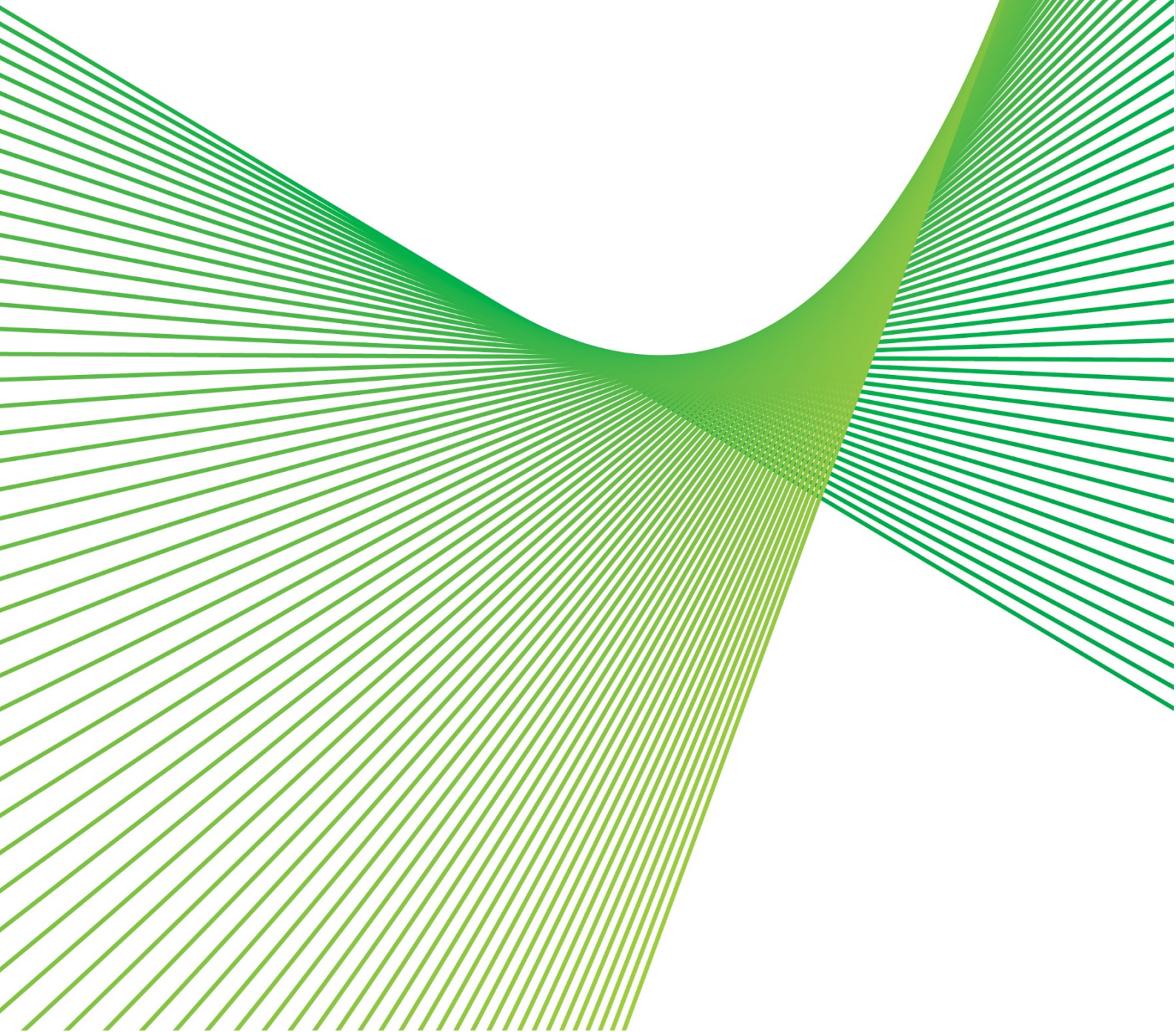


# **Appendix D Addendum Non-Aboriginal and Aboriginal Cultural Heritage Assessment Report**

Snowy 2.0 Transmission Connection Project  
(December 2021)



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## Abbreviations

Term	Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHCRP	Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010
ACT	Australian Capital Territories
AGD	Australian Geodetic Datum
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System
APZ	Asset Protection Zone
BP	Before Present
CHMP	Cultural Heritage Management Plan
DECCW	Department of Environment, Climate Change and Water
DPIE	Department of Planning, Industry and Environment
EIS	Environmental impact statement
ESD	Ecological Sustainable Development
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
FGS	fine grained siliceous
GDA	Geocentric Datum of Australia
GIS	Geographic Information Systems
ICOMOS	Australia International Council on Monuments and Sites
IMSTC	Indurated mudstone / Tuff / Chert
Jacobs	Jacobs Group (Australia) Pty Ltd
KNP	Kosciusko National Park
Km	Kilometre
KV	Kilovolt
LALC	Local Aboriginal Land Council
LGA	Local Government Area
m	meters
MCoA	Minister's Conditions of Approval
mm	millimetre
NSW	New South Wales
NPWS	National parks and Wildlife Service
OEH	Office of Environment and Heritage
PAD	Potential Archaeological Deposit
PEA	Preliminary Environmental Assessment



Term	Definition
Post ex	Post excavation
RAP	Registered Aboriginal Party
SEAR	Secretary's Environmental Assessment Requirements
SSI	State Significant Infrastructure
ST PAD	Snowy Transmission Potential Archaeological Deposit
TP	Test Pit

## Executive Summary

TransGrid is seeking approval under Part 5, Division 5.2 of the Environmental Planning and Assessment Act 1979 (EP&A Act) to construct and operate an overhead electricity transmission line and a substation to connect the Snowy 2.0 pumped hydroelectricity generation works (Snowy 2.0) to TransGrid's existing transmission network at Nurenmerenmong, east of Tumbarumba (the project).

An Environmental Impact Statement (EIS) including the Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared to support TransGrid's application for approval of the project in accordance with the requirements of Division 5.2 of the EP&A Act. The EIS was placed on public exhibition by the NSW Department of Planning, Industry and Environment (DPIE) for a period of 42 days, between 23 February 2021 and 5 March 2021. During the exhibition period, interested stakeholders and members of the community were able to review the EIS and make a written submission to the DPIE for consideration in its assessment of the Project.

Following exhibition of the EIS, TransGrid identified amendments to the project as presented in the EIS. These amendments provide functional improvements to the design, confirm elements of the project that were highlighted as opportunities in the EIS and takes into account ongoing development of the construction methodology. The proposed amendments, particularly a reduction in the disturbance area, also respond to issues raised in submissions. These project amendments are discussed in further in the Snowy 2.0 Connection Project Amendment Report (TransGrid, 2021). The Amendment Report also provides the full amended project description, project clarifications, additional environmental assessment undertaken following exhibition of the EIS and update mitigation measures.

As part of this process Heritage NSW – Aboriginal Cultural Heritage (Heritage NSW) provided a detailed submission (DOC21/110300) on the 29 March 2021. This submission indicated that test excavations should be completed at two locations, identified as ST PAD 01 and ST PAD 02 to provide a more detailed assessment of significance. Heritage NSW also noted that the track atop Sheep Station Ridge was not assessed and that additional investigations of the area would be required to identify and assess Aboriginal heritage. However, as part of the proposed amendments, Sheep Station Ridge will be avoided.

In May 2021, Jacobs completed a field inspection in response to the identification of a potential find of an unexpected Aboriginal object. The inspections resulted in the identification of an additional area of PAD and surface artefact at Structure 5 (Str5 PAD). As well as previously unidentified surface artefacts at ST PAD 01, ST PAD 02, and AHIMS ID 56-6-0540 (located near Structure 7).

Based on advice provided in DOC21/110300, a test excavation methodology was prepared to guide investigations at ST PAD 01, ST PAD 02, and Str5 PAD (Appendix A). Subsequently, test excavations were undertaken within the disturbance area between 17 August and 20 August 2021. The test excavation program resulted in the identification of 20 artefacts at ST PAD 01 and 16 at ST PAD 02. The artefacts were identified within a context assessed as being of low archaeological integrity and as a result, ST PAD 01 and ST PAD 02 are considered to be of low significance. Based on the findings at ST PAD 01 and ST PAD 02, Str5 PAD was assessed as having no potential to contain subsurface artefacts, and no excavations were completed. On 24 August 2021, Heritage NSW was contacted and provided with an overview of the reassessment of Str5 PAD. Heritage NSW confirmed that test excavations would not be required at Str5 PAD to satisfy the comments made in DOC21/110300 (Appendix B). Following the reassessment, Str5 PAD was renamed Str5 AS. Due to the lack of archaeological integrity at Str5 AS, the site is considered to be of low significance.

The assessment of impacts included in the ACHAR (Jacobs 2020) was revised. It was found that the amended disturbance area will no longer pose an impact to AHIMS ID 56-6-0041. However, as a result of the design amendment, AHIMS ID 56-6-0540 and AHIMS ID 56-6-0048 will be totally impacted by the project, resulting in a total loss of value. ST PAD 01, ST PAD 02, and Str5 AS will be partially impacted, resulting in a partial loss of value.



It is therefore recommended that:

- Where possible, impacts to identified Aboriginal sites will be avoided
- Where impacts to ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 cannot be avoided, the approved MCoA must be issued by DPIE to authorise impacts through the project. Works cannot commence in these locations until this approval has been received and all conditions relating to these sites complied with
- A collection of surface artefact across the extent of ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 should take place prior to impacts. The surface collection would require the approved MCoA as authorisation for harm to the site through salvage works
- No mitigation measures will be required for AHIMS ID 56-6-0041
- A CHMP will be developed to provide guidance on the procedure for the identification of unexpected Aboriginal objects and the long-term management of Aboriginal objects retrieved from ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048
- If suspected human remains are located during any stage of the project, work will stop immediately, and the NSW police and Coroner's Office should be notified. NSW Heritage should be notified if the remains are found to be Aboriginal
- If changes are made to the project to include impacts outside the disturbance area as delineated in this document, further archaeological investigation will be conducted.

This Addendum ACHAR was prepared following the exhibition of the EIS. The revised ACHAR was prepared in response to the submission from NSW Heritage and assesses the impacts associated with the project amendments and should be read in conjunction with the ACHAR (Jacobs 2020).

## 1. Introduction

### 1.1 Background

TransGrid is the manager and operator of the major high-voltage electricity transmission network in New South Wales (NSW) and the Australian Capital Territory (ACT). TransGrid seeking approval under Part 5 Division 5.2 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for the construction and operation of an overhead transmission connection and substation to enable the grid connection of Snowy 2.0 pumped hydro generation project (Snowy 2.0).

The Snowy 2.0 Transmission Project (the project) has been declared critical State Significant Infrastructure (SSI) under the State Environmental Planning Policy (State and Regional Development) 2011 and is subject to assessment and determination by the Minister for Planning and Public Spaces.

During the preparation of the Aboriginal Cultural Heritage Assessment Report (ACHAR), a search of the Aboriginal Heritage Information Management System (AHIMS) database was completed on 21 September 2020, which resulted in the identification of five AHIMS registered sites within the extent of the project area:

- Ravine; Lobs Hole; KNP91-59 (AHIMS ID 56-6-0009)
- Ravine SU17/L1 (AHIMS ID 56-6-0477)
- Ravine SU3/L1 (AHIMS ID 56-6-0495)
- Ravine SU3/L2 (AHIMS ID 56-6-0496)
- Ravine SU3/L3 (AHIMS ID 56-6-0497).

A series of archaeological surveys of the project area were completed from March 2018 to October 2019 which resulted in the identification of four areas of Potential Archaeological Deposit (PAD):

- ST PAD 01, which encompasses AHIMS ID 56-6-0009, 56-6-00495, 56-6-0496 and 56-6-0497.
- ST PAD 02
- ST PAD 03
- Substation PAD.

An archaeological test excavation program was completed in October 2019 at ST PAD 03 and Substation PAD. ST PAD 01 and ST PAD 02 were not subject to test excavations as both areas were located within the Snowy 2.0 project area, which was an active construction site during the time of the archaeological excavations. In addition, the Snowy 2.0 area was the subject of a separate archaeological assessment completed by Dibden (2018; 2019). The results of the test excavations at ST PAD 03 and Substation PAD were incorporated into the ACHAR and the significance of ST PAD 01 and ST PAD 02 was assessed based on the findings of Dibden (2019) who completed a testing program in a similar landform.

An Environmental Impact Statement (EIS) including the ACHAR was prepared to support TransGrid's application for approval of the project in accordance with the requirements of Division 5.2 of the EP&A Act. The EIS was placed on public exhibition by DPIE for a period of 42 days, between 23 February 2021 and 5 March 2021. During the exhibition period, interested stakeholders and members of the community were able to review the EIS and make a written submission to the DPIE for consideration in its assessment of the Project

As part of this process Heritage NSW – Aboriginal Cultural Heritage (Heritage NSW) provided a detailed submission (DOC21/110300) on the 29 March 2021 (Appendix B). The Heritage NSW submission provided comment on the ACHAR (DOC21/110300), indicating that test excavations should be completed at ST PAD 01 and ST PAD 02 to provide a more detailed assessment of significance. Heritage NSW also noted that the track atop Sheep Station Ridge was not assessed and that additional investigations of the area would be required to identify and assess Aboriginal heritage.



In May 2021, Jacobs completed a field inspection in response to the identification of a potential find of an unexpected Aboriginal object. The inspections resulted in the identification of an additional area of PAD and surface artefacts at Structure 5 (Str5 PAD). The field inspection also resulted in the identification of previously unrecorded surface artefacts within ST PAD 01, ST PAD 02, and AHIMS ID 56-6-0540 (located near Structure 7).

Based on advice provided by Heritage NSW (DOC21/110300), a test excavation methodology was prepared to guide investigations at ST PAD 01, ST PAD 02, and Str5 PAD (Appendix A). Subsequently, test excavations were undertaken within the Project area between 17 August and 20 August 2021. This Addendum ACHAR outlines the results of the test excavation program.

## **1.2 Project area**

The project is located within the Local Government Area (LGA) of Snowy Valleys (**Figure 1.1**). The eastern extent of the project is defined by the location of the proposed Snowy 2.0 cable yard at Lobs Hole Ravine in Kosciuszko National Park (KNP). From the Snowy 2.0 cable yard, the transmission connection extends west through KNP, through a landscape characterised by steep, mountainous terrain before traversing Talbingo Reservoir. The transmission connection then continues west, passing Elliott Way at three locations before entering Bago State Forest to the proposed substation site and the connection with existing transmission lines.

The existing landscape character of much of the project area consists of undisturbed and mountainous terrain, forested valleys, and is the only true alpine environment in NSW (NSW National Parks and Wildlife Service 2003). This landscape contains signs of limited previous human disturbance. Previous disturbance within the project area consists of existing transmission line corridors, minor access tracks, and infrastructure associated with the Talbingo Reservoir.

## **1.3 Overview of the project amendments**

Following exhibition of the EIS, TransGrid identified amendments to the project as presented in the EIS. These amendments provide functional improvements to the design, confirm elements of the project that were highlighted as opportunities in the EIS and takes into account ongoing development of the construction methodology. The proposed amendments also respond to issues raised in submissions.

The proposed amendments include:

- A reduction to the disturbance area from approximately 143 hectares (ha) to approximately 125 ha
- The inclusion of six distinct management zones within the reduced disturbance area
- Access track amendments including the introduction of an additional track and the realignment of another track to align with the positioning of the equipment laydown area adjacent to TransGrid's Ravine substation
- Increased substation footprint to accommodate a wider asset protection zone to meet compliance with AS5339-2018 Construction of buildings in bushfire prone areas.
- Alternative spoil disposal within the approved Snowy 2.0 Main Works footprint to accommodate the disposal of spoil generated in project area east
- New water uptake sites to facilitate construction in project area west.

These project amendments are discussed further in the Snowy 2.0 Connection Project Amendment Report (TransGrid, 2021). The Amendment Report also provides the full amended project description, project clarifications, additional environmental assessment undertaken following exhibition of the EIS and update mitigation measures.

To address the comments made by Heritage NSW (DOC21/110300), the proposed amendments will avoid Sheep Station Ridge. As a result, no further archaeological investigations will be completed at Sheep Station Ridge.

The ACHAR (Jacobs 2020) assessed that AHIMS ID 56-6-0041 would be harmed by the project. However, the amended disturbance area will avoid these locations. No further consideration has been given to these sites in this report.

The revision of the disturbance area will pose an impact to AHIMS ID 56-6-0540 and AHIMS ID 56-6-0048, which was not assessed in the ACHAR (Jacobs 2020). An assessment of the significance of these sites has been included in Section 5 and an assessment of impacts has been included in Section 6. Management and mitigation measures have been included in Section 7.

### **1.3.1 Update Project description since the display of the EIS**

The key elements of the amended project are shown on **Figure 1.2**, and include:

- A new substation located within Bago State Forest and adjacent to TransGrid's existing Line 64, which forms a 330 kilovolt (kV) connection between Upper Tumut and Lower Tumut switching stations. The substation would occupy a footprint of about 225 metres (m) wide by 500m long, surrounded by an approximate 80m to 100m wide cleared Asset Protection Zone (APZ)
- Upgrade and widening of an existing access road off Elliott Way to the substation including the construction of new driveways into the 330 kV and 500 kV switchyards
- Two new 330 kV overhead double-circuit transmission lines from the Snowy 2.0 cable yard to the new substation:
  - Total length of each line is approximately nine kilometres (km)
  - Located in a transmission corridor ranging in width from approximately 120m to 150m, inclusive of the hazard tree zone
  - Each line would comprise approximately 21 steel lattice structures up to 75m in height.
- Short overhead 330 kV transmission line connection (approximately 300m in length) comprising both steel lattice structures and pole structures as required between the substation and Line 64
- Construction of approximately 7.5km of new access tracks to the transmission structures, and upgrade to existing access tracks where required. The access tracks would remain following the completion of construction to service ongoing maintenance activities along the transmission lines
- Ancillary construction activities, including the establishment of tensioning and pulling sites for conductor and earth wire stringing, crane pads, site compounds and equipment laydown areas, and the transport and haulage of equipment and waste to and from the project area
- The accommodation of up to 20 construction workers at the Snowy 2.0 works accommodation at Lobs Hole with the remainder of the construction workforce being accommodated as required in the nearby townships of Tumbarumba, Talbingo, Tumut, Adaminaby, Providence Portal and Cooma.

## **1.4 Scope and objectives**

This Addendum ACHAR was prepared following the exhibition of the EIS in response to the submission from NSW Heritage and assesses the impacts associated with the project amendments. This report is intended to be read in conjunction with the ACHAR prepared by Jacobs in December 2020. Background information, details of previously completed archaeological investigations, and other site information are not repeated in this report.

The objectives of this report are to:

- Assess the Aboriginal cultural heritage values of the study area to address the recommendations of DOC21/110300
- Identify Aboriginal archaeological and cultural heritage values that may be impacted by the project
- Identify any further investigations, and mitigation and management measures that may be required, should the project proceed.

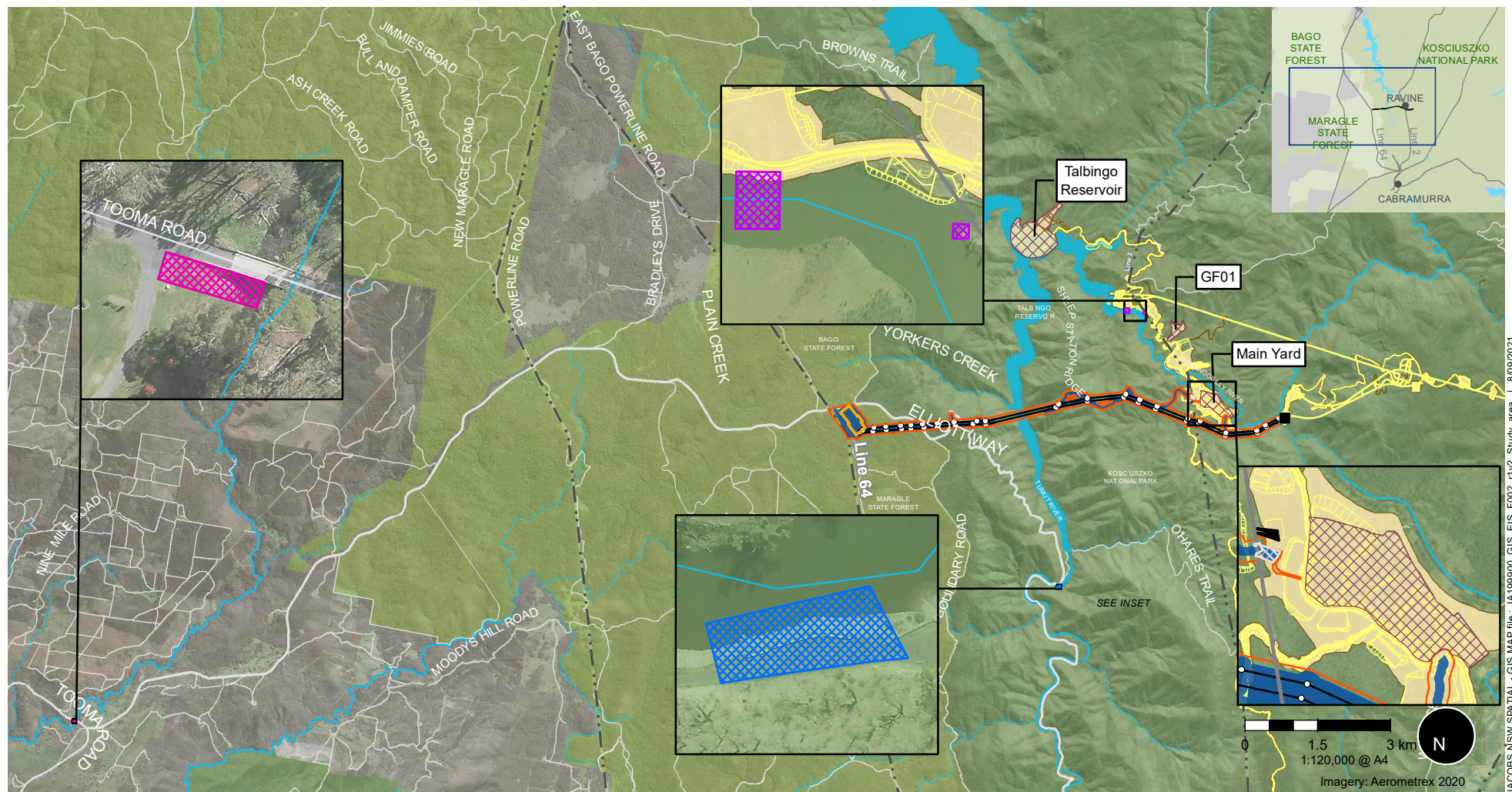
## **1.5 Report authorship and acknowledgements**

This report was prepared by Ryan Taddeucci (Senior Archaeologist, Jacobs) and Alexandra Seifertova (Archaeologist, Jacobs), with technical review and management input from Fran Scully (Principal Archaeologist, Jacobs). Mapping was prepared by Kasia Dworniczak (Senior Spatial Consultant, Jacobs).









- |  |                                 |                               |
|--|---------------------------------|-------------------------------|
| Project area                             | Snowy 2.0 cable yard            | Electricity transmission line |
| Disturbance area                         | Snowy 2.0 element               | Waterway                      |
| Proposed 500kV substation                | Emplacement Area                | Water body                    |
| Proposed structure                       | Snowy 2.0 Disturbance footprint | State forest                  |
| Proposed transmission line               |                                 | NPWS estate                   |
| Site compound and equipment laydown area |                                 |                               |
| Paddys river water extraction            |                                 |                               |
| Ravine intake                            |                                 |                               |
| T2 Tailbay water extraction              |                                 |                               |

**Figure 1-2** Updated project overview (the amended project)

## 2. Aboriginal stakeholder consultation

### 2.1 Registered Aboriginal Parties

Aboriginal stakeholder consultation was completed in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (ACHCRP) (DECCW 2010a) to inform the development of the ACHAR (Jacobs 2020) and supporting assessment methodologies. The consultation process resulted in the registration of 20 groups and/or individuals, summarized in **Table 2.1** below.

Table 2.1: Summary of RAPs identified through Stage 1

Organisation	Contact Person
Buru Ngunawal Aboriginal Corporation	Mr Walter Bell
Didge Ngunawal Aboriginal Corporation	Mr Paul Boyd and Ms Lilly Carroll
Griffiths Skills Training Centre and Ngumbaay Indigenous Corporation	Mr Luke Penrith
Gunjeewong Cultural Heritage Aboriginal Corporation	Ms Cherie Carroll Turrise
Koomurri Ngunawal Aboriginal Corporation	Mr Glen Freeman
Individual	Ms Janine Thompson
Individual	Ms Janice Williams
Individual	Ms Megan Considine
Merrigarn Indigenous Corporation	Mr Shaun Carroll
Muragadi Heritage Indigenous Corporation	Mr Jesse Johnson
Murra Bidgee Mullangari	Mr Ryan Johnson
Ngarigo Elders	Ms Iris White
Ngunawal Consultancy	Mr Piero Delponte
Snowy Mountains Indigenous Elders Group	Mr Ramsay Freeman
Individual	Ms Shirley Marlowe
Individual	Mr Matthew Marlowe
Individual	Mr Lawrence Marlowe
Individual	Mr Ron Grovenor
Walgala Elder	Ms Alice Williams
Yurwang Gundana Consultancy Cultural Heritage Services	Mr Dean Bell

Following the completion of stakeholder consultation undertaken to inform the development of the ACHAR (Jacobs 2020), a draft test excavation methodology was developed to guide to investigations of ST PAD 01, ST PAD 02, and Str5 PAD. The draft test excavation methodology was distributed to the RAPs on 14 July 2021 with a 28-day period for review and comment. By the end of the review period four groups had provided comment, see **Table 2.2** for a summary of the RAP comments. The methodology was finalised following the receipt of comments and the end of the 28-day consultation period.

The draft version of this Addendum ACHAR was provided to the RAPs for a 28-day review on 10 September 2021, requesting comments by 11 October 2021. By the end of the review period, one group (Didge Ngunawal Aboriginal Corporation) provided comment. Paul Boyd (Didge Ngunawal Aboriginal Corporation) provided comment in support of the draft Addendum ACHAR.



See Appendix C for records of consultation completed for this addendum.

Table 2.2: Summary of comments received regarding the test excavation methodology

Name of Organisation	Feedback	Action
Murra Bidgee Mullangari	Endorses the recommendations of the methodology.	Noted
Didge Ngunawal Aboriginal Corporation	Agrees with the proposed approach. The project area is where Lilly Carroll's ancestors, great grandparents, grandparents and father were born. Lilly's grandfather, James Carroll, was a 'black tracker' and would do his tracking all over the Snow Mountains and beyond. Lilly's father, Phillip Carroll, was a drover and would travel all the way to the Melbourne border.	Noted
Koomurri Ngunawal Aboriginal Corporation	No comment at this stage.	Noted
Muragadi Heritage Indigenous Corporation	Agrees with the proposed approach.	Noted

## 2.2 RAP participation in archaeological investigations

Luke Penrith (Consultant, Griffiths Skills Training Centre and Ngumbaay Indigenous Corporation) and Steven Connolly (Consultant, Griffiths Skills Training Centre and Ngumbaay Indigenous Corporation) were engaged to participate in the test excavation program. Luke Penrith had previously participated in the identification of ST PAD 02 and Str5 PAD with Jacob's personnel from March 2018 to May 2021, and Steven Connolly previously participated in the archaeological investigations undertaken by Dibden (2018; 2019).

Both RAPs stated on site that the remnant of ST PAD 01 that was subject to the current testing program would have low archaeological significance due to its location in the landscape. The area would have been within an active creek bed (evidenced through the presence of creek boulders in several test pits) and would not have contained permanent activity sites. The areas of ST PAD 01 previously tested by Dibden (2018; 2019) were further from the creek bed and therefore were of higher significance. These areas have been subsequently disturbed by works associated with an adjacent project.

ST PAD 02 was considered to be of low significance due its location on a steep slope. All artefacts found here were understood to have been a result of movement down the slope rather than representing permanent activity sites. Areas which would have higher significance was stated as being further up the slope near the ridgeline (outside of the activity area).

### **3. Test excavation methodology**

#### **3.1 Aims**

The key aims of test excavation were to:

- Determine whether any Aboriginal objects are present in subsurface deposits within ST PAD 01, ST PAD 02, and Str5 PAD
- Assess the scientific significance of any retrieved Aboriginal objects and context within ST PAD 01, ST PAD 02, and Str5 PAD
- Provide an opportunity for the RAPs to comment on the Aboriginal cultural heritage values of ST PAD 01, ST PAD 02, and Str5 PAD
- Provide the proponent with recommendations on future requirements for the management of ST PAD 01, ST PAD 02, and Str5 PAD.

The test excavation program was completed in accordance with the requirements of the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (the Code of Practice) (DECCW 2010b).

#### **3.2 Timing and personnel**

The test excavation program was carried out across four days from 17 August to 20 August 2021. Test excavation was supervised by Alison Lamond (Senior Archaeologist, Jacobs) and Alexandra Seifertova (Archaeologist, Jacobs).

Excavations were assisted by Luke Penrith (Consultant, Griffiths Skills Training Centre and Ngumbaay Indigenous Corporation) and Steven Connolly (Consultant, Griffiths Skills Training Centre and Ngumbaay Indigenous Corporation).

#### **3.3 Sample strategy**

##### **3.3.1 ST PAD 01 and ST PAD 02**

A total of nine dispersed test pits were excavated at ST PAD 01 and a total of seven were excavated at ST PAD 02. Due to dense vegetation, it was not possible to place the test pits on a grid with regular spacing, instead the pits were opportunistically placed at locations where disturbance was assessed to be minimal.

Areas where historic land use or obvious bioturbation had occurred were avoided as Aboriginal objects retrieved from those locations would be of low archaeological integrity and would not contribute towards a meaningful assessment of archaeological significance.

Two test pits (TP5 and TP9) located within ST PAD 01 were expanded to a 1m x 0.5m area, in order to allow safe excavation to a culturally sterile layer, at 0.3m in TP5a and 0.5m at TP9a.

##### **3.3.2 Str5 PAD**

Artefacts were identified in the area of Str5 PAD on 28 April 2021. Subsequent survey on 25 May 2021 identified that soils on site were in situ and not transported from elsewhere, but that it was unlikely for sub-surface archaeological deposits to be found on site. However, it was assessed that bioturbation and cryoturbation may have resulted in surface artefacts being worked into the soil and an area of PAD was defined. A cautious approach was adopted, and a test excavation program was planned for Str5 PAD.

Following the completion of test excavations at ST PAD 01 and ST PAD 02, it was found that Aboriginal objects were only found in deposits that were formed by sediment movement on top of and not within the in situ soil. As a result, Str5 PAD was reassessed as a surface artefact scatter, without an area of PAD.

It was considered that test excavations would not result in the identification of subsurface Aboriginal objects or that any additional data will be gathered that would contribute towards an assessment of significance of the site. It was assessed that test excavations would result in unnecessary harm to the identified surface artefacts. Therefore, Heritage NSW was contacted on 24 August 2021 to confirm if test excavations would be required to address DOC21/110300. On 24 August 2021, Heritage NSW provided written confirmation that test excavations would not be required at Str5 PAD to address DOC21/110300.

As Str5 PAD has been reassessed as a surface artefact scatter with no area of PAD, the site will henceforth be referred to as Str5 AS.

### **3.4 Excavation procedure**

Each test pit was hand excavated in 100 mm spits to provide information on the vertical distribution of artefacts within large stratigraphic deposits, with the exception of the first test pit which was excavation in 50 mm spits. Excavations ceased where highly plastic clays, interpreted as degraded bedrock, were identified.

Each test pit was recorded photographically to capture images of the excavated sections and record information on the nature of the deposit and any stratigraphic or soil formation patterning. Scaled plans were made of a representative section from all test pits. Handwritten notes were made, describing the composition of the deposit at each test pit.

