

Before the Fast-track Panel

Under: Fast-track Approvals Act 2024

In the matter of: FTAA-2605-1236 – Remarkables Ski Area Upgrade and Doolan's Expansion

Statement of advice: Dr Matthew Schmidt

Cultural Heritage

DOC staff

12 October 2026

1. The Department of Conservation (“DOC”) is required to manage heritage values on Conservation land alongside biodiversity values as per Section 6 of the Conservation Act 1987. Heritage values have the same weight of importance as Biodiversity values under the Conservation Act.
2. Any activities proposed to be undertaken on Conservation land require a heritage assessment to assess whether these activities will affect heritage values. This assessment must include the effects on the setting of the heritage values, i.e. the associated heritage landscape.
3. DOCs core approach to managing heritage values is to avoid adverse effects on them.
4. The applicant’s heritage assessment fails to assess all locations in the Doolan’s Expansion Area for heritage values by way of a field survey. The assessment itself recognised this limitation but failed to correct this error after pre-lodgement feedback was provided.
5. The location where heritage values are most likely present are along the right branch of Doolan’s Creek and at the proposed water intake and weir. These locations were not assessed by way of a field survey for the heritage assessment.
6. The applicant’s heritage assessment concludes that there are no tangible sites in the expansion area and hence there will be negligible/neutral-slight impacts on low heritage values overall. This conclusion contradicts the assessment’s findings that the presence of heritage values in the location of the weir and water intake, for example, cannot be discounted based on its own historic research.
7. Any heritage values in the Doolan’s Expansion Area should be avoided by the proposal. The presence or absence of heritage values should be determined by way of field survey at the vicinity of the proposed water take and weir, prior to any decision by the Panel.
8. An ADP cannot be applied to a project area if it has not been the subject of a field survey and where there is reasonable cause to suspect heritage sites are present.

9. In my opinion, the *Remarkables Ski Area Upgrade and Doolan's Expansion – Heritage* Assessment dated May 2026 is not complete and hence the effects on heritage cannot be adequately assessed.

Introduction

1. My full name is Dr Matthew Schmidt.

Instruction

2. I have been requested to provide expert advice to the Director-General of Conservation (DOC/the Department) for the purposes of his comments on the Remarkables Ski Area Upgrade and Doolans Expansion Fast-track application.
3. My advice will be used to inform DOC's s51 reporting and s53 comments on the application.

Qualification and Experience

4. I am employed by the Department of Conservation Te Papa Atawhai (DOC) as the Senior Heritage Advisor Kaitohu Matua Taonga Tuku Iho for the Southern South Island Region based in the Dunedin office. I have worked for DOC since February 2020 providing advice on all matters relating to the management of heritage sites from all cultures (predominately Māori, Pākehā & Chinese sites). In addition, I provide advice and guidance on: heritage conservation projects; management of heritage in World Heritage Sites in the Southern South Island Region; archaeological authority applications to Heritage New Zealand Pouhere Taonga (HNZPT); resource consent applications; Crown Pastoral Land Act 1998 (CPLA) applications; concessions and permissions applications where heritage is concerned; the development of visitor experiences where heritage maybe affected; and the management of heritage fabric. I work closely with Iwi, other Government agencies, NGOs, heritage/community groups and sponsors of heritage related projects.
5. I have previously worked as an archaeological consultant both in the North and South Islands beginning in 1994. I was the Senior Archaeologist at Heritage New Zealand Pouhere Taonga from 2006 to 2020.
6. I hold a PhD from the University of Waikato (1998) specialising in the radiocarbon dating of New Zealand archaeological sites, a Master of Arts (1st Class Honours in Anthropology) from the University of Auckland and a Bachelor of Arts (1990) from the University of Otago. I have worked in cultural heritage for 38 years and have surveyed, excavated and managed a variety of Māori, Pākehā and Chinese cultural heritage sites

around New Zealand. I have been the New Zealand International Correspondent on cultural heritage for the Asia-Pacific Office of UNESCO since 2008. In 2009, I project managed the development and launch of ArchSite, the New Zealand Archaeological Association Online Site Recording Scheme.

7. In 2016 I received the Groube Fieldwork Award from the New Zealand Archaeological Association (NZAA) and in 2024 the Public Archaeology Award also from the NZAA. I have been a past President of the NZAA and on its Council. I was also previously the President of the Otago Anthropological Association and Chair of the Auckland Archaeological Society. I am a member of the NZAA and in 2025 became an Honorary Member of the Otago Goldfields Heritage Trust.
8. Over the years I have presented evidence related to heritage matters at hearings for resource consents, the Environment Court and the District Court.
9. I have published papers on archaeology and heritage management including a book on the radiocarbon dating of New Zealand prehistory using marine shell in 2000, a paper on the commencement of Māori pā building in New Zealand (1996) and a paper on the first identification of moa living on Rakiura/Stewart Island when Polynesians/Māori first arrived (2022). The focus of my publications in the last 18 years has been on the management of heritage sites and places through the UNESCO International Correspondent publications. UNESCO's cultural heritage publications focus on best practice heritage management which crucially provide current views and methods on the management of heritage.
10. I have an extensive knowledge of the archaeology/heritage of Otago having surveyed this whenua/landscape as a consultant undertaking heritage assessments for private individuals and companies, for Government departments, for Iwi and as part of my work as the Senior Archaeologist for Heritage New Zealand Pouhere Taonga and now for DOC. I was involved in the Tenure Review programme out of which many new heritage sites were recorded, and conservation covenants were developed to protect at-risk heritage values in the long term. I hence specialise and have an intimate knowledge of goldfields and the pastoral archaeology of Otago.

Code of conduct

11. Whilst it is acknowledged this is not an Environment Court Proceeding, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice. Unless I state otherwise, this advice is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of advice and expert opinion

12. My expert advice relates to the following:
- i. Adequacy of the Applicant's assessment of heritage values which will or could be affected by the proposed project.
 - ii. Adequacy of the Applicant's proposed mitigation to manage heritage values, in particular its proposal that heritage values can be managed through an ADP ("Accidental Discovery Protocol").

