

Proposed Woodlands Estate Industrial Subdivision at 175 Dead Horse Lane (Lot 39), Mansfield, VIC 3722

Cultural Heritage Management Plan No: 18575



Activity Size: Medium

Assessment: Desktop, Standard, Complex

Sponsor: David Luelf & Sons Pty Ltd

(ABN: 32 942 667 374)

Heritage Advisor: Damian Wall

Authors: Damian Wall, Olivia Hynam,
Jacqui Durrant & Joanna Freslov

Version 1

Date: 8/1/24

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Aboriginal Cultural Heritage in the Activity area:

Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075),
Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-
0077)

Version 1

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EXECUTIVE SUMMARY

Compliance requirements are set out in Part 1 of the Cultural Heritage Management Plan. Part 2 describes the Assessment undertaken within the Activity Area.

Activity area

The Activity area is an approximately 31.6 ha property at 175 Dead Horse Lane (Lot 39), Mansfield, Victoria 3722 comprising Lot 39 (39/PP3056) within the Local Government Area (LGA) of Mansfield Shire Council (**Map 1**).

The Sponsor

The sponsor for this Cultural Heritage Management Plan (CHMP) is David Luelf and Sons Pty Ltd (ABN: 32 942 667 374).

The Activity

David Luelf and Sons Pty Ltd ('the Sponsor') is proposing the construction of a new 8-lot industrial subdivision which is an activity that is specified as 'high impact' under Division 5 r.49 of the Aboriginal Heritage Regulations 2018 (warehouses). Specific impacts are detailed in Section 4 of this CHMP.

Assessment Undertaken & Results

Desktop, standard and complex assessments were undertaken as part of the preparation of this CHMP. The desktop assessment determined that it is possible for Aboriginal cultural heritage to be located within the Activity area due to its proximity to Ford Creek.

The standard assessment determined that the Activity area contains landforms likely to contain Aboriginal Cultural Heritage namely the lower/mid slopes of a rise overlooking floodplain. The property has been subject to varying levels of disturbance, vegetation removal and infrastructure development with associated utilities. Ground surface visibility encountered was in the majority poor (10-30%) to fair (30-50%). Given the almost complete absence of ground surface visibility throughout a large portion of the site, it is not possible to determine the extent, nature or significance of that cultural heritage without subsurface testing, hence a complex assessment was undertaken.

The Complex assessment saw the excavation of four (4) 1m x 1m Test Pits (TP) and fifty-six (56) 1m x 2m Mechanical Test Pits (MTPs). An additional ninety-eight (98) 1m x 2m Radial Mechanical Test Pits (RAD) were also excavated using the double negative method during the extent testing that followed the initial complex excavation. Subsurface testing recovered a total of one hundred and thirty-two (132) stone artefacts resulting in the recording of four (4) new registered Aboriginal Places.

Aboriginal Cultural Heritage in the Activity area

Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-0077).

Contributors

Ms Jacqui Durrant's specific attributions to this CHMP are Sections 6.3 *Ethnohistory of the Yowung-illumballak, Taungurung People* and 6.4 *Land Use History of the Activity area*.

Joanna Freslov's specific attributions to this CHMP is Section 9 *Details of Aboriginal cultural heritage in the Activity area*.

Acknowledgements

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Part 1. Cultural Heritage Management Conditions

These Management Conditions become compliance requirements once the CHMP is approved. Failure to comply with a condition is an offence under Section 67A of the *Aboriginal Heritage Act 2006*.

The Cultural Heritage Management Plan must be readily accessible to the sponsor and their employees and contractors when carrying out the activity.

1 Cultural Heritage Management Conditions

The *Aboriginal Heritage Act 2006* requires a CHMP to set out Management Conditions for measures to be taken before, during and after the activity. Desktop, Standard and Complex Assessments were undertaken and four (4) new Aboriginal Places being Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-0077), were recorded as a result.

1.1 Management Condition 1: Cultural Heritage Awareness training

A cultural heritage awareness training session must be conducted with all site workers/contractors by representatives of Taungurung Land & Waters Council (TLaWC) prior to the commencement of 'ground-disturbing' construction works. A heritage advisor/archaeologist must also attend this training session. Included in the session must be:

- A brief history of the Aboriginal occupation of the Activity area and broader region;
- A summary of the archaeological investigations conducted within the Activity area;
- A summary of the management conditions and contingencies contained within CHMP 18575;
- A description of each of the Aboriginal Places that were recorded on site; and
- The obligations of site workers/contractors and Sponsors under the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016).

The main aim of the cultural heritage induction is to:

- Explain the procedures outlined in the CHMP;
- Show the site contractors examples of the most likely Aboriginal cultural heritage material to be located within the Activity area; and
- Explain the procedure outlined in the Contingency Plan section of the CHMP in the unlikely event that this material is uncovered by them during the course of construction works.

The cost of the cultural heritage awareness training must be borne by the Sponsor.

1.2 Management Condition 2: Cultural Heritage Management Plan to be available onsite

A hard copy and digital copy of this approved Cultural Heritage Management Plan (management plan) must be held onsite at all times within the on-site construction office or with the site manager on a digital device if an office is not provided, where it will remain readily available to all construction staff.

1.3 Management Condition 3: Approval Required for Changes to the Proposed Activity

Should any changes be necessary to the activity in terms of the nature and extent that the ground is to be affected, the Sponsor must obtain statutory approval and may be required to submit a new CHMP if the changes do not qualify as an exempt activity as listed in the *Aboriginal Heritage Act 2018* Division 2 Regulations 8-22. However, it should be noted that amendments to this CHMP can be sought, as per s45A of the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016) and Schedule 3 of the *Aboriginal Heritage Regulations 2018* (Vic) (No. 59, 2018).

1.4 Management Condition 4: Salvage of Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075) & Dead Horse Lane AS3 (VAHR 8123-0076)

Prior to the implementation of the activity, a salvage program must be completed at Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075) and Dead Horse Lane AS3 (VAHR 8123-0076). A notification period of at least 3 weeks must be provided to the RAP before works commence to arrange on-site representation of two (2) RAP representatives per Heritage Advisor on site for the works. The salvage operation at each site must be conducted as follows:

- **Dead Horse Lane AS1 (VAHR 8123-0074):** A 12m x 5m salvage excavation pit at the location shown in **Map A** within the registered extent of VAHR 8123-0074 to the sterile layer. If artefact density exceeds 20/m² at the edge of the excavation at any point, then the salvage excavation pit is to be extended by 12m² (i.e. an additional 1m wide x 12m long excavation adjoining the main 12m x 5m pit) in a direction decided upon by the Heritage Advisor in consultation with the survey team. Total excavated area is not to exceed 650m² within the mapped site extent at each designated location on **Map A**. All costs associated with the salvage of VAHR 8123-0074 are to be borne by the Sponsor.
- **Dead Horse Lane AS2 (VAHR 8123-0075):** Two (2) salvage excavation pits within the site extent of VAHR 8123-0075 at the location shown in **Map B** to the sterile layer. If artefact density exceeds 20/m² at the edge of the excavation of the site extent at any point, in either of the two salvage locations, then the salvage excavation pit is to be extended by 1m for the full length/corresponding side (i.e. an additional 1m wide x 5m long excavation adjoining the northern excavation pit) in the corresponding direction decided upon by the Heritage Advisor in consultation with the survey team. Total excavated area is not to exceed 2,622m² within the mapped site extent at each designated location on **Map B**. All costs associated with the salvage of VAHR 8123-0075 are to be borne by the Sponsor.
- **Dead Horse Lane AS3 (VAHR 8123-0076):** A 8m x 5m salvage excavation pit at the location shown in **Map C** within the registered extent of VAHR 8123-0076 to the sterile layer. If artefact density exceeds 20/m² at the edge of the excavation at any point, then the salvage excavation pit is to be extended by 8m² or 5m² (i.e. an additional 1m wide x 8m or 5m long excavation adjoining the main 8m x 5m pit) in a direction decided upon by the Heritage Advisor in consultation with the survey team. Total excavated area is not to exceed 327m² within the mapped site extent at each designated location on **Map C**. All costs associated with the salvage of VAHR 8123-0076 are to be borne by the Sponsor.

The salvage program methodology will comprise the following for each salvage excavation pit:

- Mechanically excavated pits are to be excavated in controlled 1m wide x maximum 5m long strips and recorded in 5-10cm arbitrary layers and stratigraphic units;
- Hand tools including long-handled spades, hand spades, trowels and brushes are to be used where appropriate in between mechanical strips to sharpen/straighten walls where appropriate or required;
- All hand tools and plant are to be used in a controlled manner removing sediments in thin layers, keeping sections at 90° at all times;
- All excavated soil to be hand sieved through maximum 5mm mesh (if the material cannot pass through the mesh it should be broken up by hand and examined);

- Radiometric dating samples to be collected where appropriate and any dating costs to be borne by the Sponsor;
- Any Aboriginal cultural heritage retrieved must be appropriately stored and labelled;
- Any Aboriginal cultural heritage retrieved must be securely stored by the Heritage Advisor;
- Any Aboriginal cultural heritage retrieved must, within six (6) months of the submission of the salvage report, be managed according to requirements detailed in **Section 2.2**;
- Appropriate forms to be completed and submitted to AV (e.g. Object Collection, Place Inspection);
- All salvage pits are to be excavated to underlying sterile sediment (B Horizon);
- Test pits to be recorded using GDA94 MGA; and
- Each excavation pit to be recorded using photography, stratigraphic illustrations, sediment descriptions, Munsell colour, pH recording.

Analysis of salvaged artefacts should, at a minimum, address FSPRs recording requirements, however, if curated tool morphologies are identified (such as backed blades, groundstone tools, etc.) use wear analysis may be determined to be required. If material deemed suitable for radiocarbon dating is identified in association with cultural deposits then dating should be undertaken.

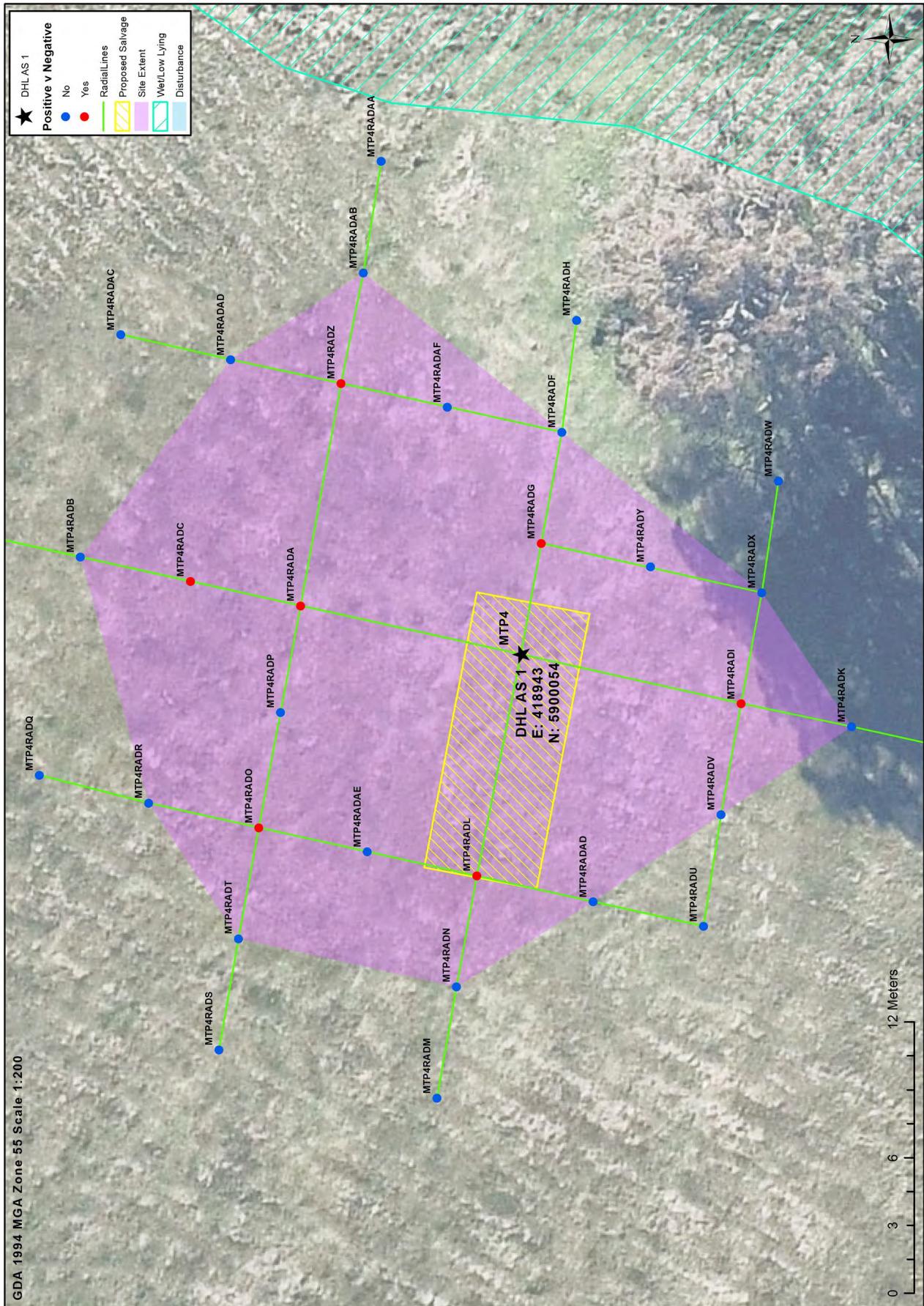
Within 12 months of the completion of the salvage excavations a report will be completed and submitted to the RAP (or if one has not been appointed the relevant TOG/s) and FSPR via the Victorian Aboriginal Heritage Register (VAHR) detailing the results of the salvage program. The salvage excavations and report must attempt to address basic research questions including:

- When was the area occupied?
- What activities are likely to have taken place on the Activity area?
- Can the difference between cultural clustering and post-depositional disturbance clustering (slope-wash, ploughing, etc.) be determined? and;
- What is the relationship between the identified sites and the 'pre-contact' (pre-dam) landscape (i.e. why are the sites here at this location?).

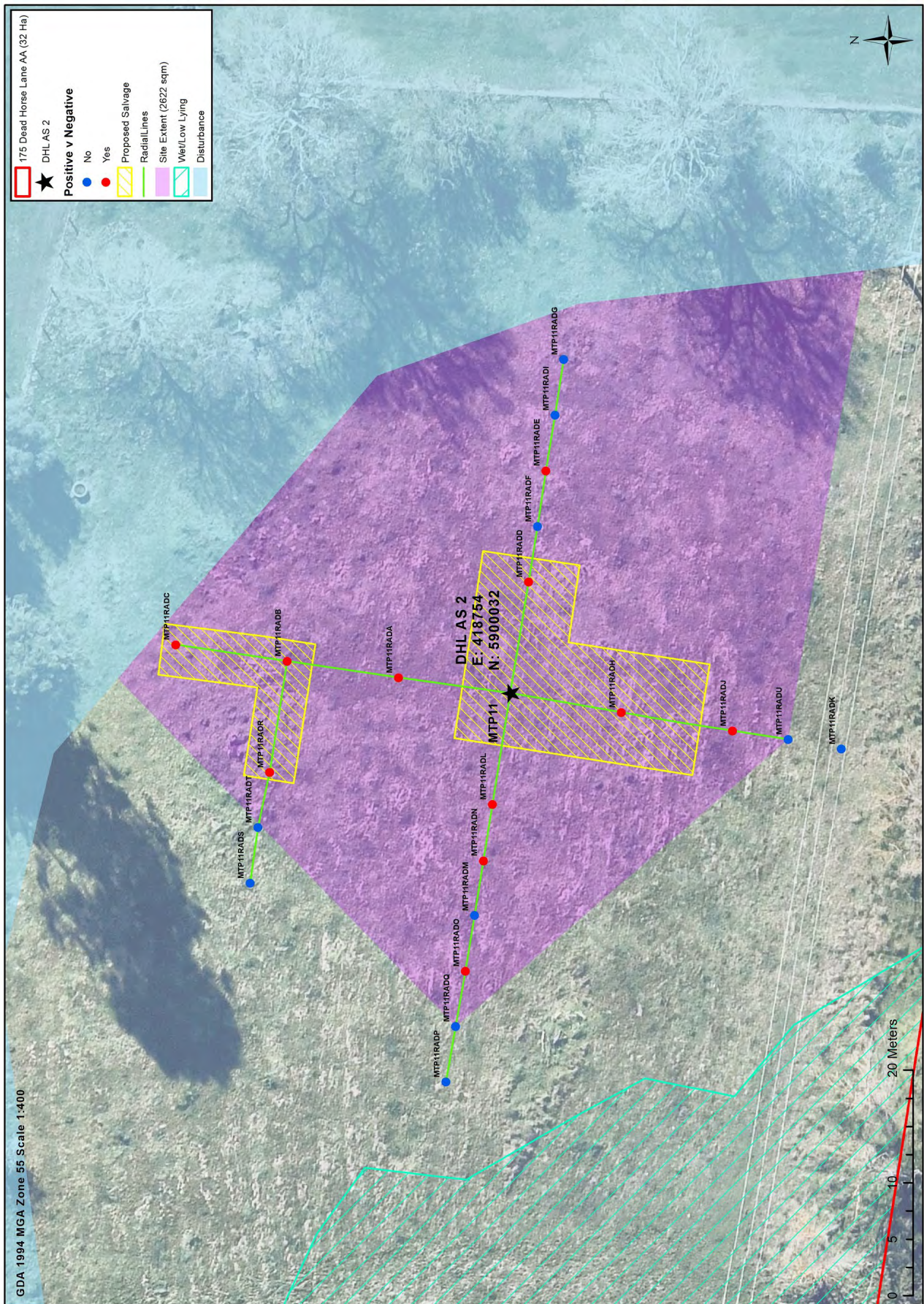
All costs associated with the salvage program will be borne by the Sponsor.

1.5 Management Condition 5: Dead Horse Lane LDAD1 (VAHR 8123-0077)

This CHMP allows for Dead Horse Lane LDAD1 (VAHR 8123-0077) to be harmed by the proposed activity as defined in this CHMP. Any artefacts retrieved from Dead Horse Lane LDAD1 (VAHR 8123-0077) during the investigations undertaken for this CHMP (18575) must be repatriated according to the custody arrangements presented in **Section 2.2**. Any costs associated with this repatriation must be borne by the Sponsor.



Map A: Salvage Plan for Dead Horse Lane AS1 (VAHR 8123-0074)



Map B: Salvage Plan for Dead Horse Lane AS2 (VAHR 8123-0075)

2 Cultural Heritage Contingency Plans

Clause 13(1) Schedule 2 of the Aboriginal Heritage Regulations 2018 requires that the management plan must contain a contingency plan for the matters referred to in Section 61 of the Aboriginal Heritage Act 2006, the resolution of disputes between the sponsor and the RAP, reviewing compliance with the CHMP including mechanisms for non-compliance, the management of Aboriginal cultural heritage identified during the activity, and the notification requirements in regards to the identification of Aboriginal cultural heritage during the activity.

Note that any notification and/or communication required as a result of adhering to these contingencies should refer to **Appendix 4** for relevant contacts.

2.1 Contingency 1: Discovery of Aboriginal Cultural Heritage

If any Aboriginal cultural heritage sites are located during the proposed works, all actions implemented must take steps to avoid and minimise harm, as required under s.61 of the Aboriginal Heritage Act 2006. In accordance with s.61, the following actions must be undertaken:

1. All works within 10m of the known extent of the relevant discovery area must cease immediately and protective fencing must be erected around the relevant area. No-go zone signage that is visible always must be erected around the fenced area.
2. A suitably qualified heritage advisor must be engaged by the project Sponsor to record and assess the findings and advise on possible management strategies (see Section 2.5: Contingency Plan Regarding Non-Compliance).
3. The person making the discovery must immediately notify the nominated project delegate for TLAWC as well as the project delegate for the Sponsor.
4. While works are suspended, the nominated project delegates and the heritage advisor must evaluate the Aboriginal cultural heritage.

As far as practicable, a heritage advisor and Taungurung Land & Waters Council (TLAWC) representatives must inspect the site within five working days of being notified. During this inspection, the management of any Aboriginal cultural heritage will be discussed and agreed to. If possible, the activity should avoid impact to the newly located site. The heritage advisor will be required to record the nature and extent of the site during the initial inspection or, if this is not possible, as soon as practicable after the initial inspection is undertaken. Documentation of the site may include subsurface testing to establish the temporal and spatial extent of the site. If the Aboriginal cultural heritage is determined to be scientifically significant (that is, an intact cultural deposit), TLAWC may require site protection measures. If harm cannot be avoided to the site, a sample salvage excavation, undertaken by a suitably qualified and experienced archaeologist, may be required to obtain adequate data prior to works proceeding. TLAWC will advise the Sponsor's delegate when suspended construction works can recommence.

Failure of parties to reach an agreed course of action will be classed as a dispute (Section 2.4: Contingency – Dispute Resolution). Work may recommence within the 10 m buffer of the known extent of the site when:

1. Appropriate protective measures have been undertaken;
2. The relevant records for the Aboriginal cultural heritage have been completed by the heritage advisor; and
3. Any dispute has been resolved.

The heritage advisor, the Sponsor and TLAWC must ensure that all these measures are followed, and that legal obligations and requirements are complied with at all times. The heritage advisor must submit all relevant site records, including VAHR forms, to First Peoples – State Relations Group (FSPR) within 14 days of completing the assessment of the cultural heritage site. If salvage is required, the following process/methodology will be applied by a suitable heritage advisor unless changes are requested due to consultation with TLAWC:

1. The soil from each spit will be placed in a bucket, weighed and then sieved. All soil (100%) will be sieved through 5 mm aperture sieves.
2. Excavations will continue until the underlying B horizon (subsoil) is reached. At the completion of each spit, base photographs will be taken, and excavation sheets will be completed, noting changes in stratigraphic horizons (soil colour and texture), rocks, gravel and other materials not of cultural origin. Munsell (soil colour) and pH levels will also be taken. Sieving will be conducted at a reasonable distance from the excavation area to avoid backfilling the square.
3. Upon the completion of the excavation to the B horizon, stratigraphic contexts will be identified and profiles of two of the trench walls will be drawn to provide a concise schematic representation of the stratigraphy as well as to complement the photographs and relate stratigraphic horizons to excavation notes and descriptions.
4. All artefacts will be bagged with date, spit number and site name clearly labelled. An extensive analysis of any collected material will be conducted at a location to be decided upon by the Aboriginal field assistants and the heritage advisor.
5. A detailed artefact analysis will be conducted by the heritage advisor. Analysis methodology will be formalised at a later date; however, it is expected that analysis of artefacts will focus on the presence or absence of striking platforms, bulbs of percussion, termination types, raw material type, number of negative flake scars, artefact types, type of reduction technique, edge damage, etc. Length, width, thickness and weight scales will also be recorded, and conjoining analysis will also be undertaken, if appropriate. If relevant to the research questions, use-wear analysis will be conducted on a sample of the artefacts using either x20 or x40 magnification on a stereomicroscope. Images of any edge damage or use-wear will be provided and detailed in the salvage report. This will facilitate determinations of which type of stone raw materials were used at the site, the type of artefact technologies manufactured from them and what function (if any) the artefacts may have performed. Artefact types and attributes will be identified using Holdaway and Stern (2004), where possible, and artefact terminology will derive from the same source. The cost of these analyses is to be met by the Sponsor.
6. The archaeological material located will be curated and stored appropriately; this is a matter for discussion between the heritage advisor and TLAWC.
7. If enough samples can be recovered during the salvage program, then any charcoal or other datable material must be collected in the appropriate manner and submitted for radiocarbon (¹⁴C) dating. The cost of this testing is to be met by the Sponsor. Dates can be obtained from charcoal samples of 1 g; however, an 8-10 g sample is deemed optimal. Any faunal remains that may be excavated can also be used for dating purposes. The minimum sample weight for ¹⁴C radiometric dating of bone is 50 g, with the ideal sample weight being 100-200 g. For smaller samples of charcoal or faunal skeletal remains, accelerator mass spectrometry (AMS) dating is also available. In this case, the minimum sample size for charcoal is 100 mg, while for bone it is 1.0-5.0 g.

8. A summary review of the information gathered will be given to all stakeholders. Copies of all reports associated with the salvage program will be lodged with FSPR. This must be completed within 6 months after the completion of the salvage excavations

2.2 Contingency 2: Removal, Curation, Custody and Management of Aboriginal Cultural Heritage

Any Aboriginal cultural heritage recovered or salvaged prior to or during the proposed works, will remain the property of TLAWC. The custody and management of Aboriginal cultural heritage during the course of the activity should comply with the requirements established by the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016) and be assigned according to the following order of priority: TLAWC; any relevant registered native title holder; any relevant native title party; relevant Aboriginal person with traditional or familial links; an Aboriginal body with historical or contemporary links; the owner of the land; Museum of Victoria. For this Activity area, it will be the responsibility of the heritage advisor to:

- Catalogue the Aboriginal cultural heritage
- Label and package the Aboriginal cultural heritage with reference to provenance
- Arrange storage of the Aboriginal cultural heritage in a secure location together with copies of the catalogue and assessment documentation.

Contact details for TLAWC are:

Contact: Katherine Thomas

Address: 46 Aitken St, Alexandra, Victoria 3714

Telephone: 0411 496 463

Email: careforculture@taungurung.com.au

Contact details the Sponsor are:

Name: David Leulf

Address: PO Box 25, Mansfield, VIC 3722

Email: dave.luelf@bigpond.com

Phone: 0417 791 400

2.3 Contingency 3: Discovery of Aboriginal Ancestral Remains

If suspected human remains are discovered, you must contact Victoria Police and the State Coroner's Office immediately. If there are reasonable grounds to believe that the remains are Aboriginal, the Coronial Admissions and Enquiries hotline must be contacted on **1300 888 544**. The following contingency plan is provided in the event of any such discovery within the Activity area.

Discovery

- All activity in the vicinity of the suspected human remains must cease to ensure minimal damage to the remains.
- The remains must be left in place and protected from harm or damage.

Notification

- The Coronial Admissions and Enquiries office and Victoria Police must be notified immediately. The State Coroner's Office may be contacted at any time on **1300 888 544**. Victoria Police may be contacted on **000**.
- The details of the location and nature of the human remains must be provided to the relevant authorities.
- If it is confirmed by these authorities that the discovered remains are Aboriginal ancestral remains, the person responsible for the activity must report the existence of human remains to the Victorian Aboriginal Heritage Council (VAHC) in accordance with s17 of the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016) s17.

Impact mitigation or salvage

- The VAHC, after taking reasonable steps to consult with any Aboriginal person or body with an interest in the Aboriginal ancestral remains, will determine the appropriate course of action as required by s18(2)(b) of the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016).
- Note: In consultation with any relevant traditional owner group(s), a Sponsor may consider incorporating a contingency plan to reserve an appropriate area for reburial of any recovered ancestral remains that may be discovered during the activity. This may assist the VAHC in determining an appropriate course of action.
- An appropriate impact mitigation or salvage strategy as determined by the VAHC must be implemented by the Sponsor.

Curation and further analysis

- The treatment of ancestral remains must be in accordance with the direction of the VAHC and in accordance with s18(2)(b) of the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016).
- Reburial
- Any reburial site(s) must be fully documented by an experienced and qualified archaeologist, clearly marked, and all details provided to FSPR.
- Appropriate management measures must be implemented to ensure that the remains are not disturbed in the future. Do not touch or otherwise interfere with the remains, other than to safeguard them from further disturbance. Do not contact the media.

2.4 Contingency 4: Dispute Resolution

In the event of a dispute between the Sponsor and the Registered Aboriginal Party during the implementation of this CHMP, the following process must be implemented:

1. The parties must agree to use their best endeavours to resolve the dispute in good faith.
2. Initially the parties must identify the nature of the matter in dispute. The parties should agree in writing as to the nature of the matter in dispute within five working days of the dispute arising, with reference to the specific conditions or requirements in the CHMP.
3. Once the nature of the dispute is identified, the parties should meet within five working days to discuss any options or remedial actions that may resolve the matter/s in dispute.
4. If agreement can be reached between the parties in relation to remedial actions, this agreement should be recorded in writing and include a programme for the implementation of the action. In these circumstances, the Registered Aboriginal Party agree that it will use its best endeavours to ensure there are no avoidable delays to the schedule for the works.

5. If an agreement cannot be reached in relation to remedial actions, the parties agree to appoint (at a shared cost) an independent mediator to oversee a meeting between the parties.
6. The mediation meeting should be scheduled as soon as practicable.
7. The parties must attend the mediation meeting in good faith and use their best endeavours to resolve the dispute.
8. If agreement can be reached at the mediation meeting, this agreement should be recorded in writing and include a programme for the implementation of any remedial actions. In these circumstances the Registered Aboriginal Party agree that it will use its best endeavours to ensure there are no avoidable delays to the schedule for the works.
9. If a mediated solution cannot be reached between the parties, any matter of non-compliance may be pursued under the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016).

2.5 Contingency 5: Non-Compliance with the Cultural Heritage Management Plan

Although no further archaeological investigation has been recommended in this CHMP, it is possible that cultural heritage material may be uncovered during the proposed works. In order to inform the Sponsor of their legal responsibilities regarding cultural heritage management, specific legislative requirements are provided below. In addition, a checklist referring to matters that must be complied with under the CHMP is included in Appendix 6. The monetary value of all listed penalties is current at the time of writing.

Aboriginal Cultural Heritage

Causing harm to Aboriginal cultural heritage is an offence under the *Aboriginal Heritage Act 2006* (Vic) (No. 020, 2016). Under s81, the Minister may order a cultural heritage audit to be carried out if there is reason to believe that the Sponsor has contravened, or is likely to contravene, the conditions contained in this CHMP.

PART 3—PROTECTION OF ABORIGINAL CULTURAL HERITAGE

A penalty unit as of July 2018 is worth \$161.19.

Division 1—Protection from harm

s27 Harming Aboriginal cultural heritage unlawful

(1) A person is guilty of an offence if—

- a) the person by an act or omission harms Aboriginal cultural heritage; and
- b) at the time of the act or omission the person knew that the act or omission was likely to harm Aboriginal cultural heritage.

(2) A person who is guilty of an offence under subsection (1) is liable to a penalty not exceeding—

- a) in the case of a natural person, 1800 penalty units;
- b) in the case of a body corporate, 10,000 penalty units

(3) A person is guilty of an offence if—

- a) the person by an act or omission harms Aboriginal cultural heritage; and
- b) at the time of the act or omission the person was reckless as to whether the act or omission was likely to harm Aboriginal cultural heritage.

- (4) A person who is guilty of an offence under subsection (3) is liable to a penalty not exceeding—
- a) in the case of a natural person, 1200 penalty units or;
 - b) in the case of a body corporate, 6000 penalty units.
- (5) A person is guilty of an offence if—
- a) the person by an act or omission harms Aboriginal cultural heritage; and
 - b) at the time of the act or omission the person was negligent as to whether the act or omission was likely to harm Aboriginal cultural heritage.
- (6) A person who is guilty of an offence under subsection (5) is liable to a penalty not exceeding—
- a) in the case of a natural person, 600 penalty units or;
 - b) in the case of a body corporate, 3000 penalty units.
- (7) An offence under this section is an indictable offence.

Note:

1. The provisions of Division 12 Part 1 of the Crimes Act 1958 (which deal with attempts) apply to indictable offences against this Act.
2. Section 187A applies to an offence against subsection (1), (3) or (5).

s28A person must not harm Aboriginal cultural heritage

A person must not do an act that harms or is likely to harm Aboriginal cultural heritage.

Penalty: In the case of a natural person, 60 penalty units. In the case of a body corporate, 300 penalty units.

Note: Section 187A applies to an offence against this section

PART 2—OWNERSHIP AND CUSTODY OF ABORIGINAL CULTURAL HERITAGE

Division 4—Aboriginal Places and Objects

s24 Reporting discovery of Aboriginal places and objects

- (1) This section applies if—
- a) a person discovers an Aboriginal place or object; and
 - b) the person knows that the place or object is an Aboriginal place or object.
- (2) The person must report the discovery to the Secretary as soon as practicable unless, at the time of making the discovery, the person has reasonable cause to believe that the Register contained a record of the place or object.

Penalty: In the case of a natural person, 60 penalty units;

In the case of a body corporate, 300 penalty units.

Note: Section 187A applies to an offence against this subsection.

- (3) If a discovery of an Aboriginal place or object is made in the course of works being carried out on any land, the person in charge of the works is deemed for the purposes of this section to be the person who discovered the place or object.

2.6 Contingency 6: Mechanism for remedying non-compliance

The Sponsor or nominated Activity Project Manager is responsible for remedying non-compliance with this CHMP. If the conditions or contingencies set out in this CHMP are not adhered to, all works must cease and the TLAWC contacted immediately. A record of the breach must be documented, and immediate action taken to remedy the breach, under the direction of the TLAWC. The record of the breach must include the reasons for non-compliance. The Sponsor or nominated Activity Project Manager must take immediate action to remedy non-compliance in accordance with the relevant condition or contingency. All acts of non-compliance must be reported to both the TLAWC and FSPR, which may result in an investigation by an Authorised Officer or Aboriginal Heritage Officer.

A record of CHMP compliance must always also be maintained by the Sponsor or nominated Activity Project Manager and must be available for inspection by either an Authorised Officer or Aboriginal Heritage Officer under the Act or any other representative of the TLAWC or the Secretary.

2.7 Contingency 7: Provision for Review

Review of this plan can be undertaken at any time by project delegates representing the Sponsor and TLAWC or an agreed independent reviewer, to ensure that all parties are complying with the terms of the plan.

Part 2. Assessment

3 Introduction

David Luelf and Sons Pty Ltd ('the Sponsor') is proposing an industrial subdivision at 175 Dead Horse Lane (Lot 39), Mansfield, Victoria 3722, within the jurisdiction of Mansfield Shire Council. The Activity area is approximately 31.6 ha property comprising Lot 39 (39/PP3056) (**Map 1**). The Activity area is affected by the Aboriginal Cultural Heritage Sensitivity overlay being r.26(2): land within 200 m of a named waterway (Ford Creek).

3.1 The Reasons for Preparing a Cultural Heritage Management Plan

This Cultural Heritage Management Plan (CHMP) is a mandatory plan under s.46 (a) of the Aboriginal Heritage Act ('the Act'). This CHMP has been prepared as a result of the following findings:

- The Activity area is located within an area of cultural heritage sensitivity: under Division 3 r.26(1) of the Regulation, being within 200 m of a named waterway (Ford Creek).
- The scope of works involves significant soil disturbance activities that are specified as *high impact* under Division 5 r.49 (1) of the Aboriginal Heritage Regulations 2018 (The subdivision of land into 3 or more lots is a high impact activity if— the area of each of at least 3 of the lots is less than 8 hectares).

3.2 Notice of Intention to Prepare a Cultural Heritage Management Plan

At the time of lodgement of the Notice of Intent (NoI) to the Secretary of the Department of Premier and Cabinet (DPC) on 30th January 2022 (**Appendix 1**), The Taungurung Land and Waters Council (Aboriginal Corporation) (TLaWC) is the Registered Aboriginal Party for the area who provided their Notice to Intent to Evaluate the CHMP on 8th February 2022 (**Appendix 2**).

3.3 Sponsor

The sponsor for this CHMP is David Luelf and Sons Pty Ltd (ABN: 32 942 667 374). The contact for this project is:

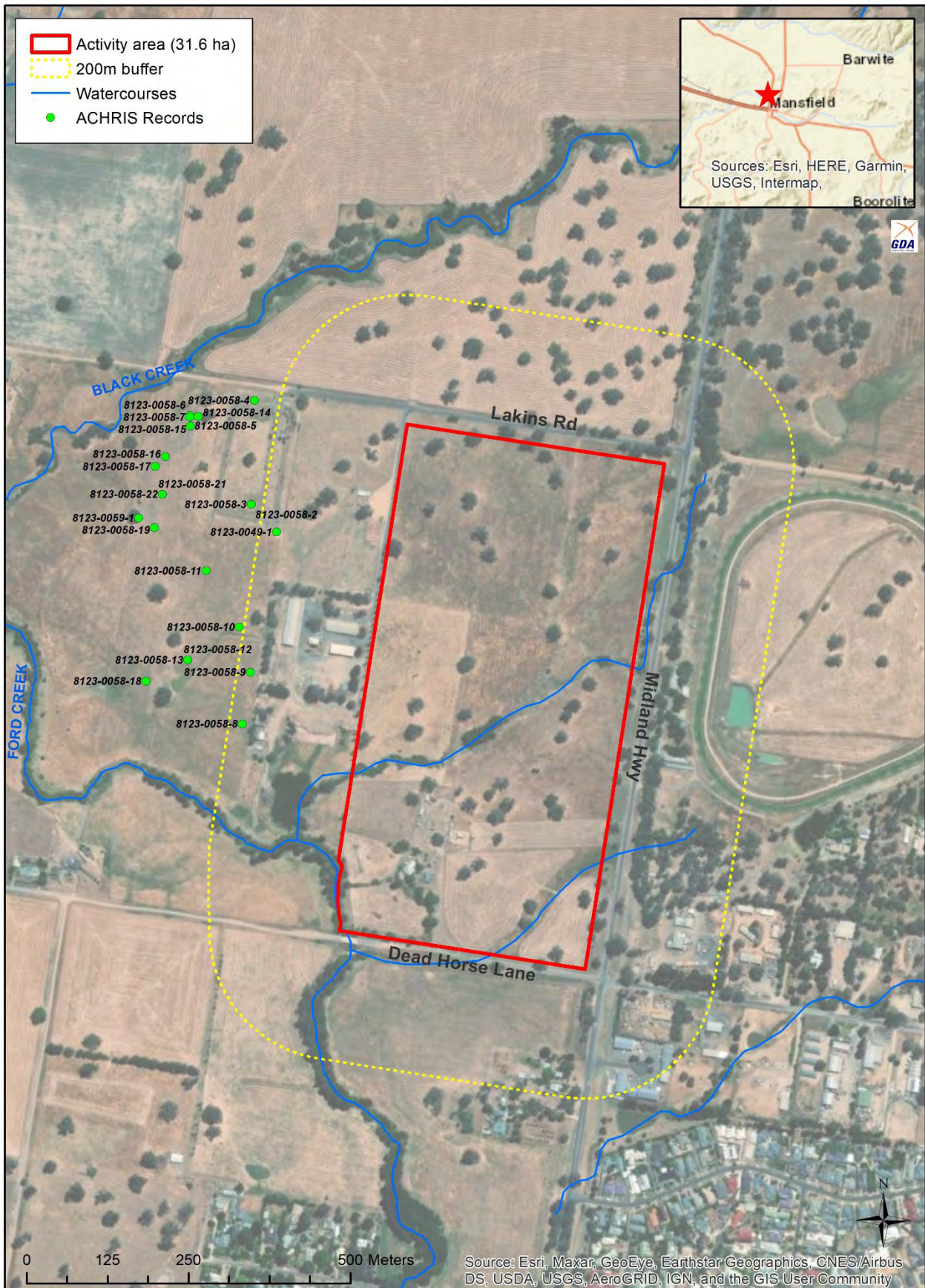
Name: David Leulf
Address: PO Box 25, Mansfield, VIC 3722
Email: dave.luelf@bigpond.com
Phone: 0417 791 400

3.4 Heritage Advisors

Damian Wall (Red-Gum Environmental Consulting Pty Ltd) has 15 years' field experience in Archaeological practice, is a Full Member of the Australian Association of Consulting Archaeologists Inc (AACAI) and has a Graduate Certificate in Cultural Heritage Management from Flinders University (SA). Damian is suitably qualified under section 189 of the Aboriginal Heritage Act 2006 and appropriately qualified in archaeology to supervise excavation for a complex assessment as specified in Regulation 65(3).

3.5 Location of Activity area

The Activity area is located at 175 Dead Horse Lane, Mansfield, Victoria 3722, comprising Lot 39 (39/PP3056) (**Map 1**). It is approximately 31.6 hectares and is in the Farming Zone (FZ) as referred to by Mansfield Shire Council (**Map 2**).



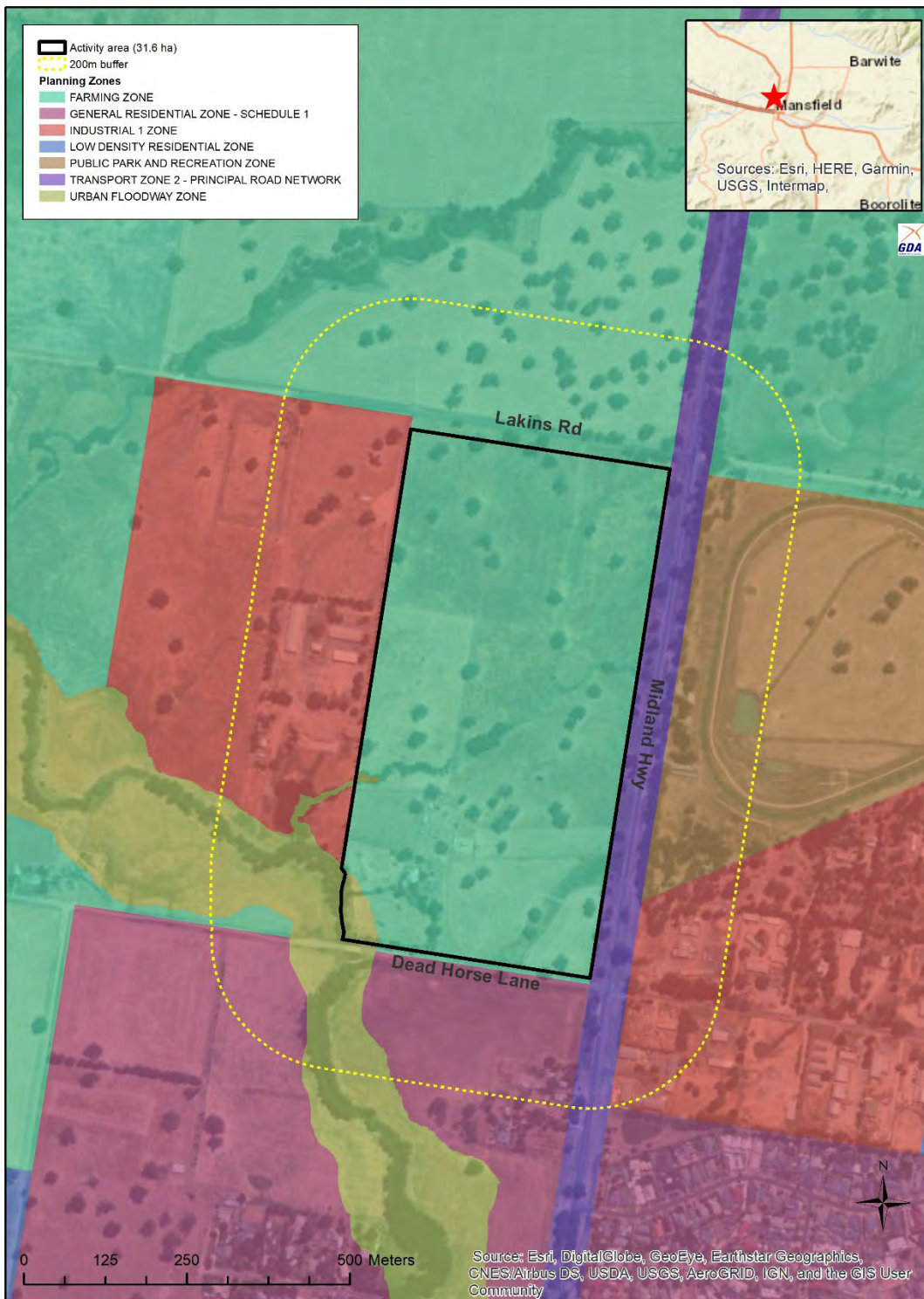
Map 1: Activity area at 175 Dead Horse Lane (Lot 39), Mansfield. Scale 1:8,000. Source: Google Earth, 2022.

