



Department of
Conservation
Te Papa Atawhai



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

Access Arrangement Report

Attention: Geoff Owen, Operations Manager, Wakatipu District, Southern South Island Region, Department of Conservation; and

Iana Miller, National Manager Minerals, Energy & Resource Markets – Building, Resources & Markets Group, Ministry of Business, Innovation and Employment

From: Aran Naismith, Senior Permissions Advisor

Applicant/Permit Holder: New Zealand Tungsten Mining Limited

Minerals Permit Number: Exploration Permit 40547

Permissions Record Numbers: 48613-AA

File: PAM-00-07-40547

The purpose of this Report is to provide an analysis of the Access Arrangement Application within the context of the relevant legislation, statutory planning framework and actual and potential effects so that the Decision-Maker(s) can consider the Application and make decisions as to whether it should be granted or declined.

1.0 Executive Summary

1. New Zealand Tungsten Mining Limited (the Applicant), the holder of Exploration Permit (EP) 40547, has applied for an initial Access Arrangement (AA) to undertake exploration drilling at 28 sites within the Whakaari Conservation Area (Protected Area 2800823) near Glenorchy. EP 40547 covers 1,476.456 hectares (ha) and is due to expire on 11 September 2017. EP 40547 is classified as a Tier 1 minerals permit and as such the decision of whether or not



to enter into an initial AA is with the Minister of Energy and Resources and the Minister of Conservation.

2. The application is for access to 28 drill sites totalling a [maximum] combined area of 0.4 hectares, one camp site and to use existing tracks in the area. The Applicant proposes to fly staff and equipment into the application area and then where possible utilise existing tracks to transport the rig between drill sites. Where ground transit on existing tracks is not possible the rig would be flown between sites using a helicopter. The maximum footprint of each drill site would be 12 metres x 12 metres (144 square metres), allowing for the drill rig, ancillary facilities and turnaround areas. Exploration operations would be restricted from the high visitor period of 23 December – 6 February inclusive. Helicopter use would be restricted from peak daily visitor hours of 11am – 4pm during daylight savings and 10am-3pm outside of daylight savings. ✓
3. The Whakaari Conservation Area has been recently acquired by the Department of Conservation via tenure review processes and much of the general application area and existing tracks have been extensively modified by previous pastoral land use activity. ✓
4. The avoidance and mitigation measures being proposed by the Applicant in combination with special conditions in the draft AA would avoid most notable adverse effects on Conservation Values except localised short term impacts on recreational users and visitors to the immediate vicinity of drilling activities. ✓
5. A review of the proposed activities, potential effects and safeguards available to be implemented by the Ministers has determined that the proposal is inconsistent with the Conservation Act 1987, but consistent with the purpose for which the land is held by the Crown and the Otago Conservation Management Strategy. ✓
6. In considering this application the Ministers' delegated decision makers must have regard to all matters set out in section 61(2) of the Crown Minerals Act (CMA) 1991. Having assessed these matters the recommendation of this Report is to approve the application and grant an initial Access Arrangement, subject to