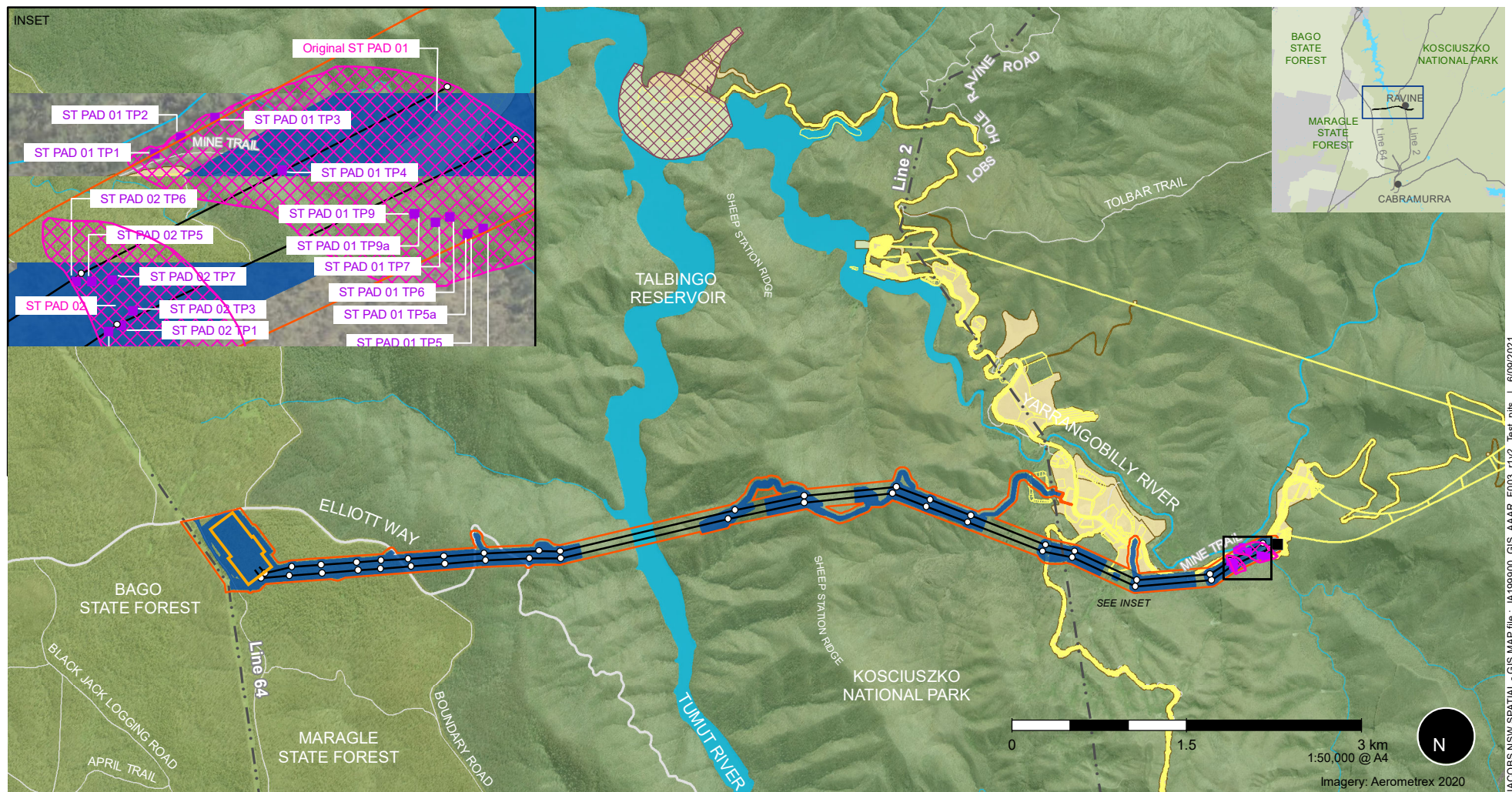
See Appendix D for records of the test excavation program.

### **3.5 Aboriginal objects**

All Aboriginal objects recovered from excavations were secured in zip-lock bags, which were labelled with the artefacts' date of excavation, area/site of excavation, square name/number, spit number, and other contextual information if applicable (e.g. feature or stratigraphic unit). Artefact bags were double-bagged within a larger grouping bag, to guard against potential loss during transport.

Following excavation, all artefacts were transported to Jacobs' Sydney office, and were kept in Jacobs' care while further analysis was undertaken. Photographs were taken of representative artefacts, to create a visual record of the general types of artefacts within the assemblage. The key attributes of all recovered Aboriginal objects were recorded (Appendix E).





**Figure 3-1** | Test pit locations



## 4. Test excavation results

### 4.1 Soils, disturbance and features

The subsurface profile showed little variation across the excavation area at both ST PAD 01 and ST PAD 02 (See Appendix F) and was similar at both sites. The immediate subsurface consisted of thick leaf litter, plant roots, and other organic material. This material was soft and spongy, with mould and fungi growing within it. This organic material extended to a depth of between two and 50mm below the surface, where it graded to a humic topsoil, typically dark brown in colour. This topsoil was rich in organic material and had abundant plant roots growing through it. The topsoil consisted of a fine silt-clay mixture, with sand present in very low quantities (<5%).

The humic topsoil graded to a red-brown subsoil, consisting of a fine silt-clay mixture indistinguishable in texture from the topsoil above it, other than in its lack of humic material. The subsoil became heavier and more clay-rich with depth. At the base of each pit the subsoil had all the properties of clay. It was highly malleable, with surfaces that could be smoothed to a shiny polished texture. The subsoil contained small nodules, dark grey, red or yellow in colour. These were generally rare within the subsoil and were more common toward the base of each pit.

The transition between the profile zones described above was gradual in all excavated pits. None of the pits showed any evidence of discontinuity, or even a rapid transition zone between the humic leaf-litter, topsoil and subsoil. None of the pits exhibited concentrations of sand or gravel that could be evidence of lag deposits created through surface erosion. The subsurface profile is interpreted as one that has developed through in situ soil formation processes. The subsoil is probably derived from an underlying bedrock that has degraded and decayed over time, breaking down to form a clay-rich deposit. At the top of this deposit a soil horizon has developed, predominantly through biological processes: the action of plant roots, the deposition of leaf litter and other organic material on the ground surface, and the incorporation of this material into the underlying deposit through the activities of burrowing animals such as earthworms (Wood and Johnson 1978).

Angular pebbles and cobbles of igneous rock were present in varying quantities in the excavated pits. These angular pieces were less than 50mm in maximum dimension and made up >5% of the volume of material excavated. Pieces of rock occurred most frequently toward the base of spit 1 and the top of spit 2 – at a depth of 50 – 150mm. The occurrence of pebbles and cobbles within this zone of the deposit is probably due to the action of earthworms, which cause rocks to sink downwards through a deposit (Darwin 1840). The concentration of rock between five and 150mm below the surface corresponds to the depth of the deposit that has been subject to bioturbation by earthworms and other burrowing animals.

Both ST PAD 01 and ST PAD 02 were situated on a sloping landform and their sub-surface deposits were identified as being the product of fluvial processes. As a result, it is likely that all artefacts retrieved from the test excavation program had been displaced from their original context. Therefore, both ST PAD 01 and ST PAD 02 are considered to have low archaeological integrity and be representative of 'background scatter'. As a result, statistical analysis of the retrieved assemblage is not considered to be warranted, as it would not yield meaningful results pertinent to determining the scientific significance of the sites.

A total of nine dispersed test pits were excavated at ST PAD 01 and a total of seven were excavated at ST PAD 02. **Table 4.1** and **Photo 1** to **Photo 16** to provide specific test pit information.

Table 4.1: Test pit locations

Site	Test pit	Easting	Northing	Final depth
ST PAD 01	TP1	627516	6038101	450mm
ST PAD 01	TP2	627536	6038114	150mm
ST PAD 01	TP3	627563	6038129	200mm

Site	Test pit	Easting	Northing	Final depth
ST PAD 01	TP4	627615	6038089	100mm
ST PAD 01	TP5	627759	6038039	700mm
ST PAD 01	TP5a (stepped out for safety)	627759	6038039	500mm
ST PAD 01	TP6	627745	6038052	500mm
ST PAD 01	TP7	627734	6038048	500mm
ST PAD 01	TP8	627721	6038043	500mm
ST PAD 01	TP9	627718	6038055	700mm
ST PAD 01	TP9a (stepped out for safety)	627718	6038055	200mm
ST PAD 02	TP1	627490	6037968	400mm
ST PAD 02	TP2	627480	6037963	100mm
ST PAD 02	TP3	627499	6037979	300mm
ST PAD 02	TP4	627495	6037949	200mm
ST PAD 02	TP5	621407	6038002	200mm
ST PAD 02	TP6	627455	6038002	100mm
ST PAD 02	TP7	627483	6038003	200mm



Photo 1: Post ex of ST PAD 01 – TP1. End depth 45cm  
(Source: A. Lamond 17/08/2021)



Photo 2: Post ex of ST PAD 01 – TP2. End depth 15cm  
(Source: A. Lamond 17/08/2021)





Photo 3: Post ex of ST PAD 01 – TP3. End depth 20cm  
(Source: A. Lamond 17/08/2021)



Photo 4: Post ex of ST PAD 01 – TP4. End depth 10cm  
(Source: A. Lamond 17/08/2021)



Photo 5: Post ex of ST PAD 01 – TP5. End depth 70cm  
(Source: A. Lamond 18/08/2021)



Photo 6: Post ex of ST PAD 01 – TP6. End depth 50cm  
(Source: A. Lamond 18/08/2021)





Photo 7: Post ex of ST PAD 01 – TP7. End depth 50cm  
(Source: A. Lamond 19/08/2021)



Photo 8: Post ex of ST PAD 01 – TP8. End depth 50cm  
(Source: A. Lamond 19/08/2021)



Photo 9: Post ex of ST PAD 01 – TP9. End depth 70cm  
(Source: A. Lamond 19/08/2021)



Photo 10: Post ex of ST PAD 02 – TP1. End depth 20cm  
(Source: A. Lamond 20/08/2021)





Photo 11: Post ex of ST PAD 02 – TP2. End depth 40cm (Source: A. Lamond 20/08/2021)



Photo 12: Post ex of ST PAD 02 – TP3. End depth 10cm (Source: A. Lamond 20/08/2021)



Photo 13: Post ex of ST PAD 02 – TP4. End depth 30cm (Source: A. Lamond 20/08/2021)



Photo 14: Post ex of ST PAD 02 – TP5. End depth 20cm (Source: A. Lamond 20/08/2021)



Photo 15: Post ex of ST PAD 02 – TP6. End depth 10cm (Source: A. Lamond 20/08/2021)



Photo 16: Post ex of ST PAD 02 – TP7. End depth 20cm (Source: A. Lamond 20/08/2021)

## 4.2 Artefact assemblage

As both ST PAD 01 and ST PAD 02 were located in close proximity, exhibited similar environmental features and were considered to have similar archaeological deposits. As a result, the artefacts have been considered as one assemblage.

A total of 36 artefacts were retrieved from the 4.5 m<sup>2</sup> that was excavated across both sites, resulting in an artefact density of 8 artefacts per m<sup>2</sup>. The highest concentration of artefacts was retrieved from ST PAD 01, which yielded a total of 20 artefacts, for an average density of 7.27 artefacts per m<sup>2</sup>. Likewise, the largest and highest artefacts were also located in ST PAD 01 (Table 4.2). Based on the assessment of disturbance and site formation discussed in Section 4.1, it is likely that fluvial processes were more prominent at ST PAD 01, which resulted in the displacement of a greater number of artefacts that were, on average, larger than those located at ST PAD 02.

Table 4.2: Summary of retrieved artefacts

ID	Count	Weight total (g)	Average artefact weight (g)
ST PAD 01 – TP5	3	67.99	22.66
ST PAD 01 – TP5a	8	3.42	0.43
ST PAD 01 – TP9	5	18.51	3.70
ST PAD 01 – TP9a	4	23.01	5.75
ST PAD 02 – TP1	2	23.65	11.83
ST PAD 02 – TP5	4	11.86	2.97
ST PAD 02 – TP6	7	22.94	3.28
ST PAD 02 – TP7	3	4.77	1.59
<b>TOTAL</b>	<b>36</b>	<b>176.15</b>	<b>4.89</b>



## 4.3 Updated site descriptions

### 4.3.1 ST PAD 01

Site Type: Artefact Scatter

Centroid: MGA94 Zone 55 627682 mE 6038056 mN

Site Length: 170m

Site Width: 355m

ST PAD 01 is an area of ground on the floor of a valley near Lobs Hole Ravine, approximately 1km southeast of the former Ravine Township at Lobs Hole. The area of PAD is within a flat, relatively open area adjacent to Wallaces Creek, and its confluence with the Yarrangobilly River. The survey on 25 May 2021, resulted in the identification of four stone artefacts, unretouched flakes, on the ground surface within the site extent. All surface artefacts were comprised of quartz

The site's original extent has been disturbed through ongoing Snowy 2.0 works. These disturbances include creation of an approximately 10m-wide haul road, several drainage catches, a bridge over Wallace Creek, and a built-up mounds to enable future construction (**Photo 17** to **Photo 19**). Areas of remnant native bushland remain in a narrow corridor on either side of Wallaces Creek (**Photo 20**).



Photo 17: ST PAD 01 – Disturbed area showing Wallace Bridge, haul road, and various mounds for construction, looking northeast (Source: A. Seifertova 17/08/2021)



Photo 18: ST PAD 01 – Disturbed area showing the new haul road, and various mounds for construction, looking southeast (Source: A. Seifertova 17/08/2021)



Photo 19: ST PAD 01 – Disturbed slope located below the haul road, looking east (Source: A. Seifertova 17/08/2021)



Photo 20: ST PAD 01 – Remnant 4WD track through native bushland, looking east (Source: A. Seifertova 18/08/2021)

The results of the test excavation program have confirmed the presence of subsurface artefacts across the area of PAD identified during the completion of the ACHAR. The subsurface assemblage was primarily comprised of Indurated mudstone / Tuff / Chert (IMSTC) with lesser numbers of silcrete and chert (**Table 4.3**). These lithologies are considered common within the local and regional context. The artefact types were predominately complete flakes and flake fragments with a single core and a single angular fragment (**Table 4.4**). No formal tools were identified within ST PAD 01 (**Photo 21** to **Photo 23**).

Table 4.3: Summary of lithologies

Lithology	Count	Percentage (%)
IMSTC	16	80
Silcrete	3	15
Chert	1	5

Table 4.4: Summary of artefact types

Type	Count	Percentage (%)
Complete flake	16	80
Core	1	5
Distal flake	1	5
Longitudinal left flake	1	5
Angular fragment	1	5



Photo 21: IMSTC core from ST PAD 01, TP5 – Spit 1  
(Source: A.Seifertova 27/08/2021)



Photo 22: IMSTC flake from ST PAD 01, TP5 – Spit 1  
(Source: A.Seifertova 27/08/2021)



Photo 23: IMSTC flake from ST PAD 01, TP9a – Spit 4  
(Source: A.Seifertova 27/08/2021)



### 4.3.2 ST PAD 02

Site Type: Artefact Scatter

Centroid: MGA94 Zone 55 627497 mE 6037950 mN

Site Length: 165m

Site Width: 100m

ST PAD 02 is an area of level and gently sloping ground on the crest of a low spur ridge. This site is located to the west of ST PAD 01 and is approximately 80m south of the Yarrangobilly River. The survey on 25 May 2021, resulted in the identification of seven stone artefacts, consisting of one anvil, one retouched flake, and five unretouched flakes, on the ground surface within the site extent. The surface lithologies included quartz (n=3), silcrete (n=3) and igneous material (n=1).

The results of the test excavation program have confirmed the presence of subsurface artefacts across the area of PAD identified during the completion of the ACHAR. The subsurface assemblage was primarily comprised of Indurated mudstone / Tuff / Chert (IMSTC) with lesser numbers of quartz and chert (**Table 4.6**). These lithologies are considered common within the local and regional context. The artefact types were predominately complete flakes and flake fragments with lesser numbers of angular fragments (**Table 4.6**). Two formal tools were identified within ST PAD 02, one scrapper and one burin (**Photo 24** to **Photo 26**). The presence of these artefacts indicates specialist activities. However, as the archaeological integrity of the site is low, it is considered unlikely that these activities took place within the site extent.

Table 4.5: Summary of subsurface lithologies

Lithology	Count	Percentage (%)
IMSTC	13	81.25
Quartz	1	6.25
Chert	2	12.5

Table 4.6: Summary of subsurface artefact types

Type	Count	Percentage (%)
Complete flake	8	50
Scraper	1	6.25
Distal flake	1	6.25
Proximal flake	1	6.25
Angular fragment	4	25
Burin	1	6.25



Photo 24: IMSTC flake with retouch on both lateral and distal margins from ST PAD 02, TP5 – Spit 1  
(Source: A.Seifertova 27/08/2021)



Photo 25: IMSTC scrapper from ST PAD 02, TP6 – Spit 1  
(Source: A.Seifertova 27/08/2021)



Photo 26: IMSTC burin from ST PAD 02, TP6 – Spit 1  
(Source: A.Seifertova 27/08/2021)

### 4.3.3 Str5 AS

Site Type: Artefact Scatter  
 Centroid: MGA94 Zone 55 626112 mE 6038065 mN  
 Site Length: 120m  
 Site Width: 85m

Str5 AS is located on level and gently sloping terrain on a low round-topped ridgeline. The site also includes a proposed access track, running a short distance (approximately 200m) to an existing road to the west. This access track would cross through an existing cleared powerline easement approximately 50m to the west of Str5 AS.

Vegetation within the area consists of secondary eucalypt woodland, that has been extensively damaged by the recent bushfire. Trees are generally small (less than 10m tall), with little or no upper canopy, and with regrowth from their lower trunks and branches (**Photo 27**). Undergrowth, which was dense at the time of the original archaeological survey in 2019, is now very sparse and is probably limited regrowth after the previous undergrowth was entirely destroyed during the bushfire. Little to no leaf-litter remains on the ground surface. Ground surface visibility is consequently high, averaging around 70% across Str5 AS and the proposed access track.

Survey of the area resulted in recording fifteen stone artefacts, which were identified on the ground surface (**Table 4.7**). The assemblage mostly comprised unretouched flakes, with one core, one hammerstone, and one flaked piece.

Although the area was identified as a PAD originally and it was intended to undertake test excavation to determine if sub-surface deposits were present, it was considered that it was extremely unlikely for subsurface deposits to be present because of erosion which had removed all deposit down to a sterile in situ soil. Therefore, test excavations did not take place at this site.

It is considered that Str5 AS represents a surface scatter of Aboriginal objects only.

Table 4.7: Artefacts identified at Structure 5

Type	Material	Completeness	Length (mm)	Width (mm)	Thickness (mm)	Photograph
Hammerstone	Igneous	Complete	80	80	35	Photo 27
Core	FGS	Complete	45	40	15	Photo 28
Flaked piece	FGS	NA	60	20	20	Photo 29
Unretouched flake	FGS	Complete	30	20	5	Photo 29
Unretouched flake	FGS	Complete	30	10	2	Photo 29
Unretouched flake	FGS	Complete	25	10	5	Photo 29
Unretouched flake	FGS	Complete	40	30	10	Photo 29
Unretouched flake	FGS	Complete	50	35	5	Photo 29
Unretouched flake	Quartz	Proximal fragment	25	25	7	Not illustrated
Unretouched flake	Quartz	Distal fragment	13	3	2	Not illustrated
Unretouched flake	Quartz	Complete	12	20	3	Not illustrated
Unretouched flake	Chert	Distal fragment	50	20	10	Not illustrated
Unretouched flake	Quartz	Distal fragment	20	10	5	Not illustrated



Type	Material	Completeness	Length (mm)	Width (mm)	Thickness (mm)	Photograph
Unretouched flake	Quartz	Distal fragment	25	30	10	Not illustrated
Unretouched flake	Chert	Complete	20	30	5	Not illustrated



Photo 27: View west from eastern end of Str5 AS artefact scatter



Photo 28: Igneous hammerstone at Str5 AS





Photo 29: FGS core at Str5 AS



Photo 30: FGS flaked piece (top left) and FGS unretouched flakes at Str5 AS

#### 4.4 Discussion

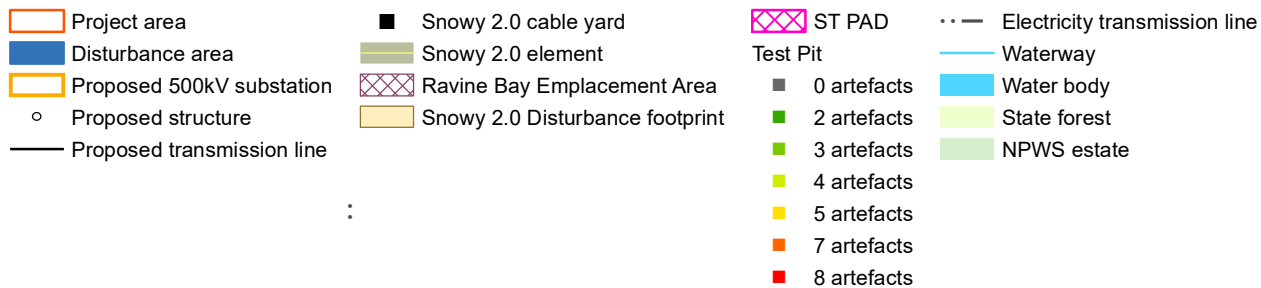
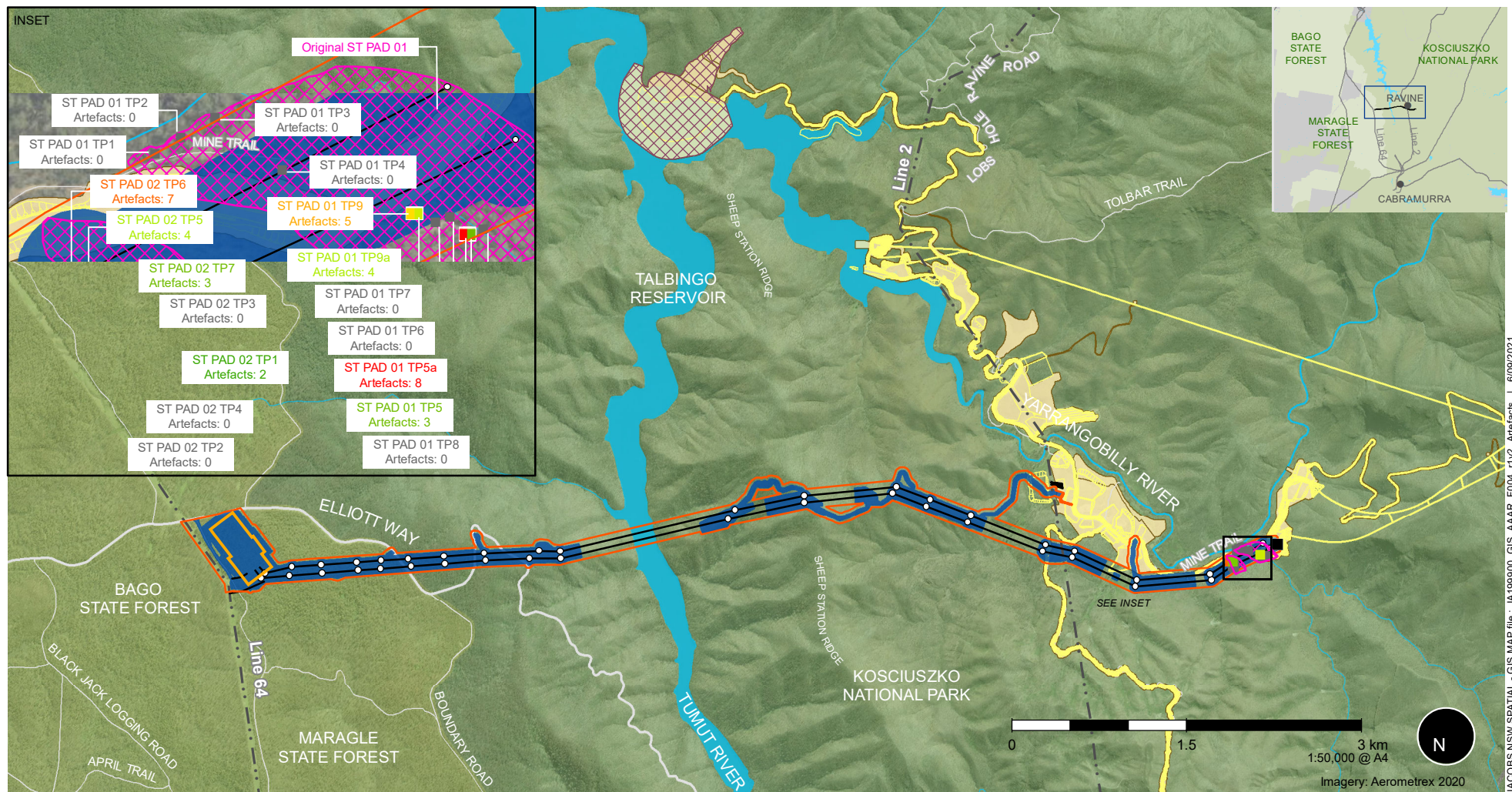
The artefacts recovered during the testing program at ST PAD 01 and ST PAD 02 comprised IMSTC (80.56%), silcrete (8.33%), chert (8.33%), and quartz (2.78%). This differed from what had been identified on the surface during the survey, where quartz was the dominant raw material (**Table 4.8**). Overall, the lithologies were predominantly comprised of sedimentary stone. All raw materials are ubiquitous in the local area and it is likely that they were sourced locally.

The limited number of identified Aboriginal objects may be indicative of transient usage of the area. The assemblage is small and not representative of intense reduction of stone and manufacture of tools. However, the objects are reflective of the enduring use of the landscape by Aboriginal people over millennia.

Table 4.8: Summary of subsurface lithologies across ST PAD 01 and ST PAD 02

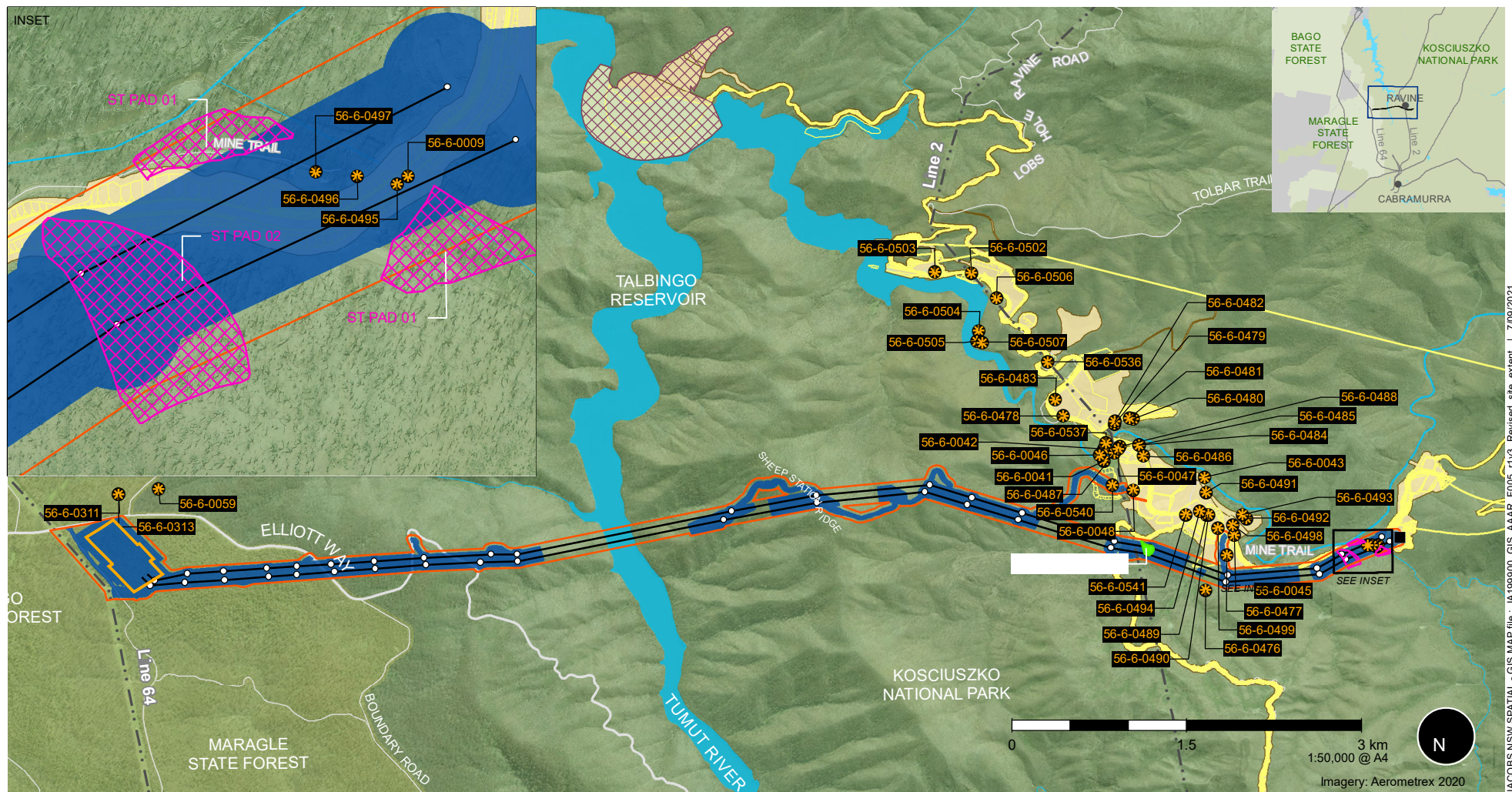
Lithology	Subsurface percentage (%)	Surface percentage (%)
IMSTC	80.56	0
Silcrete	8.33	38.46
Chert	8.33	7.69
Quartz	2.78	46.15
Igneous	0	7.69





**Figure 4-1** | Number of artefacts





- |  |  |   |  |
|--|--|---|--|
| <span style="border: 1px solid orange; display: inline-block; width: 20px; height: 10px;"></span> Project area   | <span style="display: inline-block; width: 10px; height: 10px; background-color: black;"></span> Snowy 2.0 cable yard  | <span style="display: inline-block; width: 10px; height: 10px; background-color: yellow; border: 1px solid black; border-radius: 50%;"></span> AHIMS  | <span style="display: inline-block; width: 20px; border-bottom: 1px dashed black;"></span> Electricity transmission line |
| <span style="display: inline-block; width: 20px; height: 10px; background-color: blue;"></span> Disturbance area   | <span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black; border-style: dashed;"></span> Ravine Bay Emplacement Area | <span style="display: inline-block; width: 10px; height: 10px; background-color: green;"></span> Structure site                                       | <span style="display: inline-block; width: 20px; border-bottom: 1px solid blue;"></span> Waterway                        |
| <span style="display: inline-block; width: 20px; height: 10px; border: 1px solid orange;"></span> Proposed 500kV substation  | <span style="display: inline-block; width: 20px; height: 10px; background-color: yellow;"></span> Snowy 2.0 Disturbance footprint  | <span style="display: inline-block; width: 10px; height: 10px; background-color: pink; border: 1px solid black; border-style: dashed;"></span> ST PAD | <span style="display: inline-block; width: 20px; height: 10px; background-color: lightblue;"></span> Water body          |
| <span style="display: inline-block; width: 0; height: 0; border-left: 5px solid transparent; border-right: 5px solid transparent; border-bottom: 10px solid black;"></span> Proposed structure |  |   | <span style="display: inline-block; width: 20px; height: 10px; background-color: lightgreen;"></span> State forest       |
| <span style="display: inline-block; width: 20px; border-bottom: 1px solid black;"></span> Proposed transmission line   |  |   | <span style="display: inline-block; width: 20px; height: 10px; background-color: lightgreen;"></span> NPWS estate        |

Figure 4-2 | Revised site extent map



## 5. Significance assessment

### 5.1 Assessment criteria

An assessment of the cultural heritage significance of an item or place is required in order to form the basis of its management. The Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW 2011) provides guidelines, in accordance with the Burra Charter (Australia ICOMOS 2013) for significance assessment with assessments being required to consider the following criteria:

- Social values – does the area have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- Historic values – is the area important to the cultural or natural history of the local area and/or region and/or state
- Scientific values – does the area have the potential to yield information that will contribute to an understanding of the cultural and natural history of the local area and/or region and/or state
- Aesthetic values – is the area important in demonstrating aesthetic characteristics in the local area and/or region and/or state.

Scientific values should be considered in light of the following criteria:

- Research potential – does the evidence suggest any potential to contribute to an understanding of the area and/or region and/or state's natural and cultural history?
- Representativeness – how much variability (outside and/or inside the subject area) exists, what is already conserved, how much connectivity is there?
- Rarity – is the subject area important in demonstrating a distinctive way of life, custom, process, land-use, function or design no longer practised? Is it in danger of being lost or of exceptional interest?
- Education potential – does the subject area contain teaching sites or sites that might have teaching potential?

It is important to note that heritage significance is a dynamic value.

### 5.2 Scientific value

#### 5.2.1 ST PAD 01

The site is a low density, artefact scatter of low archaeological integrity. As a result, the site has a low potential for future research or educational value. The artefacts retrieved from the site are considered to be common within the regional and local context. As a result, the artefacts are not considered to be rare or particularly representative of unique artefact types.

#### 5.2.2 ST PAD 02

The site is a low density, artefact scatter of low archaeological integrity. As a result, the site has a low potential for future research or educational value. The artefacts retrieved from the site are considered to be common within the regional and local context. As a result, the artefacts are not considered to be rare or particularly representative of unique artefact types.

#### 5.2.3 Str5 AS

The site is a low density, surface artefact scatter of low archaeological integrity. As a result, the site has a low potential for future research or educational value. The artefacts retrieved from the site are considered to be common within the regional and local context. As a result, the artefacts are not considered to be rare or particularly representative of unique artefact types.

#### 5.2.4 AHIMS ID 56-6-0540

The site is a low density, surface artefact scatter of low archaeological integrity. As a result, the site has a low potential for future research or educational value. The artefacts retrieved from the site are considered to be common within the regional and local context. As a result, the artefacts are not considered to be rare or particularly representative of unique artefact types.

#### 5.2.5 AHIMS ID 56-6-0048

The site was identified and recorded in 1991 as a surface artefact scatter that had been subject to erosion. The site recording form available on the AHIMS database does not include maps, photographs or descriptions of the artefact assemblage. The location of the site had been surveyed during the preparation of the ACHAR (Jacobs 2020) and could not be located. It is likely that ongoing erosion has resulted in the movement of the artefacts from their recorded location and the site has been destroyed through nature processes. As a result, the site is considered to be of low scientific value.

#### 5.2.6 Summary

A summary of scientific significance for the study area is provided in **Table 5.1**.

Table 5.1: Assessment of scientific value

Site name	Research potential	Representativeness	Rarity	Educational potential	Overall significance assessment
ST PAD 01	Low	Low	Low	Low	Low
ST PAD 02	Low	Low	Low	Low	Low
Str5 AS	Low	Low	Low	Low	Low
AHIMS ID 56-6-0540	Low	Low	Low	Low	Low
AHIMS ID 56-6-0048	Low	Low	Low	Low	Low

### 5.3 Social value

The views of Aboriginal people, as the traditional custodians of all material and immaterial aspects of their culture, are the primary determinant of the social significance of Aboriginal cultural heritage. Aboriginal people's views on the significance of Aboriginal sites are usually related to traditional, cultural and educational values, although some Aboriginal people also value any scientific information a site may be able to provide.