3.6 Owners and Occupiers of the Land

The land is owned by the sponsor and was un-occupied at the time of the assessment.

3.7 Registered Aboriginal Parties

Taungurung Land and Waters Council Aboriginal Corporation (TLaWC) is the RAP for this area and has been consulted at all stages of this assessment.



Map 2: Zoning of Activity area and surrounds. Scale 1:8,000. Source: VicMap Data Portal 2021.

4 Activity Description

David Luelf and Sons Pty Ltd ('the sponsor') is proposing the industrial subdivision at 175 Dead Horse Lane, Mansfield, Victoria 3722. The property is approximately 31.8 ha, comprising Lot 39 (39/PP3056), within the Farming Zone (FZ) of Mansfield Shire Council.

4.1 Statement of Potential Impacts

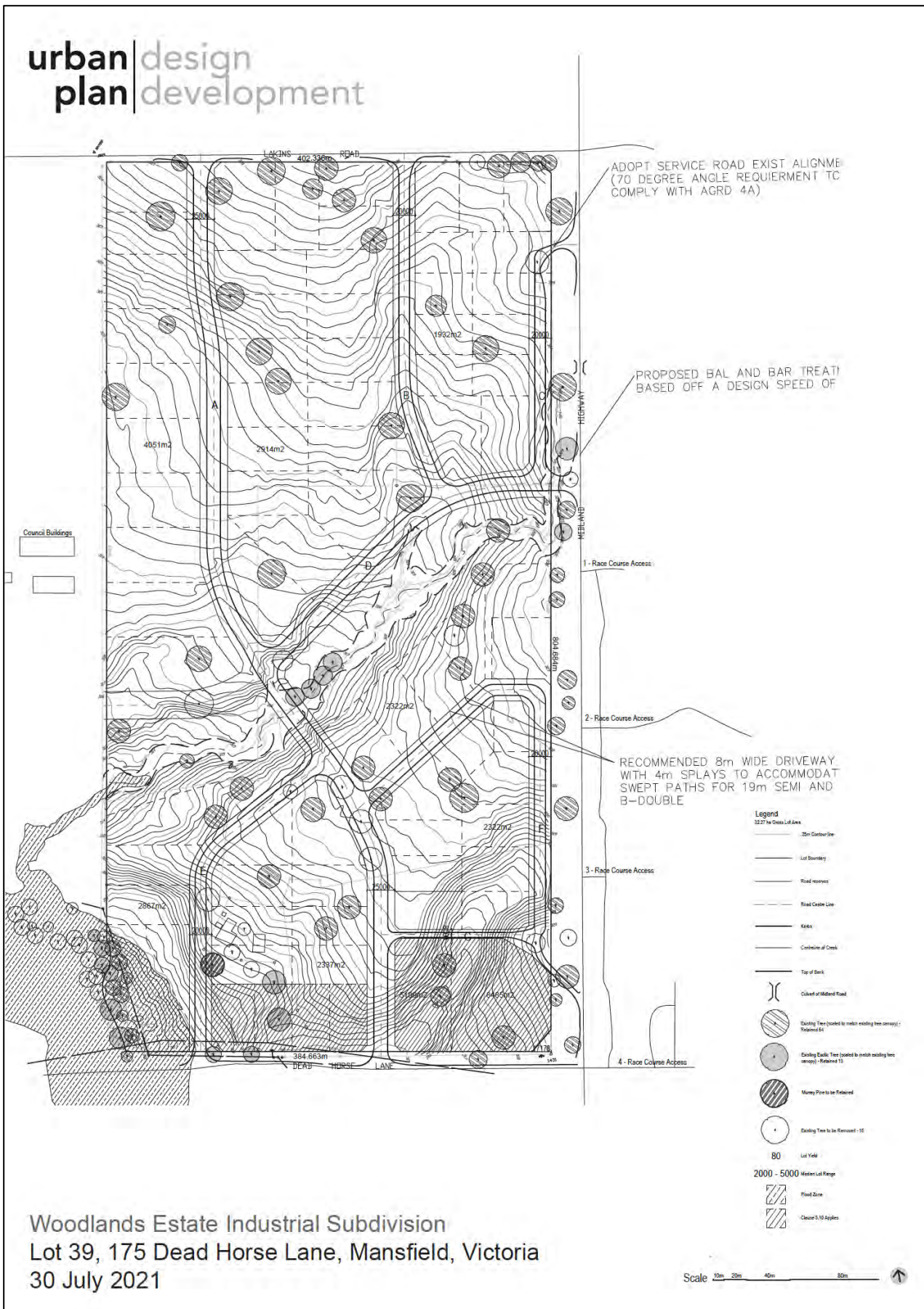
The proposed subdivision of Lot 39 into eight (8) industrial lots at 175 Dead Horse Lane will involve a degree of soil disturbance to both surface and buried land surfaces (**Map 3**). All activities are to be contained within the area assessed by this CHMP. Road construction to provide access to the new industrial lots will involve the removal of vegetation, and levelling the ground surface.

The proposed subdivision will involve a degree of soil disturbance to both surface and buried land surfaces. All activities are to be contained within the area assessed by this CHMP. Generally speaking, the types of impacts that are likely to occur during the course of the development include:

- Site preparation, which will include clearing of grass-cover and stripping/removing topsoil, utilising heavy machinery. The topsoil may be stockpiled within the Activity area for later use in rehabilitation.
- Import of clean fill material and gravel for access tracks roads (from licences quarries or locations approved to provide such materials). Road alignments will be shaped, rolled and hardened using heavy machinery.
- Drainage construction along the new access roads.
- Installation of underground and above ground services and utilities, and all associated earth works as described above. This will involve average excavation up to 1m deep, subject to deeper excavation where required.
- Construction of the subdivision and general landscaping.

All use and development of allotments must comply with the relevant planning scheme, in this case the Mansfield Shire Council Planning Scheme and found at:

<https://www.planning.vic.gov.au/schemes-and-amendments/browse-planning-scheme/planning-scheme?f.Scheme%7CplanningSchemeName=mansfield>



Map 3: Proposed subdivision plans. Source: Urban Plan, Design Development 2021.

5 Documentation of Consultation

A Notice of Intent to Prepare a Management Plan (NoI) was submitted to the Secretary of the Department of Premier and Cabinet (DPC) on 30th January 2022 in accordance with s. 54 of the Act. The Taungurung Land and Waters Council (TLaWC) is the Registered Aboriginal Party (RAP) for the region and was consulted at all stages of this assessment.

5.1 Consultation in Relation to the Assessment

An inception meeting between Damian Wall (Red-Gum Environmental Consulting Pty Ltd), Francisco Almeida (Former Cultural Heritage Programs Manager), Michelle Monk (Taungurung Land & Waters Council - Elder) & Alex Parmington (Taungurung Land & Waters Council – Former Heritage (RAP) Manager) via phone on 8th February 2022. It was concluded that the Activity area contained landforms that may contain Aboriginal cultural heritage and a Standard Assessment was required. The survey methodology was agreed to include one (1) heritage advisor and two (2) Aboriginal representatives walking the entire area.

A Standard Assessment results meeting between Damian Wall (Red-Gum Environmental Consulting Pty Ltd) Alex Parmington, Michelle Monk and Shane Monk (TLaWAC) was held on 22nd February 2022 where it was agreed that the assessment should progress to a Complex assessment given the landforms identified and their moderate probability to contain cultural material sub-surface.

A Complex Assessment meeting between Damian Wall (Red-Gum Environmental Consulting Pty Ltd) Alex Parmington, Francisco Almeida, Michelle Monk and Shane Monk (TLaWAC) was held on 25th July 2022 where the results of the Complex Assessment was discussed and it was agreed that extent testing should be initiated to determine site extents around the identified cultural material from the first stage Complex assessment.

A Complex Assessment (Stage 2) meeting between Damian Wall (Red-Gum Environmental Consulting Pty Ltd) Alex Watson (Taungurung Land & Waters Council - Archaeologist), Hesper Andrew (Taungurung Land & Waters Council - Archaeologist), Shane Monk & Katherine Thomas (Taungurung Land and Waters Council - RAP Manager) was held on 13th June 2023 where the results of both stages of the Complex Assessment were discussed and it was agreed that the testing program had adequately assessed the Activity area and that four (4) new Aboriginal Places consisting of three (3) sub-surface Artefact Scatters and one (1) Low Density Artefact Distribution (LDAD) were to be registered on the VAHR via ACHRIS.

5.2 Fieldwork Participation

A Standard Assessment was undertaken on 8th February 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd), Daniel Young and Jonah Honeysett - Taungurung Land & Waters Council (Field Representatives). The Complex Assessment was undertaken in two (2) stages on the following dates:

- 30th June 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Dylan & Troy Wilkinson (TLaWC Field Survey Representatives).
- 1st July 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Dylan & Troy Wilkinson (TLaWC Field Survey Representatives)
- 6th September 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Daniel Young & Dylan Wilkinson (TLaWC Field Survey Representatives).
- 19th April 2023 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Ashleigh Wilkinson (TLaWC Field Survey Representative).
- 20th April 2023 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Ashleigh Wilkinson (TLaWC Field Survey Representative).

5.3 Consultation in relation to the Management Conditions

A Complex Assessment (Stage 2) meeting between Damian Wall (Red-Gum Environmental Consulting Pty Ltd) Alex Watson (Taungurung Land & Waters Council - Archaeologist), Hesper Andrew (Taungurung Land & Waters Council - Archaeologist), Shane Monk & Katherine Thomas (Taungurung Land and Waters Council - RAP Manager) was held on 13th June 2023 where the results of both stages of the Complex Assessment were discussed and it was agreed that the testing program had adequately assessed the Activity area and that four (4) new Aboriginal Places consisting of three (3) sub-surface Artefact Scatters and one (1) Low Density Artefact Distribution (LDAD) were to be registered on the VAHR via ACHRIS.

The meeting discussed the effectiveness of the methodology and the results of the assessment (**Section 7 & 8**). All representatives agreed that the Standard and Complex assessments had adequately assessed the Activity area for the presence of Aboriginal Cultural Heritage and were satisfied with the proposed Management Conditions and contingencies.

5.4 Summary of outcomes

Following consultation with The Taungurung Land and Waters Council (TLaWC) during the preparation of the CHMP and during the fieldwork stage, Management Conditions and contingencies were agreed upon for the activity. A summary of consultation is presented in **Appendix 3**.

6 Aboriginal Cultural Heritage Desktop Assessment

6.1 Introduction

Under Part 3 of the Aboriginal Heritage Regulations 2018, a CHMP must include a desktop assessment and, if required as a result of the desktop assessment, a standard assessment and/or a complex assessment. The desktop assessment was undertaken by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) to determine the likelihood of the Activity area containing Aboriginal cultural heritage and to assist in assessing the significance of any heritage that may be found. Desktop research provides information enabling predictions to be made as to whether a place may contain Aboriginal cultural heritage. This research involves the following:

- Investigating the Aboriginal Cultural Heritage Register and Information System (ACHRIS)
- Reviewing other cultural heritage reports undertaken within the geographic area
- Reviewing local ethnographic histories of the area
- Research into historic landuse
- Reviewing local histories of the area
- Researching the geomorphology and geology of the region encompassing the Activity area.

6.2 The Geographic Region

For the purposes of this report, the *geographic region* is the portion of the Mansfield Shire Council within 5km of the Activity area. This region contains landforms considered to be representative of the Activity area. In addition, it informs the broader context, providing a sample of comparative information regarding resource availability to past Aboriginal peoples. It also allows predictions to be made about the types of Aboriginal places and areas of potential for Aboriginal cultural heritage. Given the paucity of development, however, there have been relatively few field assessments conducted of the wider region; most of the following studies are desktop assessments, based on limited data. Only one study of the geographic region has been carried out.

6.2.1 Climate

Average daytime maximum temperatures in the region are 20.5°C, with summer time average maximums reaching 29.1°C and prevailing winds from the north-west. Rain typically falls as thunderstorms in the summer, and in winter with cold fronts. August is the wettest month and February the driest (BOM, 2022). Rainfall averages 701.7 mm a year, most of which falls in winter with passing frontal systems; however, these can occur at any time of year, and the main form of rainfall in spring and summer is thunderstorms (BOM, 2022).

Aboriginal people have been in Australia for at least 40–60 thousand years and possibly longer (Allen 1989; Jones 1995). This period falls within the last world climatic downturn or glacial period, which commenced about 80,000 years ago. During the glacial period, the climate was up to 6°C lower in the southern hemisphere, the tree line was lower, and large glaciers formed in Tasmania and on the Great Divide (Gibson et al. 1987). Greater amounts of water held within the large glaciers and ice sheets led to lower sea levels and land bridges joining Tasmania and Papua New Guinea to the mainland. The climate was much drier and cooler and landmasses stretched to the edge of the continental shelf. After 26,000 years before present (BP) the climatic downturn became more severe. Sea levels were at their lowest and the climate at its coldest at 18,000 BP (Bowler et al. 1976: 374; Dodson et al. 1992: 117; Freslov 2018: 27).

Temperatures were up to 6°C lower than today, and while Tasmania was heavily glaciated, on the mainland cirque glaciers were only found at Mount Kosciusko (Peterson 1968: 74–75). As conditions ameliorated following the last glacial period, it became milder, but wetter and the tree line rose to its present altitude. Vegetation dependant on wetter conditions expanded, including rainforests and wet sclerophyll forests, reaching its maximum extent during the mid-Holocene at 5000 BP (Gell & Stuart 1989: Figures 6–11). Since 5000 BP, conditions have been cooler and drier, with the ENSO (El Nino Southern Oscillation) weather pattern becoming more dominant (Rowland 1999: 18; Sandweiss et al. 1996). Increased “fire risks and extensive fires are associated with a periodic but severe ENSO weather pattern” (Freslov & Goulding 2002; Freslov 2018: 27).

6.2.2 Geomorphology, geology & soils

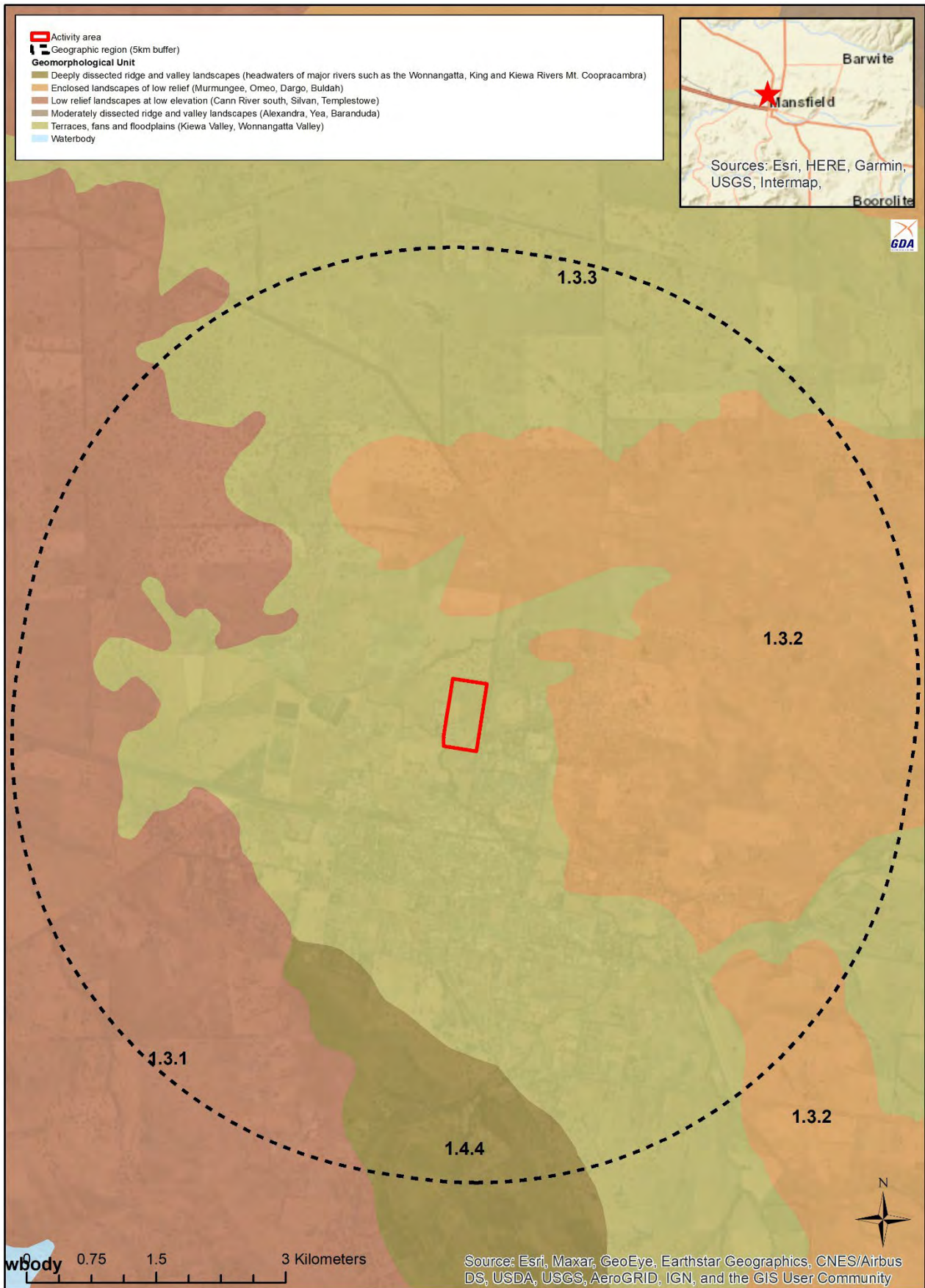
The Activity area is located within the Eastern Uplands (EU) geomorphic division. The EU is centred on the main divide in eastern Victoria, separating streams draining north to the Murray-Darling Basin from those flowing southwards directly to the sea (VRO, 2021). The EU division is variable in height and follows a meandering path as a parting of north and south draining river systems in an extensive area of mountain ridges and high plateau-like surfaces (VRO, 2021).

The Activity area is mapped as being located in the 1.3.3 Terraces, fans and floodplains (Kiewa Valley, Wonnangatta Valley) geomorphological tier (**Map 4**) which consists of alluvial terraces and floodplains at a range of elevations, but these units mostly occur within the main valleys where the streams have reached a stable gradient, and are depositing the sediments that have been derived from the slow, natural (“geological”) erosion (VRO, 2020). In the upper valleys, the soils on the older fans and upper terraces are mainly red and brown gradational soils (Dermosols) on well-weathered sediments, while on the intermediate terraces are typically gradational soils with weak B-horizon structure (Kandosols), while the flood plains have recently deposited sediments that may show clear stratification (Stratic Rudosols) (VRO, 2020).

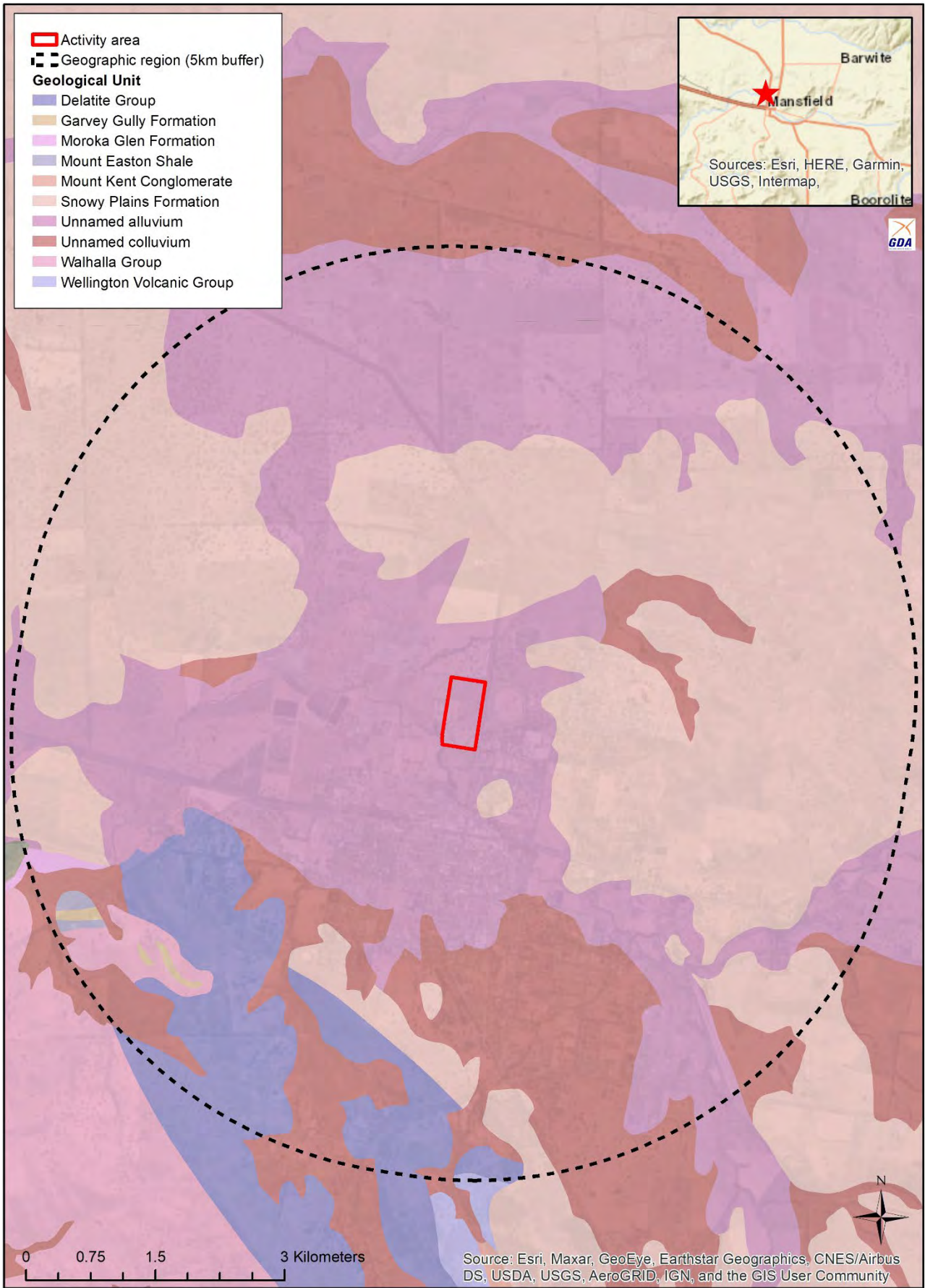
The area is part of the Lachlan Fold Belt and within the Omeo Structural Zone, incorporating parts of the High Plains and Corryong subzones, and the Wagga–Omeo Metamorphic Belt (Simpson et al, 2001).

The geological history of the area involved deposition of a large volume of turbidites in a deep water setting that were then deformed and intruded by granite during the Benambran and Bindian orogenies. A period of extension in the Early Devonian resulted in the formation of the Mount Burrowa and Dartella calderas of the Cravensville Igneous Province. Simpson et al (2001) note that *“the area was deformed again during the Tabberabberan Orogeny. Erosion has been the most important geological process since the Devonian, except for a period of extension and uplift at about 100 Ma, related to the breakup of the Gondwana supercontinent”*.

Simpson et al (2001) summarises the structural history as involving *“deformation, metamorphism and intrusion in the early Silurian Benambran Orogeny, followed by southward transport of the Omeo Zone during the Bindian Orogeny. Post-early Devonian deformation produced a series of mostly north- to northeast-trending faults associated with cataclasites and alteration zones, and probably reactivated existing NNW-trending faults. Much later movement, followed by erosion, led to large relief changes across some of the northeast trending faults, such as the Walwa Fault.*



Map 4: Geomorphic Land Unit of the Activity area and surrounds. Scale: 1:60,000. Source: GeoVic3 Online 2022.



Map 5: Geology of Activity area and surrounds. Scale: 1:60,000. Source: GeoVic3 Online 2022.

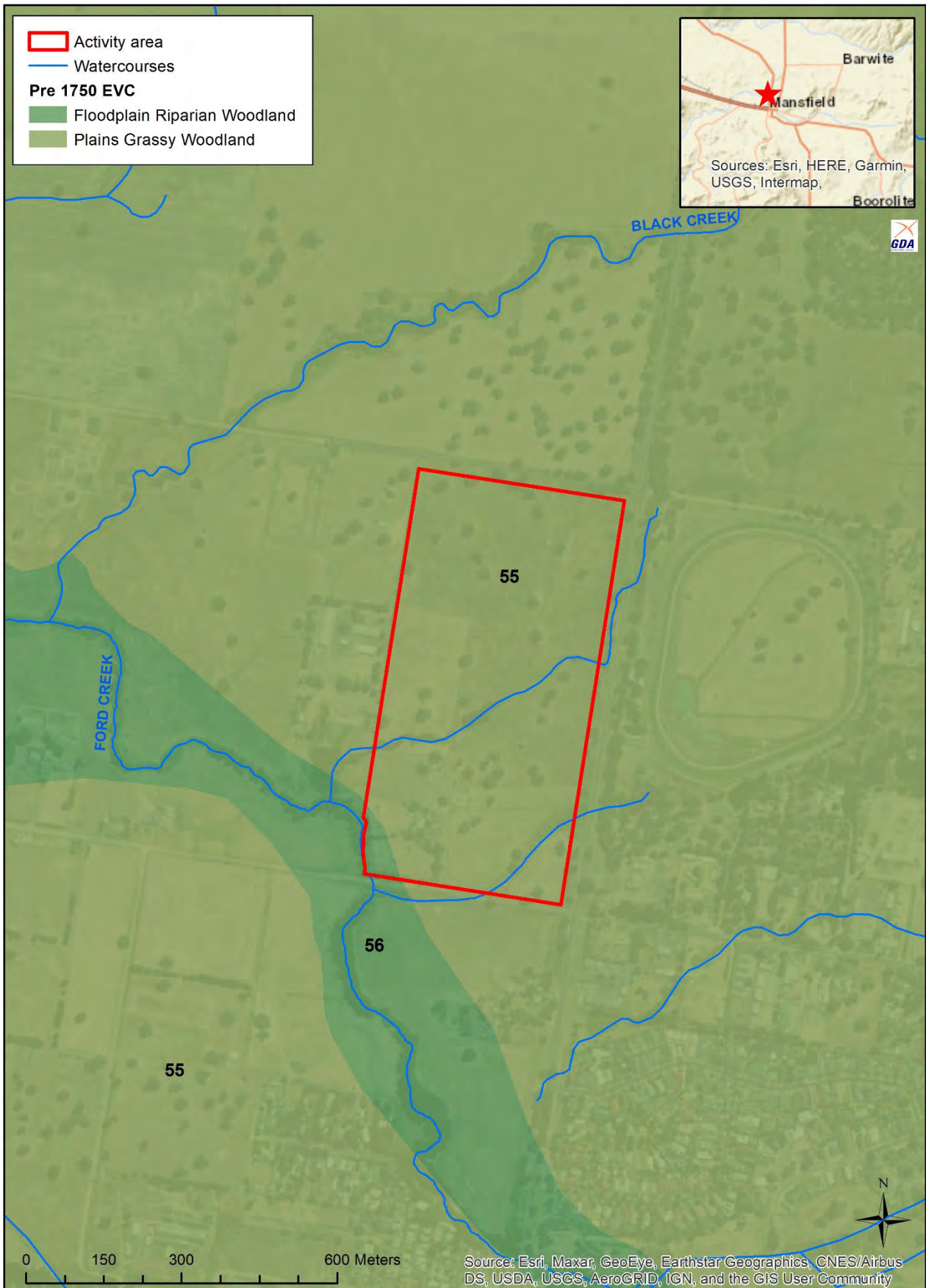
6.2.3 Vegetation

The Activity area is located in the Central Victorian Uplands bioregion. Pre-1750 Ecological Vegetation Class (EVC) modelling suggests that the Activity area was once covered in Plains Grassy Woodland (EVC 55) and Floodplain Riparian Woodland (EVC 56) (**Map 6**).

Plains Grassy Woodland (EVC 55) comprises open eucalypt woodland atop a variety of geological formations and soil types. It occurs at low elevations on flat ground or low rolling hills. It occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. This vegetation class is situated in areas that receive less than 600 mm of rain annually. The canopy layer comprises eucalypts including River Red Gum (*Eucalyptus camaldulensis*), Yellow Box (*Eucalyptus melliodora*) and Grey Box (*Eucalyptus microcarpa*). The understory is sparsely populated with shrubs, including medium shrubs such as Mallee Wattle (*Acacia montana*), Golden Wattle (*Acacia pycnantha*) and Weeping Pittosporum (*Pittosporum angustifolium*), and small shrubs like Curved Rice-flower (*Pimelea curviflora*). The grass layer is rich with variety such as Common Wheat-grass (*Elymus scaber scaber*), Windmill Grass (*Chloris truncate*), Kangaroo grass (*Themeda triandra*) and Spear-grass (*Austrostipa spp.*). The herb species include Lemon Beauty-heads (*Calocephalus citreus*), Saloop (*Einadia hastata*) and Nodding Saltbush (*Einadia nutans nutans*) (DELWP 2022).

Floodplain Riparian Woodland (EVC 56) is open woodland to 20 m tall with a canopy layer dominated by River Red-gum (*Eucalyptus camaldulensis*). This community occurs along the banks and floodplains of the larger meandering rivers and major creeks, often in conjunction with one or more floodplain wetland communities. Elevation and rainfall are relatively low and soils are fertile alluviums subject to periodic flooding and inundation. The community has a medium to tall shrub layer with a ground layer consisting of amphibious and aquatic herbs and sedges (DELWP 2022).

Regardless of the vegetation community that occupied the site, the area (adjacent to and upslope from a low-lying area/creek/inundated floodplain) would have provided a wide range of food and material resources for past Aboriginal people. Water rushes and marsh vegetation as well as a number of plant-food resources would have grown nearby. The rivers, creeks, lagoons and swamp areas in the geographic region would have supported various species of fish, eel, frogs and turtle as well as various larger game including kangaroos, wallabies and wombats (Reich 2018).



Map 6: Ecological Vegetation Classes in the Activity area. Scale: 1:10,000. Source: DELWP 2022.

6.3 Ethnohistory of the Yowung-illum-ballak, Taungurung People

6.3.1 Yowung-illum-ballak and their country

The Dead Horse Lane Activity area sits within the country of the Yowung-illum-balluk clan (local area group), of the broader Taungurung-speaking peoples. This makes the Yowung-illum-balluk a part of the Kulin ‘confederacy’, meaning that historically they shared kinship, ceremonial and diplomatic ties particularly with the Woiwurrung [ie: Wurundjeri] people in Melbourne. The Yowung-illum-balluk was, according to Diane Barwick, of the *waa* [*waang*, crow] moiety, which would have meant that they intermarried with *bunjil* [eagle-hawk] groups, such as Ngaruk-willam in Melbourne.¹ Historically, Europeans referred to this group as ‘Devil’s River’ people (referring to the then European name for the Delatite River), and virtually always identified them as distinctive from the main body of Taungurung-speaking groups,² which is suggestive of a cultural and/or political distinctiveness, at least in the eyes of Europeans.

On 12 May 1840, the Chief Protector of the Port Phillip Aboriginal Protectorate, George Augustus Robinson, travelled through the region, where he met with Yowung-illum-balluk people at the future site of Mansfield. Significantly, Robinson spoke with ‘the Chief of the Yow.eng.illum tribe, Bit.er.ruc, a fine good natured old man, 50, called by the whites after the hill, Bay.er.lite’. Along with Bitteruc, Robinson also met his young sons, including ‘Parg.wite, 9’ and ‘Ole.ler.nar, 7’.³

Of the geographical location, Robinson recorded, ‘*Bayolite, called by the whites Mount Battery from its great resemblance to such a fortress having in appearance breastwork ambraceous and facines [sic], is the country of the Yow.en.il.lums. A small river running past Bayolite on the south side and having its confluence with the [Delatite], or as it is called to the whites Devils River, to the east of Men.dum.bul [Mairdample], ie: two conical hills connected SW of Bayolite seven miles, is called Yal.ler.meer.rang.um [ie: Fords Creek]...Bit.ter.uc assured me it was his country and in his own language said good country my country.*’⁴ (This is a very early recorded Aboriginal-English usage of the word ‘country’.)

Adding to impressions of Bit.er.ruc (aka: Bayolite) and his family, historian George Morris has reported from an 1871 newspaper article in *The Mansfield Guardian*, ‘*that the first white men who came into the district saw a remarkable old aborigine who was chief of the whole of the Upper Goulburn tribes. Though his hair was as white as snow, he was as tall and as upright as a pine, and was treated by all the blacks with extreme servility. He was reputed to be a great warrior and had “as many wives as a Mormon prophet.”*’ The chief’s name was “Beolite,” and Mt. Battery and the land around it were known by the same name. Beolite’s eldest son was “Barwite,” and one of his lubras was “Delatite.”⁵ Just as Bit.er.ruc became known to Europeans as ‘Beolite’, after the geographical feature which was emblematic of their ‘country’, so did his son’s name — ‘Pargwite/Barwite’ — also refer to, and suggests a close connection with, a geographical location — in this case, Barwite on the upper reaches of the Broken River.

¹ Diane Barwick, ‘Mapping the Past: An Atlas of Victorian Clans 1835-1904.’ *Aboriginal History*, Vol. 8, 1984, p.128, p.117. Barwick also explains the relationships of the Kulin confederacy.

² Numerous instances of this can be found in the journals of Assistant Chief Protector to the Port Phillip Aboriginal Protectorate, William Thomas. See: Marguerita Stephens, *The Journal of William Thomas, Assistant Protector of the Aborigines of Port Phillip & the Guardian of the Aborigines of Victoria, 1839-1867, Volume 3: 1854-1867*, VCAL, Melbourne, 2014.

³ Ian Clark (ed.), *The Journals of George Augustus Robinson, Chief Protector, Port Phillip Protectorate, 1839-1852*, Melbourne, 2014, journal entry for 12 May 1840.

⁴ *ibid.*

⁵ George Morris, *Devil’s River Country — Selections from the History of the Mansfield District*, printed Shepparton, 1952, p.17.

Although it is not known when Biteruc passed away, he was still alive in 1851,⁶ and it is reported that 'old Baalwick' ('Baal-wick' probably referring to 'Beo-lite', but having been confused with 'Bar-wite') 'the chief of the Delatite River tribe' was buried on the pre-emptive right of Wappan Station (now underwater at Lake Eildon's 'Mrs Bon Bay').⁷

The Dead Horse Lane Activity area is central to the landscape features which were significant to the Yowung-illum-balluk people, as corroboree places, vantage-points, and as places to gather food. Although the creek which flows through the Activity area into Fords Creek is un-named, the creek which likewise flows into Fords Creek 500 metres downstream is called 'Black Creek' — probably a shortening of 'Black[']s Creek'. Both drain off the west side of Beolite. These Creeks between the Broken River and the Delatite River provided sustenance for Taungurung people: one recorded historical example comes from George Augustus Robinson's visit of 1840, when, while en route from Duearan station on the Broken River to Mount Battery station, Robinson met five 'native women' who were carrying *ware.root* — cumbungi tubers, which they had washed and were carrying in bundles on their heads. The women were returning to their camp at the east end of Beolite.⁸

The very earliest reportage of a corroboree in the area came from the first Europeans to visit the area, who heard Taungurung people holding a corroboree on the Delatite River, the unfamiliar sounds of which lead them to name it 'Devil's River'.⁹ In the first few decades after European invasion, it was reported that 'Wappan [pastoral run] was always a favourite haunt or camping ground of the "dusky children of the soil," where they held large corroborees. Sometimes as many as 500 would be camped there at one time...'¹⁰ (Wappan run was located on the northern bank of the Delatite River, at its junction with Brankeet Creek, with its homestead located around what is now Mrs Bon Bay, Lake Eildon.) In 1860, a large corroboree was held on the Mansfield town common,¹¹ which at the time was likely located west of the existing cemetery.¹²

While Mount Battery (Beolite), a short distance to the east of the Dead Horse Lane Activity area, provides good vantage-points particularly for viewing Wārambait (Mount Timbertop) and Māārāain (Mount Buller); the twin conical hills of Mendumbul (Māindample; 'The Paps') is another key geographical feature of the area, located further west. Retaining access to Wappan pastoral run, and in particular, Mendumbul, seems to have been important to the Yowung-illum-balluk people, and was preserved throughout the 19th century through their close relationship with the owners of Wappan station, the Bon family.

⁶ Biteruc reportedly sought to intervene in a boundary dispute between John Winter of Junction and Jon Bon of Wappan (see elsewhere in text), which could not have taken place until after Winter took over the Junction in 1851. (R. V. Billis, and A. S. Kenyon, *Pastoral Pioneers of Port Phillip*, Macmillan & Company Ltd., Melbourne, 1932, p.142).

⁷ 'MR. BERRY AND THE ABORIGINES.' *The Sydney Morning Herald*, Tuesday, 30 March, 1886, p.5.

⁸ *ibid.*

⁹ George Morris, *op cit.*, p.5.

¹⁰ 'MR. BERRY AND THE ABORIGINES.' *op cit.*

¹¹ 'BUSH WANDERINGS AND REFLECTIONS OF ARISTIDES. No. X.' *The Herald*, Saturday 9 February 1867, p.4.

¹² The town common was not proclaimed until after corroboree, but the allotments for the town common were proclaimed the following year (see *Victorian Government Gazette*, #48, Tuesday March 26th, 1861, p.632.)

The protectiveness of Bit.er.ruc with regards to retaining access to Mendumbul, can be seen in a story recounted in the early 20th century:

*'When the division of the runs was surveyed between Wappan [John Bon] and the Junction, James Winters, there was a dispute which had to be settled in the law courts. The case had to be tried in Sydney... The blackfellows by some means came to know that there was a dispute as to territory. The king of the tribe came to John Bon and swore allegiance to him in his way, telling him he could kill Winters for disputing his territory. Bon was horror-stricken, telling him he must not kill, no matter what the dispute may be. But the king could not understand how a dispute over territory could be settled any other way. John Bon told him if anything happened to Jimmie Winters he would hold him responsible for it, and would not allow him or any of his tribe on Wappan again, nor would he be their friend any longer. He prevailed on him, and got a promise not to molest Winter in any way, or allow any of the tribe to do so. He then asked the king how he intended to kill Winter. He said he would go to his place at night and make his lubra go to Winter's hut and knock at the door, and, when Winter opened the door, he would spear him from the dark. Needless to say Bon lost no time in warning Winters of the danger he was in from the blacks. But they kept their promise to Bon; but they always distrusted and disliked Winters. Wappan was always a haven of rest for the blackfellow. He was always treated with great kindness, and got plenty of good food to eat.'*¹³

In another version of the same story, access to Mendumbul is the critical point, and it could be supposed that the Yowung-illum-balluk were intent on retaining access to this regional landmark, via Bon, as they felt unwelcome on the Junction: 'Bon's contention was that the line followed The Papps mountain, along the top of the range to near [Bonnie] Doon, and that contention was up-held. The runs were fenced off by a top-rail and five-wire fence over very rough country, keeping strictly to the top of the range.'¹⁴

From the peaks of Mendumbul and Beolite, the Yowung-illum-balluk could survey their country included some sites further afield which were important in terms of resources: alpine localities where *deberer* (Bogong moths) could be collected in summer; the Howqua River Valley, where outcrops of greenstone were quarried for axeheads; and red ochre at sites such as those on Blue Range Creek, just out of Mansfield.

The central location of the Dead Horse Lane Activity area to these significant cultural and resource sites means that while the site itself is unlikely to have specific cultural significance, it would have received frequent usage and visitation, especially by the Yowung-illum-balluk and other Taungurung people.

6.4 Land Use History of the Activity area

6.4.1 Early Pastoralism, 1839—1866

In mid 1839, a huge tract of land encompassing the Upper Broken and Delatite River Valleys, were occupied by the Scottish-backed syndicate of Hunter and Watson.¹⁵ As historian Judy Macdonald, who has read the papers of the Hunter family, points out, 'Figures given by Alexander Hunter in September 1841 show that Watson and Hunter employed 100 hands, had about 80 horses, 3000 cattle and 20,000 sheep, constantly changing. They had 12 stations [ie: pastoral 'runs'] at Devils River, [and were] 'buying and selling Melbourne properties daily.'¹⁶

¹³ 'EARLY MEMORIES. (By "OLD TIMER.") Men Who made History in the North-East Mrs. Annie Fraser Bon.' *The Corowa Free Press*, Friday 8 June 1917 - Page 4.