Material Considered

13. In preparing this advice I have reviewed the following documents as part of the substantive application:
- i. Application Project Maps and Drawings - C-10 Remarkables Ski Area Upgrade and Doolan's Expansion -Doolan's Water Intake & Access.
 - ii. Application Project Maps and Drawings - C-09 Remarkables Ski Area Upgrade and Doolan's Expansion -Doolan's Gondola, Cabin Building & Learners Area.
 - iii. Application Project Maps and Drawings - C-08 Remarkables Ski Area Upgrade and Doolan's Expansion -Doolan's Access, Trails and Utilities
 - iv. Application Technical Report - B-06 *Remarkables Ski Area Upgrade and Doolan's Expansion – Heritage Assessment*. Report Prepared for NZSki Limited, By New Zealand Heritage Properties, May 2026.
 - v. S T Burton survey Filed Books 590, 626 & 636.

Site Visit

14. I have visited the project area when no snow is present on occasion over the years but not the area of the Doolan's Expansion Area and the water intake and weir in Doolan's Creek.

Review of the *Remarkables Ski Area Upgrade and Doolan's Expansion – Heritage Assessment*. Report Prepared for NZSki Limited, By New Zealand Heritage Properties, May 2026

15. The heritage assessment overall successfully presents a history of the project area and wider landscape since Māori explored and occupied this landscape through to Pākehā activities which focused on pastoralism and gold mining.
16. However, there is one key issue that effects the conclusions reached in the assessment regarding what heritage values are present in the Doolan's Expansion area and how these will be impacted.
17. This key issue is that there was no foot survey of the area of the proposed weir and water intake by any archaeologists/heritage experts. This omission hence affects the report's credibility and conclusions regarding what heritage could be affected by the project and the assessment's views on the value of the heritage landscape.
18. Although the assessment notes in the Methodology (Section 3.1, page 10) that: "*A site survey provides the opportunity to identify heritage features that are present within the project area along with their condition....*", this did not include the area of the proposed weir and water intake. The location where heritage values are most likely present within the areas to be disturbed by the Project are along the right branch of Doolan's Creek and at the proposed water intake and weir and proposed access road to it. If gold mining or gold prospecting had occurred, it would be along the small flats on either side of the stream where the intake is.
19. DOC provided pre-lodgement feedback to the applicant that a survey of the area of the water take, and its access road was required for the assessment to be thorough. This survey did not happen.
20. This is confirmed on page 56 of the heritage assessment where it is noted that: "*The water intake and access road was not included in the scope of the archaeological survey, as such it was not subject to full pedestrian survey. This has been noted in the*

consultation feedback from CODC and DOC. At this stage, any evaluation of this area would be at a macro-scale based on the available photos from a distance and aerial photographs.”, and that “....it is not possible to confirm presence or absence of features without a pedestrian survey.”

21. DOC’s concern around this deficiency in the application was raised again at the time of providing advice on ‘application completeness’ to the EPA.
22. The assessment’s historic research on the Doolan’s Expansion area identifies the possibility of gold mining heritage being present (Section 6.3, Pages 35 & 40 & 54-55). From reviewing a newspaper report about gold miners in the right branch of Doolan’s Creek in 1864, it is concluded that: *“Nevertheless, this report of gold mining around the head, or source, of Doolan’s Creek indicates there may have been gold mining activity within the Doolan’s expansion area.”*
23. Regarding the source of Welshmen’s Water Race (Page 40), the assessment concludes that, *“While this may be the original intake for the race, documentary sources suggested the race may continue further up towards the head of the creek. This is further explored in Section 9.”* In Section 9, desktop tools such as aerial photographs and maps are used to narrow down the intake for the water race to confirm whether it lies in the Doolan’s Expansion area. Using this as their primary data source and without field checking, it is concluded, *“While this is some distance from the head of the creek, where historical accounts indicate the race to start, the lack of evidence of the race further up suggests that this may have been its origin and that the references to the race at the head of the creek were mere exaggerations.”*
24. It is clear, therefore, that heritage could be present in the Doolan’s Expansion area particularly in the location of the weir and water intake, but even with historic evidence in hand to warrant a field survey to confirm the presence or absence of heritage, this was not undertaken.
25. It is pertinent to also note here that the *Remarkables Ski Area Upgrade and Doolan’s Expansion – Heritage Assessment* notes on page 9 under Section 2.7 Conservation Act 1987, that : *“This means that for projects planned on public conservation land, DOC must be contacted to determine their requirements for assessment of effects on historic resources, any requirements such as CMS or conservation plans, for*

managing historic resources when identified during assessments.” Contact with DOC for this heritage assessment never happened and it is standard practice for heritage consultants to contact DOC’s Senior Heritage Advisors for advice before heritage assessments are undertaken on DOC land.

High altitude heritage: Examples of high-altitude heritage sites as an illustration of the values not assessed & S T Burton’s surveying Filed Books

26. As noted above, DOC is responsible for all periods of heritage on the land it manages whether sites are 700 years old or from the 1980s. It is crucial that locations with potential heritage values are checked and then assessed for these values.
27. Examples of high-altitude heritage sites found in the Whakatipu and Central Otago Districts are presented below. Such sites and features should always be considered during heritage field surveys no matter how unlikely it may seem they may not be present, and even if no historic records can be found that there was human activity in a location, unless there is a good clear reason to discount them. For the project proposal environment, sites that are more likely to be present are surveying sites, gold mining sites, pastoral sites and historic pack/bridle tracks.
28. High altitude sites are not uncommon in the more mountainous areas of Whakatipu and Central Otago. There are Māori heritage sites in Whakatipu & Central Otago, which lie at the same altitude as the Remarkables Ski Area. One of these locations where sites are present is in the *Te Korokā (Dart/Slip Stream) Specially Protected Area* where entry is by special permit only (Appendix 1). Sites here extend from the river to the mountain tops, and I have recorded sites on behalf of NgaiTah in this area.
29. Nineteenth century historic land survey marks are often on mountain tops, high points convenient for surveying or in view shafts to other important geographic locations such as the Mt Pisa survey mark “Trig G”, for example. (site F41/598, survey plan SO 1175) (Appendix 1). These survey marks are not always in the same location as noted and used today on modern survey maps such as the historic Mt Pisa mark. Surveyors also sometimes built small cairns as they moved along their survey line so readings could be backshot. An example of one of these lies on the alignment from the Mt. Pisa Trig G for the survey along the boundary of Pastoral lease 625 (Appendix 1). This cairn corresponds with mark ‘V’ on the survey plan SO.