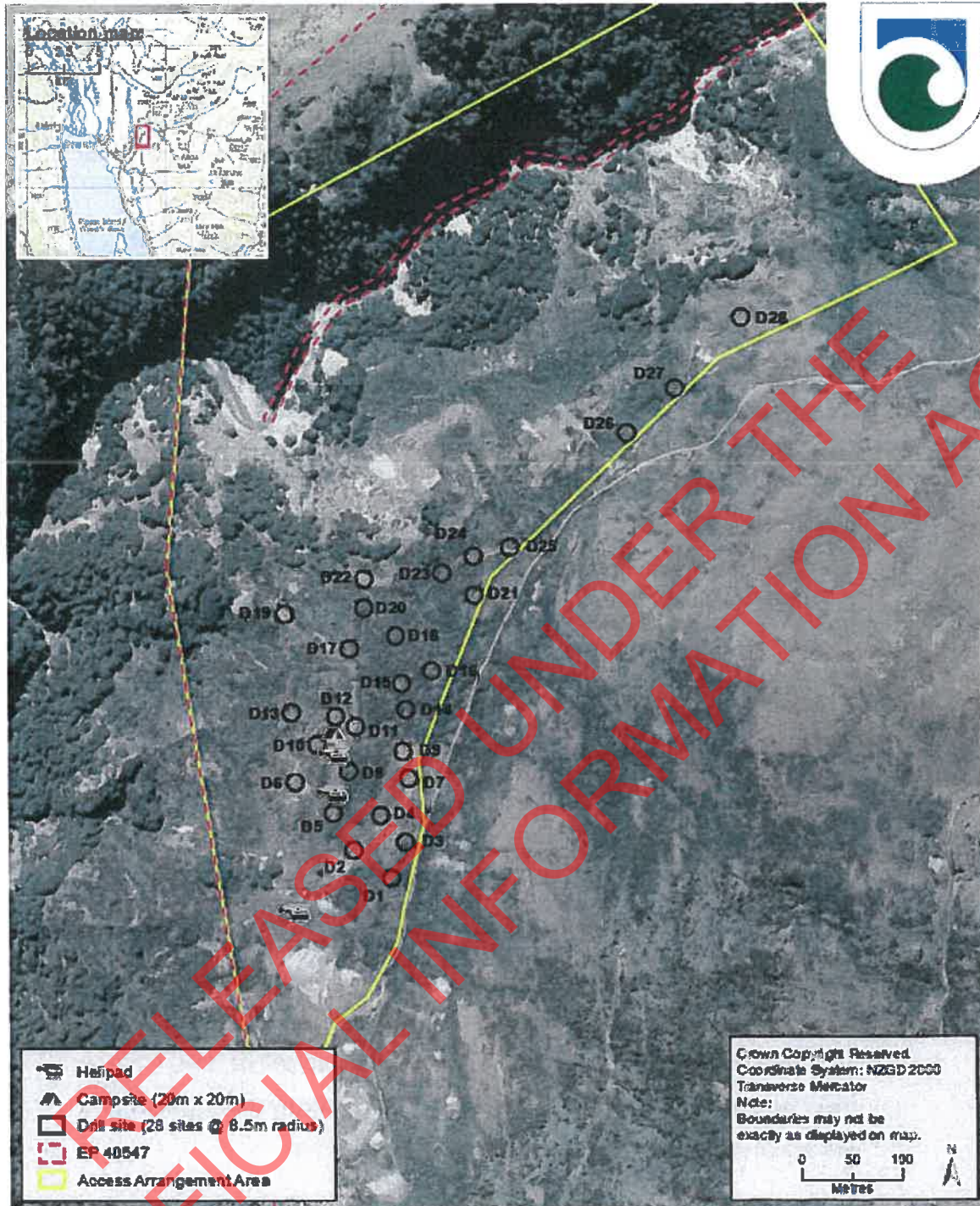
the special conditions included in the draft Access Arrangement provided alongside this report. ✓

2.0 Summary of Proposal

7. **Information about the Applicant:** New Zealand Tungsten Mining Limited (the applicant) was incorporated on 1 December 2000 and currently has two directors; Gary Roger Gray and Junge Xu. The applicant has not previously held an AA with the Department but has held at least one Minimum Impact Activity authority. ✓
8. **Information about Exploration Permit 40547:** EP 40547 was issued to New Zealand Tungsten Mining Limited on 11 September 2001, with a commencement date of 11 September 2003 and an expiry date of 10 September 2021. The Permit grants the right to explore for gold, silver and tungsten. The Permit is classified as a Tier 1 minerals permit pursuant to section 2B(1)(c) of the Crown Minerals Act (1991) (the CMA). Pursuant to section 61 (1AA) of the CMA, the decision of whether or not to enter into an initial AA in relation to EP 40547 is with the Minister of Energy and Resources and the Minister of Conservation (the Ministers). ✓
9. **Term sought:** to align with the current expiry date of the permit; 10 September 2021. ✓
10. **Location/Site:** EP 40547 is located approximately 2.4 kilometres (km) east of Glenorchy, adjacent to Lake Wakatipu. The permit is bounded by the Precipice Creek or Temple Burn Valley to the north, Wallers Spur to the east, Teds Spur to the south and Glenorchy to the east. The proposed activities would occur in a cluster on the north western slopes of Mount Judah, adjacent to Mount Judah Road. Refer to Figure 1 below for a map showing the location of EP 40547 and Figure 2 for a map of the application area. ✓



Figure 1: Map showing the location of EP 40547 (red)



Access Arrangement EP 40547 - New Zealand Tungsten Mining Limited			Exploration permit 40547 File ref: PAM-13-07-40 547 PermissionID: 48613-AA Location ID: 60495
AA Area: 38.3ha	Topo50 ref: CB10	Photo ref:	Department of Conservation <i>Te Papa Atawhiri</i> New Zealand Government
Date compiled: 16/01/2018	Scale (A4) 1: 5,000	District: Wakatipu	
Legal description: Sections 7 and 13 SO 308025 Land status: Sewardship area (Māori Conservation Area)			