Aboriginal cultural significance was assessed through consultation with the nominated site officers from the Registered Aboriginal Parties before, during and after the field work phase of the project. It should be noted that the information gained through this process may not reflect the views of all members of the local Aboriginal communities.

As part of the consultation process the RAPs were asked to provide appropriate information on the social value of the subject site. At the end of the consultation program no information regarding the social value of the sites was supplied by the RAPs.

## **5.4 Historic value**

The historic value of a site is determined through its association with historically important people, events or activities. The project area is not known to be associated with any people, events or activities of historical importance to the Aboriginal community.

As part of the consultation process the RAPs were asked to provide appropriate information on the historic value of the subject site. At the end of the consultation program no information regarding the historic value of the sites was supplied by the RAPs.

## **5.5 Aesthetic value**

Aesthetic significance refers to the sensory value of a place, and can include aspects such as form, texture, and colour, and can also include the smell and sound elements associated with use or experience of a site. Aesthetic significance is often closely linked to the social value of a site.

Based on proximity to aesthetically pleasing features such as trees and remnant, intact landforms, the project area is considered to be of high aesthetic value.

As part of the consultation process the RAPs were asked to provide appropriate information on the aesthetic value of the subject site. At the end of the consultation program no information regarding the aesthetic value of the sites was supplied by the RAPs.

## **5.6 Statement of significance**

Based on research undertaken and consultation with the RAPs to date, no specific historic or socio/cultural values associated with the study area were identified. The study area is considered to be of moderate aesthetic significance due to the presence of traditional landscape features. ST PAD 01, ST PAD 02, and Str5 AS are considered to be of low scientific value. Therefore, the sites have been assessed as being of low significance.



## 6. Impact assessment

### 6.1 Impacts of the project

The current test excavation program and previous archaeological investigations have provided evidence for the presence of surface and subsurface Aboriginal objects within the disturbance area (**Figure 4.2**). This assessment is based on the description of the project outlined in **Section 1.3.1**. It is likely that the project will result in direct impacts to ST PAD 01, ST PAD 02, and Str5 AS resulting in a partial loss of value. The amendment of the disturbance area will result in direct impacts to AHIMS ID 56-6-0540 and AHIMS ID 56-6-0048 and no impacts to AHIMS ID 56-6-0041. A summary of the impacts to sites identified during test excavation is provided in **Table 6.1**.

Table 6.1: Assessment of impacts

Site name	Type of harm	Degree of harm	Consequence of harm
ST PAD 01	Direct	Partial	Partial loss of value
ST PAD 02	Direct	Partial	Partial loss of value
Str5 AS	Direct	Partial	Partial loss of value
AHIMS ID 56-6-0540	Direct	Total	Total loss of value
AHIMS ID 56-6-0048	Direct	Total	Total loss of value
AHIMS ID 56-6-0041	None	None	No loss of value

### 6.2 Ecological Sustainable Development principles

The Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (DECCW 2011) specifies that Ecological Sustainable Development (ESD) principles must be considered when assessing harm and recommending mitigation measures in relation to Aboriginal objects.

The following relevant ESD principles are outlined in Section 3A of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*:

- Decision-making processes should effectively integrate both long term and short term economic, environmental, social and equitable considerations (the 'integration principle')
- If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the 'precautionary principle')
- The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations (the 'principle of intergenerational equity').

#### 6.2.1 The integration principle

The project would comply with the integration principle in regard to Aboriginal heritage. The Aboriginal heritage values of the study area have been considered as part of the planning process for the project.

#### 6.2.2 The precautionary principle

ST PAD 01 and ST PAD 02 were identified during the archaeological survey completed for the project. In order to ameliorate the uncertainty associated with the area of archaeological potential, a test excavation program has been conducted. The combination of predictive models and the results of the test excavation have been used to assess the probable nature of the archaeological record within the project area. It is unlikely that archaeologically significant material will be present at the location of ST PAD 01 and ST PAD 02.

Based on the findings of the assessment it is unlikely that subsurface artefacts will be present at the location of Str5 AS. AHIMS ID 56-6-0540 and AHIMS ID 56-6-0048 have not been assessed as having an area of PAD, therefore it is unlikely that additional archaeological investigations will identify additional Aboriginal objects that will influence the assessment of significance.

### 6.2.3 The principle of intergenerational equity

The project would adhere, as close as possible, to the principle of intergenerational equity by collating scientific and cultural information on former Aboriginal occupation of the study area through the previous investigations and this report and the ACHAR (Jacobs 2020). Portions of ST PAD 01, ST PAD 02, and Str5 AS will not be harmed by the project and will be preserved *in-situ*. In addition, the amendment of the disturbance area will no longer result in harm to AHIMS ID 56-6-0041 which will be preserved *in-situ*.

## 6.3 Cumulative impacts

A cumulative impact is an impact on Aboriginal cultural heritage resulting from the incremental impact of the action/s of a development when added to other past, present and reasonably foreseeable future actions. The search of the AHIMS database completed for the ACHAR (Jacobs 2020) identified a total of 101 previously recorded sites within the local context. Overall, the project will result in impacts to 11 Aboriginal sites:

- ST PAD 01
- ST PAD 02
- ST PAD 03
- AHIMS ID 56-6-0009
- AHIMS ID 56-6-0048
- AHIMS ID 56-6-0477
- AHIMS ID 56-6-0495
- AHIMS ID 56-6-0496
- AHIMS ID 56-6-0497
- AHIMS ID 56-6-0540
- Str5 AS.

Therefore, the project will result in the destruction of 10.9% of identified Aboriginal sites within the local area. This is considered to be a significant cumulative impact to Aboriginal objects, which are a non-renewable resource.

## **7. Management and mitigation**

### **7.1 Guiding principles**

Where possible, cultural heritage should be conserved and protected in situ. However, where conservation is not practical, measures should be implemented to mitigate against the loss of significance. These mitigation measures are based on the assessed significance of the site against the proposed impacts:

- Low significance – Conservation where possible. The Minister's Conditions of Approval (MCoA) would be required to impact the site before works can commence
- Moderate significance – Conservation where possible. If conservation was not practicable further archaeological investigation would be required such as salvage excavations or surface collection under the MCoA
- High significance – Conservation as a priority. The MCoA would be required only if other practical alternatives have been discounted. Recommendations for the conditions of the MCoA would depend on the nature of the site, but may include comprehensive, large scale salvage excavations.

ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 have been identified as demonstrating low significance. Therefore, where conservation is not practical, the MCoA will be required to impact the sites prior to the commencement of works.

AHIMS ID 56-6-0041 will not be impacted by the project, and no mitigation is required.

### **7.2 Surface collection**

To mitigate against the destruction of identified Aboriginal objects across the surface of ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048; the RAPs should be provided an opportunity to complete a collection of surface artefacts. Surface collection will be undertaken using the following method:

- Artefact collection will be undertaken by a team comprising an archaeologist and RAP representatives
- Artefact locations will be marked on the ground and recorded with a hand-held GPS (or equivalent) prior to collection
- Collected artefacts will be catalogued on site by the team, with recorded attributes as listed for the test excavation analysis
- Artefacts will be placed in individual bags, labelled with location information
- Following the completion of the surface collection program, a brief report would be prepared which outlines the results of the program.

### **7.3 Cultural Heritage Management Plan and unexpected finds procedure**

A Cultural Heritage Management Plan (CHMP) and accompanying unexpected finds procedure will provide a method to manage potential heritage constraints and unexpected finds during construction works.

The long-term storage of any recovered Aboriginal objects will be developed during the completion of the CHMP, in consultation with the RAPs, but is likely to include (in preferential order):

- Re-burial on site, in an appropriate location in the vicinity of the project
- Lodged with a RAP under a Care and Control Agreement
- Deposition with the Australian Museum.



## **7.4 Discovery of human remains**

If any human remains are discovered and/or harmed in, on or under the land, the following actions must be taken:

- Do not further move or disturb these remains
- Immediately cease all works at the particular location
- Secure the area so as to avoid further harm to the remains
- Notify the NSW police
- Notify Heritage NSW on the Environment Line (131 555) as soon as practicable and provide any available details of the remains and their location
- Not to recommence any work at the particular location unless authorised in writing by Heritage NSW.

## **7.5 Changes to the project**

Advice provided within this report is based upon the most recent information provided by the proponent at the time of writing. Any changes made to the project should be assessed by an archaeologist in consultation with the RAPs. Any changes that may impact on Aboriginal sites not assessed as part of the project may warrant further investigation and result in changes to the recommended management and mitigation measures.

## 8. Conclusions and recommendations

The following recommendations are based on consideration of:

- Statutory requirements under the *National Parks and Wildlife Act 1974*
- The requirements of SEARs SSI 9717
- The results of this Addendum ACHAR and the ACHAR (Jacobs 2020).
- Advice provided by Heritage NSW in DOC21/110300.

It was found that:

- ST PAD 01 and ST PAD 02 includes a low density artefact assemblage.
- Str5 AS is a low density, surface artefact assemblage
- ST PAD 01, ST PAD 02, and Str5 AS have been assessed as being of low archaeological significance.
- According to current design plans, ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 will be subject to harm by the project.
- According to current design plans, AHIMS ID 56-6-0041 will not be harmed by the project.

It is therefore recommended that:

- Where possible, impacts to identified Aboriginal sites should be avoided.
- Where impacts to ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 cannot be avoided, the approved MCoA must be issued by DPIE to authorise impacts through the project. Works cannot proceed in these locations as per earlier wording
- A collection of surface artefact across the extent of ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048 should take place prior to impacts. The surface collection would require the approved MCoA as authorisation for harm to the site through salvage works
- No mitigation measures will be required for AHIMS ID 56-6-0041 as it will not be impacted by the amended project
- A CHMP should be developed to provide guidance on the procedure for the identification of unexpected Aboriginal objects and the long-term management of Aboriginal objects retrieved from ST PAD 01, ST PAD 02, Str5 AS, AHIMS ID 56-6-0540, and AHIMS ID 56-6-0048
- If suspected human remains are located during any stage of the project, work should stop immediately, and the NSW police and Coroner's Office should be notified. NSW Heritage should be notified if the remains are found to be Aboriginal
- If changes are made to the project to include impacts outside the disturbance area as delineated in this document, further archaeological investigation must be conducted.

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Appendix A. Test excavation methodology



# **Snowy Hydro 2.0 Transmission Line Connection Project**

TransGrid

## **Aboriginal Cultural Heritage Assessment Test Excavation Methodology**

Draft 2

July 2021

IA199900



## Snowy Hydro 2.0 Transmission

Project No: IA199900  
Document Title: Aboriginal Cultural Heritage Assessment Test Excavation Methodology  
Document No.: Draft 2  
Revision: R01  
Date: 14 July 2021  
Client Name: TransGrid  
Client No: IA199900  
Project Manager: Tina-Maria Donovan  
Author: Ryan Taddeucci  
File Name: \\Jacobs.com\ANZ\IE\Projects\04\_Eastern\IA199900\21 Deliverables\01 Technical studies\02 Aboriginal heritage\Reporting\Methodology\Test excavation\Rev2\IA199900 Archaeological Test Excavation Method Rev01 20210714.docx

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### Document history and status

Revision	Date	Description	By	Review	Approved
R00	09 July 2021	Draft archaeological test excavation method	Ryan Taddeucci	Fran Scully	Birgit Porter
R01	14 July 2021	Draft archaeological test excavation method	Ryan Taddeucci	Fran Scully	Tina-Maire Donovan



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## Appendix A. Unexpected discovery of human remains

# 1. Introduction

## 1.1 Background and purpose of this document

TransGrid (the proponent) is the manager and operator of the major high-voltage electricity transmission network in New South Wales (NSW) and the Australian Capital Territory (ACT). The proponent is seeking approval under Part 5 Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for the construction and operation of an overhead transmission connection and substation to enable the grid connection of the proposed Snowy 2.0 pumped hydro generation project (Snowy 2.0) (the project). The project has been declared critical State Significant Infrastructure (SSI) under the *State Environmental Planning Policy (State and Regional Development) 2011* and is subject to the Secretary's Environmental Assessment Requirements (SEARs) and amended SEARs (SSI 9717).

In accordance with SEARs SSI 9717, an Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared for the project by Jacobs in December 2020. During the preparation of the ACHAR, a search of the Aboriginal Heritage Information Management System (AHIMS) database was completed on 21 September 2020, which resulted in the identification of five AHIMS registered sites within the extent of the project area:

- Ravine; Lobs Hole; KNP91-59 (AHIMS ID 56-6-0009)
- Ravine SU17/L1 (AHIMS ID 56-6-0477)
- Ravine SU3/L1 (AHIMS ID 56-6-0495)
- Ravine SU3/L2 (AHIMS ID 56-6-0496)
- Ravine SU3/L3 (AHIMS ID 56-6-0497).

A series of archaeological surveys of the project area were completed from March 2018 to October 2019 which resulted in the identification of four areas of Potential Archaeological Deposit (PAD):

- ST PAD 01, which encompasses AHIMS ID 56-6-0009, 56-6-00495, 56-6-0496 and 56-6-0497.
- ST PAD 02
- ST PAD 03
- Substation PAD.

An archaeological test excavation program was completed in October 2019 at ST PAD 03 and Substation PAD. ST PAD 01 and ST PAD 02 were not subject to test excavations as both areas were located within the Snowy 2.0 project area, which was an active construction site during the time of the archaeological excavations. In addition, the Snowy 2.0 area was the subject of a separate archaeological assessment completed by Dibden (2018 and 2019). The results of the test excavations at ST PAD 03 and Substation PAD were incorporated into the ACHAR and the significance of ST PAD 01 and ST PAD 02 was assessed based on the findings of Dibden 2019 who completed a testing program in a similar landform.

The ACHAR was submitted as part of the Environmental Impact Statement in February 2021 for exhibition. On 29 March 2021, Heritage NSW provided comment on the ACHAR, indicating that test excavations should be completed at ST PAD 01 and ST PAD 02 to provide a more detailed assessment of significance. In May 2021, Jacobs completed a field inspection in response to the identification of a potential find of an unexpected Aboriginal object. The inspections resulted in the identification of an additional area of PAD at Structure 6 (Str6 PAD).

Based on advice provided by Heritage NSW on 29 March 2021, Jacobs propose to complete archaeological test excavations at ST PAD 01, ST PAD 02, and Str6 PAD. This document has been prepared to outline the proposed sampling strategy and excavation procedure. A draft copy of this document will be provided to the registered

Aboriginal parties (RAPs) to provide them with an opportunity to review and provide feedback and comment. This process forms part of the consultation process set out in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW, 2010a).

## 1.2 Summary of the Aboriginal cultural heritage assessment process

Consultation provides the Aboriginal community the opportunity to improve assessment results by:

- Sharing relevant information about the cultural significance and values of Aboriginal object(s) and/or place(s)
- Contributing to the assessment of cultural and scientific significance of Aboriginal object(s) and/or place(s)
- Reviewing and commenting on the proposed methods of assessing cultural heritage within the project area
- Contributing to the development of cultural heritage management options and recommendations for Aboriginal object(s) and/or place(s) within the subject area
- Commenting and providing feedback on the draft assessment report (ACHAR) before it is submitted to the relevant government agency.

The Aboriginal cultural heritage assessment will involve the following tasks:

- Development of a method for archaeological test excavation (this document)
- Test excavations within the areas of PAD proposed to be impacted by the project
- Reporting – the information and results of the test excavations will be documented in an addendum ACHAR, which will:
  - Present the results of the test excavation program
  - Include an assessment of the significance of any Aboriginal objects and record any Aboriginal cultural heritage values identified by knowledge holders
  - Include an impact assessment and provide management and mitigations measures.
- The addendum ACHAR will be reviewed by RAPs. Information, comments and feedback received from RAPs will be incorporated into the final version of the report
- A copy of the final report will be lodged as a response to the agency submission provided by Heritage NSW
- Site records on the AHIMS will be updated as necessary.

## 1.3 Project Description

The project is located within the Local Government Area (LGA) of Snowy Valleys. The eastern extent of the project is defined by the location of the proposed Snowy 2.0 cable yard at Lobs Hole Ravine in Kosciuszko National Park (KNP). From the Snowy 2.0 cable yard, the transmission connection extends west through KNP, through a landscape characterised by steep, mountainous terrain before traversing Talbingo Reservoir. The transmission connection then continues west, passing Elliott Way at three locations before entering Bago State Forest to the proposed substation site and the connection with existing transmission lines.

The features of Project would include:

- A new 330/500 kilovolt (kV) substation located within Bago State Forest and adjacent to TransGrid's existing Line 64, which forms a 330 kV connection between Upper Tumut and Lower Tumut substations. The substation would comprise an area of approximately 680 m by 380 m inclusive of an asset protection zone.
- A new access road off Elliot Way to the new substation



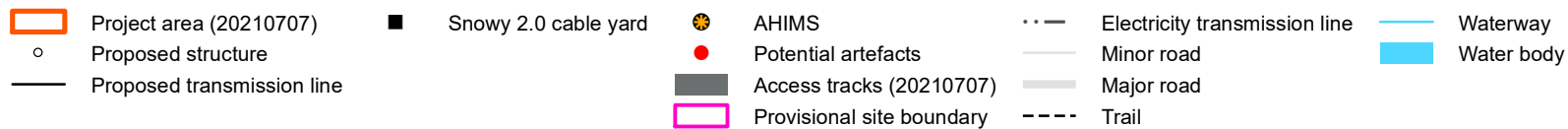
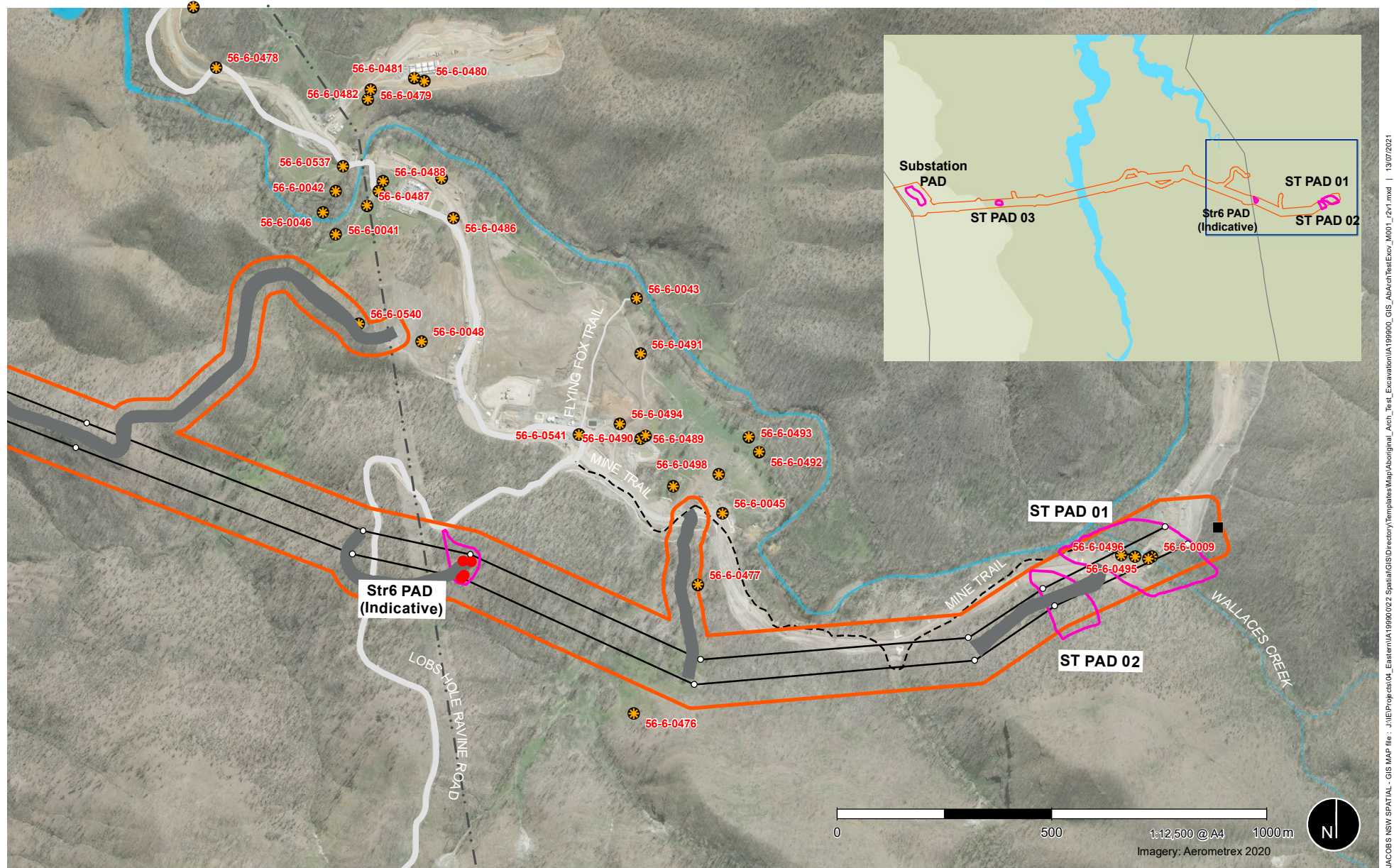
- Two new 330 kV overhead double-circuit transmission lines from the Snowy Hydro 2.0 cable yard to the new substation
  - Total length of each line approximately nine kilometres
  - Located in an approximate 120 to 130 m wide easement corridor
  - Each line would comprise approximately 22 steel lattice towers.
- Short overhead 330 kV transmission line connection (approximately 250 m in length) comprising approximately three transmission towers between the substation and Line 64
- Establishment of new access tracks to the transmission towers and upgrade to existing access tracks where required. The access tracks would remain following the completion of construction to service ongoing maintenance activities along the transmission lines
- Ancillary activities, including the establishment of tensioning and pulling sites for conductor and earth wire stringing, crane pads, site compounds, and equipment laydown areas.

#### 1.4 Impact assessment

The impact assessment completed during the preparation of the ACHAR found that the entire extent of ST PAD 01 and ST PAD 02 would be impacted by the proposed works, resulting in a total loss of value. However, since the completion of the ACHAR, the project area has been amended, now only a portion of both PADs is located outside of the project area. As a result, ST PAD 01 and ST PAD 02 will be partially impacted by the proposed works resulting in a partial loss of value. At the time the ACHAR was prepared, Str6 PAD had not been identified and was not included in the impact assessment. However, based on the design plans, the entire extent of Str6 PAD will be impacted by the proposed works, resulting in a total loss of value. See **Table 1-1** for a summary of the impact assessment in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b).

**Table 1-1 Summary of impacts**

Site	Type of harm	Degree of harm	Consequence of harm
ST PAD 01	Direct	Partial	Partial loss of value
ST PAD 02	Direct	Partial	Partial loss of value
Str6 PAD	Direct	Total	Total loss of value



**Figure 1-1** | Project overview



## 2. Proposed archaeological test excavation method

### 2.1 Aims of the archaeological test excavation program

The archaeological test excavation program aims to determine whether any Aboriginal objects are present in subsurface deposits within ST PAD 01, ST PAD 02, and Str6 PAD. These areas are proposed to be tested as they were assessed as containing PAD during the recent archaeological survey and site inspection carried out by Jacobs. This assessment was based upon a review of previous archaeological research, a review of the landscape context, an understanding of the local and regional character of Aboriginal land use and its material traces and predictions on the nature and distribution of archaeological evidence. This research and subsequent field survey indicated there was a probability of Aboriginal objects being present in the two areas.

If subsurface Aboriginal artefacts are present, the excavation program aims to gather preliminary information on the nature of the subsurface assemblage. Excavations will provide an understanding of the nature of Aboriginal objects present, an estimate of the density of artefacts across the areas tested, the depth at which artefacts occur the type of sediment they are associated with and if possible the age of the deposits they are found within. This information will be used in the resulting addendum ACHAR as a basis for a significance assessment of the site and its contents and any subsequent recommendations for heritage management mitigation to be taken on the three areas.

The test excavation program will adhere to the requirements of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b).

### 2.2 Sample strategy

Where possible, test excavation squares will be placed along linear transects that will span the entire area in which the footprint of proposed impacts overlaps with a zone of archaeological sensitivity or PAD. The footprint will include any buffer zone necessary to cover inadvertent impact to the ground surface and subsurface deposits that might plausibly occur during construction. Based aerial imagery and the results of field investigations, the location of squares will be constrained by the dense woodland present across the project area. As a result, the exact location of the squares would be determined by the supervising archaeologist during the excavation program. No more than 0.5% of the maximum surface area of the PAD will be excavated. An indicative 40 squares at 20 m spacing will likely be excavated across the three areas of PAD (10 squares within Str6 PAD, 10 squares within ST PAD 02, and 20 squares within ST PAD 01). However, the final number of squares placed along each transect, and the spacing between squares, will be determined in the field. Squares will be spaced a minimum of 5 m apart and will be placed in areas to avoid features such as thick vegetation, swampy ground, or outcrops of bedrock.

Variations in microtopography might trigger in-field decisions to concentrate the distribution of squares on particular sections of a transect. Excavation squares will measure 500 mm x 500 mm in dimension. Depending on the size of an area and on time constraints, multiple transects might be laid to adequately test the area. Transects might be parallel to one another or placed perpendicular to each other. If parallel transects are employed, the location of excavation squares on adjacent transects will be offset from one another to minimise the area of unexcavated ground between excavation squares (following Kintigh, 1988).

The *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b) outlines requirements for when enough information has been retrieved and test excavation must cease. Test excavation at the area of sensitivity must cease when:

- Suspected human remains are encountered
- Enough information has been recovered to adequately characterise the objects present with regard to their nature and significance.

“Enough information” is defined by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2010b) as “...the sample of excavated material clearly and self-evidently demonstrates the deposit’s nature and significance, and may include things like:

- Locally or regionally high object density
- Presence of rare or representative objects
- Presence of archaeological features or locally or regionally significant deposits, whether stratified or not.

If Aboriginal objects have been recovered from a square, additional squares can be excavated nearby if the field team judges that this is necessary to adequately understand the nature of the subsurface assemblage. These additional squares could be placed adjacent to the first square, or at a distance of 5m or more from it. The number of additional squares excavated will depend on the nature of the archaeological material being recovered. Additional squares, if adjacent to one another, cannot make up a combined area of more than 3m<sup>2</sup>. Additional squares, if separate from one another, cannot be closer than 5m (DECCW, 2010b). No excavation unit will exceed a maximum depth of 1.5 m, in accordance with the *Code of Practice: Excavation Work* (NSW Government, 2020).

All recovered material will be catalogued in the field to track archaeological data in real time and guide continuation or cessation of excavation. In-field cataloguing will entail recording the number of artefacts per square, and the types of artefact recovered. All cultural material will be accessible for inspection and comment by RAPs present during the test excavation program.

## 2.3 Archaeological test excavation procedure

Squares will be excavated by hand, using shovels, trowels, mattocks or other hand tools as appropriate depending on the soils and sediments being excavated, and on the nature of any archaeological material encountered. The first square excavated at each area will be excavated in 50 mm spits (following requirements of DECCW, 2010b). Other squares will be excavated in 100 mm spits. If stratigraphic boundaries are present in the sediments being excavated, the excavation of a spit will halt at the stratigraphic boundary when it is encountered. A new spit will then commence below the stratigraphic boundary. In this way, spit boundaries will be made to conform to stratigraphic boundaries.

Due to logistical constraints associated with site access, it will not be possible to wet sieve excavated material. Therefore, all excavated material will be dry sieved through a 5 mm mesh sieve. Sieving will occur over a tarpaulin, as close as practical to the square being excavated, to ensure that the square can be backfilled following the excavation, with minimal loss of excavated sediments.

Each excavation square will be recorded photographically to capture images of the excavated sections and record information on the nature of the deposit and any stratigraphic or soil formation patterning. Where site features such as hearths, are encountered, additional photographic and written recordings will be made. Scaled plans of cultural features and excavated sections will be carried out if the excavation director judges this to be necessary. Digitised recording systems using a hand-held tablet will be the primary recording system, with manual field recording forms used as a backup if judged necessary. The digitised recording system will minimise transcription errors through standardised recording conventions and create efficiency in post-excavation reporting.

Artefacts recovered from excavations will be secured in zip-lock bags, which will be labelled with the artefacts’ date of excavation, area/site of excavation, square name/number, spit number, and other contextual information if applicable (e.g. feature or stratigraphic unit). Artefact bags will then be double-bagged within a larger grouping bag, to guard against potential loss during transport. All artefacts will be kept in Jacobs’ care while further analysis is undertaken (see Section 2.6). This will take place prior to consultation with registered Aboriginal parties in respect to their long-term safekeeping being decided upon and an application for a Care Agreement under the *National Parks and Wildlife Act 1974* being prepared. Samples of sediments or other materials relating to



Aboriginal activities, such as charcoal, will be taken if judged necessary. If human remains, or suspected human remains, are encountered excavations will cease immediately. A standard procedure will then be followed (see **Appendix A**).

Open excavation units may be fenced off with high visibility bunting around wooden stakes or metal star pickets. Where there is no risk of injury to wildlife or humans, a flag at one corner of the pit may suffice. Each square will be backfilled as soon as it is practical after excavation and recording of that square has ceased.

## **2.4 Participation of RAP representatives in the excavation program**

The archaeological test excavation program would be carried out by a single excavation team composed of three Jacobs archaeologists and two Aboriginal representatives. The fieldwork team must include a balance of trained archaeologists and Aboriginal community fieldworkers. Sufficiently trained and experienced archaeologists are needed to direct the activity, maintain records and identify cultural finds. Sufficient Aboriginal community fieldworkers are required to efficiently sieve, dig and experience all aspects of the work through a task rotation roster, according to experience and ability.

Excavations would be carried out over a one-week period. Work would be carried out from Monday morning to Friday evening. The time allocated to each of the sites will be decided in the field, based on the results of excavations as they occur.

## **2.5 Safety and access requirements**

Prior to field staff heading to site, Jacobs will have completed and will adhere to the following:

- Complete and check and follow the Snowy 2.0 Visitor Site Access Requirements if accessing Ravine / Lobs Hole area
- Sent the Snowy 2.0 paramedic an email to advise of travel plans prior to travel - [paramedicsnowy@atlasmedical.com.au](mailto:paramedicsnowy@atlasmedical.com.au)
- Notify National Parks and Wildlife Services (NPWS) on expected dates and plans for test excavation works
- Check the RFS bushfire danger rating before heading to site <http://www.rfs.nsw.gov.au/fire-information/fdr-and-tobans> and understand the evacuation procedures. Do not work when bushfire hazard rating is Extreme or Catastrophic. If High, Very High or Severe fire rating re-assess work requirements and avoid areas where fires are likely.
- Check weather conditions and re-assess work requirements if extreme weather is predicted (i.e. heavy rainfall, high winds, thunderstorms).
- Verify the weather / road conditions before leaving home base.

The test excavations would be completed under the Jacobs HSE field pack. All field staff are required to sign on to this prior to commencing work.

Vehicle/ Equipment Requirements:

- If travelling on unsealed roads, 4WD vehicle - preferably Prado, Landcruiser, Hilux or equivalent with similar clearances.
- Vehicle First aid kit (type C)
- UHF radio, preferably in-car
- InReach device (one per party)
- If travelling between 1st June and 31st Oct -

- Alpine diesel in diesel vehicles
- Snow chains (from 1st June to 31st Oct only).

## 2.6 Analysis of recovered artefacts

All material collected in the field will be transported directly from the field to Jacobs' office in Canberra for analysis. This material will be kept in temporary storage by Jacobs during the analysis phase, and until a strategy for permanent storage or repatriation can be implemented.

It is anticipated that most, if not all, of the objects recovered from excavation will be stone artefacts. These will be analysed by a suitably qualified archaeologist. A number of standard attributes will be recorded for every artefact (following requirements of DECCW, 2010b):

- Heat damage
- Post-depositional weathering
- Presence/absence of fresh damage
- Material type
- Artefact type
- Platform surface type
- Platform type
- Termination type
- Cross sectional angle (spine angle) of dorsal surface (flakes only)
- Length in mm
- Width in mm
- Thickness in mm.

A number of additional attributes beyond those required by NSW Department of Planning, Industry and Environment (DPIE) (previously referred to as Office of Environment and Heritage) will also be recorded for each artefact, including:

- Flake fragment category (complete, proximal fragment, distal fragment etc)
- Type of cortex and amount of cortex on dorsal surfaces of flakes
- On retouched flakes, various observations of the retouched edges, including retouch type, invasiveness, height of retouch scars
- On cores, various observations including number of core rotations, the orientation of different platforms to one another, whether the core is bipolar or not
- On ground artefacts such as axe/hatchet heads or grindstones, various observations such as size of the ground area, angle of ground edges.

Photographs will be taken of a representative sample of artefacts, to create a visual record of the general types of artefacts within the assemblage. Atypical artefacts or artefacts of high significance will also be photographed. Images will be taken from several orientations, following procedures for archival-quality artefact photography (Fisher, 2009; Prokop, 1985).

Further analytical techniques might be employed on a sub-sample of artefacts if it is judged that these techniques have the potential to yield information. Further techniques might include functional analysis through examination of residues or use-wear, for example. Any such analyses would be carried out by a suitably qualified specialist.

Any Aboriginal artefacts that are not made from stone will be analysed using appropriate techniques. Analysis would conform to the requirements of the *Code of Practice* (DECCW, 2010b). Specific analysis procedures would be decided following excavation, and would be made from an assessment of the types of artefacts recovered, the materials from which they are made, their condition of preservation, and the information that could be obtained from them.

No destructive analysis of any artefacts will be carried out. Only measurements and observations that have no effect on an artefact's condition will be undertaken.

## **2.7 Management of recovered artefacts**

Following transport from the excavation site to Jacobs' Canberra office, all artefacts will be securely stored in a locked cabinet. The location of the artefacts will be recorded on a Jacobs database, to create an electronic record of the date they were deposited into this temporary storage location.

Artefacts will be stored in the double-bagged resealable bags they were placed in during the excavation program.

