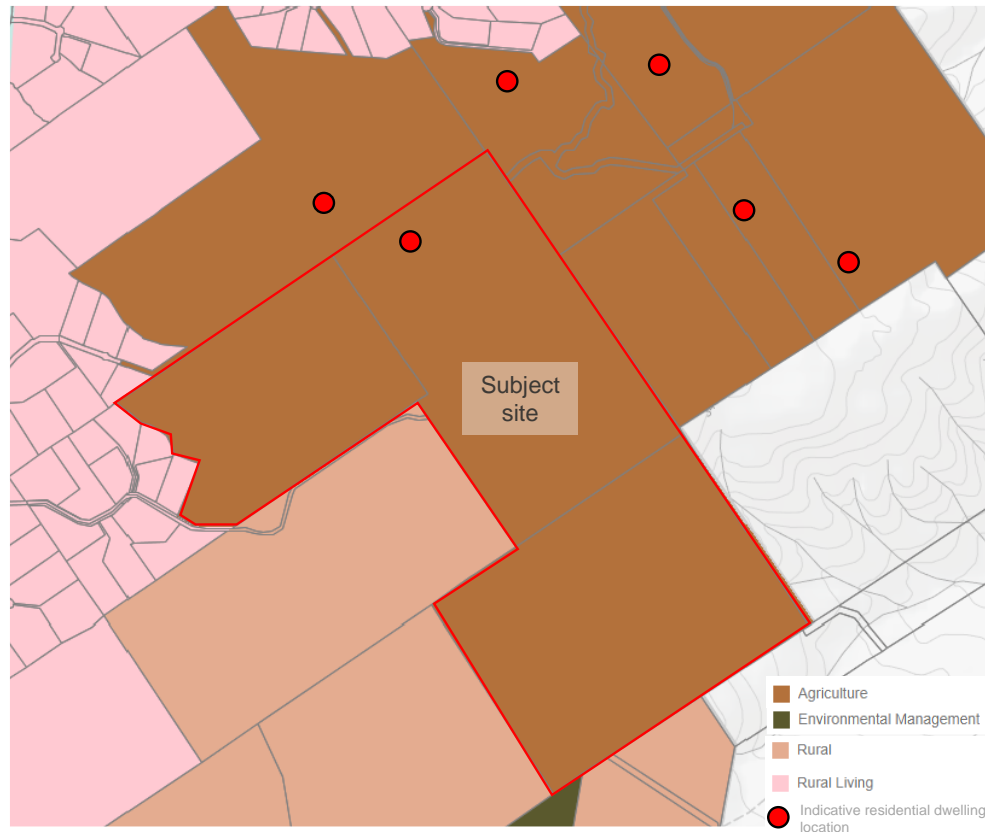


FIGURE 2: EXTRACT ZONING MAP DRAFT KENTISH LPS

Figure 2 shows that the subject site is proposed to be surrounded by Agriculture zoned land to the north and east and the Rural Zone to the south-west. It directly adjoins a Rural Living area to the west. Figure 2 above also shows the indicative locations of existing residential dwellings in the vicinity of the subject site, already showing a generally land use pattern of rural residential.

## ZONE PURPOSE

The primary objective of the Draft Kentish Local Provisions Schedule is to apply a zone to achieve the zone purpose to the greatest extent possible (*Guiding Principle 3.4 prepared under Section 8A LUPA 1993*).

The purpose of the Agriculture Zone is

- 21.1.1. To provide for the use or development of land for agricultural use.
- 21.1.2. To protect land for the use or development of agricultural use by minimising:
  - (a) conflict with or interference from non-agricultural uses;
  - (b) non-agricultural use or development that precludes the return of the land to agricultural use; and
  - (c) use of land for non-agricultural use in irrigation districts.
- 21.1.3. To provide for use or development that supports the use of the land for agricultural use..

The subject site and adjoining properties are currently zoned Rural Resource. We assume the proposed translation to Agriculture zoning is based on the recommendation to apply the Rural or Agricultural Zone for land currently zoned Rural Resource. In this context the proposed zone is applied correctly; however, the primary objective of the Draft Kentish Local Provisions Schedule is to apply a zone to achieve the zone purpose to the greatest extent possible (*Section 8A Guiding Principle 3.4*).

The subject site has been identified as unconstrained (see Figure 3); however, the enclosed agricultural reports prepared by L.J. Hennessy (Pedologist) concludes that the land has little chance of being above a class 7 rating and that the land is not suitable for agricultural operations of any type due to its poor natural conditions. The existing vegetation is mostly secondary or tertiary regrowth scrub and trees of very low commercial value. Additionally, large areas of the subject site comprise trees infected with an air carried spore disease, which can only be eradicated through clearing and burning the infected trees.

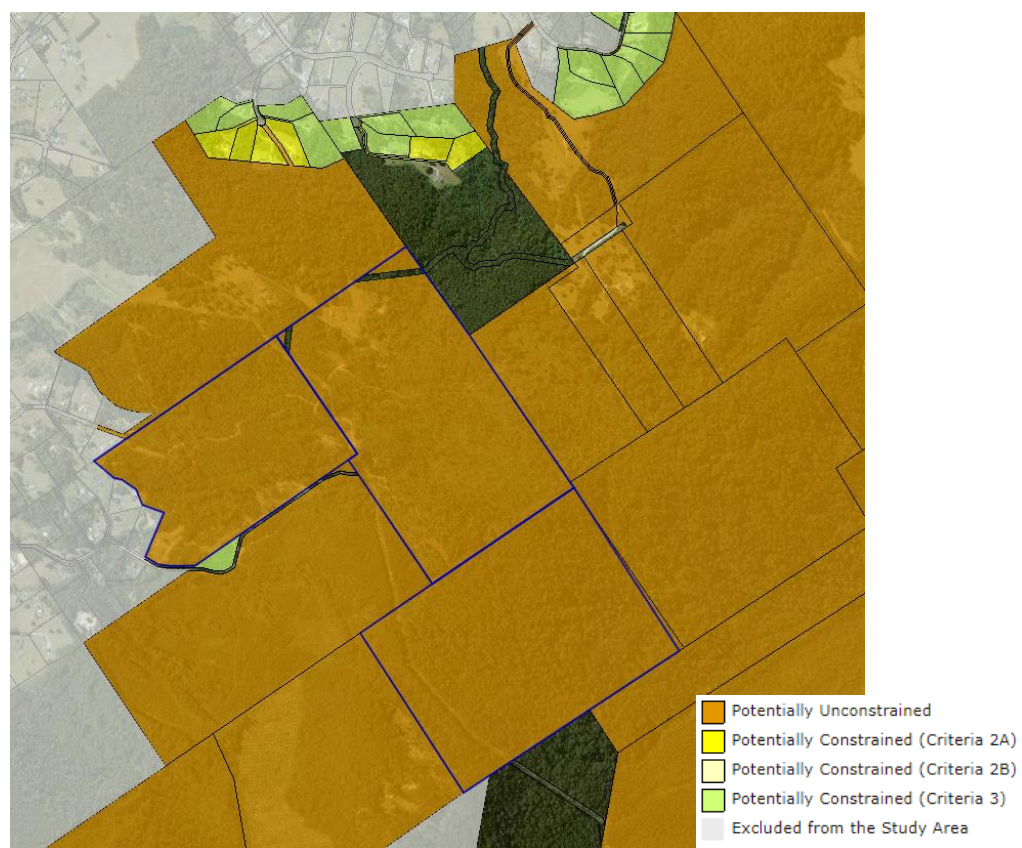


FIGURE 3: LAND POTENTIALLY SUITABLE FOR AGRICULTURE ZONE LAYER (THE LIST)

**Table 1:** Zone Application guidelines Agriculture Zone (Section 8A)

Zone Application Guidelines	Comment
<p><b>AZ 6</b></p> <p>Land identified in the 'Land Potentially Suitable for Agriculture Zone' layer may be considered for alternate zoning if:</p> <p>(a) local or regional strategic analysis has identified or justifies the need for an alternate consistent with the relevant regional land use strategy, or supported by more detailed local strategic analysis consistent with the relevant regional land use strategy and endorsed by the relevant council;</p> <p>(b) ... (d); or</p> <p>(e) It can be demonstrated that:</p> <p>(i) the land has limited or no potential for agricultural use and is not integral to the management of a larger farm holding that will be within the Agriculture Zone;</p> <p>(ii) there are significant constraints to agricultural use occurring on the land; or</p> <p>(iii) the Agriculture Zone is otherwise not appropriate for the land.</p>	<p>The Cradle Coast Regional Land Use Strategy acknowledges that Kentish is "largely a rural residential community within commuter distance of Devonport" (p.166) and that "the major proportion of residential growth is anticipated as rural residential dwellings on zoned land at Acacia Hills and Nook" (p.167).</p> <p>The Acacia Hills / South Spreyton Strategic Plan 2017 identifies two of the subject titles as future rural residential land.</p> <p>Please refer to the enclosed agricultural report concluding that the land is unsuitable for any agricultural land use.</p>

The application of an alternative zoning is therefore considered to be consistent with the Guideline AZ6 (a) and (e) as well as the Principle of the State Policy on the Protection of Agricultural Land 2009.

#### POTENTIAL ZONE ANALYSIS

As demonstrated above, the application of the Agricultural Zone would be inappropriate for the subject site. The initial default zoning to be applied would be the Rural Zone; however, the Rural Zone would allow for a range of industrial type uses to be established on the land without any tests of locational appropriateness. The proximity to Sheffield Road (an Arterial State Road) increases the attractiveness of such businesses to this region. This could lead to land use conflicts and is considered contrary to the long-term strategic intent of the area.

Additionally, the subject site is of great importance to the fulfilment of the long-term strategic road connectivity of the area as shown in 4 below. The fact that the land is currently in one ownership, who is willing to develop the land, provides a great opportunity to realise this strategic road connectivity.



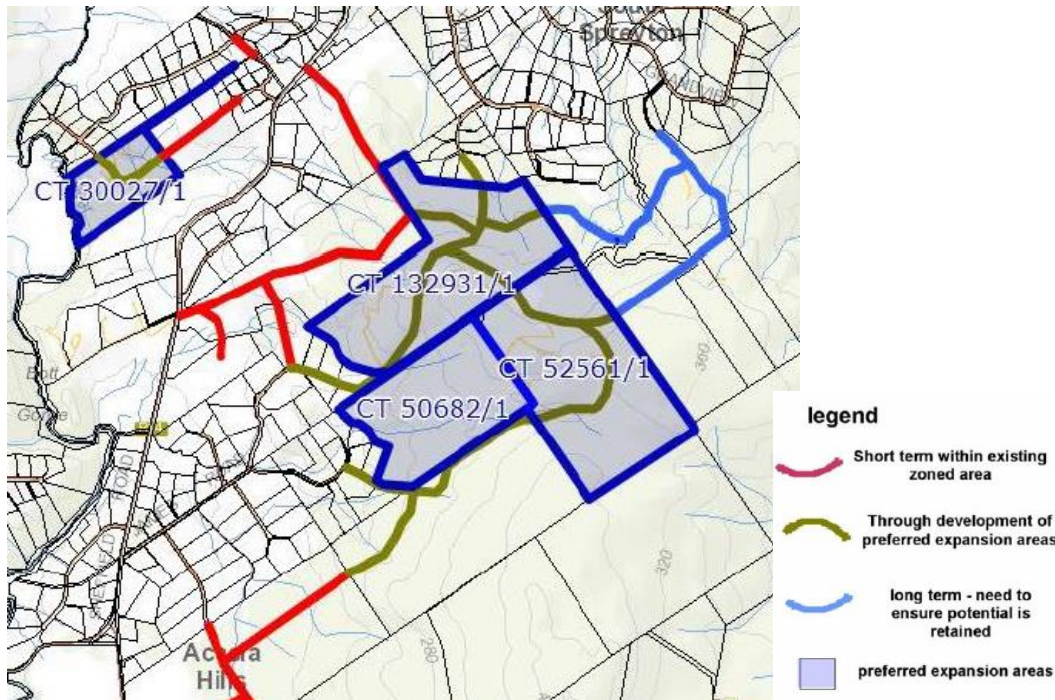


FIGURE 4: EXTRACT FROM ADOPTED STRATEGY - POTENTIAL ROAD CONNECTIVITY LINKS (p.31)

Although not subject of this representation, it is noted that the client also owns additional land within the Latrobe municipality which could provide further road connectivity to the Latrobe municipality (via Coal Hill Road).