Figure 2: Map showing the application area and proposed 28 drill site

Description of proposed activity/Work Programme

11. **Access:** Existing roads/tracks would be utilised where possible to provide access to the area, and then to move the drilling rig between each drill site. However, land access is dependent on the Applicant obtaining permission from a neighbouring private land owner, which at this stage is looking unlikely. Therefore using a helicopter to transport the drill rig and other gear into the access area is most likely. Once within the area the Applicant would establish the camp site indicated on Figure 2 and where possible access the drill sites using existing tracks. The proposed drill rig is motorised and can transport itself under "its own steam". Personnel would access all areas via foot from the campsite. ✓
12. **Equipment to be used:**
- 1 X diesel powered drilling rig
 - 1 X drilling platform (approximately 6 m X 12 m)
 - 1 X Squirrel AS350B3 helicopter (a heavy lift helicopter owned by Heli Glenorchy)
 - 1 X MDN520N Helicopter (a smaller helicopter owned by Heli Glenorchy)
 - 1 X water pump, water tank and associated hoses
 - 1 X transportable sump
 - 1 X Portable accommodation such as a flatpack container/portacom unit or tents ✓
 - 1 X portaloos
 - 1 X trailer fuel tank with a capacity of 1,200 litres (L)
 - Fire extinguishers, spill kits, jerrycans, drilling fluid etc
13. **Camp site:** A camp site would be established to provide accommodation for drilling personnel. A maximum of 4 people would be accommodated at any one time. The proposed camp site (see Figure 2) is on flat terrain and is covered by exotic pasture grasses. The flat pack container/portacom unit or tents, 1 m³ water tank and portaloos would be transported to the camp site by the helicopter and would occupy an area of approximately 20 m X 20 m. ✓
14. **Fuel:** Up to 1,200 L of fuel would be bought onto the site and stored in a double skinned trailer tank. A spill response kit would be kept onsite at all times. ✓
15. **Waste:** All waste would be removed from the land as required or upon completion of the proposed activities. ✓

16. Drilling: The drill and supporting equipment would be pressure steam cleaned prior to being transported into the area via helicopter. ✓
17. It is expected that at the majority of drill sites drilling would be undertaken using the drill rig mounted on tracks, however, if drilling cannot be undertaken directly on the ground surface, a temporary wooden drilling platform (approximately 6m X 12 m) would be assembled and used to drill from. ✓
18. Assembly of the platform would be undertaken with helicopter support, after which the drill rig and associated equipment would be flown onto the platform. Once drilling has completed at one site, the rig, equipment and platform would be transported to the next site. The proposed drill sites are on highly modified land therefore establishment of a site may not necessarily require the removal of vegetation. However, any vegetation that needs to be removed would be undertaken via hand held methods. Rehabilitation of drill sites would be limited to respreading any vegetation over the disturbed areas. Upon completion of the proposed activities the drilling rig and all equipment would be removed from the area. ✓
19. The diameter of drill holes would be 9.6 cm, however, if casing is required then this would be approximately 12 cm. The depth of drill holes would vary from approximately 30 m to 150 m, with depth averaging between approximately 50 m and 75 m. A small number may extend to depths of approximately 250 m. Drilling penetration rates are expected to be 10 m per day, therefore, drilling is expected to average from 5 to 10 days per hole. A temporary plug would be used to seal drill holes. At the completion of drilling all holes would be permanently sealed. ✓
20. Water: Water required to assist with drilling would be taken from unnamed tributaries of the Buckler Burn or from the Buckler Burn itself, using either gravity feed, pumping or a combination of both. The volume abstracted each day would not exceed 25,000 L per day. A water supply would be established uphill from the drill sites. Polythene pipes would lead to a tank and then to each drill site. A tank would also be located at each drill site (if required). A ✓

helicopter would transport and located equipment associated with the abstraction of water (e.g. tanks, pipes and pumps).

21. Drilling fluids, such as Rheogel L or Poly-Plus, would be used. Drilling water would be re-used as much as possible to minimise water take and discharge. A transportable sump would be used at each drill site to facilitate water recycling and settling of sediment and drill cuttings. Upon completion of drilling at each site, the collected sediment and drill cuttings would be spread thinly on the ground surface. A small volume of water containing drill cuttings and/or drilling fluids would be discharged to land.
22. Helicopter Use: The applicant is likely to contract Heli Glenorchy Limited to provide the required helicopter assistance. For clarity, helicopter use has been separated into straight forward helicopter landings (directly to/from Glenorchy airfield) and hovering activities. Refer to Table 1 below for a breakdown of straightforward helicopter landings and Table 2 for hoverings.