Durable labels made from aluminium plate or similar material will be placed inside bags to provide a resilient label of the artefacts' provenance.

Artefacts will be kept in the same temporary storage location until a strategy for repatriation or permanent storage can be implemented. At this point the artefacts will be handed over to their permanent custodian(s). The date of the handover will be recorded on the Jacobs database. If artefacts are reburied, the burial location will be recorded on an Aboriginal Site Recording Form and lodged on the AHIMS.

## **2.8 Documentation and reporting of excavation results**

If Aboriginal objects are found during excavation at either area, that area would then be recorded as an Aboriginal site. An Aboriginal Site Recording Form would be completed by Jacobs and lodged on AHIMS.

An ACHAR will be written by Jacobs. The ACHAR will conform to the requirements of the *Code of Practice* (DECCW, 2010b), the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010a) and the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH, 2011). The report will include:

- A description of the project, the area proposed to be impacted, and the landscape and environmental characteristics of the surrounding region
- A description of the consultation process between Jacobs and RAP groups
- Background information on Aboriginal land-use in the region. This will include information from historical and ethnographic sources, information submitted to Jacobs during the consultation process, and information from previous archaeological studies
- A detailed description of the methods used during the test excavation program
- The results of the test excavation program. This would include an inventory of all Aboriginal objects and all measurements and observations made on them, a description of subsurface assemblage(s) discovered in the two areas. A discussion of how the site contributes to our understanding of Aboriginal activities in the region, incorporating previous archaeological studies, would be included



- An assessment of the significance of any Aboriginal objects and sites discovered by the test excavation program. This would include both scientific significance and cultural significance
- A description of any impacts to Aboriginal heritage that the project would involve, and an assessment of inadvertent impacts that might occur
- A discussion of harm minimisation and management strategies the project proposes to employ
- Recommendations of management actions the project should take to avoid or minimise harm to Aboriginal cultural heritage.

The ACHAR would be circulated to all RAPs in draft form. A 28-day period to review the document and provide input and comments will be provided at this point. The final report, incorporating input from RAPs, will be lodged with DPIE.

## 2.9 Sensitive cultural information management protocol

RAPs will have the opportunity to provide Jacobs with information on the project area and the surrounding region, including information on cultural heritage values. Information will be accepted at any point during the cultural heritage assessment process prior to the finalisation of the ACHAR.

It is possible that during this consultation process, RAPs will provide sensitive cultural information to which access needs to be restricted.

In the event that such information is supplied, the RAP supplying the information should state to Jacobs how they wish that information to be treated, and how access to the information should be restricted.

Jacobs will follow the stated wishes provided by the RAP group in question when managing and using the information provided to Jacobs. All stated restrictions of access, communication and publication of the information will be followed. These might include:

- Restrictions on reproducing the information (in whole or in part) in reports
- Restrictions on reproducing the information in reports provided to different audiences (for example, the version provided to the client, the version provided to DPIE and the AHIMS database)
- Restrictions on communication of the information in other ways
- Restrictions on the location/storage of the information
- Other required processes relating to handling the information
- Any names and contact details of persons authorised within the relevant Aboriginal group to make decisions concerning the information, and their degree of authorisation.
- Any details of any consent given in accordance with customary law
- Any restrictions on access to and use of the information by RAPs.

Please consider the above list when providing your statement of requirements regarding any culturally sensitive information.

## 2.10 Critical timelines

Critical timelines are outlined in **Table 2-1**. Please note that the following deadlines are estimates at this stage in the process and are provided to allow forward planning of personnel and resources.

**Table 2-1 Critical timelines for the project**

Project Item	Date
Provision of comments on the proposed methodology presented in this document	Within 28 days from delivery of this document
Archaeological test excavation fieldwork	Commencing 16 August 2021
Provision of the draft addendum ACHAR to RAPs for review.	13 September 2021
Provision of comments on draft addendum ACHAR	Within 28 days from delivery of the draft report
Gathering of information on cultural significance and cultural values associated with Aboriginal objects and places within or relevant to the project area	Ongoing throughout the process until finalisation of the draft addendum ACHAR
Finalisation of the addendum ACHAR in consideration of comments received	15 October 2021

## 2.11 Contact details

For more information and to discuss this project, please do not hesitate to contact:

### **Ryan Taddeucci**

Senior Archaeologist

Jacobs

177 Pacific Hwy, North Sydney NSW 2060or

ryan.taddeucci@jacobs.com

(02) 9928 2269

### **Oliver Macgregor**

Senior Archaeologist

Jacobs

Level 1, 64 Allara Street, Canberra ACT 2601

oliver.macgregor@jacobs.com

(02) 6246 2716

### 3. References

DECCW. (2010a). *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. Sydney: Department of Environment, Climate Change and Water

DECCW. (2010b). *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW*. Sydney: Department of Environment, Climate Change and Water

Dibden, J. 2018 Snowy 2.0 Exploratory Works Aboriginal Cultural Heritage Assessment Report. Archaeological Report, NSW Archaeology Pty Ltd.

Dibden, J. 2019 Snowy 2.0 Main Works: Aboriginal Cultural Heritage Assessment Report, Prepared for Snowy Hydro Limited.

Fisher, L. (2009). *Photography for Archaeologists. Part II: Artefact Recording* (Vol. 26): British Archaeological Jobs Resource.

Kintigh, K. W. (1988). The effectiveness of subsurface testing: a simulation approach. *American Antiquity*, 53(4).

NSW Government (2020). *Code of Practice: Excavation Work*. NSW Government.

OEH. (2011). *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*. Sydney: Office of Environment and Heritage

Prokop, E. (1985). A method to photograph stone tools. *Journal of Field Archaeology*, 12(2), 251 - 255.

## Appendix A. Unexpected discovery of human remains

Should human remains be uncovered during works the following procedures must be followed:

- a) Immediately after remains are exposed, all work is to halt at that location immediately and the Environmental Manager on site is to be immediately notified to allow assessment and management
- b) The Contractor's Environmental Manager (or similar) on site is to notify the INSW Representative
- c) Contact the local NSW Police
- d) Contact DPIE Environment line on 131 555 and the Heritage Branch (Heritage Division) on (02) 9873 8500.
- e) A physical or forensic anthropologist should inspect the remains in situ (organised by the police, unless otherwise directed by the police), and make a determination of ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historic or forensic)
- f) If the remains are identified as forensic, the area is deemed as a crime scene
- g) If the remains are identified as Aboriginal, the site is to be secured and DPIE and all Aboriginal stakeholders are to be notified in writing
- h) If the remains are identified as non-Aboriginal (historical) remains, the site is to be secured and the Heritage Branch (Heritage Division, OEH) is to be contacted

The above process functions only to appropriately identify the remains and secure the site. From this time, the management of the area and remains is to be determined through one of the following means:

- a) If the remains are identified as a forensic matter, liaise with the police
- b) If the remains are identified as Aboriginal, liaise with INSW, the OEH and registered Aboriginal stakeholders
- c) If the remains are identified as non-Aboriginal (historical) liaise with INSW, and the Heritage Branch (Heritage Division, DPIE)
- d) If the remains are identified as not being human, then work can recommence once the appropriate clearances have been given



## **Appendix B. Heritage NSW submission DOC21/110300**



Our ref: DOC21/110300  
Your ref: SSI-9717

Anthony Ko  
Team Leader  
Energy Resource Assessments  
Department of Planning, Industry and Environment  
Email: [anthony.ko@planning.nsw.gov.au](mailto:anthony.ko@planning.nsw.gov.au)

Advice provided via the Major Projects Portal

Dear Mr Ko

**Notice of Exhibition - Snowy 2.0 Transmission Connection Project EIS, Snowy Monaro and Snowy Valley's LGA (SSI 9717)**

I refer to your email dated 17 February 2021 seeking comments on the state significant infrastructure (SSI) project for the Snowy 2.0 Transmission Connection Project Environmental Impact Statement (EIS), within the Snowy Monaro and Snowy Valley's Local Government Areas (LGAs). Heritage NSW understands that the proposed development involves the construction and operation of an overhead transmission line connection and substation to connect Snowy 2.0 to the National Electricity Market.

Heritage NSW has reviewed the EIS and documents provided in relation to Aboriginal cultural heritage matters and provides comments below. The following reports were considered in our assessment:

- *Environmental Impact Statement: Snowy 2.0 Transmission Connection Project*. Report produced by Jacobs for TransGrid, dated February 2021.
- *Appendix C - Snowy Hydro 2.0 Transmission Connection Project: Aboriginal Cultural Heritage Assessment*. Report produced by Jacobs for TransGrid, dated February 2021.

**Heritage NSW comments**

The Aboriginal Cultural Heritage Assessment Report (ACHAR) identifies a number of Aboriginal sites (56-6-0009, 56-6-0477, 56-6-0495, 56-6-0496 and 56-6-0497) and four potential archaeological deposits (PAD) within the project area. We note however, that some areas of the project remain unsurveyed and untested.

- A program of test excavation has been undertaken for two of the four PADs (ST PAD 03 and Substation PAD), providing knowledge of the nature and significance of these PADs. Two remaining PADs (ST PAD 01 and ST PAD 02) have not been excavated but have been assessed based on assumptions and results from the nearby Snowy 2.0 project. Heritage NSW is concerned that these two PADs, ST PAD 01 and ST PAD 02, have not been test excavated during the EIS process although there has been adequate opportunity for this to occur. The ACHAR itself states the significance of the PADs cannot be comprehensively assessed prior to archaeological test excavation. As such, Heritage NSW cannot make any comment or provide informed recommendations to DPIE regarding the sites ST PAD 01 and ST PAD 02.
- Similarly, Heritage NSW notes the ACHAR (Jacobs 2020) and EIS (Jacobs 2021) identify that some of the impact area, specifically the track atop Sheep Station Ridge, was not

assessed as it could not be accessed and that once access is established it will be surveyed. Heritage NSW cannot make any comment or provide informed recommendations to DPIE regarding this section until it has been assessed.

The management measures provided by Jacobs recommend that both surface collection and salvage excavations be undertaken at selected sites and that a Cultural Heritage Management Plan (CHMP) be prepared. Heritage NSW advises that the preparation of a CHMP, post approval, should not take the role of adequate assessment during the EIS process.

#### **Aboriginal cultural heritage advice**

As test excavations have not been completed for all PADs within the project area, the full impacts to Aboriginal cultural heritage values remain unknown. As the ACHAR outlines the significance of the untested PADs cannot be comprehensively assessed prior to archaeological test excavation, Heritage NSW recommend DPIE consider whether enough information is available to inform impacts to Aboriginal cultural heritage values. Alternatively, upfront test excavations would inform the significance of the PADs, whether future salvage excavation is required and would allow the proponent to redesign the project to avoid any significant objects or sites if necessary.

As the ACHAR records that no comments have been received from the Registered Aboriginal Parties (RAPs) during the comment period for the draft ACHAR, we recommend additional efforts are made to seek input from the RAPs to ensure the proposed management recommendations are understood. We also note that the consultation log (ACHAR - Appendix A) has not been updated since July 2020 and recommend this be amended to include the attempts and outcomes of consultation that has occurred since that date.

Both the ACHAR and EIS make recommendations for salvage of Aboriginal objects prior to construction. There is however, no indication of how these objects will be managed once collected. Heritage NSW recommends this be clarified and resolved prior to consent approval to avoid any potential conflict between stakeholders. In line with this, we remind the proponent that obligations to obtain other legal instruments, i.e. Care Agreements under section 85 of the *National Parks and Wildlife Act 1974* and the submission of Aboriginal Site Impact Recording Forms remain in force.

If you have any further questions in relation to this advice, please contact myself or John Gilding, Archaeologist, Aboriginal Cultural Heritage Regulation - South, Heritage NSW on 0428 897 811 or email at [john.gilding@environment.nsw.gov.au](mailto:john.gilding@environment.nsw.gov.au).

Yours sincerely



**Jackie Taylor**  
**Senior Team Leader, Aboriginal Cultural Heritage Regulation - South**  
**Heritage NSW**  
29 March 2021

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**Appendix C. Consultation records**



Date	To	From	Medium	Brief Description
26/Oct/18	Office of the Registrar, <i>Aboriginal Land Rights Act 1983</i>	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	Brungle-Tumut LALC	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	National Native Title Tribunal	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	NTSC	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	OEH	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	Riverina Local Land Services	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
26/Oct/18	Snowy Valleys Council	Jacobs	Mail	Requesting details of potential RAPs - Agency Letter
15/Nov/18	OEH - Jackie Taylor	Jacobs	Phone	DW called Jackie to inform hewre that we'd yet to receive any RAP lists from OEH. Jackie committed to actioning this asap.
19/Nov/18	Jacobs	Jackie Taylor (OEH)	Email	OEH list of RAPs
22/Nov/18	Jacobs	Trudy Crawford (Snowy Valleys Council)Email	Email	Advice to contact BT LALC
27/Nov/18	Jacobs	Sue Bulger	Email	BT LALC names to be contacted
3/Dec/18	Jacobs	Murra Bidgee Mullangari	Email	Request to register for project
3/Dec/18	Jacobs	Merrigarn	Email	Request to register for project
3/Dec/18	Jacobs	Muragadi	Email	Request to register for project
3/Dec/18	Jacobs	Cherrie Carrol Turrise	By phone	Request to register for project
4/Dec/18	Identified Aboriginal Parties with no mailing address	Jacobs	Email	Stage One invitation to register (based off OEH list)
5/Dec/18	Jacobs	Janine Thompson	Email	Request to register for project
6/Dec/18	Jacobs	Marilyn Carroll-Johnson	Email	Request to register for project
6/Dec/18	Jacobs	Iris White	Email	Request to register for project
10/Dec/18	Registered Aboriginal Parties to date	Jacobs	Email	Confirmation of registration as RAPs for the project
11/Dec/18	Jacobs	PD Ngunawal Consultancy	Email	Request to register for project
12/Dec/18	Jacobs	Luke	Phonecall	Inquiring about registration, will be emailing in.
13/Dec/18	Jacobs	Gunjeewong Cultural Heritage Aboriginal Corporation	Mail	Request to register for project
13/Dec/18	Jacobs	Koomuri Ngunawal Aboriginal Corporation	Email	Request to register for project
14/Dec/18	Jacobs	Yurwang	Email	Request to register for project
14/Dec/18	Jacobs	Buru Ngunawal Aboriginal Corporation	Email	Request to register for project
17/Dec/18	Jacobs	Alice Williams	Mail	Request to register for project
19/Dec/18	Jacobs	Didge Ngunawal Corporation	Email	Request to register for project
21/Dec/18	Jacobs	Griffith Skills Training Centre & Ngumbaay Indigenous Corporation	Email	Request to register for project
7/Jan/19	Jacobs	Janice Williams	Email	Request to register for project
7/Jan/19	Jacobs	Ramsay Freeman	Email	Request to register for project
7/Jan/19	Jacobs	Megan Considine	Email	Request to register for project
8/Jan/19	Jacobs	Shirley Marlowe	Email	Request to register for project
8/Jan/19	Jacobs	Matthew Marlowe	Email	Request to register for project
8/Jan/19	Jacobs	Lawrence Marlowe	Email	Request to register for project
11/Jan/19	Jacobs	Ron Grovenor	Email	Request to register for project
23/Jan/19	Oeh and LALC	Jacobs	Email	Notification of RAPs for project
27/Mar/19	Identified Aboriginal Parties	Jacobs	Email	Methodology emailed out to RAPs
27/Mar/19	Jacobs	Glen Freeman	Email	I have no issues with the methodology for this project and look forward to
27/Mar/19	Jacobs	Shaun Carroll	Email	working with you on it.
28/Mar/19	Identified Aboriginal Parties with no address	Jacobs	Mail	Methodology mailed out to RAPs
7/May/19	RAPS (with emails)	Jacobs	Email	Attempt to obtain a contact number for Ramsey freeman
8/May/19	Mark Saddler	Jacobs	Phonecall	Attempt to obtain a contact number for Ramsey freeman
8/May/19	Mark Saddler	Jacobs	Email	Written request for a contact number for Ramsey Freeman, or for the Snowy Mountains Indigenous Elders Group as we do not have contact details
8/May/19	Alice Williams	Jacobs	Phonecall	Unable to get onto, no voice mail. Attempt to pass on information about survey information
8/May/19	Janice Williams	Jacobs	Phonecall	Number has been disconnected
8/May/19	Megan Considine	Jacobs	Phonecall	Small message left- unable to leave full message
8/May/19	Jacobs	Megan Considine	Phonecall	Returning call. Provided email address
8/May/19	Jacobs	Mark Saddler	Email	Providing information to contact Brungle Community Centre or Tumut LALC for Ramsey Freeman's details
9/May/19	Janice Williams	Jacobs	Phonecall	Gave Clare a call in regards to Survey work
9/May/19	Jacobs	Janice Williams	Phonecall	Called Janice back to confirm Alice Williams was registered and obtained her email address
Supply of document Snowy 2.0 Transmission - Archaeological Test Excavation Method				
9/Aug/19	Buru Ngunawal Aboriginal Corporation (BNAC)	Jacobs	email	
9/Aug/19	Corroboree Aboriginal Corporation	Jacobs	email	

9/Aug/19	Didge Ngunawal clan	Jacobs	email	
9/Aug/19	Griffith Skills Training Centre and Ngumbaay Indigenous Corporation	Jacobs	email	
9/Aug/19	Gunjeewong Cultural Heritage Aboriginal Corporation	Jacobs	email	
9/Aug/19	Koomurri Ngunawal Aboriginal Corporation	Jacobs	email	
9/Aug/19	Merrigarn Indigenous Corporation	Jacobs	email	
9/Aug/19	Muragadi Heritage Indigenous Corporation	Jacobs	email	
9/Aug/19	Murri Bidgee Mullangari Aboriginal Corporation	Jacobs	email	
9/Aug/19	Ngarigo Elders	Jacobs	email	
9/Aug/19	Ngunawal Consultancy	Jacobs	email	
9/Aug/19	Walgalu Elder and knowledge holder	Jacobs	email	
9/Aug/19	Yurwang Gundana Consultancy Cultural Heritage Services	Jacobs	email	
9/Aug/19	Janine Thompson	Jacobs	email	
9/Aug/19	Megan Considine	Jacobs	email	
9/Aug/19	Shirley Marlowe	Jacobs	email	
9/Aug/19	Ron Grovenor	Jacobs	email	Email bounced - mailed instead (see below)
9/Aug/19	Ron Grovenor	Jacobs	Mail	
9/Aug/19	Snowy Mountains Indigenous Elders Group	Jacobs	Mail	
9/Aug/19	Janice Williams	Jacobs	Mail	
Responses to method document				
9/Aug/19	Jacobs	Corroboree Aboriginal Corporation (Marilyn Johnson)	Phonecall	No issues with method. Wish to send site officer.
9/Aug/19	Jacobs	Corroboree Aboriginal Corporation (Marilyn Johnson)	Email	Supplied insurance documents
9/Aug/19	Jacobs	Didge Ngunnawal Clan	Email	Wishes to participate in fieldwork. Supplied insurance.
11/Aug/19	Jacobs	Muragadi	Email	Wishes to participate in fieldwork. Supplied insurance.
11/Aug/19	Jacobs	Merigarn	Email	Wishes to participate in fieldwork. Supplied insurance.
12/Aug/19	Jacobs	Murrabidgee Mullangari	Email	Stated that methodology or site officer information hadn't been received for this project.
12/Aug/19	Jacob	Murrabidgee Mullangari (Darleen Johnson)	Phonecall	Said that email of method document hadn't been received. Oliver re-sent the document to murrabidgeemullangari@yahoo.com.au (see below)
12/Aug/19	Murrabidgee Mullangari	Jacobs	Email	Re-sent the method document following phonecall received from Darleen Johnson.
12/Aug/19	Jacobs	Murra Bidgee Mullangari	Email	Wishes to participate in fieldwork. Supplied insurance.
12/Aug/19	Jacobs	Didge Ngunnawal Clan (Paul Boyd)	Phonecall	Phoned to check that email with insurance documents had come through.
12/Aug/19	Jacobs	Didge Ngunnawal Clan (Paul Boyd)	Phonecall	Phoned to express the opinion that since Murrabidgee Mullangari and Merigarn had a turn assisting with the survey, it would be appreciated if his group could be given priority supplying a site officer for the test excavation, should such a decision have to be made.
13/Aug/19	Jacobs	Luke Penrith	Email	Stated that he managed the payroll for the survey phase. Wishes to know if we will engage him for this again.
13/Aug/19	Jacobs	Koomurri Ngunawal Aboriginal Corporation	Email (4 emails)	Wishes to participate in fieldwork. Provided insurance
14/Aug/19	Jacobs	Olivia Williams	Phonecall	Wishes to participate in fieldwork. Didn't provide insurance, said that on previous survey they had worked through Luke Penrith who had handled insurance cover. OM responded that he would check with AC whether Luke Penrith would be similarly engaged for the test excavation phase.
14/Aug/19	Jacobs	Janice Williams	Phonecall	Wishes to participate in fieldwork. Also stated that Megan Considine and Ramsay Freeman wish to participate. Stated that she would send a follow-up email, and have Megan Considine send an email as well.
15/Aug/19	Jacobs	Luke Penrith	Email	Supplied Pre-Qual document.
15/Aug/19	Luke Penrith	Jacobs	Email	Acknowledged receipt of Pre-Qual document.
15/Aug/19	Jacobs	Luke Penrith	Email	Asked if the list of RAPs could be shared with him, and if Justine Bell is on the list of RAPs (Jacobs did not reply to these questions).
19/Aug/19	Jacobs	Megan Considine	Email	Wishes to participate in fieldwork. Stated that Ramsay Freeman and Janice Williams also wish to participate. All wish to work through Luke Penrith's organisation.
19/Aug/19	Jacobs	Olivia Williams	Email	Wishes to participate in fieldwork, representing self. Wishes to work through Luke Penrith for insurance.
20/Aug/19	Jacobs	Janice Williams	Phonecall	Stated that Roxanne Williams wishes to be involved in fieldwork. Said that Roxanne Williams was involved in the survey phase. Said that she (Janice) would send a follow-up email on Roxanne Williams' behalf requesting involvement.
21/Aug/19	Luke Penrith	Jacobs	Email	Stated that Jacobs will engage LP's organisation in the same capacity it operated during survey phase.
22/Aug/19	Jacobs	Luke Penrith	email	Acknowledged Jacobs' engagement of LP's organisation
23/Aug/19	Jacobs	Janice Williams	Phonecall	Stated that Glen Freeman, as a Ngunnawal person, is working off-country for this project and she and her group are unhappy about it. Stated that the Elders of her group will write a letter to Jacobs to express their displeasure if Glen is selected to take part in the test-pit field program. Also mentioned that Jeremiah Freeman also wishes to take part in the fieldwork, and agreed to send an email to Jacobs next week to this effect.
26/Aug/19	Jacobs	Paul Boyd	Phonecall	Stated that he would personally be the field rep for Didge Ngunnawal clan. Also asked where we would be staying during fieldwork. OM said he would contact Paul back once Jacobs has organised where its fieldworkers will be accommodated.
28/Aug/19	Jacobs	Shirley Marlowe	Email	Wishes to supply site officers: Matthew Marlowe, Lawrence Marlowe, Nioka Marlowe, Shirley Marlowe, Nat Barnes. Wish to work through Luke Penrith's organisation

2/Sep/19	Jacobs	Murra Bidgee Mullangari (Darleen Johnson)	Phonecall	Inquired about fieldwork start date, and whether accommodation would be the same as it was during survey phase. OM informed her that the provisional start date is September 23rd but this isn't solidified yet, and that notification will be sent out as early as possible.
15/Sep/19	Jacobs	Olivia Williams	Email	Inquired when fieldwork is scheduled to start.
16/Sep/19	Jacobs	Gulgunya NHAC	Email	Inquired when fieldwork would start, and for any other details regarding accommodation, attendance, etc.
16/Sep/19	Gulgunya NHAC	Jacobs	Email	Informed Gulgunya NHAC that fieldwork has been delayed for an indefinite period. Indicated that Jacobs would update all groups as soon as further information on fieldwork timing is available.
17/Sep/19	Olivia Williams	Jacobs	Phonecall	Informed Olivia that fieldwork has been delayed for an indefinite period. Indicated that Jacobs would update all groups as soon as further information on fieldwork timing is available.
17/Sep/19	Luke Penrith	Jacobs	Email	Informed Luke Penrith that fieldwork has been delayed for an indefinite period. Indicated that Jacobs would update all groups as soon as further information on fieldwork timing is available.
19/Sep/19	Jacobs	Murra Bidgee Mullangari	Email	Asked if fieldwork is still cancelled next week.
19/Sep/19	Murra Bidgee Mullangari	Jacobs	Email	Informed Murra Bidgee Mullangari that fieldwork has been postponed due to the need to test soils for hazardous materials. MBM responded acknowledging receipt of email.
19/Sep/19	Jacobs	Muragadi	Email	Asked if fieldwork is still cancelled next week. Jacobs responded to inform that fieldwork has been postponed due to the need to test soils for hazardous materials.
19/Sep/19	Muragadi Heritage Indigenous Corporation	Jacobs	Email	Informed Muragadi that fieldwork has been postponed due to the need to test soils for hazardous materials.
19/Sep/19	Corroboree Aboriginal Corporation	Jacobs	Email	Informed Corroboree Aboriginal Corporation that fieldwork has been postponed due to the need to test soils for hazardous materials. Corroboree responded acknowledging receipt of email.
20/Sep/19	Shirley Marlowe	Jacobs	Email	Informed Shirley, Matthew and Lawrence Marlowe that fieldwork has been postponed due to the need to test soils for hazardous materials.
20/Sep/19	Merrigarn Indigenous Corporation	Jacobs	Email	Informed Merrigarn Indigenous Corporation that fieldwork has been postponed due to the need to test soils for hazardous materials.
20/Sep/19	Alice and Olivia Williams	Jacobs	Email	Informed Alice and Olivia Williams that fieldwork has been postponed due to the need to test soils for hazardous materials.
20/Sep/19	Megan Considine	Jacobs	Email	Informed Olivia Considine that fieldwork has been postponed due to the need to test soils for hazardous materials.
20/Sep/19	Jacobs	Megan Considine	Email	Acknowledged Jacob's email informing of fieldwork postponement.
20/Sep/19	Jacobs	Shirley Marlowe	Email	Acknowledged Jacob's email informing of fieldwork postponement.
Informing RAPS of rescheduling				
4/Oct/19	Luke Penrith	Jacobs	Email and phone	Informed of rescheduled fieldwork dates
4/Oct/19	Alice and Olivia Williams	Jacobs	Email	Informed of rescheduled fieldwork dates
4/Oct/19	Megan Considine	Jacobs	Email	Informed of rescheduled fieldwork dates
4/Oct/19	Shirley, Matthew, Lawrence Marlowe	Jacobs	Email	Informed of rescheduled fieldwork dates
4/Oct/19	Ron Grovenor	Jacobs	Phonecall	Informed of rescheduled fieldwork dates
4/Oct/19	Olivia Williams	Jacobs	Phonecall	Informed of rescheduled fieldwork dates
4/Oct/19	Jacobs	Corroboree Aboriginal Corporation	Email	Asked for any updates on the project
8/Oct/19	Jacobs	Shirley Marlowe	Email	Put forward three people as available Sites Officers: Matthew Marlowe, Lawrence Marlowe, and Kieren Marlowe. Asked whether there are induction processes that will need to be completed, and asked for any information on accommodation and fieldwork logistics.
8/Oct/19	Jacobs	Olivia Williams	Email	Stated that she is available for the week of October 21 to 26
9/Oct/19	Jacobs	Corroboree Aboriginal Corporation	Email	Asked for any updates on the project
9/Oct/19	Jacobs	Janice Williams	Phonecall	Stated that Janice Williams, Ronald Grovener, Megan Considine, and Ramsay Freeman are all available for the week of October 21 to 26.
9/Oct/19	Jacobs	Murra Bidgee Mullangari (Darleen Johnson)	Phonecall	Informed Murra Bidgee Mullangari that a decision has been made to limit fieldwork participation to groups based in the local area, and that an email would be sent to provide formal notification of this. MMB requested the contact details of a contact person from the client that they can discuss the decision with. Jacobs stated that this decision is one that Jacobs is responsible for, and that contact details of the appropriate contact person with the client would be supplied to MBM. MBM expressed an intention to appeal against this decision.
9/Oct/19	Jacobs	Muragadi	Email	Asked for any updates on the project
9/Oct/19	Jacobs	Merrigarn	Email	Asked for any updates on the project
9/Oct/19	Murra Bidgee Mullangari	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Koomurri Ngunawal Aboriginal Corporation	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Didge Ngunawal clan	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Merrigarn Indigenous Corporation	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Muragadi Heritage Indigenous Corporation	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Corroboree Aboriginal Corporation	Jacobs	Email	Emailled notification of the decision to restrict fieldwork participation to groups based in the project's local area
9/Oct/19	Jacobs	Didge Ngunawal Clan	Phonecall	Expressed unhappiness and disappointment with the decision to exclude Didge Ngunawal Clan from the fieldwork program. Stated that their group has demonstrable geneological links with the project area. The reasons for the decision were discussed.
9/Oct/19	Jacobs	Didge Ngunawal Clan	Email	Expressed unhappiness with the decision to exclude Didge Ngunawal Clan from the fieldwork program. Outlined examples of their connection to the area through father and grandfather.
9/Oct/19	Jacobs	Merrigarn Indigenous Corporation	Email	Expressed unhappiness with the decision to exclude Merrigarn from the fieldwork program. Stated that Merrigarn was under the impression they would be included in fieldwork. Stated that they hold a cultural connection to the area, and that residence of an area isn't stated in OEH regulations as a criteria on which connection is judged. Enquired if Jacobs is a member of the archaeological association.

9/Oct/19	Merrigarn Indigenous Corporation	Jacobs	Email	Referred to previous email communication with Merrigarn, which their email to Jacobs on September 9th appeared to allude to. Discussed that the timing of this email (advising Merrigarn of fieldwork delay) was sent prior to decisions being made about fieldwork employment. The uncertainty of timing of fieldwork caused by the delay made decisions on fieldworker employment impracticable.
9/Oct/19	Jacobs	Murra Bidgee Mullangari	Email	Expressed unhappiness with the decision to exclude Murra Bidgee Mullangari from the fieldwork program. Stated that residence in an area is not a criteria on which cultural connection is judged, and they view the decision as discriminatory. Stated that they were under the impression they had already been engaged for employment for the field program. Requested the contact details for a contact person from the client.
9/Oct/19	Jacobs	Murra Bidgee Mullangari	Email	Requested that contact details for the proponent be supplied as soon as possible. Stated that Murra Bidgee Mullangari have contacted OEH and the anti-discrimination board to discuss today's decision.
9/Oct/19	Jacobs	Corroboree Aboriginal Corporation	Phonecall	Discussed the decision to restrict fieldwork participation to groups based in the project area. Corroboree expressed unhappiness and disappointment that the decision has been made, and that they feel the decision is unfair.
9/Oct/19	Jacobs	Corroboree Aboriginal Corporation	Email	Stated that Corroboree view the decision as an unfair one, and that a fair solution would be to employ all RAPs on a roster basis.
9/Oct/19	Jacobs	Corroboree Aboriginal Corporation	Email	Provided an expanded discussion outlining Corroboree Aboriginal Corporation's view that the decision is unfair and discriminates against their group on the basis of the area in which they are based. Stated that their preference for fieldwork employment would be a roster including all RAPs. Corroboree feels that this decision implies that their group is not connected to the land in question. Requested that they be employed in the event that other RAPs are unavailable.
10/Oct/19	Shirley Marlowe	Jacobs	Email	Informed Shirley that there are no issues regarding site access applying to the potential Sites Officers she has nominated.
10/Oct/19	Jacobs	Shirley Marlowe	Email	Thanked Jacobs for information on site access. Provided suggestions on fieldwork allocation for individuals from her group.
10/Oct/19	Jacobs	Murra Bidgee Mullangari	Phonecall	Repeated Murra Bidgee Mullangari's view that the decision discriminates against their group unfairly. Requested contact details for a contact person from the client. Jacobs informed MBM that the contact details for an appropriate contact point from the client are being sought and will be forwarded as soon as possible.
10/Oct/19	Jacobs	Roxanne Williams	Phonecall	Stated that she is available for the week of October 21 to 26
10/Oct/19	Jacobs (cc'd on message to Chris Page of Transgrid)	Murra Bidgee Mullangari	Email	Referred to an earlier phone conversation between Murra Bidgee Mullangari and Chris Page. Asked who had made the decision to limit the RAPs involved in fieldwork. Re-asserted an ancestral/family connection to the land in question. Stated that Murra Bidgee Mullangari view the decision as discriminatory, and that they were under the impression that they were to be included in the fieldwork, prior to being informed of the decision.
10/Oct/19	Jacobs (cc'd on message to Chris Page of Transgrid. Also ccd were S	Murra Bidgee Mullangari	Email	Responded to an email from Chris Page, in which Chris said he would raise MBM's concerns with Sherrie Castaldini, Transgrid's Indigenous Engagement Officer. Murra Bidgee Mullangari stated that they have contacted fair trading in regard to the decision. Re-stated that MBM would like to be involved in the fieldwork.
10/Oct/19	Jacobs	Koomurri Ngunawal Aboriginal Corporation	Email	Stated that while Koomurri do not begrudge the groups based closer to the project area being given preference in terms of fieldwork representation, Koomurri does not regard the decision as being fair to individuals or groups who have moved away from their traditional country for reasons unrelated to their cultural connection to the land.
14/Oct/19	Jacobs	Olivia Williams	Email	Asked for information on fieldwork logistics
14/Oct/19	Olivia Williams	Jacobs	Email	Indicated that fieldwork logistics information would be supplied today
14/Oct/19	All fieldworkers	Jacobs	Email	Supplied information on PPE requirements, informed RAPs that final roster would be provided as soon as possible.
14/Oct/19	Jacobs	Shirley Marlowe	Email	Thanked Jacobs for supply of information on fieldwork PPE requirements. Provided suggestions of fieldworker allocation from her group.
14/Oct/19	Jacobs	Megan Considine	Email	Thanked Jacobs for supply of fieldwork information
14/Oct/19	Jacobs	Darleen Johnson	Phonecall	Asked whether Jacobs had any further information from Transgrid regarding decision to limit field participation. Stated that if Murra Bidgee Mullangari had not received word of the decision being reversed today they would pursue legal action including action for lost income.
14/Oct/19	Jacobs	Janice Williams	Phonecall	Enquired about fieldwork logistics, and the fieldwork roster
15/Oct/19	Jacobs	Darleen Johnson	Phonecall	Asked for the contact details of the appropriate contact person at Transgrid, as Darleen understands the previous contact she was communicating with is now on leave.
15/Oct/19	Jacobs (also ccd Sherrie Castaldini, Chris Page and Paul Broad of Tr	Murra Bidgee Mullangari	Email	Asked for contact details for the project managers who had made the decision to not include MBM in fieldwork.
15/Oct/19	Jacobs	Olivia Williams	Email	Thanked Jacobs for supply of fieldwork information (email of the 14th)
15/Oct/19	Jacobs (also ccd Yasmin Williams and Paul Italiano of Transgrid)	Murra Bidgee Mullangari	Email	Stated that Murra Bidgee Mullangari understood they had been engaged to be employed on the upcoming fieldwork, prior to the decision to limit the number of groups participating. Stated that they believe the decision to be discriminatory and contravening the Racial Act 1975. Stated that Murra Bidgee Mullangari have contacted the Human Rights Commission, and are considering lodging a complaint against Jacobs and Transgrid.
15/Oct/19	Jacobs	Darleen Johnson	Phonecall	Asked for the contact details of the appropriate contact person at Transgrid, as Darleen understands the previous contact she was communicating with is now on leave. Restated her view that the decision made is discriminatory and that she is unhappy about it. Stated that she is unsure who the decision has come from. Jacobs re-stated that the decision is one that Jacobs is responsible for, being the entity carrying out the archaeological assessment and consequently the consultation process.
15/Oct/19	Jacobs	Shirley Marlowe	Email	Supplied suggestions on allocating field days between members of her group
15/Oct/19	Shirley Marlowe	Jacobs	Email	Thanked Shirley for the info she provided, and informed her that the final roster would be developed tomorrow (October 16th) after a meeting that Luke Penrith will be having with some of the RAPs.
15/Oct/19	Jacobs (cc'd on email to Sherrie Castaldini of Jacobs)	Murra Bidgee Mullangari	Email	Stated that Murra Bidgee Mullangari are going to lodge a complaint with the Human Rights Commission.
12/Feb/20	Jacobs	Olivia Williams	Email	Enquired about the current state of the project, and whether any fieldwork is planned
12/Feb/20	Olivia Williams	Jacobs	Email	Informed Olivia that the EESG is organising a meeting with Jacobs and the client to discuss the current state of the project, and future steps to be taken in assessment of heritage in light of recent bushfire impacts to the project area.



