

**BULLER PLATEAUX CONTINUATION PROJECT,
WESTPORT, SOUTH ISLAND:
ARCHAEOLOGICAL AND HISTORIC HERITAGE
ASSESSMENT
(PART 3 – MOUNT FREDERICK SOUTH)**

Prepared for Bathurst Resource Ltd

May 2026



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INTRODUCTION

Project Background

Bathurst Resources Ltd (including subsidiary companies, Bathurst Coal Ltd, and Buller Coal Ltd) and joint venture partner BT Mining Ltd (collectively referred to as Bathurst) is seeking authorisation through the Fast-track Approvals Act 2024 (FTAA) to progress the development and mining of coal resources across the wider Buller Plateaux, known as the Buller Plateaux Continuation Project (the Project or BPCP).

The Project covers areas across both the Denniston Plateau and Stockton Plateau, collectively referred to as the Buller Plateaux, located approximately 15km northeast of Westport on the West Coast of the South Island. The Project covers five Project sub-areas: Stockton (including the Ngākawau Coal Handling Facility and Aerial Ropeway); Mount Frederick South; Escarpment Extended; the Upper Waimangaroa Haul Road; and Cypress (Figure 1).¹

Due to the large amount of information discussed, the BPCP Archaeological and Historic Heritage Assessment has been divided into six parts, which cover each of the Project sub-areas, the Discussion and Conclusions of the BPCP Project and an Appendix report:

Part 1. Escarpment Extended (ESE) Project sub-area;

Part 2. Upper Waimangaroa Haul Road (UWHR) Project sub-area and Denniston pest free enclosure fences;

Part 3. Mount Frederick South (MFS) project sub-area;

Part 4. Stockton Project sub-area and Stockton pest exclusion fences;

Part 5. BPCP Project Discussion and Conclusions;

Appendix: Historical and Archaeological Background of the Denniston and Stockton Plateaux.

This report is Part 3. BPCP Mount Frederick South (MFS) Archaeological and Historic Heritage Assessment, commissioned by Bathurst and prepared as part of the required assessment of effects accompanying an application under the FTAA, which includes consideration of the heritage provisions of the District Plan (Resource Management Act (RMA)) and the requirement for Authority to modify various archaeological sites under the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA). Recommendations are made in accordance with statutory requirements.

This is an assessment of effects on archaeological and historic heritage values and does not include an assessment of effects on Māori cultural values. It is noted that an assessment of effects on Māori values should only be made by the tangata whenua and this will be provided by tangata whenua as a separate Cultural Values and Impact Assessment. Māori cultural concerns may encompass a wider range of values than those associated with archaeological sites.

¹ Note only continuation of the existing Cypress Mine authorised under existing consents; however Wildlife Act Authorities are required to be renewed, as well as variations to existing conditions to ensure integration with the BPCP.

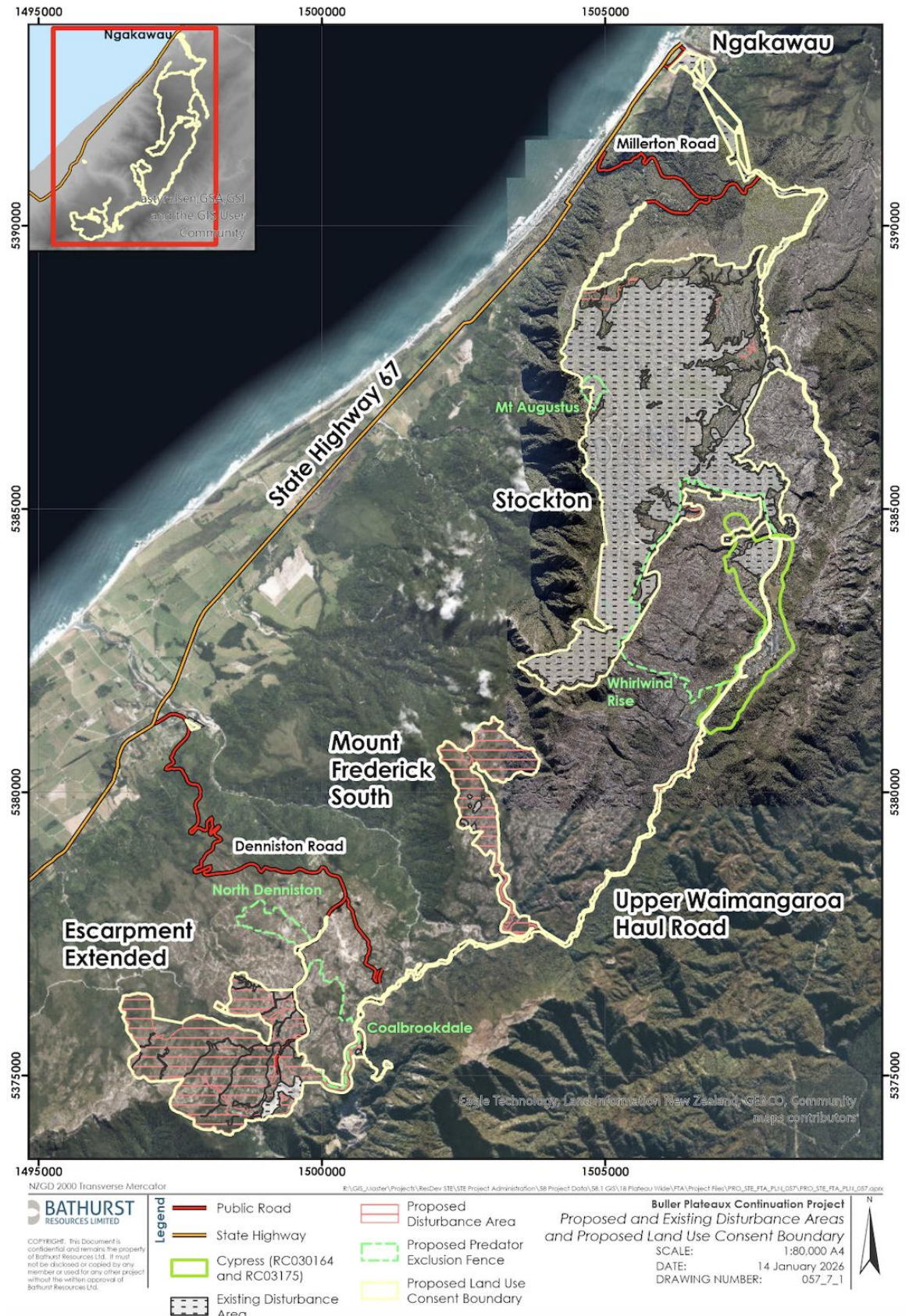


Figure 1. BPCP Project area and the proposed disturbance and consent areas, including the MFS Project sub-area (source: Bathurst)

Methodology

There has been a great deal of previous historical research, archaeological survey and assessments carried out on the Denniston and Stockton Plateaux, which is summarised in the accompanying Appendix report: BPCP Historical and Archaeological Background. This references the literature and the numerous archaeological reports relevant to the area that were consulted (see Bibliography) and are a main source of information on the historic heritage and archaeological sites on the Denniston Plateau and within the BPCP Area for this report.

The New Zealand Archaeological Association's (NZAA) site record database (ArchSite), Buller District Plan schedules and the Heritage New Zealand Pouhere Taonga (Heritage NZ) New Zealand Heritage List/Rārangī Kōrero were searched for information on sites recorded in the vicinity.

Visual inspections of the Project sub-areas were conducted by the first two authors in March 2020, November 2024 and April 2025.

MOUNT FREDERICK SOUTH (MFS)

The Mount Frederick South (MFS) Project sub-area is located approximately 1 km southwest of the Mt Frederick mining area at Stockton. This area will be accessed via the proposed UWHR, with a haul road being constructed from the UWHR to reach up into the MFS mine area. MFS will be mined in two pits: West Pit and East Pit. All the area is Crown land administered by LINZ with some perimeter land administered by DOC. (Figure 1 and Figure 2).

There has been historical coal mining activity within the proposed MFS mining area, predominantly by underground means, from the early to mid-20th century.

Proposed Project Summary

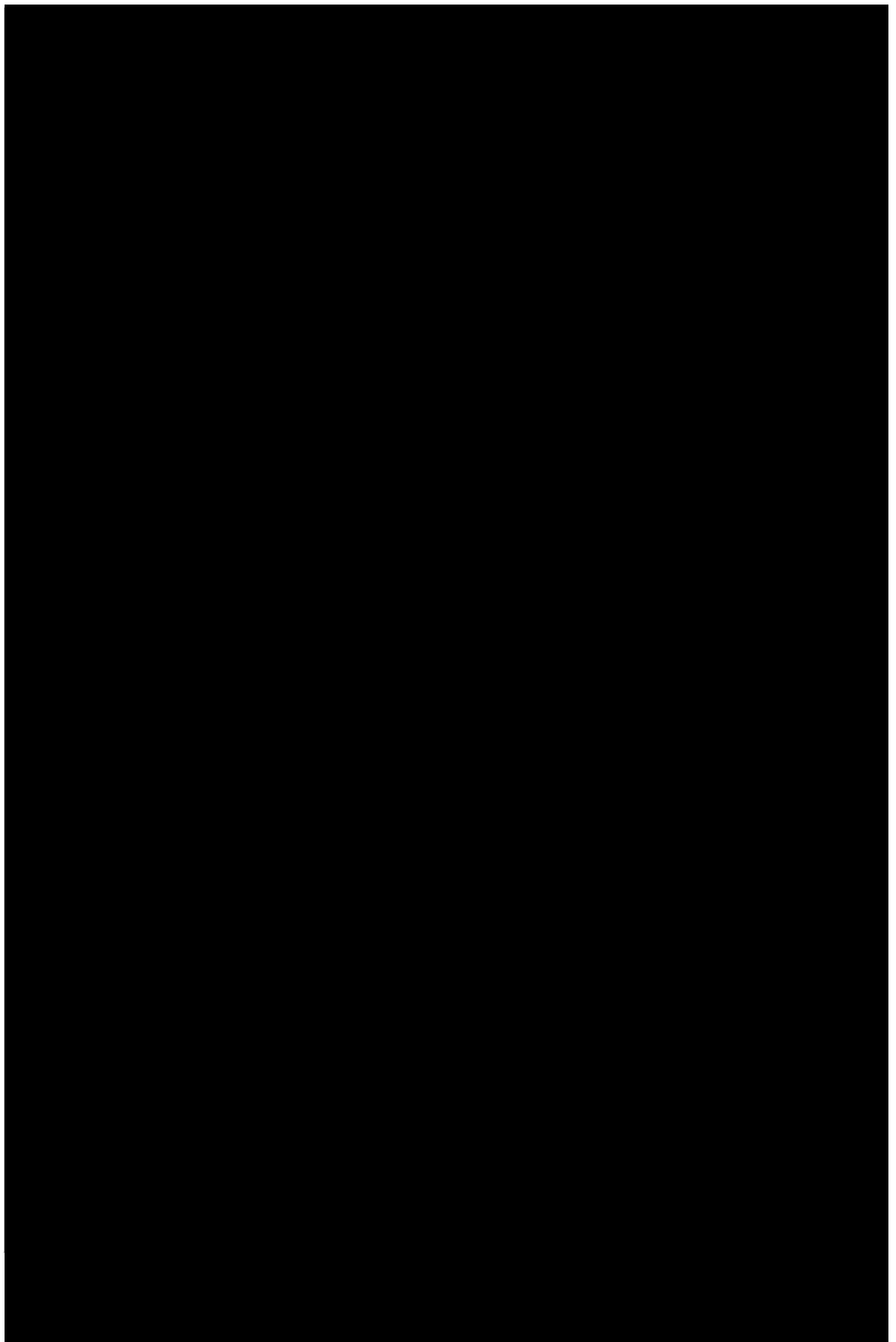
For a detailed description of the ESE project sub-area, please refer to the project description within the Assessment of Environmental Effects provided with the application. The proposed consent and disturbance areas for the MFS Project sub-area is shown in Figure 3.

The total consenting footprint of the MFS Project sub-area is 216 ha, with 6 ha of existing disturbance and a planned 170 ha of disturbance. A further 41 ha is included within the consent area.

The consent boundary sought for MFS is larger than the design disturbance footprint to allow for flexibility during development. A 20m offset has been provided around most pit areas to allow for adjustments of the disturbance footprint where topography is challenging and field assessments are required.

The MFS mine development includes the following elements (Figure 3):

- Main access road from the UWHR, including a bridge over Deep Creek and a culvert across the Waimangaroa River;
- Small Infrastructure area;
- Water treatment facilities;
- Haul roads between mine elements;
- Mine Pits – East and West;
- Overburden Engineered Landforms (ELFs)
- Coal Stockpile transfer area;
- Water management, sumps, culverts, diversion drains and channels.



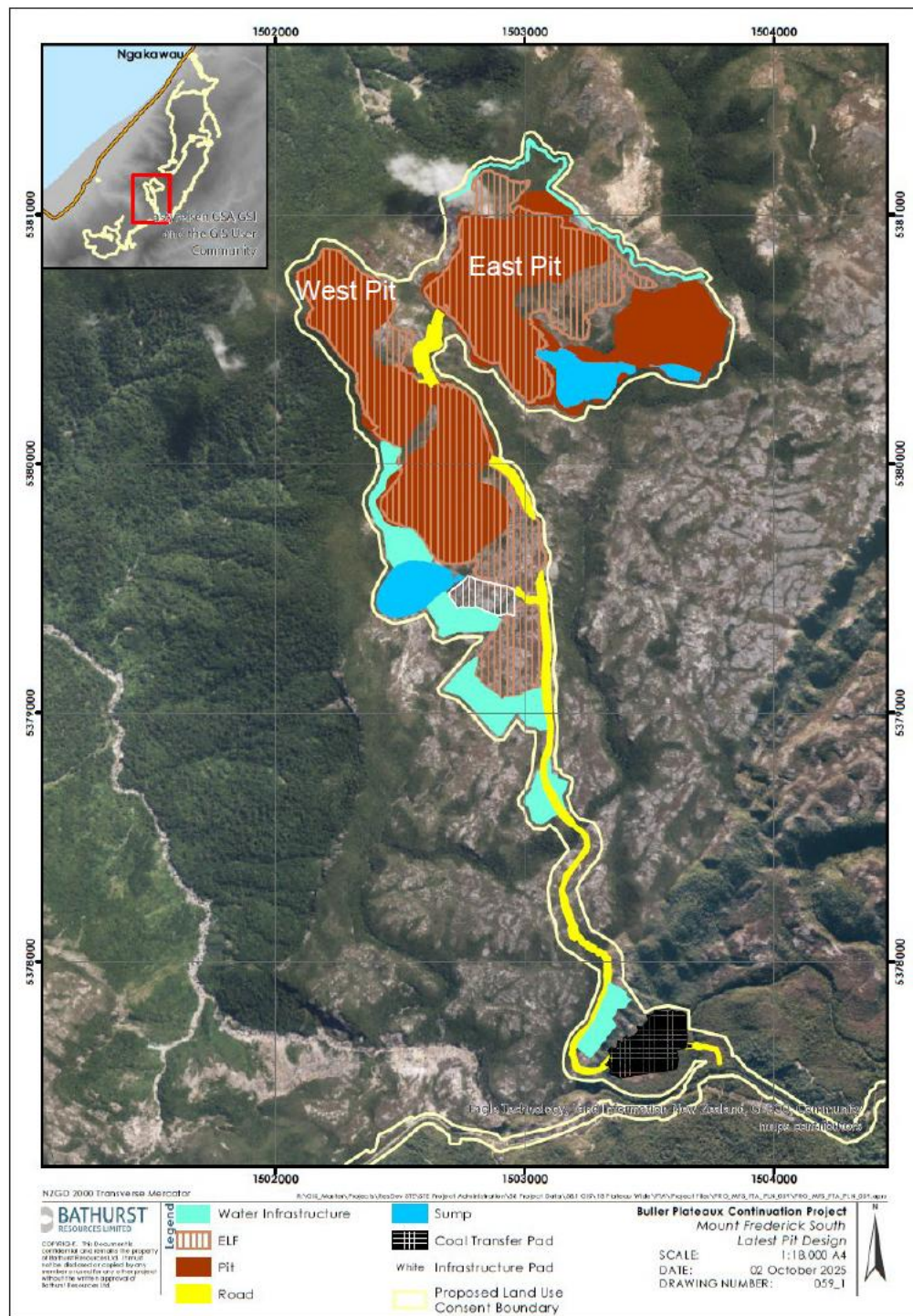


Figure 3. MFS Project sub-area disturbance footprint and pit design, and proposed consent boundary (source: Bathurst)

MFS Access Road

Access to MFS is via the UWHR from Cypress pit and follows a proposed southern access road. The southern access road will be developed primarily in cut to reduce erosion and disturbance and will run from the southern end of the West Pit due south to the UWHR. This access will enable coal to be transported to the Stockton mine infrastructure for processing.

The design incorporates the following parameters:

- Length is 3.4km, suitable for small haul style vehicles single lane traffic with passing bays.
- Width is approximately 10m up to the mine area.
- There will be a drainage channel on both sides, with safety berms.
- Cut volume is 225,000 bank cubic metres (BCM) with minimal fill, cut material is utilised to construct a Run of Mine (ROM) intermediate stockpile pad.

The aggregate / roading materials will be sourced from rock from either the existing Stockton A Drive or Escarpment borrow pit locations.