¹⁴ 'MORE ABOUT MANSFIELD. TO THE EDITOR OF THE AUSTRALASIAN.' *The Australasian*, Saturday 6 December 1930, Page 4.

¹⁵ Ian Clark (ed), op cit, entry for 12 May 1840, George Augustus Robinson notes that the area had been 'discovered about ten months'.

¹⁶ Judy Macdonald, 'James Watson and "Flemington": a Gentleman's Estate,' *Latrobeana, Journal of the C J La Trobe Society*, Vol. 8, No. 3, November 2009, p.22.

Under this scheme, the Dead Horse Lane Activity area was located on the sheep run known as ‘Mount Battery’, close to the western border of ‘Maindample,’ with a cattle station known as ‘Duearan’ to the immediate north **[Figure 1]**. While the head station for the entire area occupied by Hunter and Watson was eventually situated on the Delatite River, with out-stations strategically dotted along the boundaries of the various runs, the first of all the stations in the district was the ‘Mount Battery hut’¹⁷ — situated on Ford’s Creek, on the western base of the Mount Battery range (on what would eventually become the eastern edge of the original Mansfield township, sited on the corner of Reardon and Greenvale Lanes, approximated 2km from the Activity area). It is likely that this was the hut occupied by stockman Andrew Ewing, who, as historians Billis and Kenyon would have it, became a leaseholder over part of the Mount Battery run, with Hunter and Watson holding the balance.¹⁸ When George Augustus Robinson visited in May 1840, he noted both the quality of the pasture and the extensive nature of Hunter and Watson’s holdings:

‘Indeed the whole distance 10 miles from the Devil’s River abounds in rich pasture. Sheep and cattle were browsing in luxury. Hunter and Watson claim all the country north of the Devil’s River, about seven or 800 square miles.’¹⁹

Hunter and Watson’s grip on their bloated pastoral empire was tenuous: by 1846 the company was thoroughly insolvent: although the economic depression of 1842 played a role; it also seems the young men of the Hunter clan were more interested in horse racing than running a pastoral empire. The court cases surrounding the eventual dissolution of the company with debtors seeking to recoup funds, would drag on into the 1850s.²⁰ As the company was liquidated, the various runs were sold. In August 1846, the Mount Battery run was sold to James Malcolm; and then, in June 1858, to James Webster & Co (Webster, Lachlan MacKinnon and William Russell Wright). The leasehold was finally cancelled in 1866,²¹ most likely because the western section of the run had been opened up as a township with a surrounding agricultural reserve in 1854;²² meaning that much of the viable grazing lands were gradually swallowed up by freehold occupation.

6.4.2 Agricultural Reserve, 1854

In 1854, a large section of the Mount Battery run was declared an Agricultural Reserve, also containing the Township of Mansfield, situated on Fords Creek. of the numbered agricultural allotments, the site of the Mount Battery hut on Fords Creek, was marked as Allotment 1. The Dead Horse Lane Activity area comprises the whole of the original Allotment 39 of just over 79 acres, situated within this Agricultural Reserve. **[Figure 2]**. The soil surrounding and including the immediate Dead Horse Lane Activity area was described as ‘Loamy’, and as being vegetated ‘Thinly timbered with white and red gum and honeysuckle [ie: silver banksia].’ This description belied the substantial size of the ancient trees which formed an open red gum woodland — remnant trees of which can still be seen across the Activity area. The Allotment was watered by a small tributary of Ford’s Creek, which formed something of a waterhole at its confluence with Fords Creek in the south-west corner of the Allotment **[Figure 2]**, with a second depression forming an ephemeral stream, also running into Fords Creek in the south-east corner of the activity area.

¹⁷ George Morris, op cit., p.5.

¹⁸ R. V. Billis, and A. S. Kenyon, *Pastoral Pioneers of Port Phillip*, Macmillan & Company Ltd., Melbourne, 1932, p.222.

¹⁹ Ian Clark (ed.), op cit., entry for 12 May 1840.

²⁰ Judy Macdonald, ‘John ‘Howqua’ Hunter and the China connection,’ *Latrobeana, Journal of the C J La Trobe Society*, Vol 15, No 3, November 2016, p.24.

²¹ Billis and Kenyon, op cit., p.222.

²² ‘The Township and Agricultural Reserve of Mansfield, stated at Mount Battery in the Parish of Mansfield,’ 1854. Catalogued as ‘SALE57 MANSFIELD’ This is from a sub-collection from VPRS 8168 Historic Plan Collection. Public Records Office Victoria.

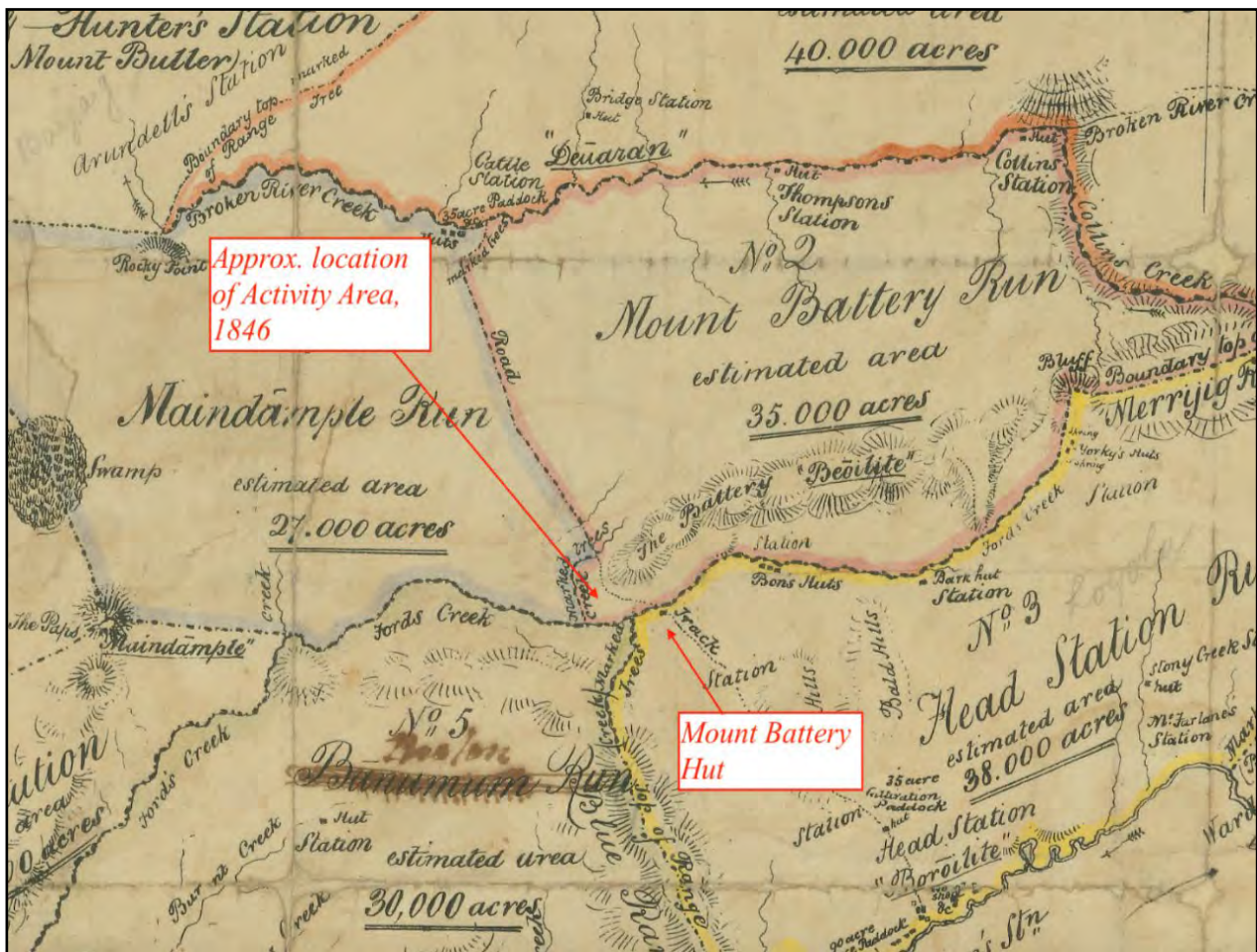


Figure 1: An excerpt from a Field Sketch of Watson and Hunter's pastoral empire, drawn up in 1846 by surveyor Robert Russell, at a time when Hunter and Watson's pastoral company had fallen into insolvency, illustrating the Activity area within the Mount Battery run (State Library of Victoria).

Yet another feature of Allotment 39 is that the lower half of the Allotment was traversed by the track coming from Maindample Station into, what was by 1854, Mansfield township. This track was not only used by travellers in the district, but would have been used for stock-movement in the earliest days of pastoral settlement.

Allotment 39, encapsulating the entire Dead Horse Lane Activity area, along with Allotment 40 to the east, were both taken up by George Govett Junior — the son of George Govett, who at the time held Maindample station in partnership with William Highett,²³ and who was the grandson of George Govett, an overland who had first occupied 'Pastoria' at Kyneton.²⁴ As George Govett Junior (1856-1927) could only have been a child at the time of the acquisition of this land, he was effectively holding it on behalf of his father. In addition to Allotments 39 & 40, Govett Junior's father also selected Allotment 41 immediately to the north, with the partnership of Highett and Govett selecting still further Allotments in the immediate area. This pattern demonstrates the keenness of the holders of Maindample to acquire freehold grazing lands adjacent to their existing leasehold.

²³ *ibid.*, p.68; and also 'The Township and Agricultural Reserve of Mansfield, stated at Mount Battery in the Parish of Mansfield,' 1854.

²⁴ 'Family Notices,' *The Argus*, Saturday 1 February 1896, p.1.



Figure 2: An excerpt from ‘The Township and Agricultural Reserve of Mansfield, stated at Mount Battery in the Parish of Mansfield,’ 1854, illustrating the Activity area as an early agricultural allotment (Public Records Office Victoria).

6.4.3 ‘Woodlands’, c.1890s-2000s

Recent anecdotal reportage suggests that until 2019, Allotment 39 had remained in the same family since 1892.²⁵ This loosely coincides with the death of pastoralist George Govett (1826-1896), suggesting that the land passed directly from Govett to these owners, who named the property ‘Woodlands’. Newspaper reports from the 1930s and 1940s state that Woodlands was the property of Mr J. G. [James George] Adams, who was a breeder of thoroughbred horses.²⁶ By this time, the property was convenient to the Mansfield racecourse, gazetted in 1932.

²⁵ Notice of sale, ‘175 Dead Horse Lane, Mansfield, Vic 3722’ <https://www.realestate.com.au/sold/property-acreage+semi-rural-vic-mansfield-132048270>, accessed 15 January 2022.

²⁶ ‘EPSOM WINNER AT MANSFIELD STUD,’ *Sporting Globe*, Wednesday 16 September 1936, p.3; ‘MANSFIELD IN PICTURES,’ *Weekly Times*, Saturday 31 May 1941, p.7.

An aerial photograph taken in 1959 illustrates a homestead block [Figure 3]; and although the resolution is poor, the photograph is also suggestive of a number of farm buildings immediate north of the homestead. Also visible is a paddock approximates 40 metres wide by 200 metres long, which may have been used to sprint horses. In addition, it is apparent that the creek-line running through Woodlands had suffered substantial erosion by this time.

The range of farm buildings still present today, along with the division of the property into paddocks with smaller yards around the farm buildings, suggests that Woodlands has been used as a mixed agricultural enterprise since the late nineteenth century. Vegetation clearance and stock usage have led to erosion along the main creek line. Particularly with the use of the property for breeding horses, it could be anticipated that sections of Woodlands have heavily compacted soils. However, a considerable number of mature trees have remained intact on the property since 1959. [Figure 3]

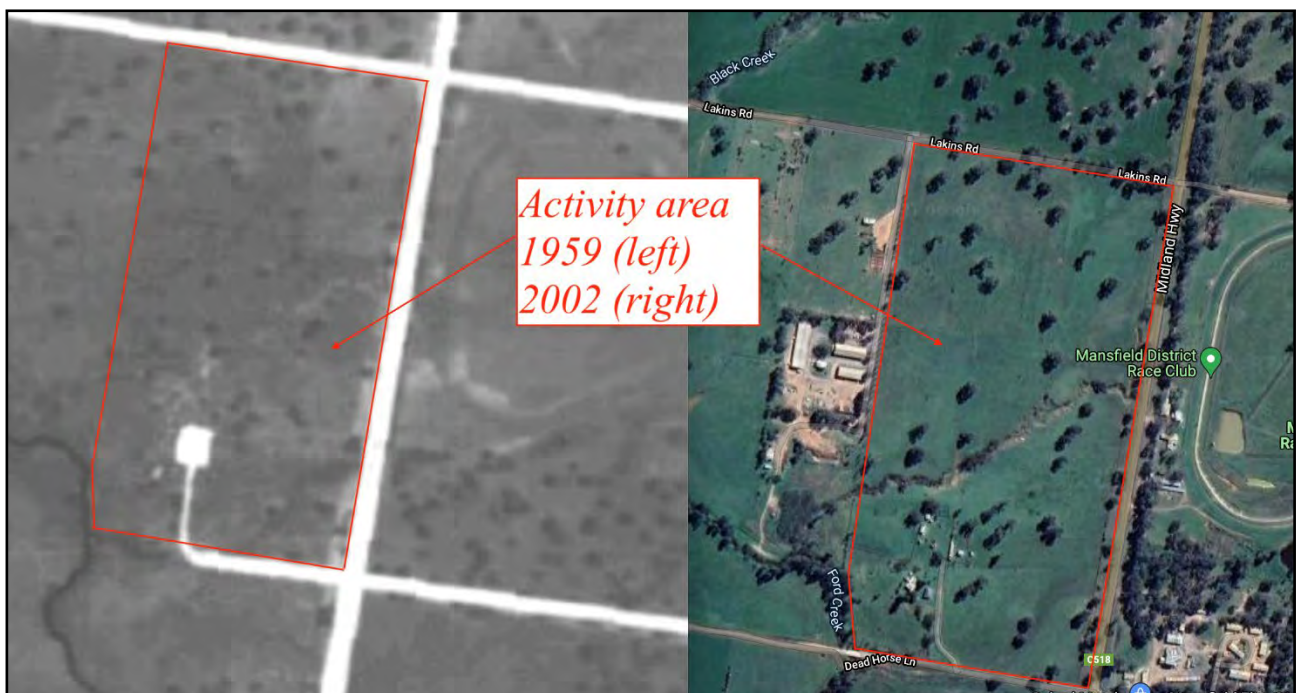


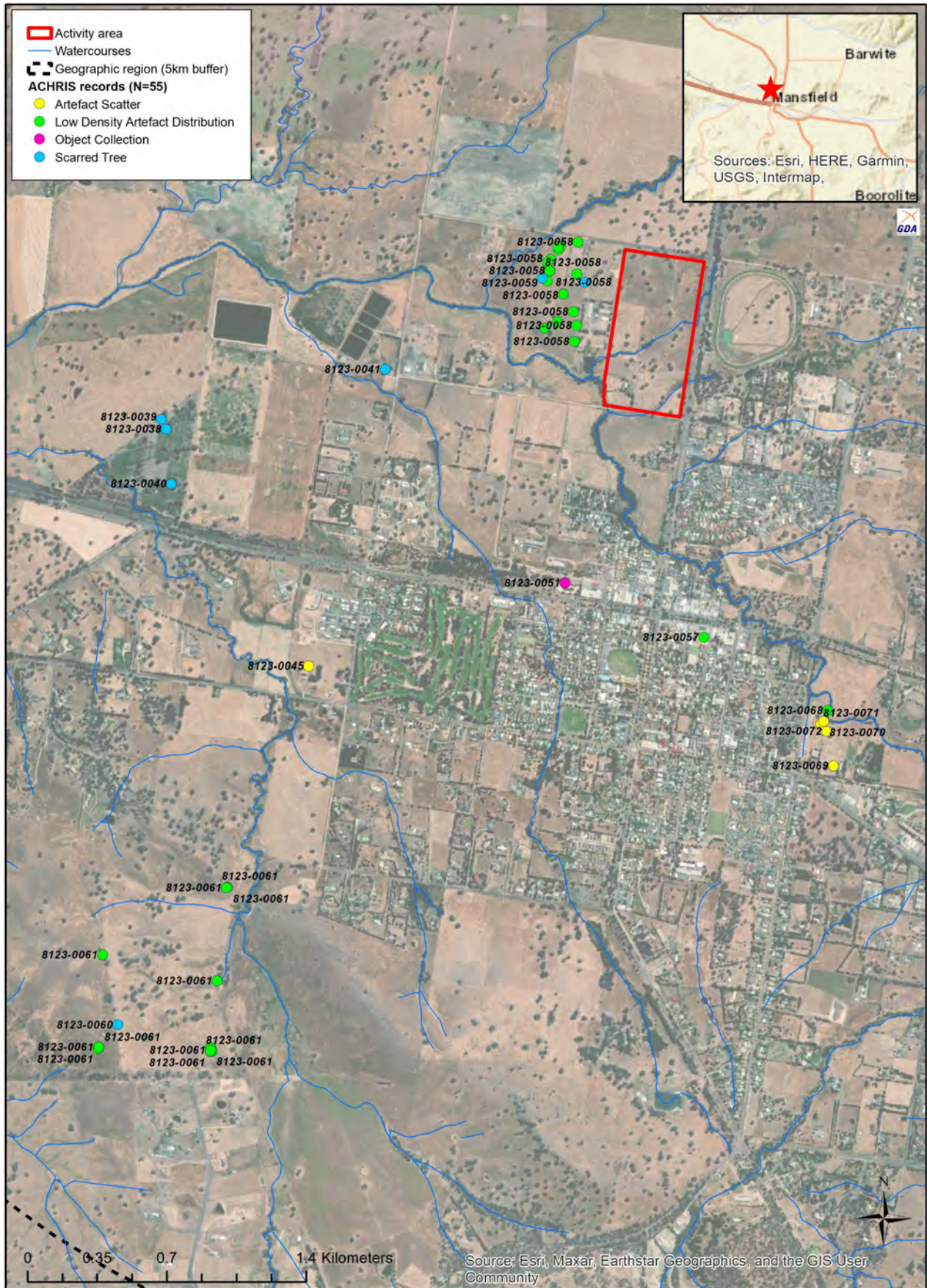
Figure 3: Comparative aerial photographs of the Activity area comparing an excerpt from 'Photo-Map MANSFIELD_821A_1', 1959, to a present-day image from Google Maps (2022).

6.5 Search of the Victorian Aboriginal Heritage Register

The Victorian Aboriginal Heritage Register (VAHR) was originally searched on 23rd February 2022 and again on 10th November 2023 by Damian Wall. Fifty-five (55) previously recorded Aboriginal places consisting of forty-one (42) LDADs, seven (7) Scarred trees, five (5) Artefact Scatters, and one (1) Object collection were recorded within the defined geographic region of 5 km (Map 7). Table 1 shows previously recorded sites in the geographic region (a 5km buffer of the Activity area).

Table 1: VAHR Listed Sites within the Defined Geographic Region (5 km Radius from the Activity area)

Aboriginal Place No	Aboriginal Place Name	Component Place Number	Component Type	Distance from Activity area
8123-0038	MANSFIELD ST 1	8123-0038-1	Scarred Tree	2.2km West of AA
8123-0039	MANSFIELD ST 2	8123-0039-1	Scarred Tree	2.2km West of AA
8123-0040	MANSFIELD ST 3	8123-0040-1	Scarred Tree	2.2km West of AA
8123-0041	MANSFIELD ST 4	8123-0041-1	Scarred Tree	1.1km West of AA
8123-0045	OWENS CREEK 1	8123-0045-1	Artefact Scatter	1.9km Southwest of AA
8123-0049	Mansfield Shire Scarred Tree 1	8123-0049-1	Scarred Tree	170m West of AA
8123-0051	Info Centre - Scarred Tree - Mansfield	8123-0051-1	Object Collection	920m West of AA
8123-0057	3 Collopy Street, Mansfield LDAD1	8123-0057-2	Low Density Artefact Distribution	1.1km West of AA
8123-0058	Fords Creek LDAD	8123-0058-2	Low Density Artefact Distribution	220m West of AA
8123-0058	Fords Creek LDAD	8123-0058-3	Low Density Artefact Distribution	220m West of AA
8123-0058	Fords Creek LDAD	8123-0058-4	Low Density Artefact Distribution	240m West of AA
8123-0058	Fords Creek LDAD	8123-0058-5	Low Density Artefact Distribution	340m West of AA
8123-0058	Fords Creek LDAD	8123-0058-6	Low Density Artefact Distribution	340m West of AA
8123-0058	Fords Creek LDAD	8123-0058-7	Low Density Artefact Distribution	340m West of AA
8123-0058	Fords Creek LDAD	8123-0058-8	Low Density Artefact Distribution	180m West of AA
8123-0058	Fords Creek LDAD	8123-0058-9	Low Density Artefact Distribution	180m West of AA
8123-0058	Fords Creek LDAD	8123-0058-10	Low Density Artefact Distribution	210m West of AA
8123-0058	Fords Creek LDAD	8123-0058-11	Low Density Artefact Distribution	270m West of AA
8123-0058	Fords Creek LDAD	8123-0058-12	Low Density Artefact Distribution	280m West of AA
8123-0058	Fords Creek LDAD	8123-0058-13	Low Density Artefact Distribution	280m West of AA
8123-0058	Fords Creek LDAD	8123-0058-14	Low Density Artefact Distribution	300m West of AA
8123-0058	Fords Creek LDAD	8123-0058-15	Low Density Artefact Distribution	340m West of AA
8123-0058	Fords Creek LDAD	8123-0058-16	Low Density Artefact Distribution	370m West of AA
8123-0058	Fords Creek LDAD	8123-0058-17	Low Density Artefact Distribution	370m West of AA
8123-0058	Fords Creek LDAD	8123-0058-18	Low Density Artefact Distribution	340m West of AA
8123-0058	Fords Creek LDAD	8123-0058-19	Low Density Artefact Distribution	360m West of AA
8123-0058	Fords Creek LDAD	8123-0058-20	Low Density Artefact Distribution	360m West of AA
8123-0058	Fords Creek LDAD	8123-0058-21	Low Density Artefact Distribution	360m West of AA
8123-0058	Fords Creek LDAD	8123-0058-22	Low Density Artefact Distribution	360m West of AA
8123-0059	Mansfield Shire Scarred Tree 2	8123-0059-1	Scarred Tree	390m West of AA
8123-0060	Stoneleigh Rd ST1	8123-0060-1	Scarred Tree	3.9km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-1	Low Density Artefact Distribution	3.7km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-2	Low Density Artefact Distribution	3.5km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-3	Low Density Artefact Distribution	3.1km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-4	Low Density Artefact Distribution	3.1km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-5	Low Density Artefact Distribution	3.1km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-6	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-7	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-8	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-9	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-10	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-11	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-12	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-13	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-14	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-15	Low Density Artefact Distribution	3.8km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-16	Low Density Artefact Distribution	4km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-17	Low Density Artefact Distribution	4km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-18	Low Density Artefact Distribution	4km Southwest of AA
8123-0061	Stoneleigh Road LDAD 1	8123-0061-19	Low Density Artefact Distribution	4km Southwest of AA



Map 7: VAHR in the geographic region (5 km radius of Activity area) and areas of cultural heritage sensitivity. Scale 1:26,000. Source: ACHRIS 2023.

6.6 Previous Archaeological Work in the Geographic Region

A review of reports and published works about Aboriginal cultural heritage in the geographic region referred to in **Section 6.2** is used to provide relevant information to determine if there is any relationship between Aboriginal cultural heritage places, strategic values, geology, landforms and soil profiles. These investigations may provide insight into Aboriginal cultural heritage place patterning. This information informs the desktop site prediction model presented in **Section 6.9**. Only reports most relevant to this CHMP are discussed in detail below.

6.6.1 Regional studies

Flood (1976) discusses the relationship between Aboriginal people and ecology in the highlands of south-east Australia by drawing upon anthropological, linguistic, ethnographical and archaeological evidence (Report No. 231) (Flood 1976:30). She refers to the small tool tradition to infer the timing of habitation of the highlands, and hypothesises that movement into the tablelands originated from the east (Flood 1976:32–34). She also suggests that the presence of European motifs in Victorian rock art indicates that this art was a late introduction to south-east Australia (Flood 1976:37). Several ethnographic sources are discussed, and these indicate that the average size of the Aboriginal groups was approximately 500 people (Flood 1976:38).

Two case studies are used to illustrate the relationship between Aboriginal people and the ecology of the region—Bogong moth-hunting feasts and the Bunya Bunya Nut festival (Flood 1976:32–33, 44). These examples are used to illustrate tribal relations. Importantly, Flood (1976:40) remarks upon two things pertaining to tribal distribution in the region. Firstly, each group's territory contained both a major food resource and a low-lying frost-free valley suitable for winter occupation. Secondly, there was a high degree of correlation between group and physiographic boundaries. She concludes that while occupation in the region may have originally been only seasonal, it later developed into year-round habitation (Flood 1976:47).

McBryde (1979) undertook a desktop study of prehistoric stone resources in Australia (Report No. 294). The focus was on petrological analysis of ground edge artefacts to identify quarry sources and illuminate exchange systems. The only case study involving the Murray Valley investigated the greenstone quarries at Mt William, several hundred kilometres west of the Activity area. The stone from this source was highly valued for tools such as axe heads. It was extensively traded, having been found as far away as NSW and South Australia (McBryde 1979:117).

Zobel (1984) undertook a desktop study of the Aboriginal occupation of north-east Victoria for the Land Conservation Council (Report No. 36). A summary of the Aboriginal and colonial history of the north-east is presented in the report. Zobel identified 83 Aboriginal places within the study area, which consisted of 26 scarred trees, 25 surface artefact scatters, 13, isolated artefacts, 10 art/rockshelter places, two (2) mounds, two (2) rockshelters, one (1) burial, one (1) mound with burial, one (1) quarry, one (1) rock arrangement, and one (1) exposure (Zobel 1984:27). Zobel clarified that Aboriginal sites could be expected across most ecological zones of the north-east. Burial sites were more likely to be found in association with flood plains (Zobel 1984:34–36), while the art sites discussed were typically located on massive granite boulder outcroppings that occur on hills in the area (Zobel 1984:25).

Goulding (1988) conducted a study into Aboriginal Occupation of the Melbourne area, District 2 (Report No. 271). The research found 448 shell middens, 235 artefact scatter sites, 45 scarred trees, two (2) quarries/stone sources, one (1) rock shelter/cave, one (1) burial and one (1) hearth, located on public land in the study area (Goulding 1988:63). However, it is not indicated where in the study area these sites are located.

Bird (1992a) carried out a desktop review of the archaeology of the Broken River Basin on behalf of the Victoria Archaeological Survey (VAS) (Report No. 592). The study was prepared for the Murray-Darling Basin Commission to assist a field program to collect significance and sensitivity data to inform planning decisions (Bird 1992a:1). The current Activity area falls within the Goulburn catchment area, several kilometres south of the Broken River catchment (Bird 1992b:13). At the time of the study, little systematic research had been undertaken in the area; a total of 312 sites in the region had been recorded by VAS. More than half of these sites were identified by one survey of Barmah Forest, 100 km north of the Activity area. They include primarily mounds, but also scarred trees, shell middens, artefact scatters, rockwells, hearths, quarries and burials (Bird 1992a:6–7). The available data was considered too sparse and skewed by many factors, such as poor ground surface visibility, to attempt a predictive model (Bird 1992a:8).

Bird (1992b) conducted a desktop review of archaeological resources in the Goulburn River basin, to summarise what was known of Aboriginal cultural heritage in the region (Bird 1992b:11) (Report No. 593). Of the 265 site records found, there were 32 artefact scatters, 27 mounds, and 77 scarred trees. The majority of sites (n=91) were found in the riverine plains, and the plains and hills landscapes (Bird 1992b:16).

Clarke (1997) undertook a desktop study of Box-ironbark forests and woodlands with regards to Aboriginal associations (Report No. 1074). The study extended from Benalla near its south-eastern limit to Horsham in the west and Ballarat in the south. The Activity area is located near its southern boundary (Clark 1997:2). The area contained 4201 recorded Aboriginal sites comprising 558 scarred trees (most around lakes, streams and swamps), 252 mounds, 184 isolated artefacts, 145 artefact scatters, 92 art sites, 49 rock shelters (notably in the Kooyoora Range), four (4) quarries, 14 burials, 14 rockwells, 11 shell middens, five (5) exposures in banks, four (4) hearths, one (1) rock arrangement, and an unspecified number of fish traps and grinding grooves (Marshall et al. 1996 cited in Clarke 1997:1). Scarred trees, the most prolific site type, were most common around streams, waterbodies, and swamps. It was posited that the whole area of Box-ironbark forest had been inhabited since at least 13,000 years ago, based on carbon dating of burials along the Murray River (Gunn 1990 cited in Clarke 1997:2–3).

Hughes and Buckley (1999) developed a model for Aboriginal Cultural Heritage Management in the Victorian Regional Forest Agreement (RFA) region (Report No. 4334) with the goal of improving the management of Aboriginal cultural heritage (Hughes and Buckley 1991:1). The proposed approach was to develop map-based Aboriginal archaeological significance zoning (Hughes and Buckley 1999:31). Environmental Units outlined large scale areas, further broken into Geographic Representation Units (Hughes and Buckley 1999:36–37). High, medium and low sensitivity ratings were based on the presence, absence and intersection of the relevant variables. These included environmental/geographic maps, land tenure, existing vegetation classes, pre-1750 vegetation classes, old growth forest, water supply catchment and drainage basins, geology, disturbance and land clearance (Hughes and Buckley 1999:51). The North East region—in which the Activity area falls (DELWP 2020)—was described as so poorly studied that it was not feasible to create a predictive model for the forests in that area (Hughes and Buckley 1999:42). At the time of the study, 326 sites were registered in the region: scarred trees (41%), isolated artefacts (21%), artefact scatters (21%) and rock shelters with art and/or deposit (10%). It was noted that 67.5% of the registered sites occurred on freehold land or adjacent easements (Hughes and Buckley 1999:44). In the region, the places registered on the National Estate were all rock outcrop sites (Buckley and Hughes 1999:45). The two site types in the area deemed to be of high archaeological and cultural significance were rock shelters and overhangs and greenstone quarries (Hughes and Buckley 1999:49). They suggested that, although more scarred trees were recorded than artefact scatters, this was likely due to sampling error, reflecting the fact that much of what had been surveyed was areas where scarred trees were relatively common (Hughes and Buckley 1999:49).

Buckley and Hughes (2000) prepared a report for Environment Australia (Report No. 1887) specifically for the North East RFA, an area of 2.3 million hectares (Buckley and Hughes 2000:13). At the time, there were 326 registered Aboriginal sites within the North East Victoria RFA: 41% scarred trees, 22% isolated artefacts and 21% artefact scatters. The remaining 10% consisted of rock shelters with art and/or deposits (Buckley and Hughes 2000:13). There were also eight (8) registered Aboriginal places: six (6) rock art sites (all on granite outcrops), one (1) stone axe quarry complex and one (1) memorial to a massacre site (Buckley and Hughes 2000:15). However, it was stated that the forested areas were little surveyed, and probably have a lot of Aboriginal heritage potential. They reiterated that the larger number of scarred trees than artefact sites recorded was likely due to sampling error (Buckley and Hughes 2000:16). The report recommended the adoption of a new Aboriginal heritage archaeological sensitivity assessment model. In addition, a number of improvements to the consultation process were recommended to ensure intangible places of significance to Aboriginal people would be less likely to be overlooked; these places may be associated with various landforms (Buckley and Hughes 2000:21).

Hyett (2002) conducted an archaeological survey of Mansfield sewage treatment, 12 km east of the Activity area for a Cultural Heritage Management Plan (Report No. 2274). Although no sites were identified within the survey area, the presence of four (4) scarred trees (VAHR No. 8123-0038-0041) on an adjacent property was noted. The trees were all River Red Gums. (Hyett 2002:7).

6.6.2 Local studies

²⁷**Edmonds (2008)** conducted a complex CHMP specifically for Mansfield Shire Council (Report No. 10255) proposing an aged care village development in Mansfield. During the standard assessment survey, there was no cultural materials discovered despite the good coverage. Eleven (11) stone artefacts and one (1) surface stone artefact were discovered in the complex assessment along the top of a low, elevated flat spur leading onto the floodplain, within proximity to Owens Creek. This site was registered as Owens Creek 1 (VAHR 8123-0045). It was concluded that the previous ground disturbance from historic agricultural land practices had largely disturbed the ground surface, redistributing the identified cultural heritage materials across the landscape and removing site context.

Grinter and Bell (2010) prepared a CHMP (11121) for works associated with the proposed Commercial Development, 3-5 High St Mansfield, Victoria. A Desktop and standard assessment were undertaken as part of the preparation of the CHMP. The results of the standard assessment identified no surface evidence of Aboriginal cultural heritage. Physical assessment and land use history indicates that the Activity areas have been significantly disturbed. It is unlikely that the proposed activities will impact on Aboriginal cultural heritage.

²⁸**Cavanagh (2013)** undertook a complex CHMP (Report No. 12513). for a 750m long water pipeline along Rowe Street in Mansfield. The desktop assessment indicated that although the Activity area contained cultural heritage sensitivity due to its proximity to Owens Creek, the likelihood for the identification of intact and *in situ* cultural heritage material was moderate to low due to a substantial degree of previous ground disturbance. There were no new Aboriginal Places identified in the standard and complex assessments and it was concluded that previous ground disturbance had lowered the potential for *in situ* cultural heritage material.

²⁷ Summary from: Ashton, R and Brooke, J. 2017. *Mansfield Industrial Estate, Lakins Road, Mansfield*. CHMP N° 14836. Report for Mansfield Shire Council by Jacobs Group (Australia) Pty Limited.

²⁸ Summary from: Ashton, R and Brooke, J. 2017. *Mansfield Industrial Estate, Lakins Road, Mansfield*. CHMP N° 14836. Report for Mansfield Shire Council by Jacobs Group (Australia) Pty Limited.

Brooke and Andrews (2015) undertook a CHMP (13400) for a Mansfield Industrial Estate. Desktop, Standard and Complex assessments were conducted. It is important to note that since cessation of excavation during the Complex assessment on 20 February 2015, the Sponsor decided to discontinue this CHMP. The Activity area is located in a primarily rural landscape, with Ford Creek running along part of the southern boundary of the Activity area, Black Creek crossing the north-western corner and an ephemeral unnamed tributary to Ford Creek crossing the south-eastern corner. The standard assessments ground survey identified 2 new Aboriginal Places – one LDAD (comprising 6 artefacts) and one scarred tree, Mansfield Shire Scarred Tree 1 was also reinspected. At the conclusion of the standard assessment, it was determined that Aboriginal cultural heritage is, or is likely to be present in the Activity area; and a complex assessment was recommended. Complex assessment was undertaken on 19 and 20 February 2015. One 1 m x 1 m test-pit (TP) was excavated on the terrace of Ford Creek in 100 mm spits in order to determine the soil stratification – no artefacts were discovered in the TP. A total of 52 STPs were excavated in 4 transects (with transect 4 incomplete) along the eastern side of block 2. Three artefacts were recovered from three STPs (T1 STP3, T1 STP7, and T2 STP8), at depths ranging from 0 mm to 400 mm. The CHMP was then discontinued February 2015.

Barker (2016) undertook a CHMP (13944) for a proposed Residential Subdivision at 15-19 Hunter Street, Mansfield. Desktop, Standard and Complex assessments were undertaken. During the standard assessment No Aboriginal cultural material was identified within the Activity area during the field investigation (this includes artefact scatters, scarred trees or rock shelters). No caves, rock shelters, or cave entrances were noted within the Activity area. The complex assessment included the excavation of a 1x1m test pit; and 14 shovel probes. No Aboriginal cultural material was identified during the assessment. The results indicate that the Activity area was of low sensitivity to the presence of Aboriginal cultural remains.

²⁹**Carr, Pericaud and Overberg (2016)** undertook a CHMP (14160) for the Mansfield Heavy Vehicle Bypass, Dead Horse Lane. During the standard assessment, a total overall effective survey coverage of 49 percent was achieved. Two areas of potential archaeological deposit (PAD) associated with the Activity area were recommended for sub-surface testing as a result of the standard assessment survey. These areas are located within 200 m of waterways (Fords Creek and a tributary) on raised terrace landforms. During the complex assessment a total of 29 STP and a single TP were excavated at the two areas of PAD and along Withers Lane. Excavations ranged in depth from 100 to 350 mm and soil profiles were consistent throughout excavations at all locations; being on similar landforms. No Aboriginal cultural material was identified during the complex assessment.

Ashton and Brooke (2017) completed a CHMP (Report No. 14836) for a proposed two lot subdivision at 141 Lakins Road in Mansfield. Desktop, Standard and Complex assessments were conducted. The standard assessment identified six (6) surface artefacts, two (2) basalt flakes, three (3) silcrete cores and two new Aboriginal Places. Fords Creek LDAD (VAHR 8123-0058), and Mansfield Shire Scarred Tree 2 (VAHR 8123-0059) were newly identified, with Mansfield Shire Scarred Tree 1 (VAHR 8123-0049) being re-inspected. The complex assessment identified three (3) new artefacts consisting of two (2) quartz and one (1) hornfels flaked artefacts. These were registered as Fords Creek LDAD (VAHR 8123-0058). It was concluded that the low-density subsurface artefact distribution is considered to be *in situ* with no obvious ground disturbance being recorded, excluding the dam construction.

²⁹ Summary from: Barker, M. 2017. *Proposed Micro Brewery at 3 Collopy Street, Mansfield*. CHMP N° 14934. Benchmark Heritage Management P/L.

Barker (2017) undertook a CHMP (14934) for a proposed Micro Brewery at 3 Collopy Street, Mansfield. Desktop, standard and complex assessments were conducted. During the Standard assessment no Aboriginal cultural material was identified within the Activity area during the field investigation (this includes artefact scatters, scarred trees or rock shelters). The absence of any evidence for Aboriginal cultural material may be due to the Activity area having incurred disturbance in the past, including the clearance of native vegetation. The complex assessment included the excavation of two 1x1m test pits; and 5 shovel probes. Aboriginal cultural material was identified during the assessment comprising 1 trachyte complete flake which was located in a shovel probe which was expanded to Test Pit 2. This new site was registered as a Low-Density Artefact Distribution, VAHR 8123-0057 (3 Collopy Street, Mansfield LDAD1). The results indicate that the Activity area was of low sensitivity to the presence of Aboriginal cultural remains.

Bell (2019) completed a CHMP for a proposed residential development at Stoneleigh Road in Mansfield (Report No. 15399). The area surveyed encompassed hills, gullies and floodplain directly adjacent to Owen's Creek. The standard assessment identified one (1) scarred tree and two (2) separate artefact locations within the Activity area. As part of the complex assessment, a total of 10 test pits were dug by machine and 32 with shovels within the Activity area. Nine (9) test pits yielded a total of 17 stone artefacts. Two (2) Aboriginal places were identified during the assessment: one (1) scarred tree, a Red Gum (VAHR No. 8123-0060), and a low-density artefact distribution (VAHR No. 8123-0061). The artefacts were distributed over three unspecified landforms (Bell 2019: 67).

Hislop (2020) prepared a CHMP (16278) for the proposed Subdivision at Kareen Hills Estate, Mansfield VIC 3722. Desktop, Standard and Complex assessments were conducted. The standard assessment identified no surface Aboriginal cultural heritage within the Activity area. No caves, cave entrances or rock shelters were observed. No cultural scarring was present on the mature trees. Several landforms within the Activity area were identified as having potential archaeological sensitivity, comprising the ridgeline along the western and north western regions of the Activity area and the lower slopes or rises to the east of the drainage line (continuation of Black Creek) that extends into the Activity area from the foothills of Mount Battery/Beolite. The complex assessment identified no subsurface Aboriginal cultural heritage within the Activity area. In total, three 1x1m manual test pits and 49 1x1m mechanical test pits and trenches were excavated.

6.7 Oral History

No oral history information was collected during the desktop assessment.

6.8 Obstacles Encountered in Completing the Desktop Assessment

No obstacles were encountered in completing the desktop assessment.

6.9 Site Prediction Model

Although archaeological studies within the region are limited, they reveal certain patterns of site distribution, particularly of the most common sites types, scarred trees and artefact sites, which occur within 10 km of the Activity area. Scarred trees are typically located within 100 m of waterways. The land along Ford Creek and its tributaries in the Activity area appears to retain some old growth trees. The pre-1750 vegetation communities attributed to the Activity area include Grey Box and Red Gum, which are common species among the scarred trees mentioned above. Moreover, at least one scarred Red Gum is registered within 5 km of the Activity area. There is high potential for scarred trees to be located within the Activity area.

The artefact sites discussed above generally exhibit the following patterns relevant to the Activity area: They are often located upslope and within 500 m of a permanent water source. Apart from vegetation clearance,

grazing, and the construction of current and previous dwellings in the South-west of the Activity area, disturbance appears minimal. In addition, the area is likely to contain a build-up of colluvium, which may have buried any cultural material present, especially along the raised terraces overlooking the central gully running to Ford Creek. Due to the proximity of the creek, much of the Activity area has the potential to contain subsurface artefacts (with the exception of the highly disturbed area in the south-west).

6.10 Conclusions from the Desktop Assessment

- There is a single statutory area of cultural heritage sensitivity within the Activity area, being land within 200 m of a named waterway (Ford Creek).
- There were fifty-five (55) previously recorded Aboriginal places within the defined geographic region consisting of forty-one (42) LDADs, seven (7) Scarred trees, five (5) Artefact Scatters, and one (1) Object collection
- The Activity area has been used for pastoralism and grazing since 1840 and as a result, the landscape in and around the Activity area has been largely cleared of vegetation, however there are a few remaining paddock trees across the site that have potential for scarring.
- The Activity area has likely previously been impacted by creek flooding on the lower slopes in the south-west corner, therefore Aboriginal cultural material in this zone may be located sub-surface in a disturbed context.
- The area surrounding the buildings in the south-western part of the Activity area has experienced extensive disturbance due the previous development associated with the prior and existing Homestead and associated farm buildings.
- The area (including, and upslope from, a low lying previously inundated floodplain and permanent fresh water) would have provided a wide range of food and material resources for Aboriginal people.