30. Pack tracks or bridle tracks are often found at high altitude and can be major tracks commonly seen in the landscape and which are still noted on modern topographic maps, such as the 19th century Cardrona Cromwell Pack Track, Meg Hut Pack Track, Cardrona Roaring Meg Pack Track and the turn of the 20th century Pisa Ranger Ridge Track (Appendix 1).
31. Some pack/bridle tracks were marked by stone cairns where wooden snow poles were installed in the centre to guide miners between goldfields over ranges when there was a risk of snow obscuring the track (Appendix 1). An example is the pack/bridle track from Chamonix to Potters No.2 and Campbells Creek over the Old Man range which was at a height of 1600m asl (see Hamel 2002:139). About 320 stone cairns with poles were installed along this route with wire strung in-between in 1864.
32. Gold mining sites can also be at very high altitude and are quite common. It is important to note that gold mining sites include prospecting sites which can be well away from the main workings seen today and can be more subtle in the landscape. In addition, the highest water race in a gully or valley, for example, does not mean that gold mining was not attempted or prospected for at higher elevation. Examples of gold mining sites at high elevation can be seen in Appendix 1. Mining at Potters No.2 and Campbells Creek accessed by the snow pole route mentioned above was at 1200-1300m asl, although gold was discovered as high as 1500m asl.
33. Other mining sites can be at extreme heights such as the scheelite mines up at Glenorchy. The highest prospecting for scheelite here occurred at 2000m asl at Temple Peak (Appendix 1).
34. High altitude gold mining sites were often abandoned in the Winter and then revisited in the Spring such as Potter No. 2 at 1200-1300m asl, on the Pisa Range at Fatboys (1300-1400m asl), and the two North Pole mining sites F42/269 & 277 located at ca. 1300 and 1340m asl respectively in the Garvie Mountains (Petchey 2007). The Spring thaw was taken advantage of to capture water for sluicing or simply for the panning of tailings once they had thawed. Some miners would cover their unprocessed workings in tussocks, so they were 'unthawed' on their return after Winter. High altitude hard rock mining sites such as at Alpine Stamper at 1500m asl and Advanced Peak, Macetown at 1600m asl also closed for the winter (Appendix 1).

35. Pastoral sites can also be found along mountain tops and in valleys etc at high altitude. The most common feature are fencelines but occasionally musterer and boundary riders' huts are at very high altitude but most often below the snowline. During the breakup of the large pastoral lease in the early 20th century, more fencelines and hut sites were established in the landscape for management purposes. These features can be seen on historic topographical maps, but not all features associated with the fences such as yards are shown and sometimes fences are not recorded. Modern topographical maps often don't show the historic fencelines, and some fences are still present while others were removed or only partially removed over the decades (see Appendix 1).
36. If Conservation land originated from a historic pastoral lease or land came to DOC out of Tenure Review or some other land retirement process, the presence or absence of historic fencelines should always be identified in the field. The Doolan's Expansion was once part of a pastoral lease.
37. Considering the types of sites noted above which can be located at high altitude, not undertaking a heritage foot survey of the Doolan's Expansion area hence undermines the thoroughness of the heritage assessment for the project.
38. This is further illustrated by examining the Field Books created by the surveyor S T Burton who undertook the survey of this area for pastoral landscape work in 1909 and who created the historic survey maps SO 798, 799 & 801 provided in the heritage assessment on pages 32, 33 & 34. The Field Books are referred to on the plans and were not sourced for the heritage assessment. The relevant Field Books are numbered 626 and 636 for survey maps SO 798, 799 & 801.
39. The traverse Burton took during his survey up the Right Branch of Doolan's Creek can be seen on SO 798 denoted by Roman numerals (Appendix 2, Figure 1). These match with the recording notes and data entered into his Field Book during his survey used to create the final maps (Appendix 2, Figure 2). For example, looking at the location of the "Hut" and "WR" (water race) on SO 798 (Appendix 2, Figure 1), these features and Roman numerals can be seen in Field Book 626 (Appendix 2, Figure 2).
40. Surveyors were very economical when they surveyed and often did not record other features even if they walked past them and they were obvious. As gold mining

remains were so common, they were often ignored other than if a feature was more permanent or a clear marker in the landscape, such as a major water race or hut that appeared to be in continual use. However, huts were sometimes recorded, sometimes not.

41. Looking at the very western end of Burton's survey map SO 798, there are two key survey points, one noted XLVI and the other as XLV (Appendix 2, Figure 1). XLVI is a survey reference point for this part of the landscape which is used to ensure the western corner of the pastoral lease block 345d is then surveyed in correctly. Survey points such as XLVI and XLV should always be checked in the field as it is possible that a marker of some kind was left there. This can simply be a geographical feature such as a very large immovable rock or a natural stony outcrop, or a deliberately built stone Cairn.
42. Looking at Burton's Field Book on Page 1 for clues about mark XLVI, he notes the presence of 'Browns Hut'. Further down this page, Browns Hut is noted again alongside a small diagram implying its location. Browns Hut is not shown on the SO 798, 799 or 801 survey maps but a hut is located further down the Right Branch of Doolan's Creek as indicated above. The Field Book on page 9 identifies this hut simply as 'Iron Hut' and does not name it. We therefore possibly have two huts located along the Right Branch of Doolan's Creek.
43. There are a few options here with regards to where Browns Hut is:
 - a. It is located at mark XLVI (as seen on Page 1 of the Field Book) and this is why XLVI was used as a reference mark for his survey.
 - b. Browns Hut is the 'Hut'/'Iron Hut' noted on the survey plans and on page 9 of Burtons Field Book. This is why the location diagram for the hut on Page 1 of his Field Book has '3000' noted implying the hut was at this contour in feet. However, the '3000' contour is dropping in the wrong direction to be at the 'Hut'/'Iron Hut' location, and what is the '10000' notation refer to at the top of the diagram?
 - c. Browns Hut is an additional hut somewhere along the Right Branch of Doolan's Creek yet to be identified. It could relate to the 1887 mining claim of

Brown & Fraser which was located along Doolan's Creek, as noted on page 29 of the heritage assessment.