Table 1: Straightforward Helicopter Landings

Activity	Number of landings	Time
Initial transportation of drill rig and equipment to the area	10	10 minutes in air at drop off site
Initial transportation of camp equipment	4	4 minutes in air at drop off site
Transportation of personnel/supplies	1 every 10 days	Helicopter would likely land and shutdown and then take off after unloading
Removal of drill rig and equipment	10 landings	20 minutes in air at pick up site
Removal of camp equipment	4 landings	10 minutes in air at pick up site

Table 2: Helicopter Hoverings

Activity	Number of landings	Time
Installation of pipes and pumps for water abstraction	Up to 4	15-30 minutes in air at installation site
Movement of drill rig and equipment between sites	8 to 10 landings per site equating to up to 224 to 560 landings/hoverings	10 to 35 minutes of hovering per day of helicopter use. Up to 4 to 16 hours of hovering time in total

23. Operating hours/days: The proposed activities would occur between 7.30am – 6.30pm during autumn and 8am – 5.15pm during winter. No drilling is proposed on public holidays. ✓

4.0 Conservation values, effects on values, and measures proposed to safeguard potential adverse effects

24. Wakitipu District staff provided the following summary of flora and fauna values for the application area:

	Flora Values (as per local view only – this should not be considered to be a full RMA assessment)	Fauna Values (as per local view only – this should not be considered to be a full RMA assessment)
Representativeness (<i>association of species within ecological district</i>)	Low – the specific area requested is mostly covered in bracken fern with some manuka and matagouri. It is currently recovering and if left undisturbed will continue to progress. The wider Whakaari area has a more diverse plant base.	Moderate – significant due to the fact the area contains a distinctive fauna – the transition from Western mountains to Central Otago. ✓
Distinctiveness (<i>special features</i>)	Low – as above	Moderate – significant due to the fact the area contains a distinctive fauna – the transition from Western mountains to Central Otago. ✓
Diversity and Pattern (<i>species richness and dominance</i>)	Low – the area is currently recovering from years of modification from grazing and mining and is mostly bracken covered.	Low - the area is currently recovering from years of modification from grazing and mining and is mostly bracken covered. ✓
Intactness/Naturalness (<i>due to modification by humans or introduced species</i>)	Low – as above	Low – as above ✓
Size /shape	n/a	n/a
Buffering and surrounding landscape	Moderate – the area requested is part of the 9,400 ha Whakaari Conservation Area which is in turn connected to the Mount Aurum Recreation Reserve. ✓	Moderate – the area requested is part of the 9,400 ha Whakaari Conservation Area which is in turn connected to the Mount Aurum Recreation Reserve. ✓
Protected Status (<i>under relevant legislation or covenant</i>)	Significant – mining and pastoral land use has stopped; the area is now fully protected under the Conservation Act. ✓	Significant – mining and pastoral land use has stopped; the area is now fully protected under the Conservation Act. ✓
Connectivity (<i>to a wider, more significant area or found within a wildlife corridor or wildlife management area</i>)	Moderate – the area requested is part of the 9,400 ha Whakaari Conservation Area which is in turn connected to the Mount Aurum Recreation Reserve. ✓	Moderate – the area requested is part of the 9,400 ha Whakaari Conservation Area which is in turn connected to the Mount Aurum Recreation Reserve. ✓
Threat to individual species (<i>with threatened status</i>)	Low – individual species are unlikely to be impacted by the activity. ✓	Low – individual species are unlikely to be impacted by the activity. ✓
Migratory habitat	n/a	n/a
Scientific value	Low	Low ✓

25. Wakitipu District staff also provided the following summary of other values:

	Conservation Impact Assessment
	Land Status 1
Natural	Moderate – the environment has been modified by its mining and pastoral past but is recovering and still has a number of native species present. ✓
Aquatic	Low – as above
Riparian buffers	Low – as above
Historic	Significant – best example of the sequence of scheelite mining which can be found in New Zealand from the 1880s through to the 1970s. Numerous historic features still on site. ✓
Recreation	Significant – Growing in popularity for trampers, day walkers and horse riders. ✓
Scenic	Significant – the Whakaari area is part of the outstanding natural landscape recognised in regional and district plans. ✓
Cultural/iwi values	Low – In the Wyuna Conservation Resources Report no Maori sites were identified in the rugged hill country which has been requested. ✓

Flora

26. Wakitipu District staff provided the following summary of flora in the area:

“Over 1000m there is good native cover, primarily snow tussock, and few exotic species. At lower altitudes exotic species become more prominent and as you continue towards the lake exotic grasslands become dominant. There are areas of beech forest, shrubland, sub-alpine shrubland and tall tussock grassland. There are few wetland communities. On rockier areas some cushion plant communities can be found and at the upper ridges specialist plant communities are established.