As it is reasonably possible that Aboriginal cultural heritage is present within the Activity area, a Standard Assessment is required pursuant to r.62(1) of the Aboriginal Heritage Regulations 2018.

7 Standard Assessment

The results of the desktop assessment indicated that a standard assessment was required to further investigate the potential for Aboriginal cultural heritage to be located within the Activity area. The specific aims of the survey are to identify and investigate the following:

- All areas of high ground surface visibility for targeted detailed surface inspection;
- Ground disturbance;
- Any surface or obtrusive cultural heritage places, if present;
- Areas of cultural heritage sensitivity;
- Landform patterns and elements; and
- Test the site prediction model generated by the desktop assessment.

7.1 Methodology

The pedestrian survey was conducted in a systematic manner and in accordance with archaeological practice (Burke & Smith 2004). All areas were examined to determine areas of good ground surface visibility for particular focus and/or areas of high potential archaeological sensitivity for Aboriginal cultural material. The systematic pedestrian survey examined all areas, landforms, elements and attributes. The fieldwork participants (**Section 7.2**) were spaced at approximately 5m apart during the survey and the entire Activity area was surveyed. Detailed notes were taken, including description of landform elements, ground surface visibility, ground disturbance, vegetation, water sources and potential Aboriginal cultural heritage sensitivity (Burke & Smith 2004).

The standard assessment was recorded using recording forms to note features and disturbance within the Activity area. The location of the features and disturbance were recorded using a dGPS. Photographs of the Activity area were also taken using a digital camera.

7.2 Fieldwork Participants

A standard assessment was undertaken on 8th February 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd), Daniel Young and Jonah Honeysett - Taungurung Land & Waters Council (Field Representatives).

7.3 Oral History

No oral history information was provided during the Standard Assessment.

7.4 Obstacles Encountered in Completing the Standard Assessment

Other than poor ground surface visibility (**Section 7.5**), there were no obstacles encountered during the Standard Assessment.

7.5 Ground Surface Visibility, Survey Areas and Effective Survey Coverage

Archaeological visibility refers to the amount of ground surface that is clearly visible for inspection. The greater the ground surface visibility, the more effective a surface survey is. Examples of high surface visibility are vehicular and pedestrian tracks, dune blow outs (100% per m²); and examples of poor visibility are areas of heavy vegetation cover (0-10% per m²) (Murphy and Thomson 2016).

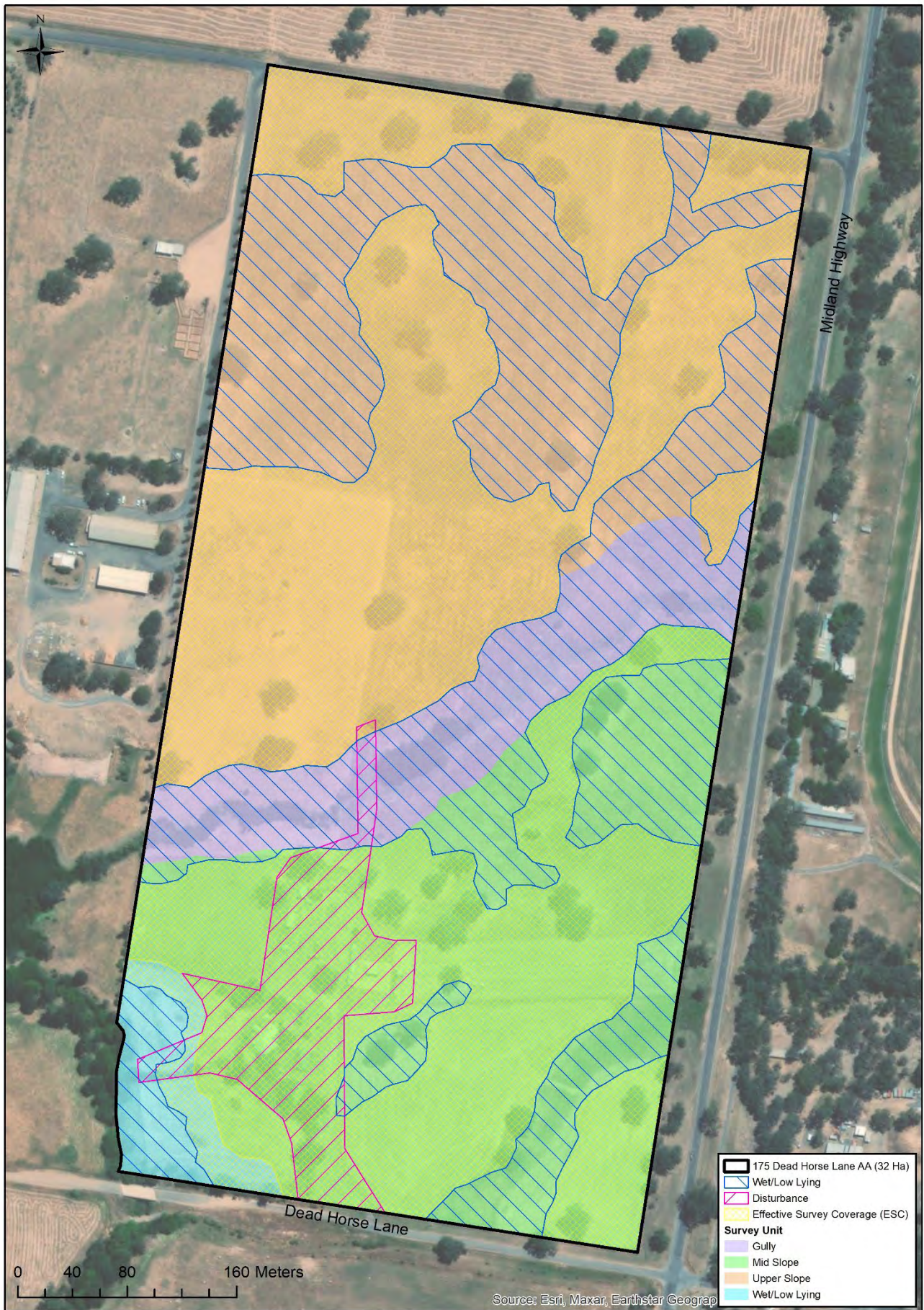
Unfortunately, it is often the case that highly visible Aboriginal cultural heritage places are also often highly disturbed. High ground surface visibility (GSV) is therefore often related to the amount of disturbance that has occurred. This disturbance may be manmade (such as drainage lines, vehicle tracks), by stock (overgrazing, tracks), or due to natural processes (erosion by wind or water). The level of GSV is typically assessed as is shown in **Table 2**. Effective Survey Coverage (ESC) is a measure of each Survey Unit (identified in the Activity area – **Map 8**) that was adequately surveyed during the Standard Assessment by the survey team (**Table 3**).

Table 2: Ground Surface Visibility (GSV)

%	0%	0 – 10%	10 – 30%	30 – 50%	50 – 70%	70 – 90%	90 – 100%
Rating	No visible ground surface	Very poor	Poor	Fair	Good	Very good	Excellent

Table 3: Effective Survey Coverage

Survey Unit	Area of Survey Unit (m ²)	Area Surveyed (m ²)	% Surveyed
A (Gully)	31,802	0	0%
B (Mid Slope)	118,522	85,320	72%
C (Upper Slope)	166,081	104,045	63%
D (Wet/Low lying)	10,988	4,658	43%
Totals	327,393	194,023	59%



Map 8: Survey Units in the Activity area. Scale 1: 3,300. Source: Esri 2023.



Map 9: Ground Surface Visibility in the Activity Area. Scale 1:3,300. Source: NearMap 2023

7.6 Results of the Standard Assessment

Maps 8 & 9 and show the level of GSV & ESC across the activity area. The majority of the activity area had Poor ground surface visibility, due to the Activity area being dominated by thick exotic pasture grasses (**Photo 2, 3, 4, 5**). Occasional, small areas of good and fair GSV were evident as a result of disturbance, stock tracks, erosion and the construction of roads and buildings, these areas were closely inspected (**Photo 6, 7**).

The Activity area is located on a gently undulating alluvial floodplain, intersected by a tributary of Fords Creek, on the north-west outskirts of the township of Mansfield. Four landforms were identified, consisting of a wet/low lying area on the floodplain of Ford Creek in the southwest corner, a gully landform surrounding the tributary of Ford Creek, a mid-slope landform on the southern side of the tributary and an upper slope landform on the northern side of the tributary to the boundary.

Sections of the Activity area have been disturbed by historic activities, consistent with the construction of housing, sheds, dams, tracks and associated agricultural infrastructure. The area is likely to have been disturbed multiple times through the clearing of timber, agricultural uses and development of buildings over the last 100 years.

The remainder of the property has likely only has been disturbed by land clearing, grazing and ploughing/cropping which may have only impacted the first 200mm of the ground surface. It can be inferred that the soil profile below 200mm in these areas may be undisturbed.

The Activity area contains a number of native trees, some of these trees had the potential to be mature (>100 years) large native trees, hence were all inspected for scarring, with none detected. There were also no rock shelters or caves within 200 m of the activity area. No Aboriginal cultural heritage was found during the standard assessment.



Photo 1: Site conditions, gully landform mid site, East orientation. D, Wall 2022.



Photo 2: Site conditions, open grazed paddock in the Mid Slope landform. Poor GSV. South orientation. D, Wall 2022.



Photo 3: Site conditions, open grazed paddock, slight rise in the Mid Slope landform. West orientation. D, Wall 2022.



Photo 4: Site conditions, disturbed area consisting of existing stock yards. Poor GSV. West orientation. D, Wall 2022.



Photo 5: Site conditions, Gully Landform, west half of site, north orientation. D, Wall 2022.



Photo 6: Eroded bank in the Gully Landform. Good GSV. South orientation. D, Wall 2022.



Photo 7: Site conditions, open grazed paddock in the Upper Slope landform. Poor GSV. South orientation. D, Wall 2022.

7.7 Areas Likely to Contain Aboriginal Cultural Heritage & Aboriginal Cultural Heritage Scientific Sensitivity Model

The results of the standard assessment have been used to refine the desktop assessment Aboriginal cultural heritage prediction model (**Section 6.9**). The Activity area contains mid and upper slope landforms either side of a semi-permanent waterway overlooking, and including, wet/low-lying land in the south-west corner of the site.

While there is little prior site patterning information in the geographic region, proximity to water and elevation are factors that influence site patterning in much of Victoria. The flat, wet, low-lying land in the south-west corner of the Activity area would have been inundated the majority of the time and not habitable, while providing a resource both for potable water and flora and fauna associated with this water source.

The elevated land between this wet/low lying land associated with Ford Creek and the tributary of Ford Creek running east west through the Activity area comprises higher potential for containing Aboriginal cultural heritage, as it provided a dry location surrounded by potential resources to the north (tributary) and west (Ford creek). Therefore, in the sections of the site that have escaped disturbance from previous land use, there is still potential for Aboriginal cultural heritage to be remaining in situ.

7.8 Conclusions from the Standard Assessment

The standard assessment has demonstrated that in relation to the Activity area:

- No (0) Aboriginal places were identified during the standard assessment, however given the very limited ground surface visibility this is not considered to be a reflection of the actual archaeological record within the Activity area.
- The land has been subject to varying levels of disturbance, vegetation removal and infrastructure development with associated utilities.
- Ground surface visibility encountered was in the majority poor (10-30%) to fair (30-50%).
- The Activity area retains some mature (>100 years) native trees, all were inspected for scarring, with none detected.
- There are no rock shelters or caves within 200 m of the Activity area.
- The Activity area contains landforms likely to contain Aboriginal Cultural Heritage (e.g. the lower-mid slopes of a rise overlooking floodplain).
- Given that there is little information regarding Aboriginal site patterning in the region and previously registered Aboriginal places have been located in a similar localised environmental contexts, there is likelihood for Aboriginal cultural heritage to be present within the Activity area, further, given the almost complete absence of ground surface visibility throughout a large portion of the site, it is not possible to determine the extent, nature or significance of that cultural heritage without subsurface testing.
- *A complex assessment was therefore recommended pursuant to r.64(1) of the Aboriginal Heritage Regulations 2018.*

8 Complex Assessment

The Complex Assessment was conducted across multiple dates, 30th June 2022, 1st July 2022, 6th September 2022, 19th April 2023 and 20th April 2023. Parts of the site in the Upper Slope and Mid Slope landforms were very wet due to seasonal rain, which did represent an obstacle to excavation at the time of the Stage 1 Complex. These areas were however, revisited during more favourable conditions during the Stage 2 extent testing phase in early 2023.

8.1 Aims of the Subsurface Testing

The aims of subsurface testing were:

- To test the site prediction model generated for the Activity area;
- To determine the stratigraphy and general subsurface nature of the Activity area;
- To adequately test all landforms present on site for Aboriginal cultural heritage;
- To determine the nature and extent of disturbance within the Activity area; and
- To determine the presence or absence of Aboriginal cultural heritage.

8.2 Fieldwork Participants

The Complex Assessment was undertaken in two (2) stages on the following dates:

- 30th June 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Dylan & Troy Wilkinson (TLaWC Field Survey Representatives).
- 1st July 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Dylan & Troy Wilkinson (TLaWC Field Survey Representatives)
- 6th September 2022 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Daniel Young & Dylan Wilkinson (TLaWC Field Survey Representatives).
- 19th April 2023 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Ashleigh Wilkinson (TLaWC Field Survey Representative).
- 20th April 2023 by Damian Wall (Red-Gum Environmental Consulting Pty Ltd) with Ashleigh Wilkinson (TLaWC Field Survey Representative).

Complex Assessment Stage 1 saw the excavation of twenty-four (24) 1m x 2m Mechanical Test Pits (MTPs). Complex Assessment Stage 2 saw the excavation of thirty-two (32) 1m x 2m Mechanical Test Pits (MTPs) and four (4) 1m x 1m Test Pits (TP). Extent testing saw the excavation of ninety-eight (98) 1m x 2m Radial Mechanical Test Pits (RAD).

In total the Complex Assessment saw the excavation of four (4) 1m x 1 m Test Pits (TP), fifty-six (56) 1m x 2m Mechanical Test Pits (MTPs) and ninety-eight (98) 1m x 2m Radial Mechanical Test Pits (RAD).

8.3 Fieldwork Supervisor

All fieldwork was supervised by Damian Wall (Heritage Advisor), who is suitably qualified to supervise the excavations as per r.65(3) of the Aboriginal Heritage Regulations 2018 (Appendix).

8.4 Methodology

The aims of the Complex Assessment were fulfilled by controlled excavation of test pits which methodically sampled the Activity area. Excavations were conducted by hand and machine and recorded in 5-10cm arbitrary layers and stratigraphic units. Hand tools including long-handled spades, hand spades, trowels and brushes were used where appropriate. All tools were used in a controlled manner removing sediments in thin layers, keeping sections at 90° at all times. The methodology was discussed and supported by TLaWC representatives prior to commencing.

All excavated soil was hand sieved through 5mm mesh. If the material could not pass through the mesh it was broken up by hand and examined. Spoil heaps and sieving areas were kept at a reasonable distance from the testing area. All test pits were excavated to underlying sterile sediment (B Horizon) to ensure that all possible soil horizons with the potential for Aboriginal cultural material were assessed.

Test pits were recorded in GDA94 MGA coordinates and marked onto an Activity area plan. Detailed notes were recorded for each test pit including stratigraphy, sediment descriptions, Munsell colour, disturbance, and presence (or absence) of archaeological materials. Photos were taken of each excavation including detailed views of stratigraphic profiles using standard range poles.

8.5 Results of the Complex Assessment

A total of four (4) 1m x 1m Test Pits (TP) and fifty-six (56) 1m x 2m Mechanical Test Pits (MTPs) and were excavated across the Activity area during the Complex Assessment (**Map 10**).

An additional ninety-eight (98) 1m x 2m Radial Mechanical Test Pits (RAD) were also excavated using the double negative method during the extent testing that followed the initial complex excavation. Subsurface testing recovered a total of one hundred and thirty-two (132) stone artefacts resulting in the recording of four (4) new registered Aboriginal Places.

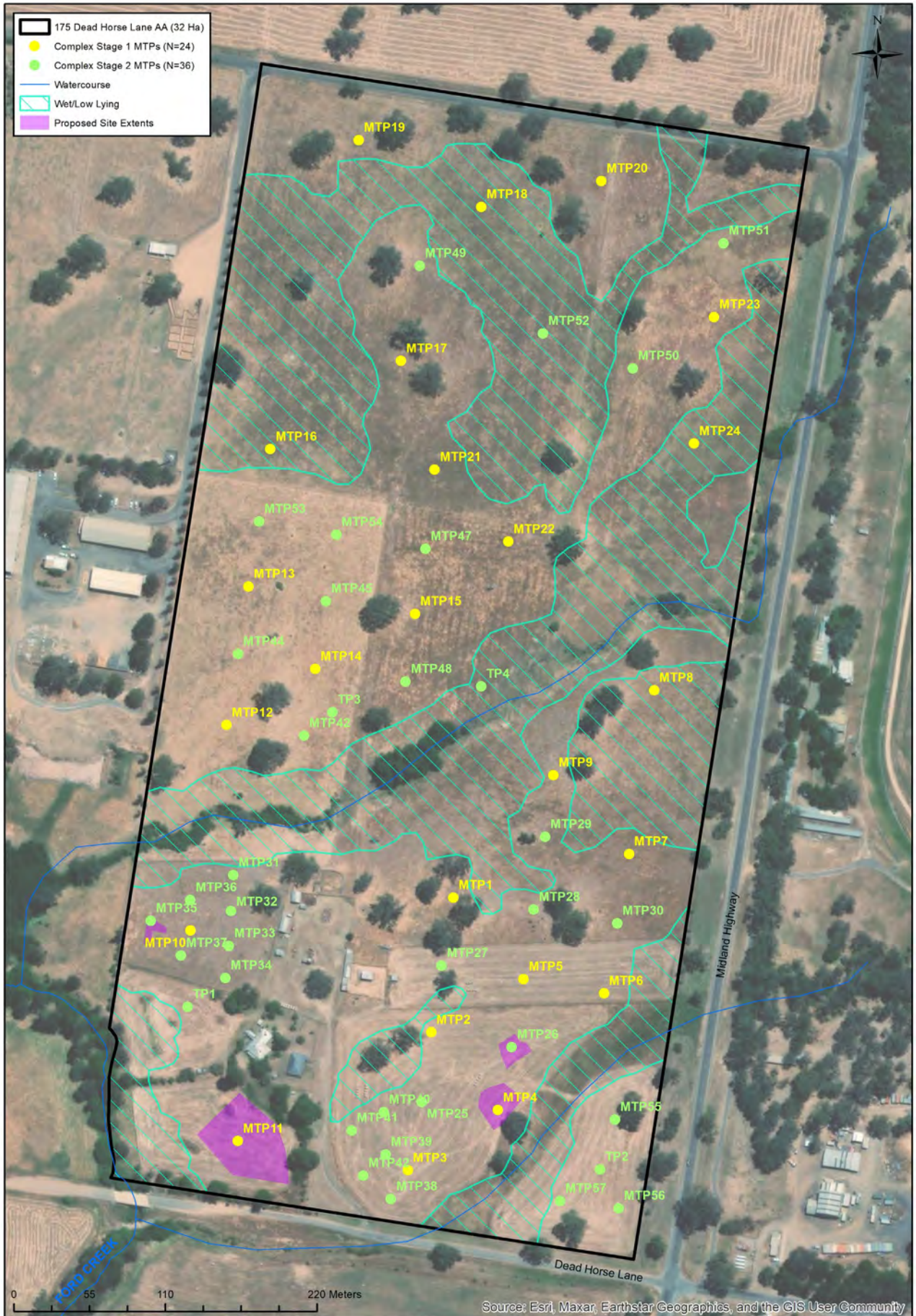
Map 10 shows the combined location of all test pits excavated within the Activity area during the complex assessment. **Map 11** shows the combined location of all extent testing undertaken within the Activity area.

8.6 The Stratigraphy and General Subsurface Nature of the Activity area

8.6.1 Stratigraphy and General Subsurface Nature of the Activity Area

The Test Pits (TP1-4) illustrate the stratigraphy and general subsurface nature of the Activity area (**Photo 8-11**). The test pits were excavated in an area chosen by the survey team to best represent the general stratigraphy of the activity area. Descriptions of the TP excavations are presented in **Table 4**.

In the MTPs, the stratigraphy was generally reflective of that found in the test pits, with a brown clayey loam from the surface to between 100-200 mm. This then became more of a reddish brown, before terminating in a strong brown reddish heavy clay, between 200-400 mm. Descriptions of MTP excavations are presented in **Table 5**.



Map 10: Complex assessment results. Scale 1:3,300. Source: Nearmap, 2023.

8.7 Results

8.7.1 Test Pit 1 (1 x 1m) excavation summary

Excavation of four (4) 1m x 1m test pits was undertaken by hand at agreed locations identified by the survey team. Excavation generally showed a layer of brown loam over a brown clayey loam, with a sterile strong brown clay (**Table 4**). Excavation beyond the clay layer was deemed unnecessary as the likelihood of encountering cultural material or evidence of human activity beyond Context 4, was highly unlikely.

Table 4: 1m x 1m Test Pits - Excavation Summary

Context	Depth (mm)	Soil Type	Munsell No.	Artefacts (Y/N)	Comments
Test Pit 1 – E: 418717 N: 5900130					
1	0-100	Brown loam	10YR 4/3	N	N/A
2	100-300	Light brown clayey loam	10YR 5/2	N	Glass and rock throughout.
3	300+	Light greyish brown mottled clay with ironstone (unexcavated).	10YR 6/4	N	Unexcavated. Heavy clay with ironstone.
Test Pit 2 – E: 419017 N: 5900010					
1	1-150	Clayey brown loam	7.5YR 4/3	N	Glass and rock throughout.
2	150-300	Dark brown clayey loam	7.5YR 3/3	N	Rock throughout.
3	300+	Strong brown clay	7.5YR 5/6	N	Disturbed.
Test Pit 3 – E: 418822 N: 5900340					
1	0-150	Brown clayey loam	7.5YR 4/3	N	N/A
2	150-300	Grey brown clayey loam	7.5YR 5/1	N	N/A
3	300+	Strong reddish brown clay	7.5YR 4/6	N	N/A
Test Pit 4 – E: 418930 N: 5900360					
1	0-50	Light brown compacted silt	7.5YR 6/4	N	N/A
2	50-200	Brown silty clay loam	7.5YR 5/4	N	N/A
3	200+	Light brown clay	7.5YR 6/3	N	N/A



Photo 8: 1m x 1m TP1 – Spit 3, north orientation. Staff increments are 0.3m. Photo: Damian Wall (2023)

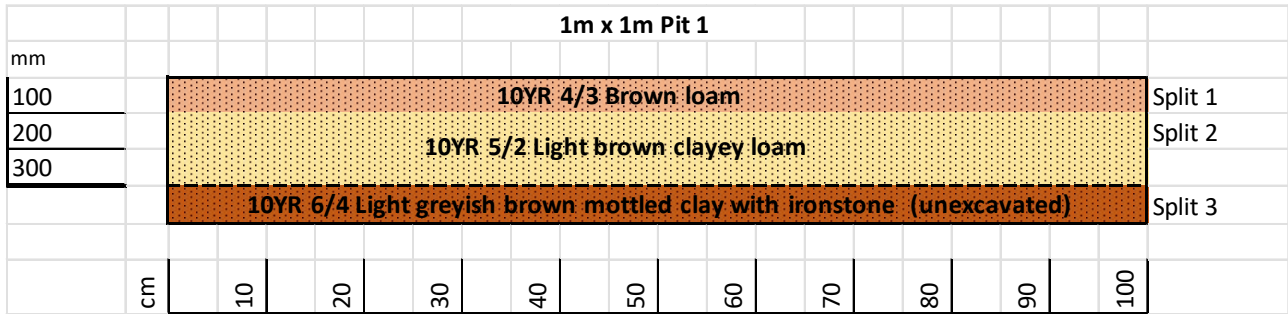


Figure 4: Cross-section of TP1.



Photo 9: 1m x 1m TP2 – Split 3, north orientation. Staff increments are 0.3m. Photo: Damian Wall (2023)

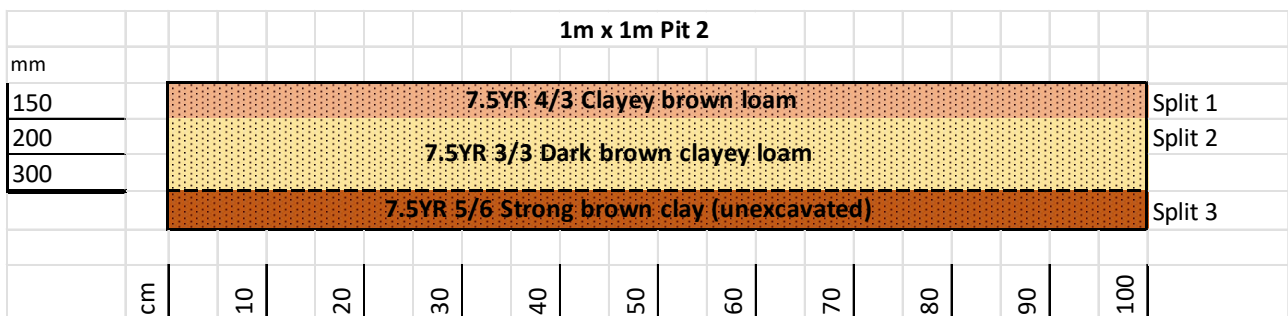


Figure 5: Cross-section of TP2



Photo 10: 1m x 1m TP3 – Spit 3, north orientation. Staff increments are 0.3m. Photo: Damian Wall (2023)

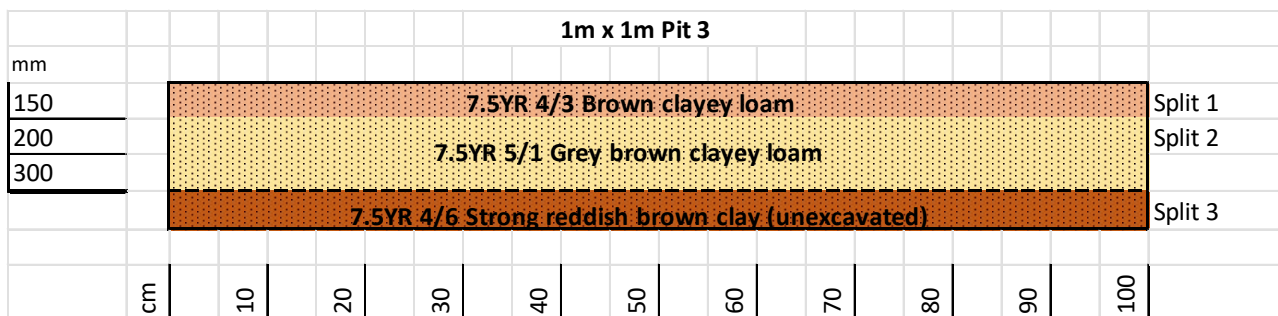


Figure 6: Cross-section of TP3.



Photo 11: 1m x 1m TP4 – Spit 3, north orientation. Staff increments are 0.3m. Photo: Damian Wall (2023)

1m x 1m Pit 4												
mm												
50	7.5YR 6/4 Light brown compacted silt										Split 1	
100	7.5YR 5/4 Brown silty clay loam										Split 2	
200	7.5YR 6/3 Light brown clay (unexcavated)										Split 3	
cm	10	20	30	40	50	60	70	80	90	100		

Figure 7: Cross-section of TP4.

8.7.2 Machine Test Pit (MTP) summary

The complex assessment saw the excavation of Fifty-six (56) machine test pits (MTPs) 1m x 2m. The STPs were dug to a sterile layer in a roughly east-west transect across the Activity area. The MTPs were excavated to between 200mm and 400mm, depending on depth of the sterile layer, which was typically clay (Table 5). Excavation beyond the clay layer was deemed unnecessary as the likelihood of encountering cultural material or evidence of human activity beyond Context 4, was highly unlikely. Four (4) MTPs (MTP 4,11,26,35) contained Aboriginal cultural material, a total of forty-seven (47) artefacts were recovered.

Table 5: Mechanical Test Pits - Excavation Summary (GDA94 MGA, Zone 55).

STP	East	North	Depth (mm)	Dimensions (m)	Soil Type (mm)	Artefacts / Notes
MTP1	418910	5900210	250	1 x 2	0-100: Brown clayey loam (7.5YR 4/2); 100-250: Grey brown mottled clay loam (7.5YR 5/2); 250+ Strong reddish brown heavy clay (7.5YR 4/6) (Unexcavated).	No.
MTP2	418894	5900110	400	1 x 2	0-150: Reddish clay loam (7.5YR 4/2); 150-400: Reddish brown clay loam (7.5YR 5/2); 400+ Strong red brown heavy clay (7.5YR 4/6) (Unexcavated).	No.
MTP3	418877	5900010	350	1 x 2	0-350: Reddish brown clayey loam (7.5YR 4/3); 350+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No.
MTP4	418943	5900050	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Artefacts between 150-200.
MTP5	418961	5900150	300	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-300: Yellow brown clay (10YR 5/6); 300+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No.
MTP6	419020	5900140	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No.
MTP7	419038	5900240	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No.
MTP8	419056	5900360	300	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-300: Yellow brown clay (10YR 5/6); 300+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No.
MTP9	418983	5900300	300	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-400: Yellow brown clay (10YR 5/6); 400+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No.
MTP10	418719	5900180	250	1 x 2	0-250: Reddish brown clayey loam (7.5YR 4/3); 250+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No.
MTP11	418754	5900030	350	1 x 2	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	Artefacts at 150mm
MTP12	418746	5900330	400	1 x 2	0-200: Reddish brown clayey loam (5YR 4/3); 200-400: Clayey red loam (5YR 4/4); 400+ Yellowish red clay (5YR 5/8) (Unexcavated).	No.
MTP13	418761	5900430	300	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-300: Grey brown clayey loam (7.5YR 5/1); 300+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No.
MTP14	418810	5900380	400	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-400: Grey brown clayey loam (7.5YR 5/1); 400+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No
MTP15	418882	5900420	300	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-300: Grey brown clayey loam (7.5YR 5/1); 300+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No

STP	East	North	Depth (mm)	Dimensions (m)	Soil Type (mm)	Artefacts / Notes
MTP16	418777	5900530	250	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-250: Yellow brown clay (10YR 5/6); 250+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	Wet.
MTP17	418872	5900600	200	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-200: Yellow brown clay (10YR 5/6); 200+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No.
MTP18	418930	5900710	300	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-300: Yellow brown clay (10YR 5/6); 300+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No.
MTP19	418842	5900760	250	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-250: Yellow brown clay (10YR 5/6); 250+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No
MTP20	419018	5900730	300	1 x 2	0-200: Reddish brown clayey loam (5YR 4/3); 200-300: Clayey red loam (5YR 4/4); 300+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP21	418897	5900520	300	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-300: Yellow brown clay (10YR 5/6); 300+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No
MTP22	418950	5900470	350	1 x 2	0-200: Reddish brown clayey loam (5YR 4/3); 200-350: Clayey red loam (5YR 4/4); 350+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP23	419100	5900630	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP24	419085	5900540	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP25	418887	5900060	250	1 x 2	0-150: Reddish clay loam (7.5YR 4/2); 150-250: Reddish brown clay loam (7.5YR 5/2); 250+ Strong red brown heavy clay (7.5YR 4/6) (Unexcavated).	No
MTP26	418953	5900100	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Artefacts at 200mm
MTP27	418902	5900160	200	1 x 2	0-100: Brown clayey loam (7.5YR 4/2); 100-200: Grey brown mottled clay loam (7.5YR 5/2); 200+ Strong reddish brown heavy clay (7.5YR 4/6) (Unexcavated).	No
MTP28	418969	5900200	250	1 x 2	0-250: Reddish brown clayey loam (7.5YR 4/3); 250+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP29	418977	5900250	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP30	419029	5900190	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No

STP	East	North	Depth (mm)	Dimensions (m)	Soil Type (mm)	Artefacts / Notes
MTP31	418750	5900220	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP32	418749	5900200	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Wet.
MTP33	418747	5900170	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP34	418745	5900150	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP35	418690	5900190	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Artefacts at 150mm
MTP36	418719	5900210	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP37	418712	5900170	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP38	418865	5899990	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Wet.
MTP39	418861	5900020	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	Wet.
MTP40	418860	5900050	200	1 x 2	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP41	418836	5900040	300	1 x 2	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP42	418802	5900330	250	1 x 2	0-250: Reddish brown clayey loam (7.5YR 4/3); 250+ Strong brown clay (7.5YR 5/6) (Unexcavated).	No
MTP43	418845	5900010	250	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-250: Grey brown clayey loam (7.5YR 5/1); 250+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No
MTP44	418754	5900390	300	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-300: Grey brown clayey loam (7.5YR 5/1); 300+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No
MTP45	418818	5900420	200	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-200: Grey brown clayey loam (7.5YR 5/1); 200+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No
MTP46	Missing	Missing	250	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100- 250: Yellow brown clay (10YR 5/6); 250+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	Wet.
MTP47	418890	5900460	200	1 x 2	0-150: Brown clayey loam (7.5YR 4/3); 150-200: Grey brown clayey loam (7.5YR 5/1); 200+ Strong reddish brown clay (7.5YR 4/6) (Unexcavated).	No

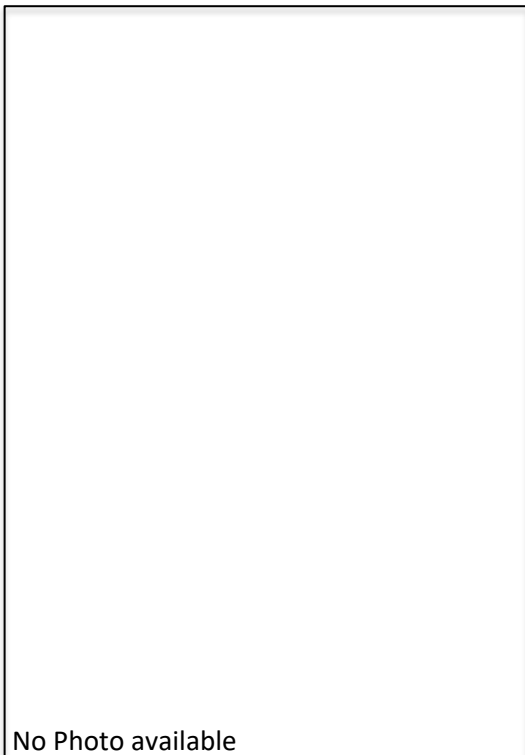
STP	East	North	Depth (mm)	Dimensions (m)	Soil Type (mm)	Artefacts / Notes
MTP48	418876	5900370	300	1 x 2	0-300: Red clayey mixed shale (2.5YR 4/6); 300+ Red clay (2.5YR 4/3) (Unexcavated).	No
MTP49	418886	5900670	200	1 x 2	0-100: Dark brown clay loam (10YR 3/4); 100-200: Yellow brown clay (10YR 5/6); 200+ Dark yellowish brown heavy clay (10YR 3/4) (Unexcavated).	No
MTP50	419041	5900590	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP51	419107	5900680	300	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-300: Clayey red loam (5YR 4/4); 300+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP52	418975	5900620	300	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-300: Clayey red loam (5YR 4/4); 300+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP53	418769	5900480	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP54	418825	5900470	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP55	419028	5900050	200	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-200: Clayey red loam (5YR 4/4); 200+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP56	419031	5899980	300	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-300: Clayey red loam (5YR 4/4); 300+ Yellowish red clay (5YR 5/8) (Unexcavated).	No
MTP57	418988	5899990	300	1 x 2	0-150: Reddish brown clayey loam (5YR 4/3); 150-300: Clayey red loam (5YR 4/4); 300+ Yellowish red clay (5YR 5/8) (Unexcavated).	No



Photo 12: 1m x 2m MTP4 – Spit 3



Photo 13: MTP11 – Spit 3.



No Photo available

Photo 14: 1m x 2m MTP26 – Spit 3



Photo 15: MTP35 – Spit 3

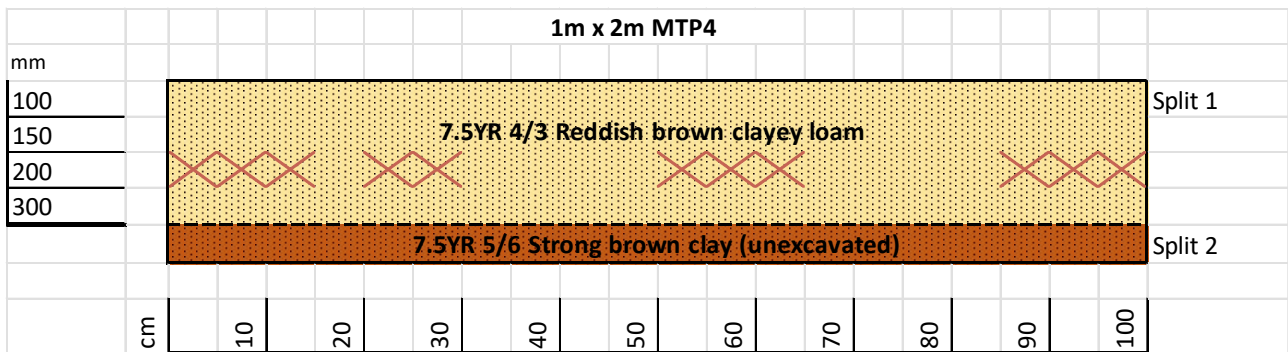


Figure 8: Cross-section of MTP4. Artefact shown as 'X'.

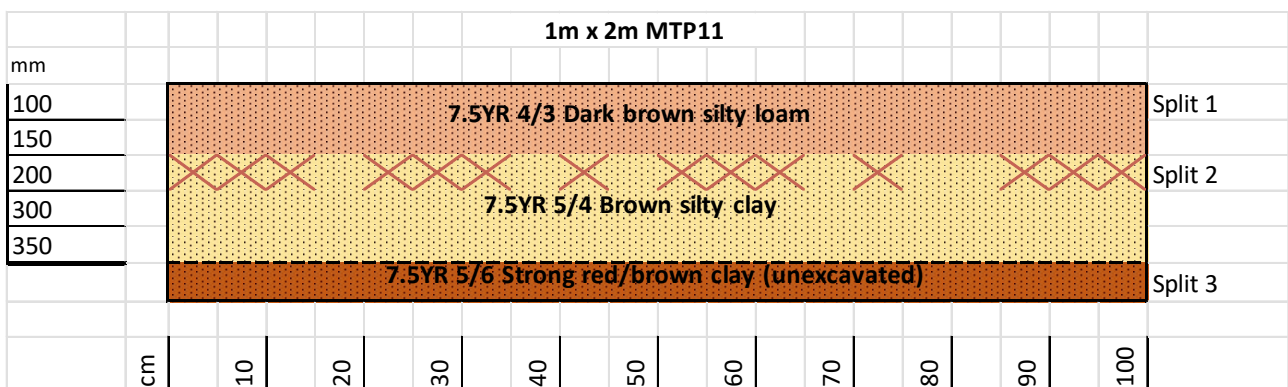


Figure 9: Cross-section of MTP11. Artefact shown as 'X'.

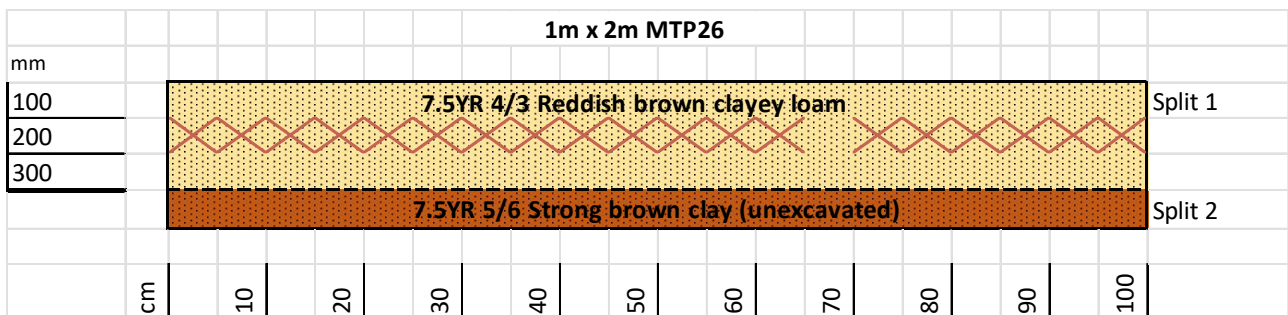


Figure 10: Cross-section of MTP26. Artefact shown as 'X'.

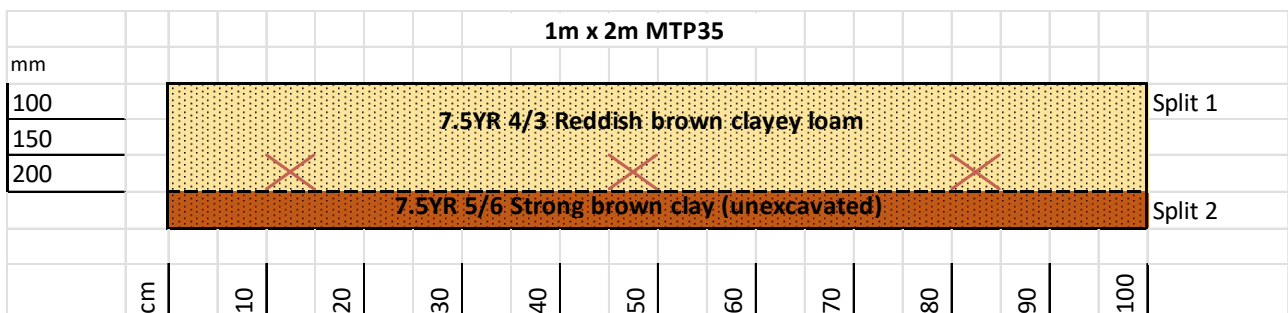


Figure 11: Cross-section of MTP35. Artefact shown as 'X'.