Based on the existing rural residential developments in the area and the exclusion of the Agricultural and Rural Zone as potential zones for the subject land, it is considered that the Rural Living Zone A would be most appropriate allowing development of the land and facilitate the desired road connections.

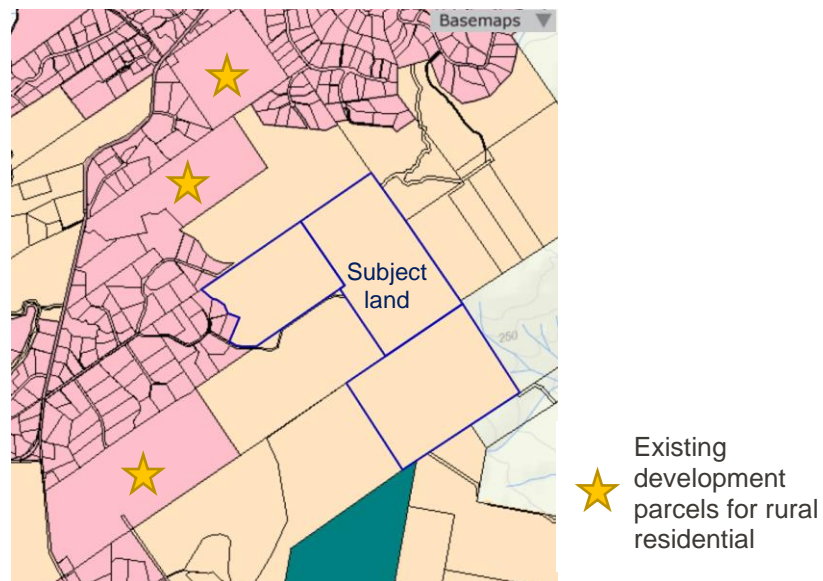


FIGURE 5: EXISTING ZONING APPLICATION IN THE AREA

It is noted that the area has several large parcels zoned for rural residential purposes as seen in Figure 5 above. However, these properties have been zoned for rural residential purposes for more than 10 years without development occurring. The Strategy mentioned that there were eight titles zoned for Rural Living although comprising orcharding operations and that the zoning has not been amended to not cause negative financial implications for these businesses (p.28). The available land for rural residential purposes appears sufficient for the area, but no development has occurred, and Council cannot enforce it. While there is sufficient supply “on paper” there could be an undersupply in reality.

Our client has secured contiguous land in the area for future residential development and is financially capable to undertake immediate development.

### Rural Living Zone (RZ)

The purpose of the Rural Living Zone is:

- 11.1.1. To provide for residential use or development in a rural setting where:
  - (a) services are limited; or
  - (b) existing natural and landscape values are to be retained.
- 11.1.2. To provide for compatible agricultural use and development that does not adversely impact on residential amenity.
- 11.1.3. To provide for other use or development that does not cause an unreasonable loss of amenity, through noise, scale, intensity, traffic generation and movement, or other off-site impacts.
- 11.1.4. To provide for Visitor Accommodation that is compatible with residential character.

**Table 2:** Zone Application guidelines Rural Living Zone (Section 8A)

Zone Application Guidelines	Comment
<b>RLZ 1</b>	N/A
<b>RLZ 2</b> The Rural Living Zone should not be applied to land that is not currently within an interim planning scheme Rural Living Zone, unless: <ul style="list-style-type: none"> <li>(a) consistent with the relevant regional land use strategy, or supported by more detailed local strategic analysis consistent with the relevant regional land use strategy and endorsed by the relevant council; or</li> <li>(b) the land is within the Environmental Living Zone in an interim planning scheme and the primary strategic intention is for residential use and development within a rural setting and a similar minimum allowable lot size is being applied, such as, applying the Rural Living Zone D where the</li> </ul>	The Cradle Coast Regional Land Use Strategy acknowledges that Kentish is “largely a rural residential community within commuter distance of Devonport” (p.166) and that “the major proportion of residential growth is anticipated as rural residential dwellings on zoned land at Acacia Hills and Nook” (p.167).  The zoning of the subject site to rural residential is supported by the locally adopted strategic plan (Acacia Hills / South Spreyton Strategic Plan 2017).  Furthermore, the rural residential zoning and development of the land would further the objective to achieve the desired street connectivity in the area (p.30).

Zone Application Guidelines	Comment
minimum lot size is 10 ha or greater.	
<p><b>RLZ 3</b></p> <p>The differentiation between Rural Living Zone A, Rural Living Zone B, Rural Living Zone C or Rural Living Zone D should be based on:</p> <ul style="list-style-type: none"> <li>(a) a reflection of the existing pattern and density of development within the rural living area; or</li> <li>(b) further strategic justification to support the chosen minimum lot sizes consistent with the relevant regional land use strategy or supported by more detailed local strategic analysis consistent with the relevant regional land use strategy and endorsed by the relevant council.</li> </ul>	<p>The existing pattern in the area are consistent with the Rural Living A zoning. Essentially the subject site will part of the consolidation of the established rural residential areas of South Spreyton and North Acacia Hills, which are important dormitory rural residential areas for the settlement of Devonport and Latrobe.</p>
<p><b>RLZ 4</b></p> <p>The Rural Living Zone should not be applied to land that:</p> <ul style="list-style-type: none"> <li>(a) is suitable and targeted for future greenfield urban development;</li> <li>(b) contains important landscape values that are identified for protection and conservation, such as bushland areas, large areas of native vegetation, or areas of important scenic values (see Landscape Conservation Zone), unless the values can be appropriately managed through the application and operation of the relevant codes; or</li> <li>(c) is identified in the 'Land Potentially Suitable for Agriculture Zone' available on the LIST (see Agriculture Zone), unless the Rural Living Zone can be justified in accordance with the relevant regional land use strategy, or supported by more detailed local strategic analysis consistent with the relevant regional land use strategy and endorsed by the relevant council.</li> </ul>	<p>The subject land is identified as unconstrained within the 'Land Potentially Suitable for Agricultural Zone' layer. However, it has been demonstrated that the Agricultural zoning is not appropriate for the land due to the existing physical constraints of the land and surrounding developments. It has also been demonstrated that the Rural Zone provides potential land use conflict risks. The land has been identified as future rural residential land within the adopted local strategy.</p>

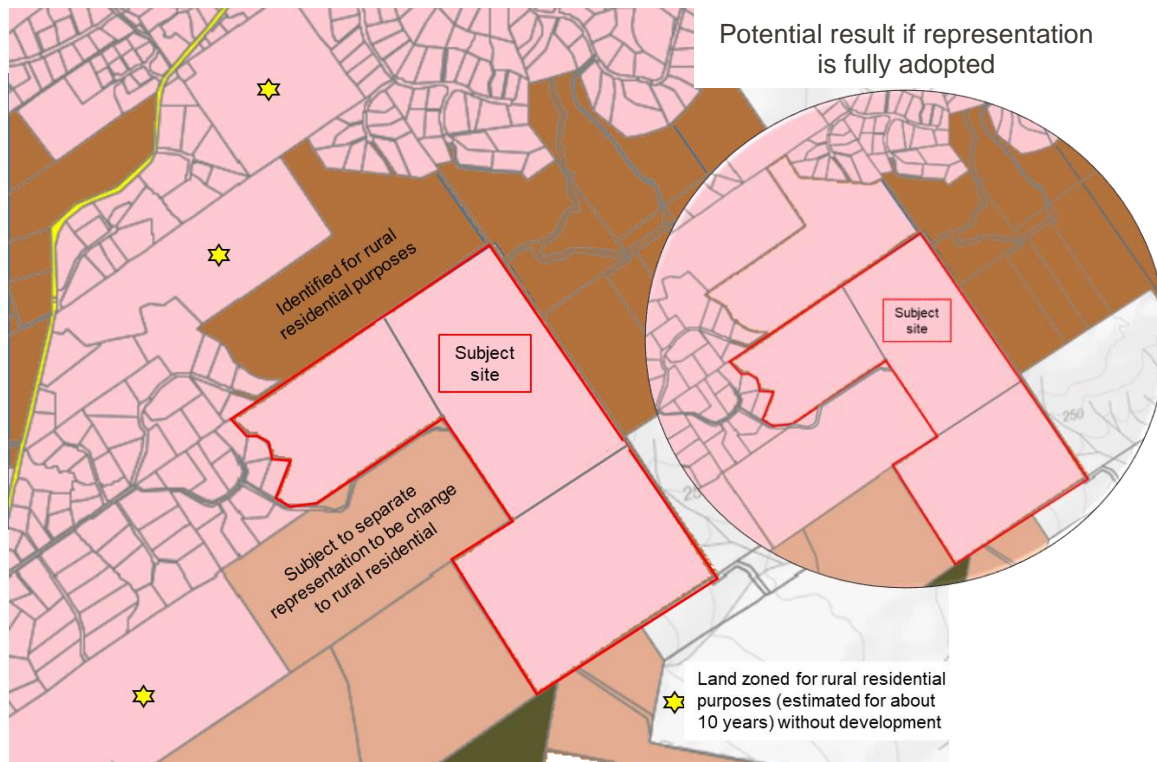


FIGURE 6: POTENTIAL RRZ ZONING OF SUBJECT SITE WITH ADDITIONALLY IDENTIFIED AREAS

## SUMMARY AND CONCLUSION

- The zoning of the land for rural residential development is in line with adopted strategic documents.
- It has been demonstrated that the land has no potential being utilised for any agricultural use.
- The application of the Rural Zone could lead to land use conflict and undesired long-term outcomes. It is furthermore noted that the natural assets of this land are currently unprotected due to the proposed zoning (Natural Asset Code does not apply for the Agricultural Zone).
- A rural residential zoning would require the Natural Asset Code to be overlayed, which would ensure the appropriate protection and management of the site during development.
- Surrounding land could also be considered as rural residential to create a contiguous area of rural residential expansion.
- The development of the subject land would provide for strategically desirable road connectivity within the region and potentially to adjoining municipalities.
- It is also noted that while the region appears to have sufficient rural residential zoned land, that these properties have not been developed for 10 years. A shortage of rural residential land is therefore likely in the region given the acceptance of generally underestimated population growth predictions (at the time of the CCRLUS preparation).



We therefore submit that in order to best achieve the objectives of the Local Provisions Schedule that our client's land should be zoned Rural Living A. Council could additionally consider the rezoning of the identified cluster to provide for a continuous expansion of rural residential land.