There are three main water crossings for this road – Waimangaroa River crossing (box culverts; Deep Creek Tributary crossing (culvert) and Deep Creek crossing (48-50m single span bridge).

Coal mined at MFS will be transported to the Stockton Project sub-area via the Upper Waimangaroa Haul Road (UWHR)² for washing, processing and blending as required at the Coal Handling Processing Plant (CHPP), before being transported via the 2-5 haul road and aerial ropeway to the Ngakawau Rail Loadout.

Infrastructure and Facilities

Mining in the MFS Project sub-area will largely be integrated with the Stockton and ESE operations, with minimal semi-permanent infrastructure located at the site.

There will also be a coal transfer stockpile. This will be located on an ELF that is proposed to be located on the western banks of the UWHR, where the MFS site access joins the UWHR, as shown on Figure 3 above. The ELF will be created for the storage of excess cut material produced in construction of the access road into MFS and will create an engineered platform of ~4 ha surface area.

Mine Pit Development

There will be progressive disturbance of the MFS Project sub-area from the south to the north into the West Pit and then east into the East Pit. This is indicative of the initial soil stripping activities that occur before infrastructure, water structures, roads, pits or ELFs are constructed.

Development of the MFS project area will begin with site works for the development of the MFS access road and supporting facilities, starting from the bottom at the UWHR intersection, working up towards the West Pit. In Stage 1, the soil stripping and ground prep is the predominant activity.

² Refer to Part 2 of the BPCP Archaeological and Historic Heritage Assessment

Mining (Stage 1 – 7 West Pit)

The mining method is conventional drill and blast, load and haul, small scale surface mining. This utilises 90 to 120 tonne backhoe excavators paired with 40 to 60 tonne ADTs for overburden movement. The coal is loaded using a combination of loaders and backhoe excavators ranging from 40 to 90 t with haulage conducted by 40 t to 60 t ADTs to an interim coal stockpile area, also referred to as the interim ROM stockpile or the coal pad. The interim Run of Mine (ROM) stockpile will utilise the ELF that will be constructed at the flats on the north side of the Waimangaroa river.

Bathurst will begin waste and coal extraction in the south end of the west pit mining from east to west. The first four stages of the West Pit mining will be impacted by underground workings from the historical Taipo Mine and will be navigated utilizing safe work procedures developed from Stockton. These workings are extensive in Stage 1 and are expected to be two levels in some places and a combination of first workings and pillared workings. The old workings are expected to intersect with final pit walls and will be sealed to prevent water egress.

Waste stripping will complete the bulk filling of the ex-pit ELF and commence backfilling the pit void. Soil and vegetation stripping will continue over progressive mine stages. Progressive re-shaping, and rehabilitation with either vegetation direct transfer (VDT) or soils from stockpiles or direct from pre-stripping will be carried out where ELFs reach final landform elevations.

As mining in the West Pit continues to progress north. The last of the Taipo mine workings should be dealt with at this point. It is expected that the southern edge of the Koranui mine workings will be encountered in Stage 4. The Koranui mine workings will affect a reasonable portion of the rest of the West pit with both first worked and pillared areas. There will be workings present in the final pit walls.

Mining (Stage 8 – 13 East Pit)

Soil and vegetation stripping will continue with pre stripping of the Stage 8 footprint and breaking ground in the East pit.

Mining in the west pit is completed, as the final waste and coal is removed from the North. The last of the Koranui mine workings will be exposed, with any workings exposed in the final pit walls to be sealed to prevent mine affected water from exiting the pit. Initial coal and Waste stripping from the East Pit commences in the central West section of the pit. There are no historical mine workings in the East pit. All waste for this stage is placed in the in-pit ELF in the West Pit Void.

Mining continues in the East Pit with an expansion to the North and South of the original break in and then to the Northeast and South-Central region of the pit heading east.

Water Management and Treatment

The purpose of water management at MFS is to capture and treat sediment and AMD from historic and planned mining activities to meet resource consent compliance limits prior to release back to natural catchments. There are two main mine sumps planned to support water management activities, one positioned south of the West pit and one at the low point in the East pit.

HISTORICAL BACKGROUND

The history of European coal mining on the Denniston Plateau is extensive and has been outlined in detail elsewhere.³ Coal mining on the plateau began in the 1870s and has continued until the modern day, gradually spreading out across the plateau.

There has been a great deal of previous historical research, archaeological survey and assessments carried out on the Denniston and Stockton Plateaux, which is summarised in the accompanying Appendix report: BPCP Historical and Archaeological Background. This references the literature and the numerous archaeological reports relevant to the area that were consulted (see Bibliography) and are a main source of information on the historic heritage and archaeological sites on the Denniston Plateau and within the BPCP area for this report.

The Appendix report should be read in conjunction with this assessment report.

³ Particularly HNZPT NZ Heritage List # 7049 <https://www.heritage.org.nz/the-list/details/7049>; Wright 2001; Watson and Wright May 2004; Petchey 2007. Also see Bibliography.

ARCHAEOLOGICAL BACKGROUND⁴ AND EFFECTS ON HERITAGE SITES

The MFS Project sub-area of the plateau was previously mined for coal in the late 19th century (1880s) at the Koranui Mine and in the early to mid-20th century at the Taipo Mining area, which was worked and accessed from the 1920s to the 1940s as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings (1901-1921) of the Iron Bridge Mine.

There have been several previous archaeological studies within the MFS Project sub-area. The Koranui Mine and Incline and Taipo Mining area were first recorded as part of the ‘Coalfields Park Report’ (Sumner and Sumner 1983) and by Les Wright for the Denniston Concept Plan (2001).

In 2009 Katharine Watson undertook a detailed archaeological survey of the Koranui Incline for Solid Energy Ltd, who were undertaking a drilling programme in the area (Watson Dec 2009). This survey work also extended from the top of the incline to the main mine drive but did not include the remaining area of mining to the east.

Archaeological survey of the MFS Project sub-area was conducted by the first two authors in November 2024 and May 2026.

Recorded Archaeological Sites

As a result of previous archaeological studies three heritage sites/areas are recorded within the MFS Project sub-area – the Koranui Incline and Mine (L29/14), the Taipo Mine (L29/100) and the Kiwi Mine (L29/101) (see Figure 4 and Table 1).

Table 1. Archaeological and other historic heritage sites recorded within and in the close vicinity of the MFS Project sub-area. Sites that will be affected by the project are highlighted grey

NZAA Site No.	District Plan ref	Wright (2001) ref ⁵	Site Type	Name	NZTM Easting	NZTM Northing
L29/14		98	Mining - Coal	Koranui Incline and Mine	E1501645	N5380730
L29/100		95, 96, 97	Mining - Coal	Taipo Mine (Kiel’s Flat and Brake Foundation) and Rope Road	E1502576	N5379505
L29/101		92, 93	Mining - Coal	Kiwi Mine – Fan House and Compressor		

⁴ Refer to the accompanying Appendix report for greater detail on the archaeological background of the wider Project area.

⁵ Refer Figure 7 of the accompanying Appendix report: BPCP Historical and Archaeological Background.

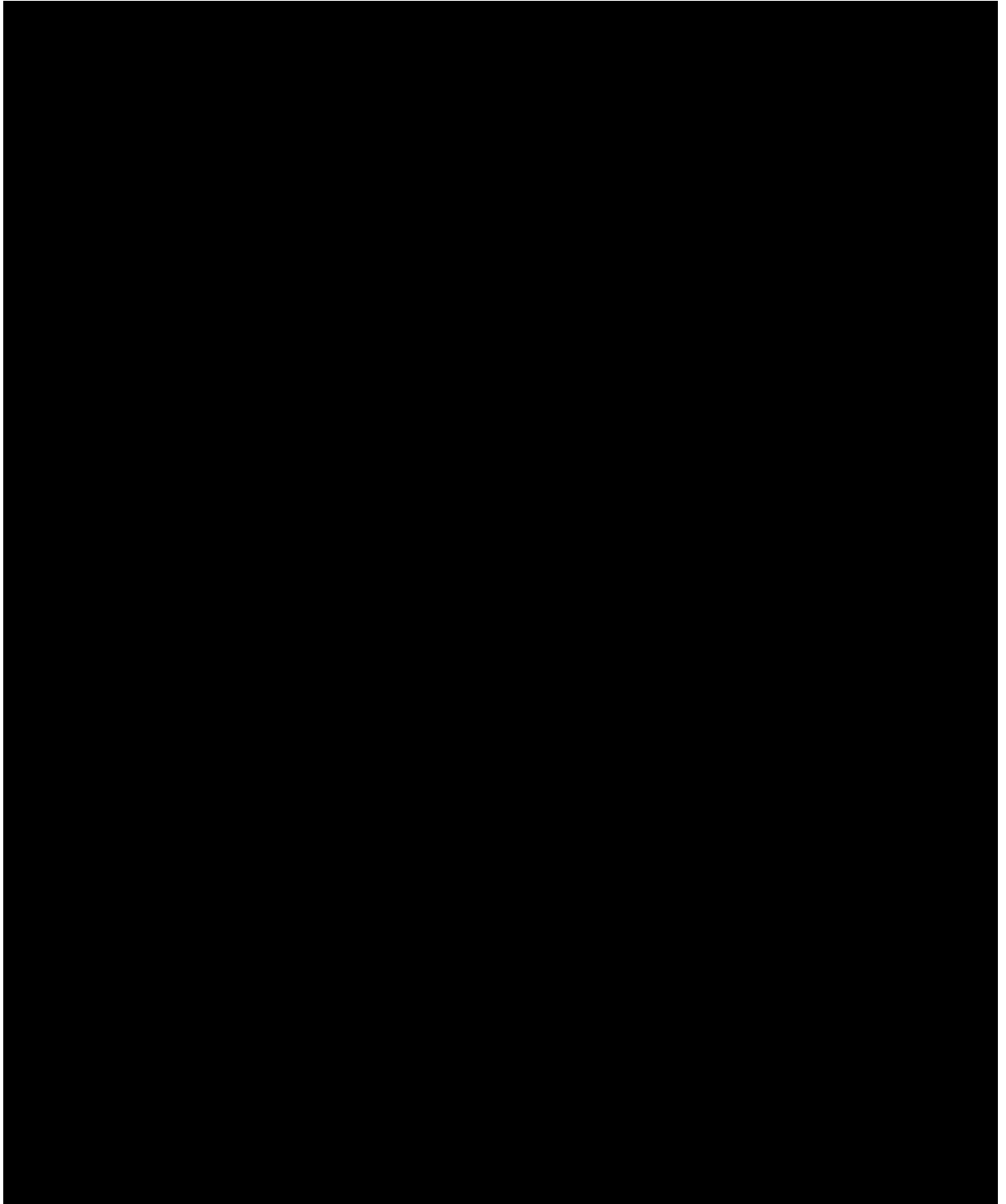


Figure 4. The location of the Koranui Incline, Tramway and Mine (L29/14), Taipo Mine (L29/100) and Kiwi Mine (L29/101) with underground mine workings (black hatching) and recorded heritage features (refer Table 3 and Table 4) within and in proximity to the proposed MFS and Access Road

Koranui Mine and Incline (L29/14)

The Koranui Mine and Incline dates from the late 1870s when construction of the tramway on the Koronui Incline was initiated and development of the Koronui Mine began in the 1880s on the flanks of Mt Frederick. The Koranui Mine and its incline were a short-lived affair, but its assets, were to become an important bargaining chip between the Union Steam Ship Company and the Westport Coal Company.⁶

Archaeological Background

The Koranui Mine and Incline has been entered into the NZAA ArchSite database as L29/14. During their survey the Sumners walked the incline (from the bottom up) and recorded those features found on it (Sumner and Sumner 1983). This survey does not appear to have been as detailed as other surveys they undertook as part of the 'Coalfields Park Report' and contains no photographs of the incline at that date, and little information about feature associated with the incline (Watson Dec 2009:6).

However, in 2009 Katharine Watson undertook a detailed archaeological survey of the Koranui Incline for Solid Energy Ltd who were undertaking a drilling programme in the area (Watson Dec 2009). This survey work extended from the top of the incline tramway to the main mine drive and ventilation shaft but did not include the remaining area of

The remains of the Koranui Mine consisted of the main drive, several other portals and the air shaft. The main drive was at the top of the horse tramway and connected to the tramway via a cutting. Five other portal entrances were found below the main drive. Most of these portals were associated with the tramway, rather than the incline, and all were on the uphill side of the incline or tramway (Watson Dec 2009:23).

Two of these portals had small cuttings linking them to the transport network, one to the tramway and one to the incline. These portals are no doubt some of the failed drives the Mines Inspector referred to being abandoned in 1883 (AJHR 1883 H11: 8). The *Grey River Argus* (13 Oct 1884) was somewhat more scathing about the number of drives put in at Koranui when it published the following comment:

⁶ For more detailed historical background to this site see the accompanying Appendix report: BPCP Historical and Archaeological Background.

‘By the time prospectors have had enough of the Koranui hill it will have been more extensively honeycombed than it is at present — and it would not be easy to say at once how many abortive tunnels have been entered, or thousands sunk on that bewildering and costly hill. Immortal honor [sic] awaits the genius who shall discover how to send coals down from the clouds as economically as they can be drawn up from the bowels of the earth — and no doubt fortune as well as fame. At Westport he may find both.’

This comment was made in relation to the news that Captain Williams had let a contract for putting in a small drive, indicating that it was not just the Koranui Coal Mining Company that put in these abandoned drives.

Some of the abandoned drives may have connected with the main workings and thus provided some ventilation. The chief means of ventilation appears to have an air shaft, which was being sunk in January 1884 (AJHR 1884 C5: 9). An air shaft was found approximately 150m to the northeast of the main portal and may have been that sunk in early 1884 (Watson Dec 2009:23).

In 2009 Watson recorded that the cutting to the main drive was approximately 15m long and was 3.4m wide at the base. There were several mine props in the cutting and other artefacts were found below the head of the incline. These included the remains of coal tubs, wire ropes, a large beam with bolts in it and other unidentified pieces of metal. In this area the coal tubs would have been hitched to horses, which would then have pulled the tubs to the top of the incline (Watson Dec 2009).

Table 2 lists the heritage features recorded by Watson along the Koranui Incline tramway in proximity to the MFS Project sub-area and Figure 6 shows these features on an early mining plan in relation to the extent of the Koranui Mine historic underground workings and the proposed MFS West Pit.

error	Description
7m	Ventilation (air) shaft.
13m	Main portal, now collapsed. A cutting leads to the portal. Mining props along it in the cutting. Cutting 3.4m wide at base (but has collapsed) & approx. 15m long.
13m	Mouth of cutting.
13m	Coal tub remains below the incline. Also a large beam with bolts in it and various other pieces of metal. Wire rope nearby - 17mm and 32-33mm diameter.
24m	Incline tramway - near mouth of cutting.
12m	Incline tramway in cutting.
12m	Other end of cutting.
14m	The incline tramway is on a benched formation, which widens out. There are in situ sleepers with dogs near the edges.
9m	The remains of an embankment on either side of a natural stream. There is a timber frame, metal artefacts and a pulley on the true left of the stream.
12m	The centre of a short cutting (7-8m long). The embankment has slumped between 872 and 873 - can see dislodged sleepers.
10m	The centre point of another cutting (5-6m long). The outside edge is less than 1m high.
10m	A portal above the incline. This is collapsing inside.
10m	Mouth of cutting leading to another portal above the incline.
13m	Collapsed portal.
14m	Incline.
17m	Corrugated iron sheets on the incline.
14m	Brake. The incline broadens out into a terrace.
14m	Mouth of portal on terrace 880.
11m	Brick chimney on terrace 880. There is corrugated iron scattered around here.
9m	Incline is 2.5m wide.

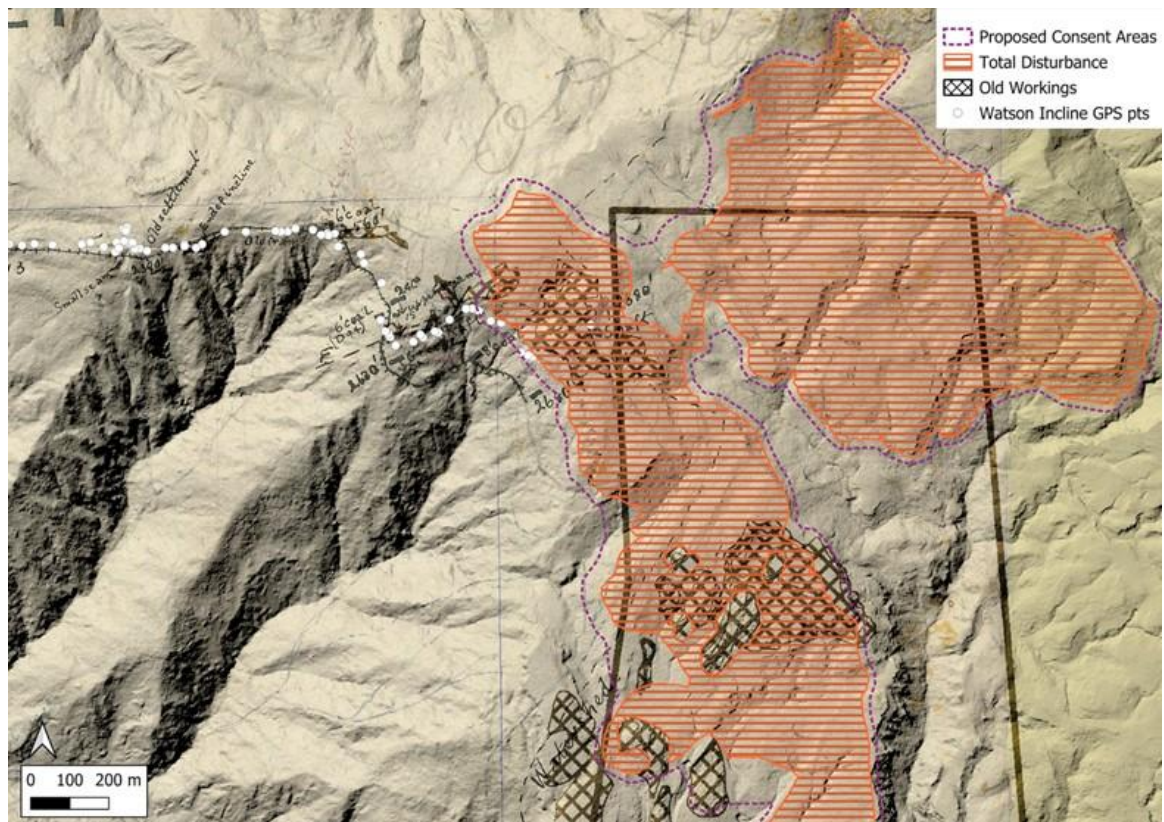


Figure 6. Overlay of the ‘Kawatiri District South East Sheet’ (unknown date) showing the top of the Koranui Incline and tramway with associated main drive and portals, and the extent of the Koranui Mine historic underground workings (black hatching)

The waypoints recorded by Watson Dec 2009 (white dots) show the true alignment of the Koranui Incline and tramway in relation to the proposed MFS West Pit (orange hatching). Note the black straight lines are Exploration and Mining Permit Application boundaries.