8.7.3 Extent Testing Summary

Extent testing saw the excavation of ninety-eight (98) 1m x 2m machine test pits radials (**Table 6**). The stratigraphy mirrored that of the respective MTP at all sites. An additional eighty-five (85) artefacts were recovered (highlighted yellow in **Table 6**). Cross sections of each positive MTP Radial can be found in **Appendix 11**.

Table 6: Extent Testing MTP Summary

Radial	Easting	Northing	Soil type	Artefacts
MTP11RADA	418755	5900042	0-150: Dark brown silty loam (7.5YR 3/4); 150-400: Brown silty clay (7.5YR 5/4); 400+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	3
MTP11RADB	418757	5900052	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	3
MTP11RADC	418758	5900062	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	5
MTP11RADD	418764	5900030	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	7
MTP11RADE	418773	5900029	0-150: Dark brown silty loam (7.5YR 3/4); 150-400: Brown silty clay (7.5YR 5/4); 400+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	1
MTP11RADF	418768	5900030	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADG	418783	5900027	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADH	418752	5900022	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	19
MTP11RADI	418778	5900028	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADJ	418750	5900012	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	4
MTP11RADK	418749	5900003	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADL	418744	5900034	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	1
MTP11RADM	418734	5900035	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADN	418739	5900034	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	3
MTP11RADO	418729	5900036	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	2
MTP11RADP	418719	5900038	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADQ	418724	5900037	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADR	418747	5900053	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	4
MTP11RADS	418737	5900055	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADT	418742	5900054	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP11RADU	418750	5900007	0-150: Dark brown silty loam (7.5YR 3/4); 150-350: Brown silty clay (7.5YR 5/4); 350+ Strong red/brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADA	418951	5900091	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	6
MTP26RADB	418955	5900110	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADC	418954	5900105	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	3
MTP26RADD	418956	5900115	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADE	418963	5900098	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	1
MTP26RADF	418972	5900096	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADG	418943	5900102	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	

Radial	Easting	Northing	Soil type	Artefacts
MTP26RADH	418948	5900101	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	2
MTP26RADI	418944	5900107	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADJ	418949	5900106	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADK	418938	5900103	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADL	418946	5900092	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADM	418947	5900096	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADN	418960	5900089	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADO	418968	5900097	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADP	418950	5900111	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADQ	418956	5900090	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADR	418959	5900104	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADS	418965	5900108	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADS	418962	5900093	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADT	418964	5900103	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADU	418941	5900093	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP26RADV	418949	5900084	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADA	418692	5900202	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADB	418691	5900197	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADC	418700	5900190	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADD	418695	5900191	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADE	418689	5900182	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADF	418690	5900187	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	2
MTP35RADG	418688	5900177	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	1
MTP35RADH	418681	5900194	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADH	418698	5900176	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADI	418686	5900193	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADI	418693	5900176	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADJ	418686	5900167	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADK	418687	5900172	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADK	418687	5900172	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADL	418700	5900185	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	1
MTP35RADM	418709	5900184	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADN	418704	5900184	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADP	418701	5900195	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	

Radial	Easting	Northing	Soil type	Artefacts
MTP35RADP	418680	5900189	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADQ	418685	5900188	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADR	418678	5900179	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP35RADS	418683	5900178	0-200: Reddish brown clayey loam (7.5YR 4/3); 200+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADA	418945	5900064	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	2
MTP4RADAA	418965	5900061	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADAB	418960	5900061	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADAC	418957	5900072	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADAD	418956	5900067	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADAD	418932	5900051	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADA E	418934	5900061	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADAF	418954	5900058	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADB	418947	5900074	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADC	418946	5900069	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	3
MTP4RADD	418948	5900079	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADF	418953	5900053	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADG	418948	5900054	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	2
MTP4RADH	418958	5900052	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADI	418940	5900045	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	1
MTP4RADJ	418938	5900035	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADK	418940	5900040	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADL	418933	5900056	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	5
MTP4RADM	418923	5900058	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADN	418928	5900057	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADO	418935	5900066	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	3
MTP4RADP	418940	5900065	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADQ	418937	5900076	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADR	418936	5900071	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADS	418925	5900068	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADT	418930	5900067	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADU	418931	5900046	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADV	418936	5900046	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADW	418950	5900043	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADX	418945	5900044	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	

Radial	Easting	Northing	Soil type	Artefacts
MTP4RADY	418947	5900049	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	
MTP4RADZ	418955	5900062	0-300: Reddish brown clayey loam (7.5YR 4/3); 300+ Strong brown clay (7.5YR 5/6) (Unexcavated).	1

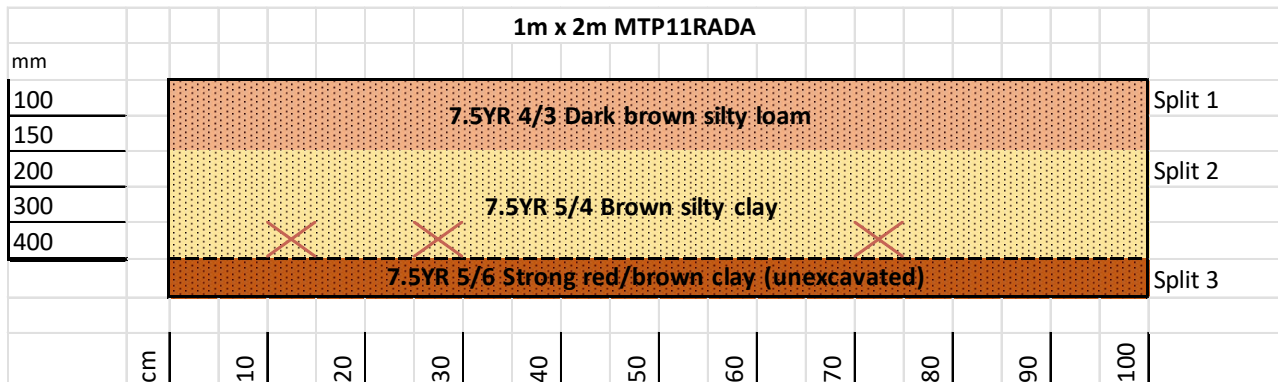


Figure 12: Example Cross-section of MTP11RADA. Artefact shown as ‘X’.

8.8 Discussion and Conclusions from the Subsurface Testing

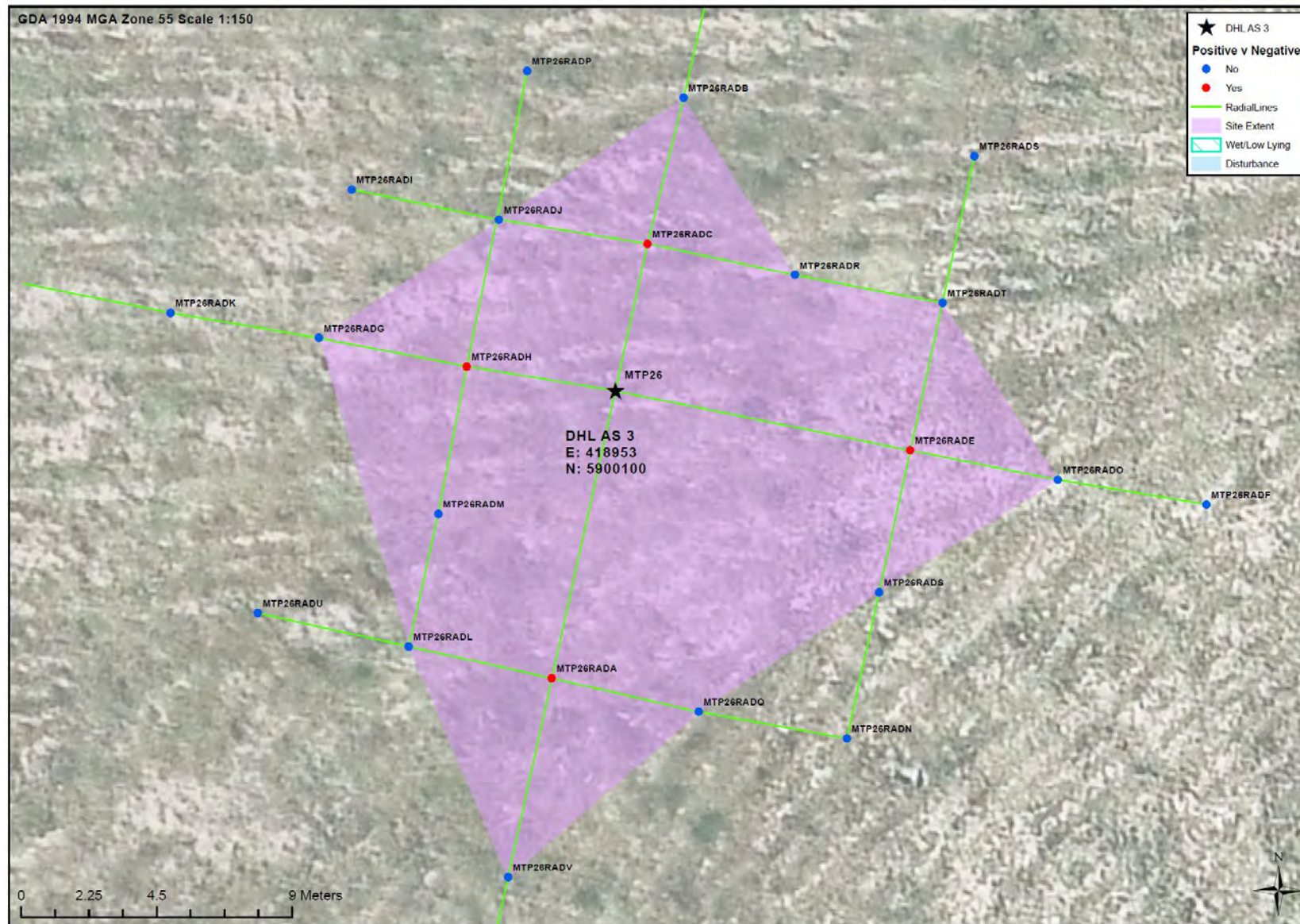
During the complex assessment a total of four (4) 1m x 1 m Test Pits (TP), fifty-six (56) 1m x 2m Mechanical Test Pits (MTPs) and ninety-eight (98) 1m x 2m Radial Mechanical Test Pits (RAD) were excavated within the Activity area. One hundred and thirty-two (132) stone artefacts were identified during the Complex Assessment. These were identified between 0-400mm deep. Artefacts were mostly located in an undisturbed context throughout the profile. However, most artefacts were identified in the lower contexts at 100 to 250 mm in depth. Four (4) new Aboriginal Places being Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-0077), were subsequently recorded (Maps 13-16).

Artefacts were mostly located in an undisturbed context throughout the profile. However, most artefacts were identified in the lower contexts at 100 to 250 mm in depth. Portions of the Activity Area were waterlogged or had been subject to disturbance and these were not included in complex excavations.

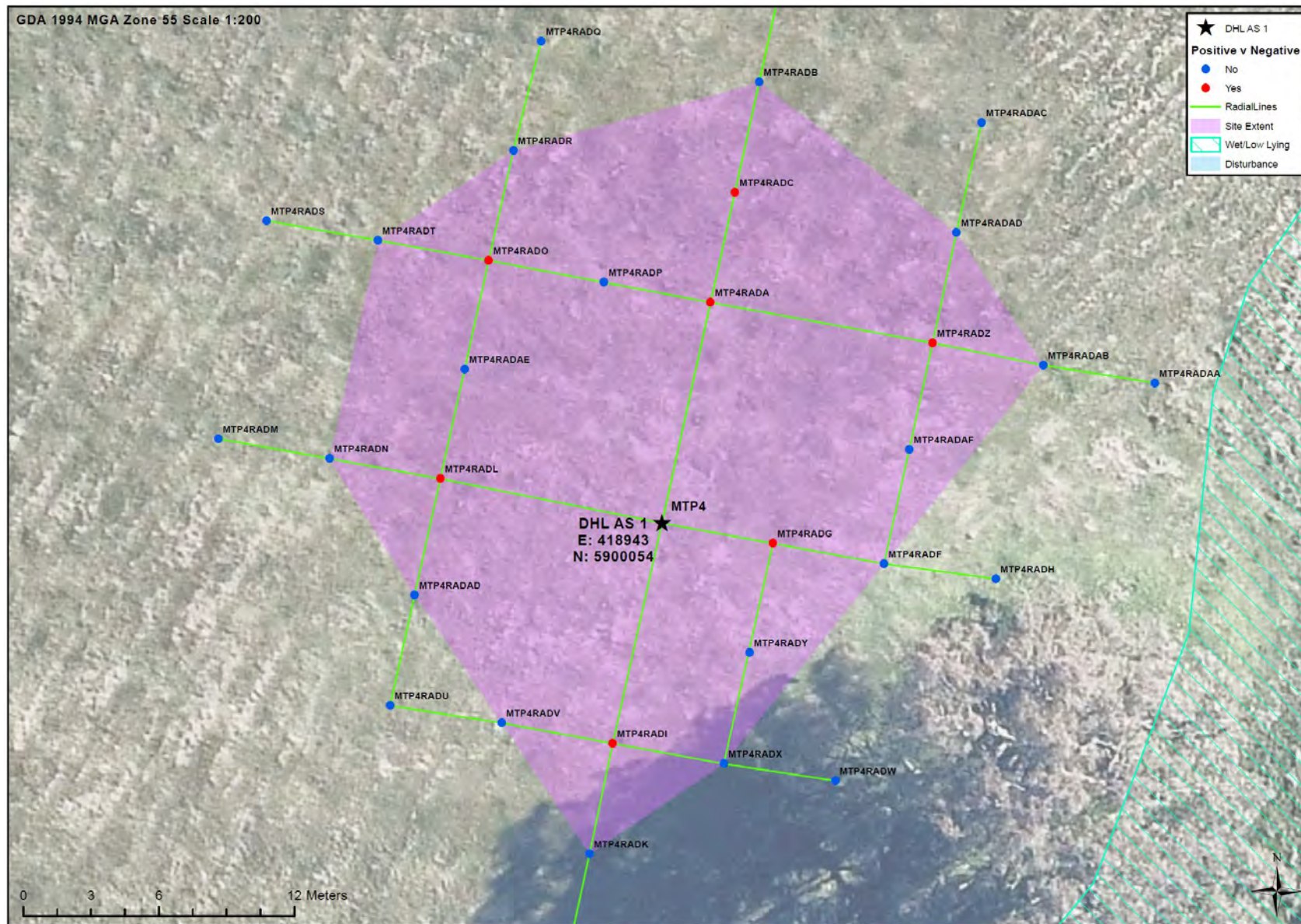
An artefact analysis and a discussion of the nature, extent and significance of the Aboriginal cultural heritage identified during this CHMP are presented in Section 9 and an artefact catalogue is presented in Appendix 10.



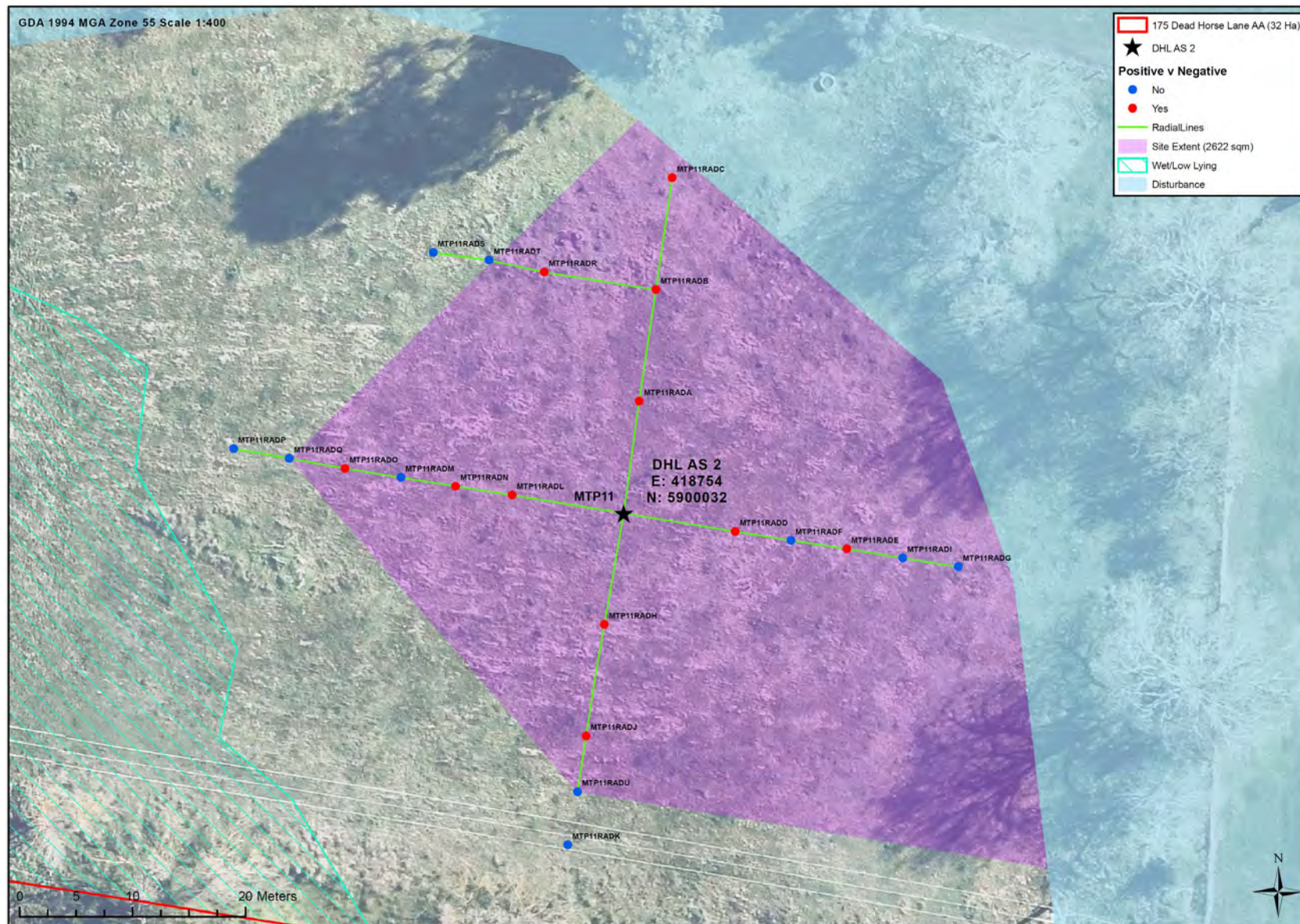
Map 12: Complex Assessment – Showing all positive pits and site extents within activity area. Aerial Imagery Source: Nearmap, 2023.



Map 13: Extent testing of MTP26. Scale: 1:150. Aerial Imagery Source: Nearmap 2023



Map 14: Extent testing of MTP4. Scale: 1:200. Aerial Imagery Source: Nearmap 2023



Map 15: Extent testing of MTP11. Scale: 1:400. Aerial Imagery Source: Nearmap 2023



Map 16: Extent testing of MTP 35. Scale: 1:200. Aerial Imagery Source: Nearmap 2023

9 Details of Aboriginal Cultural Heritage in the Activity Area

One hundred and thirty-two (132) stone artefacts were recovered during the complex assessment. A detailed catalogue of these stone artefacts is presented in **Appendix 8**. The cultural heritage in the Activity area was registered as four (4) new Aboriginal places being Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-0077) (**Map 17**). The mapped extent of all Aboriginal Places within the activity area has the following location details:

- Property Identifier/Address: 175 Dead Horse Lane Mansfield 3722 (39\PP3056)
- LGA: Mansfield Shire
- Parish: Mansfield

The following section presents information about Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) & Dead Horse Lane LDAD1 (VAHR 8123-0077), discussing the contents, extent, nature, and significance of each place.

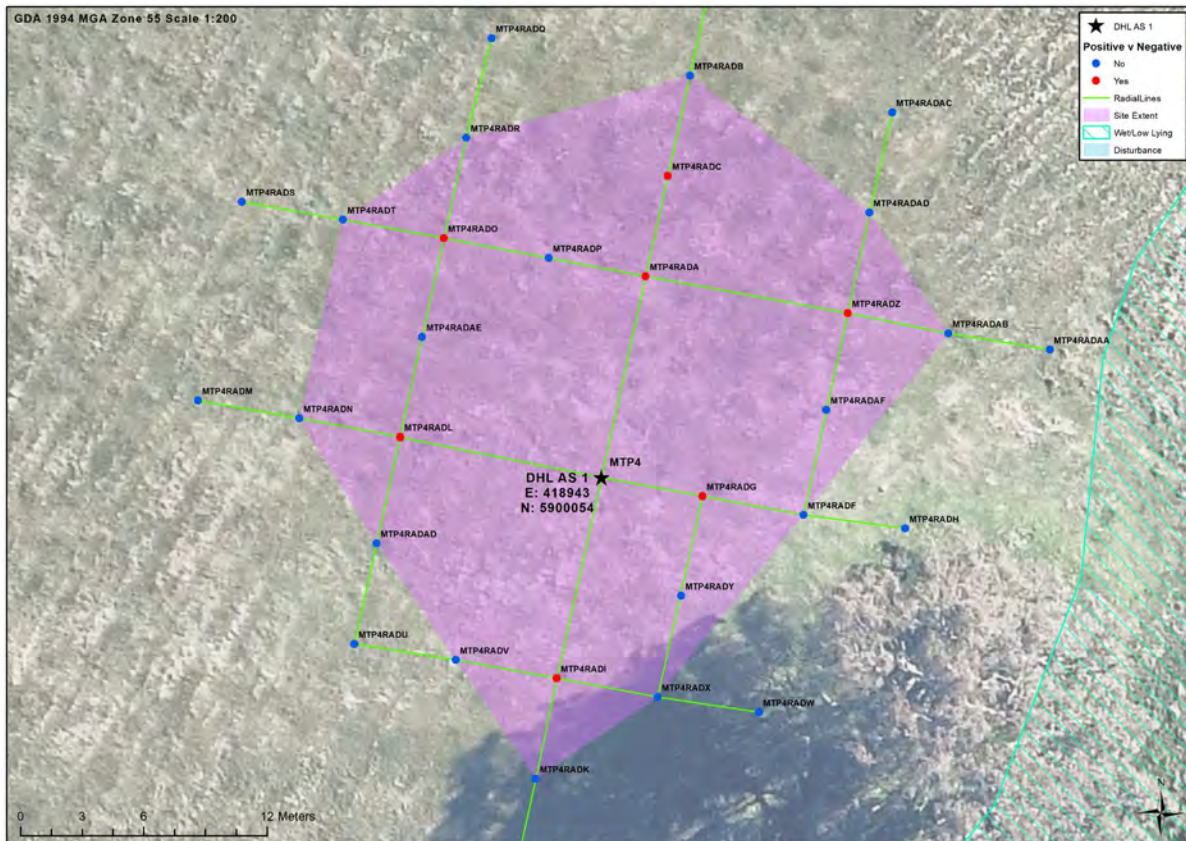


Map 17: Aboriginal Cultural Heritage in the Activity area. Scale 1:1,300. Source: NearMap, 2023.

9.1 Dead Horse Lane AS1 (VAHR 8123-0074)

9.1.1 Nature of Dead Horse Lane AS1 (VAHR 8123-0074) - Subsurface Artefact Scatter

Dead Horse Lane AS1 (VAHR 8123-0074) comprises 28 artefacts from MTPs — 4, 4RADA, 4RADC, 4RADG, 4RADI, 4RADL, 4RADO, and 4RADZ, in the southeastern portion of the activity area (**Map 18**). No (zero) artefacts were on the surface and artefacts were at a shallow depth between 0–200 mm: 14 (50%) at 150 mm depth and 14 (50%) at 200 mm depth (**Table 7**). No artefacts were found below 200 mm.



Map 18: VAHR 8123-0074 PGC and site extent.

Table 7: VAHR 8123-0074 - Distribution

Depth (mm)	Count	%
Surface	0	0
0–150	14	50
150–200	14	50
Grand Total	28	100.0

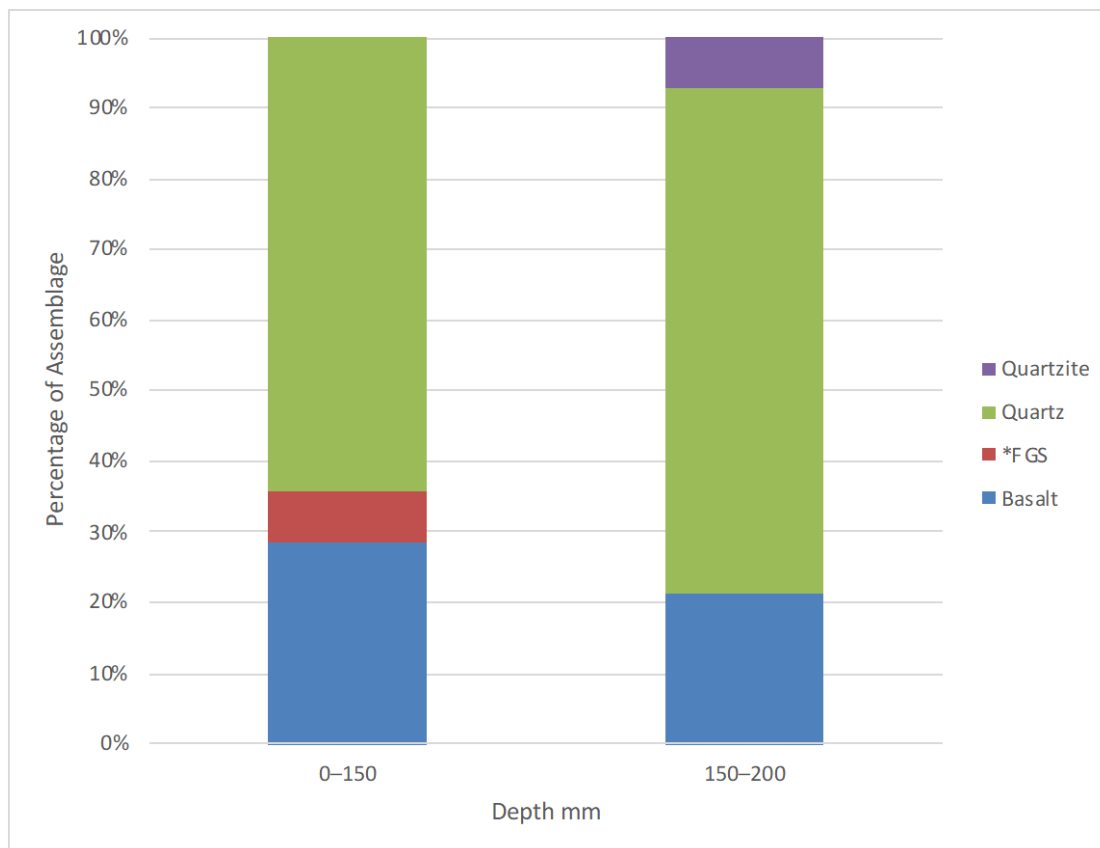
9.1.2 Raw Materials

There is little variation in the raw material diversity or range of materials in this site. Diversity closely correlates with assemblage size, so that a smaller range of materials was expected (Jones and Leonard 1989). The main raw material used was quartz (N=19, 67.9%), with smaller amounts of other materials (see Table 8 below). **Table 8** and **Figure 13** show there is little change between the two depths, with slightly less quartz in the upper layer and slightly more basalt than the lower layer. Given the small numbers of artefacts in the assemblage, the shallowness of the deposit and the method of excavation, little can be said about the change.

Table 8: VAHR 8123-0074 - Raw Materials

	Basalt	*FGS	Quartz	Quartzite	Total
0–150	4	1	9		14
150–200	3		10	1	14
Grand Total	7	1	19	1	28
%	25.0	3.6	67.9	3.6	100

*FGS= Fine-grained sedimentary

**Figure 13: Raw Materials from VAHR 8123-0074 by Depth (mm)**

9.1.3 Stage of Reduction

Information about the presence of natural or other outer surfaces (cortex) on the artefacts was recorded to determine the origin of the raw materials and stage of reduction. Of the 28 artefacts, 25 (89.3%) were in a late stage of reduction, that is, with no outer surface present. This tends to suggest that the source of materials was some distance away and artefacts were heavily reduced. Three artefacts had an outer surface, all with a pebble cortex, meaning that they had been sourced from river gravels.

9.1.4 Assemblage Composition

The assemblage from site VAHR 8123-0074 comprised 28 pieces; mainly flakes (N=21, 75%), flaked pieces (N=4, 14.3%), two cores (7.1%) and one retouched flake (3.6%) (Table 9). No other manufacture types were present (i.e. grindstones, hammerstones, ground axes etc.). The presence of the two cores suggests some artefact manufacturing may have been undertaken at this location. Both cores had no outer surface present indicating that they had already had all their outer surface removed, possibly on site, though the lack of much manufacturing debris (flaked pieces) suggests otherwise.

Table 9: VAHR 8123-0074 – Assemblage Composition

Manufacture Type	No.	%
Core	2	7.1
Flake	21	75.0
Flaked Piece	4	14.3
Retouched Flake	1	3.6
Grand Total	28	100.0

9.1.5 Flakes³⁰

Table 10 shows the breakage found in the 22 flakes (including the retouched flake). Most of the flakes (N=16, 72.7%) were whole and six (27.3%) were broken. The longitudinal split flakes (N=2, 9%) were most likely due to manufacturing errors, while the transverse split flakes (N=4, 18.2%) are more likely to be due to post discard trampling.

Table 10: VAHR 8123-0074 - Flake Breakage

Breakage	No.	%
Complete	16	72.7
Distal	2	9.1
Medial	1	4.5
Proximal	1	4.5
Longitudinal Split Left	1	4.5
Longitudinal Split Right	1	4.5
Grand Total	22	100.0

The average orientated length of complete flakes was small 17.4 mm (S.D. 6.3 mm) so that most complete flakes produced were small and within a narrow size range. Flakes of this size were most likely to be produced as part of the Australian Small Tool Tradition (ASTT); possibly dating to the last 4500 years ('the sudden appearance model') (Hiscock and Attenbrow 1998: 49). However, Hiscock and Attenbrow (1998) present a convincing argument that backed blades and microliths were likely to have been introduced into Australia before this time (potentially in fewer numbers), probably during the early Holocene (11.7–8.2 kya) (Cohen et al.: 2013: 199–204). Prior to that time flakes were generally larger and made on coarser materials, although size in this instance cannot be considered definitive of time period.

Typically, the production of blades, small flakes which are twice as long as they are wide, is economical of good quality stone as it maximises the cutting edge. The length to width flake index (L/W) was calculated for all complete flakes, with four (18.2%) of the 22 flakes (including the retouched flake) having blade-like characteristics. This suggests that there was little effort to make blades and to conserve materials by making blades.

³⁰ See glossary for definitions of all terms used in this analysis

9.1.6 Cores

Two (2) cores were found in this assemblage. No outer surface was present on either core. Both cores were made on quartz. One core had a single platform and had not been rotated before discard, while the second was multidirectional and had been rotated twice. None of the cores had many flake scars (between 3–4) and scars were moderate in size and in a similar size range to the complete flakes (between 13.19 mm and 19.78 mm). Both cores were small 24–29 mm. This suggests that the cores were all likely to have been used elsewhere and discarded when it became difficult to obtain more sharp flakes from them. The flake to core ratio, 1:11, is very low suggesting that in fact there was little or no manufacturing going on at this site.

9.1.7 Flaked Pieces

These are generally the by-products of the stone tool making process. Generally, stone tool manufacture will generate a large amount of debris depending on the raw materials. Quartz reduction tends to produce the most shatter and therefore the most pieces identified as flaked pieces. In **Table 11** below, the range of materials reflects the materials found on site. There are very few flaked pieces, again suggesting little manufacturing on site.

Table 11: VAHR 8123-0074 – Raw Material Composition of the Flaked Pieces

Raw Material	No.	%
Basalt	1	25
FGS	1	25
Quartz	2	50
Grand Total	4	100.0

9.1.8 Retouched Flakes

There was one retouched (worked) artefact found in the excavation of this site: a small, basalt, convex scraper (**Photo 17 & 18**). No retouched artefacts that are classic components of the ASTT were found, so that the artefact assemblage could not be assigned to any time period.



Photo 17: Dead Horse Lane AS 1, MTP4RADL @150mm, retouched artefact, #DHL3-61, dorsal surface, fine-grained basalt, convex scraper, retouch on lower edge (27May23_JF)



Photo 18: Dead Horse Lane AS 1, MTP4RADL @150mm, retouched artefact, #DHL3-61, ventral surface, convex scraper (27May23_JF).



Photo 19: Dead Horse Lane AS 1, MTP4 @150–200 mm, artefacts, conjoin on left (23Jul22_JF).

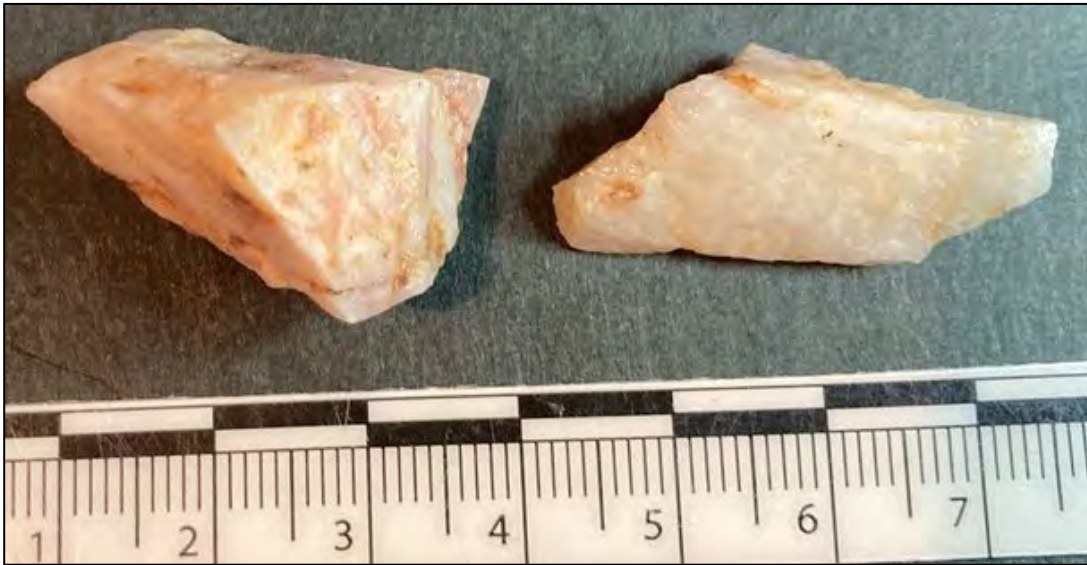


Photo 20: Dead Horse Lane AS 1, MTP4 @0-150 mm, artefacts (23Jul22_JF).

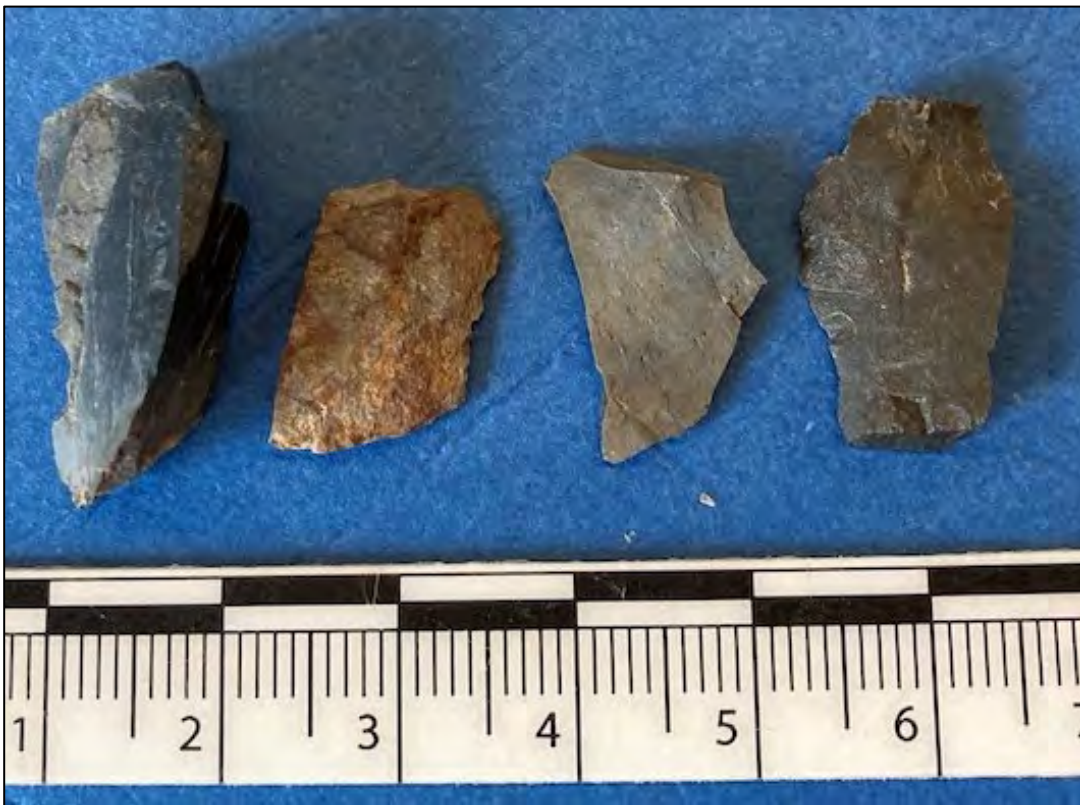
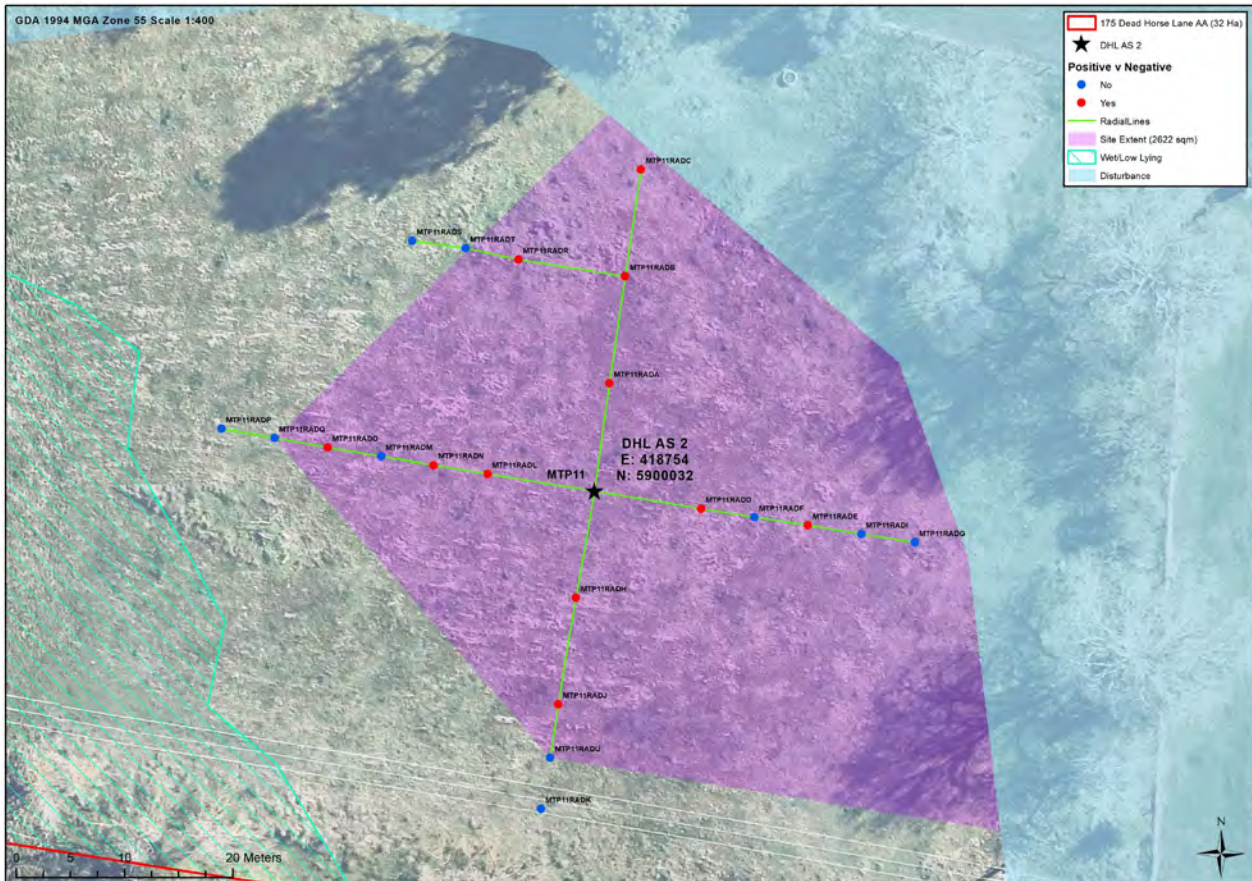


Photo 21: Dead Horse Lane AS 1, MTP4RADL @0-150 mm, artefacts (27May23_JF).

9.2 Dead Horse Lane AS2 (VAHR 8123-0075)

9.2.1 Nature of Dead Horse Lane AS1 (VAHR 8123-0075) - Subsurface Artefact Scatter

Dead Horse Lane AS2 (VAHR 8123-0075) comprises 66 artefacts from MTPs — 11, 11RADA, 11RADB, 11RADC, 11RADD, 11RADE, 11RADH, 11RADJ, 11RADL, 11RADN, 11RADO, and 11RADR, in the southwest portion of the activity area (**Map 19**). No artefacts were on the surface or in the top layer (0-150 mm). Most artefacts were in the layers 150–300 mm (N=46, 69.7%) (**Table 12**). No artefacts were found below 400 mm.



Map 19: VAHR 8123-0075 PGC & Site Extent.