The area requested for exploration works is in the lower zone and is dominated by bracken with occasional manuka and matagauri. There is a beech forest stand nearby which the applicant has avoided.” ✓

27. The Applicant has chosen drill sites to avoid vegetation where possible and most drill sites would be located on areas of pasture and highly modified ex-pasture. ✓

Mitigation and Potential Adverse Effects on Floral Values

28. The Applicant has proposed several mitigation measures to help avoid and minimise the effects on flora including; pressure cleaning equipment to avoid the spread of exotic weeds, avoiding areas of mature beech forest and other areas of vegetation where possible; minimising vegetation clearance where it is required, utilising existing tracks only and using helicopters to access drill sites where existing tracks are not available. The draft AA also includes conditions to minimise vegetation clearance, clear vegetation by hand held methods only and rehabilitation requirements to stockpile and re-spread all topsoil and cleared vegetative matter.

29. Wakitipu District staff provided the following summary of potential effects on flora:

"The main potential impact on vegetation will come from the camp area, the drill platform and the movement of the drill rig on the ground. It is considered the campground and drill platform will have minor impacts. As the drill rig will be moved along old 4WD tracks it will primarily damage bracken, but some vegetation, such as manuka, may need to be trimmed. This should only be done by hand and the least possible amount of vegetation should be disturbed."

30. Overall the potential adverse effects on flora values would be relatively low.

Fauna

31. Wakitipu District staff provided the following summary of fauna in the area:

"According to the Wyuna Station Conservation Resources Report, the beech forest remnants contain common native bird species, such as bellbird, silvereye, rifleman and grey warbler. Kea and falcon have also been recorded, but at low numbers. Historical records indicate that rock wren were observed at Mt McIntosh, and they were again sighted during the DOC inspection for Tenure Review."

The report states that:

"Although only reasonably rich in terms of fauna these zones are in near natural condition and contain a distinctive fauna – the transition from Western mountains to Central Otago so they are therefore of high conservation value."

32. Department technical advisor (Species and Ecosystems) Bruce McKinley provided comment on the application and confirmed the following indigenous species listed in the AA application were likely correct: ✓
33. Herpetofauna:
Takitimu gecko, Jewelled gecko, Green skink, Otago/Southland large gecko, McCann's skink. Of these species the Takitimu gecko is most prominent as it is classified as Threatened - Nationally Vulnerable. ✓
34. Avifauna:
Harrier hawk, NZ eastern falcon, paradise shelduck, yellow-crowned parakeet, shining cuckoo, long tailed cuckoo, morepork, tui, south island fernbird, brown creeper, grey warbler, south island rifleman, silvereye, yellow-breasted tomtit, bellbird. Of these the NZ eastern falcon (At Risk – Recovering) and long-tailed cuckoo (At Risk – Naturally Uncommon) have threat classifications. ✓
35. Mr McKinley noted that the application lacked detail on the potential indigenous invertebrates of the site. However, given the scale of the proposed activities he feels the information gap is not a big issue, but does note that should larger mining ever be proposed in the area further invertebrate survey work would be required. ✓

Mitigation and Potential Adverse Effects on Faunal Values

36. The proposed activities have the potential for the following adverse effects on fauna: ✓
- Short term localised disturbance of avifauna from noise and industrial activity
 - Disruption of New Zealand falcon breeding pairs should drilling be undertaken in their territory during breeding season
 - Loss and disruption of indigenous invertebrates in habitat disturbed by the drill rig, camp site and associated noise and vegetation and soil disturbance
 - Loss of invertebrates and herpetofauna should they fall into an open drill hole
 - Short term localised disturbance of herpetofauna
 - Harm to kea should they ingest pieces of drilling or camp gear