Field Survey

The proposed MFS Project sub-area extends into the eastern extent of known historic underground mining areas associated with the Koranui Mine within the West Pit (see Figure 4). This area had not previously been surveyed and was not part of the Watson 2009 survey work, which only extended from the top of the Koranui Incline to the main mine drive.

Field survey of the proposed MFS Project sub-area was carried out by the first two authors and Bathurst staff in November 2024 and May 2026. Bathurst provided LiDAR and georeferenced plans of the known extent of historic underground workings of the Koranui Mine into the Avenza Maps app and the use of GPS, which were used to focus survey.

The upper Koranui mining area is covered in thick regenerating native bush, ground plants and moss, making ground visibility almost impossible (Figure 7 - Figure 9). The extent of collapsed underground workings and the terrain made the identification of early mining features extremely difficult. However, several mining features were identified (Figure 10).

Table 3 describes the heritage features (143–153) identified within proposed MFS West Pit associated with the Koronui Mine, which are located on Figure 13.

Given the survey conditions it is highly likely that similar mine portal or mine subsidence pot-hole features associated with the Koranui Mine in addition to those listed in Table 3 will be located within and will be impacted by the proposed MFS Project sub-area.

South-west of the mining area the Koranui Incline horse tramway cutting was relocated. At the eastern end of the tramway an approximately 15m long cutting leads to the main drive, whose portal entrance is collapsed (Figure 11 and Figure 12). A pile of coal debris sits at the entrance to this drive. From the main drive travelling along the tramway alignment other portal entrances were found above the incline on the uphill side of the tramway cutting. Two small terraces were also located above and beside the tramway, one with scattered iron remains, which may have been where buildings were located.

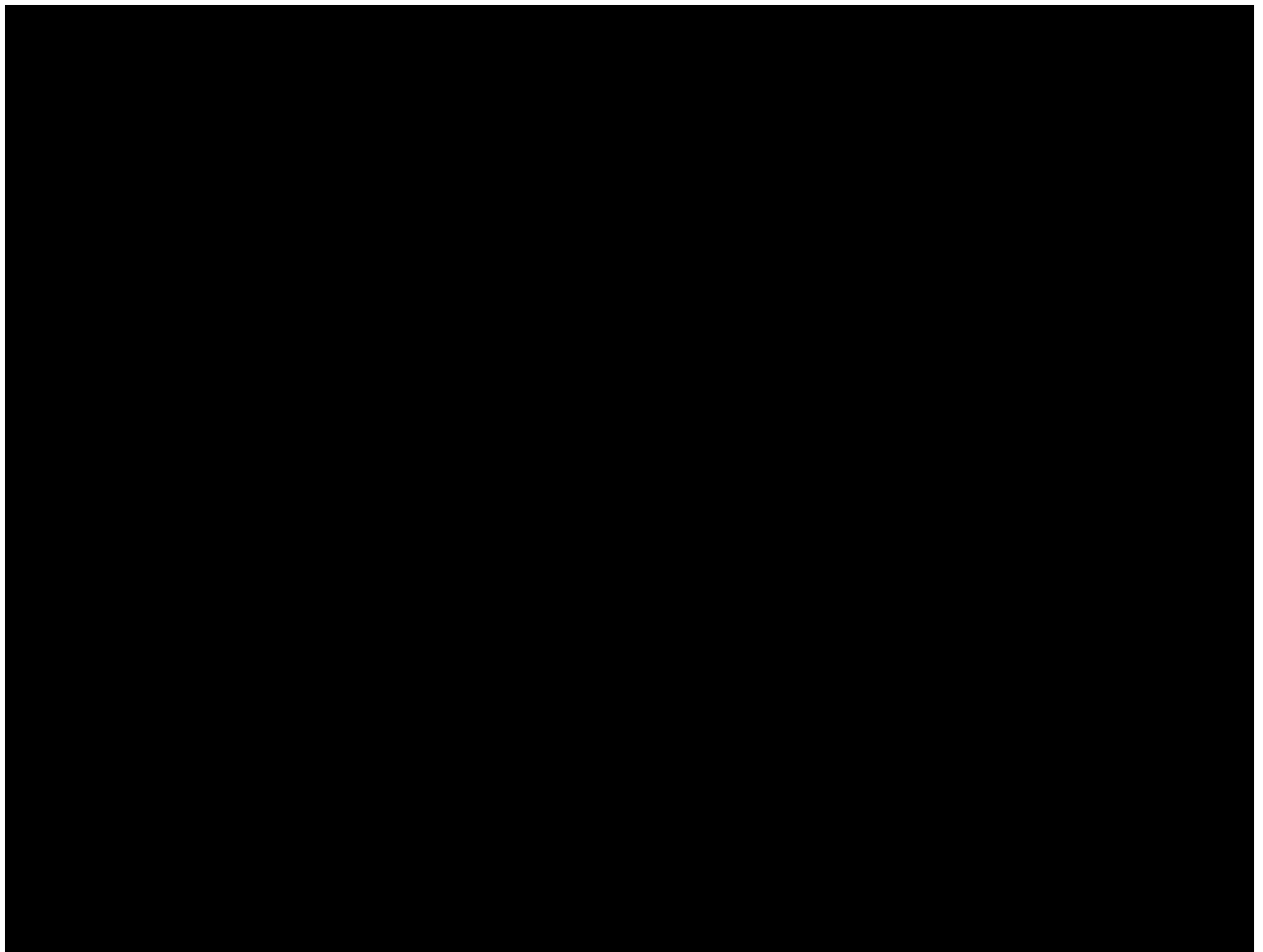




Figure 8. Looking east over the Koranui Mining area on the high plateau of Mt Frederick



Figure 9. Typical terrain and vegetation coverage within the Koranui Mining area of the MFS Project sub-area



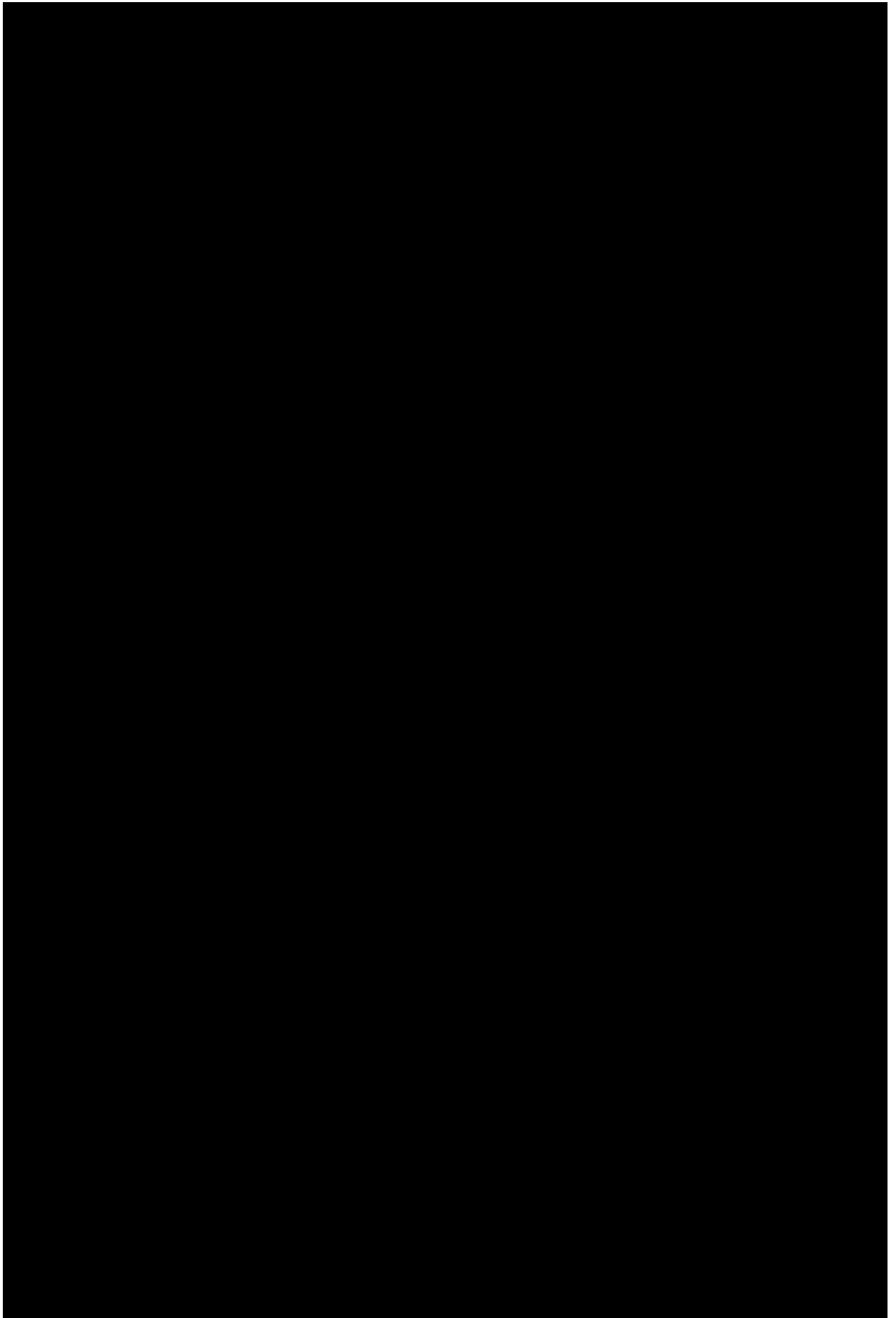
Figure 10. A mine portal or mine subsidence pot-hole (Feature 146) within the Koranui Mining area



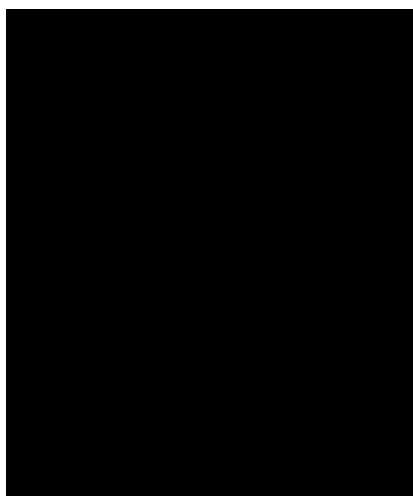
Figure 11. The collapsed entrance to the main drive of the Koranui mine at the top of the horse tramway. Coal debris is piled in front of the entrance



Figure 12. Looking along the tramway cutting to the main drive of the Koranui Mine



Description
Possible continuation of track 152
Top section of a track heading at 230 degrees downhill. Track runs between two areas of historic underground mining associated with the Koranui Mine
What appears to be a track running along the bottom of the cliff face near Feature 150 at the Koranui Mining area
Possible collapsed mine portal or mine subsidence pot-hole with a stream running out of it at the Koranui Mining area
Possible collapsed mine portal or mine subsidence pot-hole in a small cutting on the edge of an area of historic underground mining associated with the Koranui Mine. Coal debris at its opening
Possible collapsed mine portal or mine subsidence pot-hole at the end of a cutting into the hillside in a 240-degree direction. Coal debris surrounding
Collapsed mine portal or mine subsidence pot-hole in the edge of a stream bed in a 240-degree direction – 1.5m high x 2-3m wide. Sides under-cut. Coal seam and debris at its entrance. Possible timber struts visible within the portal
Hard rock mine portal entrance approximately 5m wide in the true right bank of a small stream gully. A partial roof collapse has blocked the entrance with large sandstone boulders. Possible timbers inside See Figure 10
Collapsed mine portal in the true right bank of a small stream gully
Collapsed mine portal or mine subsidence pot-hole in the true left bank of a small stream gully opposite Feature 143. Located up a 30m long cutting
Collapsed mine portal 2m high x 10m wide in the true right bank of a small stream gully. Potentially doglegs each side to the left and right inside entrance
At the eastern end of the tramway an approximately 15m long cutting leads to the main drive, whose portal entrance is collapsed. A pile of coal debris sits at the entrance to this drive.
Terraces above the tramway cutting
Portal



Description
Portal
Terrace beside the tramway with iron remains
Portal
Top of top incline section

Effects of the MFS Proposal

The MFS Project sub-area will impact on historic underground workings and numerous mine drives and tunnels associated with the Koranui Mine that were reported to ‘honeycomb the Koranui Hill’ (see

Table 3, Figure 13 - Figure 15). Recent field survey identified a number of these mining features within the proposed areas of disturbance. However, given the difficult survey conditions it is highly likely that additional similar historic mining features and subsidence impacts/effects associated with the Koranui Mine will be located within and will be impacted by the proposed MFS Project sub-area.

An overlay of waypoints from the 2009 survey of the Koranui Incline and recent field survey indicates that the heritage features associated with the Koranui Mine that will also be impacted include the ventilation (air) shaft and likely the main drive portal at the top of the horse tramway and connected to the tramway via a cutting (Feature 154), part of the tramway cutting/embankment, terraces above the tramway cutting and associated artefacts (Feature 158) (see Table 3). All of these features affected appear to be located within LINZ owned land on the border of DOC conservation land.

This equates to the majority of the Koranui Mining area, excluding the Koranui Incline and the majority of the tramway. These mining remains date to the 1880s and accordingly there is a statutory requirement for Bathurst to apply for an archaeological Authority before commencing construction and mining.

The proposed MFS Project sub-area will not impact on the Koranui Incline, which is located west and outside the area of proposed disturbance.

Underground workings

The MFS will rework and destroy the majority of the Koranui Mine underground workings. As these underground workings date from the late 19th century they are not as well recorded on mining plans as more recent mining areas. Plans do, however, show several different areas of upper and lower underground workings scattered across the Koranui Hill. These include first worked lower ‘bord’ (cut tunnels) and coal columns ‘pillar’ workings and upper primarily ‘pillared’ workings where the pillars have been removed to maximise extraction (Figure 14 and Figure 15). The main shaft and ventilation shaft are also identified on the 1885 Koranui Coal Mine plan (Figure 14), but no other identifiable features of interest.

It is expected that the southern edge of the Koranui mine workings will be first encountered in Stage 4 of the West Pit and then through a reasonable portion of the rest of the West pit

with both first worked and pillared areas. There will be workings present in the final pit walls. There are no historical mine workings in the East pit.