25/Feb/20	Jacobs	Janice Williams	Phonecall	Stated that the Aboriginal community have thoughts on extra assessment work they would like to see happen in light of the bushfires. Informed Jacobs that an email would be sent outlining their wishes.
27/Feb/20	Jacobs	Ramsay Freeman and Winifred Marlowe	Letter via email	Stated, as elders of the Wiradjuri/Wolgalu Nations, that they would like further archaeological works to be carried out in the project area. The bushfires in the area would have exposed the ground surface and created the potential for more sites to be uncovered. They see this as providing a 'great opportunity for the Aboriginal community to get in to carry out more extensive archaeological works in the area'.
27/Feb/20	Jacobs	Ramsay Freeman, Ronald Grovenor, Janice Williams, Matthew Marlowe, Lawrence Marlowe, Bradley Freeman, Adrian O'Brien, Megan Considine, Teisha Freeman, Brittany Minogue	Letter via email	Stated, as Sites Officers, that they would like further archaeological works to be carried out in the project area. The bushfires in the area would have exposed the ground surface and created the potential for more sites to be uncovered. They see this as providing a 'great opportunity for the Aboriginal community to get in to carry out more extensive archaeological works in the area'.
11/Jul/20	Olivia Williams	Jacobs	Phonecall	Discussed the current state of the project, for Olivia to relay to other members of the BTLALC and site officers. Informed Olivia that the project is still ongoing, with the ACHAR in preparation.
	Test excavation methodology August 2021 excavation	Outgoing		
14/Jul/21	Mr Walter R Bell	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Marilyn Carroll-Johnson	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Lillie Carroll	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Luke Penrith	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Cherie Carroll Turrisse	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Glen Freeman	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Shaun Carroll	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Jesse Johnson	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Darleen Johnson	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Iris White	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Peiro Delponte	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Alice Williams	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Dean Bell	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Janine Thompson	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Megan Considine	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Shirley Marlowe	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Matthew Marlowe	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Lawrence Marlowe	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Ron Grovenor	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Brungle/Tumut Local Aboriginal Land Council	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Olivia Williams	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
14/Jul/21	Roxanne Williams	Jacobs	Email	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
15/Jul/21	Ramsay Freeman	Jacobs	Letter	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
15/Jul/21	Dean Bell	Jacobs	Letter	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
15/Jul/21	Janice Williams	Jacobs	Letter	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
15/Jul/21	Ron Grovenor	Jacobs	Letter	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
15/Jul/21	Brungle/Tumut Local Aboriginal Land Council	Jacobs	Letter	Invitation to review and comment on test excavation methodology. Comments due 12 August 2021
	Test excavation methodology August 2021 excavation	Incoming		
14/Jul/21	Jacobs	Lillie Carroll	Email	Agrees with the proposed test excavation methodology. Has a family connection to the land and identifies as a traditional owner.
14/Jul/21	Jacobs	Brungle/Tumut Local Aboriginal Land Council	Email	Email delivery failure
14/Jul/21	Jacobs	Dean Bell	Email	Email delivery failure
16/Jul/21	Jacobs	Jesse Johnson	Email	Agrees with the proposed test excavation methodology.
3/Aug/21	Jacobs	Glen Freeman	Email	No comment at this stage
8/Aug/21	Jacobs	Darleen Johnson	Email	Agrees with the proposed test excavation methodology.
	Addendum ACHAR	Outgoing		
10/Sep/21	Mr Walter R Bell	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Marilyn Carroll-Johnson	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Lillie Carroll	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Luke Penrith	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Cherie Carroll Turrisse	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Glen Freeman	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Shaun Carroll	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Jesse Johnson	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Darleen Johnson	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Iris White	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Peiro Delponte	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Alice Williams	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021

10/Sep/21	Dean Bell	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Janine Thompson	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Megan Considine	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Shirley Marlowe	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Matthew Marlowe	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Lawrence Marlowe	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
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10/Sep/21	Brungle/Tumut Local Aboriginal Land Council	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Olivia Williams	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Roxanne Williams	Jacobs	Email	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Ramsay Freeman	Jacobs	Letter	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Dean Bell	Jacobs	Letter	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Janice Williams	Jacobs	Letter	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Ron Grovenor	Jacobs	Letter	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
10/Sep/21	Brungle/Tumut Local Aboriginal Land Council	Jacobs	Letter	Invitation to review and comment on Addendum ACHAR. Comments due 11 October 2021
	Addendum ACHAR	Incoming		
10/Sep/21	Jacobs	Lillie Carroll	Email	Agrees with the proposed test excavation methodology. Has a family connection to the land and identifies as a traditional owner.
10/Sep/21	Jacobs	Brungle/Tumut Local Aboriginal Land Council	Email	Email delivery failure
10/Sep/21	Jacobs	Dean Bell	Email	Email delivery failure

## Taddeucci, Ryan

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**From:** Taddeucci, Ryan  
**Sent:** Wednesday, 14 July 2021 6:04 PM  
**To:** Taddeucci, Ryan  
**Subject:** Snowy Hydro 2.0 - Test excavation methodology  
**Attachments:** IA199900 Archaeological Test Excavation Method Rev01 20210714.pdf

Good evening,

Jacobs, on behalf of Transgrid, are providing an archaeological test excavation methodology document to all Registered Aboriginal Parties (RAPs) and cultural knowledge holders for the Snowy 2.0 Transmission Line Connection Project.

You are invited to read through the attached document, which sets out the proposed method for carrying out test excavations and the areas in which these excavations are proposed to occur. If you would like to comment on the provided methodology, please provide your response by **12 August 2021**.

Please address your response to me via return email.

Kind regards,  
Ryan

**Ryan Taddeucci, Master of Museum Studies, Grad Dip Maritime Archaeology, BA (Hons) Archaeology** | [Jacobs](#) | Senior Archaeologist, Archaeology and Cultural Heritage (Asia Pacific), Environmental Solutions  
M: +61.423.381.482 | [Ryan.Taddeucci@jacobs.com](mailto:Ryan.Taddeucci@jacobs.com)  
177 Pacific Highway | North Sydney NSW 2060 | Australia

## Taddeucci, Ryan

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**From:** lilly carroll <didgengunawalclan@yahoo.com.au>  
**Sent:** Wednesday, 14 July 2021 8:14 PM  
**To:** Taddeucci, Ryan  
**Subject:** [EXTERNAL] Re: Snowy Hydro 2.0 - Test excavation methodology

Hi Ryan

Dnc agrees to all proposal of the test excavation methodology

Dnc holds a lot of cultural knowledge to this land its where my ancestors and great grandparents and grandparents and my father Phillip carroll was born on at blacks camps my grandfather James carroll was a black tracker and would do he's black tracking all over the snow mountains and beyond also my father Phillip carroll was a drover and would travel all the way to the Melbourne border

I hope to be a part of this test excavation. Didge ngunawal clan is a traditional owner of this land

Kind regards DNC  
Lilly carroll & Paul Boyd  
0426823944

The pictures have my great great grandparents &  
The other picture has my father Phillip carroll uncle Don Bell carroll aunty dot carroll my cousin Cyril Phillips true ngunnawal Elders





image0.jpeg

ABORIGINALS AT NORTH YASS.





X

image1.jpeg

# Nation urged to look to the future, not the past

## Anglican apologists to stolen children

By GRAHAM DOW  
Religion reporter  
and AAP

An apology for the removal of Aboriginal children from their families has been pressed by the General Synod of the Anglican Church of Australia.

The apology came yesterday after a two-hour debate in which the motion moved by the bishop of Brisbane, Philip Lingworth, it acknowledged the hurt and trauma by the unjustified removal of the children.

In the motion, the Church apologised unreservedly and part played knowingly and unwittingly by it which contributed in any way to the hurt and trauma and the Church's silence on it.

The synod, meeting in Canberra, called on all Anglicans and Anglicans to take part in the implementation of the motion as far as practicable, and commendations of the Bringing Them Home Human Rights and Opportunities Commission so called on Anglicans by politicians to the Australian Government a formal apology to the children.

A spokesman for the Anglican Church, Greg Harvey, said it was a very powerful, heartfelt and sincere apology on behalf of many other Aborigines who served the debate in the synod gallery.

Earlier, the Prime Minister, Paul Keating, said the Anglican Church of Australia and Archbishop of Canterbury, Dr Keith Rayner, found it strange that the Prime Minister, Howard, had not offered an apology on behalf of the cause it would be symbolic.

He said Mr Howard had used the argument of symbolism as the pelling argument for a republic at the national convention. Dr Rayner said, "I see to Aboriginal people carries a weighty white Australian scarcely begun stand".



Pictures: PETER WELLS

Ngunawal elders, from left, Don Bell, and Cpt Dorothy and Philip

By GRAHAM DOW  
Religion reporter

St Ninian's Uniting Church, Lyneham, a refuge for a former High Court judge, marked its 125th anniversary yesterday with that judge as its guest preacher.

Sir Ronald Wilson was with the court from 1979 to 1989 and worshipped at St Ninian's when in Canberra. Yesterday, he told the packed church that the formal conventions and courtesies surrounding his position at the High Court "did not really suit my lifestyle". "St Ninian's provided a refuge where I could just be myself.

Ron Wilson, with my hands in the washing up bowl and an ordinary member of the congregation," he said.

He encouraged people not to focus on the failures of yesterday. "Today is a clean page ready for a new beginning," he said.

Sir Ronald is a former Moderator of the Presbyterian and Uniting churches in Western Australia and was President of the Uniting Church from 1985-88. He had had an "exciting retirement" which had included being president of the Human Rights Commission.

"Looking back over my life it has been the cream on

the cake — a highlight," he said.

It included three years on the Council for Aboriginal Reconciliation and, more recently, chairing the national inquiry into the removal of Aboriginal children from their families and communities.

Jesus had wept over Jerusalem because its people had failed to recognise God's moment. Sir Ronald said, "Australia is poised to participate in one of God's greatest moments — the reconciliation of a nation." He urged people not to miss this moment.

On Saturday, Sir Ronald took part in a ceremony at

the Belconnen Churches' Centre which acknowledged that it had been built on traditional land of the Ngunawal people.

Last night in Garema Place, he addressed a service for all faiths which marked the end of the National Multicultural Festival '98. He said the biggest obstacle to reconciliation was fear of difference. People could develop a closed-list mentality or choose the way of love — of open-handed acceptance.

"People of faith will point to the way of love every time," Sir Ronald said. Togetherness came through in all sacred writings.

oppose a republic

[Sent from Yahoo Mail on Android](#)

On Wed, 14 Jul 2021 at 6:04 pm, Taddeucci, Ryan  
<[Ryan.Taddeucci@jacobs.com](mailto:Ryan.Taddeucci@jacobs.com)> wrote:

Good evening,

Jacobs, on behalf of Transgrid, are providing an archaeological test excavation methodology document to all Registered Aboriginal Parties (RAPs) and cultural knowledge holders for the Snowy 2.0 Transmission Line Connection Project.

You are invited to read through the attached document, which sets out the proposed method for carrying out test excavations and the areas in which these excavations are proposed to occur. If you would like to comment on the provided methodology, please provide your response by **12 August 2021**.

Please address your response to me via return email.

Kind regards,

Ryan

**Ryan Taddeucci, Master of Museum Studies, Grad Dip Maritime Archaeology, BA (Hons) Archaeology** | [Jacobs](#) | Senior Archaeologist, Archaeology and Cultural Heritage (Asia Pacific), Environmental Solutions

M: +61.423.381.482 | [Ryan.Taddeucci@jacobs.com](mailto:Ryan.Taddeucci@jacobs.com)  
177 Pacific Highway | North Sydney NSW 2060 | Australia

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## Taddeucci, Ryan

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**From:** Glen Freeman <GulgunyaNHAC@hotmail.com>  
**Sent:** Tuesday, 3 August 2021 4:32 PM  
**To:** Taddeucci, Ryan  
**Subject:** [EXTERNAL] Re: Snowy Hydro 2.0 - Test excavation methodology

To whom it concerns,

Not being able to travel(Covid) makes it impossible for me to comment on this stage of the project.

Sent from [Outlook](#)

---

**From:** Taddeucci, Ryan <Ryan.Taddeucci@jacobs.com>  
**Sent:** Wednesday, 14 July 2021 6:03 PM  
**To:** Taddeucci, Ryan <Ryan.Taddeucci@jacobs.com>  
**Subject:** Snowy Hydro 2.0 - Test excavation methodology

Good evening,

Jacobs, on behalf of Transgrid, are providing an archaeological test excavation methodology document to all Registered Aboriginal Parties (RAPs) and cultural knowledge holders for the Snowy 2.0 Transmission Line Connection Project.

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Please address your response to me via return email.

Kind regards,  
Ryan

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## Taddeucci, Ryan

---

**From:** jesse johnson <muragadi@yahoo.com.au>  
**Sent:** Friday, 16 July 2021 4:02 PM  
**To:** Taddeucci, Ryan  
**Subject:** [EXTERNAL] Re: Snowy Hydro 2.0 - Test excavation methodology  
**Attachments:** IA199900 Archaeological Test Excavation Method Rev01 20210714.pdf

Hi Ryan

I have read the project information and test excavation methodology for the above project, I agree with the recommendations made.

Kind regards  
Jesse Johnson  
0418970389

On Wednesday, 14 July 2021, 06:04:25 pm AEST, Taddeucci, Ryan <ryan.taddeucci@jacobs.com> wrote:

Good evening,

Jacobs, on behalf of Transgrid, are providing an archaeological test excavation methodology document to all Registered Aboriginal Parties (RAPs) and cultural knowledge holders for the Snowy 2.0 Transmission Line Connection Project.

You are invited to read through the attached document, which sets out the proposed method for carrying out test excavations and the areas in which these excavations are proposed to occur. If you would like to comment on the provided methodology, please provide your response by **12 August 2021**.

Please address your response to me via return email.

Kind regards,

Ryan

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| Senior Archaeologist, Archaeology and Cultural Heritage (Asia Pacific), Environmental Solutions

M: +61.423.381.482 | [Ryan.Taddeucci@jacobs.com](mailto:Ryan.Taddeucci@jacobs.com)  
177 Pacific Highway | North Sydney NSW 2060 | Australia

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## Taddeucci, Ryan

---

**From:** Mail Delivery Subsystem <MAILER-DAEMON@mx0a-0025cf01.pphosted.com>  
**To:** btlac@bigpond.net.au  
**Sent:** Wednesday, 14 July 2021 6:04 PM  
**Subject:** Undeliverable: Snowy Hydro 2.0 - Test excavation methodology

The original message was received at Wed, 14 Jul 2021 08:03:49 GMT from m0145505.ppops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <btlac@bigpond.net.au>  
(reason: 550 5.1.1 <btlac@bigpond.net.au> recipient rejected. Recipient does not exist. IB603a)

----- Transcript of session follows ----- ... while talking to extmail.bpb.bbigpond.com.:  
>>> DATA  
<<< 550 5.1.1 <btlac@bigpond.net.au> recipient rejected. Recipient does not exist. IB603a  
550 5.1.1 <btlac@bigpond.net.au>... User unknown <<< 554 DATA Transaction failed, no recipients given

## Taddeucci, Ryan

---

**From:** Mail Delivery Subsystem <MAILER-DAEMON@mx0a-0025cf01.pphosted.com>  
**To:** yurwang\_gundana@bigpond.com; megan\_considine@live.com  
**Sent:** Wednesday, 14 July 2021 6:04 PM  
**Subject:** Undeliverable: Snowy Hydro 2.0 - Test excavation methodology

The original message was received at Wed, 14 Jul 2021 08:03:51 GMT from m0145505.pops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <yurwang\_gundana@bigpond.com>  
(reason: 550 5.1.1 <yurwang\_gundana@bigpond.com> recipient rejected. Recipient does not exist. IB603a)  
<megan\_considine@live.com>  
(reason: 550 5.5.0 Requested action not taken: mailbox unavailable (S2017062302). [DB5EUR03FT038.eop-  
EUR03.prod.protection.outlook.com])

----- Transcript of session follows ----- ... while talking to extmail.bigpond.com.:  
>>> DATA  
<<< 550 5.1.1 <yurwang\_gundana@bigpond.com> recipient rejected. Recipient does not exist. IB603a  
550 5.1.1 <yurwang\_gundana@bigpond.com>... User unknown ... while talking to mailforward.simplesite.com.:  
>>> DATA  
<<< 451 4.7.1 <wally@buru-ngunawal.com>: Recipient address rejected: Greylisted for 1 minutes <wally@buru-  
ngunawal.com>... Deferred: 451 4.7.1 <wally@buru-ngunawal.com>: Recipient address rejected: Greylisted for 1  
minutes <<< 554 5.5.1 Error: no valid recipients ... while talking to live-com.olc.protection.outlook.com.:  
>>> DATA  
<<< 550 5.5.0 Requested action not taken: mailbox unavailable (S2017062302). [DB5EUR03FT038.eop-  
EUR03.prod.protection.outlook.com]  
550 5.1.1 <megan\_considine@live.com>... User unknown <<< 503 5.5.2 Need rcpt command [DB5EUR03FT038.eop-  
EUR03.prod.protection.outlook.com]

## Taddeucci, Ryan

---

**From:** Darleen Johnson <murrabidgeemullangari@yahoo.com.au>  
**Sent:** Sunday, 8 August 2021 10:43 PM  
**To:** Taddeucci, Ryan  
**Subject:** [EXTERNAL] Re: Snowy Hydro 2.0 - Test excavation methodology  
**Attachments:** IA199900 Archaeological Test Excavation Method Rev01 20210714.pdf

Hi Ryan

I have read the project information and archaeological test excavation methodology for the above project, I endorse the recommendations made.

Kind regards  
Ryan Johnson  
0475565517

On Wednesday, 14 July 2021, 06:04:25 pm AEST, Taddeucci, Ryan <ryan.taddeucci@jacobs.com> wrote:

Good evening,

Jacobs, on behalf of Transgrid, are providing an archaeological test excavation methodology document to all Registered Aboriginal Parties (RAPs) and cultural knowledge holders for the Snowy 2.0 Transmission Line Connection Project.

You are invited to read through the attached document, which sets out the proposed method for carrying out test excavations and the areas in which these excavations are proposed to occur. If you would like to comment on the provided methodology, please provide your response by **12 August 2021**.

Please address your response to me via return email.

Kind regards,

Ryan

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M: +61.423.381.482 | [Ryan.Taddeucci@jacobs.com](mailto:Ryan.Taddeucci@jacobs.com)  
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## Taddeucci, Ryan

---

**From:** Taddeucci, Ryan  
**Sent:** Friday, 10 September 2021 4:44 PM  
**To:** Taddeucci, Ryan  
**Subject:** Snowy 2.0 - Transmission Connection  
**Attachments:** IA199900-RPT-001\_Snowy Hydro\_AACHAR\_20210910.pdf

Good afternoon,

Please find attached a draft copy of the Addendum Aboriginal Cultural Heritage Assessment Report completed for the Snowy 2.0 - Transmission Connection project (State Significant Infrastructure no. 9717). Jacobs is seeking any additional information on the cultural significance of the revised sites and would appreciate any additional information that you can provide.

If you have any comments, can you please provide your response via email prior to **Monday 11 October 2021**.

Kind regards,  
Ryan

**Ryan Taddeucci, Master of Museum Studies, Grad Dip Maritime Archaeology, BA (Hons) Archaeology** | [Jacobs](#) | Senior Archaeologist, Archaeology and Cultural Heritage (Asia Pacific), Environmental Solutions  
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177 Pacific Highway | North Sydney NSW 2060 | Australia

## Taddeucci, Ryan

---

**From:** Mail Delivery Subsystem <MAILER-DAEMON@pps.reinject>  
**To:** yurwang\_gundana@bigpond.com  
**Sent:** Friday, 10 September 2021 4:48 PM  
**Subject:** Undeliverable: Snowy 2.0 - Transmission Connection

The original message was received at Fri, 10 Sep 2021 06:45:06 GMT from m0144710.pops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <yurwang\_gundana@bigpond.com>  
(reason: 550 5.1.1 <yurwang\_gundana@bigpond.com> recipient rejected. Recipient does not exist. IB603a)

----- Transcript of session follows ----- ... while talking to extmail.bigpond.com.:  
>>> DATA  
<<< 550 5.1.1 <yurwang\_gundana@bigpond.com> recipient rejected. Recipient does not exist. IB603a  
550 5.1.1 <yurwang\_gundana@bigpond.com>... User unknown

## Taddeucci, Ryan

---

**From:** Mail Delivery Subsystem <MAILER-DAEMON@pps.reinject>  
**To:** btlac@bigpond.net.au  
**Sent:** Friday, 10 September 2021 4:46 PM  
**Subject:** Undeliverable: Snowy 2.0 - Transmission Connection

The original message was received at Fri, 10 Sep 2021 06:45:06 GMT from m0144710.ppops.net [127.0.0.1]

----- The following addresses had permanent fatal errors ----- <btlac@bigpond.net.au>  
(reason: 550 5.1.1 <btlac@bigpond.net.au> recipient rejected. Recipient does not exist. IB603a)

----- Transcript of session follows ----- ... while talking to extmail.bpbb.bigpond.com.:  
>>> DATA  
<<< 550 5.1.1 <btlac@bigpond.net.au> recipient rejected. Recipient does not exist. IB603a  
550 5.1.1 <btlac@bigpond.net.au>... User unknown <<< 554 DATA Transaction failed, no recipients given

## Taddeucci, Ryan

---

**From:** lilly carroll <didgengunawalclan@yahoo.com.au>  
**Sent:** Friday, 10 September 2021 4:58 PM  
**To:** Taddeucci, Ryan  
**Subject:** [EXTERNAL] Re: Snowy 2.0 - Transmission Connection

Hi Ryan

We are always happy with ur methodologies cheers Paul

[Sent from Yahoo Mail for iPhone](#)

On Friday, September 10, 2021, 4:47 pm, Taddeucci, Ryan <Ryan.Taddeucci@jacobs.com> wrote:

Good afternoon,

Please find attached a draft copy of the Addendum Aboriginal Cultural Heritage Assessment Report completed for the Snowy 2.0 - Transmission Connection project (State Significant Infrastructure no. 9717). Jacobs is seeking any additional information on the cultural significance of the revised sites and would appreciate any additional information that you can provide.

If you have any comments, can you please provide your response via email prior to **Monday 11 October 2021**.

Kind regards,

Ryan

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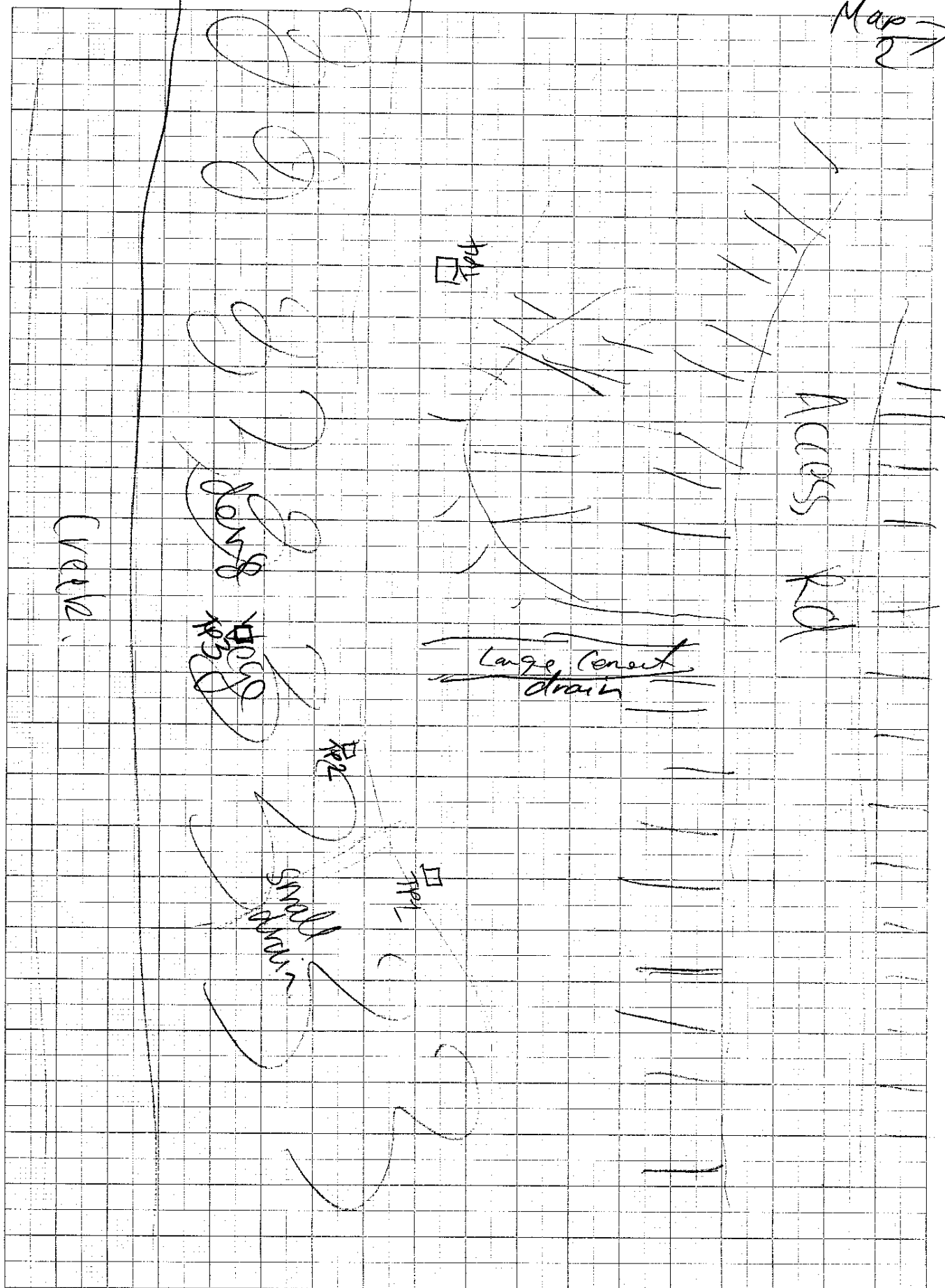


Appendix D. Excavation records

# ← N PAD I MAP I

1mm Squares

Map 2 →



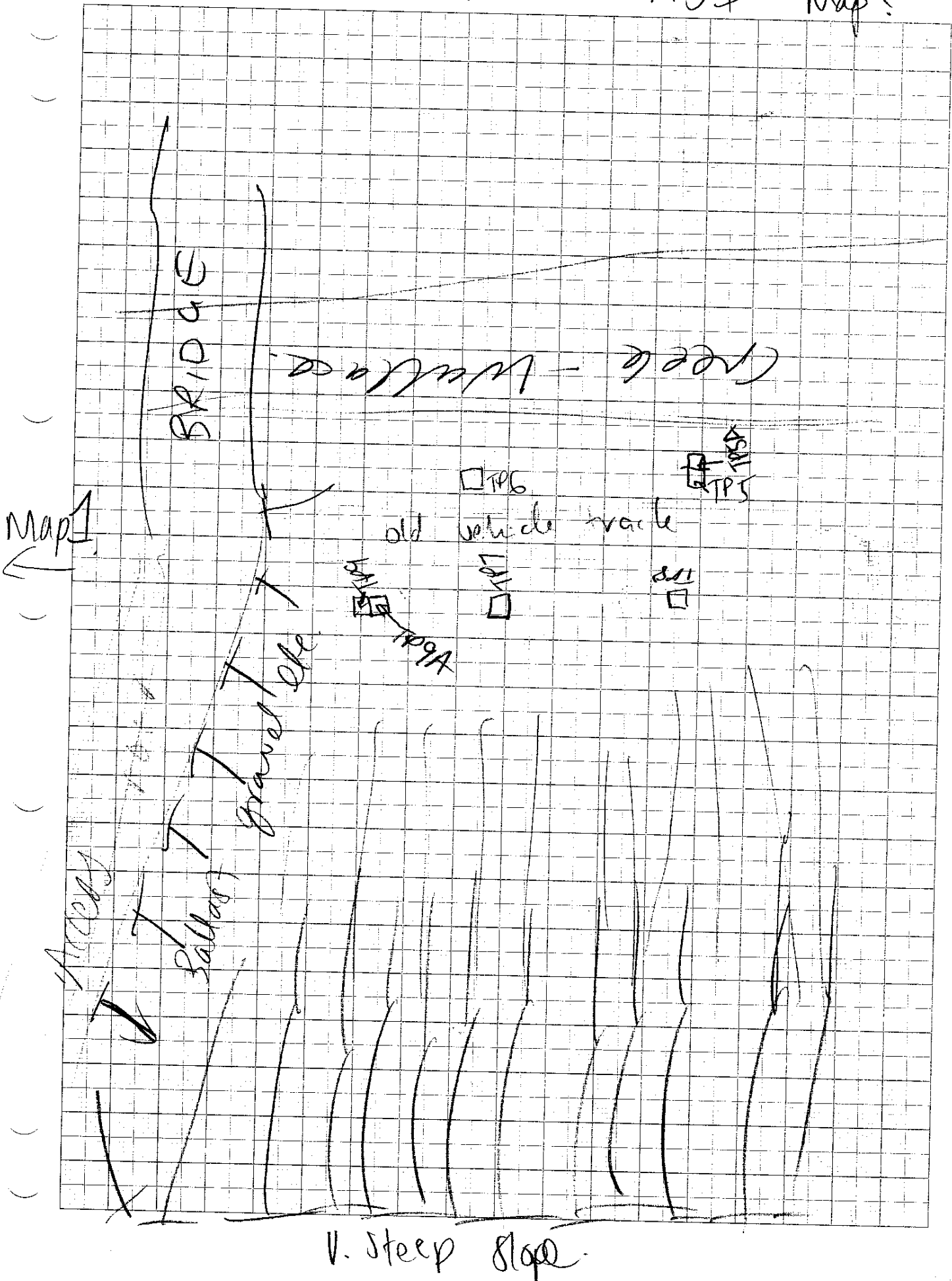
↑ N

SNOWY HYDRO

PAD 1

1mm Squares

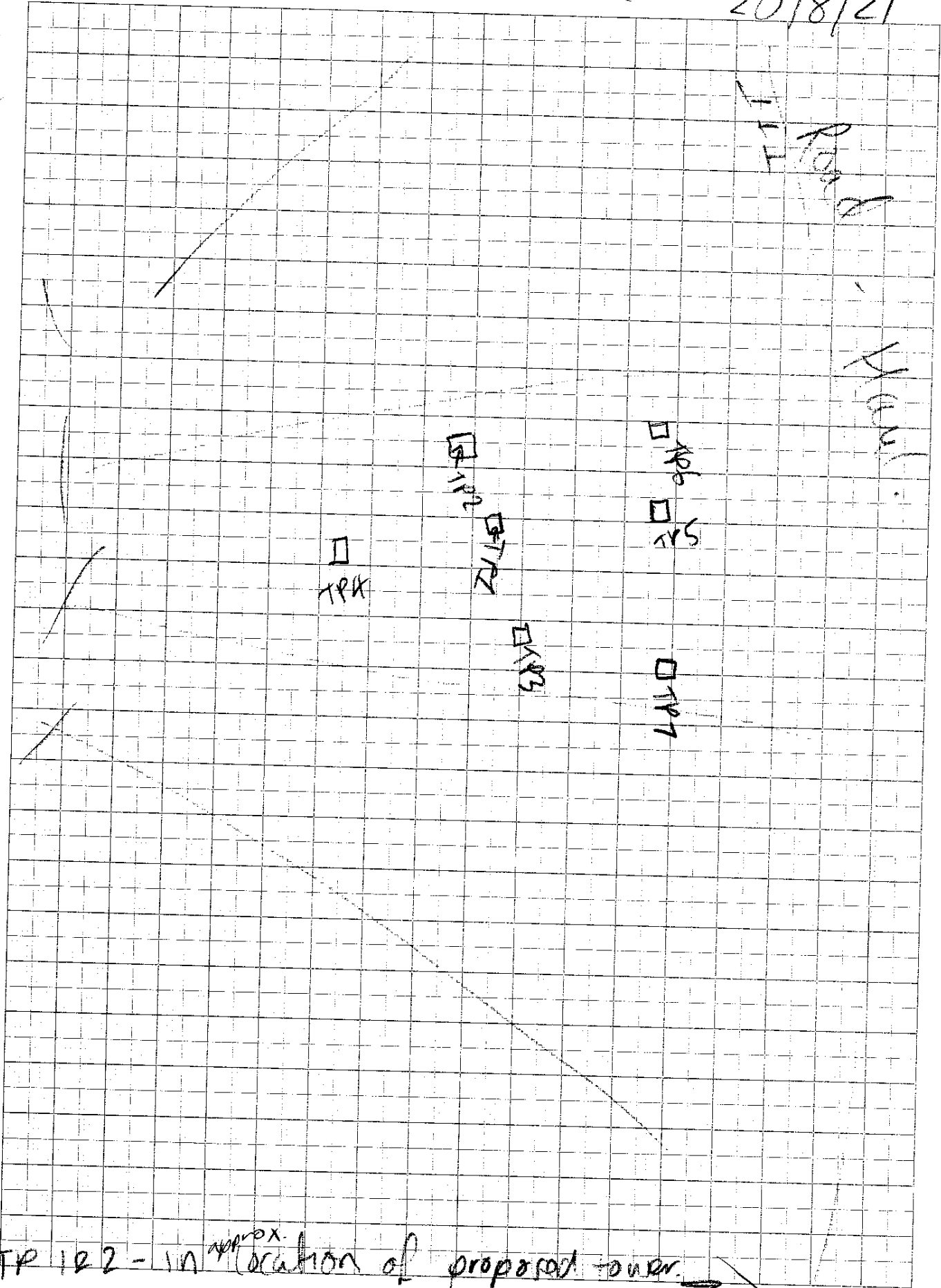
map?