Table 12: VAHR 8123-0075 - Distribution

Depth (mm)	Count	%
Surface	0	0
0–150	0	0
150–200	19	28.8
200–250	12	18.2
250–300	15	22.7
300–350	9	13.6
350–400	11	16.7
Grand Total	66	100.0

9.2.2 Raw Materials

There is more variation in the raw material diversity or range of materials in this site than the previous site VAHR 8123-0074. As noted above diversity closely correlates with assemblage size, so that a larger range of materials was expected in this site. The main raw material used was quartz (N=35, 53.0%), with smaller amounts of other materials (see Table 13 below). **Table 13** and **Figure 14** show there is some gradual change from the deeper layers to the upper layers, with a gradual replacement of the basalt by quartz so that by the upper layers, the rarer, more silicious and fine-grained materials are virtually replaced by the widely available and coarser quartz.

Table 13: VAHR 8123-0075 - Raw Materials

	Basalt	*CGV	Hornfels	Quartz	Quartzite	Silcrete	Total
150–200	1	1	3	14			19
200–250	2			8	1	1	12
250–300	5	2		7		1	15
300–350	5	1		2	1		9
350–400	7			4			11
Grand Total	20	4	3	35	2	2	66
%	30.3	6.1	4.5	53.0	3.0	3.0	100.0

*CGV= Coarse-grained volcanic

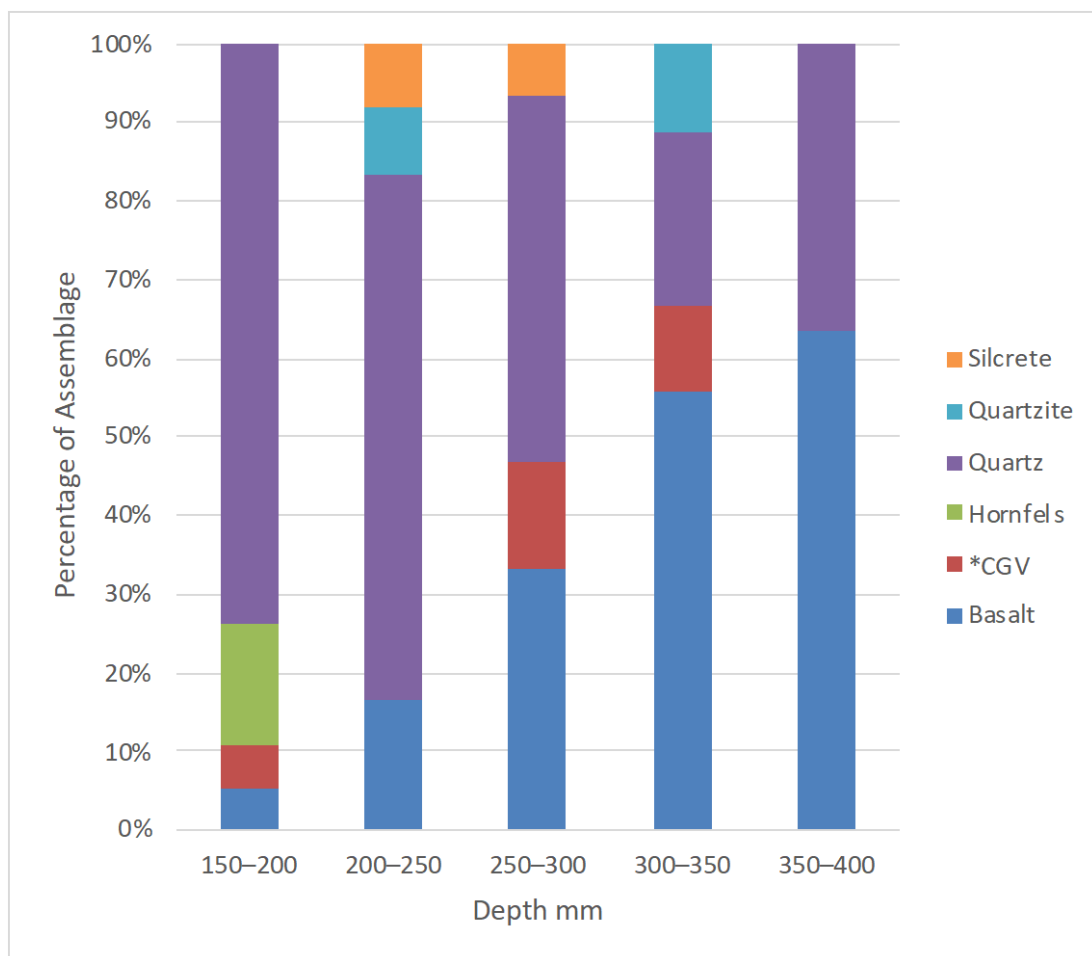


Figure 14: Raw Materials from VAHR 8123-0075 by Depth

9.2.3 Stage of Reduction

Of the 66 artefacts, 53 (80.3%) were in a late stage of reduction. Three (4.5%) had some cortex remaining, while 10 (15.2%) had a large area and were in an early stage of reduction. Therefore, most artefacts were heavily reduced suggesting that the source of materials was some distance away. All artefacts with cortex on their outer surfaces had a pebble cortex and were sourced from river gravels.

9.2.4 Assemblage Composition

The assemblage from site VAHR 8123-0075 comprised 66 pieces; mainly flakes (N=46, 69.7%), flaked pieces (N=16, 24.2%), two cores (3%) and two retouched flakes (3%) (**Table 14**). No other manufacture types were present (i.e. grindstones, hammerstones, ground axes etc.). The presence of only two cores suggests little artefact manufacturing may have been undertaken at this location.

Table 14: VAHR 8123-0075 – Assemblage Composition

Manufacture Type	No.	%
Core	2	3.0
Flake	46	69.7
Flaked Piece	16	24.2
Retouched Flake	2	3.0
Grand Total	66	100.0

9.2.5 Flakes

Table 15 shows the breakage found in the 48 flakes (including the retouched flakes). Most of the flakes (N=33, 68.8%) were whole and 15 (31.3%) were broken. The longitudinal split flakes (N=6, 12.5%) were most likely due to manufacturing errors, while the transverse split flakes (N=9, 18.8%) are more likely to be due to post discard trampling.

Table 15: VAHR 8123-0075 - Flake Breakage

Breakage	No.	%
Complete	33	68.8
Distal	2	4.2
Medial	1	2.1
Proximal	6	12.5
Longitudinal Split Left	3	6.3
Longitudinal Split Right	3	6.3
Grand Total	48	100.0

The average orientated length of complete flakes was small, 19.1 mm (SD. 11.5 mm) so that most complete flakes produced were small and within a moderate size range. Flakes of this size were most likely to be produced as part of the Australian Small Tool Tradition (ASTT) as discussed above. The length to width flake index (L/W) was calculated for all complete flakes, with seven (21.2%) of the 22 flakes (including the retouched flake) having blade-like characteristics. This suggests that there was some effort to make blades and to conserve materials by making blades.

9.2.6 Cores

Two (2) cores were found in this assemblage. One core was in a primary (early) stage of reduction, while the other was in a late stage, with no outer surface present. Both cores were made on basalt. One core had a single platform and had not been rotated before discard, while the second was multidirectional and had been rotated twice. Neither of the cores had many flake scars (between 1–3) and scars were small in size and much smaller than the complete flakes present in the site (between 9.17 mm and 10.62 mm). Both cores were small 32–38 mm (**Photo 25**).

This suggests that both cores, the one in the early stage of reduction and the one in late stage of reduction were only having small flakes detached and there was an effort made to conserve materials. The basalt was a fine-grained and hardy material so the use of these cores in this way suggests the material may have been valued. The flake to core ratio, 1:16.5, is quite low suggesting that in fact there was little or no manufacturing going on at this site.

9.2.7 Flaked Pieces

These are generally the by-products of the stone tool making process. Generally, stone tool manufacture will generate a large amount of debris depending on the raw materials. Quartz reduction tends to produce the most shatter and therefore the most pieces identified as flaked pieces. In **Table 16** below, the range of materials reflects the range of materials found on site. Most (N=8, 50%) are made on quartz.

Table 16: VAHR 8123-0075 - Raw Material Composition of the Flaked Pieces

Raw Material	No.	%
Basalt	5	31.3
CGV	2	12.5
Quartz	8	50.0
Quartzite	1	6.3
Grand Total	16	100

9.2.8 Retouched Flakes

There were two retouched (worked) artefacts found in the excavation of this site; One (1) coarse-grained volcanic amorphous scraper (**Photo 22 & 23**) and one (1) quartz convex scraper (**Photo 23**). No (zero) retouched artefacts that are classic components of the ASTT were found, so that the artefact assemblage could not be assigned to any time period.



Photo 22: Dead Horse Lane AS 2, MTP11RADB @300mm, retouched artefact, #DHL3-33, dorsal surface, amorphous scraper, retouch around edge (27May23_JF)



Photo 23: Dead Horse Lane AS 2, MTP11RADB @300mm, retouched artefact, #DHL3-33, ventral surface, amorphous scraper, retouch around edge (27May23_JF)



Photo 24: Dead Horse Lane AS 2, MTP11RADO @200mm, retouched artefact, #DHL3-11, dorsal surface, convex scraper, retouch around edge (27May23_JF)



Photo 25: Dead Horse Lane AS 2, MTP11RADO @200mm, retouched artefact, #DHL3-11, ventral surface, amorphous scraper, retouch around edge (27May23_JF)



Photo 26: Dead Horse Lane AS 2, MTP11RADB @300mm_all artefacts, basalt core on left (27May23_JF)



Photo 27: Dead Horse Lane AS 2, MTP11RADC @350mm_all artefacts (27May23_JF)



Photo 28: Dead Horse Lane AS 2, MTP11RADD @300mm_all artefacts (27May23_JF)



Photo 29: Dead Horse Lane AS 2, MTP11RADH @400mm_all artefacts (27May23_JF)



Photo 30: Dead Horse Lane AS 2, MTP11RADJ @300mm_all artefacts (27May23_JF)

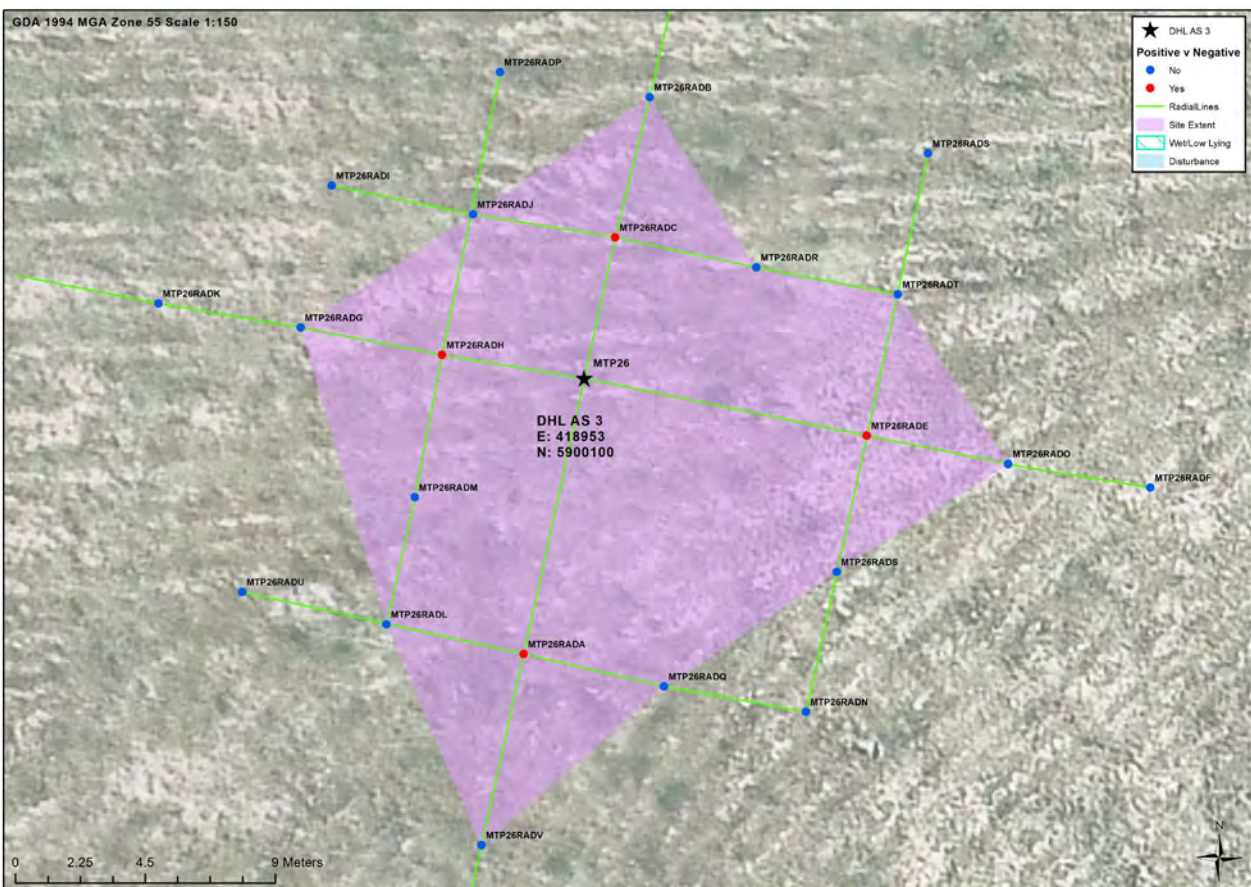


Photo 31: Dead Horse Lane AS 2, MTP11RADO @200mm_all artefacts (27May23_JF)

9.3 Dead Horse Lane AS3 (VAHR 8123-0076)

9.3.1 Nature of Dead Horse Lane AS3 (VAHR 8123-0076) - Subsurface Artefact Scatter

Dead Horse Lane AS3 (VAHR 8123-0076) comprises 31 artefacts from MTPs — 26, 26RADA, 26RADC, 26RADE, 26RADH in the eastern portion of the activity area (**Map 20**). No artefacts were on the surface and artefacts were at a shallow depth between 0–250 mm, with six (19.4%) at 100 mm depth, 23 (74.2%) at 200 mm and two (6.5%) at 250 mm (**Table 17**). No artefacts were found below 250 mm.



Map 20: Dead Horse Lane AS3 (VAHR 8123-0076) - PGC & Site Extent.

Table 17: VAHR 8123-0076 – Artefact Distribution

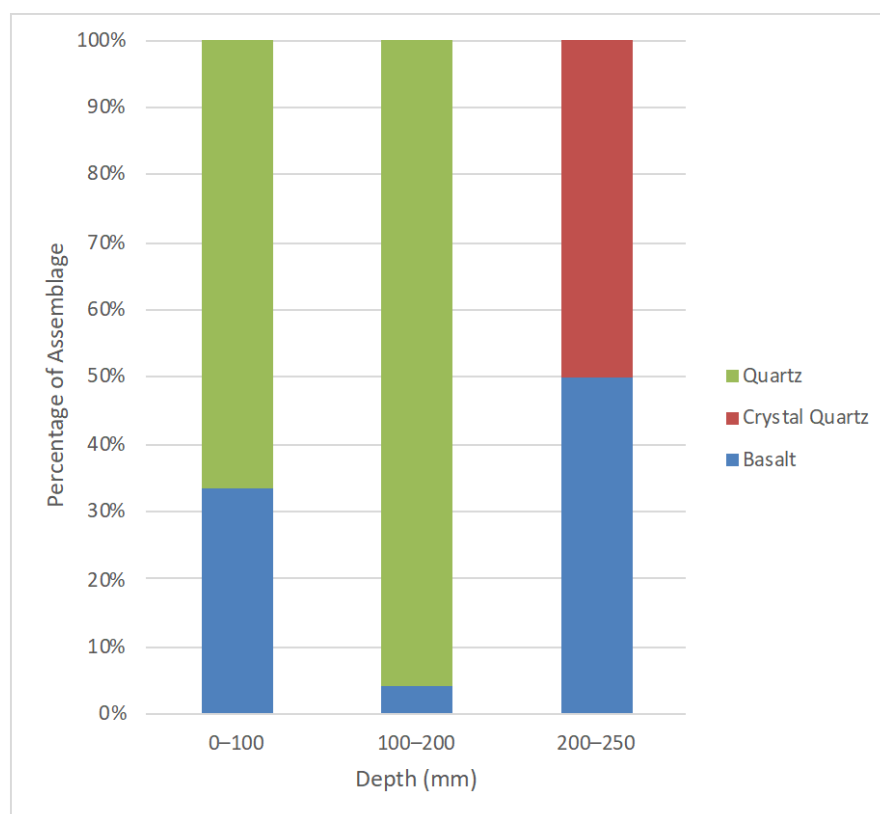
Layer/Depth	Count	%
Surface	0	0
0–100	6	19.4
100–200	23	74.2
200–250	2	6.5
Grand Total	31	100

9.3.2 Raw Materials

There is little variation in the raw material diversity or range of materials in this site correlating with the small assemblage size. The main raw material used was quartz (N=26, 83.9%), with smaller amounts of other materials (see Table 18 below). **Table 18** and **Figure 15** show there is little change between the three depths with slightly less basalt in the upper layer than in the lower layer. Given the small numbers of artefacts in the assemblage, the shallowness of the deposit and the method of excavation, little can be said about the change.

Table 18: VAHR 8123-0076 - Raw Materials

	Basalt	Crystal Quartz	Quartz	Total
0–100	2		4	6
100–200	1		22	23
200–250	1	1		2
Grand Total	4	1	26	31
%	12.9	3.2	83.9	100

**Figure 15: Raw materials from VAHR 8123-0076 by depth**

9.3.3 Stage of Reduction

Of the 31 artefacts, 28 (90.3%) were in a late stage of reduction, that is, with no outer surface present. As above, this tends to suggest that the source of materials was some distance away and artefacts were heavily reduced. Three (3) artefacts had an outer surface, all with a pebble cortex, meaning that they had been sourced from river gravels.

9.3.4 Assemblage Composition

The assemblage from VAHR 8123-0076 comprised 31 pieces; mainly flakes (N=19, 61.3%), flaked pieces (N=10, 32.3%), one core (73.2%) and one retouched flake (3.2%) (**Table 19**). No other manufacture types were present (i.e. grindstones, hammerstones, ground axes etc.). The presence of only one core suggests little artefact manufacturing had been undertaken at this location. The core had no outer surface present indicating that it had already been well used.

Table 19: VAHR 8123-0076 – Assemblage Composition

Manufacture Type	No.	%
Core	1	3.2
Flake	19	61.3
Flaked Piece	10	32.3
Retouched Flake	1	3.2
Grand Total	31	100.0

9.3.5 Flakes

Table 20 shows the breakage found in the 20 flakes (including the retouched flake). Most of the flakes (N=16, 80%) were whole and four (20%) were broken. The longitudinal split flakes (N=2, 10%) were most likely due to manufacturing errors, while the transverse split flakes (N=2, 10%) are more likely to be due to post discard trampling.

Table 20: VAHR 8123-0076 - Flake Breakage

Breakage	No.	%
Complete	16	80.0
Proximal	2	10.0
Longitudinal Split Left	1	5.0
Longitudinal Split Right	1	5.0
Grand Total	20	100.0

The average orientated length of complete flakes was small 17.2 mm (SD. 6.4 mm) so that most complete flakes produced were small and within a very narrow size range. The length to width flake index (L/W) was calculated for all complete flakes, with five (31.3%) of the 16 complete flakes (including the retouched flake) having blade-like characteristics. This suggests that there was little effort to make blades and to conserve materials by making blades.

9.3.6 Cores

One core was found in this assemblage. No outer surface was present the core. The core was made on quartz with a single platform and had not been rotated before discard. The core was small (maximum dimension 23.58 mm) and had two scars, the longest being quite small, 15.42 mm. This suggests that the core was likely discarded when it was no longer useful and had become difficult to obtain more sharp flakes from. The flake to core ratio, 1:20, is very low suggesting that in fact there was little or no manufacturing going on at this site.

9.3.7 Flaked Pieces

These are generally the by-products of the stone tool making process. In **Table 21** below, the range of materials of the flakes pieces reflects the materials found on site. There are 10 flaked pieces suggesting there may have been some core reduction in this site.

Table 21: VAHR 8123-0076 - Raw Material Composition of the Flaked Pieces

Raw Material	No.	%
Basalt	2	20
Crystal Quartz	1	10
Quartz	7	70
Grand Total	10	100.0

9.3.8 Retouched Flakes

There was one artefact found in the excavation of this site: a small, quartz, side scraper (**Photo 32 & 33**). No (zero) retouched artefacts that are classic components of the ASTT were found, so that the artefact assemblage could not be assigned to any time period.



Photo 32: Dead Horse Lane AS 3, MTP26RADA @100mm, retouched artefact, #DHL3-57, dorsal surface, side scraper, retouch on right edge (27May23_JF)



Photo 33: Dead Horse Lane AS 3, MTP26RADA @100mm, retouched artefact, #DHL3-57, ventral surface, side scraper, retouch on left edge (27May23_JF)



Photo 34: Dead Horse Lane AS 3, MTP26RADA @100 mm, all artefacts, showing both fine-grained and coarse-grained basalt artefacts (27May23_JF)

9.4 Dead Horse Lane LDAD1 (VAHR 8123-0077)

9.4.1 Nature of Dead Horse Lane LDAD1 (VAHR 8123-0077) – Low Density Artefact Distribution

VAHR 8123-0077 comprises seven artefacts from MTPs — 35, 35RADF, 35RADG, 35RADL, in the northwestern portion of the activity area (**Map 21**). No artefacts were on the surface and artefacts were at a shallow depth between 0–200 mm, with four (57.1%) at 150 mm depth and three (42.9%) at 200 mm depth (**Table 22**). No artefacts were found below 200 mm.



Map 21: VAHR 8123-0077 PGC.

Table 22: VAHR 8123-0077 – Artefact Distribution

Layer/Depth	Count	%
Surface	0	0
0–150	4	57.1
150–200	3	42.9
Grand Total	7	100.0

9.4.2 Raw Materials

There is little variation in the raw material diversity or range of materials in this site. The main raw material used was quartz (N=4, 71.4%), with a smaller amount of basalt (see Table 23 below). Table 23 and Figure 16 show there was some change between the two depths with no basalt in the lower layer and a small amount in the upper layer. Given the small numbers of artefacts in the assemblage, the shallowness of the deposit and the method of excavation, little can be said about the change.

Table 23: VAHR 8123-0077 - Raw Materials

	Basalt	Quartz	Total
0–150	2	2	4
150–200		3	3
Grand Total	2	5	7
%	28.6	71.4	100.0

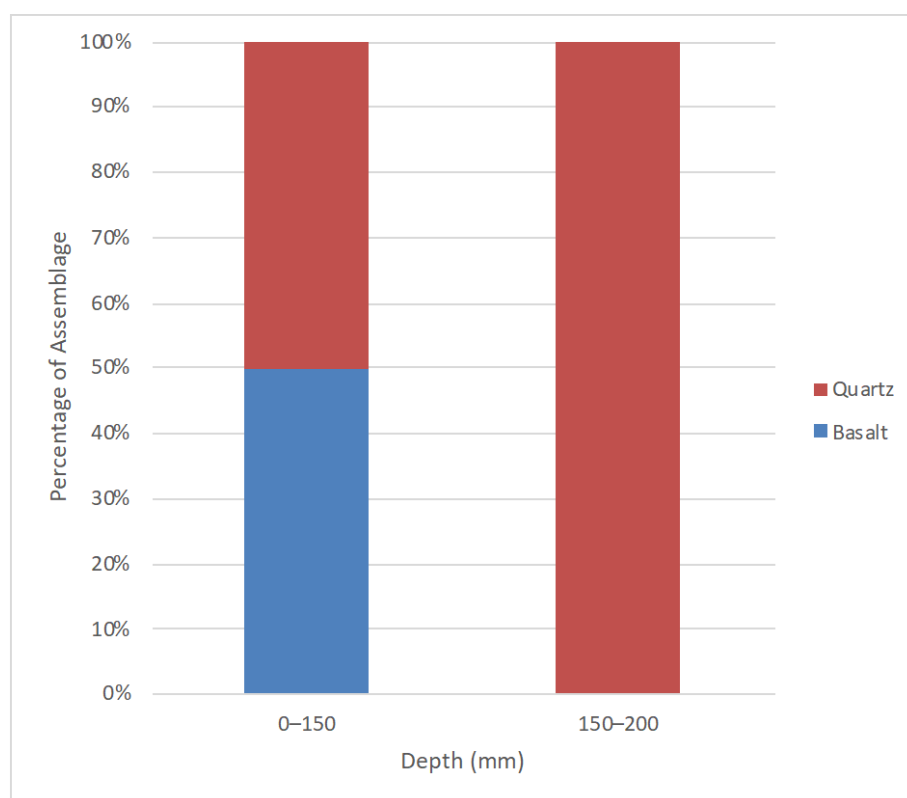


Figure 16: Raw Materials from VAHR 8123-0077 by depth

9.4.3 Stage of Reduction

Information about the presence of natural or other outer surfaces (cortex) on the artefacts was recorded to determine the origin of the raw materials and stage of reduction. Of the seven artefacts, six (85.7%) were in a late stage of reduction, that is, with no outer surface present. This tends to suggest (as in the other three sites discussed above) that the source of materials was some distance away and artefacts were heavily reduced. One artefact had a small amount of outer surface present, a pebble cortex, meaning that it had been sourced from river gravels.

9.4.4 Assemblage Composition

The assemblage from VAHR 8123-0077 comprised seven pieces; mainly flakes (N=5, 71.4%), flaked pieces (N=1, 14.3%), and one retouched flake (14.3%) (Table 24). No other manufacture types were present (i.e. grindstones, hammerstones, ground axes etc.). No (zero) cores were present.

Table 24: VAHR 8123-0077 – Assemblage Composition

Manufacture Type	No.	%
Flake	5	71.4
Flaked Piece	1	14.3
Retouched Flake	1	14.3
Grand Total	7	100.0

9.4.5 Flakes

Table 25 shows the breakage found in the six flakes (including the retouched flake). Most of the flakes (N=5, 83.3%) were whole and one (16.7%) was broken. A transverse split flake (distal end) (N=1, 16.7%) is more likely to be due to post discard trampling.

Table 25: VAHR 8123-0077 - Flake Breakage

Breakage	No.	%
Complete	5	83.3
Distal	1	16.7
Grand Total	6	100.0

The average orientated length of complete flakes was small 15.7 mm (SD. 7.7 mm) so that most complete flakes produced were small and within a very narrow size range. The length to width flake index (L/W) was calculated for all complete flakes, with no flakes (including the retouched flake) having an elongation index of more than 2. While the assemblage in this site is small, it suggests that there was little effort to make blades and to conserve materials by making blades.

9.4.6 Cores

No (zero) cores were found in this assemblage.

9.4.7 Flaked Pieces

Only one (1) basalt flaked piece was found in this site. The assemblage is too small to assess the significance of this component of the assemblage.

9.4.8 Retouched Flakes

There was one retouched (worked) artefact found in the excavation of this site: a small, quartz, amorphous scraper (**Photo 35 & 36**). No (zero) retouched artefacts that are classic components of the ASTT were found, so that the artefact assemblage could not be assigned to any time period.



Photo 35: Dead Horse Lane LDAD 1, MTP35RADF @150mm, retouched artefact, #DHL3-1, dorsal surface, amorphous scraper, retouch on sides & lower edge (27May23_JF)

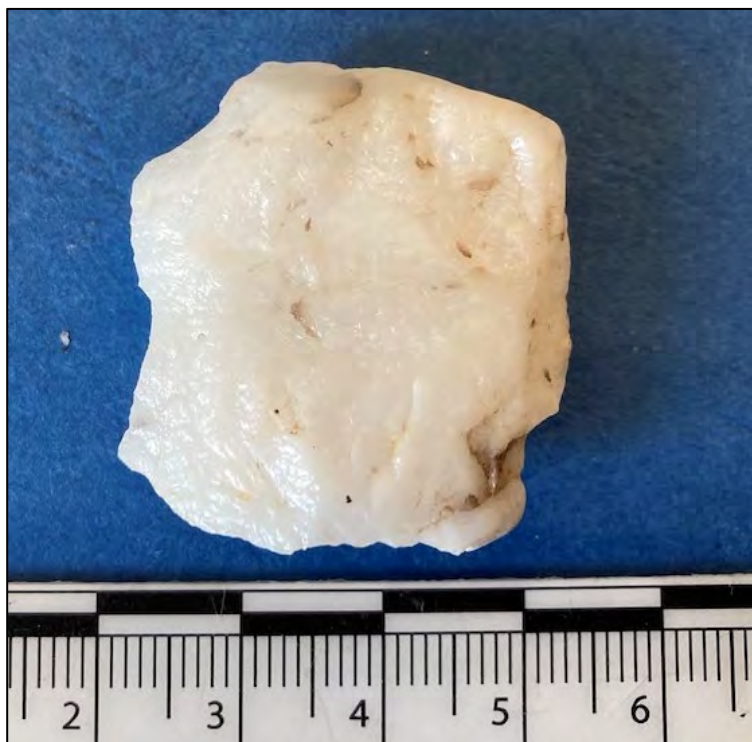


Photo 36: Dead Horse Lane LDAD 1, MTP35RADF @150mm, retouched artefact, #DHL3-1, ventral surface, amorphous scraper, on sides & lower edge (27May23_JF)



Photo 37: Dead Horse Lane LDAD 1, MTP35RADL @0-150 mm, artefacts, both basalt (27May23_JF)

9.5 Residue Analysis and Usewear Analysis

9.5.1 Introduction

Micro-residue analysis is an important step in identifying what artefact types and classes of artefacts may have been used for. Where the same artefacts consistently have the same residues, we can start to understand which artefacts were used for the same purposes (Fullagar and Jones 2004; Langejans and Lombard 2012). An important component of targeting artefacts for analysis is understanding the likely circumstances where residues can be preserved. Some circumstances are detrimental to the preservation of surface residues on stone tools. Langejans and Lombard (2012: 5) note, the same circumstances that lead to the deterioration of macro-remains lead to the deterioration of micro-remains.

Therefore, they summarise poor preservation conditions as:

- Open air sites.
- Bone will not preserve in acidic soils.
- Muscle, tissue and starch preserve less well than other residues.
- Presence of bacteria and fungi, crystal growth and leaching, and erosion.
- UV light (Langejans and Lombard 2012: 5).
- Ph less than 6.5 or more than 7.5.

Good preservation conditions are found in the following circumstances:

- Dry, stable, *in-situ* deposits (caves and rock shelters).
- Water-logged, boggy anaerobic sediments. Muscle tissue will preserve well in acidic wet (boggy) soils.
- Presence of heavy metals (Langejans and Lombard 2012: 5).

Circumstances at excavation and following excavation also affect the likelihood of preservation. Consideration should be given to the care in excavation, handling, transport and storage (Langejans and Lombard 2012: 5). Due to the difficulties and expense of detailed analysis. Scanning under low powered microscopy is a recommended method for identifying whether artefacts have residues and whether they should proceed to more detailed analysis. The analysis described below therefore presents the results of a preliminary scan for the presence of residues.

9.5.2 Methodology

Prior to examination a history was obtained of the curation of the artefacts since excavation. In this analysis artefacts were handled with starch free gloves. A routine systematic examination of each artefact was made during the initial recording and any artefacts with potential residues were set aside for more detailed study. All retouched artefacts were also examined. One artefact was found with potential residue. As discussed, above the circumstances in which the artefacts were found, in a shallow deposit, are unlikely to preserve residues, but this depends on the post depositional disturbance that has taken place. Artefacts were examined under a stereoscopic Amscope microscope.

9.5.3 Results: Dead Horse Lane AS2 (VAHR 8123-0075), #DHL3-41, MTP11RADD (300 mm)

The artefact was a small quartz, flaked piece. A preliminary scan under 10 × magnification was carried out which showed the artefact had two discoloured patches on both surfaces (Areas 1–2) (Photo). The artefact was then thoroughly scanned under 40–90 × magnification.

Area 1 was found to have a small patch of red, glassy, globular material, typical of resin on its dorsal surface (**Photo 38**). The residue in Area 1 was compared to a reference collection of residues on quartz artefacts for confirmation. The discolouration in Area 2 was not a residue but adherent soil sediments.



Photo 38: Artefact #DHL3-41_dorsal surface showing location of residue Area 1 (27May23_JF)



Photo 39: Artefact #DHL3-41_dorsal surface showing location of residue Area 2 (27May23_JF)

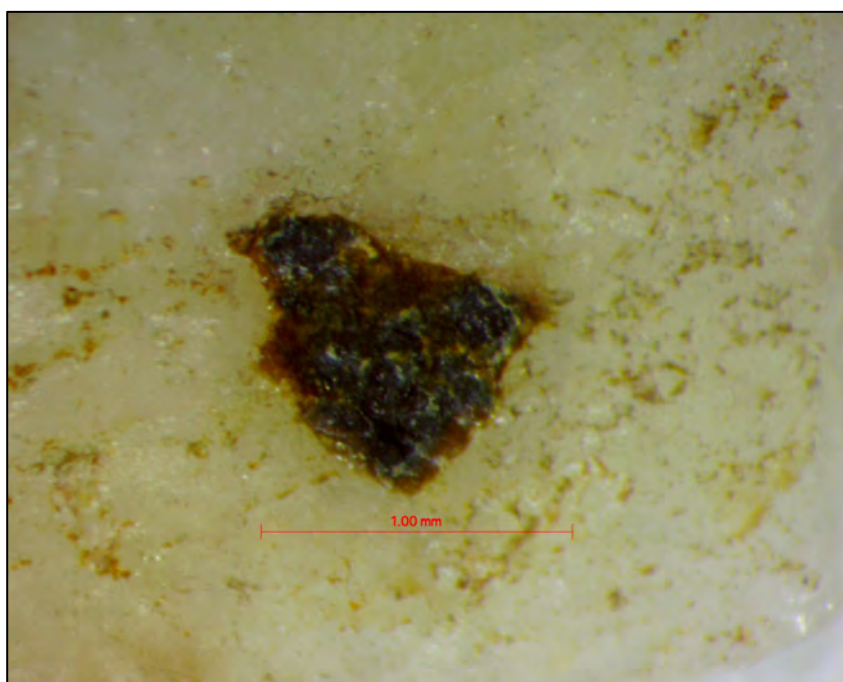


Photo 40: Artefact #DHL3-41_dorsal surface, Area 1 showing location of residue, 90 × magnification (27May23_JF)

9.6 Discussion and Conclusion

Four sites were found in the Dead Horse Lane activity area during the complex testing: three small artefact scatters and one LDAD. No (zero) artefacts were found on the surface, but all cultural deposits were at relatively shallow depths with the lowest cultural layer at 400 mm depth in Dead Horse Lane AS2 (VAHR 8123-0075). No (zero) artefacts were found below this depth.

The range of raw materials on which the artefacts were made was quite restricted, reflecting the small size of the assemblages. Quartz was the most common material and a fine-grained, almost glassy, basalt was the next most common. Small amounts of quartzite, hornfels and silcrete were also present. Based on the appearance of the outer surface still present on some artefacts, the most likely source of the materials were river gravels, but the intensive reduction of the artefacts suggests that the materials were some distance from their original source.

Cores in the assemblages were quite sparse, and it is possible if the source was distant, they were only being discarded in the sites when they were no longer useful. There was little evidence of much manufacture or tool production on site, but there was some evidence of artefacts being used as tools and in the manufacture of tools (e.g. hafting with resin). There were few retouched tools, and none were diagnostic of the time period in which the artefacts were discarded. The nature, extent and significance of the Aboriginal Places *collectively* are discussed further in **Section 10**.

10 Significance, Extent & Management of Aboriginal Places

In cultural heritage terms, Aboriginal archaeological sites are a non-renewable resource. For most areas of Victoria, archaeological sites are one of the few sources of historical information on the former Aboriginal peoples that occupied the land prior to European settlement.

Section 4 of the *Aboriginal Heritage Act 2006* defines cultural heritage significance on the basis of archaeological, anthropological, contemporary, historical, scientific, social or spiritual significance; and significance in accordance with Aboriginal tradition. The following section makes an assessment of the Scientific significance, Historical significance and significance in accordance with Aboriginal tradition.

Four (4) new Aboriginal place has been registered in the activity area VAHR XX, VAHR XX, VAHR XX, VAHR XX as Artefact Scatters and an LDAD.

10.1 Scientific Value of the Aboriginal Cultural Heritage

The scientific value or significance of Aboriginal archaeological sites measures importance according to a number of criteria such as type, artefact density, and potential to provide information of scientific or educational value. Some archaeological sites by their contents or antiquity automatically attain a high degree of significance. For other archaeological sites significance is based on their value as representative examples of particular types within a given geographical area or environmental context, or their rarity within an area.

The structuring of the process used to assess scientific significance has been outlined by Bowdler (1981) as the specific consideration of the interrelated issues of research potential and the rarity and/or representativeness of a site. In a development context, we also find it useful to add integrity as a separately assessed co-factor to both of these issues. This is summarised in **Table 26**.

10.2 Historic Value of the Aboriginal Cultural Heritage

The guidelines to the Burra Charter discuss that place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment. In relation to Aboriginal cultural heritage, many post-contact places and sites would have historic value. Places of historic significance may include sacred or ceremonial sites, and archaeological sites with evidence of technological developments. In the case of all four (4) Aboriginal Places, historic significance is not considered to contribute to any of their inherent value.

Table 26: Statement on Scientific Significance

Research Potential:	Subsurface occurrences of flaked lithics in open contexts are the most common place type in the geographic region. While the majority of the places identified in the activity area are not considered to present opportunities to address significant research questions, the presence of dense cultural deposits containing a diversity of raw materials at the sites provides the occasion to ask questions of the data and consider it in relation to other available information from the region.
	Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075) and Dead Horse Lane AS3 (VAHR 8123-0076) assemblages indicate that the sites show evidence of limited stone tool manufacture with the presence of angular fragments; flakes; longitudinal, proximal, medial, and distal split flakes; and unidirectional cores in distinct layers within a clayey-loam deposit. Further research would enable broader landscape use information to be documented. Conclusion: Moderate research potential
	Dead Horse Lane LDAD1 (VAHR 8123-0077) contains a variety of artefact types suggesting a wide-ranging use of the area, however the artefacts at this site were distributed throughout the profile suggesting a degree of post-contact disturbance. Additionally, their inclusion as a single place number is administrative and their dispersion over a large area makes any meaningful associations with other higher density places (without a large-scale conjoin analysis) most difficult. Conclusion: Low research potential
Rarity & Representativeness	Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075) and Dead Horse Lane AS3 (VAHR 8123-0076) assemblages indicates that the sites may retain some vertical integrity, a hypothesis which could be investigated by further salvage investigation, however well represented in the region. Conclusion: Not rare, well represented in the geographic region.
	Dead Horse Lane LDAD1 (VAHR 8123-0077) represents a dispersed low density artefact distribution of flaked lithic material which is one of the dominant place types in the geographic region. These places are, therefore, not rare and are well represented elsewhere in reasonable conservation contexts. Conclusion: Not rare, well represented elsewhere in the geographic region.
Integrity & Disturbance	All of the stone artefact places have been disturbed to varying degrees by previous land use, clearing and installation of infrastructure. When looking at the overall assemblage, however, and noting that 63% of the lithics were identified between 100-200 mm depth, a degree of integrity should be considered. While it is likely that individual stone artefacts are unlikely to be in situ, the artefact scatters are likely to have some degree of spatial integrity across their extent.

	Assessing the integrity of an LDAD place, such as VAHR 8123-0077, is not comparable to a more geographically isolated place (such as the artefact scatters in the activity area) as the connection between them is administrative rather than contextual. Conclusion: Low site integrity
SUMMARY:	The scientific significance of the artefact scatters Dead Horse Lane AS1 (VAHR 8123-0074) , Dead Horse Lane AS2 (VAHR 8123-0075) and Dead Horse Lane AS3 (VAHR 8123-0076) are therefore considered to be <i>Moderate</i> , mainly based on research potential and possible site integrity. The scientific significance of Dead Horse Lane LDAD1 (VAHR 8123-0077) is therefore considered to be <i>low</i> .

10.3 Significance of Aboriginal Cultural Heritage according to Aboriginal Tradition

No statement of significance was provided by TLAWC regarding the significance of Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) and Dead Horse Lane LDAD1 (VAHR 8123-0077). It should be noted that, regardless of scientific significance, all Aboriginal Places are of cultural significance and form part of the broader cultural landscape. All Aboriginal Places are of cultural importance and damage to these places should be avoided, minimised and mitigated where possible and/or appropriate.

11 Impact assessment – Section 61 matters

In accordance with Section 61 of the *Aboriginal Heritage Act 2006* an assessment must be made as to whether the proposed activity will be conducted in a way that avoids harm to Aboriginal cultural heritage, or be conducted in a way that minimises harm to Aboriginal cultural heritage.

The purpose of the Act is to provide for the protection of Aboriginal cultural heritage in Victoria. In the first instance, harm to Aboriginal cultural heritage should be avoided. This may be achieved through appropriate management strategies (or specific measures) in relation to the Aboriginal Places and the activity, the use of protective fencing during construction or restricting access, in addition to cultural awareness training for contractors. In the second instance, harm to Aboriginal cultural heritage must be minimised. This may be achieved through re-aligning infrastructure, locating public open space areas over cultural values (if appropriate) or using less invasive construction methods. The final resort is the salvage of cultural heritage where appropriate.

This CHMP has undertaken desktop, standard and complex assessments in order to investigate the nature and extent of any Aboriginal cultural heritage values of the Activity area and to mitigate the risks to these Aboriginal Places through appropriate management strategies.

Dead Horse Lane AS1 (VAHR 8123-0074), Dead Horse Lane AS2 (VAHR 8123-0075), Dead Horse Lane AS3 (VAHR 8123-0076) and Dead Horse Lane LDAD1 (VAHR 8123-0077) were identified during the Complex assessment and associated extent testing. This section addresses Section 61 matters in relation to the Aboriginal Place.