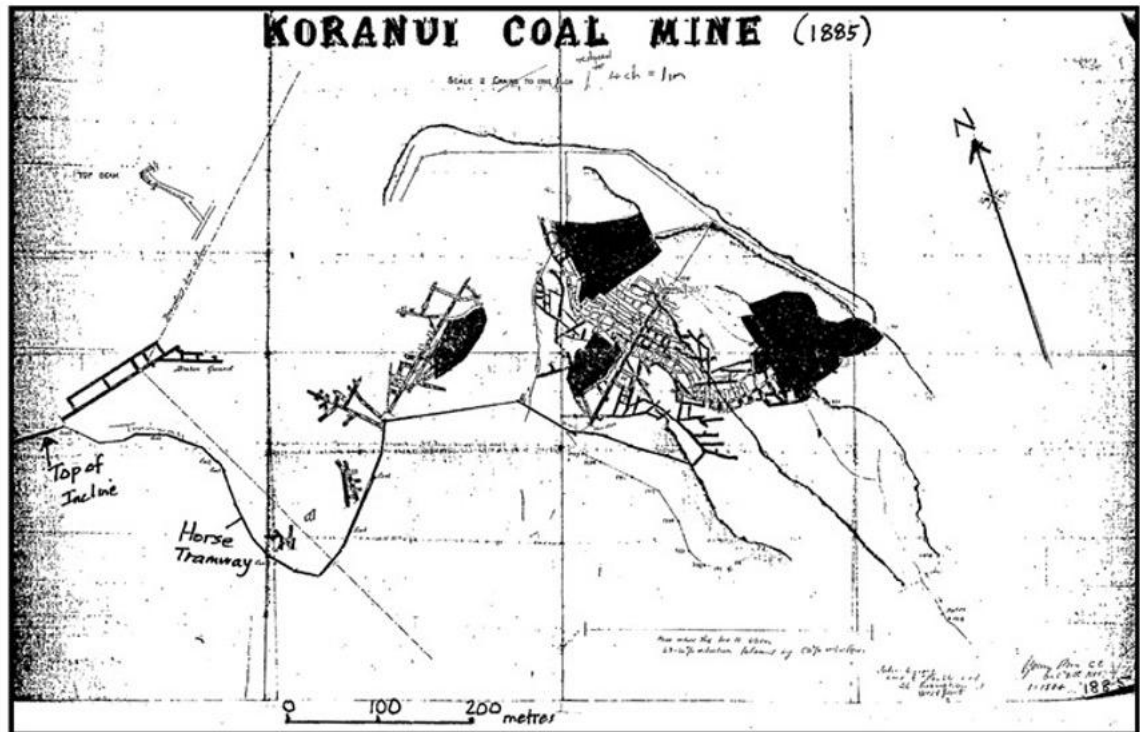


Figure 14. 1885 map showing the Koranui Coal Mine, top of the Koranui Incline and the Horse Tramway to the mines (source: Solid Energy)

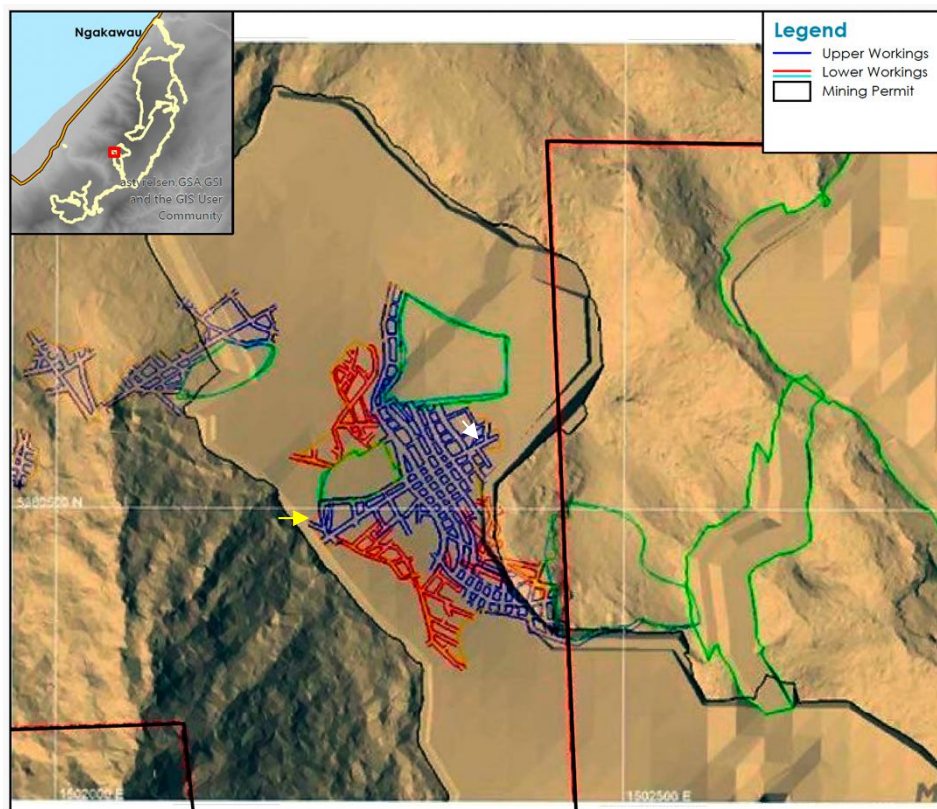


Figure 15. Mt Frederick South: West Pit overlaid on the Koranui historic upper and lower underground mine workings. The arrows indicate shaft locations – main portal (yellow) and ventilation shaft (white) (source: Bathurst – overlay of 1885 Koranui Coal Mine plan))

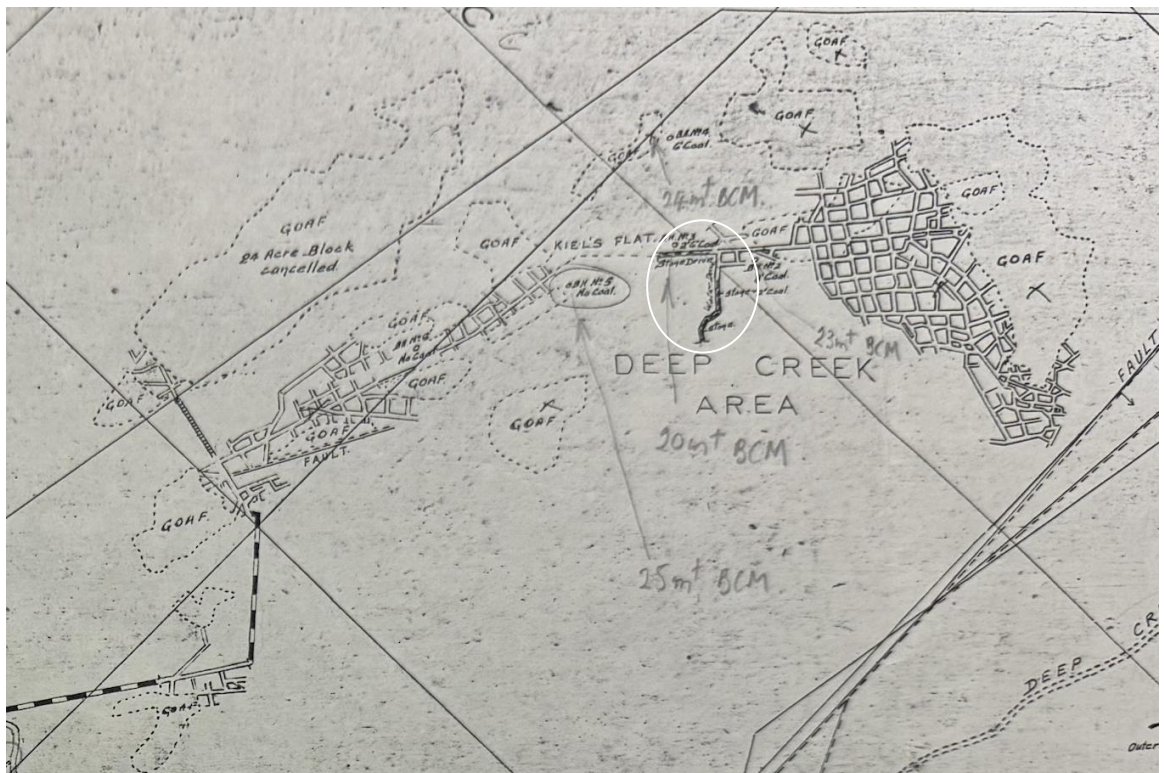
Taipo Mine (Deep Creek) (L29/100)

Taipo is the local name of the mine workings across (north of) the Waimangaroa River on the flank of Mt Frederick. This mine was worked and accessed from the 1920s to the 1940s as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine (Figure 16).⁷

Archaeological Background

The Taipo Mine has been entered into the NZAA ArchSite database as L29/100. The historic workings associated with the Taipo Deep Creek Mine were recorded as part of the ‘Coalfields Park Report’ written by Sumner and Sumner (1983). They described that from the Waimangaroa River north you could follow the route of the rope road that transported coal from the Taipo Mine to the Iron Bridge rope road, which took it to the main rope road system. Beside the rope road they recorded tunnels, shafts, stream diversions and assorted machinery remnants (Sumner and Sumner 1983) (Figure 18 and Figure 18).

Subsequently, Wright’s (2001) Denniston Concept Plan recorded the Taipo Mine and Rope Road. No detailed survey of individual heritage features associated with the Taipo Mine area has previously been carried out due to the inaccessibility of this area.



⁷ For more detailed historical background to this site see the accompanying Appendix report: BPCP Historical and Archaeological Background.

Figure 16. Detail from mining plan of the Deep Creek – Taipo Mining area including the Stone Drive and drainage stone drive (circled), Kiel's Flat, rope road and underground workings (source: Main Lease Iron Bridge (Jul 1945) State Coal Mines Survey Office, Granity, Bathurst Archives S00014403 / 04-01-012)

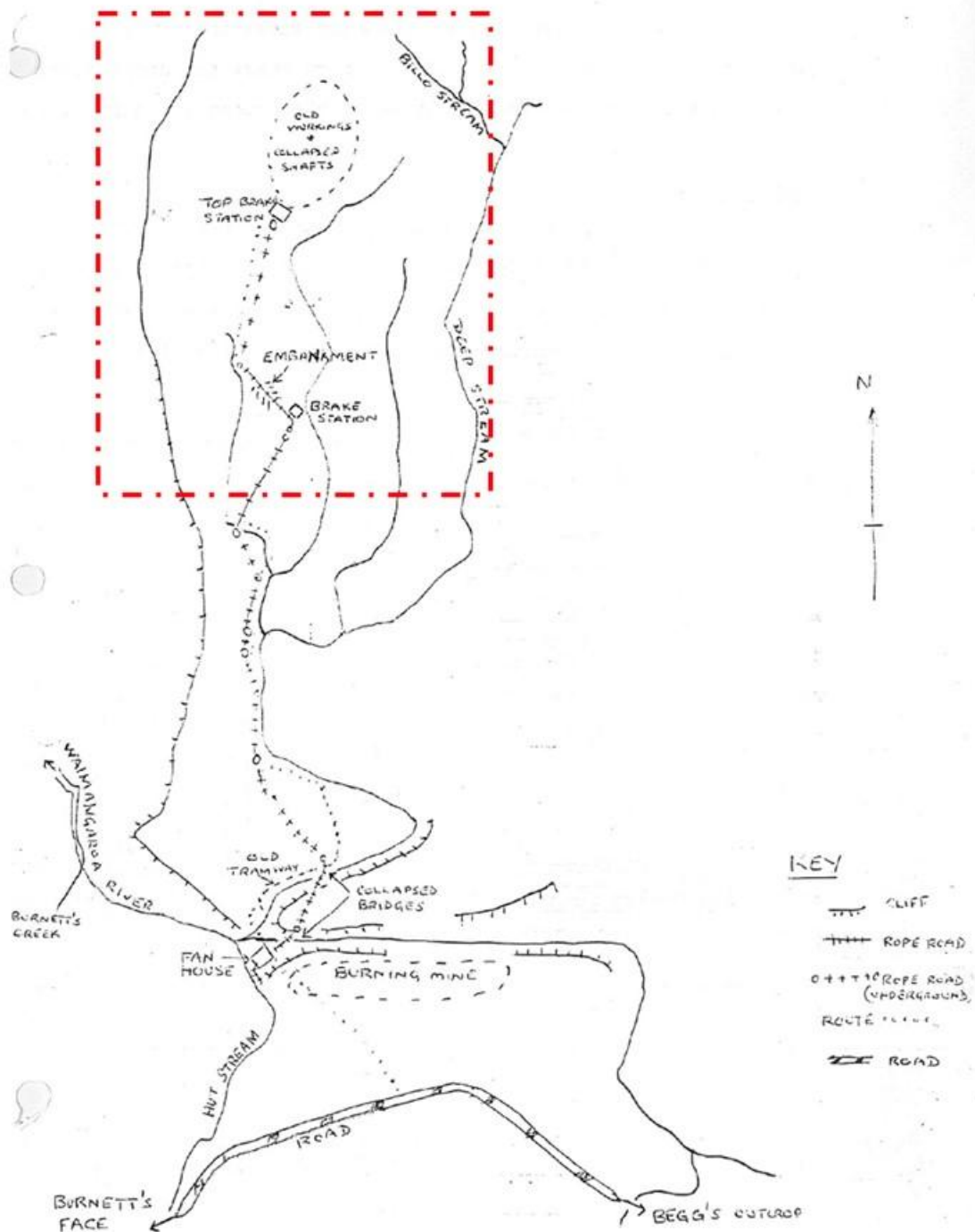
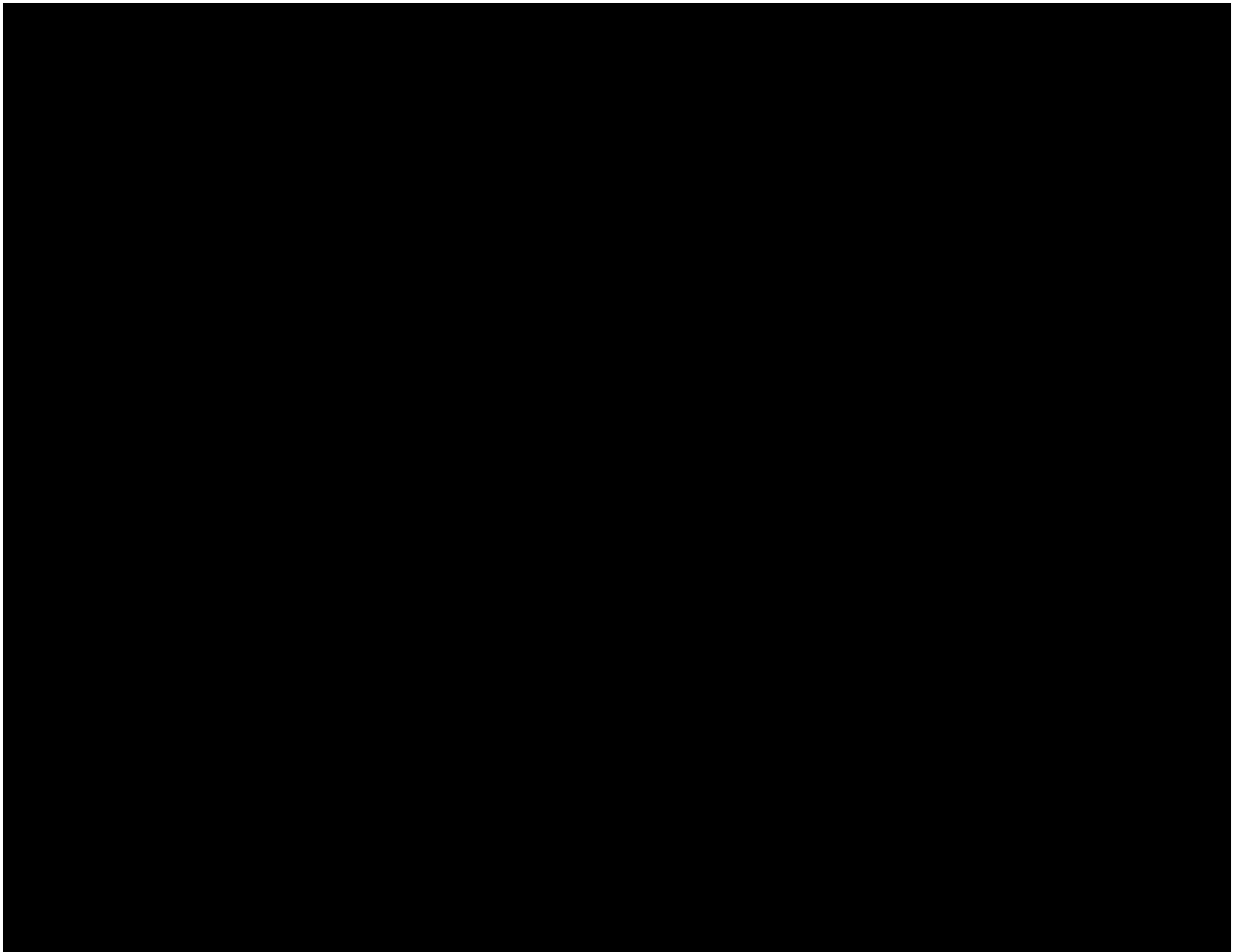


Figure 17. The remains of the Iron Bridge (Burning) Mine and Taipo Mine. The approximate extent of the proposed Mt Frederick West Pit mining area is outlined in red (source: Sumner and Sumner 1983:131)



Field Survey

The proposed MFS Project sub-area covers the majority of known historic underground mining areas associated with the Taipo Mine within the West Pit (see Figure 4).

Field survey of the proposed MFS Project sub-area was carried out by the first two authors and Bathurst staff in November 2024. Bathurst provided LiDAR and georeferenced plans of the known extent of historic underground workings of the Taipo Mine into the Avenza Maps app and the use of GPS, which were used to focus survey.

The terrain on the southern flank of Mt Frederick consisted of typically dissected coal country with stunted coal measure vegetation and rocky open country as you ascended higher. Numerous 20th century mining features were identified during the survey, located on the georeferenced maps and by GPS waypoints and field sketches made (Figure 19 and Figure 21).

Figure 13 and Table 4 locate and describe the heritage features identified within the MFS Project sub-area associated with the Taipo Mine.

The northern extent of the Taipo historic mining area is an excellent example of a large area of collapsed underground shafts, surface subsidence damage (pot holes, cracks, collapsed overburden), mine portals and exposed coal seams. There is little overburden with the coal at a shallow and surface depth, which make it possible to follow on the ground the collapsed lineal pattern of the historic drives with intervening walls still standing between (Features 142–137) (Figure 23 and Figure 23).

South and immediately adjacent is the Top Brake Station, which supported the braking and cable tensioning systems for the Taipo endless haulage rope road, are other scattered mining remains (a collapsed hut site with fallen timbers, corrugated iron, bricks ('Neighbour'), nails, remains of a chimney, various metal debris (Features 136–134) (Figure 19 and Figure 24).