# SNOWY HYDRO PAD2

1mm Squares

20/8/21

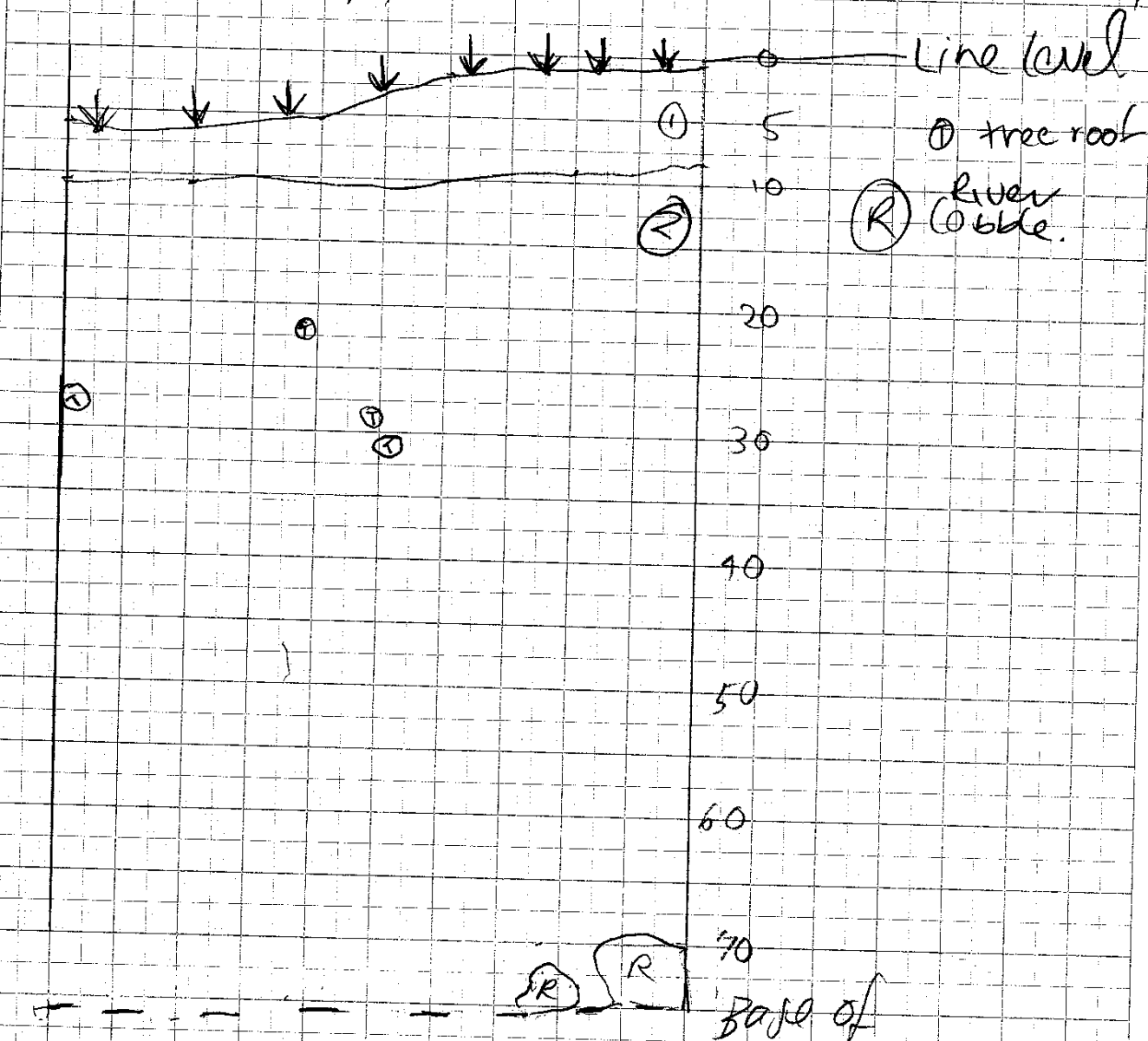


TP 122 - in approx. location of proposed tower.  
BTP 546



## SNOW HYDRO PAD1

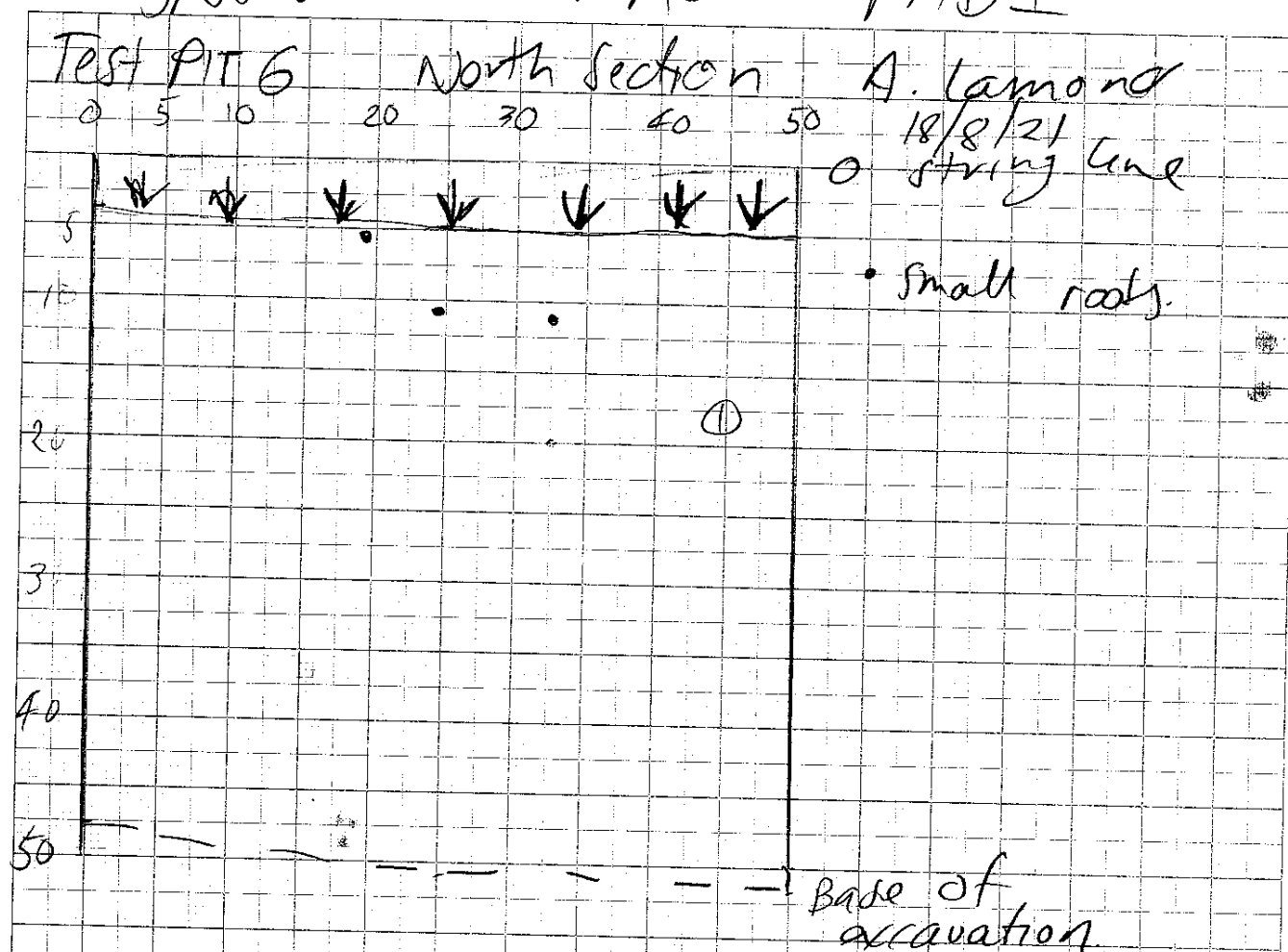
TEST PIT 5 18/8/21 A. Lamond South Sockton



① clayey silt fine roots dark brown

② clayey silt - less than ①  
med brown  
lots of tree roots fine & large

## SNOWY HYDRO PADI



① clayey silt med brown  
~~the~~ Clay content varies with  
 gradual transitions up &  
 down.

Small & fine roots at top 22cm

no change - ceased excav. as same  
 as test pit 5 - (Artefacts spits 1 & 2 & 3)  
 and completed 5 spits

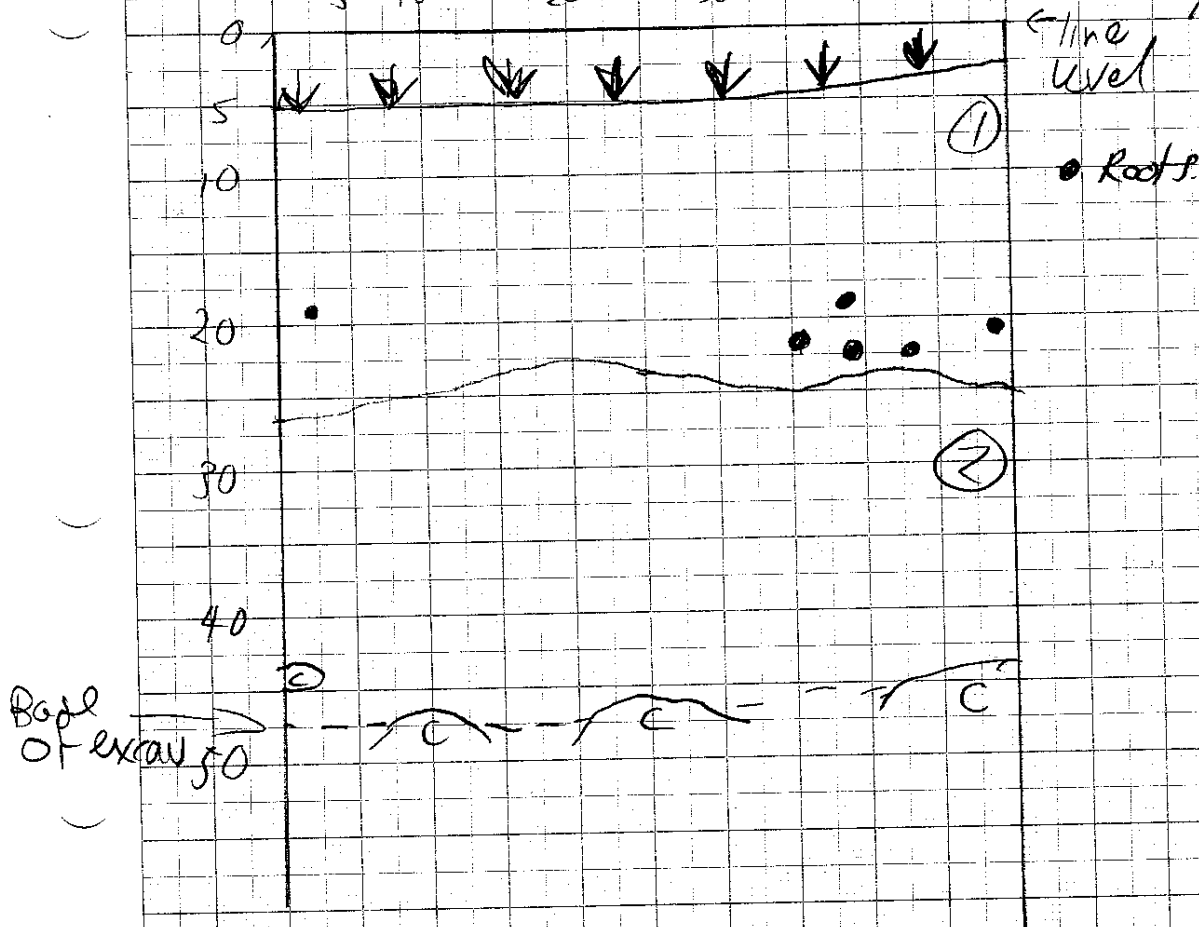
## SNOWY HYDRO PAD 1

Test Pit 7

A. Lamond

North section

19/8/21



① silty clay - dark brown  
humic occasional gravel

② med brown clayey silt.  
increasing gravel - well  
rounded

Base of excav - river cobbles  
stream channel deposit



# SNOWY HYDRO PAD 1

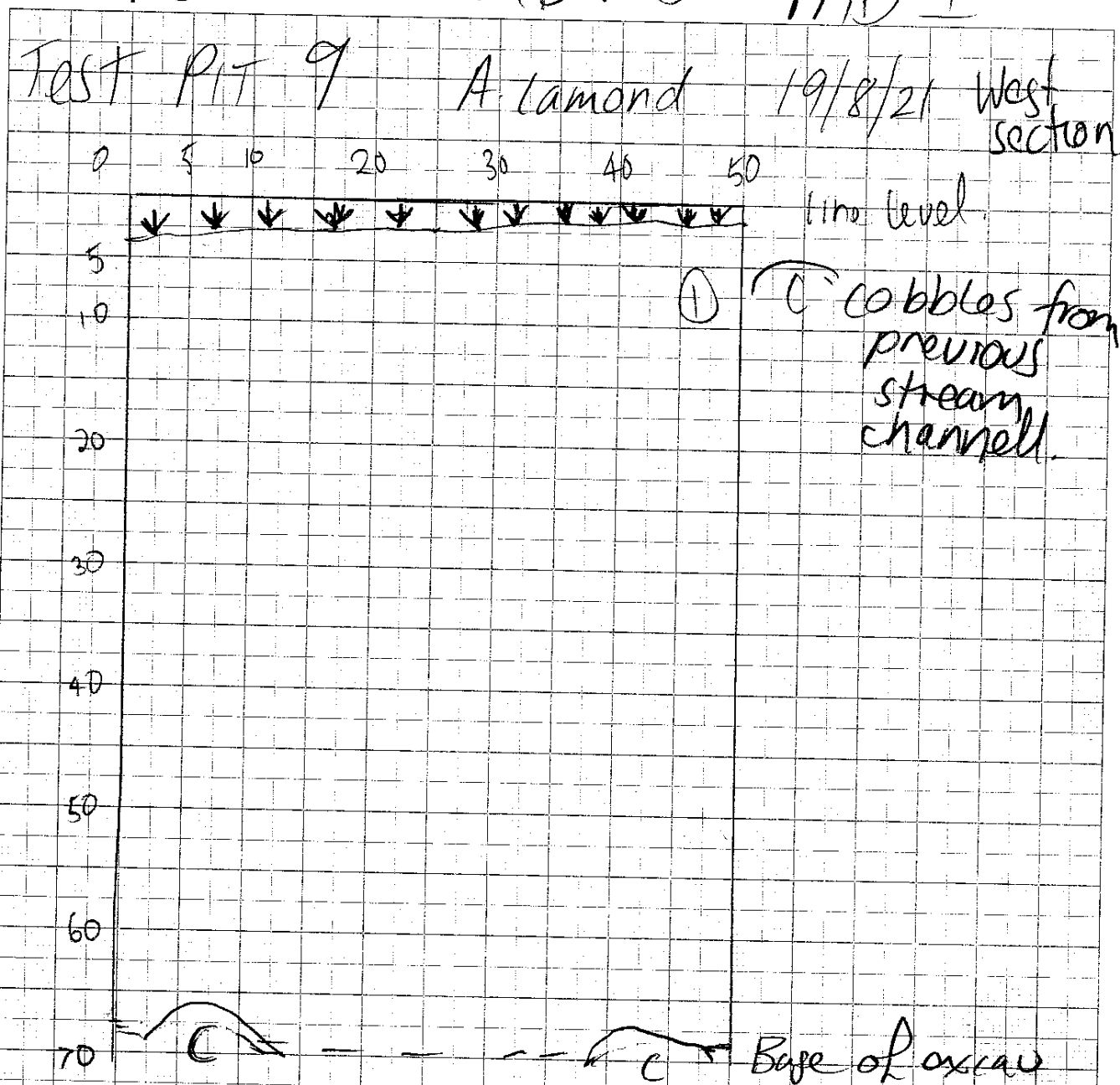
1mm Squares

Test Pit 9

A. Lamond

19/8/21

West section



- ① Dark brown dense fine roots to down to 12cm. silty clay gradually minor changes to silt & clay consistent clayey silt back to silty clay
- Base of excavation - cobbles from former stream channel.



SNOWY

HYPRO

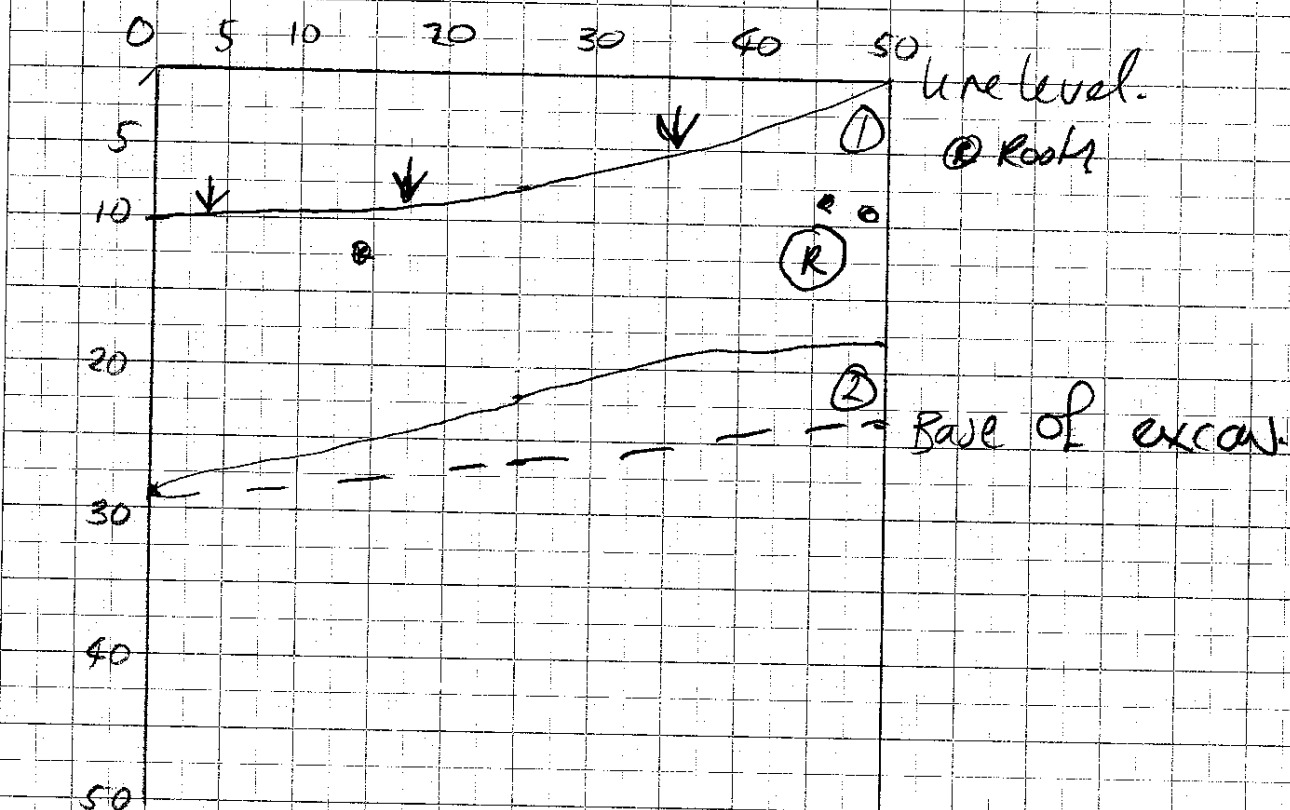
PAD2

TP1

A. LAMOND

20/8/21

East section.



① light reddish brown silty clay some  
tree roots. dry crumbly  
at base some red. baked clay  
areas

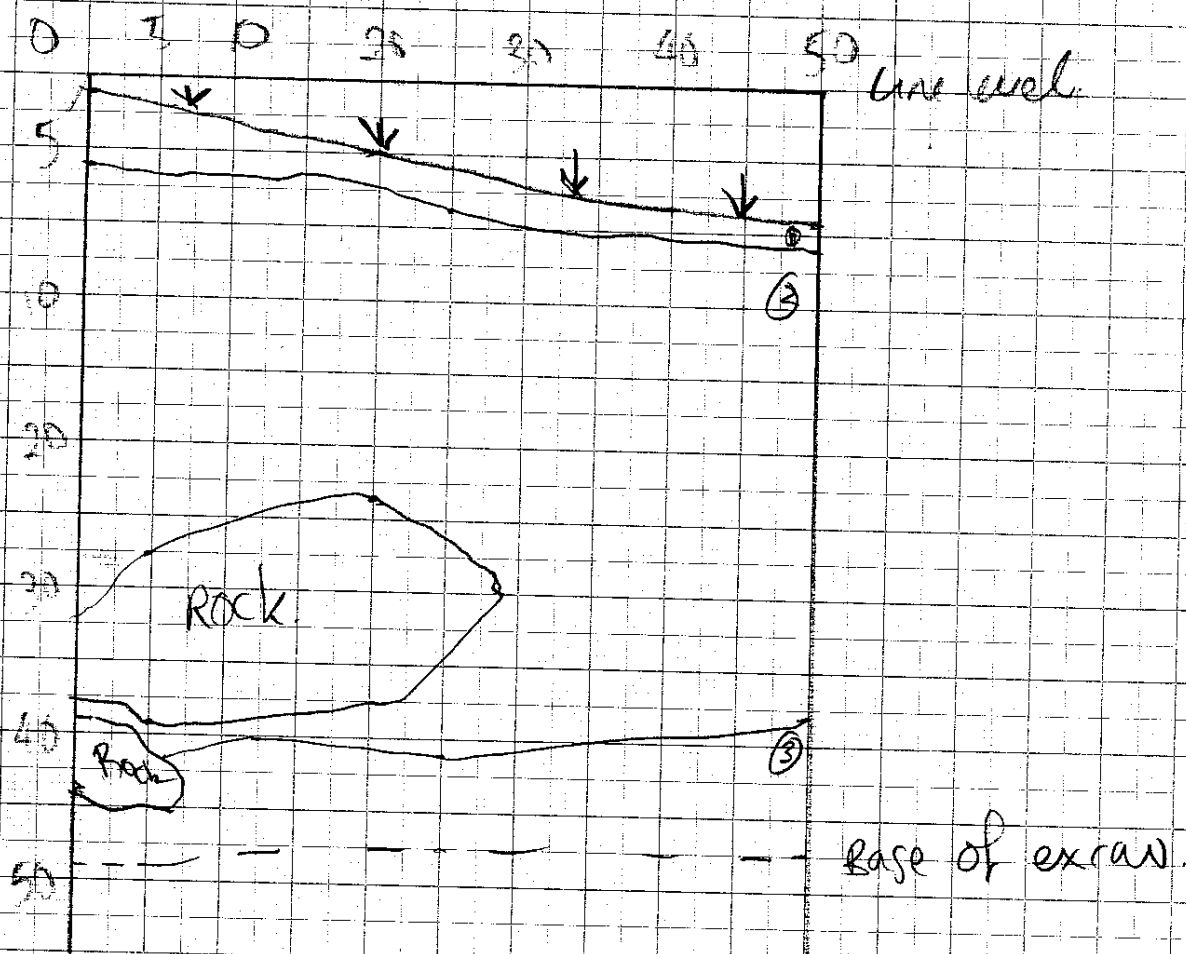
② red clay.

Base excav - Baked clay.

## SNOWY HYDRO PAD 2

TP 2 - A Lamond

20/8/21

South  
Section.

① = dark brown humic silty loam  
lots of fine roots

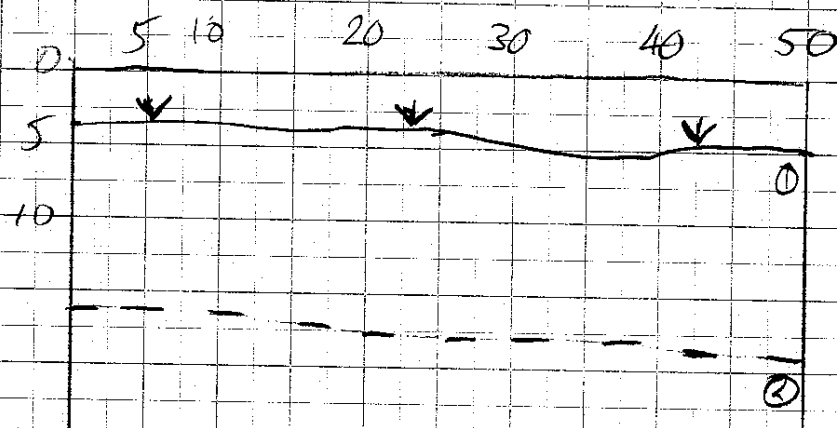
② = light brown silty loam.  
occasional fine roots large  
rocks - angular.

③ light brown silty clay  
rocks - angular.

## SNOWY HYDRO PAD 2

Test pit 3 Alameda

20/8/21

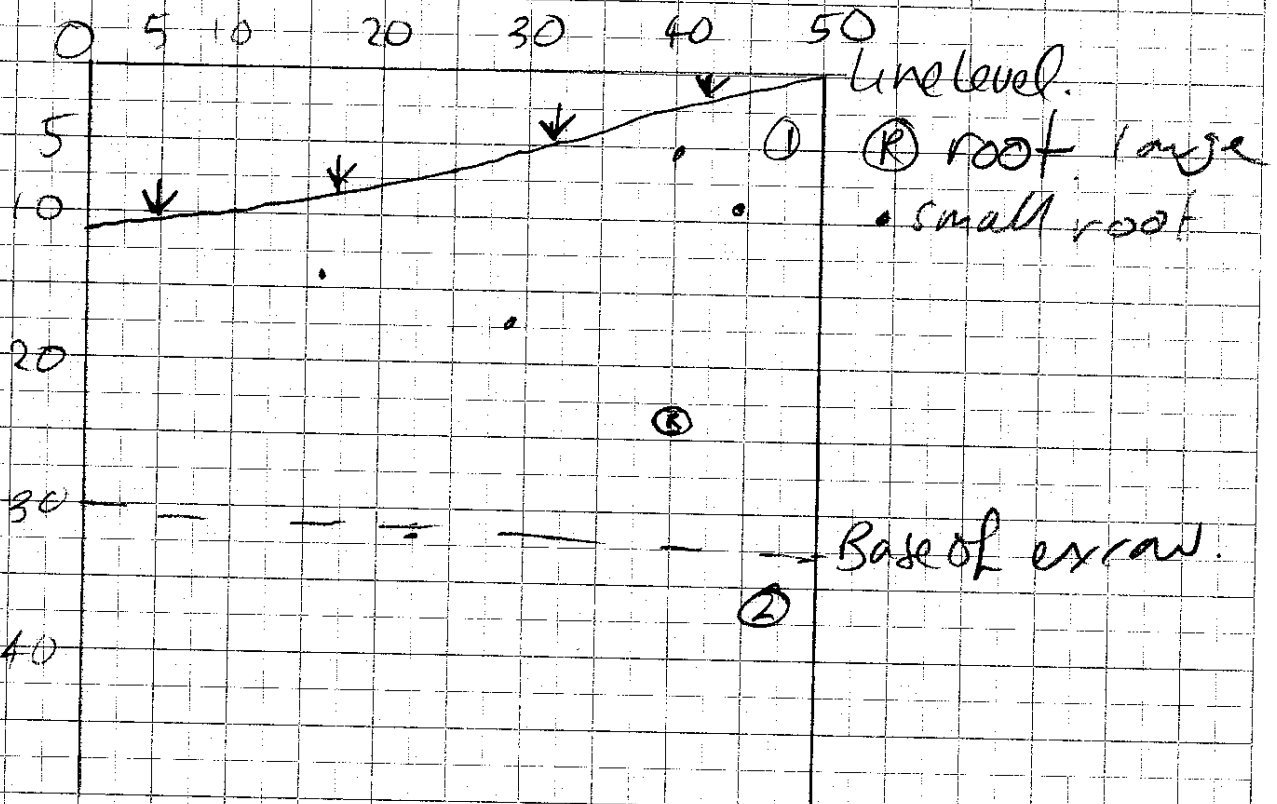
West  
Section

① med reddish brown silty loam.  
occasional fine roots  
rare gravel.