Your sincerely



Jana Rockliff

Town Planner

## **SOIL CLASSIFICATION Codes, Works and References are in accordance to the following reference books;**

### **Australian Soil and Land Survey:**

Field Handbooks, Second Edition;

R.C. McDonald, R.F. Isbell, J.G. Speight, J. Walker and M.S. Hopkins

### **Revised: STANDARD SOIL COLOR CHARTS;**

Dr. Mastatada Oyama. (National Institute of Agricultural Sciences)

Dr. Hideo Takehara. (Forest Experiment Station)

In cooperation with Japan Color Research Institute.

### **Sole Distributors in Australia;**

Frank McCarthy Color Pty.Ltd.

**Soil Description Book.** 1982, 1985,1987,1989,1990, 1992,

**Revised.** February 1995.

K.G. Wetherby, Pedologist, M.Ag Sci, MAAAC, CPAG 3

### **Soil Description Book:**

**Revised.** April 2003

K.G. Wetherby, Professional Soil scientist.

# Personal Findings & Collations of Data:

These finding and collations are based on 3 factors:

- A. The data on the data sheets.
- B. Observations within the field site.
- C. Personal knowledge over 40 years as a Pedology Consultant for and within the Agricultural Industry covering five states of Australia, namely: Victoria, New South Wales, Queensland, South Australia and Tasmania. This covers a wide range of works and issues. Being, private people and companies, plus the three tiers of Government. (Local, State and Federal).

## In my Option.

### Reason for a SK2 finding:

According to the Data sheets and the finding on those data sheets, being directly taken from soil samples derived via "Pit holes", transcending into the soil to a total depth of 1800mm where possible, this ground would be classed as a **SK2** under the "**Soil Classification for Horticulture**" codes and having a Geology type at the **B Horizon** of Class **QYC**

## Photo of PIT HOLE:







The soil has in most cases little to no Top Soil. **A. Horizon** but goes straight to the **B. Horizon**, which is a mid to high range clay based soil, as it extends down through the profile the clay content becomes greater to a point that it is either very heavy clay or even in parts **“Plug Clay”** This clay should never be exposed to the surface as it is a water barrier clay. (Sometimes known as **Blue/Gray Clay**) The location depth of said clay in some of the “Pit Holes” were as deep as, below 1800mm, to as shallow as 480mm from the surface. (At several “Pit Hole” sites there was no Top Soil at all.)

**This is an indicator that this ground is unsuitable for any type of Profitable Agriculture.**

#### **Readily Available Waterholding Capacity :**

The Readily Available Waterholding Capacity (RAW) in most case is the key for Agriculture as the greater the RAW score the greater amount of growth you would get from the soil and hence the greater the Profit. I.e. the more you can grow, the more you can sell.

**Readily Available Waterholding Capacity :** Refers to How much your land will produce on the water held within the grounds.

The closer to 42.60 the better as this is the rating for Prime Agricultural grounds with the highest returns, for monies invested.

At Approximately 36 and up to 42.60 is the range for Agriculture/ Viticulture and other high end ground crops. 36.0 being the **Lowest** range of returns, 42.60 being the **Highest** range.

At Approximately 30.0 to 36.0 are the ranges for growing grasses and the Meat Industries. (Covering a wide range of various types.)

The **lowest** returns, being 30.0, the **highest** returns being 36.0.

The higher the range, the more cattle can be grazed per acre (as an example)

At approximately 25.0 to 30 is for **Hobby** Farms. **High** maintenance, **Low** returns.

Below 25.0 **has no commercial value** for any type of **Agriculture profit**, (Input costs are greater than the returning profit) unless it is something to do with Construction.

A small rise in the RAW can and will result in a larger profit, this rise can be achieved by changing the structure of the soils content but in doing so you must consider the cost to do so compared to the expected increase in returns or profit. To do so in this case, the **Costs** would out way the **Profit** several times over

Keeping in mind the soil samples that were tested had a Very Low RAW Capacity, so low in fact in my option any venture into Agriculture, Viticulture or Production Forestry would be a grave mistake and a road to bankruptcy,. This option also does not include another factor/s that is/are not listed on the **“Data Sheet”**; the reason this factor/s is/are not listed is: The samples taken have to be able to be handed by a human hand.

**The Non Listed factor/s** being: The “**SIZE**” and “**LIT**” of some of the “**Coarse Fragments**”.

Some of the stone is “Iron Stone” some is “Heavy Density Blue Stone” with sizes up to 6 and 7 being quite common on the surface and as well as, through the profile, these stones would have to be removed somehow and the costing would be far in excess of the value of the land itself.

**At present:** they do have a bearing on the overall “**Actual Area**” RAW which has not been consider but if they were and deducted from the area surrounding the “PIT HOLE” then that score for the “RAW” contained within the “PIT HOLE” AREA would be, heavily reduced, with a score of several point below the one shown on the “**Data Sheet**”.

**Other Factors of Note:** The slopes occurring within several areas on all 3 blocks are beyond the acceptable safety limits, for the general use of machinery in regards to farming and if for some reason it was to be used for farming, in the long term, it is almost guaranteed that a fatal or near fatal accident will occur.

**The colour of the soil** has nothing to do with its **QUALITY**; all it does; is tell you what the colouring agent was, that made it that colour in the first place. I.E. when trees rot, the tree will rot down to reddish- brown compost and in turn will stain what is around it reddish-brown. The more trees that rot the redder it becomes. Hence the name “Red or Brown Soils”

If the soil is a dark colour, it means that the oil from the trees leaves that have fallen into the water has leached out into said water and over time has stained the grounds around that water dark hence the name “River Flats” Or “Black Soil” once again the more leaves that land in the water the darker the stain.

**\*\* False A. Horizons:** This can occur, when a “Hard Core or Hard Pan or even Bedrock” is found and a large percentage of the various clay types have been attracted too and then held by and within the Core or Pan leaving only the fines (Sand & Loam) and a reduced amount of clay behind. When a sample is taken, you try to take only soil as it lay in the pit hole, without disturbing either the Hard Core or Hand Pan. By doing this procedure in the correct and normal way in fact you end up with a non true sample and in turn when tested you receive a False A. Horizon score.

**What makes the QUALITY OF THE SOILS:** is its construction or ratio of Sand, Loam & Clay to each other.

## **Photo of Rocks that are 6 & 7 grade**







### Ground Coverage (Flora )

At present the ground cover is Secondary or Tertiary regrowth scrub and trees, none of which in my opinion has any value as a standalone saleable item, as most of the mill logs have been removed over many years by selective logging, going back as far as the 1800s and up to as late as just a few years ago leaving nothing but Secondary and or Tertiary waste logs, which would be graded as very poor or spread out so far apart, that to harvest said trees would cost more than the return of those said trees could bring in.

The other factor that must be considered in regards to the trees is that they are all very shallow rooted, the ones that had to be pushed over so we could conduct this survey, no matter the size had little or no Tap Root and most if not all were only held to the ground by surface roots making them very unstable and dangerous to work within and around them, there were cases where one tree was removed and another several meters away just toppled, either over the machine or next to it. The root penetration is directly related to the lack of top soil and the class of subsoil that the roots are trying to penetrate through and live within.

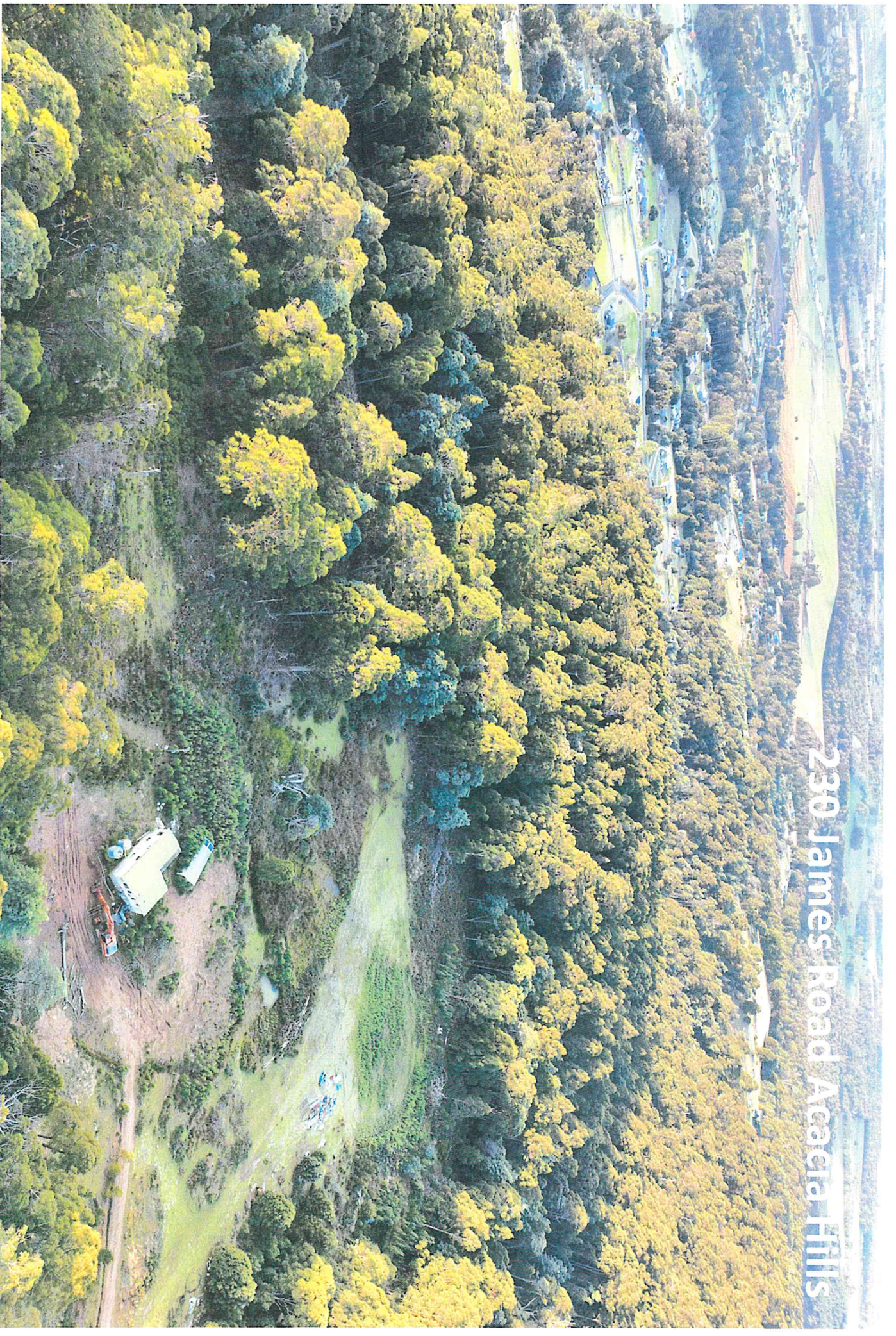
In large areas within the 3 blocks there are many infected trees with an **“Air Carried”** Spoor Disease, that starts under the bark and by the time it shows up as a **white patch** on the outside of the tree, the inside has decayed to a point that is unstable and is likely to just split or break off without warning, there are several stages of the disease and can affect the same tree in multiple places and stages at the same time, or in just one place on a tree, when the white patch becomes clearly visible to the eye, is the same time, that the spoor is carried to the surrounding trees. They can be carried a short distance or a very long way depending of the power of the wind carrying them at that time.

The infected trees are greater in number at the highest areas of the blocks and thins down as it descends, this would suggest the infection has come in over the crest of the hills and travelling down the slopes, it **does not mean** that the infection has slowed, **what it shows is the infection is on the move throughout all the areas within the 3 blocks** and most likely outside of them as well.