37. To address these potential effects the Applicant proposes to undertake the following mitigation:
- Minimise vegetation clearance and soil disturbance at all times
 - Cap all drill holes upon the completion of drilling
 - Have an ecologist check drill sites and surrounds for the presence of breeding falcon during breeding season (September – December) and revise drilling locations as required to avoid disturbing breeding pairs ✓

38. These are included as Special Conditions in the draft AA document to formalise the proposed approaches. The draft AA document also contains the following special conditions to help avoid and minimise the potential impacts on fauna:

- Requirement to “kea proof” camp and drill sites
- Requirement to obtain a Wildlife Act authority for the potential disturbance or killing of absolutely protected herpetofauna, most notable being the takitimu gecko ✓

39. Given the above, the majority of the potential adverse effects should be avoided and adequately mitigated. The disturbance of breeding falcon should be avoided through the approach being taken. There is still the chance that takitimu gecko would be disturbed by the setup of drill sites and in particular vegetation clearance. However, it is likely to be a relatively small effect and minimised by the small size of the drill sites and short duration of drilling at each site. A Wildlife Act authority is still considered necessary due to the chance that herpetofauna could be contacted or killed during drilling activities. ✓

Aquatic

40. The aquatic values of the application area are considered low. Recent surveys during the tenure review process that resulted in the establishment of the Whakaari Conservation Area found no fish in the headwaters of the Buckler Burn. ✓

Mitigation and potential adverse effects on aquatic values

41. The application states that a fish guard will be placed over the nozzle of the water take hose. This would avoid any indigenous fish being sucked up into the hose. The potential effects on aquatic values are negligible. A special condition has been inserted into the draft AA requiring intake pipes to be fitted with

screens with a maximum slot size of 3mm (to avoid fish from passing through the intake).

Historic

42. The Applicant's archaeological assessment indicates that the Whakaari Conservation Area is part of wider area that has a long history of mining activities dating back to the 1880's and is "littered with mining remnants from the 100 year plus years of activity". This general acknowledgment of the site's historic and archaeological values are confirmed by Department historic technical advisor Neville Ritchie who peer reviewed the Applicants' assessment and notes that "the recorded sites are connected with historic scheelite mining and processing (pre-1900 – 1970s) including mines (tunnels), open cast pits, miner's huts and processing sites (batteries) and associated infrastructure such as roads, tracks and flying foxes.
43. The application identifies 17 sites within EP 40547 that are recorded in the New Zealand Archaeological Association's Site Recording Scheme. 15 of these are within the Whakaari Conservation Area.
44. It is clear that the general application area is significance in terms of its historic and archaeological values. This is also reflected by the area being within an acknowledged "heritage landscape" in the Queenstown Lakes District Council's 'Proposed District Plan'.

Mitigation and Potential Adverse Effects on Historic Values

45. The Applicant acknowledges the historic values of the application area and is proposing to avoid historic sites and therefore negate any impact on historic values. Specific measures being proposed are:
- Having an archaeologist brief drilling staff prior to drilling operations so staff can identify and avoid any features in the proximity of proposed drill sites
 - An archaeologist will visit sites prior to drilling to ensure no sites would be impacted
 - The use of helicopters to access some drill sites thus reducing 'on the ground' transport requirements

46. Given that these measures would be undertaken, Mr Ritchie is satisfied that the operation would be low impact and avoid any notable historic features. ✓
47. The draft AA also includes an accidental discovery protocol to help ensure that unexpected finds are managed and protected. ✓

Amenity

48. The Whakaari Conservation Area forms part of a designated Outstanding Natural Landscape and forms part of the scenic setting and mountain backdrop to Glenorchy. From this perspective the application area has high scenic and landscape values. The individual sites being applied for are largely located on ex-pastoral farm land and are primarily modified “unnatural” sites of lesser scenic or landscape value. ✓
49. The Whakaari area is popular with recreational users. Main visitor usage is walking, cycling/mountain biking and horse riding. There are five active concessions for guided walking and two for guided horse trekking in the Whakaari area. When first opened in 2008 the Whakaari track counter at the entrance received 2,425 hits in the year. In 2014 it was 3,517 and in 2015 there were 3,264 hits not including December. Visitor use is highest in the summer months (particularly November – February) and drops off in winter. The proposed drill site locations are in close proximity to the State Mine area, a popular day walk destination, and the main Whakaari walking track (an easement across private land). Recent track data shows steady increases over the past few years. ✓