② reddish clay

SNOWY HYDRO PAD 2 20/8/21

Test Pit 4 Almond Northeast section



① med brown silty loam occasional  
angular gravel  
large rocks rare

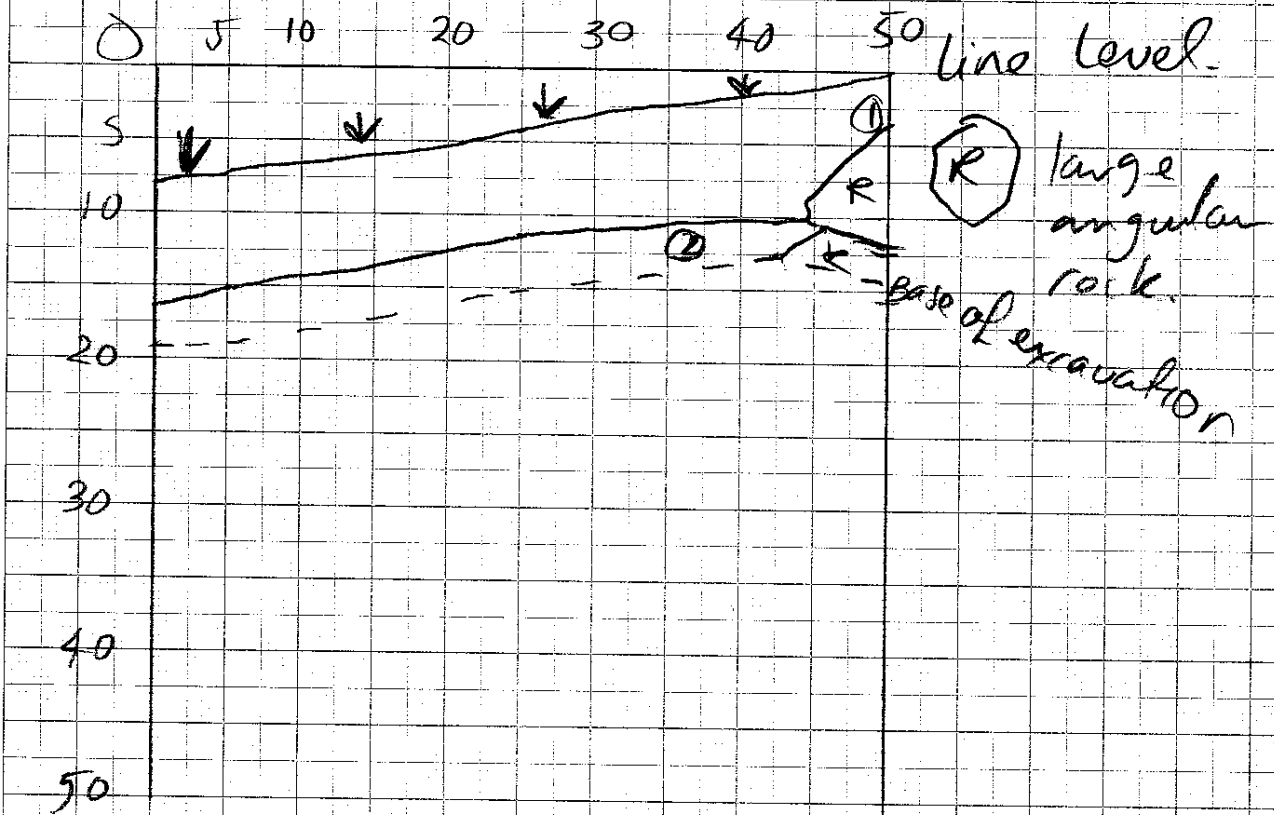
② reddish brown clay  
excavation cease

SNOWY HYDRO

PAD2

20/8/20

Test PIT 5 Almond



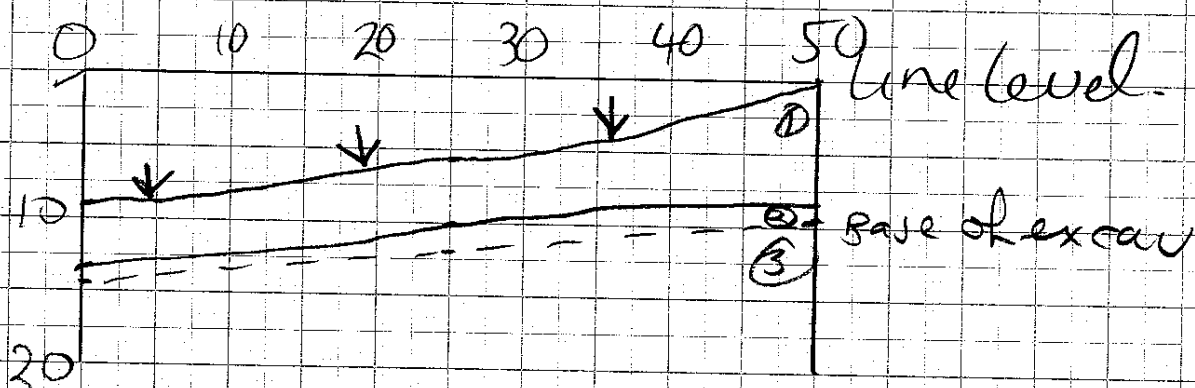
① med brown silty loam  
angular rocks.  
occasional fine roots

② reddish clay - ceased excavation



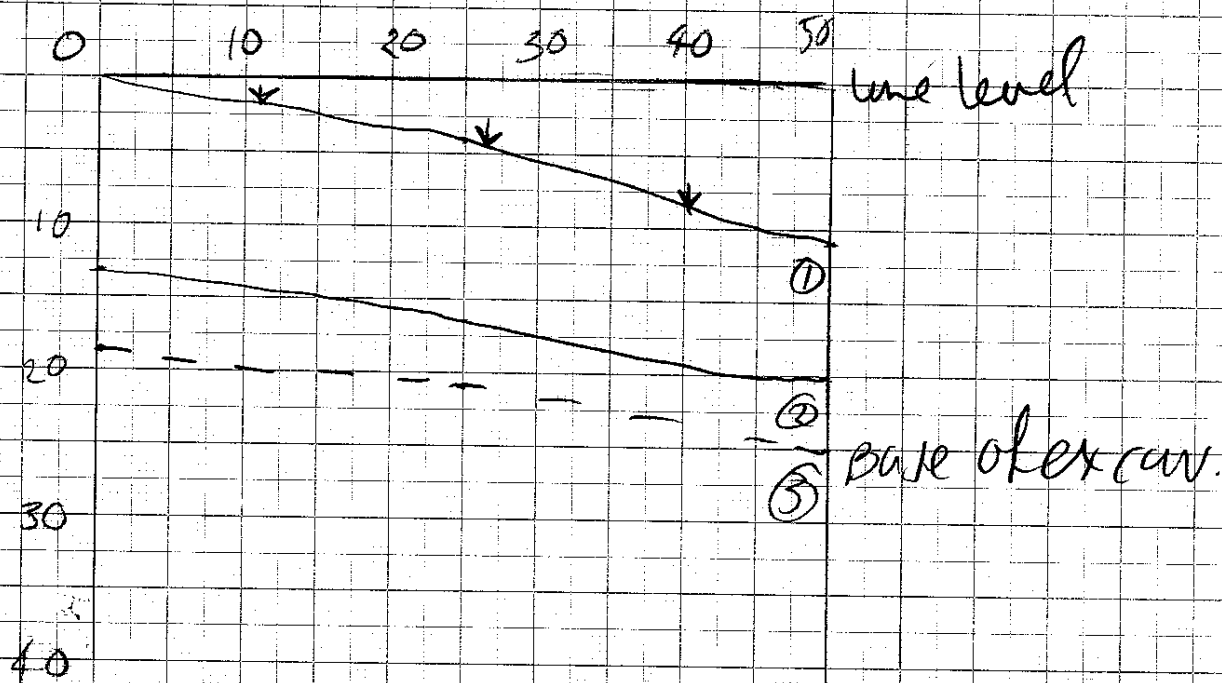
SNOWY HYDRO PAD2

Test pit 6 Alameda 20/8/21  
North East section



- ① clayey silt dark brown.
- ② transition from 1 to reddish clay - gradual diffuse transition
- ③ reddish clay.  
cease excav.

SNOWY HYDRO PAD 2 20/8/21  
 Test Pit 7 A Diamond West Section



- ① - light brown clayey silt.  
 freq. gravel  
 fine roots
- ② Gradual diffuse transition from  
 ① to reddish clay.
- ③ reddish clay

17/8/21

Day 1 Snowy hydro.

ch 16 -

emergency + 3

Aaron Lamond

Alex Seifertova.

Luke. Penrith

Steve Connolly

18/8/21

Same people

19/8/21

Same people.

20/8/21

Same people.

PAD 1

17/8/21

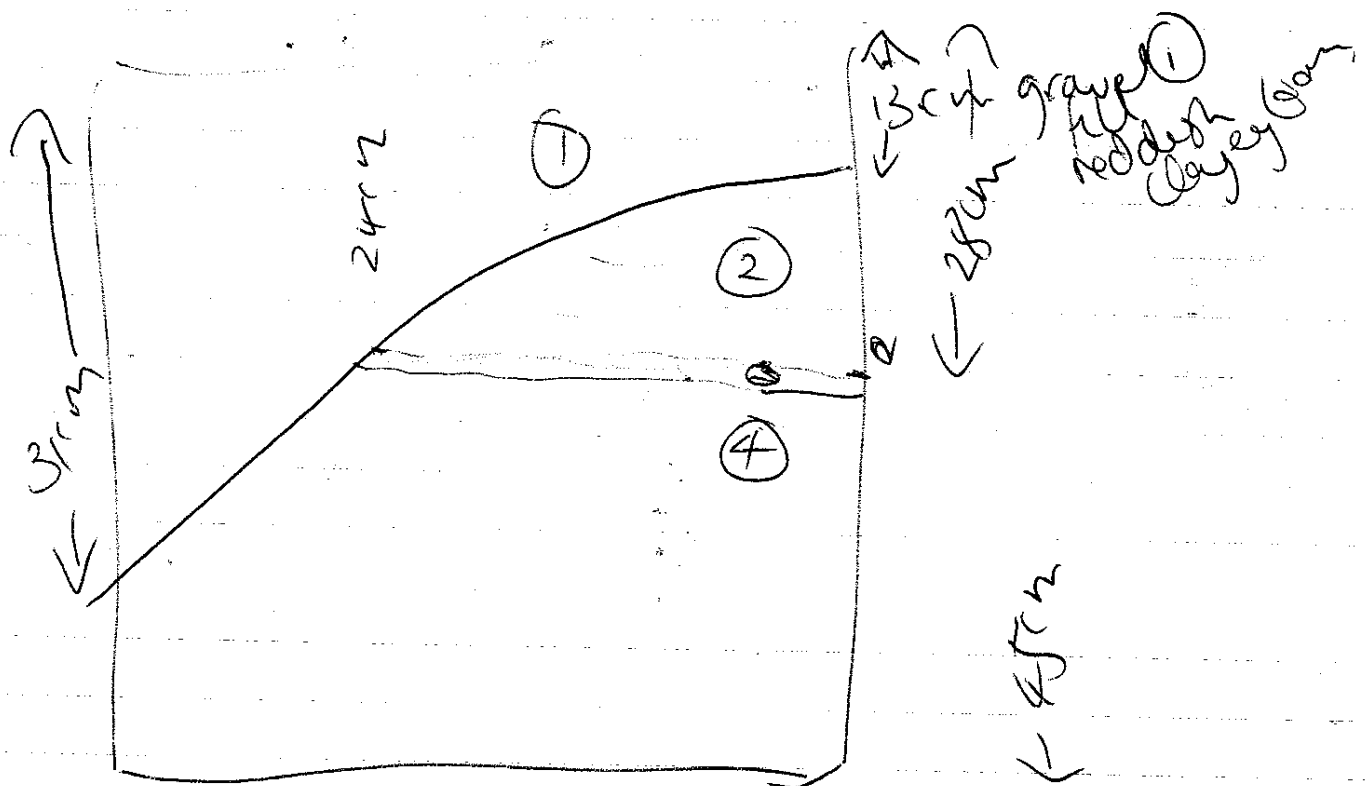
TP 1.

Way point 77  
6207516  
6038101.

light grass cover.

SAT 2 down to 5cm clayey loam  
reddish brown moist

Frey gravel - both river pebble &  
and glacial - possible road base?



② - light brown clayey silt pH 6  
~~alluvium~~

③ - clay (very) fine light brown  
④ - organic clayey silt pH 5.5-6

PAD 1

SNOWY HYDRO

17/8/21

TP 2

way point 79

6207536 / 6038114

Dense black kerriken surface.

Spit 1 - top - bands of black humic & brown clay.

Clayey silt sand. - variable  
between cobbles ~~is~~ ~~part of~~  
former creek channel.



PAD 1

Snowy Hydro

17/8/21

TP 3

Way point 80

627563

SPT 1

6038129.

Med brown silty clay - light roofs  
and veg cover.  
with well rounded pebbles.  
poorly sorted gravel.

SPT 2

same  
deposit

- stream channel

PAD 1

SNOWY M4PRO

Test Pit 4.

Way point 81

627615

6038089

lightly grassed at base of fill slope  
for Main Road.

SPIT 1 ~~fine~~ sandy clay - with V. freq. gravel.  
Angular, sub angular, poorly sorted.

fill?  
V compact.

compressed  
construction.

fill from road

Very close to former stream channel  
deposit.

Very deep fill deposits - elevated  
approx 40 cm above visible bedrock

56-6 -0496

11 5

Both under where mine trail  
replaced with haul road

is V large amount of  
fill cement bridge.

PAD 1 SNOWY HYAKRO 18/8/21

TEST AT 5 Waypoint 845

627 759

6038039

SPIT 1 clayey silt reddish dark brown  
some gravel - occasional.  
well rounded.

Tuff? flake

Spt 2 reddish brown (clayey silt  
occasional well rounded well  
sorted gravel - mostly  
platey whistly  
large tree roots - NE & E  
corner.

Spt 3 - same soil.

Spt 4 - ~~clay~~ same colour  
less gravel - smaller ~~gravel~~  
clay still well rounded well sorted.  
clay content increasing with  
depth.

Spt 5 - same.

Spt 6 - pebble size in creasing  
clay content decreasing

stepping out to 100cm x 50cm  
to enclose going deeper  
(Pt 5A)

P.T.O.

SNOWY HYPRO PAD1

Test pit 5A- continue step out to  
allow PIT 5 to go deeper.

Same soils as J- Arhe facts in  
spits 1-2 & 3.  
ended 30 cm



SNOWY HYDRO PAD 1 18/8/21  
Test Pit 6. Way point 87  
627745  
6038052

~~light~~ long grass at surface

Spt (1) ~~interbedded~~ clayey silt  
reddish brown fine roots.  
rare gravel rounded.

Piece of porcelain relatively modern  
+ Piece <sup>thin</sup> of glazed glass

Same all way down.  
ceased excavate spt 5.

SNOWY HYPRO PAD1 18/8/21  
Test Pit 7

Waypoint 88

627734

6038048

heavily grassed at surface.

Spit 1 glass & ceramic

occasional gravel rounded small  
insect material

dark brown. silty clay.  
freq fine roots

Spit 2. same less fine roots

continued

19/8/21

Spit 3. rare gravel v small.

silty clay, dark brown  
chunk of old ceramic  
thick, glazed.

Spit 4 - freq gravel. ~~silty~~ clayey  
silt mod brown  
river cobbles at 45 cm

CEASE excavation.

SNOWY  
TP8

FLYDRO  
way point 89

PAT 19/8/21

627771

6638043

Grass coverage - at surface.

Spt 1 dark brown silty clay  
lots fine roots & worms.

at base of spt Occasional gravel  
well sorted.

Spt 2 Same

Spt 3 Pebble freq goes up  
& down with depth

Spt 4 - larger cobbles occasionally.

Spt 5 - Stream channel cobbles - @  
approx 52cm.

Cease exrav.

SNOW HYDRO PAD1 19/8/21

Test Pit 9

Waypoint 90

627718

6038055

grass covered at surface.

Spt 1 dark brown silty clay  
infect activity

Spt 2 - same

Spt 3 - silt content, increasing  
soil crumbly,

Spt 4. same. Artefacts.

Spt 5 - Artefacts occasional gravel  
well rounded, well sorted.

Spt 6 - increase in gravel content.

Stepped out 9A to East.

Snowy Hydro PAD1

19/8/21

Test Pt 9A - ~~see~~ step out to allow  
excavation to depth.

sat 2 - V thick clear glass.



SNOWY HYDRO PAD 2 20/8/21

TP2 Waypoint 92

627480 / 6037963

~~located on flatish bench in steep slope~~  
Very little grass @ rocks at  
slope - Angular skree type rocks.

Spt 1 Silty loam light brown.  
5cm freq - Angular rocks > 10cm.

Skree type - moving down  
slope

Spt 2 large rocks south corner  
and west corner.  
same soil.

test pit located on moderately sloping  
area within Very steep slope  
tree roots.

Spt 6 - clay content increasing  
same colour - silty clay  
less smaller rock frags.

tree root at base.

SNOWY HYDRO PAD 2 20/8/21

Test Pit 1

Waypoint 94. 627490 / 6037968

no vegetation cover. on moderate slope  
within Very steep slope  
Angular rocks on surface.

Spit 1 (10cm) - light brown silty ~~tan~~ clay.  
large angular rocks  
angular gravel. poorly sorted.  
One flake - FGS?

Spit 2 (20cm) - reddish silty clay - clay  
↑ content in crevassing.  
~~possibly~~

Possibly baked clay from Bush fire (was very hot)

(paste excav at red clay.

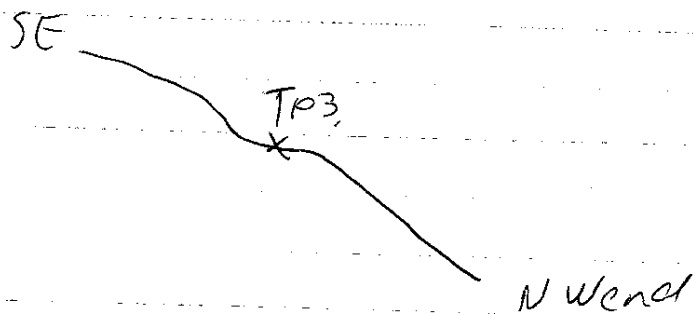
SNOWY HYDRO PAD2

Test Pit 3 20/8/21

Waypoint 95

627499 / 6037979

- \* Very like vegetation at surface.  
gentle/mod slope bench 2m within  
in line of slope within a very  
steep slope.



Spit 1 - med brown silty loam  
at top  
gradual transition to reddish  
clay  
some fine roots  
rare gravel.  
rare large angular rocks.

base excav - reddish clay  
ceased excavation

SNOWY M4DRO PAID 2 20/8/21

Test Pit 7

waypoint 101

627483 / 6038003

moderately sloping in section of

Very steep slope.

large angular rocks.

Spit 1 -  
(10cm)

1 Artefact

occasional angular gravel.

clayey silt light brown.

rare large angular rocks.

occasional roots

~~Spit 2~~

freq angular gravel - increasing  
with depth to base of spit.

Spit 2

trans iten, gradual  
diffuse from soil above to  
reddish clay

ceased excavation at  
reddish clay.

SNOWY HYDRO PAD2  
Test Pit 4. way point 97

627495

6037449.

surface ~~flakes~~ - no grass 1 fine damaged  
flake

Spit 1 mod brown silty loam  
occasional gravel angular.  
large

Spit 2 - large rocks  
mod brown clay content increasing  
tree roots very large.

Spit 3 clay content increasing  
with depth  
Clay at base - cease extraction



SNOWY HYDRO

PAD 2 20/8/21

Test P45

Waypoint 99

627467

6038002

2 Surface Artefacts

no grass on surface  
some large rocks.

SPT 1 large angular rocks  
> 10cm

Silty loam med brown  
fine roots frequent

2 Artefacts.

spit 2 - same as above gradual  
transition to reddish clay  
cease excavation

SNOWY Hydro PAD 2 20/8/21  
Testpit 6. Waypoint 100

627455  
6038002

Angular rock on surface  
surface Artefacts.

Spit 1 brown & clayey silt.  
transitions to reddish  
clay. diffuse gradual  
transition.  
2 Artefacts.

cease extrav.  
150 - 10 cm.

small bench in steep slope.

## PAD 2 Testing Rationale

Incredibly steep slope  
with rare ~~are~~ areas of  
mod → gentle slope - only areas  
surface artefacts were identified.

Put test pits into these lesser  
slope areas on grid intervals  
• making sure we hit the 2  
tower locations.

Other areas too steep - dangerous &  
difficult to manoeuvre on  
and would not be able to  
set up sieve

Large Angular fragments visible on  
all surfaces - scree fragments

Unlikely any artefacts are in  
their original activity areas  
clear down slope movement of  
stone & soil.

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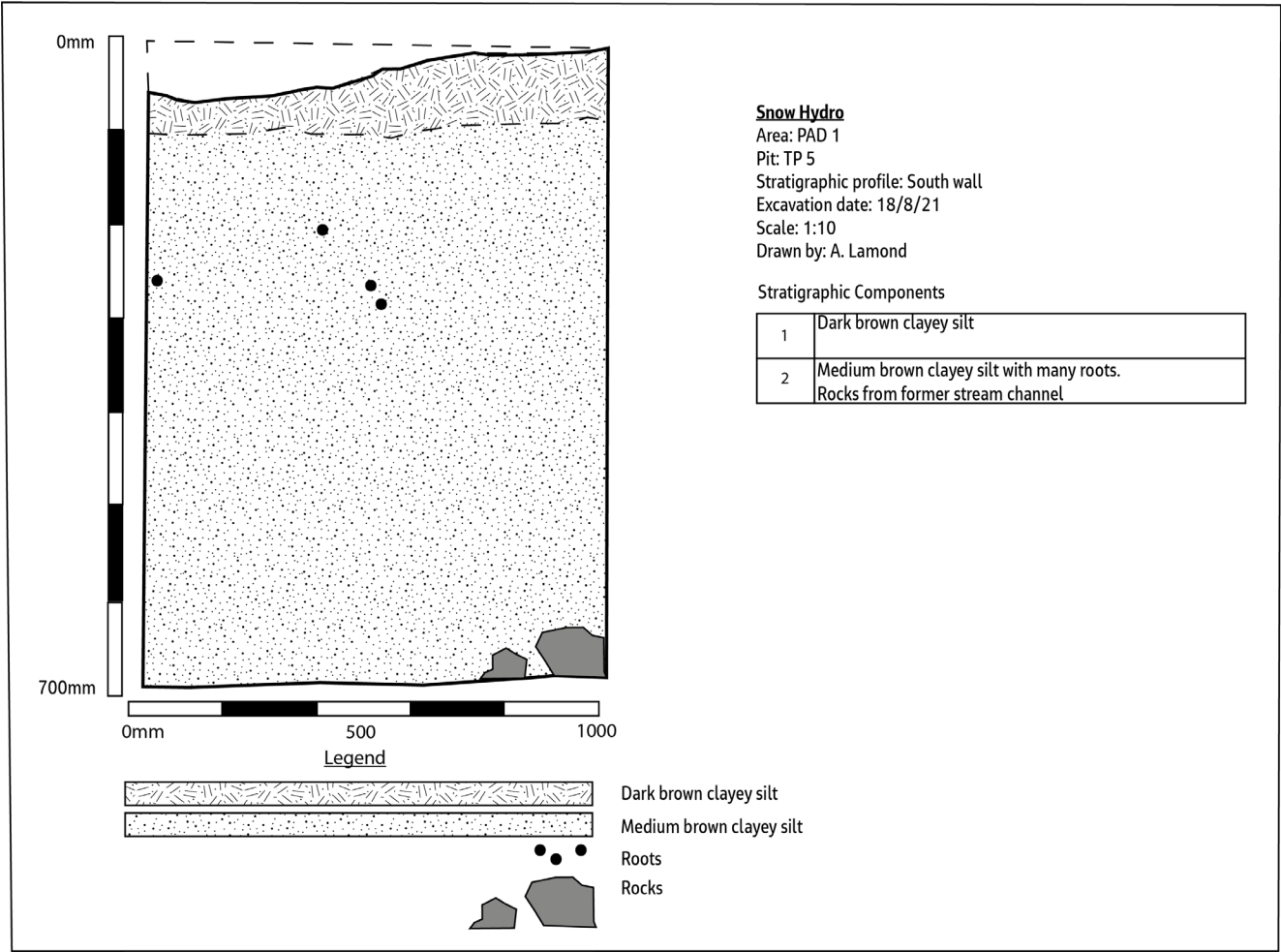
Appendix E. Artefact catalogue

Spit	Depth	Material	Colour	Type	Completeness	PlatformType	Termination	Cortex	Weight	Length	Width	Thickness	RetouchType	CoreType	ScarLength	Signs of heating/ fire damage
	1 0-10cm	IMSTC	Light cream with small black speckles	Core	Complete				66.79g	47.49mm	49.67mm	23.30mm		Multidirectional	30.10mm	
	1 0-10cm	IMSTC	Light cream with small black speckles	Flake	Complete	Plain	Feathered	40%	0.94g	26.27mm	8.94mm	3.45mm				
	2 10-20cm	Silcrete	Purple brown with small quartz inclusions	Flake	Complete	Crushed	Feathered		0.26g	13.83mm	9.85mm	3.03mm				
	1 0-10cm	Silcrete	Purple brown with small quartz inclusions	Flake	Distal fragment	Crushed			0.18g	10.58mm	8.79mm	2.22mm				
	1 0-10cm	IMSTC	Light cream/ grey with small black speckles	Flake	Complete	Crushed	Step	10%	1.71g	15.29mm	22.83mm	7.26mm				
	1 0-10cm	IMSTC	Light cream/ grey with small black speckles	Flake	Complete	Crushed	Hinge		1.53g	15.42mm	21.53mm	7.92mm				
	1 0-10cm	IMSTC	Light cream/ grey with small black speckles	Flake	Complete	Plain	Feathered		0.43g	13.08mm	17.12mm	2.20mm				
	2 10-20cm	Silcrete	Purple brown with small quartz inclusions	Flake	Complete	Plain	Step		0.24g	9.93mm	9.40mm	2.13mm				
	2 10-20cm	IMSTC	Light cream with small black speckles	Flake	Complete	Plain	Hinge		2.86g	25.61mm	18.73mm	6.31mm				
	2 10-20cm	IMSTC	Light cream/ grey with small black speckles	Angular fragment					0.23g	9.18mm	8.16mm	3.21mm				
	3 20-30cm	Chert	Reddy brown	Flake	Complete	Plain	Feathered		0.07g	6.91mm	4.98mm	1.58mm				
	4 30-40cm	IMSTC	Dark silver/green grey	Flake	Left Longitudinal	Plain	Hinge		1.97g	25.72mm	15.18mm	4.58mm				
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Step		16.19g	37.67mm	33.92mm	10.17mm				
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Feathered		0.35g	10.18mm	17.70mm	2.33mm				
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Feathered		0.32g	10.05mm	15.56mm	2.54mm				
													minor retouch on bottom margin, unclear			
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Hinge		0.38g	7.83mm	14.88mm	3.00mm				
	4 30-40cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Hinge		15.04g	51.06mm	36.64mm	9.32mm				
	4 30-40cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Hinge		7.14g	21.16mm	37.29mm	9.06mm				
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Crushed	Feathered	50%	0.83g	17.57mm	14.02mm	4.24mm				
	5 40-50cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Hinge	50%	0.50g	11.05mm	18.19mm	2.80mm				
																Yes - red/purple colouring and some holes made on edge (like mini potlids the size of needle holes)
	1 Surface	IMSTC	Light cream/ grey	Flake	Complete	Plain	Step		17.00g	40.51mm	29.63mm	16.43mm				
	1 0-10cm	IMSTC	Light cream	Flake	Complete	Plain	Step		6.65g	45.46mm	20.92mm	8.31mm				
	1 Surface	IMSTC	Light cream	Flake	Complete	Plain	Hinge	60%	2.63g	27.51mm	18.24mm	6.00mm				Yes- orange on edges
	1 Surface	IMSTC	Light cream	Flake	Complete	Plain	Feathered		5.26g	27.56mm	31.10mm	7.88mm				Yes- orange on edges
	1 0-10cm	IMSTC	Dark silver/green grey with small black spots	Flake	Complete	Plain	Feathered		3.97g	33.06mm	17.28mm	11.84mm				
													Yes - on both lateral margins, and on distal margin			
	1 0-10cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Feathered		6.61g	37.10mm	23.52mm	8.72mm				
	1 Surface	IMSTC	Dark silver grey	Flake	Distal fragment	Plain			6.00g	24.27mm	31.19mm	6.66mm				Yes - some heat damage
	1 Surface	IMSTC	Dark silver grey with white cortex	Angular fragment				70%	6.17g	28.37mm	22.27mm	8.99mm				
	1 Surface	IMSTC	Light cream/ grey	Angular fragment					10.77g	28.51mm	38.85mm	15.02mm				
													Yes - on both right lateral margin yes- on bottom edge			
	1 0-10cm	IMSTC	Light cream/ grey	Tool - Burin	Complete	Plain	Feathered		5.68g	34.25mm	26.70mm	8.61mm				
	1 0-10cm	IMSTC	Light cream/ grey	Tool- Scraper	Proximal fragment				2.37g	9.77mm	33.12mm	8.82mm				
	1 0-10cm	Chert	Dark grey	Flake	Proximal fragment		Feathered		0.53g	13.32mm	9.18mm	4.44mm				
	1 0-10cm	Chert	Dark grey	Flake	Complete	Crushed	Step		1.56g	12.46mm	21.40mm	7.97mm				
	1 0-10cm	IMSTC	Dark silver/green grey	Flake	Complete	Plain	Step		3.88g	26.89mm	32.29mm	7.37mm				
	1 0-10cm	IMSTC	Dark silver/green grey	Angular fragment					0.63g	12.92mm	7.62mm	5.79mm				
	1 0-10cm	Quartz	Milky white with red and purple veins	Angular fragment					0.26g	8.90mm	8.87mm	3.93mm				