### Photo of Flora: (Aerial )



230 James Road Acacia Hills





**Normal Way of Control:**

The only way to eradicate this disease in my option is to fall all trees in the effect area and remove them off the property altogether including butt and heads, by burning them; this can be both heaping them up as a whole and setting them on fire or by selling them as "clean already split and cut", ready to collect fire wood.

Any and all waste, such as stumps, decayed and rooting wood, bark, heads and leaf matter should be burnt on site, **NOT** just buried or transported away from its current land/lands to insure the "**SPORES**" have been destroyed.

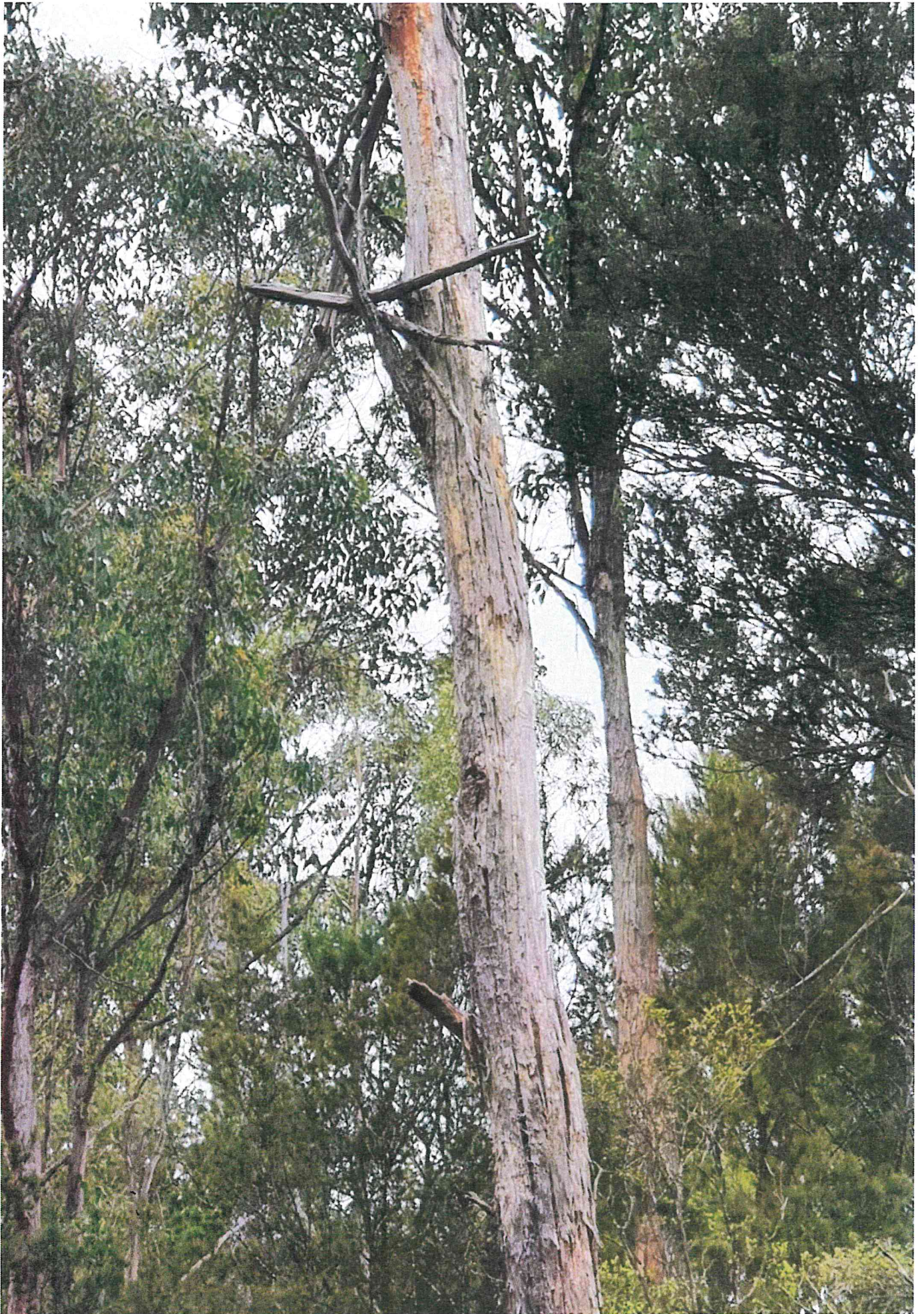
Digging a large **Pit or Trench** and burring said trees will not eradicate the spores, all it will do is hide the problem for a time until somehow the area is re-exposed, once that happens, the spores will reactivate.

**PHOTOS DISEASED TREES:**











# SOIL CLASSIFICATION & PROFILE

CO-ORDINATES:

Eastern

Western

Southern

Northern

180 Meters in from 150 Meters down from

Block No.	Location/Title:			Site No.
1	R.J. & D.L. SUSHAMES. Property ID. 9838194			1

Examiner: L.J.H Pencil: RS Land Form: Flat Survey Date: 06/06/23 Inspection Method: Soil Pit Hole 1.8m +1f Poss. GEOLOGIC SETTING: (Mid & Low Slopes)

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS	COARSE FRAG % SIZE LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - -09	B2.	LC	5YR.3/1	4.0	N/A	70 1-3	BA/Fe/MU.	Qyc GR	M	T/D 2
09 - - 17	B3	LC	5YR.3/2	5.0	N/A	60 1-3	BA/Fe /MU.	Qyc GR/	M	T/D 2
17 - - 26	B4	LC	5YR. 2/3	5.5	N/A	30 1-3	BA/Fe /MU	Qyc GR/BA	M+	T/D 1
26 - - 60	B5	LC	5YR.2/4	5.0	(Hard Core)	90 1-4	BA/Fe/MU	Qyc GR/AB	S++	T/D 0
							BEDROCK			

DEPTH OF TOPSOIL:	-CM	ADJUSTED SITE
DEPTH OF ROOTZONE	26 CM	RAW @ 8.892 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND / OR SEEPAGE POINTS:	N/A	SOIL CODES: -. B.M.R.V.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS	YES
HARD CORE@ 26-40cm	BEDROCK STARTING @ 40cm		

By. L.J. Hennessy  
 Certified Pedologist (Adelaide Uni and CRC Soil and Land Management.) ©

CO-ORDINATES:

Eastern

SOIL CLASSIFICATION & PROFILE

Western

Southern

Northern

		200 Meters in from	150 Meters in from	
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<u>Block No.</u>	<u>Location/Title:</u>			<u>Site No.</u>
1	R.J. & D.L. SUSHAMES. Property ID. 9838194			2

Examiner: L.J.H Penciller: RSLand Form: Flat  
(Mid & Low Slopes)Survey Date: 06/06/23 Inspection Method: Soil Pit Hole 1.8m +1f Poss.GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS	COARSE FRAG %, SIZE LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - 07	B2.	LC	5YR.2/1	4.0	N/A	70 1-3 Fe/MU./C	Qyc	GR M+	T/M	1
07 - 15	B3	HC	5YR.2/2	4.0	N/A	60 1-3 Fe /MU.	Qyc	GR/ S+	T/M	1
15 - 41	B4	VHC	5YR. 2/3	4.0	(Hard Core)	30 1-3 Fe /MU	Qyc	GR/AB S++	T/M	0
41 - 60						100 1-5 BEDROCK	Qyc			

DEPTH OF TOPSOIL:	-CM	ADJUSTED SITE
DEPTH OF ROOTZONE	15 CM	RAW @ 7.158 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) <u>SK2</u>
DRAINAGE AND / OR SEEPAGE POINTS:	N/A	SOIL CODES: -. B.M.R.V.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS	YES
HARD CORE@ 30- 41cm	BEDROCK STARTING @ 42cm and Down		

By. L.J. Hennessy  
Certified Pedologist (Adelaide Uni and CRC Soil and Land Management.) ©



# SOIL CLASSIFICATION & PROFILE

CO-ORDINATES:

Eastern

Western

Southern

Northern

400 Meters in from

400 up from

150 Meters up from

Block No.

1

R.J. & D.L. SUSHAMES.

Location/Title:

Property ID. 9838194

Filo Number. 50682/1

Site No.

3

Examiner: L.J.H Pencil: RS

Land Form: Flat

Survey Date: 06/06/23

Inspection Method: Soil Pit Hole 1.8m +1f Poss.

GEOLOGIC SETTING:

(Mid Slope)

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	COARSE FRAG %. SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - 09	B2.	LC	5YR 3/1	6			10 1-2	GV/MU/Fe/C	QYR	GR	W	D/T	2
09 - 19	B3	LMC	5YR 4/2	4			5 1-2	MU/Fe/C	QYR	GR	W	D/T	1
19 - 32	B4	VHC	5YR 4/3	4	(Hard	Core)	10 1-3	MU/Fe	QYR	GR/AB	SS++	D/T	0
32 - 60	B5		5YR4/6	4			95 1-5	BEDROCK		AB	SS++	D/T	0

DEPTH OF TOPSOIL:	- CM	ADJUSTED SITE
DEPTH OF ROOT 19 CM		RAW @ 15.403 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND SEEPAGE POINTS:	N/A	SOIL CODES: - B. M. R. V.

AMELIORATION REQUIREMENTS: Yes.	MICROBE REQUIREMENTS YES
HARD PAN @ CM BEDROCK STARTING @ 32 CM	HARD Core @ 19 CM

By. L.J. Hennessy  
 Certified Pedologist (Adelaide Uni and CRC Soil and Land Management.) ©

## CO-ORDINATES:

# Western

# Southern

Northern

400 Meters in from

400 up from

150 Meters in from

<u>Block No.</u>	<u>Location/Tital:</u>	<u>Site No.</u>
1	R.J. & D.L. SUSHAMES. Property ID. 9838194	Filo Number. 50682/1 4

Examiner: LJH      Penciler: RS  
GEOLOGIC SETTING:

Land Form: Flat  
(Mid Slope)

Survey Date: 06/06/23 Inspection Method: Soil Pit Hole 1.8m +If Poss.

[illegible]

DEPTH OF TOPSOIL:	HARD CORE/BEDROCK	ADJUSTED SITE
DEPTH OF ROOTZONE	0 CM	RAW @ NIL KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND SEEPAGE POINTS:	N/A	SOIL CODES: BEDROCK

AMELIORATION REQUIREMENTS: Yes.	MICROBE REQUIREMENTS YES
HARD PAN @ CM BEDROCK STARTING @ 4 CM	HARD CORE @ 0 CM

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CO-ORDINATES:

Eastern

Western

Southern

Northern

**SOIL CLASSIFICATION & PROFILE**

200 Meters in from

150 Meters in from

<u>Block No.</u>	<u>Location/Title:</u>			<u>Site No.</u>
1	R.J. & D.L. SUSHAMES. Property ID. 9838194			5

R.J. &amp; D.L. SUSHAMES.

Property ID. 9838194

Filo Number. 50682/1

Examiner: L.J.H Penciller: RSLand Form: FlatSurvey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +If Poss.GEOLOGIC SETTING:

(Bottom Slope)

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	COARSE FRAG %. SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT		
0-15	B2.	LC	2.5YR.4/4	4.0	N/A		10	1	Fe/MU/BA	QKR	GR	W	M	1
15--35	*A1	CL	2.5YR.4/6	5.0	N/A		5	1	Fe/MU	QKR	GR	S	T/M	0
35--60	*A2	SCL	2.5YR.4/8	4.0	N/A		5	1	Fe/MU	QKR	GR	M	T/M	0
									BEDROCK					

DEPTH OF TOPSOIL: FROM 15 TO 60 CM

ADJUSTED SITE. IMPORTED SOIL. HOLE UPSIDE DOWN

DEPTH OF ROOTZONE 15 CM

RAW @ 34.758 KPa = 60 PAY NO ATTENTION see above

DEPTH OF FREEWATER: BELOW 1.8 METERS

SOIL CLASSIFICATION: Ferrosols ( Red)

DRAINAGE AND SEEPAGE POINTS: N/A

SOIL CODES: NO CODE (IMPORTED SOIL)

AMELIORATION REQUIREMENTS:

MICROBE REQUIREMENTS YES

HARD PAN @ CM BEDROCK STARTING @ 60 CM

HARD CORE @ 0 CM

\*\* False A. Horizons:- See briefing sheets.