44. This review of the survey data from Burton's 1909 Field Books (Appendix 2), together with the examples of heritage at high elevation (Appendix 1) and the conclusion in the applicant's heritage assessment that the presence of heritage in the Doolan's expansion area cannot be discounted, all support the view that the heritage assessment is inadequate. Heritage sites/features could be located anywhere from the top of the Right Branch of Doolan's Creek where mark XLVI is located and down the creek where the proposed weir and water intake is proposed to be installed.

Applicants proposed management of heritage values through condition of an ADP ("Accidental Discovery Protocol").

45. An ADP cannot be applied to a project area if it has not first been the subject of a field survey and where there is reasonable cause to suspect heritage sites are present.
46. To apply an ADP to the Doolan's Expansion Area knowing that it has not been checked for heritage values on the ground, is not best heritage practice and not acceptable by DOC in the management of its heritage resources.

Conclusions

47. The applicant's heritage assessment fails to assess all locations in the Doolan's Expansion Area for heritage values by way of a field survey. The assessment itself recognised this limitation but failed to correct this error after pre-lodgement feedback was provided.
48. The locations where heritage values are most likely present are along the right branch of Doolan's Creek and at the proposed water intake and weir. These locations were not assessed by way of a field survey for the heritage assessment.
49. The applicant's heritage assessment concludes that there are no tangible sites in the expansion area and hence there will be negligible/neutral-slight impacts on low heritage values overall. This conclusion contradicts the assessment's findings that the presence of heritage values in the location of the weir and water intake, for example, cannot be discounted based on its own historic research.

50. Any heritage values in the Doolan's Expansion Area will need to be avoided by the proposal. If the presence or absence of heritage values is not confirmed, this could have significant consequences for the project design.
51. An ADP cannot be applied to a project area if it has not been the subject of a field survey and where there is reasonable cause to suspect heritage sites are present.
52. In my opinion, the *Remarkables Ski Area Upgrade and Doolan's Expansion – Heritage Assessment* dated May 2026 is not complete and hence the effects on heritage cannot be adequately assessed.

Appendix 1. Examples of high altitude heritage sites in Whakatipu & Central Otago

Dr Matthew Schmidt, Senior Heritage Advisor, Southern South Island, Department of Conservation Te Papa Atawhai.

Below are presented examples of heritage sites that can be found in high altitude areas in the Whakatipu and Central Otago Districts. If a heritage foot survey had been undertaken in the Doolan's Expansion Area, these are the types of sites which should have been considered.

Māori heritage at altitude: Te Korokā (Dart/Slip Stream) Specially Protected Area, entry by special permit only.

Te Koroka
(Dart/Slip Stream Special Area)



Te Koroka is recognised as Tōpuni (a special protected area) under the Ngāi Tahu Claims Settlement Act 1998. This legal status acknowledges and provides protection for the archaeological, historical and cultural values of Te Rūnanga o Ngāi Tahu, who play an active role in managing the site.

Access to this area is restricted on account of it being a fragile area and its cultural heritage values.

Permits for this area are issued by the Department of Conservation in conjunction with Ngāi Tahu. For more information, contact the Whakatipu-wai-Māori/Queenstown Office by emailing queenstown@doc.govt.nz.



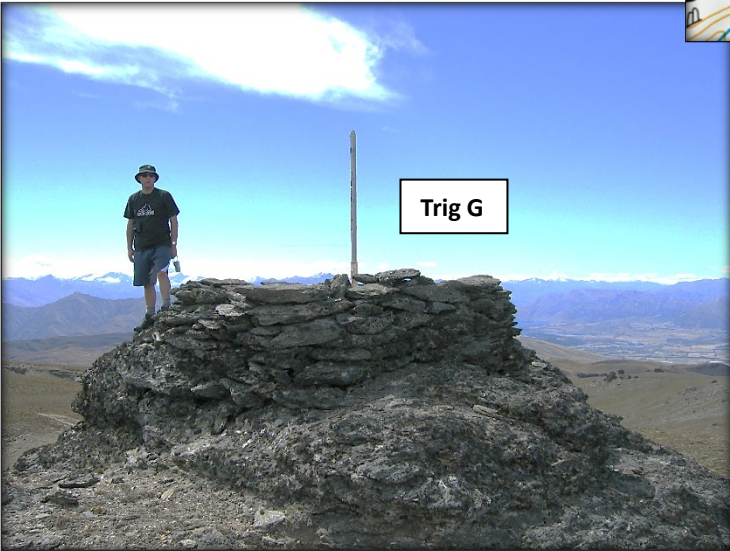
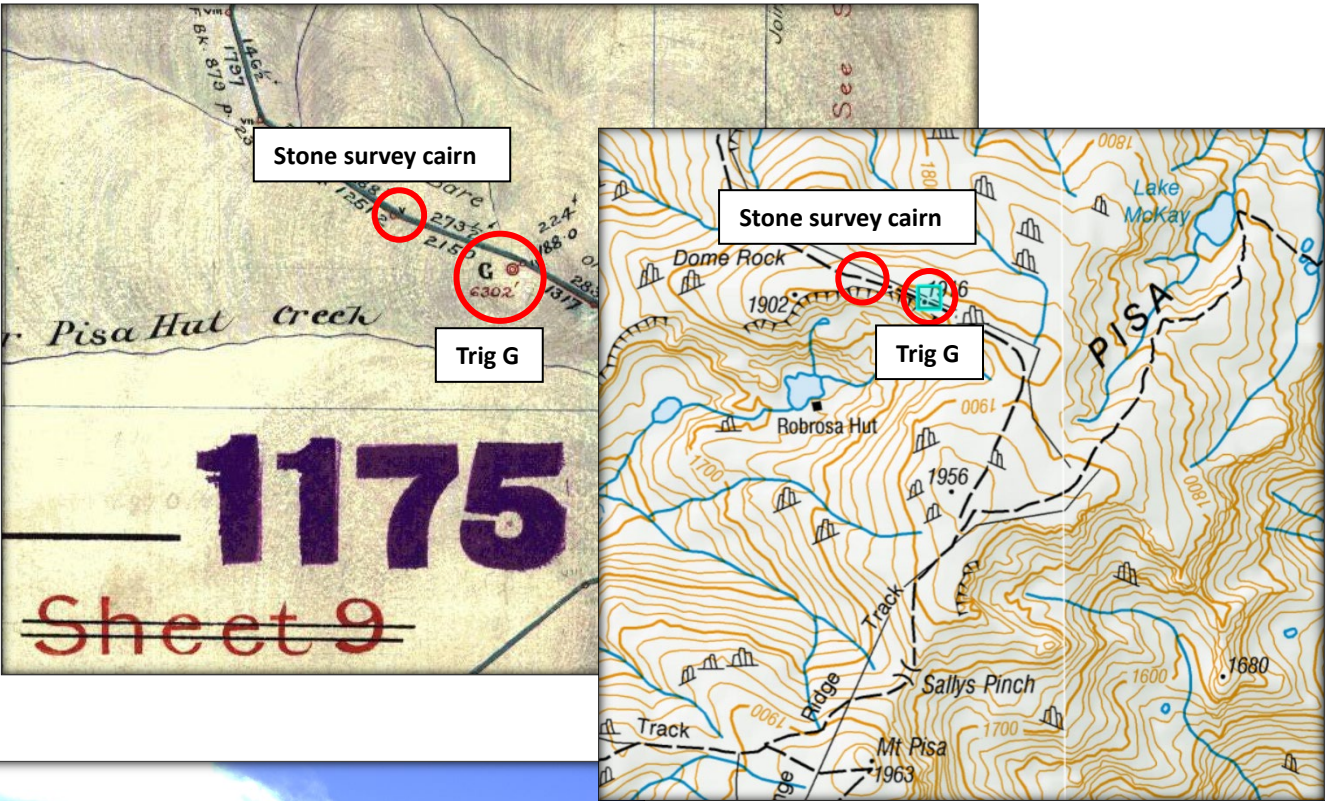
**Access to
Te Koroka
by permit only**