Mitigation and Potential Adverse Effects on Amenity Values

50. The exploration operations applied for are at a scale that would have minimal impact on the landscape. However, noise and activity from the operating drill rig would result in a localised short term disturbance of visitors in the vicinity of drill sites. The use of helicopters to transport the drill rig from site to site would be intrusive and have a significant impact on visitors in the vicinity. Although most users of the area are ‘day trippers’ the noise and hovering of helicopters ✓

would have a notable impact on their personal experience of the area and detract from the otherwise un-industrial setting. ✓

51. To address potential impacts on amenity values the application and draft AA includes the following mitigation measures:

- No operations during the period 23 December to 6 February,
- Helicopter use is restricted from high visitor times of the day, 10am to 5pm during daylight saving time and from 11am to 3pm outside of daylight saving time.
- Drilling activities would be well notified at the entrance to the main Whakaari track
- The helicopter landing/hovering zone must be secure and have safety signage to prevent visitors wandering onto the site ✓

52. Despite the above measures there would be some unavoidable impacts on the amenity values of the area, mainly from the disturbance of visitors from helicopter use and the noise and activity of an industrial drill rig in an otherwise un-industrial area, directly adjacent to a walking track. Overall however the impacts should be able to be managed so that residual impact is not unduly significant. The draft AA requires the Applicant to provide compensation to address the residual impacts on amenity values. ✓

Cultural Values

53. The Applicant's archaeological assessment identifies no cultural sites within the application area. This was further confirmed through consultation with local Iwi. Likewise, Wakitipu District staff are not aware of any cultural sites in the area. ✓

54. To avoid disturbing any unknown cultural sites the Applicant is proposing to have an archaeologist visit all drill sites to ensure there are no archaeological features present. The draft AA also includes an accidental discovery protocol should features be found. ✓

55. Given the above there should be no impact on cultural values from the proposed activities. ✓

56. Section 4 of the CMA provides that “all persons exercising functions and powers under this Act shall have regard to the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).” This implies that the Department should consult with iwi if it is determined that an application would impact on their relationship with their lands, resources and taonga. ✓

57. The Applicant has undertaken consultation with local Iwi and there are no known cultural sites within the application area. On 26 February 2016 the Department sent the application to Awarua Runanga, Te Runanga o Waihopai, Te Runanga o Waihopai, Te Runanga o Oraka Parima, Te Runanga o Hokonui, Te Runanga o Moeraki, Kati Huirapa Runaka ki Puketeraki, Te Runanga o Otakou. ✓

6.0 Section 61 Crown Minerals Act (CMA) – Matters the decision makers shall have regard to

58. EP 40547 is classified as a Tier 1 permit. Pursuant to section 61(1AA)(a) of the CMA, the decision on whether to enter into an initial access arrangement in relation to a Tier 1 Permit rests jointly with the Minister (the Minister of Energy and Resources) and the appropriate Minister (the Minister of Conservation). ✓

59. The public conservation land over which the applicant is seeking an access arrangement is not included in Schedule 4 of the Act; therefore the Ministers are able to accept and consider this application for an access arrangement and in doing need to carefully consider the provisions of section 61(2) of the CMA 1991: ✓

“In considering whether to agree to an access arrangement in respect of Crown land, the appropriate Minister, or the Minister and the appropriate Minister, as the case may be, shall have regard to:

- (a) *the objectives of any Act under which the land is administered; and*
 - (b) *any purpose for which the land is held by the Crown; and*
 - (c) *any policy statement or management plan of the Crown in relation to the land;*
 - (d) *the safeguards against any potential adverse effects of carrying out the proposed programme of work; and*
 - (da) *the direct net economic and other benefits of the proposed activity in relation to which the access arrangement is sought; and*
- ✓

- (db) *if section 61C(3) applies, the recommendation of the Director-General of Conservation and summary referred to in that subsection; and*
- (e) *such other matters as the appropriate Minister considers, or the Minister and the appropriate Minister, as the case may be, consider relevant."*

(a) Objectives of any Act under which the Land is administered

60. The public conservation land under application is administered by the Department under the Conservation Act 1987. The long title of the Conservation Act 1987 is: *"An Act to promote the conservation of New Zealand's natural and historic resources, and for that purpose to establish a Department of Conservation."*

61. Under the Conservation Act 1987:

"Conservation" is defined as:

"...the preservation and protection of natural and historic resources for the purpose of maintaining their intrinsic values, providing for their appreciation and recreational enjoyment by the public, and safeguarding the options of future generations."

"Preservation" in relation to a resource, is defined as:

"...the maintenance, so far as is practicable, of its intrinsic values."