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CO-ORDINATES: Eastern Western Southern Northern

SOIL CLASSIFICATION & PROFILE

200 Meters down from 150 Meters up from

Block No.	Location/Title:		Site No.
1	R.J. & D.L. SUSHAMES. Property ID. 9838194		6

Examiner: L.J.H Pencil: RS Land Form: Flat Survey Date: 06/06/23 Inspection Method: Soil Pit Hole 1.8m +If Poss. GEOLOGIC SETTING: (Crest Slope)

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS	COARSE FRAG % SIZE LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - 06	B2.	LC	5YR.3/1	6.0	N/A	10 1 GV/Fe/C.	Qyc	GR M	T/M	1
06 - 18	B3	LC	5YR.3/2	4.5	N/A	10 1 Fe /MU.	Qyc	GR M+	T/M	1
18 - 30	B4	LC	5YR. 3/3	4.0	N/A	25 1 Fe /MU.	Qyc	GR W	T/M	0
30 - 44	B5	LC	5YR.3/4	4.0	N/A	40 1-2 Fe/MU/BA	Qyc	GR S+	T/M	0
44 - 60	B6	LC	5YR.3/6	4.0	N/A	40 1-2 Fe/MU/BA	Qyc	GR M	T/M	0

DEPTH OF TOPSOIL: - CM	ADJUSTED SITE
DEPTH OF ROOTZONE 18 CM	RAW @ 24.624 KPA = 60
DEPTH OF FREEWATER: BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND SEEPAGE POINTS: N/A	SOIL CODES: -.B.M.R.S.

AMELIORATION REQUIREMENTS: Yes. Water Repellent, Watering Agent	MICROBE REQUIREMENTS YES
HARD Core @ cm BEDROCK STARTING @ cm	

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CO-ORDINATES:

## Eastern

Western

Southern

Northern

100 Meters in from

150 Meters down from

<u>Block No.</u>	<u>Location/Title:</u>	<u>Site No.</u>
2	R.J. & D.L. SUSHAMES. Property ID. 9838194	Filo Number. 177003/1 1

Examiner: LJM      Penciler: RS  
GEOLOGIC SETTING:      Land Form:  
(Bottom Slopes)  
Survey Date: 14/06/23      Inspection Method: Soil Pit Hole 1.8m +

[illegible]

DEPTH OF TOPSOIL:	- CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	- CM	RAW @ Nil KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) <u>SK2</u>
DRAINAGE AND SEEPAGE POINTS:	N/A	SOIL CODES: BEDROCK

AMELIORATION REQUIREMENTS:		Yes	MICROBE REQUIREMENTS. YES
HARD PAN @	N/A CM	BEDROCK STARTING @	4 CM
		HARD CORE @	0 CM

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CO-ORDINATES:

Eastern

**SOIL CLASSIFICATION & PROFILE**

Western

Southern

Northern

280 Meters in from

280 Meters up from

150 Meters down from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
2	R.J. & D.L. SUSHAMES. Property ID. 9838194		2

Examiner: L.JH Penciller: RS  
GEOLOGIC SETTING:

Land Form:  
(Crest Slopes)

Survey Date: 06/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLAS	COARSE FRAG %	SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - - 16	A1.	C.L.	5YR.1.7/1	6.0	N/A		85	1	Fc/Fe & C.	Qyc	GR	M	T/D	2
16 - 23	B1	L.C.	5YR.2/4	6.0	N/A		30	1-2	Fc/Fe & C.	Qyc	GR	M	T/D	1
23 - 40	B2	L.M.C	5YR. 4/4	5.5	N/A		30	1-2	Fc /Fe & C.	Qyc	GR	W	T/D	0
40 - 50	B3	M.C.	5YR.4/6	6.0	N/A		40	1-2	Fc & C	Qyc	GR	S++	T/M	0
50 down	N/A				N/A		99	3-5	BEDROCK		AB		T/M	0

DEPTH OF TOPSOIL:	16 CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	23 CM	RAW @ 14.54 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND SEEPAGE POINTS:	N/A	SOIL CODES: B.B.M.R.V.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS. YES
HARD PAN @ N/A cm	BEDROCK STARTING @ 50 CM	HARD CORE @

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CO-ORDINATES:

Eastern

Western

Southern

Northern

**SOIL CLASSIFICATION & PROFILE**

100 Meters in from

150 Meters up from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
2	R.J. & D.L. SUSHAMES. Property ID. 9838194		9

Examiner: L.J.H    Penciller: RS    Land Form: (Flat)    Survey Date: 06/06/23    Inspection Method: Soil Pit Hole 1.8m +  
GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLAS	COARSE FRAG %. SIZE LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - 09	B2.	LC	5YR.3/3	5.5	N/A		85 1 Fe/Fe & C.	Qyc	GR M	T/D	2
09 - 24	B3	HC	5YR.3/4	5.5	N/A		30 1-2 Fe/Fe & C.	Qyc	GR M	T/D	1
24 - 48	B4	LC	5YR.3/4	5.0	N/A		30 1-2 Fe/Fe & C.	Qyc	GR W	T/D	0
48 - 60	A1	SCL	5YR.3/6	5.0	N/A		40 1-2 Fe & C	Qyc	GR S++	T/M	0
											0

DEPTH OF TOPSOIL: A1 is 48 CM below surface													
DEPTH OF ROOTZONE                      23 CM													
DEPTH OF FREEWATER:                  BELOW 1.8 METERS													
DRAINAGE AND SEEPAGE POINTS:    N/A													

AMELIORATION REQUIREMENTS:                      Yes										MICROBE REQUIREMENTS                      Yes				
HARD PAN @    N/A    cm    BEDROCK STARTING @    50 CM										HARD CORE @				

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CO-ORDINATES:		SOIL CLASSIFICATION & PROFILE	
Eastern		Western	
100 Meters in from		Southern	
		Northern	
		500 Meters down from	

Block No.	Location/Title:		Site No.
2	R.J. & D.L. SUSHAMES. Property ID. 9838194		4

Examiner: L.J.H      Pencil: RS      Land Form: (Mid Slope)      Survey Date: 06/06/23      Inspection Method: Soil Pit Hole 1.8m + GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CARBONATE CLASS	COARSE FRAG %. SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - 9	B2.	MC	5YR. 3/2	5.0	N/A		15 1	BA/MU	Qyc	GR M	T/D	1
9 - 16	B3	HC	5YR.3/3	4.5	N/A		15 1-2	BA/MU/Fe	Qyc	GR W	T/D	0
16 - 24	B4	HC	5YR. 3/4	4.5	N/A		25 1-2	BA/MU/Fe/C.	Qyc	GR S+	T/M	0
24 - 36	B5	HC	5YR.4/8	4.0	N/A		35 1-3	BA/MU/Fe/C	Qyc	GR/AB S++	T/M	0
36 - 50	B6	HC	5YR.5/6	4.0	N/A		45 2-4	BA/MU/Fe/C	Qyc	GR/AB S++	T/M	0
50 - 60	B7	HC	5YR.5/8	4.0	N/A		50 3-4	BA/MU/Fe/C	Qyc	GR/AB S++	T/M	0

DEPTH OF TOPSOIL:	0.0.CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	0.9 CM	RAW @ 17.952 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: --.B.M.R.S.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS. YES
HARD PAN @ CM	BEDROCK STARTING@ CM	HARD CORE @



CO-ORDINATES: Eastern

Western

Southern

Northern

**SOIL CLASSIFICATION & PROFILE**

300 Meters in from 300 Meters up from 500 Meters up from 500 Meters down from

Block No.	Location/Title:			Site No.
2	R.J. & D.L. SUSHAMES. Property ID. 9838194 Filo Number. 177003/1			5

Examiner: L.J.H Penciller: RSLand Form:  
(Mid Slope)Survey Date: 06/06/23Inspection Method: Soil Pit Hole 1.8m +GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	COARSE FRAG %. SIZE	LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT		
0 - 14	B2.	LC	5YR. 3/1	6.0	N/A		30	1-2	BA/Fe	Qyc	GR	S	T/M	2
14- -30	B3	LMC	5YR.3/2	4.5	N/A		30	1-2	BA/MU/Fe	Qyc	GR	M	T/M	1
30- - 43	B4	MC	5YR. 3/3	4.0	N/A		15	1	BA/MU/Fe	Qyc	GR/AB	S	T/M	0
43- - 60	B5	HC	5YR.2/3	4.0	N/A		15	1	BA/MU/Fe	Qyc	GR/AB	S+	T/M	0

DEPTH OF TOPSOIL:	0.0.CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	3.0 CM	RAW @ 24.183 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: --B.M.R.S.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS. YES
HARD PAN @ CM	BEDROCK STARTING@	HARD CORE @

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# SOIL CLASSIFICATION & PROFILE

CO-ORDINATES:		Eastern	Western	Southern	Northern
		100 Meters up from		500 Meters down from	

Block No.	Location/Tital:				Site No.
2	R.J. & D.L. SUSHAMES. Property ID. 9838194				6

Examiner: L.J.H      Pencil: RS      Land Form: (Mid Slope)      Survey Date: 06/06/23      Inspection Method: Soil Pit Hole 1.8m + GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASST	COARSE FRAG SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT		
0 --09	B2.	LC	5YR. 2/1	4.0	N/A		10	1-2	BA/MU/Fe/C	Qyc	GR	S+	T/D	2
09--22	B3	LC	5YR.2/2	4.0	N/A		40	1-2	BA/MU/Fe/C	Qyc	GR	S++	T/D	1
22--44	B4	HC	5YR. 3/2	4.0	N/A		60	1-3	BA/MU/Fe/C	Qyc	GR/AB	S	T/D	1
44--60	B5	HC	5YR.3/3	4.0	N/A		60	1-2	BA/MU/Fe/C	Qyc	GR/AB	S+	T/D	0

DEPTH OF TOPSOIL:	0.0.CM	ADJUSTED SITE NO.:	
DEPTH OF ROOTZONE	4.4 CM	RAW @ 15.305	KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2	
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: --B.M.R.S.	