No tampering or taking from
archaeological site.

**You face a fine of up to
\$100,000 and imprisonment.**

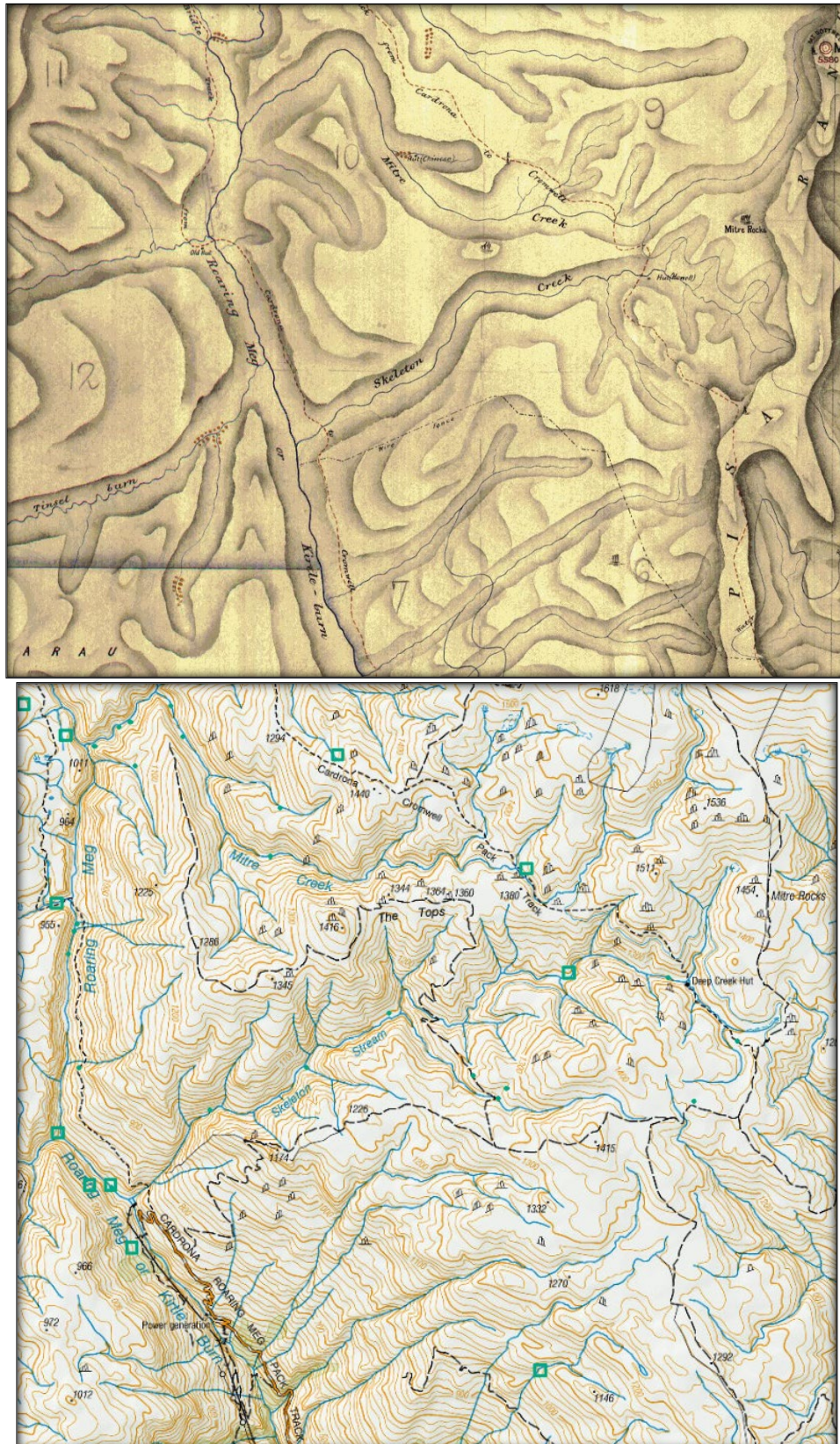


Pisa Range – Trig G on SO 1175 from 1922 and survey stone marker Cairn.



Pack/Bridle Tracks noted on historic and modern maps. These pack tracks often traversed high altitude areas.

Top map: Cropped area of survey map SO 351 from 1884 showing bridle track from *Cardrona* to *Cromwell* and from Cardrona to Roaring Meg/Kirtle Burn (On this old map the bridle track to Roaring Meg says “to Cromwell” but at the time was known as the Roaring Meg Bridle Track). Bottom map: Modern topo map showing the same pack/bridle tracks.



Snow pole route and related cairns on historic pack track over the Old Man Range.