11.1 Dead Horse Lane AS1 (VAHR 8123-0074)

11.1.1 Can harm to VAHR 8123-0074 be avoided?

No. This CHMP allows for VAHR 8123-0074 to be entirely harmed by the activity. It not possible to avoid the site due to the nature of its location the site intersects numerous residential lots with the Activity area. Therefore, a redesign is not possible as it would make the development unviable. In combination with its moderate scientific significance rating, VAHR 8123-0074 was not deemed to warrant harm avoidance measures.

11.1.2 Can harm to VAHR 8123-0074 be minimised?

No. This CHMP allows for VAHR 8123-0074 to be entirely harmed by the activity, therefore minimising harm is not relevant.

11.1.3 Are specific measures needed for the management of VAHR 8123-0074 in the Activity area?

Yes. VAHR 8123-0074 is to be partially salvaged prior to construction commencing in accordance with Section 1.4, **Management Condition 4**.

11.2 Dead Horse Lane AS2 (VAHR 8123-0075)

11.2.1 Can harm to VAHR 8123-0075 be avoided?

No. This CHMP allows for VAHR 8123-0075 to be entirely harmed by the activity. It not possible to avoid the site due to the nature of its location the site intersects numerous residential lots with the Activity area. Therefore, a redesign is not possible as it would make the development unviable. In combination with its low scientific significance rating, VAHR 8123-0075 was not deemed to warrant harm avoidance measures.

11.2.2 Can harm to VAHR 8123-0075 be minimised?

No. This CHMP allows for VAHR 8123-0075 to be entirely harmed by the activity, therefore minimising harm is not relevant.

11.2.3 Are specific measures needed for the management of VAHR 8123-0075 in the Activity area?

Yes. VAHR 8123-0075 is to be partially salvaged prior to construction commencing in accordance with Section 1.4, **Management Condition 4**.

11.3 Dead Horse Lane AS3 (VAHR 8123-0076)

11.3.1 Can harm to VAHR 8123-0076 be avoided?

No. This CHMP allows for VAHR 8123-0076 to be entirely harmed by the activity. It not possible to avoid the site due to the nature of its location the site intersects numerous residential lots with the Activity area. Therefore, a redesign is not possible as it would make the development unviable. In combination with its low scientific significance rating, VAHR 8123-0076 was not deemed to warrant harm avoidance measures.

11.3.2 Can harm to VAHR 8123-0076 be minimised?

No. This CHMP allows for VAHR 8123-0076 to be entirely harmed by the activity, therefore minimising harm is not relevant.

11.3.3 Are specific measures needed for the management of VAHR 8123-0076 in the Activity area?

Yes. VAHR 8123-0076 is to be partially salvaged prior to construction commencing in accordance with Section 1.4, **Management Condition 4**.

11.4 Dead Horse Lane LDAD1 (VAHR 8123-0077)**11.4.1 Can harm to VAHR 8123-0077 be avoided?**

No. This CHMP allows for VAHR 8123-0077 to be entirely harmed by the activity. It not possible to avoid the site due to the nature of its location the site intersects numerous residential lots with the Activity area. Therefore, a redesign is not possible as it would make the development unviable. In combination with its low scientific significance rating, VAHR 8123-0077 was not deemed to warrant harm avoidance measures.

11.4.2 Can harm to VAHR 8123-0077 be minimised?

No. This CHMP allows for VAHR 8123-0077 to be entirely harmed by the activity, therefore minimising harm is not relevant.

11.4.3 Are specific measures needed for the management of VAHR 8123-0077 in the Activity area?

No specific measures are required for the management of VAHR 8123-0077.

11.5 Are There Particular Contingency Plans That Might be Necessary?

Processes to be followed in relation to disputes, delays and other obstacles are outlined in the management conditions & contingencies in Section 2. Procedures are outlined for factors that may affect the conduct of the activity. These include procedural guidelines in the event that suspected human remains are discovered, as well as safety requirements.

11.6 What Custody and Management Arrangements Might be Needed?

The custody and management of Aboriginal cultural heritage are addressed in Section 2.2.

11.7 Cumulative Impacts

This section considers the degree of the cumulative effect of the proposed activity on Aboriginal cultural heritage in the wider region. The anticipated or likely cumulative impacts on Aboriginal cultural heritage has been surmised considering the current level of development within the defined Geographic Region, the findings of this assessment and how similar development has impacted Aboriginal cultural heritage overall in the recent past. First Peoples State Relations' Guide to Preparing a Cultural Heritage Management Plan has no explicit guidance on a method for assessing potential cumulative effects on cultural heritage material. Therefore, the following assessment has been made by considering the previously recorded Aboriginal places in the Geographic Region (Section 6.5), the land use history surrounding the Activity area (Section 6.4) and the likely impacts to Aboriginal heritage as a result of that land use and development.

Four (4) new Aboriginal places have been registered in the Activity area. The intangible heritage component of these places, represented by the knowledge (registration) of their presence, regardless of physical disturbance or removal, is significant as it forms a part of an extensive history of Aboriginal presence and utilisation of the landscape which cannot be destroyed. As a physical presence in a (slowly) developing landscape, however, the physical loss of any Aboriginal place represents a net loss, amongst other Aboriginal place disturbances, to the region.

12 References

- Allen, J. 1989, When Did Humans First Colonize Australia? *Search*, 20:149–154.
- Ashton, R & Brooke, J. 2017. *Mansfield Industrial Estate, Lakins Road, Mansfield Cultural Heritage Management Plan 14836*. Jacobs Group (Australia) Pty Ltd, Melbourne.
- Barker, M .2016. *Proposed Residential Subdivision at 15-19 Hunter Street, Mansfield Cultural Heritage Management Plan 13944*. Benchmark Heritage Management Pty Ltd, Kinglake.
- Barker, M. 2017. *Proposed Micro Brewery at 3 Collopy Street, Mansfield Cultural Heritage Management Plan 14934*. Benchmark Heritage Management Pty Ltd, Kinglake.
- Barwick, D. 1984, Mapping the Past: An Atlas of Victorian Clans, 1835-1904, *Aboriginal History*, 8 (1-2):100-131.
- Bell, J. 2019, *Proposed Residential Development, Stoneleigh Road, Mansfield*. Report prepared by Jo Bell Heritage Services (Report No. 15399).
- Billis, R. V. and Kenyon, A. S. 1932, *Pastoral Pioneers of Port Phillip*, Melbourne: Macmillan & Company Ltd.
- Bird, C.F.M. 1992a, *Archaeology of the Broken River Basin: A background study*. Report prepared for Aboriginal Affairs, Victoria, July 1992, (Report No. 592).
- Bird, C.F.M. 1992b, *Archaeology of the Goulburn River Basin: A background study*. Report prepared for Aboriginal Affairs Victoria, November 1992 (Report No. 593).
- Bowler J.M., Hope, G.S., Jennings, J.N., Singh, G. and Walker, D. 1976, Recent Developments in Reconstructing Late Quaternary Environments in Australia. In R.L. Kirk and A.G. Thorne (eds.), *The Origins of the Australians*. Canberra: Australian Institute of Aboriginal Studies, pp. 55–77.
- Brooke, J & Andrews, R. 2015. *Mansfield Industrial Estate Cultural Heritage Management Plan 13400 (Discontinued)*. Jacobs Group (Australia) Pty Ltd, Melbourne.
- Buckley, P. and Hughes, P. 2000, *Working Toward an Aboriginal Heritage Management System for the North East RFA Region of Victoria*. Report prepared by Huon Environment & Heritage for Environment Australia (Report No. 1887).
- Burke, H. and Smith, C. 2004. *The Archaeologist's Field Handbook*. Melbourne: Allen & Unwin.
- Carr, A, Pericaud, E & Overberg, R. 2016. *Mansfield Heavy Vehicle Bypass, Dead Horse Lane Cultural Heritage Management Plan 14160*. Jacobs Group (Australia) Pty Ltd, Melbourne.
- Cavanagh, T. 2013 *Water Pipeline Rowe Street, Mansfield, Victoria: Cultural Heritage Management Plan 12513*. Report prepared for Parsons Brinckerhoff Australia Pty Ltd, Biosis, Port Melbourne, VIC.
- Clark, I. 1990, *Aboriginal Languages and Clans*. Monash University Publications in Geography No. 37.
- Clark, I. 1997, Chapter 2: Aboriginal Associations. In *Box-Ironbark Forests and Woodlands Special Investigation*. Land Conservation Council (Report No. 1074).

Dodson, J., Fullagar, R. and Head, L. 1992, Dynamics of environments and people in the forested crescents of temperate Australia. In J. Dodson (ed.) *The Naïve Lands, Prehistory and Environmental Change in Australia and the Southwest Pacific*. Melbourne: Longman, pp. 115–159.

Edmonds, V. 2008 *Proposed Retirement Village, Beolite Village Limited, Mansfield: Complex Cultural Heritage Management Plan*. Report prepared for Beolite Retirement Limited.

Flood, J. 1976, Man and Ecology in the Highlands of Southeastern Australia: A case study. In Peterson, n. (ed.) *Tribes and Boundaries in Australia*. Canberra: Australian Institute for Aboriginal Studies (Report No. 231).

Freslov, J. 2018, *Residential Subdivision, 5 Penrose Place, Newlands Arm, East Gippsland*. Report prepared for Access Capital Pty Ltd. (Report No. 15172).

Freslov, J., and Goulding, M. 2002, *An Aboriginal Cultural Heritage Values Assessment of the Howitt Plains Region, Alpine National Park, Victoria*. Unpublished report prepared for Parks Victoria.

Gell, P.A. and Stuart, I.M. 1989, *Human Settlement History and Environmental Impact: the Delegate River Catchment, East Gippsland, Victoria*. Clayton, Victoria: Monash Publications in Geography No. 36.

Goulding, M. 1988, *Aboriginal Occupation of the Melbourne Area, District 2*. Report prepared for the Land Conservation Council. July 1988 (Report No. 271).

Grinter B. & J. Bell 2010. *Proposed Commercial Development, 3-5 High Street, Mansfield*. Euroa: JBHS.

Hislop, K. 2020. *Proposed Subdivision at Kareen Hills Estate, Mansfield*. CHMP N° 16278. Report for Oaksford Pty Ltd by Heritage Insight Pty Ltd.

Hughes, P. and Buckley, K. 1999, Development of a Model for Aboriginal Cultural Heritage Management in the Victorian Regional Forest Agreement Region, 3rd Draft. Report to Environment Australia, September 1999, (Report No. 4334).

Hyett, J. 2002, *An Archaeological Survey: Brond Property Mansfield Sewage treatment Plant*. Report prepared by Terra Culture Heritage Consultants for Egis Consulting, April 2002 (Report No. 2274).

Jones, R. 1995, Tasmanian archaeology: establishing the sequences. *Annual Review of Anthropology*, 24: 423–426.

McBryde, I. 1979, Petrology & Prehistory: Lithic Evidence for Exploitation of Stone Resources & Exchange Systems in Australia. In *Stone Axes Studies. Archaeological Petrological, Experimental and Ethnographic*, CBA Research Report London, 23,113–126, (Report No. 294).

Murphy, A. and Thomson, S. 2016, *Residential Development at 6 Saint Street, Castlemaine*, (Report No. 14083).

Peterson, J.A. 1968, Cirque Morphology and Pleistocene Ice Formation Conditions in Southeastern Australia. *Australian Geographical Studies*, 6:67–83.

Reich, A. 2018, *129 Pound Road, Hampton Park, Residential Development, Cultural Heritage Management Plan*. Unpublished Report prepared for 179 Pound Road Pty. Ltd (Report No. 15599).

Rowland, M.J. 1999, Holocene environmental variability: have its impacts been underestimated in Australian pre-History? *The Artefact* 22:11-48.

Spreadborough, R. and Anderson, H. 1983, *Victorian Squatters*. Ascot Vale: Red Rooster Press.

Thompson, C. 1996, *An Archaeological Survey of North East Victoria*. Report prepared for the Victoria Archaeological Survey. (Report No. 712).

Zobel, D. 1984, *Aboriginal Occupation of the North East Study Area, Districts 1, 2 and 4*. Report prepared for the Land Conservation Council of Victoria. (Report No. 36).

Legislation

Aboriginal Heritage Act 2006 (Victoria)

Aboriginal Heritage Regulations 2018 (Victoria)

Websites

Bureau of Meteorology (BOM), 2022, Accessed February 2022 from:

http://www.bom.gov.au/climate/averages/tables/cw_088023.shtml

Department of Environment, Land, Water and Planning (DELWP), 2022, Bioregions & EVC Benchmarks.

Accessed February 2022 from:

https://www.environment.vic.gov.au/_data/assets/pdf_file/0030/48558/CVU_EVCs_combined.pdf

Victorian Resources Online (VRO) 2021c, 1.3.3 Terraces, fans and floodplains (Kiewa Valley, Wonnangatta Valley). Accessed February 2022 from:


http://vro.agriculture.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphological_framework_1.3.3

Victorian Resources Online (VRO) 2021a, 1. Eastern Uplands (EU) Victoria's Geomorphological Framework (VGF). Accessed February 2022 from:

http://vro.agriculture.vic.gov.au/dpi/vro/vrosite.nsf/pages/landform_geomorphological_framework_1

13 Appendices

Appendix 1: Notice to Prepare Cultural Heritage Management Plan

	Premier and Cabinet		
Notice of Intent to prepare a Cultural Heritage Management Plan for the purposes of the <i>Aboriginal Heritage Act 2006</i>			
<small>This form can be used by the Sponsor of a Cultural Heritage Management Plan to complete the notification provisions pursuant to s.54 of the <i>Aboriginal Heritage Act 2006</i> (the "Act").</small>			
<small>For clarification on any of the following please contact Victorian Aboriginal Heritage Register (VAHR) enquiries on 1800-726-003.</small>			
SECTION 1 - Sponsor information			
Sponsor:	David Luelf & Sons Pty Ltd		
ABN/ACN:	32942667374		
Contact Name:	David Leulf		
Postal Address:	PO Box 25, Mansfield, VIC 3722		
Business Number:	0417791400		
Mobile:	0417791400		
Email Address:	dave.luelf@bigpond.com		
Sponsor's agent (if relevant)			
Company:			
Contact Name:			
Postal Address:			
Business Number:			
Mobile:			
Email Address:			
SECTION 2 - Description of proposed activity and location			
Project Name:	Woodlands Estate Industrial Subdivision at 175 Dead Horse Lane (Lot 39), Mansfield, VIC 3722		
Municipal district:	Mansfield Shire Council		
<small>Clearly identify the proposed activity for which the cultural heritage management plan is to be prepared (ie. Mining, road construction, housing subdivision)</small>			
Subdivision			
SECTION 3 - Cultural Heritage Advisor			
Damian Wall	Red-Gum Environmental Consulting Pty Ltd	damian.wall@red-gum.com.au	
<i>Name</i>	<i>Company</i>	<i>Email address</i>	
SECTION 4 - Expected start and finish date for the cultural heritage management plan			
Start Date:	07-Feb-2022	Finish Date:	30-Apr-2022
Submitted on: 30 Jan 2022			



Premier and Cabinet

SECTION 5 - Why are you preparing this cultural heritage management plan?

- A cultural heritage management plan is required by the Aboriginal Heritage Regulations 2007
What is the high Impact Activity as it is listed in the regulations?

Is any part of the activity an area of cultural heritage sensitivity, as listed in the regulations? 1

- Other Reasons (Voluntary)
- An Environment Effects Statement is required
- A Cultural Heritage Management Plan is required by the Minister for Aboriginal Affairs.
- An Impact Management Plan or Comprehensive Impact Statement is required for the activity

SECTION 6 - List the relevant registered Aboriginal parties (if any)

This section is to be completed where there are registered Aboriginal parties in relation to the management plan.
TAUNGURUNG Clans Aboriginal Corporation

SECTION 7A - List the relevant Aboriginal groups or Aboriginal people with whom the Sponsor intends to consult (if any)

This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.

Taungurung Clans Aboriginal Corporation

SECTION 7B - Describe the intended consultation process (if any)

This section is to be completed only if the proposed activity in the management plan is to be carried out in an area where there is no Registered Aboriginal Party.

All aspects of the CHMP process will be in partnership with TCAC

SECTION 8 – State who will be evaluating this plan (mandatory)

The plan is to be evaluated by:

- Joint - Registered Aboriginal Party AND The Secretary
- A Registered Aboriginal Party
If checked, list the relevant Registered Aboriginal Party Evaluating:
- The Secretary
- Victorian Aboriginal Heritage Council

SECTION 9 – Preliminary Aboriginal Heritage Tests (PAHTs)

List the Reference Number(s) of any PAHTs conducted in relation to the proposed activity:

SECTION 10 - Notification checklist

Submitted on: 30 Jan 2022

Appendix 2: Letter of Intent to Evaluate

1/2/22



David Leulf

David Luelf & Sons Pty Ltd

PO Box 25, Mansfield, VIC 3722

Re: Notice of Intent – CHMP 18575

I refer to your notification to the Taungurung Land and Waters Council (TLaWC) to prepare a Cultural Heritage Management Plan for the above project, received on the 1/2/22

Having reviewed this notice, I wish to advise that the TLaWC accepts this notice and will evaluate this CHMP. We advise that during the preparation of this plan, TLaWC requires regular consultations with the Heritage Advisor and the Sponsor in relation to the assessments of the activity area and the management recommendations before the plan is complete. TLaWC also requires that representatives of the Corporation participate in all field assessments.

Please note the following requirements as stipulated by the TLaWC Board:

Meetings

Inception Meeting:

In order to clarify the aims for this CHMP and discuss assessment methodologies it is a requirement that the Heritage Advisor who will be involved in the fieldwork and Sponsor attend an inception meeting at the TLaWC office **before** any fieldwork commences.

The TLaWC requires the following information before or at the Project Inception Meeting:

- an aerial photo and map of the Activity Area
- all Aboriginal site location data within a 5km radius of the Activity Area

www.taungurung.com.au

Broadford Head Office
37 High St
PO 505
Broadford, Victoria, 3658
Tel: (03) 5784 1433

Alexandra Office
42-46 Aitken St
Alexandra, Victoria, 3658
Tel: (03) 5784 1433

Alexandra Operations Depot
23 Nihil St
Alexandra, 3714

1/2/22



- Aboriginal place cards for places already recorded in the Activity Area

Progress Meeting:

In order to discuss the fieldwork results for this CHMP the Heritage Advisor who was involved in the fieldwork must attend a progress meeting at the TLaWC office after the fieldwork.

Pre CHMP Submission Meeting:

In order to discuss the final Management requirements for CHMP the Heritage Advisor who was involved in the fieldwork must attend a meeting at the TLaWC office before the CHMP is submitted for evaluation. An on-site visit may be a preferable to an office meeting.

Meeting Bookings

Each meeting must be booked via the CHMP Meeting Request Form attached and emailed to the Administration Officer on the email address below.

Financial Payments

TLaWC's meeting and fieldwork fee schedule is attached.

TLaWC requires a flat fee of \$3,000 (excl GST) for meeting costs to be paid **before the project inception meeting**. This fee is for the time of two TLaWC representatives to attend the meetings and does not include travel expenses, including accommodation if required and mileage costs. These associated costs will be invoiced separately.

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Alexandra, 3714

1/2/22



Once TLaWC has received the Inception Meeting booking form request and a copy of the remittance for the TLaWC CHMP meeting fees, our Administration Officer will organise a meeting time with you and your Heritage Adviser.

Please direct all project queries and requests to the TLaWC Administration Officer on 03 5784 1433 or 0427 832 241 or via email sbrown@taungurung.com.au please cc careforculture@taungurung.com.au in on any email correspondence. Please ensure the subject line includes the CHMP number.

Enclosed with this notice of intent response is the TLaWC schedule of fees, the meeting booking form, and the field representative booking form (Appendix). If you have any queries or concerns, please don't hesitate to let us know.

Yours sincerely,



Matthew Burns
Chief Executive Officer

www.taungurung.com.au

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23 Nihil St
Alexandra, 3714

Appendix 3: Summary of Consultation

Date	Time	Type	Name	Party	Discussion/Details
30/1/22	15:30	Email	Damian Wall (Red-Gum)	Secretary (DPC) & TLaWC	Lodged Nol with DPC & TLaWC
11/5/21	19:25	Email	RAP Manager	Red-Gum & Sponsor	Bookings Officer sent the NOI response to DW and the Sponsor
8/2/22	8:30	Meeting	Francisco Almeida, Michelle Monk & Alex Parmington	TLaWC	Onsite inception meeting between Damian Wall on site via phone on 8th February 2022. It was concluded that a Standard Assessment as a minimum was required.
			Damian Wall	Red-Gum	
8/2/22	09:00	Standard Assessment	Daniel Young and Jonah Honeysett	TLaWC	Standard assessment undertaken and areas of disturbance and wet and low lying areas mapped.
			Damian Wall	Red-Gum	
22/2/22	10:30	Meeting	Alex Parmington, Michelle Monk and Shane Monk	TLaWC	Standard Assessment meeting via Zoom. It was agreed that the CHMP process was to continue to Complex assessment given the landforms identified and their moderate probability to contain cultural material sub-surface.
			Damian Wall	Red-Gum	
30/6/22 to 1/7/22	08:00	Complex Stage 1	Dylan & Troy Wilkinson	TLaWC	Complex assessment Stage 1
			Damian Wall	Red-Gum	
25/7/22	10:30	Meeting	Alex Parmington, Francisco Almeida, Michelle Monk and Shane Monk	TLaWC	Results of Complex Stage 1 was discussed and it was agreed that extent testing should be initiated to determine site extents around the identified cultural material.
			Damian Wall	Red-Gum	
6-8/9/22	08:00	Complex Stage 2	Daniel Young & Dylan Wilkinson	TLaWC	Complex assessment Stage 2 (Extent testing)
			Damian Wall	Red-Gum	
19-20/4/23	08:00	Complex Stage 2	Ashleigh Wilkinson	TLaWC	Complex assessment Stage 2 (Extent testing)
			Damian Wall	Red-Gum	
13/6/23	1:30	Meeting	Alex Watson, Hesper Andrew, Shane Monk & Katherine Thomas	Red-Gum	Complex Assessment results discussed and it was agreed that the testing program had adequately assessed the Activity area and that four (4) new Aboriginal Places be registered. Artefact scatters were to be subject to targeted salvage and harm allowed to the LDAD.
			Damian Wall		

Appendix 4: Communication Contact Table

Name	Role	Company	Phone	Email
Mr David Leulf	Sponsor	David Luelf & Sons Pty Ltd	0417 791 400	dave.luelf@bigpond.com
Katherine Thomas	Cultural Heritage Manager	Taungurung Land & Waters Council (AC)	0411 496 463	careforculture@taungurung.com.au

Appendix 5: Compliance Review Check list

COMPLIANCE CHECK LIST CHMP 18575						
Item	Date	Compliance (Y/N)	Issue/reason for non-compliance	Action	Person supervising action	Date to be completed by
Management Conditions						
Has the Cultural heritage awareness training for all personnel been completed with TLaWC. (1.1)						
Have all works been restricted to the Activity area as defined in this CHMP? (1.3)						
Is a copy of this CHMP stored at all times in the site construction office? (1.2)						
Has a clear chain of command been established and communicated for site personnel? (1.1)						
Has the mechanical salvage for DHL AS 1, DHL AS 2 & DHL AS been completed? (1.4)						
Contingencies						
Have any changes to the conduct of the activity or to the Activity area been referred to a Heritage Advisor? (2.1)						
If any skeletal remains area identified during the activity have all works ceased? (2.2.1)						
If any skeletal remains area identified during the activity have Victoria Police and the State Coroner's Office been notified immediately? (2.2.1)						

COMPLIANCE CHECK LIST CHMP 18575						
Item	Date	Compliance (Y/N)	Issue/reason for non-compliance	Action	Person supervising action	Date to be completed by
If the skeletal remains are suspected to be of possible Aboriginal origin, have the Coronial Admissions and Enquiries Hotline been immediately contacted on 1300 888 544? (2.2.1)						
If any skeletal remains area identified during the activity have the five-step contingency plan detailed in 2.2.1 been followed?						
If Aboriginal cultural material (non-skeletal) is found during the activity have all works ceased within 20 m of the find and a fenced buffer zone been established and clearly marked as a 'no-go' zone? (2.2.2)						
Have all following steps been followed regarding notification, inspection, reporting, managing, agreement and custody been followed? (2.2.2)						
Have appropriate and required VAHR forms been completed and submitted?						
If suspected human remains are discovered have the correct notification procedures been implemented? (2.3)						
Have any non-compliance issues been managed as per 2.4?						

COMPLIANCE CHECK LIST CHMP 18575						
Item	Date	Compliance (Y/N)	Issue/reason for non-compliance	Action	Person supervising action	Date to be completed by
Has compliance with the CHMP been reviewed (2.5)?						
If any non-compliance has been identified have works ceased (2.5)?						
Have any non-compliance issues been managed as per 2.6?						
Has any Aboriginal cultural material (other than skeletal remains or secret or sacred objects) identified during the activity been managed according to Section 2.7?						
Comments (can the process be improved)						
Signature:			Date:			

Appendix 7: Qualifications of Heritage Advisor

Damian Wall

Managing Director - Red-Gum Environmental Consulting Pty Ltd

Qualifications

- Bachelor of Applied Science (Parks, Recreation & Heritage), CSU Albury, 1996
- Master Environmental Management and Restoration, CSU, 2005
- Certified Environmental Practitioner (CENVP), Environment Institute of Australia & New Zealand, 2008
- Full Member Australian Association of Consulting Archaeologists Inc (AACAI)
- Graduate Certificate in Cultural Heritage Management (CHM), Flinders University, 2011
- Heritage Advisor as defined under section 189(1) of the *Aboriginal Heritage Act 2006*.

Appendix 8: Glossary of Terms

Activity	The development or use of land
Activity area	The area or areas to be used or developed for an activity
Archaeology	The study of the past through the systematic recovery and analysis of material culture.
Artefact Scatter	A group of stone or other artefacts found scattered on the ground surface.
Assemblage	A collection of artefacts that are derived from the same Aboriginal place.
Burial (Aboriginal Ancestral Remains)	Usually represented by a concentration of human bones or teeth. Burials can be associated with charcoal or ochre, shell, animal bone or stone tools. They tend to be located in sandy areas, which were easy to dig or in rock shelters or tree hollows. They are usually exposed through earthworks or erosion.
Culturally Modified Tree	See Scarred Tree
Earth Feature	Includes mounds, rings, hearths, post holes and ovens.
Excavation	The systematic recovery of archaeological data through the exposure of buried sites and artefacts.
Low Density Artefact Deposit (LDAD)	Artefact deposit with average stone density of less than 10 artefacts in a 10m x 10m area.
Material culture	The tangible evidence or cultural remains that are produced by human activity.
Object Collection	A collection of Aboriginal cultural heritage objects.
Quarry	A location from which Aboriginal people have extracted stone for making stone artefacts or mineral such as ochre for use in painting.
Rock Art	Paintings or engravings on the surface of caves or rock shelters, created by Aboriginal people in the past.
Scarred Tree	Trees from which bark has been removed for the manufacture of utilitarian items such as containers, shelter sheets, canoes or medicine.
Shell Midden	A midden is the remains of a meal. In the case of shell middens, marine or freshwater molluscs are the dominant component.
Stone Feature	Rock art consisting of stones arranged in a pattern.

Appendix 9: Aboriginal Cultural Heritage Place Gazetteer

VAHR No. & Name	Primary Grid Co-ordinate (GDA94 MGA55)	Aboriginal Place Type	Context	Contents
Dead Horse Lane AS1 (VAHR 8123-0074)	E:418943 N:5900054	Artefact Scatter	Subsurface. Lower slope, South east aspect	Twenty-eight (28) stone artefacts consisting of two (2) cores, twenty-one (21) flakes, four (4) flaked pieces and one (1) retouched flake.
Dead Horse Lane AS2 (VAHR 8123-0075)	E:418754 N:5900032	Artefact Scatter	Subsurface. Lower slope, South east aspect	Sixty-six (66) stone artefacts consisting of two (2) cores, forty-six (46) flakes, sixteen (16) flaked pieces and two (2) retouched flakes.
Dead Horse Lane AS3 (VAHR 8123-0076)	E:418953 N:5900100	Artefact Scatter	Subsurface. Lower slope, South east aspect	Thirty-one (31) stone artefacts consisting of one (1) core, nineteen (19) flakes, ten (10) flaked pieces, one (1) retouched flake.
Dead Horse Lane LDAD1 (VAHR 8123-0077)	E:418690 N:5900190	Low Density Artefact Distribution	Subsurface. Mid-slope, South aspect.	Seven (7) stone artefacts consisting of five (5) flakes, one (1) flaked piece and one (1) retouched flake.

Appendix 10: Catalogue

Dead Horse Lane AS1 (VAHR 8123-0074)

Easting	North	Zn	Site	Square	Depth (cm)	Layer	Spirit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418943	5900054	55	DHL AS 1	MTP4	150			DHL2_20	Quartz	Flake	Complete	Single	Bipolar			Tertiary	21.95	17.14	6.01	25.75
418943	5900054	55	DHL AS 1	MTP4	150			DHL2_21	Quartz	Flake	Complete	Single	Bipolar			Tertiary	10.34	9.54	4.43	12.28
418943	5900054	55	DHL AS 1	MTP4	150			DHL2_22	Quartz	Flake	Complete	Single	Feather			Tertiary	9.99	10.55	3.36	14.13
418943	5900054	55	DHL AS 1	MTP4	150			DHL2_23	Quartz	Flake	Complete	Single	Feather			Tertiary	7.25	7.82	2.58	10.74
418943	5900054	55	DHL AS 1	MTP4	150			DHL2_24	Quartz	Flake	Complete	Collapsed	Feather			Tertiary	10.97	10.46	4.54	12.75
418943	5900054	55	DHL AS 1	MTP4	150		2	DHL1-1	Quartz	Core						Tertiary	14.11	24.65	20.26	29.95
418943	5900054	55	DHL AS 1	MTP4	150		2	DHL1-2	Quartz	Flaked Piece						Tertiary	31.64	13.34	9.66	31.64
418943	5900054	55	DHL AS 1	MTP4	200			DHL1-3	Quartz	Flake	Complete	Multiple	Feather			Tertiary	13.02	14.88	5.19	21.99
418943	5900054	55	DHL AS 1	MTP4	200			DHL1-4	Quartz	Flake	Complete	Single	Feather			Tertiary	15.11	18.38	6.84	22.49
418943	5900054	55	DHL AS 1	MTP4	200			DHL1-5	Quartz	Flake	Medial					Tertiary	18.25	9.68	3.7	20.65
418943	5900054	55	DHL AS 1	MTP4	200			DHL1-6	Quartz	Flake	Proximal	Focal				Tertiary	8.98	8.02	3.55	11.72
418945	5900064	55	DHL AS 1	MTP4R ADA	150		2	DHL3-78	Quartz	Flake	Complete	Single	Feather	Overhang		Tertiary	16.38	25.72	16.57	26.98
418945	5900064	55	DHL AS 1	MTP4R ADA	150		2	DHL3-79	Quartz	Flaked Piece						Tertiary	17.85	10.52	2.49	17.91
418946	5900069	55	DHL AS 1	MTP4R ADC	200		2	DHL3-4	Quartz	Flake	Complete	Cortical	Bipolar		Pebble	Secondary	18.49	20.18	7.95	20.37
418946	5900069	55	DHL AS 1	MTP4R ADC	200		2	DHL3-5	Quartz	Flake	Complete	Single	Step			Tertiary	28.87	15.24	6.28	28.58
418946	5900069	55	DHL AS 1	MTP4R ADC	200		2	DHL3-6	Quartz	Flake	Complete	Focal	Feather			Tertiary	25.46	9.79	4.89	26.2
418948	5900054	55	DHL AS 1	MTP4R ADG	200		2	DHL3-81	Quartz	Core						Tertiary	22.54	20.76	9.35	24.31
418948	5900054	55	DHL AS 1	MTP4R ADG	200		2	DHL3-82	Quartz	Flake	Complete	Single	Feather			Tertiary	17.66	4.21	2.44	17.66

Eastings	North	Zn	Site	Square	Depth (cm)	Layer	Spirit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418940	5900045	55	DHL AS 1	MTP4R ADI	200		2	DHL3-72	Basalt	Flake	SCL	Multiple	Feather		Pebble	Primary	37.35	17.24	9.47	38.76
418933	5900056	55	DHL AS 1	MTP4R ADL	150		2	DHL3-59	Basalt	Flake	SCR	Single	Feather	Overhang		Tertiary	22.52	12.25	8.74	25.86
418933	5900056	55	DHL AS 1	MTP4R ADL	150		2	DHL3-60	Basalt	Flake	Complete	Single	Step			Tertiary	20.25	8.2	2.49	21.31
418933	5900056	55	DHL AS 1	MTP4R ADL	150		2	DHL3-61	Basalt	Retouched Flake	Distal		Feather			Tertiary	21.65	11.32	3.01	23.1
418933	5900056	55	DHL AS 1	MTP4R ADL	150		2	DHL3-62	Basalt	Flaked Piece						Tertiary	18.36	10.69	3.16	18.36
418933	5900056	55	DHL AS 1	MTP4R ADL	150		2	DHL3-63	FGS	Flaked Piece						Tertiary	18.7	11.18	3.47	18.7
418935	5900066	55	DHL AS 1	MTP4R ADO	200		2	DHL3-83	Basalt	Flake	Complete	Single	Feather		Pebble	Primary	26.85	13.39	4.95	28.9
418935	5900066	55	DHL AS 1	MTP4R ADO	200		2	DHL3-84	Basalt	Flake	Distal		Step			Tertiary	12.13	13.82	3.39	15.97
418935	5900066	55	DHL AS 1	MTP4R ADO	200		2	DHL3-85	Quartz	Flake	Complete	Single	Feather			Tertiary	15.53	12.56	5.84	19.93
418955	5900062	55	DHL AS 1	MTP4R ADZ	200		2	DHL3-73	Quartzite	Flake	Complete	Collapsed	Feather			Tertiary	20.06	13.4	3.47	20.64

Dead Horse Lane AS2 (VAHR 8123-0075)

Eastings	Northing	Zone	Site	Square	Depth (cm)	Layer	Spit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-7	Quartz	Flake	Complete	Single	Outré passé			Tertiary	17.56	19.49	7.55	27.56
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-8	Quartz	Flake	Complete	Single	Feather			Tertiary	8.51	13.05	5.36	13.87
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-9	Quartz	Flake	Complete	Single	Feather			Tertiary	11.21	13.08	4.83	16.02
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-10	Quartz	Flake	Proximal	Single				Tertiary	12.51	5.6	1.85	14.76
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-11	Quartz	Flake	Complete	Single	Feather			Tertiary	12.73	7.81	3.79	13.07
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-12	Hornfels	Flake	Complete	Single	Feather		Pebble	Primary	18.38	6.81	4.69	19.05
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-13	Hornfels	Flake	Complete	Single	Feather			Tertiary	9.4	15.5	4.69	27.26
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-14	Hornfels	Flake	Complete	Multiple	Feather			Tertiary	10.58	8.79	1.87	12.42
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-15	Quartz	Flake	Complete	Single	Feather			Tertiary	12.67	10.16	3.12	13.11
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-16	Quartz	Flaked Piece						Tertiary	22.47	12.95	5.47	22.47
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-17	Quartz	Flake	Complete	Collapsed	Feather			Tertiary	10.63	9.93	3.22	12.41
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-18	Quartz	Flake	SCL	Single	Feather			Tertiary	15.96	9.14	4.03	17.26
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-19	Quartz	Flaked Piece						Tertiary	17.81	10.2	10.12	17.81
418754	5900032	55	DHL AS 2	MTP11	200			DHL1-20	Quartz	Flaked Piece						Tertiary	12.5	8.13	2.55	12.5
418755	5900042	55	DHL AS 2	MTP11RADA	400		4	DHL3-74	Basalt	Flake	Proximal	Focal		Overhang		Tertiary	27.52	11.88	4.1	30.88
418755	5900042	55	DHL AS 2	MTP11RADA	400		4	DHL3-75	Basalt	Flake	Complete	Multiple	Step	Overhang		Tertiary	21.12	19.49	7.42	27.81
418755	5900042	55	DHL AS 2	MTP11RADA	400		4	DHL3-76	Quartz	Flaked Piece						Tertiary	18.52	14.49	9.21	18.52
418757	5900051	55	DHL AS 2	MTP11RADB	300		3	DHL3-33	CGV	Retouched Flake	Complete	Multiple	Feather		Pebble	Primary	55.35	41.78	17.75	65.75
418757	5900051	55	DHL AS 2	MTP11RADB	300		3	DHL3-34	Basalt	Core						Tertiary	29.93	24.58	10.84	32.29
418757	5900051	55	DHL AS 2	MTP11RADB	300		3	DHL3-35	Quartz	Flake	Proximal	Cortical			Pebble	Secondary	11.66	21.48	11.39	25.02
418758	5900062	55	DHL AS 2	MTP11RADC	350		4	DHL3-48	Quartz	Flake	Complete	Single	Hinge	Overhang		Tertiary	12.99	19.2	7.79	20.96
418758	5900062	55	DHL AS 2	MTP11RADC	350		4	DHL3-49	Basalt	Flake	SCR	Single	Feather			Tertiary	21.8	13	4.78	22.57
418758	5900062	55	DHL AS 2	MTP11RADC	350		4	DHL3-50	Basalt	Flaked Piece						Tertiary	31.83	17.99	9.99	31.83
418758	5900062	55	DHL AS 2	MTP11RADC	350		4	DHL3-51	Basalt	Flaked Piece						Tertiary	33.62	14.45	13	33.62
418758	5900062	55	DHL AS 2	MTP11RADC	350		4	DHL3-52	Quartzite	Flake	SCR	Focal	Feather			Tertiary	21.95	11.15	3.72	21.95
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-41	Quartz	Flaked Piece					Pebble	Secondary	22.17	7.27	7.31	22.17
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-42	Quartz	Flake	Complete	Single	Feather			Tertiary	20.83	24.02	16.39	30.39
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-43	Quartz	Flaked Piece						Tertiary	17.8	13.85	7.17	17.8
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-44	Quartz	Flake	Complete	Single	Feather			Tertiary	11.09	14.31	5.51	17.12
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-45	Quartz	Flake	Proximal	Single				Tertiary	11.74	10.77	4.06	14.63
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-46	Quartz	Flake	Distal		Feather			Tertiary	10.45	14.57	2.85	14.4
418764	5900030	55	DHL AS 2	MTP11RADD	300		3	DHL3-47	Basalt	Flake	Medial					Tertiary	8.03	16.55	4.21	17.55
418773	5900029	55	DHL AS 2	MTP11RADE	400		4	DHL3-64	Basalt	Flake	Complete	Focal	Step			Tertiary	31.61	9.48	5.36	31.64
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-13	Basalt	Flake	Complete	Cortical	Bipolar		Pebble	Primary	45.72	29.15	20.08	51.12
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-14	Basalt	Flake	Complete	Multiple	Feather		Pebble	Primary	32.43	14.34	8.32	34.27
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-15	Quartz	Flake	Complete	Single	Feather	Overhang		Tertiary	13.07	7.61	5.11	13.91
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-16	Quartz	Flaked Piece						Tertiary	31.31	17.84	12.53	31.31
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-17	Quartz	Flake	Complete	Single	Feather			Tertiary	17.76	14.19	3.69	17.33
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-18	Silcrete	Flake	Complete	Single	Feather			Tertiary	18.48	11.23	3.91	21.4
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-19	Quartz	Flake	Complete	Single	Feather			Tertiary	11.1	18.12	5.62	22.39
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-20	Quartz	Flake	Complete	Single	Feather			Tertiary	12.59	9.93	3	13.51
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-21	Quartz	Flake	Complete	Single	Feather			Tertiary	11.31	12.02	2.65	14.01
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-22	Quartz	Flake	SCR	Single	Step			Tertiary	12.18	9.93	5	12.9
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-23	Quartz	Flake	Complete	Multiple	Feather			Tertiary	10.4	8.4	4.56	12.57
418752	5900022	55	DHL AS 2	MTP11RADH	250		3	DHL3-24	Quartzite	Flaked Piece						Tertiary	28.97	11.27	8.51	28.97
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-65	Basalt	Flake	Complete	Multiple	Feather			Tertiary	25.82	10.92	4.29	25.97
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-66	Basalt	Flaked Piece						Tertiary	31.6	18.5	13.71	31.6

Easting	Northing	Zone	Site	Square	Depth (cm)	Layer	Spit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-67	Basalt	Flake	Complete	Multiple	Hinge			Tertiary	22.21	13.75	4.59	22.48
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-68	Basalt	Flake	Proximal	Facetting				Tertiary	19.98	7.49	4.55	21.17
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-69	Quartz	Flake	Proximal	Multiple				Tertiary	17.55	16.69	6.67	23.84
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-70	Quartz	Flake	Complete	Single	Feather			Tertiary	14.5	12.77	3.41	18.2
418752	5900022	55	DHL AS 2	MTP11RADH	400		4	DHL3-71	Quartz	Flake	Complete	Single	Feather			Tertiary	14.94	6.05	2.22	15.62
418750	5900012	55	DHL AS 2	MTP11RADJ	300		3	DHL3-29	CGV	Flake	Complete	Single	Feather		Pebble	Primary	46.34	52.66	22.92	65.43
418750	5900012	55	DHL AS 2	MTP11RADJ	300		3	DHL3-30	Basalt	Flaked Piece						Tertiary	37.64	28.81	21.73	37.64
418750	5900012	55	DHL AS 2	MTP11RADJ	300		3	DHL3-31	Silcrete	Flake	Distal		Feather			Tertiary	14.77	13.78	4.63	16.13
418750	5900012	55	DHL AS 2	MTP11RADJ	300		3	DHL3-32	Basalt	Flake	SCL	Focal	Feather			Tertiary	16.94	8.15	5.13	18.09
418744	5900033	55	DHL AS 2	MTP11RADL	350		4	DHL3-25	Basalt	Core					Pebble	Primary	31.94	23.63	20.5	37.51
418739	5900034	55	DHL AS 2	MTP11RADN	350		4	DHL3-26	CGV	Flaked Piece					Pebble	Primary	48.76	42.11	6.57	48.76
418739	5900034	55	DHL AS 2	MTP11RADN	350		4	DHL3-27	Quartz	Flaked Piece						Tertiary	14.31	12.83	6.78	14.31
418739	5900034	55	DHL AS 2	MTP11RADN	350		4	DHL3-28	Basalt	Flake	Complete	Single	Feather		Pebble	Primary	20.35	5.06	2	20.44
418729	5900036	55	DHL AS 2	MTP11RADO	200		2	DHL3-11	Quartz	Retouched Flake	SCL	Single	Feather			Tertiary	16.82	13.73	4.96	20.66
418729	5900036	55	DHL AS 2	MTP11RADO	200		2	DHL3-12	Basalt	Flaked Piece						Tertiary	17.77	14.39	1.95	17.77
418747	5900053	55	DHL AS 2	MTP11RADR	300		3	DHL3-80	Basalt	Flake	Complete	Cortical	Feather		Pebble	Primary	24.73	26.23	8.86	37.96
418747	5900053	55	DHL AS 2	MTP11RADR	200		2	DHL3-36	CGV	Flaked Piece					Pebble	Primary	53.11	37.55	13.82	53.11
418747	5900053	55	DHL AS 2	MTP11RADR	200		2	DHL3-37	Quartz	Flake	Complete	Single	Hinge			Tertiary	14.21	14.19	2.99	17.87
418747	5900053	55	DHL AS 2	MTP11RADR	200		2	DHL3-38	Quartz	Flake	Complete	Cortical	Feather		Pebble	Secondary	10.05	18.26	5.91	21.15