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS. YES
HARD PAN @ CM	BEDROCK STARTING@	HARD CORE @



CO-ORDINATES:

Eastern

Western

Southern

Northern

SOIL CLASSIFICATION & PROFILE

	100 Meters in from		1 50 Meters up from	
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Block No. 2	R.J. & D.L. SUSHAMES.	Location/Title: Property ID. 9838194	Site No. 9
		Filo Number. 177003/1	

Examiner: L.J.H

Penciller: RS

Land Form: ( Flat)

Survey Date: 06/06/23

Inspection Method: Soil Pit Hole 1.8m +

GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	COARSE FRAG %	SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - - 09	B2.	LC	5YR.3/3	5.5	N/A		85	1	Fc/Fe & C.	Qyc	GR	M	T/D	2
09- - 24	B3	HC	5YR.3/4	5.5	N/A		30	1-2	Fc/Fe & C.	Qyc	GR	M	T/D	1
24- - 48	B4	LC	5YR. 3/4	5.0	N/A		30	1-2	Fc /Fe & C.	Qyc	GR	W	T/D	0
48- - 60	A1	SCL	5YR.3/6	5.0	N/A		40	1-2	Fc & C	Qyc	GR	S++	T/M	0
														0

DEPTH OF TOPSOIL: A1 is 48 CM below surface	ADJUSTED SITE. For some reason this area has been back filled
DEPTH OF ROOTZONE 23 CM	RAW @ 20.808 KPA = 60
DEPTH OF FREEWATER: BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( Red) SK2
DRAINAGE AND SEEPAGE POINTS: N/A	SOIL CODES: -.B.M.R.V.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS	Yes
HARD PAN @ N/A cm	BEDROCK STARTING @ 50 CM	HARD CORE @	

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CO-ORDINATES:

Eastern

**SOIL CLASSIFICATION & PROFILE**

Western

Southern

Northern

		100 Meters up from		160 Meters down from
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<u>Block No.</u>		<u>Location/Title:</u>	<u>Site No.</u>
3	R.J. & D.L. SUSHAMES.	Property ID. 9838194	1

Examiner: L.J.H    Penciller: RS  
GEOLOGIC SETTING:Land Form: (Combo)  
(Low Slopes)Survey Date: 06/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	%.	COARSE FRAG SIZE	LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - - 11	A1	CL	5YR. 4/2	6.5	N/A		10	1-2	BA/MU/Fe/C	QYC	GR	S+	T/M	1
11 - - 22	B2	LC	5YR.4/3	6.0	N/A		30	1-4	BA/MU/Fe/C	QYC	GR	W	T/M	0
22 - - 46	B3	LC	5YR. 3/3	5.5	N/A		30	1-2	BA/MU/Fe/C.	QYC	GR/AB	M	T/M	0
46 - - 60	B4	LC	5YR.3/4	5.0	N/A		50	1-2	BA/MU/Fe/	QYC	GR/AB	M+	T/M	0

<b>DEPTH OF TOPSOIL:</b>	<b>11.CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	<b>11 CM</b>	RAW @ 24.390    KPA = 60
DEPTH OF FREEWATER:	<b>BELOW 1.8 METERS</b>	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: B.B.M.R.V.

<b>AMELIORATION REQUIREMENTS:</b>	<b>Yes</b>	<b>MICROBE REQUIREMENTS</b>
<b>HARD PAN @</b>	<b>cm    BEDROCK STARTING@</b>	<b>Yes</b>

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CO-ORDINATES:

Eastern

Western

Southern

Northern

**SOIL CLASSIFICATION & PROFILE**

455 Meters in from

455 Meters up from

160 Meters down from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
3	R.J. & D.L. SUSHAMES. Property ID. 9838194	Filo Number. 113034/1	2

Examiner: L.J.H    Penciller: RS  
GEOLOGIC SETTING:

Land Form:  
 (Low Slope)

Survey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS		COARSE FRAG %. SIZE LIT		GEOLOG	PEDALITY GRADE TYPE		MOIST	ROOT	
0 - - 12	B2	LC	5YR. 4/3	5.5	N/A		20	1-2	BA/MU/Fe	QYC	GR	W	T/M	1
12 - - 23	B3	LC	5YR.4/4	5.0	HARD	CORE	70	1-3	BA/MU/Fe	QYC	GR/AB	W	T/D	1
23 - - 33	B4	LC	5YR. 4/6	4.0	HARD	CORE	90	1-4	BA/MU/Fe	QYC	GR/AB	W	T/D	0
									BEDROCK					

<b>DEPTH OF TOPSOIL:</b>	<b>CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	CM	RAW @ 7.923      KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED ) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.V.

<b>AMELIORATION REQUIREMENTS:</b>	<b>Yes</b>	<b>MICROBE REQUIREMENTS:</b>	<b>Yes</b>
<b>HARD PAN @</b>	<b>cm</b>	<b>BEDROCK STARTING@ 33 CM</b>	<b>HARD CORE @ 23 CM</b>

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CO-ORDINATES:

Eastern

**SOIL CLASSIFICATION & PROFILE**

Western

Southern

Northern

100 Meters in from

160 Meters down from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
3	R.J. & D.L. SUSHAMES. Property ID. 9838194		3
	Filo Number. 113034/1		

Examiner: L.J.H      Penciller: RS  
GEOLOGIC SETTING:

Land Form:  
 (Low Slope)

Survey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS		COARSE FRAG % SIZE LIT	GEOLOG	PEDALITY GRADE TYPE		MOIST	ROOT
0 - - 90	B2	LC	5YR. 3/2	5.0	N/A		30 1-2 BA/MU/Fe/C	QYC	GR	W	T/M	1
90- - 13	B3	LC	5YR.3/4	5.0	HARD	CORE	50 1-3 BA/MU/Fe/C	QYC	GR	W	T/M	0
13 - - 18	*A1	CL	5YR. 3/6	6.0	HARD	CORE	80 1-4 BA/MU/Fe/C	QYC	GR/AB	W	T/M	0
							BEDROCK					

<b>DEPTH OF TOPSOIL:</b>	<b>- CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	9 CM	RAW @ 4.381      KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED ) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.V.

<b>AMELIORATION REQUIREMENTS::</b> Yes <b>**FALSE A1. &amp; or A2. HORIZONS</b>	<b>MICROBE REQUIREMENTS: Yes</b>
<b>HARD PAN @</b> cm <b>BEDROCK STARTING@ 18CM</b>	<b>HARD CORE @ 13CM</b>

**\*\* False A. Horizons:- See briefing sheets.**

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CO-ORDINATES:

Eastern

**SOIL CLASSIFICATION & PROFILE**

Western

Southern

Northern

100 Meters in from

390 Meters up from

390 Meters down from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
3	R.J. & D.L. SUSHAMES. Property ID. 9838194		4
	Filo Number. 113034/1		

Examiner: L.JH    Penciller: RS  
GEOLOGIC SETTING:

Land Form:  
(Mild Slope)

Survey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R CLASS	COARSE FRAG %. SIZE LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT		
0 - - 10	A1	CL	5YR. 3/3	5.5	N/A	30	1-2 BA/MU/Fe/C	QYC	GR	W	T/M	1
10 - - 23	B2	LC	5YR. 3/4	5.0	N/A	20	1-2 BA/MU/Fe/C	QYC	GR	M	T/M	1
23 - - 32	*A2	CL	5YR. 3/6	5.0	HARD	90	1-4 BA/MU/Fe/C	QYC	GR	W	T/M	0
							BEDROCK					

<b>DEPTH OF TOPSOIL:</b>	<b>10 CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	23 CM	RAW @ 11.058 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.V.

<b>AMELIORATION REQUIREMENTS:</b>	<b>Yes **FALSE A1. &amp; or A2. HORIZONS</b>	<b>MICROBE REQUIREMENTS:</b>	<b>Yes</b>
<b>HARD PAN @</b>	<b>cm BEDROCK STARTING@ 32 CM</b>	<b>HARD CORE @ 23 CM</b>	

**\*\* False A. Horizons:- See briefing sheets.**

By, L.J. Hennessy

Certified Pedologist (Adelaide Uni and CRC Soil and Land Management.) ©

# SOIL CLASSIFICATION & PROFILE

CO-ORDINATES:

Eastern

Western

Southern

Northern

445 Meters in from

445 Meters up from

390 Meters down from

Block No.	Location/Title:		Site No.
3	R.J. & D.L. SUSHAMES.		5
Examiner: L.J.H		Property ID. 9838194	Filo Number. 113034/1
Penciller: RS		Survey Date: 14/06/23	
GEOLOGIC SETTING:		Inspection Method: Soil Pit Hole 1.8m +	
(Mid Slope)			

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	%.	COARSE FRAG SIZE	LIT	GEOLOG	PEDALITY GRADE TYPE	MOIST	ROOT
0 - - 18	B2	LC	5YR. 3/3	5.5	N/A		30	1-2	BA/MU/Fe/C	QYC	GR	M	T/M
18 - - 28	*A1	CL	5YR.3/4	5.0	N/A		10	1-2	BA/MU/Fe/C	QYC	GR/AB	W	T/M
									BEDROCK				

DEPTH OF TOPSOIL:	- CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	28CM	RAW @ 9.223 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.V.

AMELIORATION REQUIREMENTS: Yes	**FALSE A1. & or A2. HORIZONS	MICROBE REQUIREMENTS: Yes
HARD PAN @	cm BEDROCK STARTING@ 28 CM	HARD CORE @

\*\* False A. Horizons;- See briefing sheets.

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SOIL CLASSIFICATION & PROFILE		
CO-ORDINATES:	Eastern	Western
	100 Meters up from	Southern
		Northern
		390 Meters down from

Block No.	Location/Title:		Site No.
3	R.J. & D.L. SUSHAMES. Property ID. 9838194		6

Examiner: L.JH
Penciller: RS
GEOLOGIC SETTING:

Land Form: (Mid Slope)
Survey Date: 06/06/23
Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	%.	COARSE FRAG SIZE	LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - - 10	B2	LC	5YR. 3/1	4.5	N/A		40	1-3	BA/Fc/Fe/C	QYC	GR	M	T/M	2
10- - 20	B3	LC	5YR.3/2	4.0	N/A		30	1-2	BA/MU/Fe/C	QYC	GR	W	T/M	1
20- - 28	B4	HC	5YR. 3/3	5.5	N/A		20	1-2	BA/MU/Fe/C.	QYC	GR/AB	S+	T/M	0
28- - 40	B5	HC	5YR.3/4	5.0	N/A		20	1-2	BA/MU/Fe/C	QYC	GR/AB	S++	T/M	0
40- - 60	B6	HC	5YR 3/6	4.5	N/A		40	1-3	BA/MU/Fe	QYC	GR/AB	S++	T/M	0

DEPTH OF TOPSOIL:	-CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	20 CM	RAW @ 17.890 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.S.

AMELIORATION REQUIREMENTS:	Yes	MICROBE REQUIREMENTS
HARD PAN @	cm	BEDROCK STARTING@
		Yes

CO-ORDINATES:

Eastern

SOIL CLASSIFICATION & PROFILE

Western

Southern

Northern

		100 Meters up from	160 Meters up from	
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<u>Block No.</u>		<u>Location/Title:</u>	<u>Site No.</u>
3	R.J. & D.L. SUSHAMES.	Property ID. 9838194	7

Examiner: L.JH    Penciller: RS  
GEOLOGIC SETTING:Land Form: (Combo)  
(Crest/Mid Slope)Survey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	%.	COARSE FRAG SIZE	FRAG LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT
0 - - 12	B2	MC	5YR. 3/1	6.0	N/A		30	1-2	BA/MU/Fe	QYC	GR	S+	T/W	1
12 - - 21	B3	MC	5YR.3/2	6.0	N/A		40	1-2	BA/MU/Fe	QYC	GR	W	M	1
21 - - 30	B4	MC	5YR. 3/4	5.5	N/A		60	1-2	BA/MU/Fe/C.	QYC	GR	S++	T/M	1
									BEDROCK					

<b>DEPTH OF TOPSOIL:</b>	<b>-CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	30 CM	RAW @ 9.918    KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols (RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.S.