Top: Map from 1874 showing the path of the snow pole route (red dotted line). Bottom: Stone cairn from the snow pole route, Old Man Range. The poles stood vertical in the centre of a stone cairn. 320 were installed along this route.

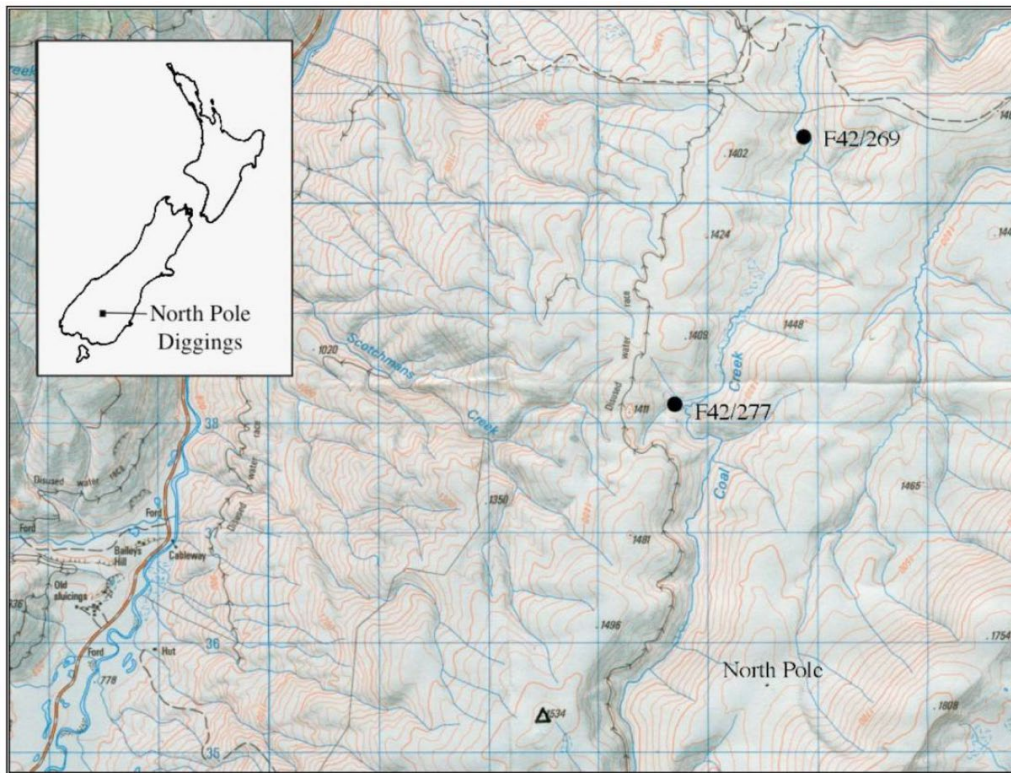


Examples of mining at high altitude

The 'Fatboy' Diggings on the Pisa Range. These high altitude gold workings (sites indicated by the green squares) were abandoned in Winter and then reoccupied in the Spring. I recorded the highest race starting at 1420m asl but the pack track to them came from higher altitude and the higher creeks have not been surveyed yet for prospecting evidence. Bottom left: some of the workings. Bottom right: Start of high race.



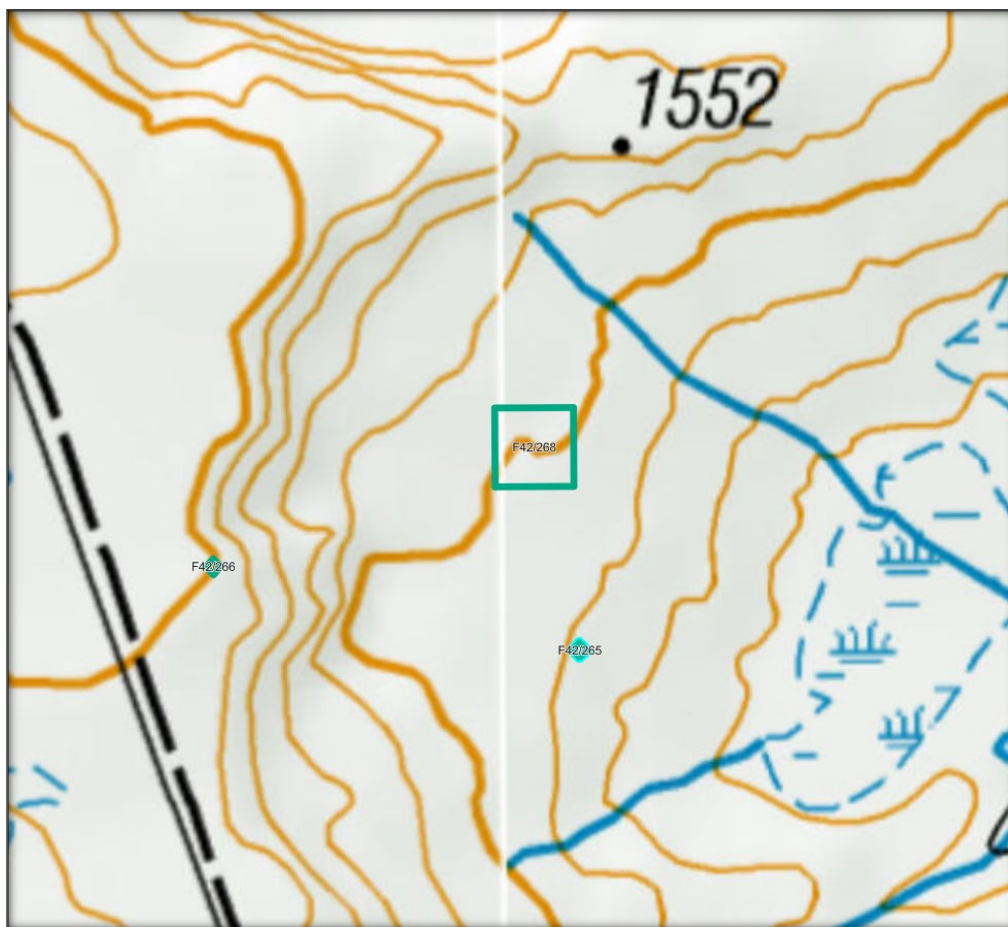
The “North Pole” site lies on the high flat creek terraces about the Nevis Valley. I recorded both sites in 2007. Sites F42/269 and site F42/277 lie at *ca.* 1400m but the water race above them extends up to *ca.* 1420m and it is likely there is mining or prospecting below and/or above the race. A survey was not completed to look for higher mining/prospecting sites.