Between the Top Brake Station and Kiel's Flat to the southwest is the remains of the surface rope road/tramway formation built up with coal fines (Figure 25), stacked stone bridge buttresses (Features 132 and 133) (Figure 26), embankments, cleared stone pathways and scattered sleepers and metal debris (Figure 27).

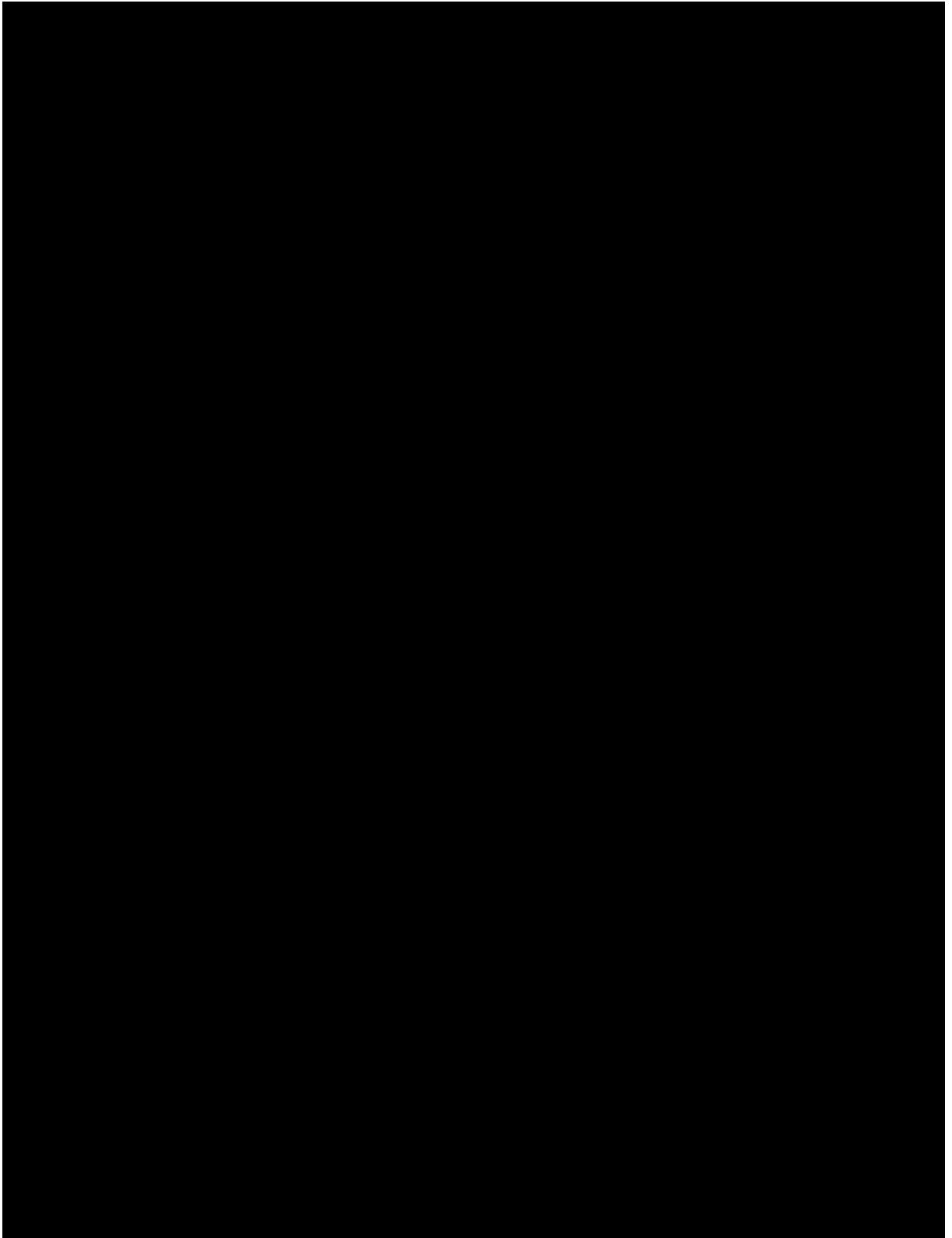
East of Kiel's Flat is the Taipo stone drive consisting of a 35m long x 4m wide open cutting into the rock to the entrance to the portal entrance (Feature 131) (Figure 28). The mine entrance is open and visible inside for approximately 30m. Standing timber struts survive down the centre of the mine, with side bracing timbers on the walls at its entrance.

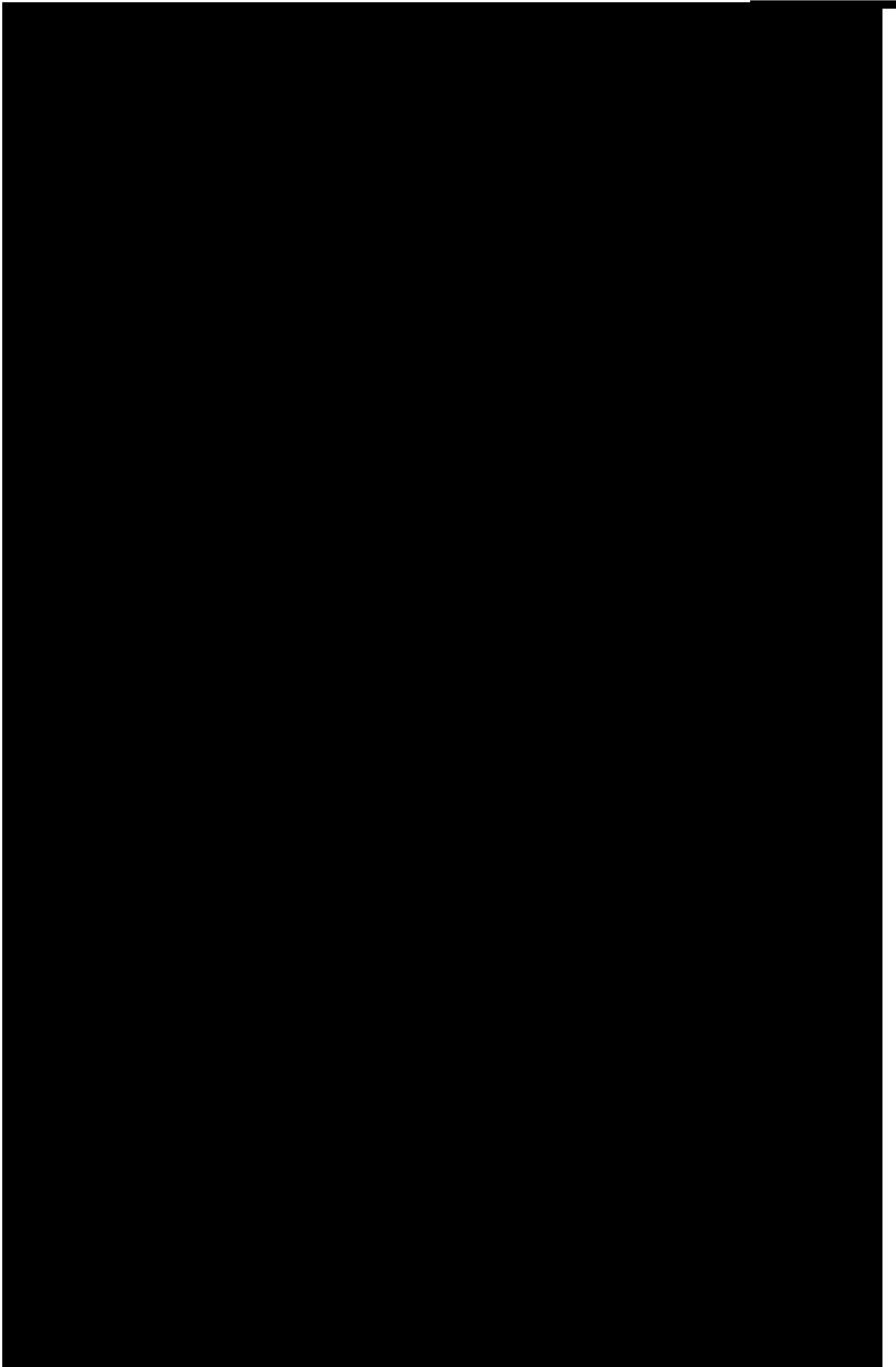
Kiel's Flat is the area with the most prominent and greatest concentration of remnants associated with the Taipo workings (Figure 20). Remains include a Strap Brake Mount frame, collapsed buildings of corrugated iron, shed framing, wooden and concrete foundations, the remains of two brick chimneys, bogey wheels, rails, iron fluming, coal tubs, metal rope, and other debris scattered about (Figure 29 - Figure 33). Kiel's Flat also marks the end of the power line which followed the rope road from Waimangaroa to the Taipo workings up the southern flank of Mt Frederick and supplied the Taipo, Deep Creek and Kiwi workings of the Iron Bridge Mine. Some power poles of rough timber logs are still standing at random across the landscape (Figure 34).

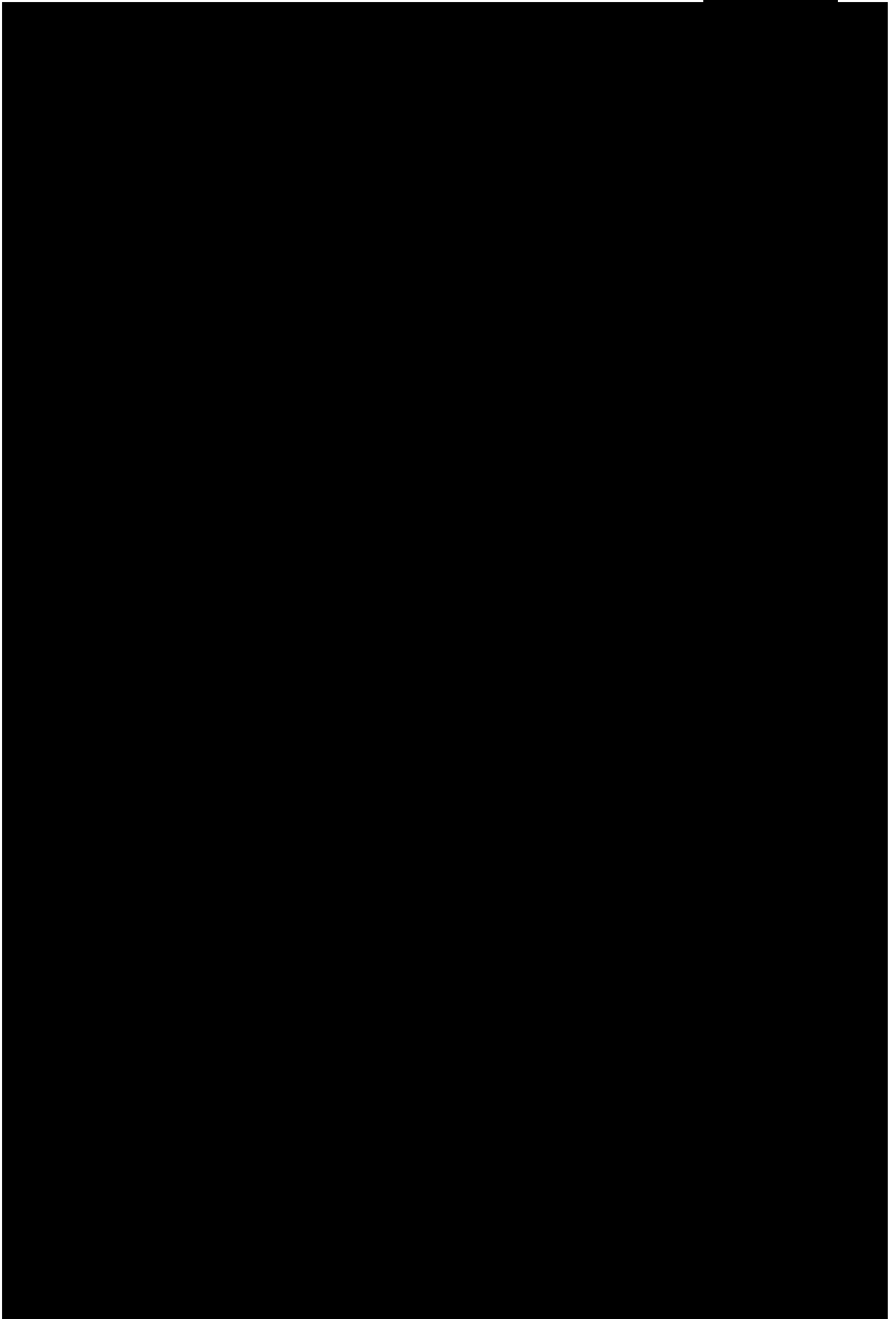
The tunnel entrance of the rope road at the Brake Station on Kiel's Flat (Feature 120) (Figure 35) is approximately 457m long and re-emerges to the south (Feature 118) (Figure 36) where it is possible to follow the line of the rope road tramway (southwards) because its tunnels have collapsed. Whole blocks of rock have dropped into the ground in places, revealing the rope road beneath (Feature 117) (Figure 37).

East of this area remains of a surface rope road divert and extend (Features 100–102, 105–107) towards a secondary area of underground workings and mine portals (Features 103, 108 and 110) (Figure 38).

Field survey did not continue south and west outside of the proposed MFS Project sub-area and Access Road towards the Waimangaroa River because these areas will not be affected by the proposed disturbance. However, previous survey has identified numerous additional 20th century mining features that are an extension of mining and the rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine. These remains are similar, and an extension of the Taipo mining remains and will remain undisturbed by the proposed MFS Project sub-area.









[REDACTED]



[REDACTED]

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[REDACTED] 8)

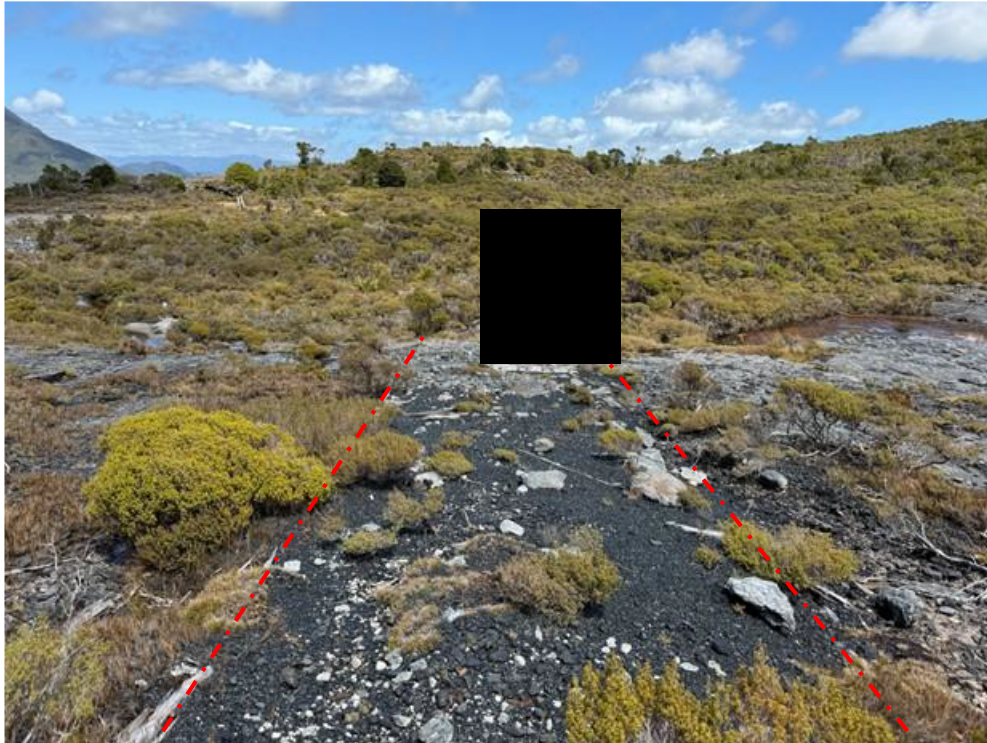


Figure 25. Between Strap Brake Mount (Feature 134) and Features 133/132 is the rope road tramway formation (outlined) covered in coal gravel with in-situ timber sleepers and scattered metal debris



Figure 26. Stacked stone buttresses and the remains of the tramway bridge from the upper Taipo Mine area to Kiel's Flat (Features 133 and 132)



Figure 27. Stacked stone embankments and cleared stone pathways (4m wide) on either side of the stream at Kiel's Flat



Figure 28. Entrance to the Taipo Mine stone drive with standing and collapsed timber bracing (Feature 131)