<b>AMELIORATION REQUIREMENTS:</b>	<b>Yes</b>	<b>MICROBE REQUIREMENTS</b>
<b>HARD PAN @</b>	<b>cm</b>	<b>BEDROCK STARTING@</b>
		<b>Yes</b>

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CO-ORDINATES:

Eastern

**SOIL CLASSIFICATION & PROFILE**

Western

Southern

Northern

		445 Meters up from	160 Meters up from	
--	--	--------------------	--------------------	--

<u>Block No.</u>		<u>Location/Title:</u>	<u>Site No.</u>
3	R.J. & D.L. SUSHAMES.	Property ID. 9838194	Filo Number. 113034/1

Examiner: L.JH    Penciller: RS  
GEOLOGIC SETTING:

Land Form: (Combo)  
(Mid Slope)

Survey Date: 14/06/23Inspection Method: Soil Pit Hole 1.8m +

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE R	CLASS	COARSE FRAG %. SIZE	LIT	GEOLOG	PEDALITY GRADE	TYPE	MOIST	ROOT	
0 - - 09	A1	CL	5YR. 5/4	6.0	N/A		20	1-2	BA/Fe	QYC	GR	M	T/W	1
09 - - 18	B2	LC	5YR.3/3	5.5	N/A		30	1-2	BA/MU/Fe	QYC	GR	M	M	1
18 - - 30	B3	LC	5YR. 3/4	5.0	N/A		50	1-2	BA/MU/Fe/	QYC	GR	S	T/M	1
30 - - 34	B4	VHC	5YR. 4/4	4.5	N/A		40	1-4	BA/MU/Fe/C	QYC	GR	S++	T/M	0
									BEDROCK					

<b>DEPTH OF TOPSOIL:</b>	<b>9.CM</b>	<b>ADJUSTED SITE NO.:</b>
DEPTH OF ROOTZONE	<b>30 CM</b>	RAW @ 12.675    KPA = 60
DEPTH OF FREEWATER:	<b>BELOW 1.8 METERS</b>	SOIL CLASSIFICATION: Ferrosols ( RED ) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: B.B.M.R.V.

<b>AMELIORATION REQUIREMENTS:</b>	<b>Yes</b>	<b>MICROBE REQUIREMENTS</b>
<b>HARD PAN @</b>	<b>cm    BEDROCK STARTING@ 34 CM</b>	<b>Yes</b>

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CO-ORDINATES:

Eastern

Western

Southern

Northern

**SOIL CLASSIFICATION & PROFILE**

100 Meters in from

160 Meters up from

<u>Block No.</u>	<u>Location/Title:</u>		<u>Site No.</u>
3	R.J. & D.L. SUSHAMES. Property ID. 9838194		9

Filo Number. 113034/1

Survey Date: 14/06/23

Examiner: L.J.H

Penciller: RS

Land Form:

(Crest)

Inspection Method: Soil Pit Hole 1.8m +

GEOLOGIC SETTING:

DEPTH In cm	HOR	TEXT	SOIL COLOUR	PH	CARBONATE		COARSE FRAG		GEOLOG	PEDALITY		MOIST	ROOT	
					R	CLASS	%.	SIZE LIT		GRADE	TYPE		T	
0 - - 12	B2	LC	5YR. 3/2	5.5	N/A		60	1-2	BA/MU/Fe	QYC	GR	M	T/W	1
12 - - 20	B3	LC	5YR.3/3	5.5	N/A		20	1-2	BA/MU/Fe	QYC	GR	M	M	1
20 - - 25	*A1	CL	5YR. 3/4	5.0	HARD	CORE	60	1-3	BA/MU/Fe/C	QYC	GR	S+	T/M	1
25 - - 30	*A2	SCL	5YR. 3/6	5.0	HARD	CORE	90	1-4	BA/MU/Fe/C	QYC	GR	S+	T/M	1
									BEDROCK					

DEPTH OF TOPSOIL:	-CM	ADJUSTED SITE NO.:
DEPTH OF ROOTZONE	30 CM	RAW @ 8.039 KPA = 60
DEPTH OF FREEWATER:	BELOW 1.8 METERS	SOIL CLASSIFICATION: Ferrosols ( RED) SK2
DRAINAGE AND SEEPAGE POINTS:		SOIL CODES: -.B.M.R.V.

AMELIORATION REQUIREMENTS: Yes	**FALSE A1. & A2. HORIZONS	MICROBE REQUIREMENTS Yes
HARD PAN @	cm BEDROCK STARTING@ 30 CM	HARD CORE @ 25 CM

\*\* False A. Horizons;- See briefing sheets.

By, L.J. Hennessy

Certified Pedologist (Adelaide Uni and CRC Soil and Land Management.) ©



Owner: D.J. James & Anor	<b>PLAN OF TITLE</b> of land situated in the <b>DEVON</b> <b>SPREYTON</b>	Registered Number:  <b>D 50682</b>
Title Reference: C.T. 4402 - 28		Approved <b>31 JUL 1991</b> <i>[Signature]</i>
Grantee: Part of Lot 384, 640 Acs. Alexander McNaughton, pur.	COMPILED FROM P 32174 COMPILED BY <u>LESTER FRANKS &amp; CO. PTY. LTD</u> SCALE 1:6000 (Approx) MEASUREMENTS IN METRES	Recorder of Titles

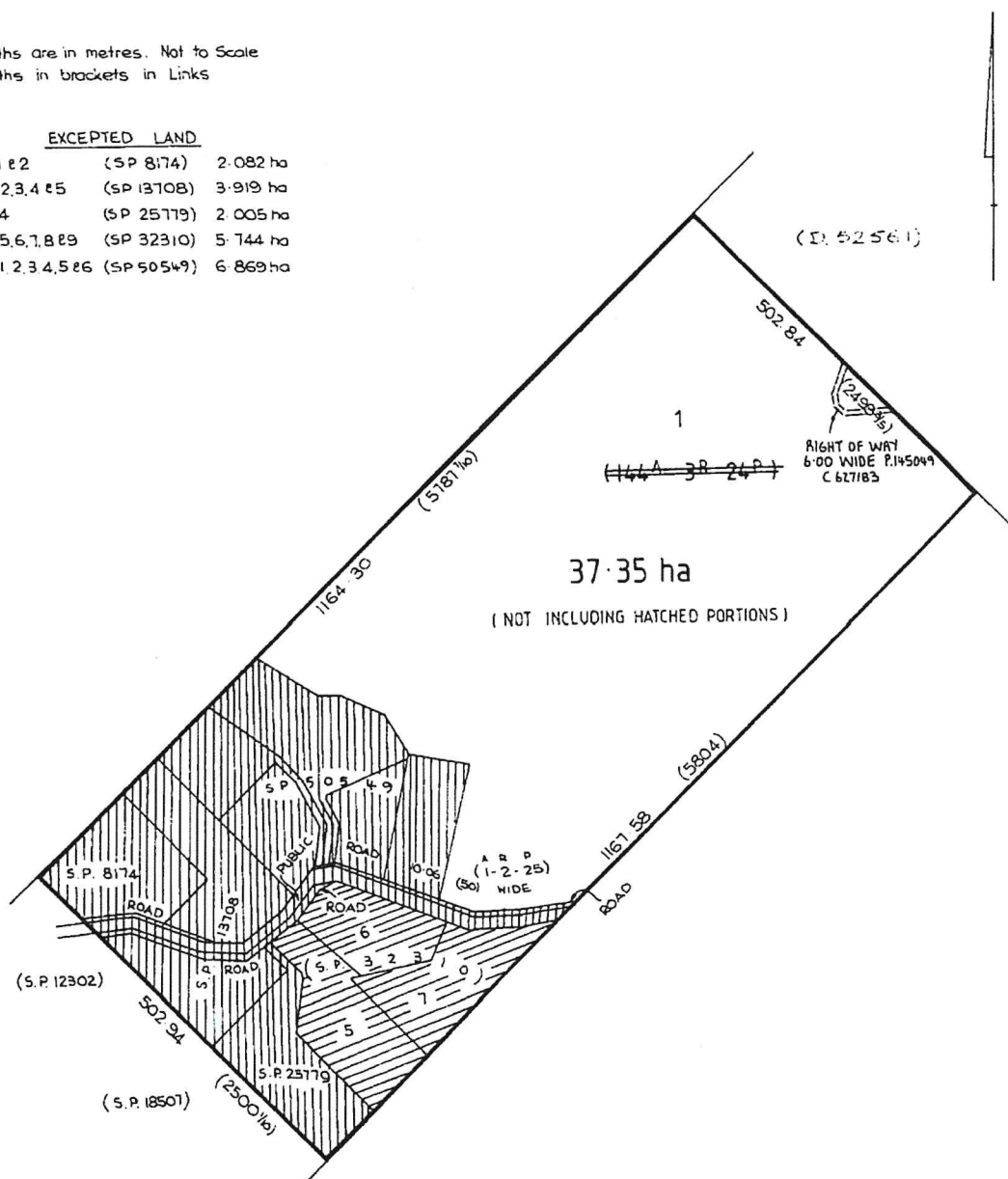
## BALANCE PLAN

SKETCH BY WAY OF ILLUSTRATION ONLY

Lengths are in metres. Not to Scale  
Lengths in brackets in Links

EXCEPTED LAND

Lots 1 & 2	(SP 8174)	2.082 ha
Lots 2, 3, 4 & 5	(SP 13708)	3.919 ha
Lot 4	(SP 25779)	2.005 ha
Lots 5, 6, 7, 8 & 9	(SP 32310)	5.744 ha
Lots 1, 2, 3, 4, 5 & 6	(SP 50549)	6.869 ha



SEARCH OF TORRENS TITLE

VOLUME 50682	FOLIO 1
EDITION 4	DATE OF ISSUE 21-Nov-2014

SEARCH DATE : 14-Jun-2023

SEARCH TIME : 09.01 AM

DESCRIPTION OF LAND

Parish of SPREYTON, Land District of DEVON  
Lot 1 on Diagram 50682  
Being the land described in Conveyance No. 47/2815  
Excepting thereout Lots 1 & 2 on SP 8174, Lots 2, 3, 4 & 5 on  
Sealed Plan No. 13708, Lot 4 on SP 25779, Lots 5, 6, 7, 8 & 9  
on Sealed Plan No. 32310 and Lots 1 to 6 on Sealed Plan No.  
50549  
Derivation : Part of Lot 384, 640 Acres Gtd. to A. McNoughton  
Prior CT 4402/28

SCHEDULE 1

M491545 TRANSFER to ROBERT JAMES SUSHAMES and DENISE LILY  
SUSHAMES Registered 21-Nov-2014 at noon

SCHEDULE 2

Reservations and conditions in the Crown Grant if any  
C441183 SUBJECT to the Gas Pipeline right set forth in  
Memorandum of Provisions No. M260 acquired by the  
Crown in accordance with the Land Acquisition Act  
1993 freed and discharged from all estates, statutory  
reservations and dedications in so far as they affect  
the said Gas Pipeline right over the land marked "Gas  
Supply Easement" shown on Plan No. P137028 as passing  
through the said land within described. Registered  
08-Sep-2004 at noon  
C627183 Burdening Easement: A Right of Carriageway  
(appurtenant to Lot 1 on D52561) over the Right of  
Way 6.00 wide shown on D50682 Registered 23-Aug-2006  
at 12.01 PM  
D4401 Transfer of the "Gas Pipeline Right" created by  
Instrument C441183 in favour of Tasmanian Gas  
Pipeline Pty Ltd Registered 02-May-2012 at noon  
D128612 BURDENING EASEMENT: A Right of Carriageway  
(appurtenant to Lot 1 on Sealed Plan 19218) over the  
Right of Way 6.00 wide shown on Diagram 50682  
Registered 21-Nov-2014 at 12.01 PM