The hut site (left) and gold tailings nearby (below) (images from Petchey 2008).



The Alpine Stamper Battery site on the Old Man Range. Top: Indicated by the green squares are the hard rock mine adit at 1500m asl (centre), the stamper below at 1480m asl and the house site to the far left of the map.



The adit is in the background (under the moon) entered under the outcrop just below the snowline. In the foreground are the stamper remains.



Hard rock mining (sites indicated by the green squares) at Advance Peak above Macetown was at 1600m asl.

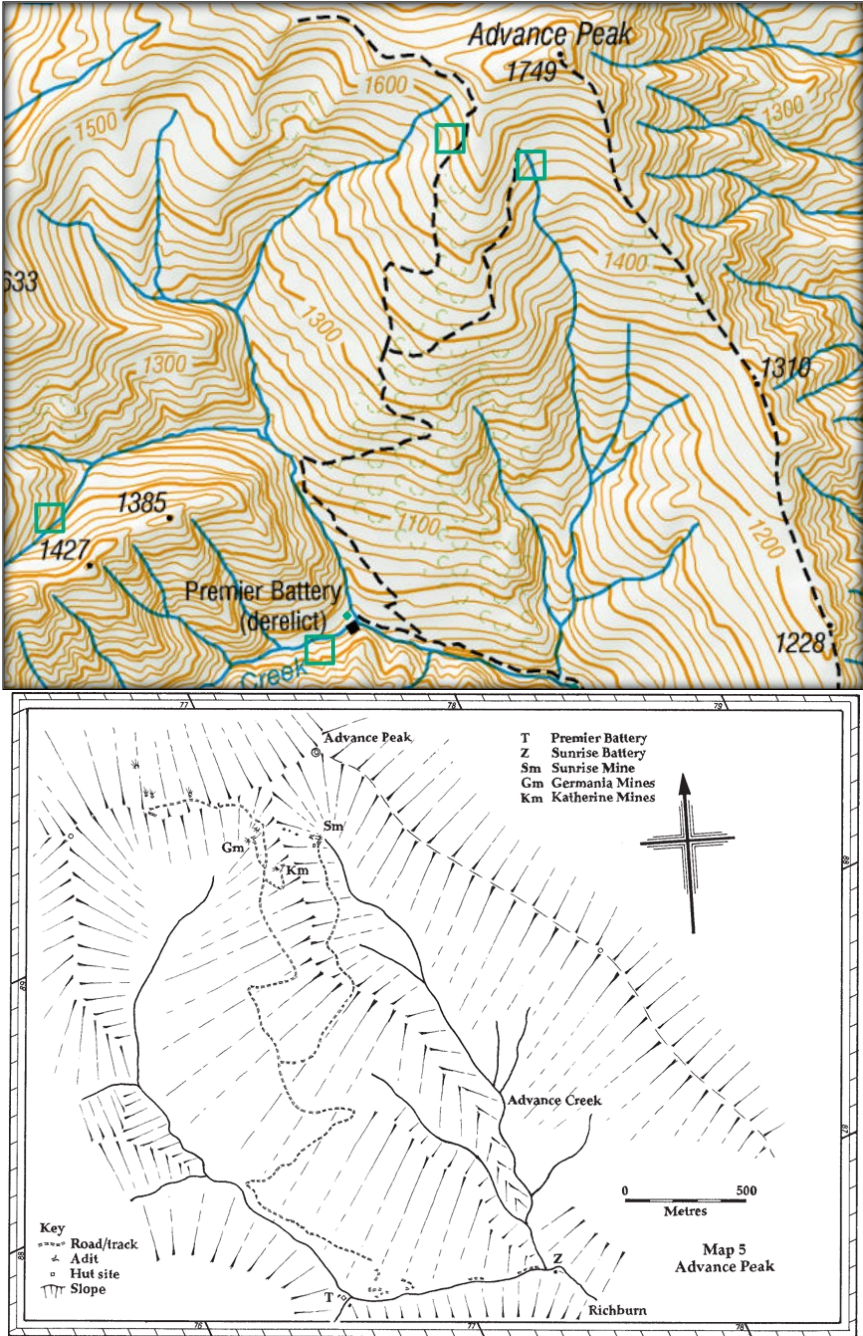
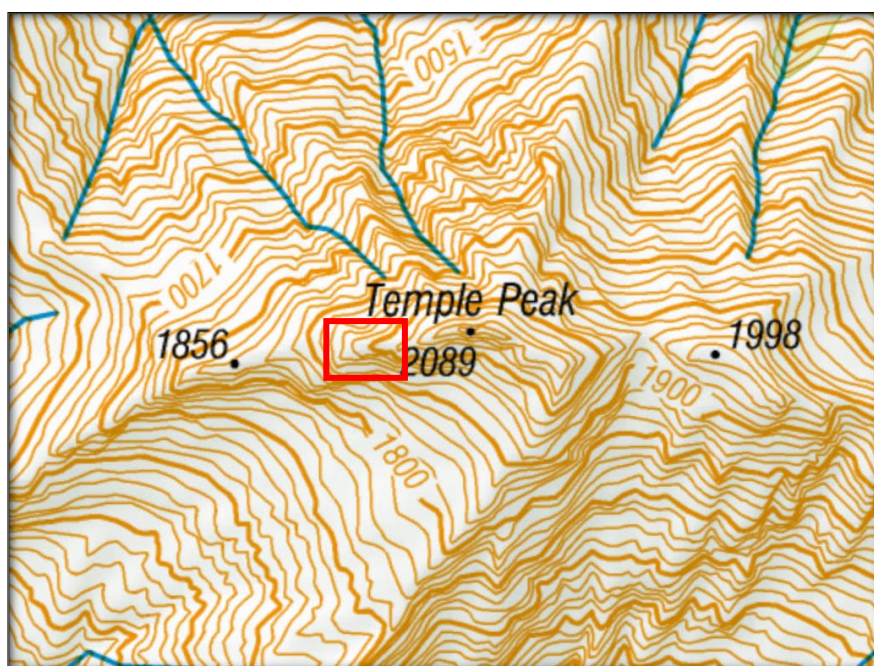


Figure 43. The Sunrise Mine on Advance Peak, nearly a mile high. The mullock heap and steep benched track are clear. The shadow of Advance Peak is thrown across the slope in the autumn sun.
Photo: P. Petchey.