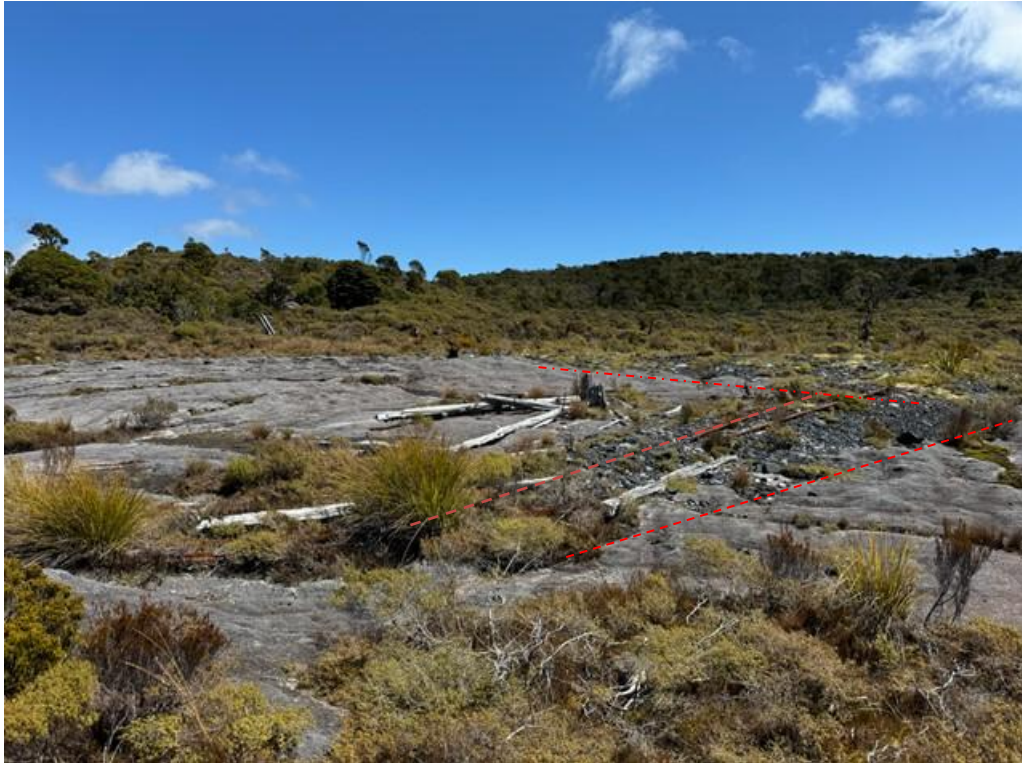


Figure 29. Kiel's Flat and the alignments of rope road tramway Features 128 and 127 (outlined) raised with coal gravel, intact sleepers and remnant rails



Figure 30. Discarded mine bins and metal piles beside the rope way tramway (Feature 127) on Kiel's Flat



Figure 31. Strap Brake Mount Feature 123 (left) and collapsed wooden and corrugated iron building(s) with the remains of a brick chimney on Kiel's Flat (Features 124 and 125)



Figure 32. Strap Brake Mount on Kiel's Flat (Feature 123)



Figure 33. Collapsed remains of a building (corrugated iron and wooden beams) with a brick chimney on a stacked boulder foundation on Kiel's Flat. Standing power pole beside (Feature 119)



Figure 34. Line of power poles that follow the rope road from Waimangaroa to the Taipo workings



Figure 35. Cutting and entrance to the rope road tunnel at Kiel's Flat from Waimangaroa (Feature 120)



Figure 36. Tunnel entrance of rope road from Waimangaroa where it emerges from the Top Brake Station after c.457m (Feature 118)



Figure 37. Open sections of the rope road with sleepers south of Kiel's Flat (Feature 117)



Figure 38. Surface evidence of the eastern rope road diversion (Feature 105)



Figure 39. Mine portal with standing timber bracing (Feature 108)

Table 4. Heritage features associated with the Taipo workings. Those features located within (dark grey) or on the edge (light grey) of the proposed MFS Project sub-area that will or are likely to be affected are shaded

Feature No.		Description	Photographs
142		Evidence of collapsed underground mines on the surface	Figure 22 and Figure 23
141		Evidence of collapsed underground mines on the surface	
140		Exposed coal seam in historic underground workings	
139		Exposed coal face in the side of a collapsed underground working associated with the Taipo Mine. Two wooden posts in front	

137 138		Coal mine portal into an exposed coal face within an extensive area of collapsed historic underground mining associated with the Taipo Mine. Portal is roughly rectangular in shape - 3m wide x 2.5m high and 60m in length. Small collapsed opening at the far end. Timber supports and sleeper(s) still in place within the entrance. Intact sleepers on the flat ground in front of mine portal Good surface example of collapsed historic mines – long concave collapsed mines with intervening walls still standing between	
135		Horseshoe toss stake and horseshoes beside the portal entrance Feature 137	
136		Collapsed hut site with fallen timbers, corrugated iron, bricks ('Neighbour'), nails, remains of a chimney, metal debris scattered around Small stacked stone foundation (2 x 2 x1m high) – possible cairn or hut wall / chimney base	Figure 24

			
134		Strap Brake Mount. Raised platform 6m wide x 0.5-0.6m high x 10m long. Stacked stone sides. Between 134 and 133 is a raised tramway formation covered in coal gravel with in situ timber sleepers and scattered metal debris. Tramway runs from the upper Taipo Mine workings down to and across Kiel's Flat	
132 133		Stacked stone buttresses 5.5-6m wide x 1.5m high on either side of a small stream. Ends of buttresses have collapsed. Remains of tramway bridge timbers in the stream. Tramway formation	Figure 26

		continues across Kiel's Flat on the other side of the stream with rails and wagon wheels	
131		Stone drive. 35m long x 4m wide cutting into the rock to the entrance to the portal entrance. Mine open and visible inside for approx..30m. Standing timber struts survive down the center of the mine at its entrance, with side bracing timbers and collapsed timber bracing	 Figure 28
130		Entrance to mine Feature 131; metal pipe and a metal door hinge lying on the ground	
129		Collapsed bridge that supported the tramway that crossed a stream to a small 'island.' Another bridge on the other side of the island	
128		End of slightly raised tramway alignment or path. Runs perpendicular to meet Feature 127	Figure 29
127		Raised tramway alignment approx. 50m long across Kiel's Flat to the Strap Brake Mount.	Figure 29

		2 x discarded coal bins and metal pipes lie beside the embankment. On the opposite side is a hut site with a partial concrete foundation 3m x 6m and timber base frame	
126		Same as 127 A 3m wide tramline alignment 20m long running at 285 degrees NW. Raised with coal gravel and rock, with sleeper remains and small gauge rails lying on the surface. This embankment connects with Feature 129 running approx. north-south	
125 124		Collapsed shed Brick chimney	Figure 31
123		Brake Strap Mount (Figure 29). Collapsed wooden and corrugated iron building(s) with the remains of a brick chimney. Coal buggy wooden axle and iron wheels sitting on small gauge rail which leads to the W Tunnel (Feature 120) Discarded coal bin lying 12m east of Brake Strap Mount	
121 122		Cuttings / mining disturbance	
120		Cutting in rock to the Waimangaroa rope road tunnel entrance behind Kiel's Flat	Figure 35
119		Brick chimney plastered with concrete on a stacked boulder foundation. Remains of corrugated iron, which were the walls of a previous structure, are plastered into the chimney.	Figure 33

		Wooden bearers lie scattered around the chimney. A standing power pole	
118		Waimangaroa tramway tunnel entrance	Figure 36
117		Collapsed sections of rope road tunnel and open sections of the rope road with sleepers allow you to easily follow its alignment south	Figure 37
116		Second mine portal to Feature 115	
115		Historic mine workings and 2 x mine entrances	
114		Power pole line that follows the rope road from Waimangaroa to the Taipo workings	Figure 34
113		Mine entrance	
112		Collapsed rope road tunnel which leads onto an open rope road embankment built up with coal gravel running south to tunnel at Feature 102; sleepers metal cable and roller lying on the ground	
111		Third mine entrance accessed by a cutting through rock (see Features 110 and 108)	
110		Partially collapsed mine entrance with a concrete support. 8m long x 3m wide x 2-2.5m high cutting through rock to mine entrance. Scattered glass outside the mine cutting (green glass case gin or cognac top with hand-applied lip and square base; base of aqua green glass salad oil bottle, green wine glass)	
109		Old power pole line (see Feature 104) which crosses the rope road alignment. Poles are rough tree trunks	
108		Large mine entrance 4m x 4m with a square profile 50m east of Feature 110. Accessed via a long cutting. Has standing wooden roof and side beams with notches cut for timbers into the side of the entrance. The entrance is partially collapsed but the mine is open inside for some distance with a side branch to the north.	Figure 39

107		Rope road alignment	
106		Metal remains of rope road alignment including a horseshoe	
105		Continuation of rope road alignment on opposite side of a creek gully from Feature 100 with sleepers and rail intact and metal cable located (Figure 38)	
104		Old power pole alignment (see Feature 109) which crosses the tramway alignment. Poles are rough tree trunks	
103		Entrance to tunnel	
102		Rope road tunnel at the end of a section of open tramway alignment (see Feature 112)	
101		Tramway rails in stream gully where tramway Feature 100 would have been bridged	

100		Start of rope road alignment that appeared to run perpendicular off main alignment. Features 112 and 102. Visible as a surface track of sandstone pebbles and gravel with no vegetation	
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Effects of the MFS Project sub-area

The MFS Project sub-area will remove the remains of the Taipo Mine at the Top Brake Station and Kiel's Flat, where there is the most prominent and greatest concentration of remnants associated with the Taipo workings. This includes an extensive area of underground mine workings and collapsed mine shafts associated with the Top Break Station, surface subsidence damage, open mine portals and a stone drive, remains of the endless rope haulage system, including the rope way formation with sleepers, the stacked stone foundation of a Strap Brake Mount, stacked stone bridge buttresses and stream embankments, artefacts, tunnels, a Strap Brake Mount frame, collapsed buildings of corrugated iron, shed framing, wooden and concrete foundations, the remains of two brick chimneys, bogey wheels, rails, iron fluming, coal tubs, metal rope, and other debris scattered about.

South of Kiel's Flat the MFS Project sub-area will remove sections of the tunnel and surface remains of the rope road tramway and a secondary area of underground workings and mine portals.

The Taipo mining remains date to the 1920s to the 1940s and are not an archaeological site (pre-1900), and accordingly there is no statutory requirement for Bathurst to apply for an archaeological Authority before commencing construction and mining.

In total these affected remains equate to approximately half of the Taipo Mine workings but the majority of its surface features, which are an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine. Given the relatively small scale of this mining operation there were no large structural mining features or foundations. However, the remains that survive today are relatively intact, extensive and varied, and include artefacts, which have usually been removed or damaged in less isolated locations.

Underground workings

The first four stages of the West Pit and sump of the MFS will be mined to a depth that will rework and destroy Taipo Mine underground workings. These underground workings are extensive in Stage 1 of the West Pit and are expected to be two levels in some places and a combination of first workings and pillared workings. The old workings are expected to intersect with final pit walls and will be sealed to prevent water egress. As mining in the west pit continues to progress north the last of the Taipo mine workings will be impacted upon.

The Taipo Mine workings have occurred in relatively recent times and are well recorded and understood. Mining plans show several different areas of underground workings, including both lower 'bord' (cut tunnels) and coal columns 'pillar' workings and upper primarily 'pillared' workings where the pillars have been removed to maximise extraction, causing the roof to collapse in a managed 'goaf' area.

North of Kiel's Flat the underground mine workings (1927 – 1934) that will be destroyed present as the large area of shallow surface collapsed underground workings (Features 139-142). These were accessed by a stone drive (Feature 131) and a drainage stone drive intersects inside the main stone drive entrance at a right angle from the south. Both of these features are identified on the Main Lease Iron Bridge (Jul 1945) State Coal Mines Survey Office mining plan (Figure 16).

South of Kiel's Flat another area of underground workings will be destroyed comprising of both 'bord' and 'pillar' workings and later 'pillared' workings. These affected workings intersect with and include a section of partially collapsed rope road tunnel from its entrance at Kiel's Flat.

The extent and nature of the 1945 Taipo Mine underground workings are shown overlaid onto the proposed MFS West Pit and Sump in Figure 40. The total proposed MFS disturbance is also overlaid on the 1986 mine workings of the Deep Creek Sector, including the Taipo Mine, in Figure 41.

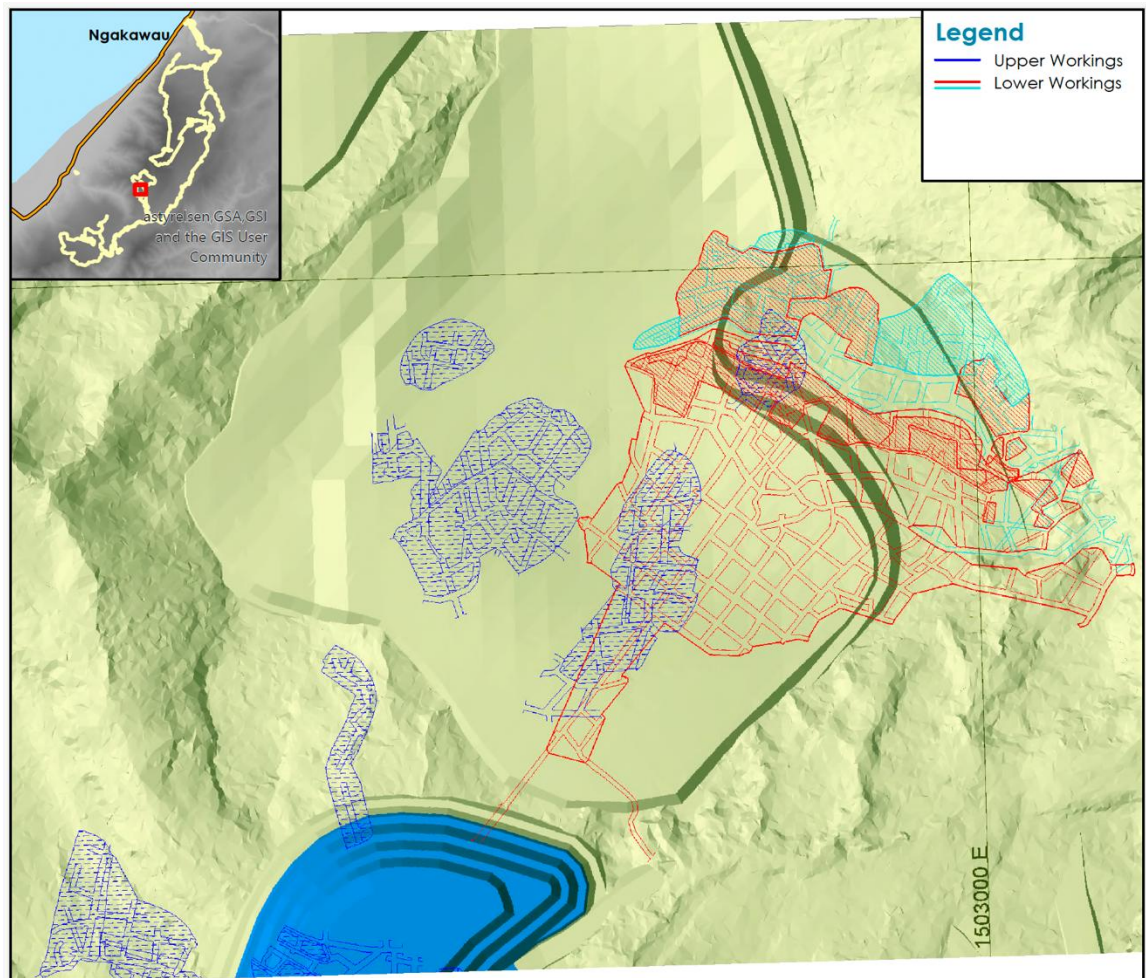
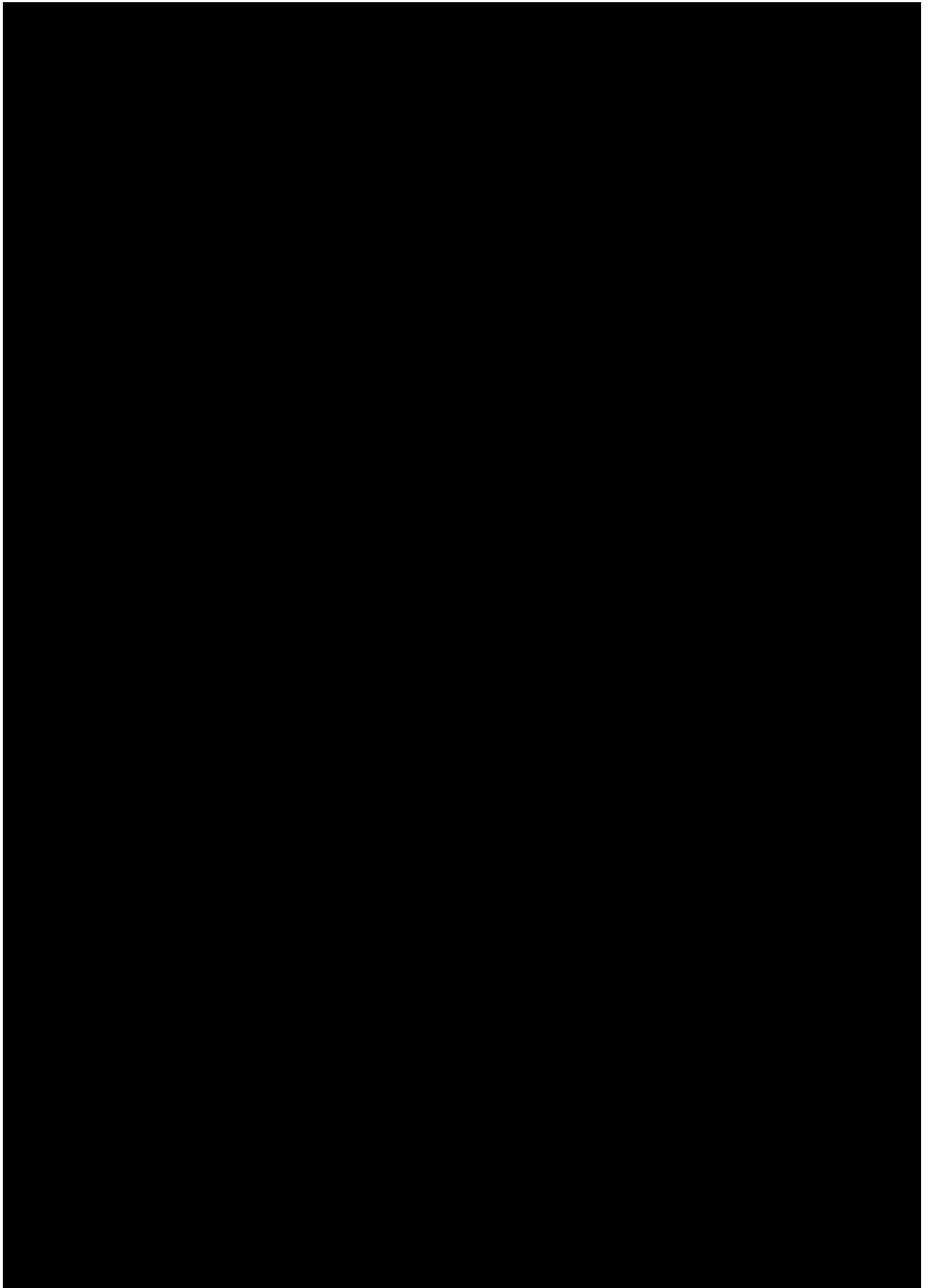


Figure 40. Mt Frederick South: West Pit and sump (blue) overlaid on the Taipo upper and lower historic underground mine workings



MFS ACCESS ROAD

Access to MFS will be via the UWHR and will follow a proposed southern access road, which will cross the Waimangaroa River and run north to the MFS Project sub-area. The access road alignment runs east of an area of underground mine workings associated with the Iron Bridge (Kiwi) Mine (L29/101) north of the Waimangaroa River and east of Deep Creek that date to 1901-1921 (see Figure 4). The Kiwi Mine was worked and accessed as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine.