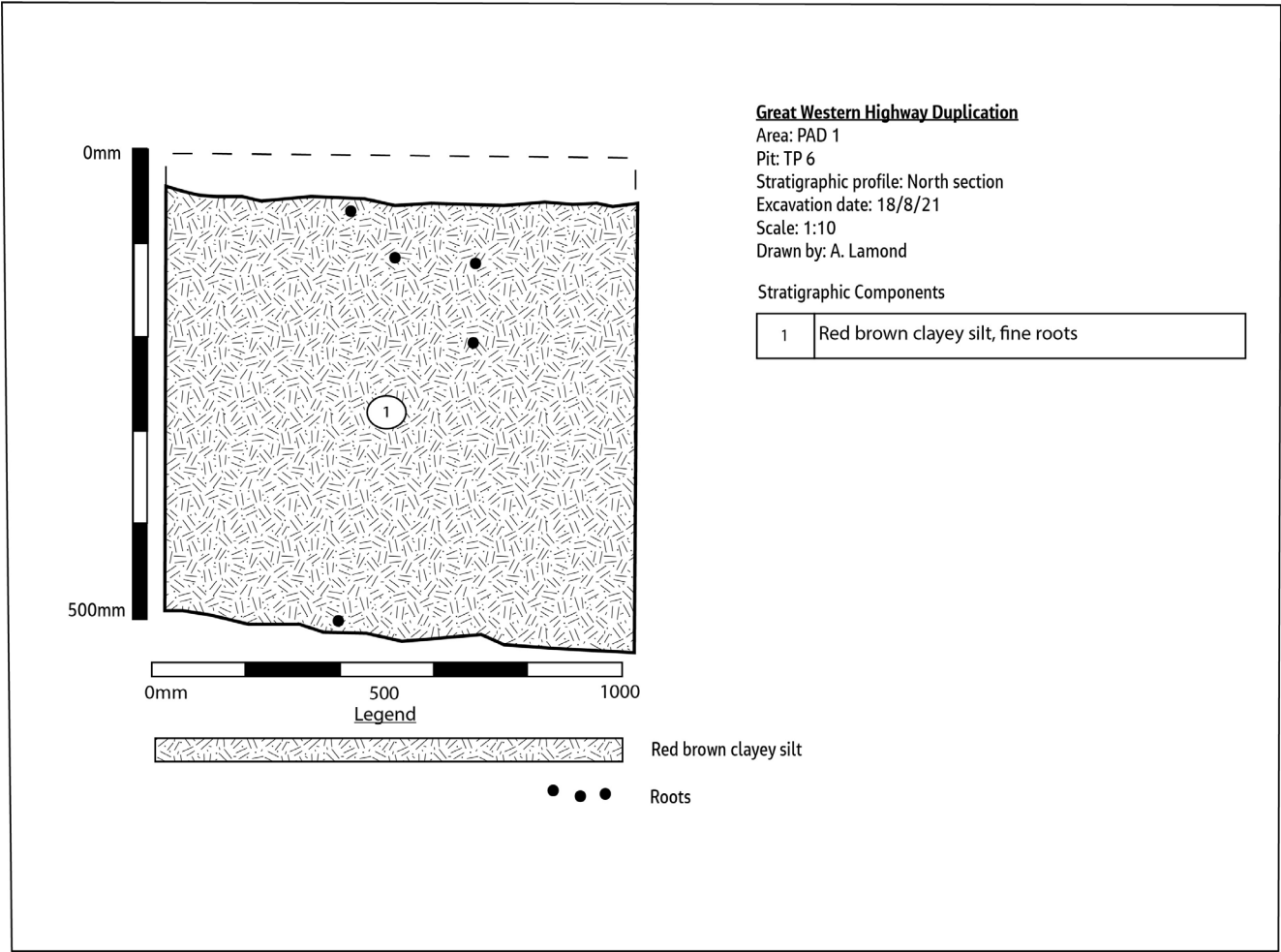


Appendix F. Section drawings

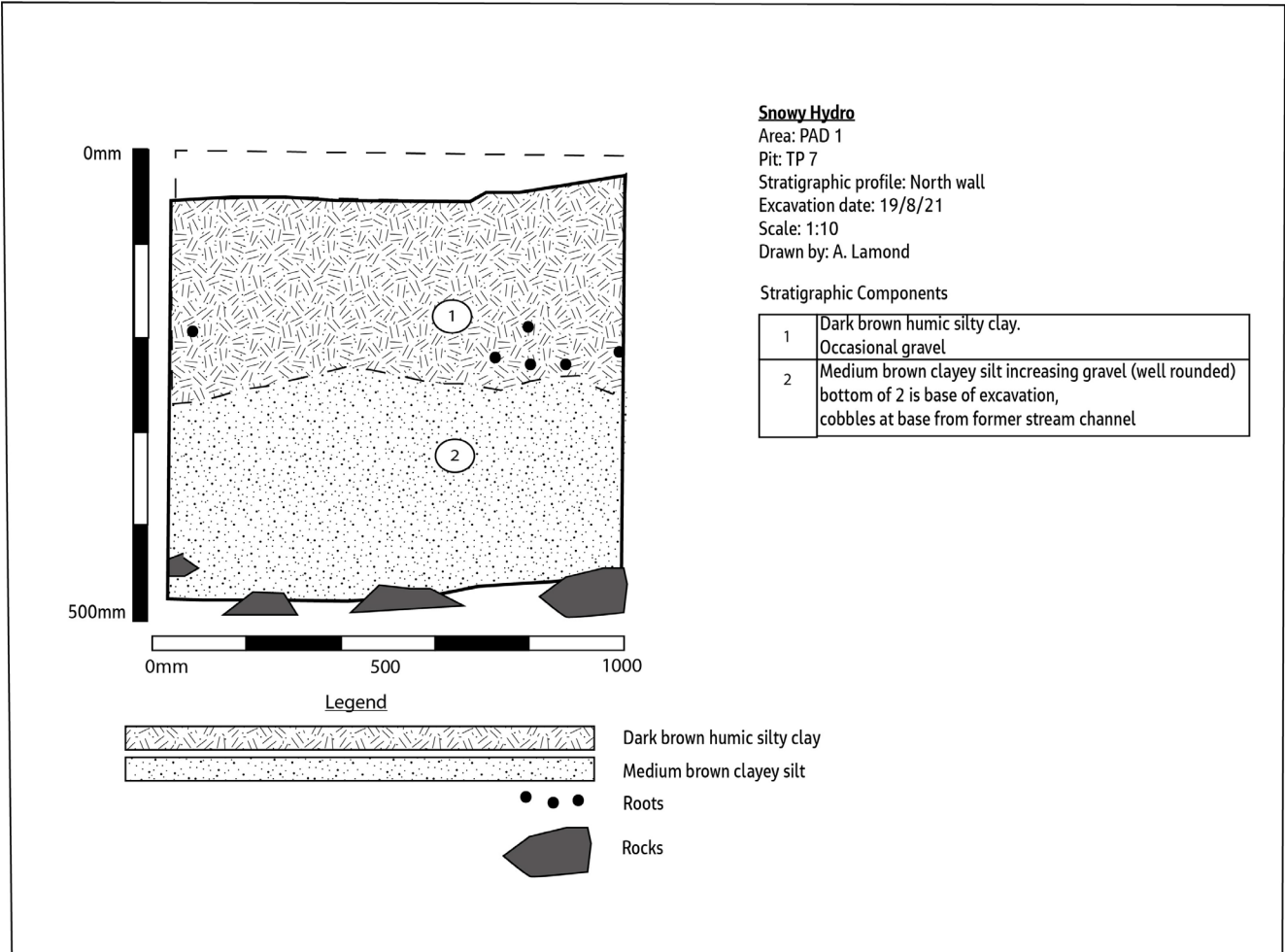
F.1 PAD 1 TP 5



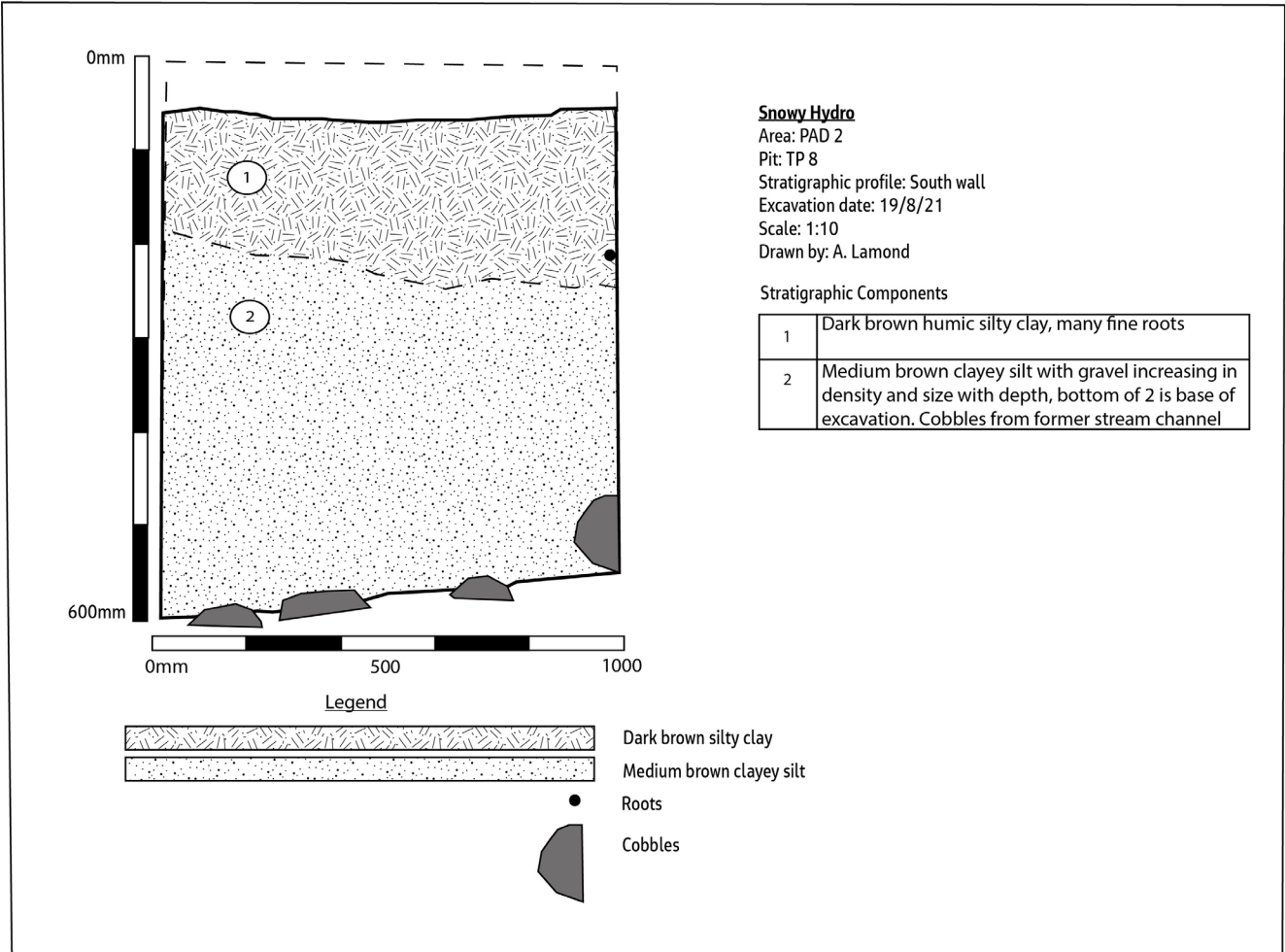
F.2 PAD 1 TP 6



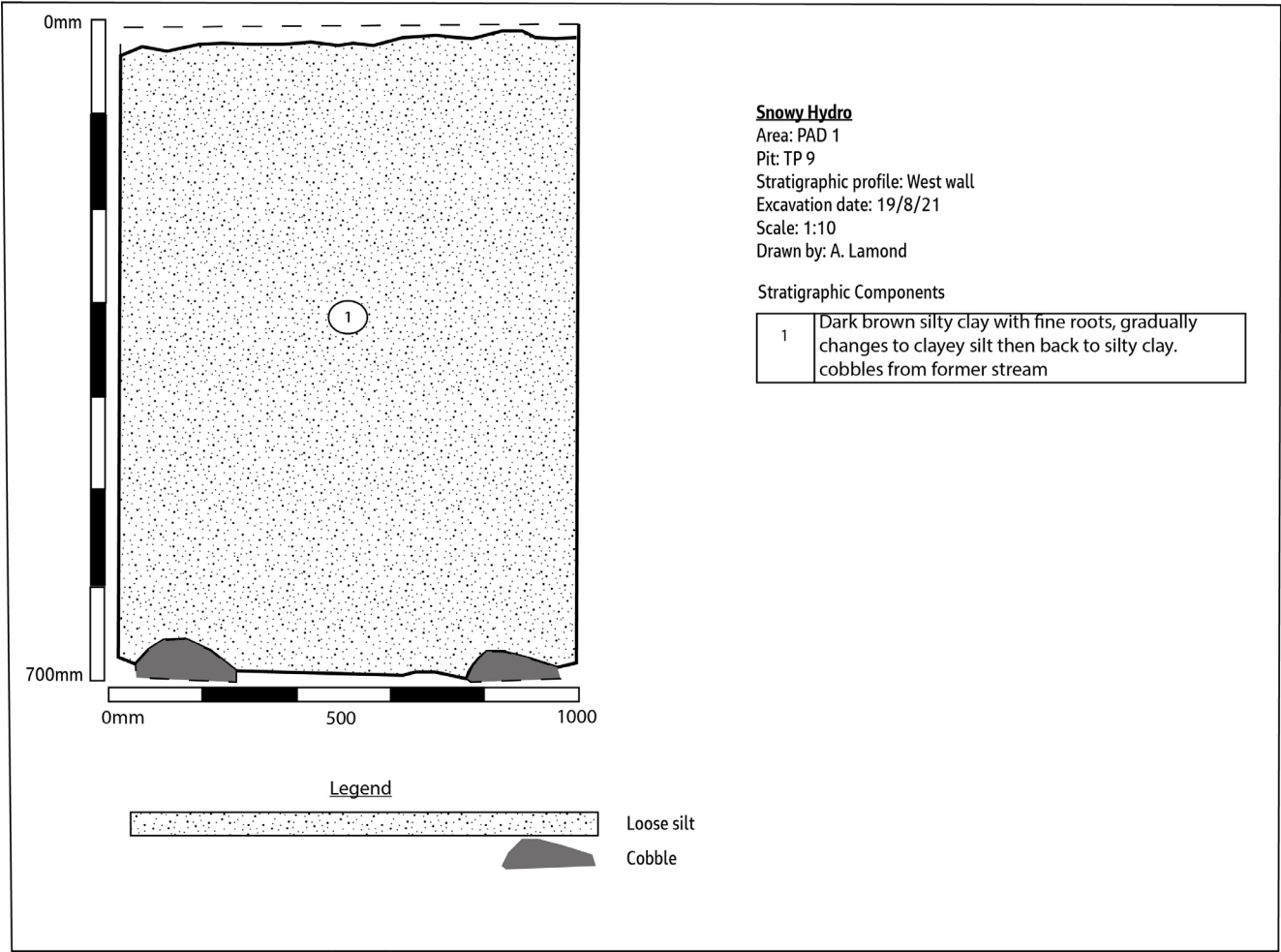
F.3 PAD 1 TP 7



F.4 PAD 1 TP 8

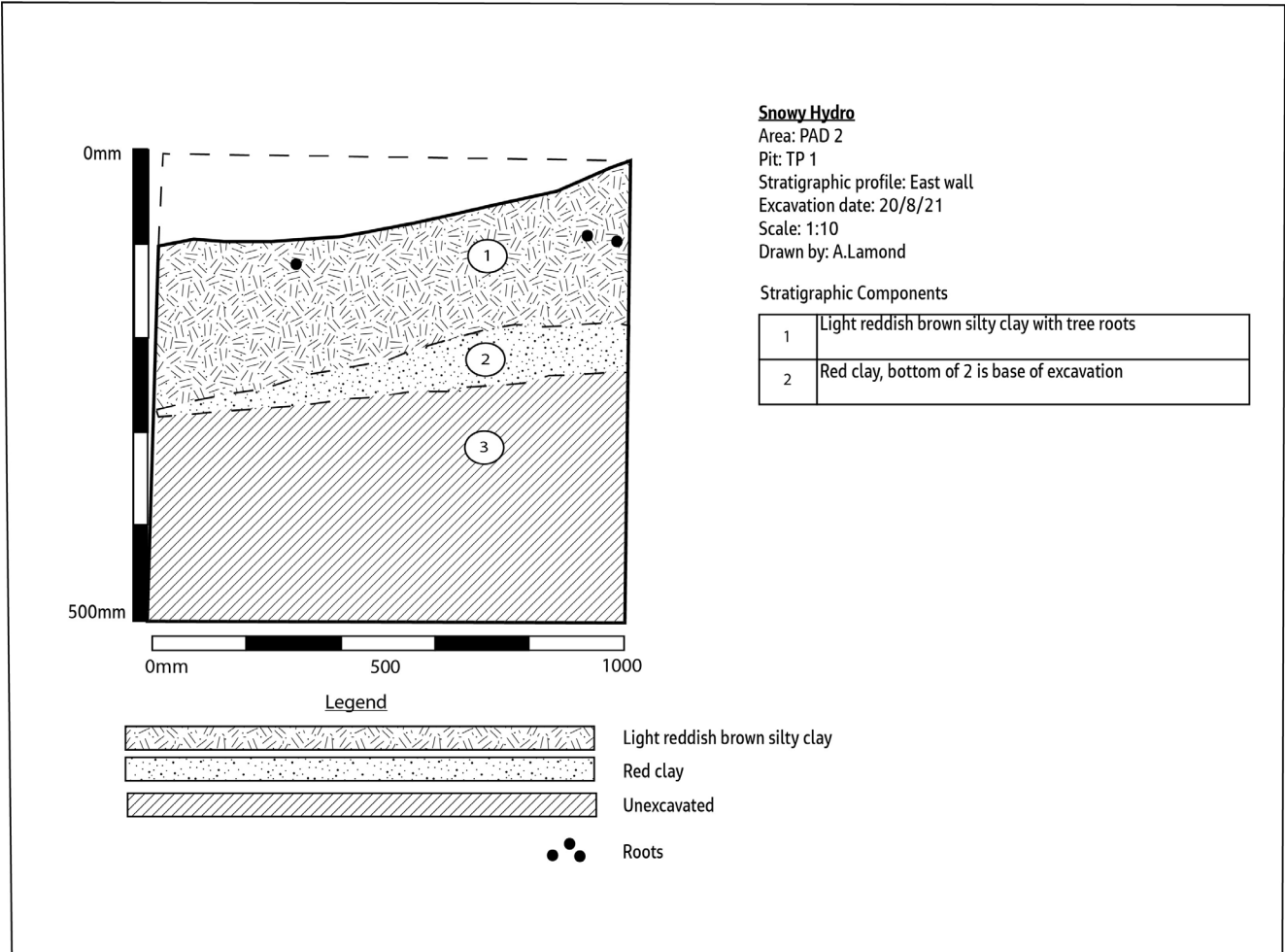


F.5 PAD 1 TP 9

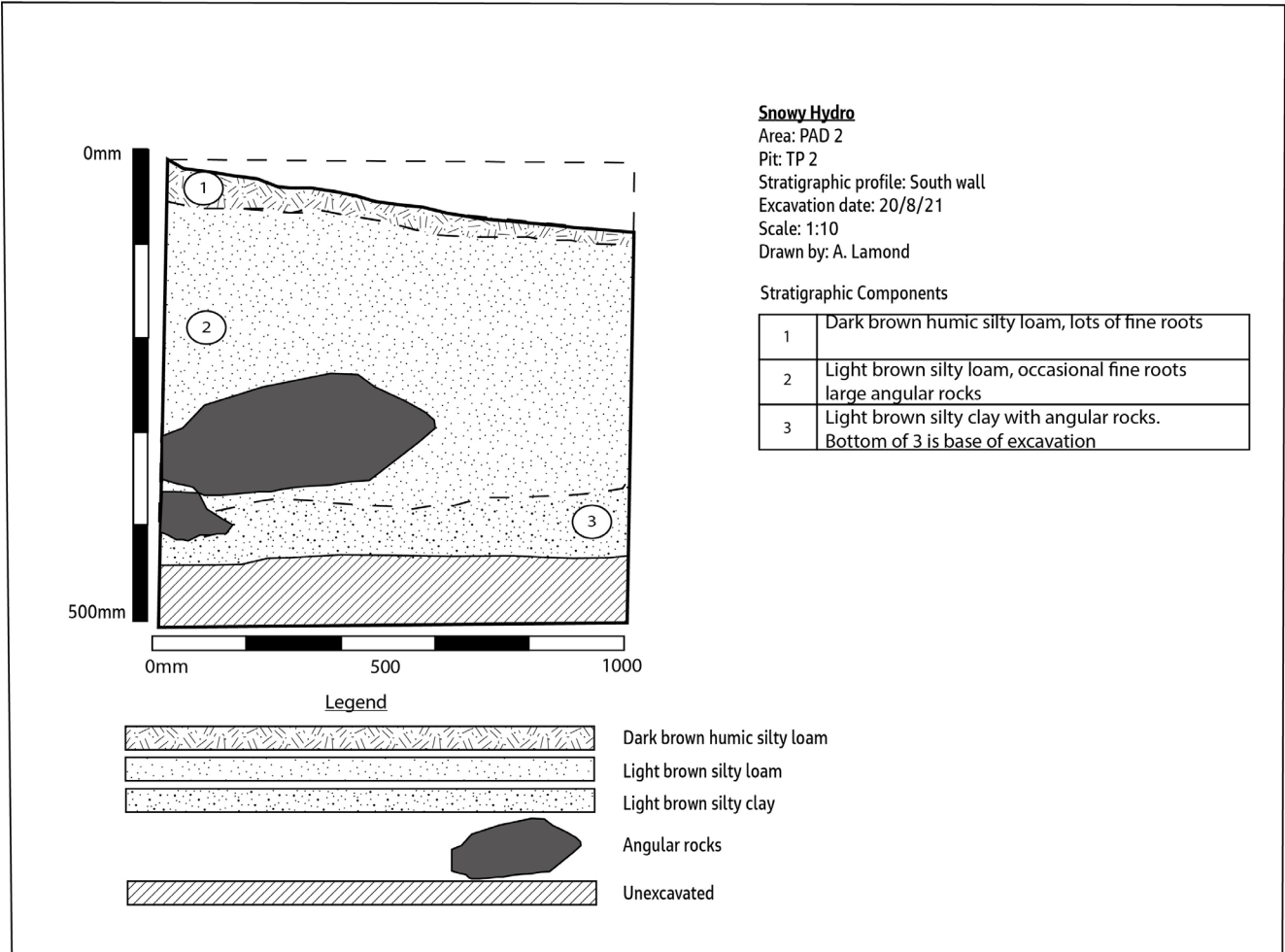




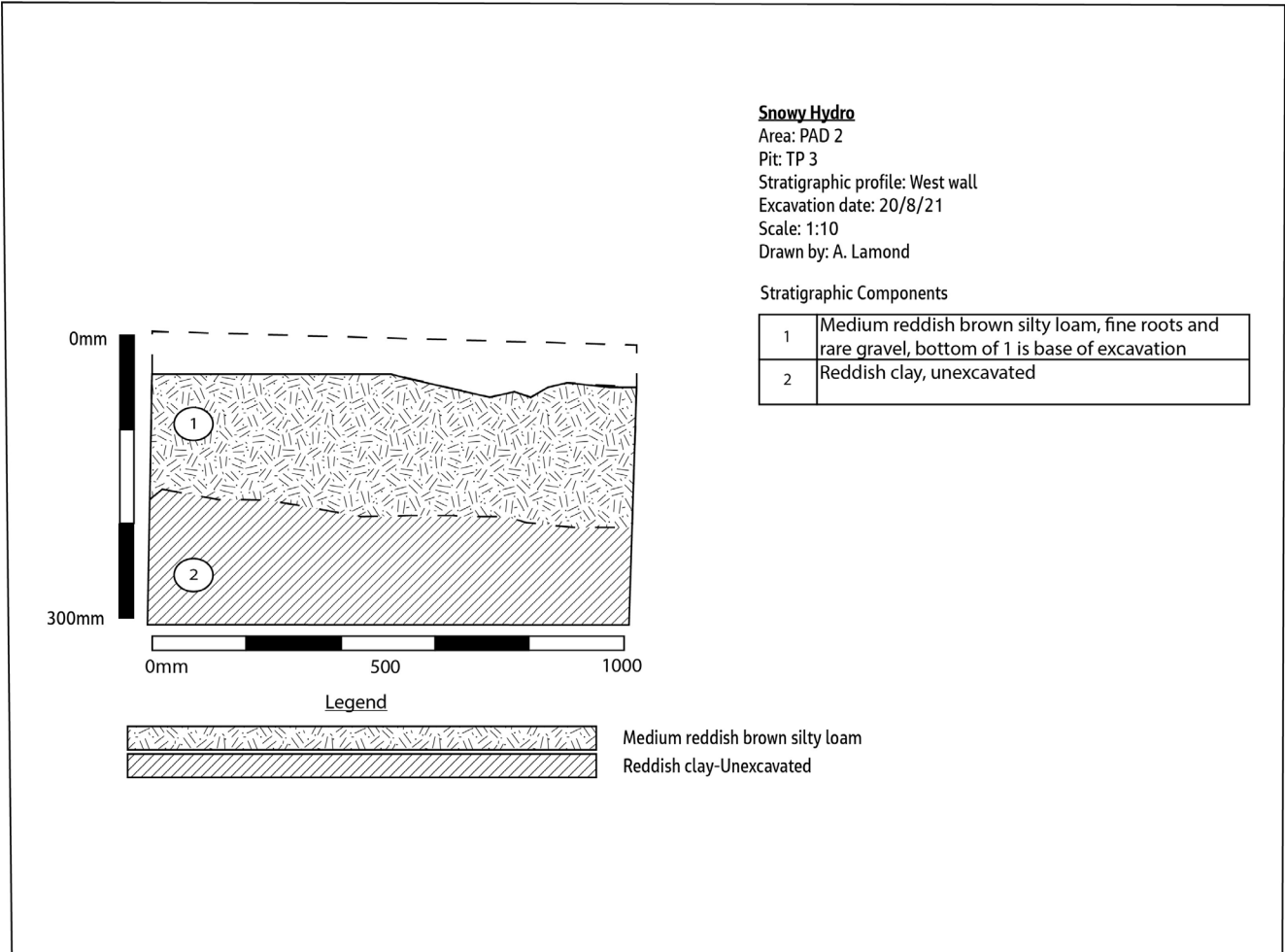
F.6 PAD 2 TP 1



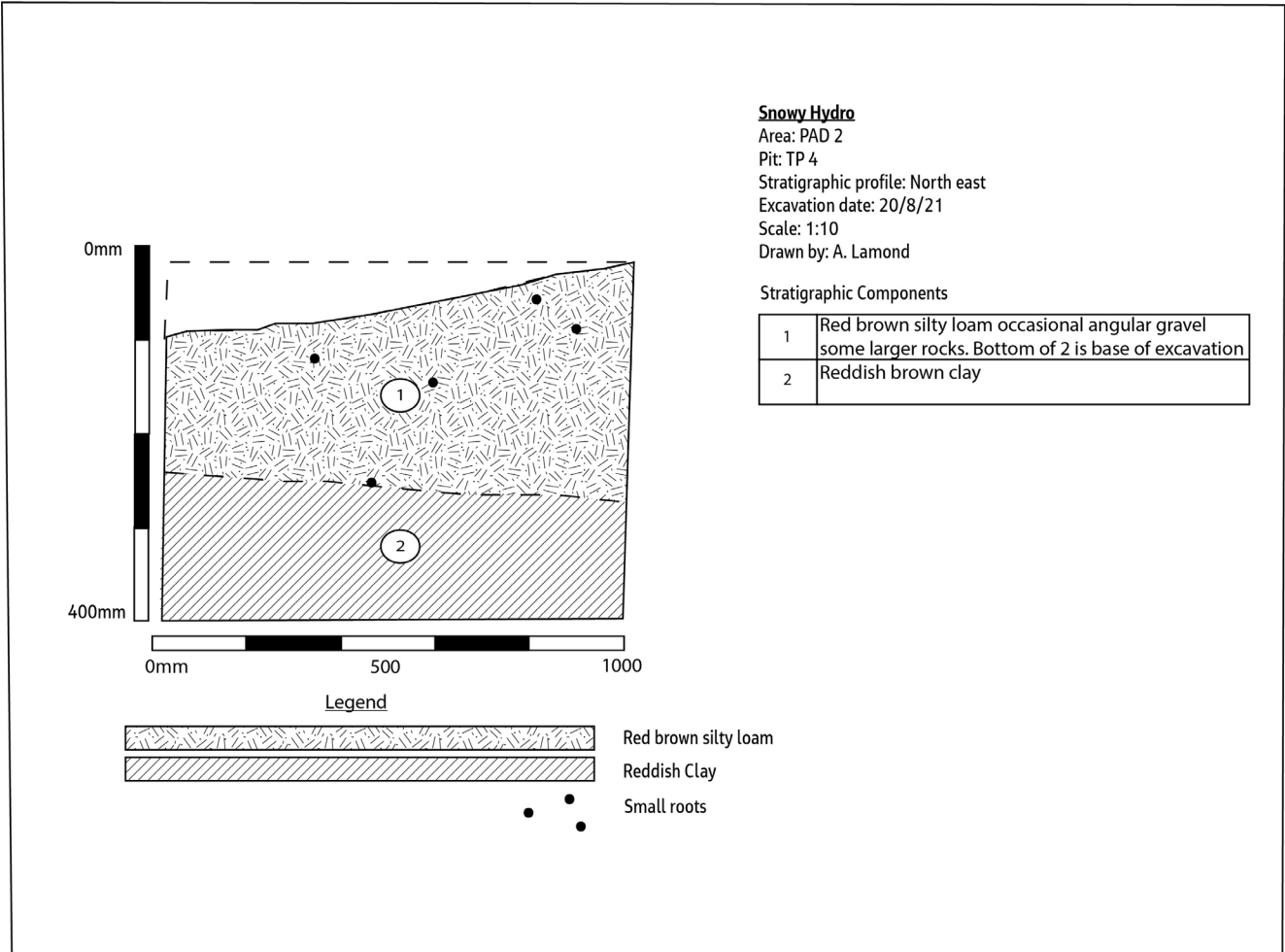
F.7 PAD 2 TP 2



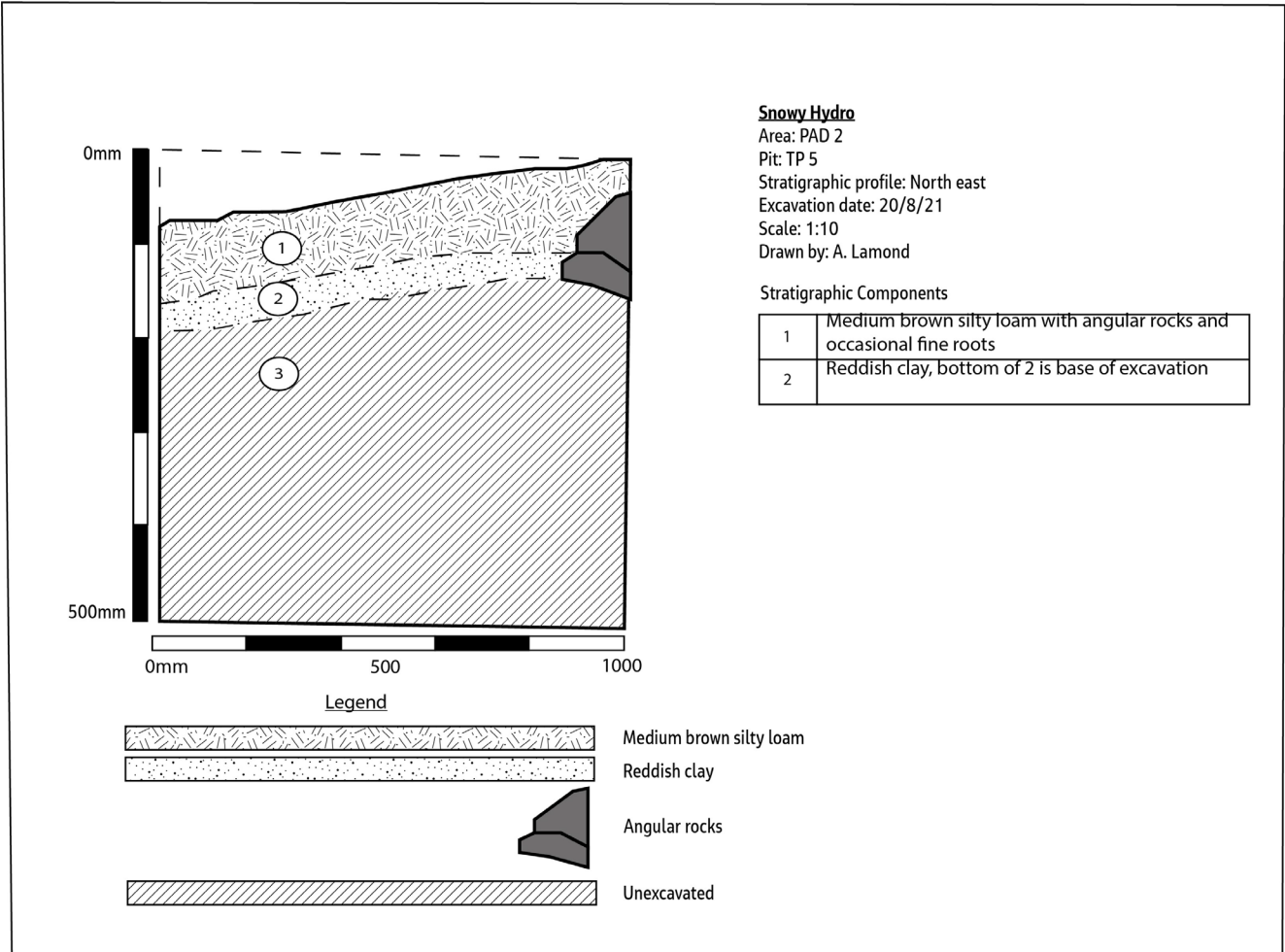
F.8 PAD 2 TP 3



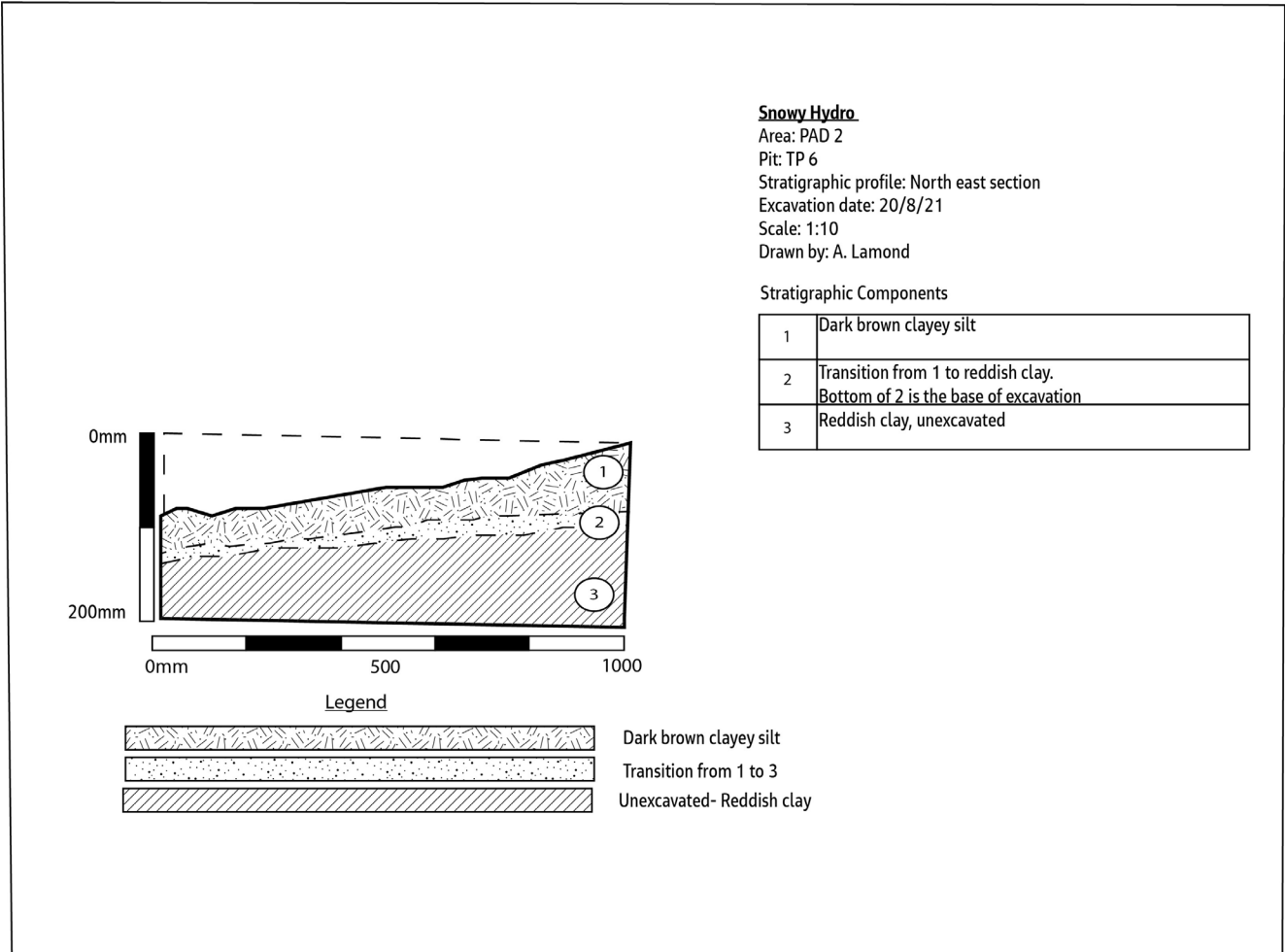
F.9 PAD 2 TP 4



F.10 PAD 2 TP 5

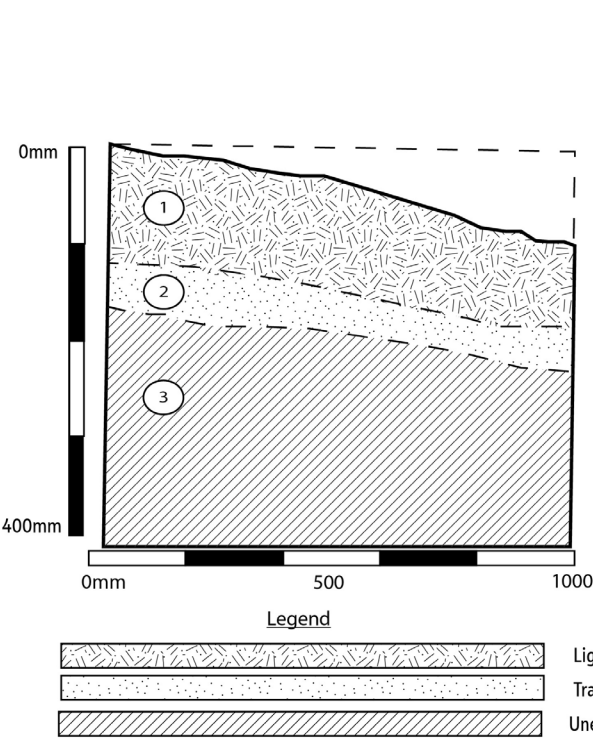


F.11 PAD 2 TP 6





F.12 PAD 2 TP 7



**Snowy Hydro**  
Area: PAD 2  
Pit: TP 7  
Stratigraphic profile: West wall  
Excavation date: 20/8/21  
Scale: 1:10  
Drawn by: A. Lamond

Stratigraphic Components

1	Light brown clay silt with frequent gravel inclusions and fine roots
2	Gradual diffused transition from 1 to reddish clay. Bottom of 2 is the base of excavation
3	Reddish clay, unexcavated