Dead Horse Lane AS3 (VAHR 8123-0076)

Easting	Northing	Zone	Site	Square	Depth (cm)	Layer	Spit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_1	Quartz	Flake	Complete	Cortical	Feather			Tertiary	18.7	21.58	6.39	23.67
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_10	Quartz	Flake	Complete	Focal	Feather			Tertiary	20.03	9.38	3.44	20.03
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_11	Quartz	Flake	Complete	Collapsed	Bipolar			Tertiary	14.39	10.5	4.94	14.79
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_12	Quartz	Flake	Complete	Single	Feather			Tertiary	10.82	11.51	5.29	15.19
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_13	Quartz	Flaked Piece						Tertiary	15.34	12.64	6.42	15.53
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_14	Quartz	Flake	Complete	Single	Step			Tertiary	15.57	9.89	4.95	16.03
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_15	Quartz	Flaked Piece						Tertiary	16.7	11.21	4.09	15.42
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_16	Quartz	Flake	Complete	Single	Feather			Tertiary	13.34	13.58	5.3	17.22
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_17	Quartz	Flaked Piece						Tertiary	16.07	7.06	5.15	16.07
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_18	Quartz	Flaked Piece						Tertiary	15.45	6.49	2.99	15.45
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_19	Quartz	Flaked Piece						Tertiary	16.87	7.09	2	16.87
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_2	Quartz	Flake	Complete	Multiple	Feather			Tertiary	18.35	7.46	2.83	18.32
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_3	Quartz	Flake	SCR	Single	Feather			Tertiary	12.97	14.55	5.15	17.07
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_4	Quartz	Flake	Complete	Single	Feather			Tertiary	16.88	3.11	1.94	16.93
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_5	Quartz	Flake	Complete	Focal	Feather			Tertiary	26.29	10.43	8.13	26.02
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_6	Quartz	Core						Tertiary	16.84	22.5	13.3	23.58
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_7	Quartz	Flake	Complete	Single	Feather			Tertiary	10.85	19.06	7.6	22.77
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_8	Quartz	Flake	Complete	Single	Feather			Tertiary	11.35	5.52	3.31	12.17
418953	5900100	55	DHL AS 3	MTP26	200			DHL2_9	Quartz	Flake	SCL	Single	Step			Tertiary	16.54	7.83	5.02	19.19
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-53	Basalt	Flake	Complete	Multiple	Bipolar	Overhang		Tertiary	22.84	18.42	5.34	26.91
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-54	Basalt	Flake	Complete	Focal	Feather		Pebble	Secondary	34.63	24.18	7.18	36.41
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-55	Quartz	Flaked Piece					Pebble	Primary	26.94	18.04	7.4	27.01
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-56	Quartz	Flake	Proximal	Single		Overhang		Tertiary	21.08	5.13	3.64	21.08
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-57	Quartz	Retouched Flake	Complete	Collapsed	Bipolar			Tertiary	15.67	9.23	3.47	17.86
418951	5900091	55	DHL AS 3	MTP26GRADA	100		1	DHL3-58	Quartz	Flake	Complete	Multiple	Feather			Tertiary	12.88	15.65	8.11	17.02
418954	5900105	55	DHL AS 3	MTP26RADC	200		2	DHL3-10	Quartz	Flake	Proximal	Single				Tertiary	6	12.13	5.5	12.76
418954	5900105	55	DHL AS 3	MTP26RADC	200		2	DHL3-8	Quartz	Flaked Piece						Tertiary	28.15	9.7	8.39	28.15
418954	5900105	55	DHL AS 3	MTP26RADC	200		2	DHL3-9	Quartz	Flake	Complete	Multiple	Step			Tertiary	11.81	14.16	4.35	18
418963	590098	55	DHL AS 3	MTP26RADE	200		2	DHL3-77	Basalt	Flaked Piece						Tertiary	20.06	13.28	2.15	20.06
418948	5900101	55	DHL AS 3	MTP26RADH	250		3	DHL3-39	Basalt	Flaked Piece					Pebble	Secondary	28.3	20.49	12.06	28.3
418948	5900101	55	DHL AS 3	MTP26RADH	250		3	DHL3-40	Crystal Quartz	Flaked Piece						Tertiary	25.02	11.7	4.94	25.02

Dead Horse Lane LDAD1 (VAHR 8123-0077)

Easting	Northing	Zone	Site	Square	Depth (cm)	Layer	Spit	ID	Material	Manufacture Type	Breakage	Platform Surface	Termination	Platform Prep	Cortex Type	Dorsal Cortex/Stage Reduction	Length (mm)	Width (mm)	Thickness (mm)	Max. Dim. (mm)
418690	5900190	55	DHL LDAD 1	MTP35	200			DHL2_25	Quartz	Flake	Complete	Collapsed	Feather			Tertiary	12.41	15.53	3.25	16.48
418690	5900190	55	DHL LDAD 1	MTP35	200			DHL2_26	Quartz	Flake	Complete	Collapsed	Feather			Tertiary	11.3	13.9	1.86	15.81
418690	5900190	55	DHL LDAD 1	MTP35	200			DHL2_27	Quartz	Flake	Complete	Single	Feather			Tertiary	14.59	12.75	6.2	15.03
418690	5900187	55	DHL LDAD 1	MTP35RADF	150		2	DHL3-2	Basalt	Flaked Piece					Pebble	Secondary	35.94	20.25	16.12	35.94
418690	5900187	55	DHL LDAD 1	MTP35RADF	150		2	DHL3-3	Basalt	Flake	Distal		Feather			Tertiary	10.64	19.13	2.17	20.06
418700	5900185	55	DHL LDAD 1	MTP35RADG	150		2	DHL3-7	Quartz	Flake	Complete	Single	Step			Tertiary	11.13	15.51	4.64	16.86
418688	5900177	55	DHL LDAD 1	MTP35RADL	150		2	DHL3-1	Quartz	Retouched Flake	Complete	Single	Feather			Tertiary	29.24	22.46	11.41	37.04

Appendix 11: Positive MTP Radial photos and cross sections

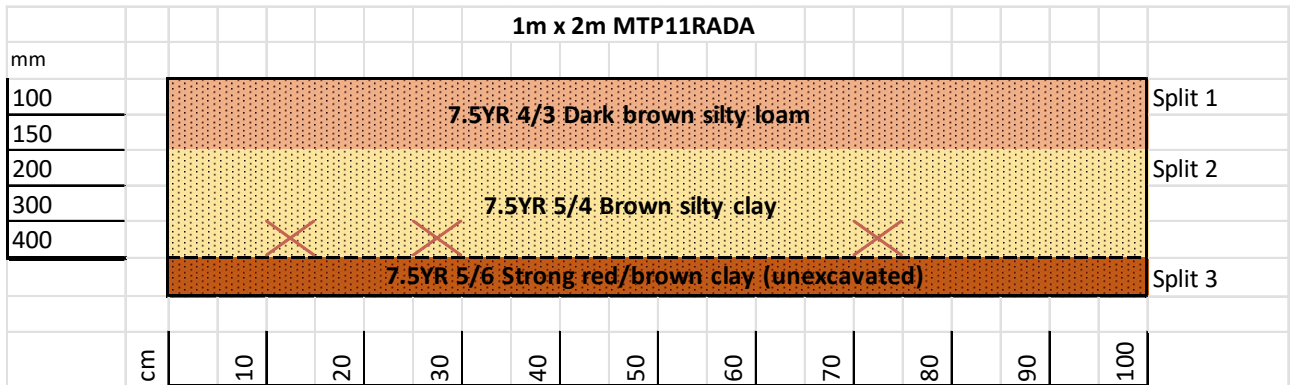


Figure 17: Cross-section of MTP11RADA. Artefact shown as 'X'.

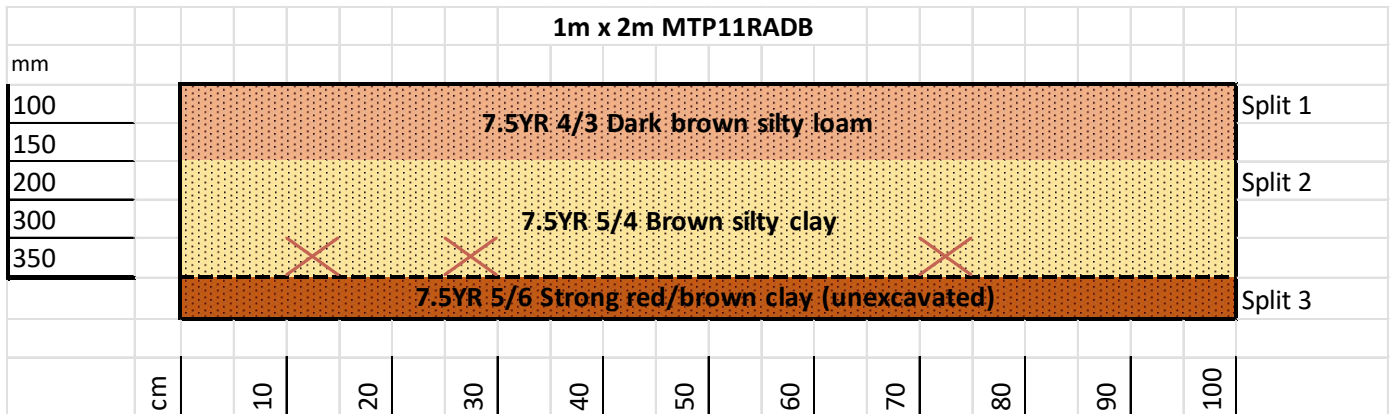


Figure 18: Cross-section of MTP11RADB. Artefact shown as 'X'.

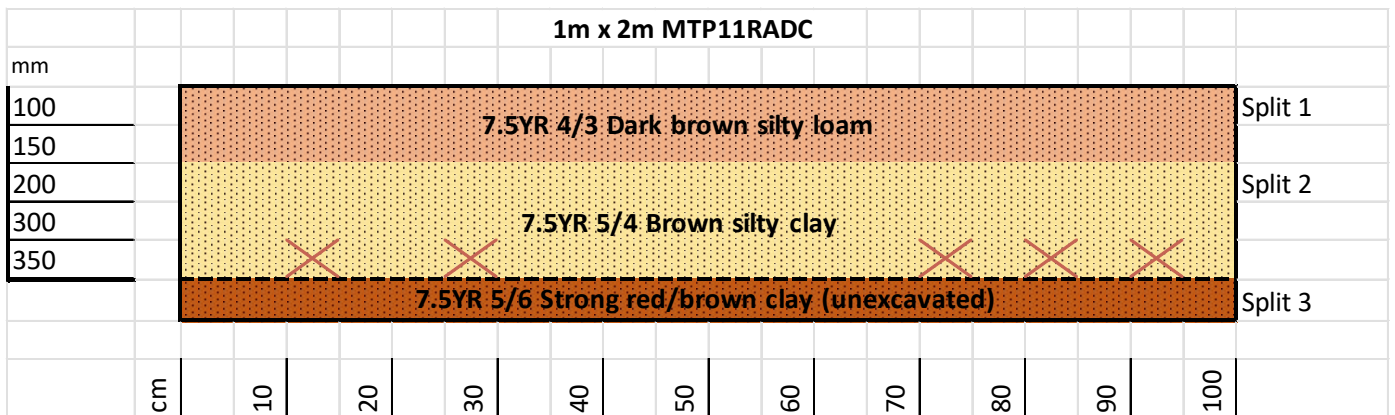


Figure 19: Cross-section of MTP11RADC. Artefact shown as 'X'.

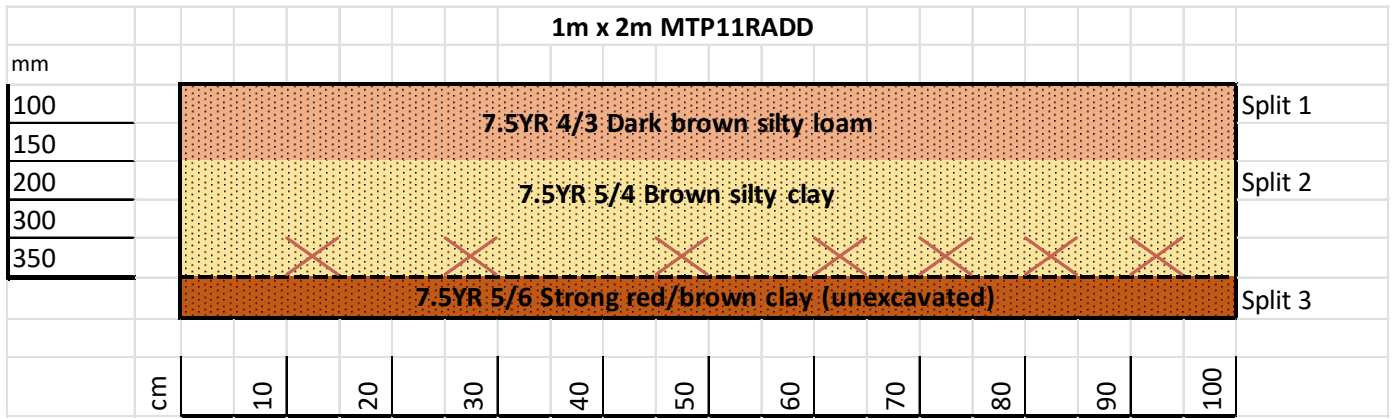


Figure 20: Cross-section of MTP11RADD. Artefact shown as 'X'.

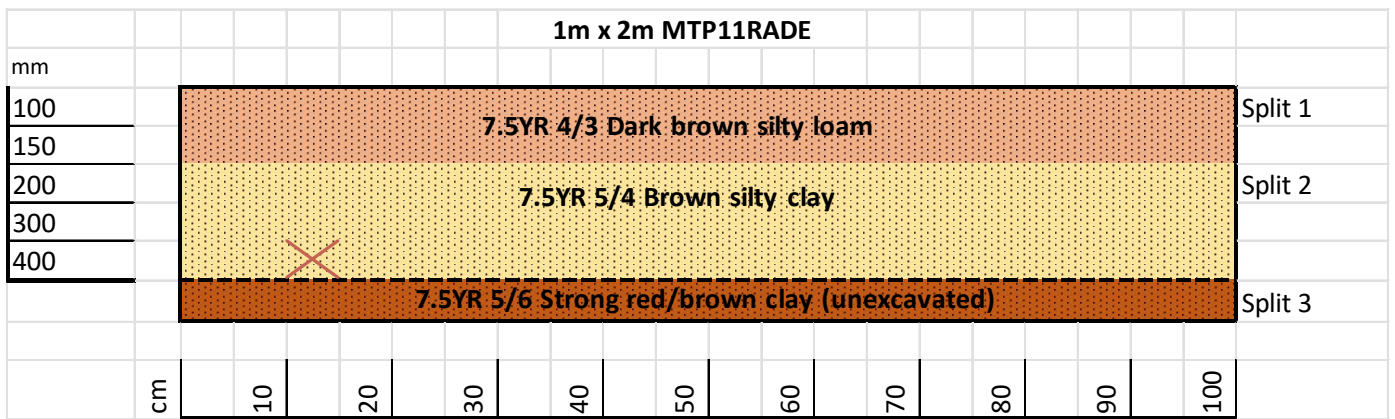


Figure 21: Cross-section of MTP11RADE. Artefact shown as 'X'.

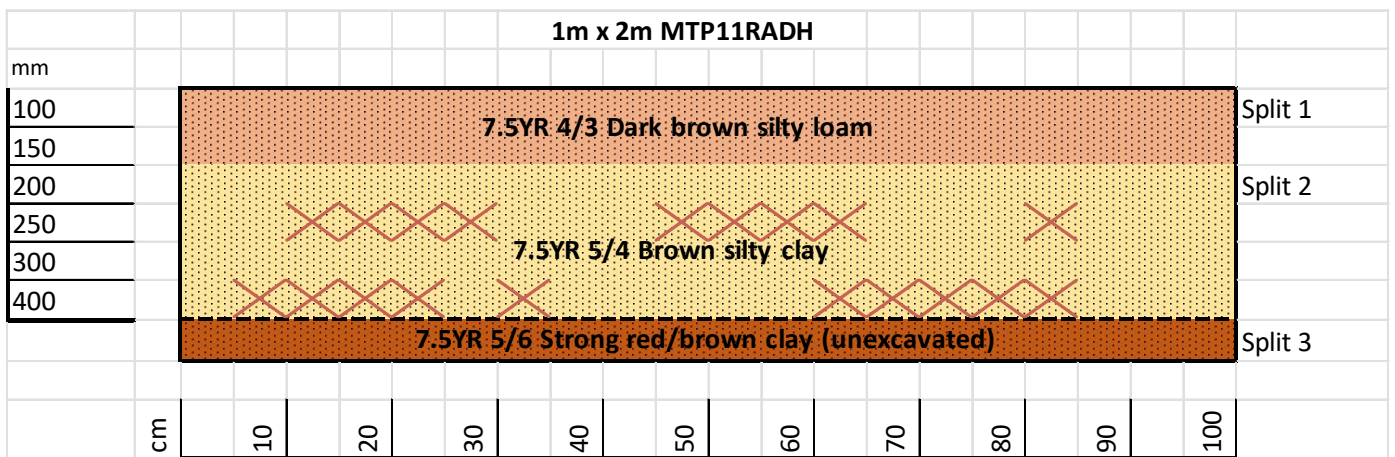


Figure 22: Cross-section of MTP11RADH. Artefact shown as 'X'.

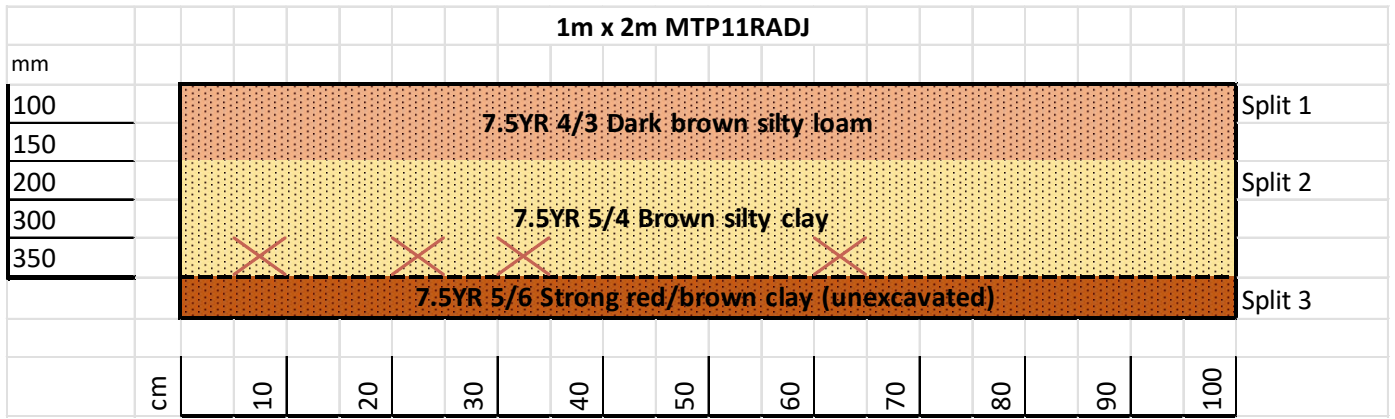


Figure 23: Cross-section of MTP11RADJ. Artefact shown as 'X'.

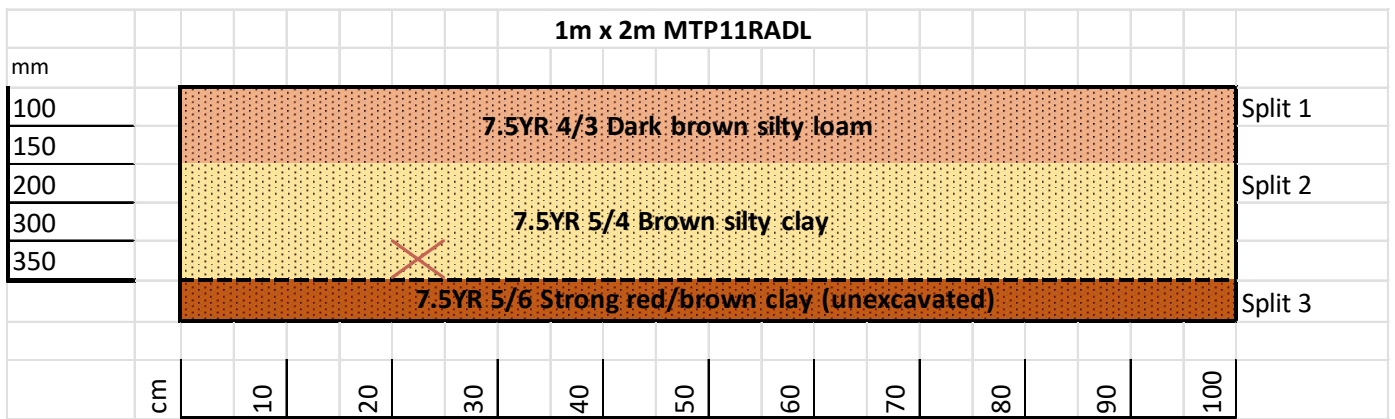


Figure 24: Cross-section of MTP11RADL. Artefact shown as 'X'.

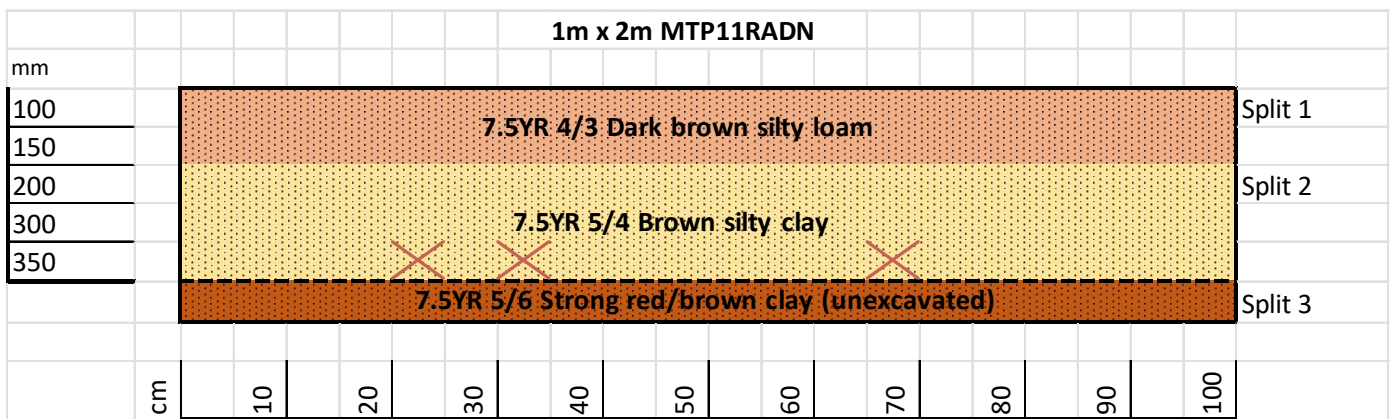


Figure 25: Cross-section of MTP11RADN. Artefact shown as 'X'.

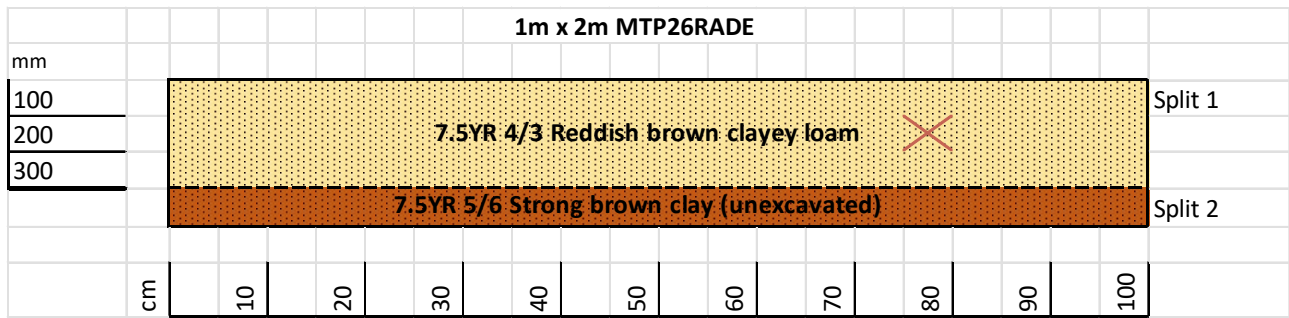


Figure 30: Cross-section of MTP26RADE. Artefact shown as 'X'.

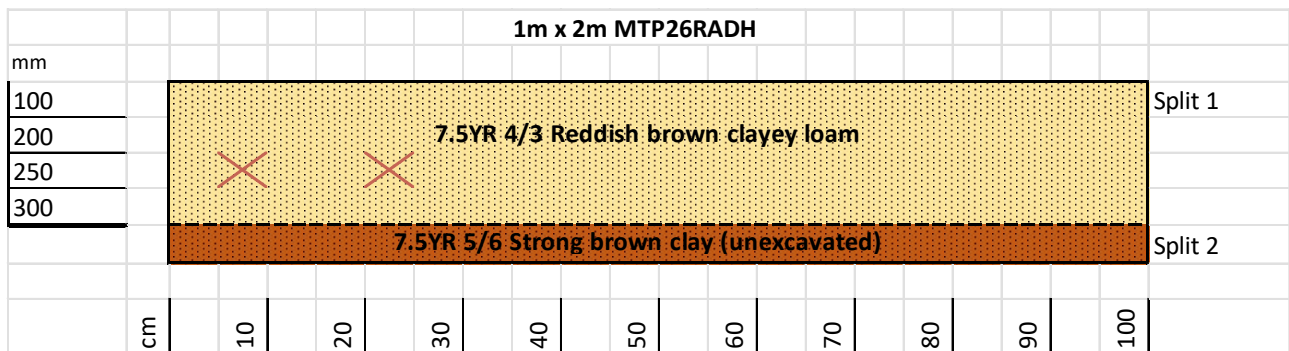


Figure 31: Cross-section of MTP26RADH. Artefact shown as 'X'.

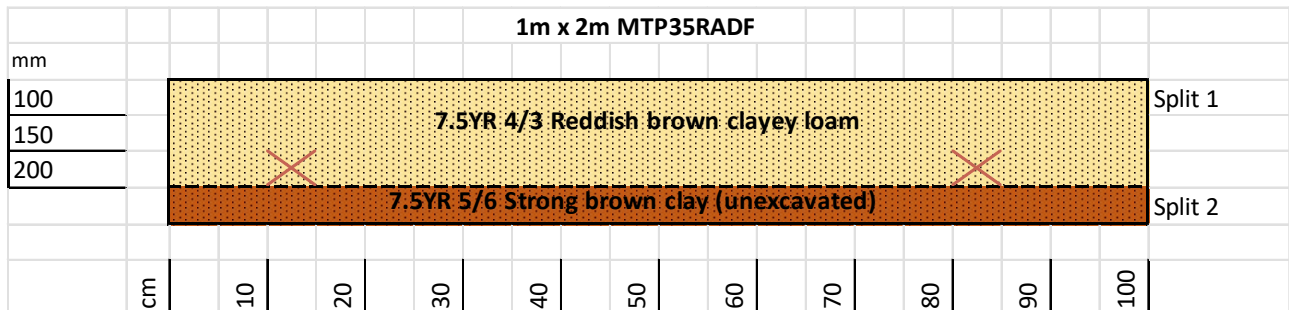


Figure 32: Cross-section of MTP35RADF. Artefact shown as 'X'.

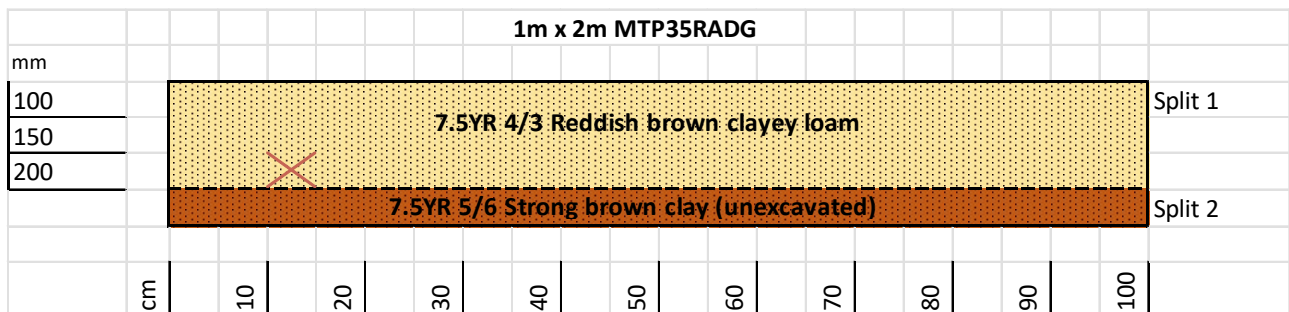


Figure 33: Cross-section of MTP35RADG. Artefact shown as 'X'.

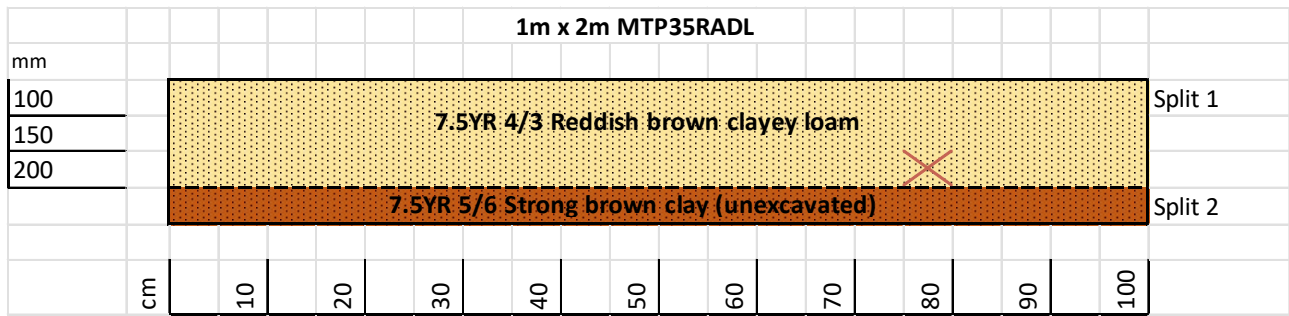


Figure 34: Cross-section of MTP35RADL. Artefact shown as 'X'.

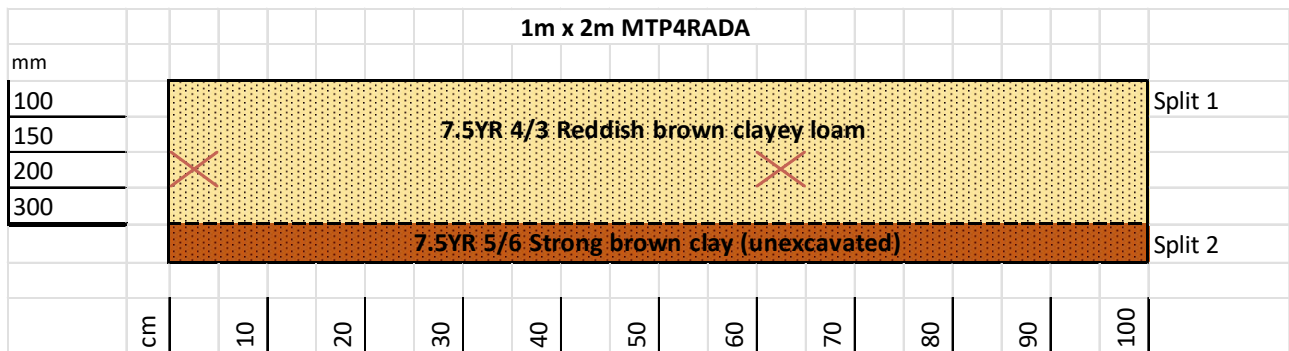


Figure 35: Cross-section of MTP4RADA. Artefact shown as 'X'.

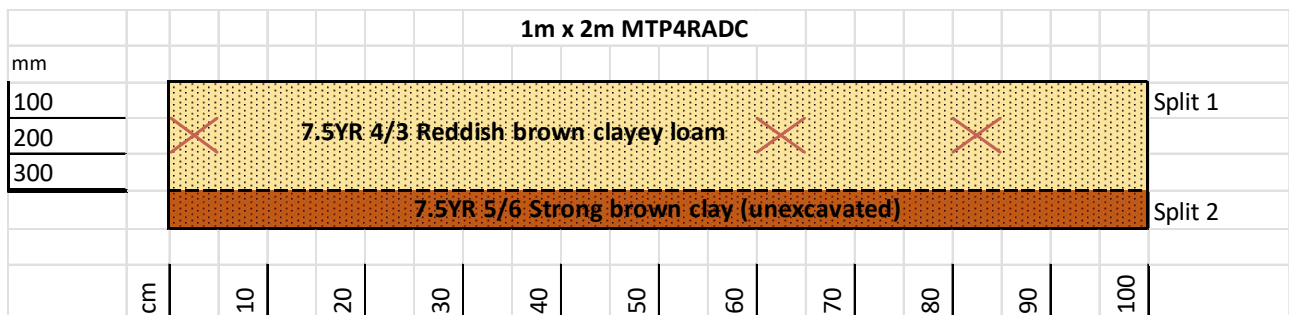


Figure 36: Cross-section of MTP4RADC. Artefact shown as 'X'.

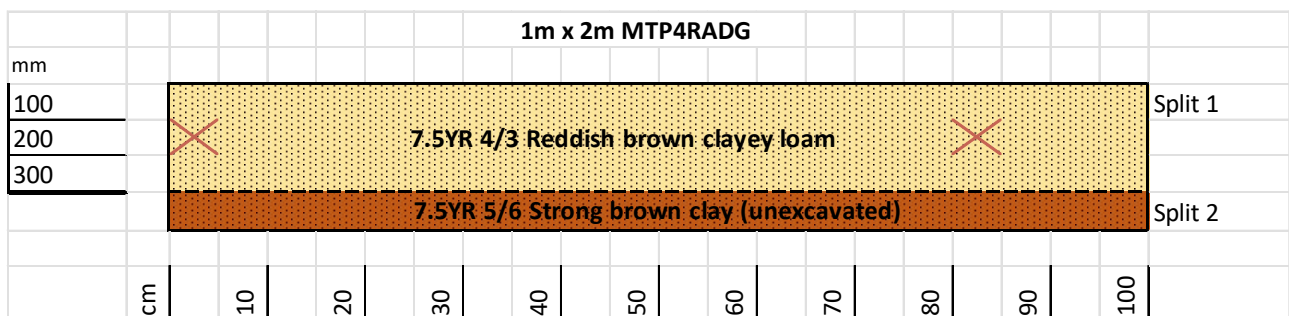


Figure 37: Cross-section of MTP4RADG. Artefact shown as 'X'.

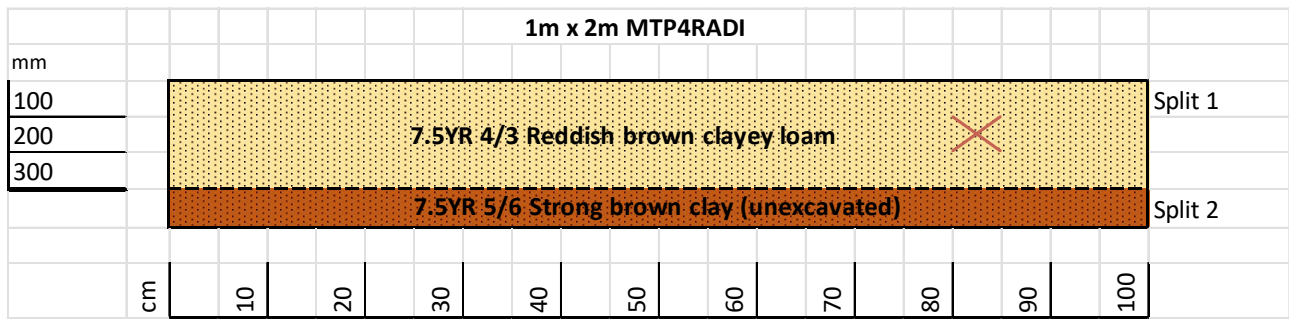


Figure 38: Cross-section of MTP4RADI. Artefact shown as 'X'.

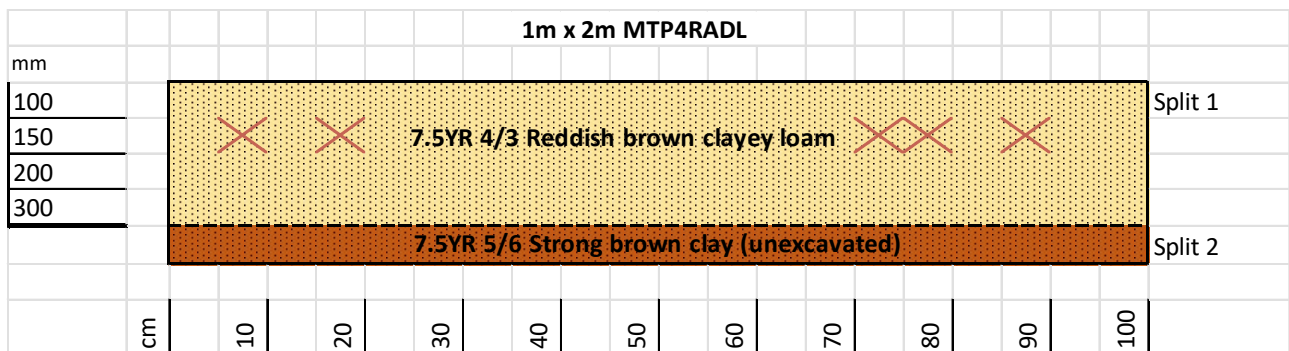


Figure 39: Cross-section of MTP4RADL. Artefact shown as 'X'.

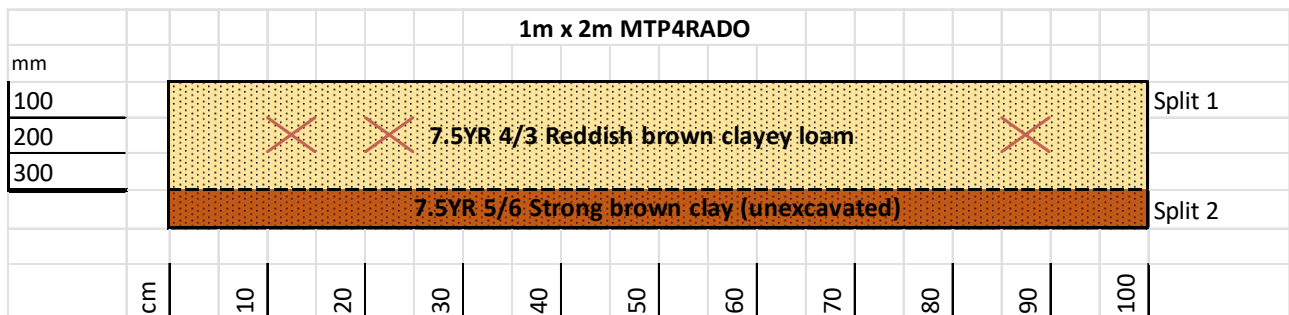


Figure 40: Cross-section of MTP4RADO. Artefact shown as 'X'.

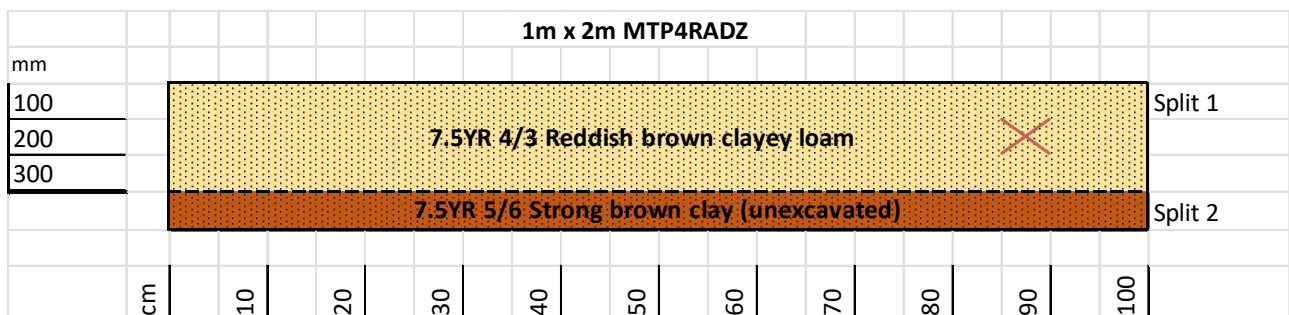


Figure 41: Cross-section of MTP4RADZ. Artefact shown as 'X'.