Effects of the MFS Access Road

There is little overburden through this historic mining area with the coal at a shallow and surface depth, which made it possible during field survey within the Kiwi Mine workings to identify surface evidence of collapsed mine drives and tunnels (Figure 4). These recorded surface remains and the known area of underground mine workings will be avoided by the MFS Access Road, which is located to the east of their known extent.

Elsewhere surface mining remains associated with the Iron Bridge Mine and Kiwi Mine south of the Waimangaroa River near Hut Stream, including the Kiwi Mine Fan House (Feature 92) and Kiwi Mine Compressor (Feature 93), are located west and clear of the MFS Access Road and the corresponding UWHR (Figure 4).

DISCUSSION AND CONCLUSIONS

Summary of Results

The proposed MFS Project sub-area encompasses the historic coal mining workings associated with part of the Taipo Mine (L29/100) and Koranui Mine (L29/14), which includes above ground remains and underground workings.

The Koranui Mine, which operated during the 1880s, was accessed via the Koranui Incline at Conns Creek. The Taipo Mine (L29/100) is a 20th century (1920s to 1940s) underground coal mine across (north of) the Waimangaroa River on the flank of Mt Frederick. This mine was worked and accessed as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine.

The MFS access road alignment runs east of an area of underground mine workings associated with the Iron Bridge (Kiwi) Mine north of the Waimangaroa River and east of Deep Creek that date to 1901-1921.

Māori Cultural Values

This is an assessment of effects on archaeological and historic heritage values and does not include an assessment of effects on Māori cultural values. It is noted that an assessment of effects on Māori values should only be made by the tangata whenua and this will be provided by tangata whenua as a separate Cultural Values and Impact Assessment. Māori cultural concerns may encompass a wider range of values than those associated with archaeological sites.

The historical association of the general area with the tangata whenua is evident from the recorded sites, traditional histories and known Māori place names and is considered in more detail in the accompanying Appendix report: BPCP Historical and Archaeological Background.

Te Rūnanga o Ngāti Waewae are the Papatipu Rūnanga with manawhenua in the the Kawatiri (Buller) district. As with other areas of Te Tai Poutini, the coastal hills and plateau areas north of the Kawatiri (Buller) River are part of the larger network of trails, trading routes, pā and kāinga sites, mahinga kai, and other areas of cultural significance (Te Rūnanga o Ngāti Waewae 2026).

There are currently no known archaeological sites of Māori origin recorded within the MFS Project sub-area. However, the absence of evidence is not necessarily evidence of absence; particularly, as much of the historic mining evidence and disturbance is associated with underground mining on the Denniston Plateau.

Archaeological/Historic Heritage Value and Significance

Part of the MFS is located on land administered by DOC, therefore, the Conservation Act 1987 is also relevant for this Project sub-area. The values of historic heritage resources on conservation land need to be assessed to establish their significance and what the appropriate management strategy is, given that level of significance, irrespective of whether they have archaeological restrictions under the HNZPTA or heritage restrictions under the District Plan.

The West Coast Regional Council's (WCRC) Regional Policy Statement (RPS) (Jul 2020: Chapter 4, Method 3) identifies several criteria for evaluating the significance of historic heritage places. These are based on the criteria for inclusion in the New Zealand Heritage List/Rārangi Kōrero set out in Section 66 of the Heritage New Zealand Pouhere Taonga Act 2014 (HNZPTA) and are:

- a) The extent to which the place reflects important or representative aspects of New Zealand history;
- b) The level of association of the place with events, persons, or ideas of importance in the history of the (district/region);
- c) The importance of the place to Poutini Ngāi Tāhu;
- d) The level of community association with, or public esteem for, the place;
- e) The potential of the place for public education;
- f) The level of technical accomplishment or value, or design of the place including the rarity of technical accomplishment or design;
- g) The symbolic or commemorative value of the place;
- h) Whether it is an historic place known to date from early periods of the district's settlement i.e., such items are likely to be included in the schedule;
- i) The rarity of the type of historic place; and
- j) The extent to which the place forms a key part of a wider historical and cultural complex or historical and cultural landscape.

In addition, Heritage NZ has provided guidelines setting out criteria that are specific to archaeological sites (condition, rarity, contextual value, information potential, amenity value and cultural associations) (Heritage NZ 2019: 9-10).

The archaeological value of sites relates mainly to their information potential, that is, the extent to which they can provide evidence relating to local, regional and national history using archaeological investigation techniques, and the research questions to which the site could contribute. The surviving extent, complexity and condition of sites are the main factors in their ability to provide information through archaeological investigation. For example, generally pā are more complex sites and have higher information potential than small midden (unless of early date). Archaeological value also includes contextual (heritage landscape) value. Archaeological sites may also have other historic heritage values including historical, architectural, technological, cultural, aesthetic, scientific, social, spiritual and traditional values.

In the discussions below, both sets of criteria have been used to assess the value and significance of the pre-1900 archaeological sites, and the RPS criteria have been used to assess 20th century historic heritage sites that will or may be affected by the Project, as well as the significance of the Denniston heritage landscape that these sites contribute to. This also means that the following assessment meets the criteria referred to by DOC for assessing the significance of historic heritage.

There is one scheduled historic heritage site in the BDP located within the BPCP Project sub-areas on the Denniston Plateau. This is the Koranui Mine (BDP Schedule 14.1 Historic Places – L29/122) in the MFS Project sub-area, also recorded as L29/14 in the NZAA ArchSite database.

Denniston Heritage Landscape

A detailed discussion of the historic heritage and archaeological values of the Denniston Plateau is provided in the accompanying Appendix report: BPCP: Historical and Archaeological Background.

The importance of the wider contextual values of Denniston Plateau is acknowledged as a nationally significant industrial heritage landscape and the premier historic coal mining site in New Zealand comprising numerous inter-related elements of historic coal mining, including mines, transport networks and settlement sites. Its historic coal mining landscape spans a depth of time (all periods of mining are represented) and it is more complete than any other in New Zealand (much remains of mine sites from all periods and some of these remains are rare). The area has been identified as one of New Zealand's most important industrial archaeological landscapes and an outstanding historic site (Breen Oct 2010; Wilson and Burgess 2007:7).

It is impossible to properly understand one of the mining sites on the plateau (and its significance) in isolation from the others. In a geographic sense the Koranui Mine and Taipo Mine are associated because of their proximity on the southern flank of Mt Frederick, and their association with the development of the Westport Coal Company and coal mining collectively within the Denniston heritage landscape. However, they are from different periods of mining on the plateau, the 1880s and 1920s-1940s respectively. The Koranui Mine was worked and accessed from Conns Creek below Denniston, whereas the Taipo Mine was worked and accessed as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine.

Koranui Mining Area and Incline (L29/14)

The Koranui Mine and Incline (L29/14) has been evaluated according to the relevant statutory criteria and has been scheduled for protection on the BDP (Schedule 14.1 Historic Buildings and Sites - L29/122). However, it is not included on Schedule One of the Te Tai o Poutini Plan (TTPP). The remains of the Koranui Mining area are also pre-1900 and an archaeological site as defined within the HNZPTA.

The archaeological and other historic heritage values of the Koranui Incline were previously assessed by Watson (Dec 2009) but not specifically the Koranui mining area, which is affected by the MFS Project sub-area. Therefore, an assessment of the values of the collective Koranui Mining area (including the Koranui Incline) based on the RPS and Heritage NZ criteria is provided below in Table 5 and Table 6. Overall, this site has moderate to high archaeological and heritage value and significance.

Table 5. Assessment of the historic heritage significance of site L29/14 Koranui Incline and Mining Area based on the criteria in the WCRC RPS

Criterion	Comment	Significance Evaluation
Historic values	The Koranui Incline and Mine has strong historical associations with the Koranui Coal Mining Company, Captain Williams and the Black Diamond Line, James Mills and the Union Steam Ship Company and the Westport Coal Company. The link between coal mines and shipping lines a	High

Criterion	Comment	Significance Evaluation
	key factor in the history of the Koranui coal mine. The Koranui Mine also came to own a key part of the Conns Creek Branch railway, which was part of the transport network that connected Denniston mines to Westport. The Westport Coal Company was a major player in coal mining on the Denniston and Stockton plateaux until the State takeover of mines in both areas in the mid-late 1940s. A reasonable amount of historical information is known about the Koranui Mine and Incline, including when it was built and operated.	
Importance of the place to Poutini Ngāi Tāhu	No known importance	n/a
Community Associations	Within the West Coast and Denniston community there is a strong association with the coal mining industry. Coal mining is still a major industry on the West Coast and mines like Koranui would have a social significance for local communities. Relatives of those who worked at the site, are likely to have associations with the place.	Moderate
Public education potential	The Koranui Incline is on public conservation land but is relatively inaccessible at present. It has good public education potential to be developed as a walking track providing access to spectacular views and a relatively intact 19th century coal mining landscape. Access to the incline and mining area could provide educational opportunities into the operation of the incline itself, the nature and history of the Koranui mine, and the associated settlement. This mining landscape provides a contrast to the neighbouring much larger-scale Denniston, and is also part of the story of the development of the Westport Coal Company and Denniston.	Moderate
Technological value	The mining techniques used at the Koranui Mine were not unique from other West Coast mining areas. However, its incline is technologically distinguished by its length (it was the longest of the five) and with having an overhead cable, as opposed to a cable that ran along the ground, and because the exact nature of the incline changed, beginning as a reciprocating jig (as used at Denniston) and being remodelled as an endless rope system (as used at Millerton and Stockton).	Moderate - High
Symbolic / Commemorative values	No known values	n/a

Criterion	Comment	Significance Evaluation
Early period of the district's settlement	The site is associated with early coal mining activity in the Buller district. The Koranui incline was constructed in the late 1870s with mining commencing within the Koranui mining area in the 1880s. The Koranui Mine and Incline (L29/14) has been evaluated according to the relevant statutory criteria and has been scheduled for protection on the BDP (Schedule 14.1 Historic Buildings and Sites - L29/122).	High
Rarity	The Koranui mining area is not a rare historic place as it is just one of a number of small unsuccessful West Coast coal mines. However, it is associated with an incline, one of five in the Buller region, but distinguished by its length and overhead cable, and because the exact nature of the incline changed, beginning as a reciprocating jig and being remodelled as an endless rope system. The Koranui Mine also came to own a key part of the Conns Creek Branch railway, which was part of the transport network that connected Denniston mines to Westport.	Moderate - High
Historical and cultural landscape.	The site is part of the wider historical coal mining landscape throughout the Buller region and specifically the Denniston Plateau. Denniston Plateau is recognised as a nationally significant industrial heritage landscape and the premier historic coal mining site in New Zealand. The extensive intact and varied remains of the Koranui Incline and Mine do contribute highly to this landscape.	High

Table 6. Assessment of the archaeological values of site L29/14 Koranui Mining Area and Incline based on Heritage NZ criteria (Heritage NZ 2019: 9-10)

Value	Assessment
Condition	The archaeological remains of the Koranui Mine include the Incline, the remains of the mines, ventilation system, transport network (incline and tramway), settlement and communication system, which are relatively intact and undisturbed. No evidence of the coke ovens (which became part of the Koranui mine when it took over the Wellington mine) survive, nor of the Wellington mine itself or the railway sidings on the south bank of the Waimangaroa. The lower end of the incline has been destroyed by later alluvial gold mining and the branch railway line is now a road. However, collectively the site is a relatively intact 19th century coal mining landscape.
Rarity	The Koranui Mining area is not rare as it is just one of a number of small unsuccessful West Coast coal mines. However, it is associated with an incline, one of five in the Buller region, but distinguished by its length (it was the longest of the five) and with having an overhead cable, as opposed to a cable that ran along the ground, and because the exact nature of the incline changed,

Value	Assessment
	beginning as a reciprocating jig (as used at Denniston) and being remodelled as an endless rope system (as used at Millerton and Stockton). The Koranui Mine also came to own a key part of the Conns Creek Branch railway, which was part of the transport network that connected Denniston mines to Westport.
Contextual value	The internal context of this site is good with the 19th century coal mining landscape relatively complete. The regional context of the site is the mining that has taken place throughout the Buller region, and specifically on the Denniston Plateau. Denniston Plateau is recognised as a nationally significant industrial heritage landscape and the premier historic coal mining site in New Zealand. The Denniston mines have the closest association with the mines on the Stockton plateau, which share a similarly remote and hostile environment and, for the most part, owners – the Westport Coal Company.
Information potential	The information potential of the Koranui Incline is good, with the survey and relocation of numerous heritage features along the incline, tramway and mining area. Further information could be gained through a more detailed spatial analysis of the site and investigation.
Amenity value	The Koranui Incline is on public conservation land but is relatively inaccessible at present. It has high potential amenity value if developed as a walking track providing access to spectacular views and a relatively intact 19th century coal mining landscape. This landscape provides a contrast to the neighbouring much larger-scale Denniston, and is also part of the story of the development of the Westport Coal Company and Denniston. Walking the incline to the mining area provides insight into the operation of the incline itself and the nature of the Koranui mine, including the settlement site, the numerous abandoned portals and the communication network used at the mine.
Cultural associations	The site is likely to have cultural associations for those whose relatives worked there.
Other	This site also has high historical, technological and historic landscape values and is associated with early coal mining activity in the Buller district (see Table 5)

Taipo Mine (L29/100)

Taipo is the local name of the mine workings across (north of) the Waimangaroa River on the flank of Mt Frederick. This mine was worked and accessed from the 1920s to the 1940s as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine. Consequently, it is not an archaeological site as defined within the HNZPTA as this site post-dates 1900.

An assessment of the historic heritage significance of the Taipo Mining area based on the WCRC RPS criteria is provided below in Table 7, as this site has not been previously assessed. Overall, this site is of moderate heritage value and significance.

Table 7. Assessment of the historic heritage significance of site L29/100 Taipo Mining area based on the criteria in the WCRC RPS

Criterion	Comment	Significance Evaluation
Historic values	This mine was worked and accessed as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine. Iron Bridge Mine was a substantial coal mine on the Denniston Plateau and	Moderate

Criterion	Comment	Significance Evaluation
	operated for over 50 years. Therefore, it reflects representative aspects of the local and regional history and is part of the story of development of the Westport Coal Company and coal mining on the Denniston Plateau. There is limited historical information known about the Taipo Mine.	
Importance of the place to Poutini Ngāi Tahu	No known importance	n/a
Community Associations	Within the West Coast and Denniston community there is a strong association with the coal mining industry. Coal mining is still a major industry on the West Coast and mines like Taipo have a social significance for local communities. Relatives of those who worked at the mine, are likely to have associations with the place.	Moderate
Public education potential	The Taipo mining remains are located on LINZ land but it is very inaccessible, except either up the steep Koranui Incline or through Deep Creek. However, the 20th century remains of this mine are extensive and varied, and are relatively intact and undisturbed because of its isolated location and the absence of later modern-era large scale mechanical mining. This includes artefactual material that is often missing from other more accessible sites.	Moderate
Technological value	The mining techniques used at Taipo Mine were not unique from other small 20th century West Coast mining areas. This mine was worked and accessed via an extensive rope-haulage system	Limited
Symbolic / Commemorative values	No known values	n/a
Early period of the district's settlement	The Taipo Mine remains date to 1920 – 1940. This site is not included in the scheduled in the District Plan	Limited
Rarity	The Taipo Mine area is not a rare historic place as it is just one of a number of small 20th century West Coast coal mines. Although the remains of this mine are extensive and varied, and are relatively intact and undisturbed, these remains are similar to and an extension of the mining remains and the rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine located between Taipo Mine and the Waimangaroa River to the south.	Moderate
Historical and cultural landscape.	The site is part of the wider historical coal mining landscape throughout the Buller region and specifically up the	High

Criterion	Comment	Significance Evaluation
	Waimangaroa and on the nationally significant industrial heritage landscape of the Denniston Plateau. This site has a strong association with the other coal mining features on the Denniston Plateau. It is linked by underground mining and a coal rope road with the Deep Creek and Kiwi workings of the Iron Bridge Mine. Iron Bridge – Deep Creek Mining area and other features on the Denniston Plateau. The extensive intact and varied remains of the Taipo Mine do contribute highly to this landscape.	