Temple Peak, Glenorchy scheelite prospecting at 2000m asl. A hut was established near the peak in the 1970s by a small interest to prospect for scheelite and gold deposits. The project was unsuccessful and little historic record of the work remains. The hut, railway irons and a mine drive are all that can be seen today.



Historic fence lines

Remanets of a historic fenceline running along the top of the Pisa Range at *ca.* 1800m asl.



Remanets of a historic fenceline running along the top of the Rock & Pillar Range at *ca.* 1300-1400m asl. (Photo: Jeremy Moyle)



Remnants of a historic fenceline running along the top of the Rock & Pillar Range at *ca.* 1300-1400m asl. (Photo: Jeremy Moyle)



Remnants of Chinese built fenceline on the top of the Old Man Range at 1600m asl. This is the only record of Chinese building a pastoral fence in New Zealand.



Appendix 2 – S T Burton's 1909 Survey Field Books as a Source of Heritage Data

Dr Matthew Schmidt, Senior Heritage Advisor, Southern South Island, Department of Conservation Te Papa Atawhai.

Surveyors' handbooks are a good source to investigate if heritage values are present in the landscape. Historic survey maps typically only indicate heritage being present if the purpose of the survey were to record current activities in a location alongside creating an accurate map, or if the heritage features were relevant as indications to place the position of something or someone in that landscape. Surveyors also created their own heritage footprint be it through building small stone cairns to help line up survey points during a survey or returning to install permanent survey Trigs and marks in the landscape.

Figure 1. Burton's survey traverser up the Right hand branch of Doolan's Creek. In the close views are shown the traverse past the "Hut" and "W R" (water race) and the far west corner of the survey up the creek. The Roman numerals that match the location of his survey notes in his field book can be seen.

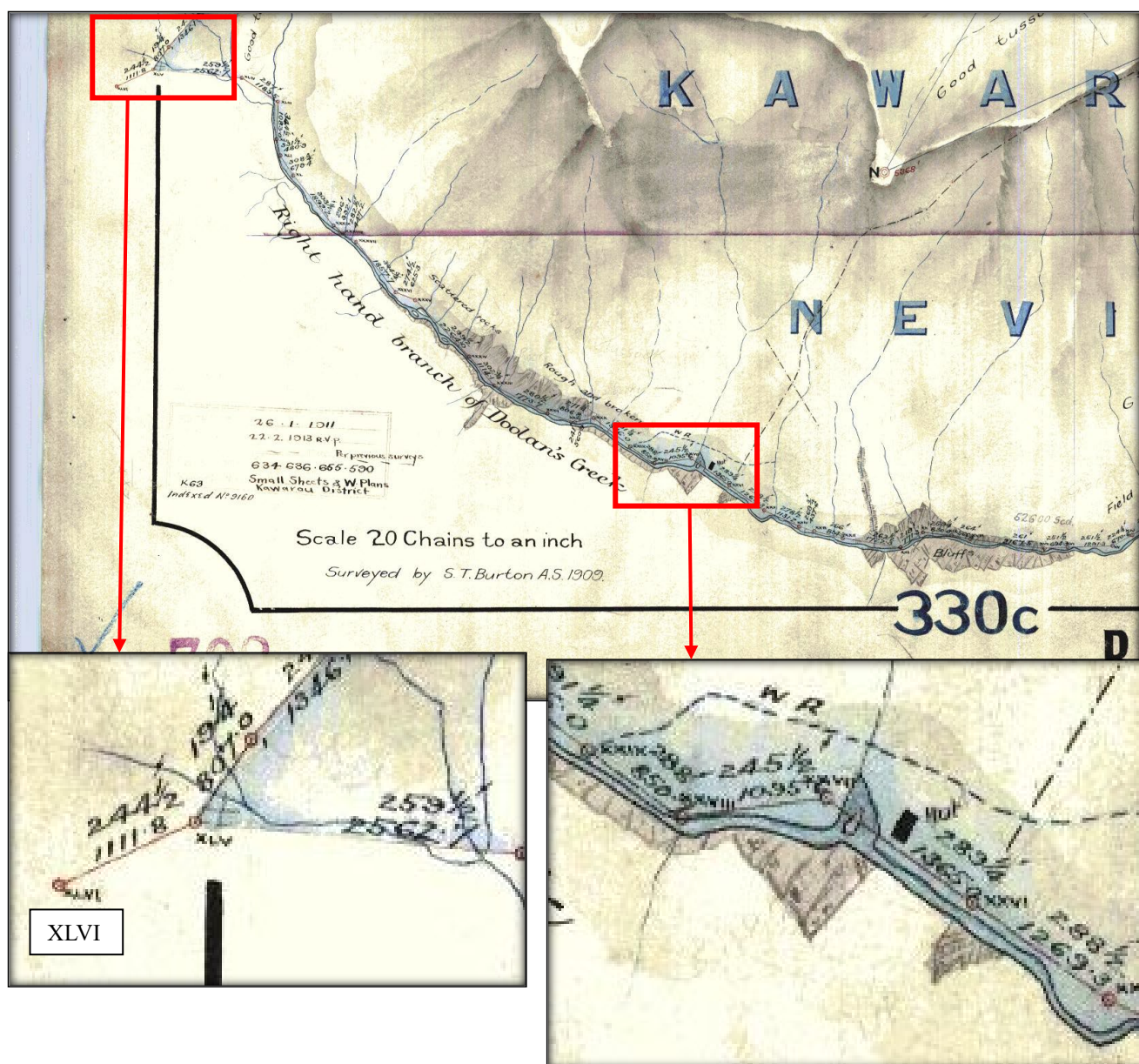


Figure 2. Sections of The Field Book pages 1 (left image) and 9 & 10 (right images) showing the far west corner of the survey at point XLVI and the “Hut” and “W R” (water race) between points XXV and XXIX. Note the “Hut” on the survey plan is called “Iron Hut” in the field book and a hut called “Browns Hut” is mentioned.