SEARCH OF TORRENS TITLE

VOLUME 177003	FOLIO 1
EDITION 2	DATE OF ISSUE 26-Oct-2021

SEARCH DATE : 12-Oct-2022

SEARCH TIME : 03.10 PM

DESCRIPTION OF LAND

Parish of SPREYTON Land District of DEVON  
Lot 1 on Sealed Plan 177003  
Derivation : Part of 624 Acres Gtd. to Alexander McNaughton  
and Whole of Lot 100, 3716m2 The Crown and Whole of Lot 101,  
2043m2 The Crown  
Prior CTs 52561/1, 177003/100 and 177003/101

SCHEDULE 1

M921077 TRANSFER to ROBERT JAMES SUSHAMES and DENISE LILY  
SUSHAMES Registered 26-Oct-2021 at noon

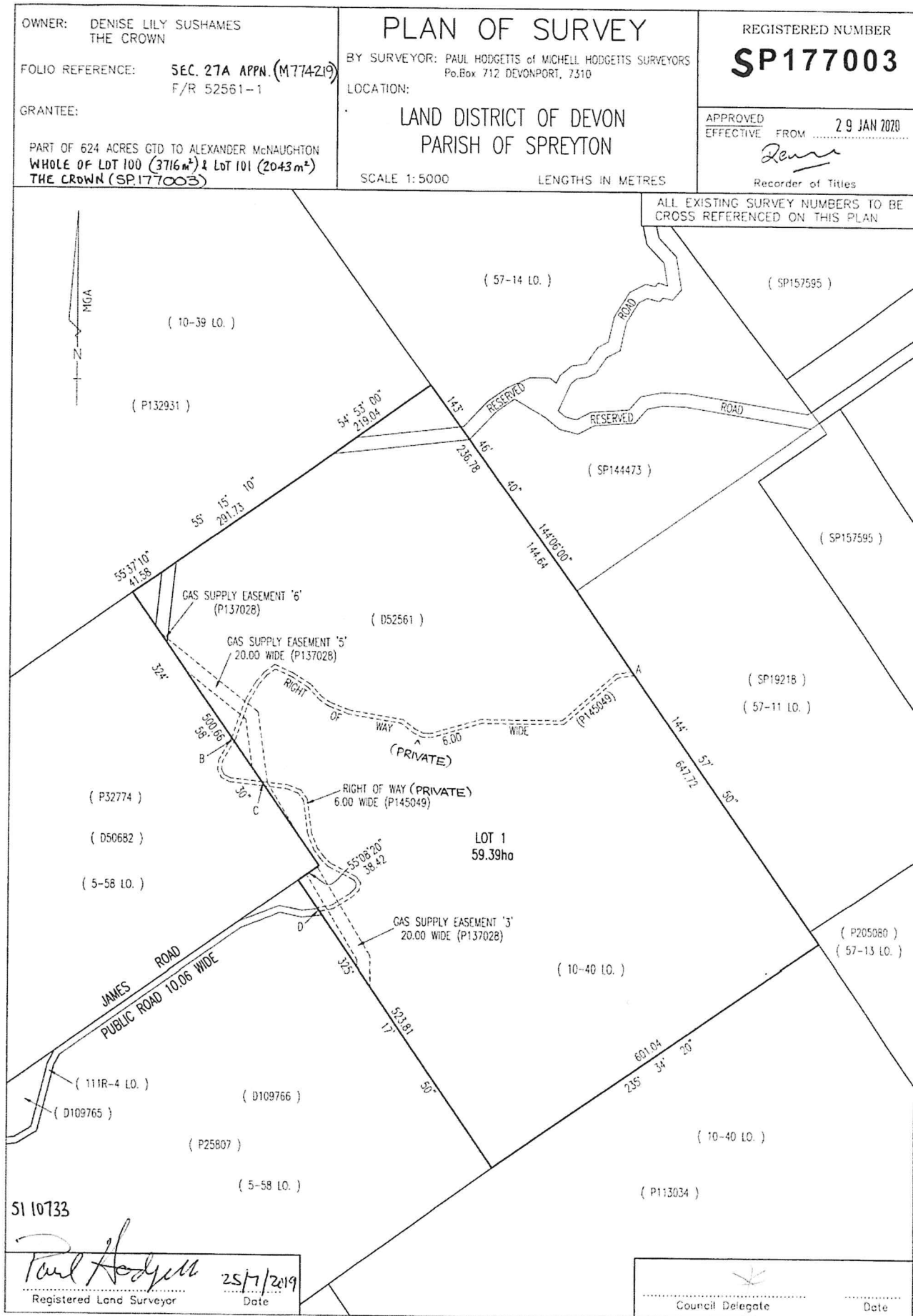
SCHEDULE 2

M774219 & M774222 Land is limited in depth to 15 metres,  
excludes minerals and is subject to reservations  
relating to drains sewers and waterways in favour of  
the Crown  
SP177003 EASEMENTS in Schedule of Easements  
M774222 FENCING PROVISION in Transfer  
C605157 Notice of Permit Corridor under S15 of the Major  
Infrastructure Development Act 1999 affecting the  
said land within described. Registered 10-Nov-2004  
at noon

UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations





SEARCH OF TORRENS TITLE

VOLUME 113034	FOLIO 1
EDITION 4	DATE OF ISSUE 06-Jun-2022

SEARCH DATE : 12-Jun-2023

SEARCH TIME : 03.19 PM

DESCRIPTION OF LAND

Parish of SPREYTON, Land District of DEVON  
 Lot 1 on Plan 113034  
 Being the land firstly described in Conveyance No. 43/8401  
 Derivation : Part of 624-0-0 Granted to A. McNaughton  
 Derived from A14987

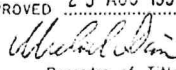
SCHEDULE 1

M944119 TRANSFER to ROBERT JAMES SUSHAMES and DENISE LILY  
 SUSHAMES Registered 06-Jun-2022 at noon

SCHEDULE 2

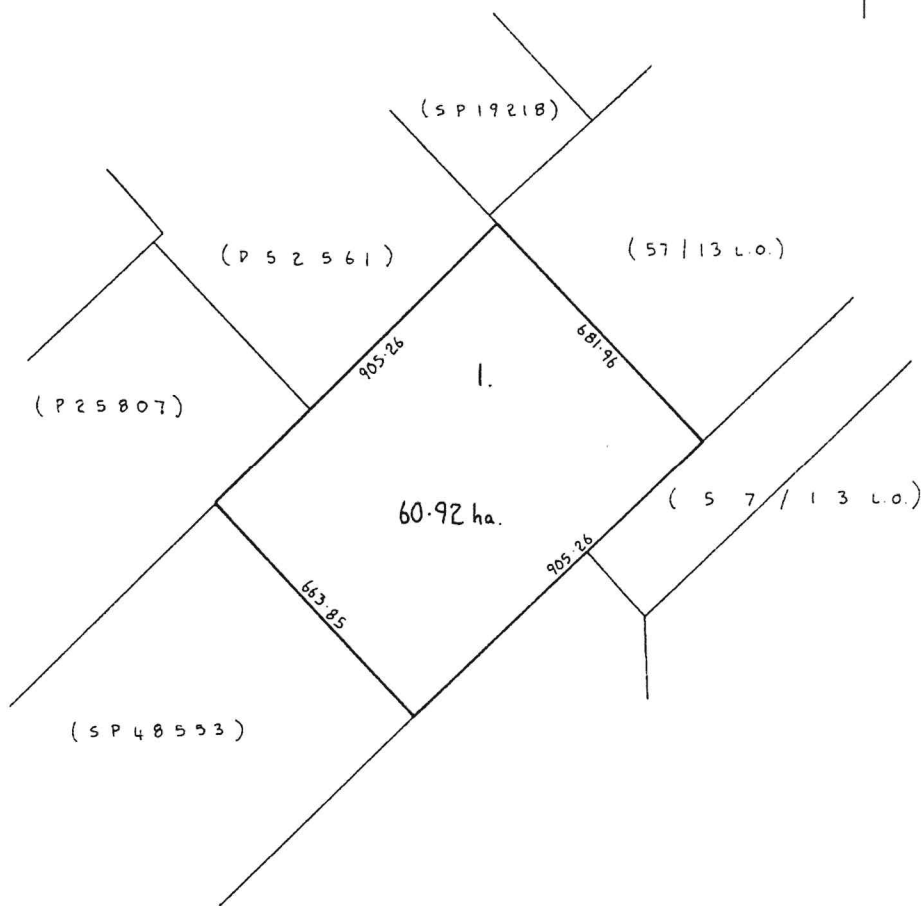
Reservations and conditions in the Crown Grant if any  
 C441017 SUBJECT to the Gas Pipeline right set forth in  
 Memorandum of Provisions No. M225 acquired by the  
 Crown in accordance with the Land Acquisition Act  
 1993 freed and discharged from all estates, statutory  
 reservations and dedications in so far as they affect  
 the said Gas Pipeline right over the land marked "Gas  
 Supply Easement" shown on Plan No.137028 as passing  
 through the said land within described. Registered  
 04-Dec-2003 at noon  
 D4385 Transfer of the "Gas Pipeline Right" created by  
 Instrument C441017 in favour of Tasmanian Gas  
 Pipeline Pty Ltd Registered 02-May-2012 at noon  
 C286386 NOTICE of Notified Corridor under Section 15 of the  
 Major Infrastructure Development Approvals Act 1999  
 affecting the land therein described Registered  
 14-Mar-2001 at noon  
 C604832 Notice of Permit Corridor under S15 of the Major  
 Infrastructure Development Approvals Act 1999  
 affecting the said land within described. Registered  
 14-Nov-2004 at noon

UNREGISTERED DEALINGS AND NOTATIONS

FILE NUMBER A14987  GRANTEE PART OF 624-0-0 GTD TO ALEXANDER McNAUGHTON		<b>CONVERSION PLAN</b>  LOCATION DEVON - SPREYTON  CONVERTED FROM 4318401 (1stly Desc)  NOT TO SCALE LENGTHS IN METRES		REGISTERED NUMBER <b>P113034</b>  APPROVED 23 AUG 1994  Recorder of Titles
MAPSHEET MUNICIPAL CODE No. 51	LAST UPI No. 0062	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN		DRAWN JG.

**SKETCH BY WAY OF ILLUSTRATION ONLY**

"EXCEPTED LANDS"





## SUMMARY AND CONCLUSION:

With all the information and knowledge known of and collated in regards to this report, there is only one conclusion that can be arrived at.

The grounds at this location are unsuitable for Agriculture of any type, in their current form and are too expensive to have them professionally altered to enhance them to a class 1 or even down as far as a 5 grading.

### In My Option:

Currently under the States Grading ratings, I believe this ground has little chance of ever being classed **above a Grading or Rating of 7**. The costs incurred to do so, would be extremely large and the time taken would include years of Heavy gage machinery works plus manual labour.

**The grounds are in such poor natural conditions and have inherit problems, that the only use that I can suggest for these grounds is something in the way of Buildings or Construction.**

**Apart from this suggestion in my option these 3 blocks have no commercial value in regards to Agriculture or other primary industries for now or in the future as they currently stand.**

Report Author:

L.J. Hennessy. (Pedologist)

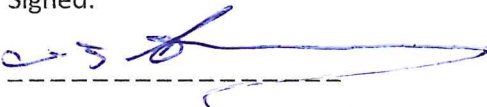
Accredited: Soil Surveys

Pedology:

Accreditation: Adelaide Uni & CRC Soil and Land Management Group:

DATED: 27/6/2023

Signed:



L.J. Hennessy.