ASSESSMENT OF HISTORIC HERITAGE EFFECTS AND MITIGATION

The nature and significance of the historic heritage places within the MFS Project sub-area have been assessed above. The potential impact of the proposal on the identified places is now considered, particularly in relation to direct physical impacts as well as setting and context.

The likely adverse effects on historic heritage because of the MFS Project sub-area of the BPCP and associated infrastructure, and recommended mitigation measures, are outlined below in Table 8.

In addition to specific mitigation recommendations for direct adverse effects on heritage sites, additional initiatives are also proposed to address any shortfall in mitigation recommendations because of the effects of the BPCP project on heritage sites.

It is recommended that prior to the commencement of activities associated with disturbing identified archaeological and historic heritage sites within the MFS Project sub-area, that Bathurst commission the development of a Historic Heritage Management Plan (HHMP)⁸ with stakeholders for the Project sub-areas to:

- Document and describe the strategy, objectives and actions that Bathurst propose to mitigate adverse effects on archaeological and historic heritage sites during the pre-construction, construction and post-construction phases of each of the Project sub-areas;
- Document and describe the strategy, objectives and actions that Bathurst propose to provide additional historic heritage compensation measures to address any shortfall in specific mitigation measures for adverse effects on historic heritage within the Project sub-areas;
- Demonstrate compliance with the conditions on the MFS Project sub-areas in statutory approvals.

For practical implementation the HHMP will incorporate the Archaeological Management Plan (AMP) for the Koranui Mining area (L29/14) covered by an Archaeological Authority under the FTAA.

⁸ For example, a HHMP was developed and completed previously for the prior Bathurst Escarpment Project.

Table 8. Adverse effects of the MFS Project on historic heritage, proposed mitigation/additional initiatives and overall effects after mitigation

Site / Heritage Feature(s)	Nature of adverse effects	Proposed Specific Mitigation Measures	Objective(s) of mitigation and link to effects (loss mitigating)	Additional initiatives recommended to address any shortfall in mitigation	Overall Effects (after mitigation and additional initiatives)
<u>Koranui Mine</u> (L29/14)	Destruction of surface mine remains that date from the 1880s and include the ventilation (air) shaft and likely the main portal at the top of the horse tramway and connected to the tramway via a cutting; and possibly the Incline tramway cutting/ embankment and associated artefacts. The destruction of underground mine workings at Koranui that date from the late 19th century. It is highly likely that additional similar historic mining features associated with the Koranui Mine, that have not been identified by field survey, will be located within and will be impacted by the proposed MFS project.	An Archaeological Authority is being applied for under the Fast Track Approvals Act process to cover the Koranui Mining area. Archaeological recording and investigation of archaeological features associated with L29/14 that are affected within the Project area under a developed Archaeological Management Plan approved under the Authority. During the construction and operation of MFS the ability to access and view underground workings is limited due to safety considerations. Notwithstanding this, where there will be opportunities for Bathurst staff/Contractors during construction and operation record and photograph exposed workings and features of interest and retrieve items that might be useful for displays and interpretation by the methods outlined in the HHMP.	Protection of remaining features Recovery of historical information	Compensation funding for future Denniston historic enhancement work agreed with DOC (and other interested parties if relevant). Agreed enhancement work options <u>could</u> include: - Ongoing levels of management of high priority items identified in the Denniston Conservation Plan e.g. re-establishing public access to the Banbury Mine portal; - Historic management and public access to additional areas of the Denniston Plateau, e.g. Koranui Incline.	Moderate Adverse Effects

Site / Heritage Feature(s)	Nature of adverse effects	Proposed Specific Mitigation Measures	Objective(s) of mitigation and link to effects (loss mitigating)	Additional initiatives recommended to address any shortfall in mitigation	Overall Effects (after mitigation and additional initiatives)
		Artefact recording, collection and deposit if discovered. The Koranui Incline and associated features are located in close proximity to the MFS mining area and measures (i.e. locations included on disturbance [construction/mine] plans and within 'no-work' exclusion zones (GPS fencing in machines), place barriers/fences around features in proximity to prevent inadvertent damage).			
<u>Taipo Mine</u> (L29/100)	Destruction of an extensive area of surface mining remains associated with Taipo Mine at the Top Brake Station and Kiel's Flat dating from the 1920s – 1940s.	In accordance with a HHMP: Avoid any remains where possible (i.e. locations included on disturbance [construction/mine] plans and within 'no-work' exclusion zones (GPS fencing in machines), place barriers/fences	Protection of remaining features Deep Creek / Iron Bridge Mining remains	Further research of the Taipo Mine (and the associated Iron Bridge, Kiwi and Deep Creek Mines), particularly oral history and the examination of mining records in Archives New Zealand and Westport Coal Company material at the Hocken Library. Compensation funding for future Denniston historic enhancement work⁹	Moderate Adverse Effects

⁹ Similar to compensation provided in 2014 following the granting of resource consent to Bathurst and an Access Arrangement with DOC allowing the company to expand mining activities on the Denniston Plateau. Compensation projects chosen for funding and agreed to in a Compensation Deed of the access arrangement. The sites chosen at that time for historic enhancement utilising the compensation fund were Conns Creek, Coalbrookdale and Burnett's Face.

Site / Heritage Feature(s)	Nature of adverse effects	Proposed Specific Mitigation Measures	Objective(s) of mitigation and link to effects (loss mitigating)	Additional initiatives recommended to address any shortfall in mitigation	Overall Effects (after mitigation and additional initiatives)
	The destruction of extensive underground mine workings at Taipo. However, the extent of these workings occurred in relatively recent times and they are well recorded and understood. Destruction of part of the continuous haulage rope road, including the ropeway formation, tunnels and artefacts.	around features in proximity to prevent inadvertent damage). Pre-commencement survey and recording of surface heritage mining features, including Structure recording to Level II in Heritage NZ 2018 Guidelines. During the construction and operation of MFS the ability to access and view underground workings is limited due to safety considerations. Notwithstanding this, where there will be opportunities for Bathurst staff/Contractors during construction and operation record and photograph exposed workings and features of interest and retrieve items that might be useful for displays and interpretation by the methods outlined in the HHMP. Artefact recording, collection and deposit.	Recovery of historical information	agreed with DOC (and other interested parties if relevant). Agreed enhancement work options <u>could</u> include: - Ongoing levels of management of high priority items identified in the Denniston Conservation Plan e.g. re-establishing public access to the Banbury Mine portal; - Historic management and public access to additional areas of the Denniston Plateau,¹⁰ e.g. Iron Bridge Mine after the completion of BPCP.	

¹⁰ During the duration of the BPCP and on its completion.

Site / Heritage Feature(s)	Nature of adverse effects	Proposed Specific Mitigation Measures	Objective(s) of mitigation and link to effects (loss mitigating)	Additional initiatives recommended to address any shortfall in mitigation	Overall Effects (after mitigation and additional initiatives)
Effects on the historic setting of key historic heritage places or heritage landscapes	The destruction of an extensive area of mining remains and underground mining workings at MFS contributes to the cumulative effects of the ongoing loss of features associated with these sites and to their setting within the Denniston Plateau. An incremental loss of parts of the historic landscape by opencast mining and infrastructure, which is largely absent from the Denniston Plateau, will lead to an overall negative effect on the historic values on the Plateau and its historic setting. Sites within the MFS will become divorced from			Compensation funding for future Denniston historic enhancement work¹¹ agreed with DOC (and other interested parties if relevant). Agreed enhancement work options <u>could</u> include: - Ongoing levels of management of high priority items identified in the Denniston Conservation Plan e.g. re-establishing public access to the Banbury Mine portal; - Funding for oral history recording and the development of a Denniston Plateau Sound Trail or geo-located audio tour of historic mining sites and areas to enhance the visitor experience to the Denniston Plateau Historic Area	High Adverse Effects

¹¹ Similar to compensation provided in 2014 following the granting of resource consent to Bathurst and an Access Arrangement with DOC allowing the company to expand mining activities on the Denniston Plateau. Compensation projects chosen for funding and agreed to in a Compensation Deed of the access arrangement. The sites chosen at that time for historic enhancement utilising the compensation fund were Conns Creek, Coalbrookdale and Burnett's Face.

Site / Heritage Feature(s)	Nature of adverse effects	Proposed Specific Mitigation Measures	Objective(s) of mitigation and link to effects (loss mitigating)	Additional initiatives recommended to address any shortfall in mitigation	Overall Effects (after mitigation and additional initiatives)
	their landscape setting within a re-engineered setting due to surrounding open cast mining.				

General Mitigation of Heritage Effects of MFS

It is recommended that the following historic heritage mitigation measures are adopted and implemented by a HHMP for the MFS Project sub-area:

- Where the proposal will affect any archaeological remains at the Koranui Mine (L29/14), an Archaeological Authority is required as part of the Fast Track Approvals Act 2024 process prior to the start of any works that could impact on pre-1900 subsurface remains. An Archaeological Management Plan (AMP) will be submitted with the Authority application that will provide procedures to be followed during archaeological investigation, recording and monitoring of earthworks and procedures for recording any pre-1900 archaeological evidence before it is modified or destroyed under the Authority.
- During the construction and operation phase of MFS the ability to view and record underground workings is limited due to safety considerations. Notwithstanding this there may be opportunities for Bathurst staff/contractor[s] to photograph, record and retrieve items that might be useful for displays and interpretation as outlined in the HHMP.
- The heritage remains affected at Taipo Mine post-date 1900 and are therefore not archaeological sites as defined by sec 6 of the HNZPTA. However, pre-commencement survey and recording of surface heritage mining features is recommended, including Structure recording to Level II in the Heritage NZ 2018 Guidelines.
- Protection measures should be put in place so that additional heritage sites and features in proximity to proposed MFS works are not inadvertently impacted upon. For example, their locations should be marked on development plans and barriers/fencing installed around the features/sites in the vicinity of construction works.
- Further research should be commissioned of the Taipo Mine (and the associated Iron Bridge, Kiwi and Deep Creek Mines), particularly oral history and the examination of mining records in Archives New Zealand and Westport Coal Company material at the Hocken Library, to increase the available knowledge of this mining area.
- New recording and research results should be disseminated to Heritage New Zealand, DOC and Buller District Council (Cultural Heritage Inventory), as well as the public and deposited with local archives/heritage groups and organisations (e.g. Denniston Heritage Trust (DHT)).
- To address shortfalls in specific site mitigation, additional initiatives are recommended for the effects on the Koranui Mine (L29/14), Taipo Mine (L29/100) and the setting of the Denniston historic landscape, as follows:
 - 1) Bathurst should fund agreed future Denniston historic enhancement work with DOC (if applicable) and other interested parties as per Table 8. Agreed enhancement work could include:
 - Ongoing management of high priority items identified in the Denniston Conservation Plan e.g. re-establishing public access to the Banbury Mine portal;

- Historic management and public access to additional areas of the Denniston Plateau, e.g. Koranui Incline, Iron Bridge Mine, Kiwi Mine and Deep Creek Mine remains after the completion of BPCP;
- Further research of the Taipo Mine (and the associated Iron Bridge, Kiwi and Deep Creek Mines), particularly oral history and the examination of mining records in Archives New Zealand and Westport Coal Company material at the Hocken Library;
- Funding for oral history recording and the development of a Denniston Plateau Sound Trail or geo-located audio tour of historic mining sites and areas to enhance the visitor experience to the Denniston Plateau Historic Area.

Overall Effects of the MFS

MFS will destroy an extensive area of surface mining remains and underground mining workings associated with the Taipo Mine (L29/100) that dates from the 1920s to the 1940s. It will also destroy some 1880s surface mining features and underground mine workings at the Koranui Mine (L29/14). The MFS will avoid impacting on the Koranui Incline.

The destruction of surface mine remains and extensive underground mining remains contributes to the cumulative effect of the ongoing loss of features associated with these sites and on the Denniston historic landscape. An incremental loss of parts of the historic landscape will lead to an overall negative effect on the historic values on the Plateau.

The destruction of the remnants from relatively recent era coal mining on the Denniston Plateau may not seem significant in isolation as there are a number of mines dating from this period on the West Coast. However, when considered within the context of the broader archaeological landscape on the Denniston Plateau, the loss of the historic remains of later periods of mining is significant. As noted above the context values of the historic sites on Denniston are quite high as most of these sites remain.

The advent of opencast mining and the progressive reworking of underground mines through opencast methods at MFS, which is largely absent from the Denniston Plateau, will result in the loss of features associated with previous mine workings and lead to an overall negative effect on the historic values on the Plateau and its historic setting. The remaining parts of the Koranui and Iron Bridge, Kiwi and Deep Creek Mines will become divorced from that aspect of the historic landscape and lose context. If left unmitigated this would be a significant effect. Therefore, additional initiatives have been recommended to address shortfalls in specific mitigation for the effects of the MFS on historic heritage sites and the setting of the Denniston historic landscape.

Conclusions

- The MFS Project sub-area will impact on historic underground workings and numerous mine drives and tunnels, the ventilation (air) shaft, the main portal and possibly the tramway cutting/embankment and artefacts associated with the Koranui Mine (L29/14) dating from the 1880s. It is highly likely that additional historic mining features associated with the Koranui Mine, that have not been identified by field survey, will be located within and will be impacted by the proposed MFS project.
- An archaeological Authority (re-application) is applied for under the Fast-track Approvals Act 2024 process to cover the Koranui Mining area. Archaeological monitoring, recording and investigation of archaeological features associated with L29/14 affected within the Project area will be carried out under a developed Archaeological Management Plan. The Koranui Mine is also listed in the Buller District Plan Schedule of Historic Buildings and Sites (Schedule 14.1 – L29/122) and resource consent is therefore required to impact this site.
- The MFS Project sub-area will also remove an extensive area of surface mining remains and underground workings associated with the Taipo Mine (L29/100) dating from the 1920s to 1940s. This mine was worked and accessed as an extension of mining and a rope-haulage system associated with the Deep Creek and Kiwi workings of the Iron Bridge Mine.
- The proposed opencast mining and reworking of underground mines by the MFS, which has largely not previously occurred on the Denniston Plateau, will result in the cumulative loss of both 19th and 20th century mining features within the context of the significant archaeological landscape on the Denniston Plateau. This will lead to an overall negative effect on the historic values on the Plateau and its historic setting.
- Public access to this part of the Denniston heritage landscape will be restricted during mining operations.

Overall, the effects of the proposed MFS Project sub-area on historic heritage sites after recommended mitigation and additional initiatives are likely to be moderate, while the effects remain high on the historic setting of key heritage places or heritage landscapes remain high due to the nature of opencast mining.

MFS RECOMMENDATIONS

- Resource consent is required to impact on a scheduled item in the BDP (Schedule 14.1 Historic Places) – Koranui Mine and Incline (L29/14) Ref No. L29/122.
- Prior to the commencement of activities associated with disturbing identified archaeological and historic heritage sites within the MFS Project sub-area, it is recommended that Bathurst commission the development of a Historic Heritage Management Plan (HHMP) for the Project sub-areas to:
 - Document and describe the strategy, objectives and actions that Bathurst propose to mitigate adverse effects on archaeological and historic heritage sites during the pre-mining, mining and post-mining phases of the Project sub-areas;
 - Document and describe the strategy, objectives and actions that Bathurst propose to provide additional historic heritage compensation measures to address any shortfall in specific mitigation measures for adverse effects on historic heritage within the Project sub-areas;
 - Demonstrate compliance with the conditions on the Project sub-areas in statutory approvals.
- An Archaeological Authority is required before any work associated with proposed MFS can be carried out that may affect the site Koranui Mine (L29/14) (*Note that this is a legal requirement*). The conditions could include archaeological recording and investigation of any archaeological features and remains associated with this site that may be affected within the Project sub-area, and any other archaeological remains uncovered during earthworks.
- The heritage remains affected at Taipo Mine (L29/100) post-date 1900 and are therefore not archaeological sites as defined by sec 6 of the HNZPTA. However, pre-commencement survey and recording of surface heritage mining features is recommended, including Structure Recording to Level II in the Heritage NZ 2018 Guidelines.
- Accidental discovery protocols should be included as a condition of resource consent, and an advice note reminding Bathurst of their obligations under the Heritage New Zealand Pouhere Taonga Act 2014 with regards to archaeology. These would apply to areas not covered by the Archaeological Authority.
- Protection measures should be put in place so that additional heritage sites in proximity to proposed MFS works are not inadvertently impacted upon elsewhere. These should include having their locations marked on project plans and plans and within ‘no-work’ exclusion zones (GPS fencing in machines), and installing barriers/fencing around the sites/features during construction and mining works.

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NZAA ARCHSITE SITE RECORD FORMS

Refer to the accompanying Appendix report: BPCP Historical and Archaeological Background – Appendix 2