"Protection", in relation to a resource, means its maintenance, so far as is practicable, in its current state; but includes—

- (a) *its restoration to some former state; and*
- (b) *its augmentation, enhancement, or expansion*

"Natural resources" is defined as:

- (a) *plants and animals of all kinds; and*
- (b) *the air, water, and soil in or on which any plant or animal lives or may live; and*
- (c) *landscape and landform; and*
- (d) *geological features; and*
- (e) *systems of interacting living organisms, and their environment:- and includes any interest in a natural resource*

62. The proposed activities, taking into account the proposed avoidance and mitigation measures and conditions imposed in the draft AA, would have relatively low adverse effects on flora and fauna, historic, cultural and aquatic values. There would however be localised, short term impacts on amenity values due to the imposition of industrial activities and associated disturbance (mainly helicopter use) within a popular recreational conservation area. ✓

63. On the whole the intrinsic values of the application area would not be permanently affected by the proposed activities, but they would be intruded upon during the course of drilling. Therefore the proposal is inconsistent with the objectives of the Conservation Act 1987, albeit while the effects leading to the inconsistency would be neither permanent nor significant. ✓

(b) Purpose for which the Land is held

64. The land under application is part of the Whakaari Conservation Area, held by the Crown for conservation purposes and managed by the Department as stewardship land pursuant to section 25 of the Conservation Act 1987. Section 25 states that stewardship land shall '...so be managed that its natural and historic resources are protected.' [see definitions for "Protection" and "Natural resources" above.]. ✓

65. The proposed activities, taking into account the proposed avoidance and mitigation measures and conditions imposed in the draft AA, would have very low or negligible adverse effects on the natural resources of the Whakaari Conservation Area. The natural resources would not be permanently or significantly affected by the proposed drilling. It is therefore considered that the proposal is consistent with the purpose for which the land is held. ✓

(c) Any policy statement or management plan of the Crown in relation to the land

Conservation General Policy (CGP)

66. The Conservation General Policy (CGP) is the first Statement of general policy prepared under section 17 C of the Conservation Act 1987. It provides guidance for the implementation of the Conservation Act and other conservation related legislation. The CGP sets out to achieve integrated conservation management ✓

over the wide spectrum of conservation areas administered and tasks performed, while maintaining a strong statute-based focus on the protection and preservation of natural and historic resources. The policy sections of the CGP relevant to this proposal are outlined below. ✓

Policy 11 – Activities requiring specific authorisation

67. Policy 11 of the CGP deals with activities requiring specific authorisation, including access arrangements. It states that activities should avoid, remedy or mitigate any adverse effects (including cumulative effects) and maximise any positive effects. Both the Department and access arrangement holders should monitor effects, including effects on public enjoyment, to inform future management decisions. Access Arrangement holders are to be responsible for the safe conduct of their operations. ✓
68. It is expected that the proposed activity could be planned and managed so that the adverse effects are minimised, through appropriate exploration activity management and the conditions proposed in the draft AA. ✓
69. Monitoring, as mentioned in policy 11, would be undertaken at the conclusion of exploration activity by a Department of Conservation representative to ensure compliance with the conditions of the AA (draft attached as Appendix 1), and assess area that have been disturbed and rehabilitated. ✓

Policy 4.5 – Geological Features, Landforms, and Landscapes; and Policy 4.6 Ecosystem Services

70. These sections describe the Department's generic strategy in terms of managing activities on public conservation land that is not national park. The relevant policies to activities such as exploration operations that the Department needs to consider are: ✓

4.5 Geological features, landforms, and landscapes

71. 4.5 (b) Activities which reduce the intrinsic values of landscape, landform and geological features on public conservation lands and waters should be located and managed so that their adverse effects are avoided or otherwise minimised. ✓

4.6 Ecosystems services

72. 4.6 (a) Activities on public conservation lands and waters should be planned and managed in ways which avoid or otherwise minimise adverse effects on the quality of ecosystem services. ✓
73. In relation to the above policies, the proposed activities would have minimal adverse impacts on the intrinsic values of landscape, landform and geological features within the application area. If an AA is granted, it is considered that compliance with the conditions that would be included in any AA would ensure that the proposed activity is consistent with the Conservation General Policy. ✓

Otago Conservation Management Strategy (CMS) 2016

74. The relevant parts of the CMS are Parts One to Three and the Glossary:
- Part One – Objectives
 - Part Two – Places
 - Part Three – Specific policy requirements for Otago
 - Glossary
- ✓

Part One

75. Aspects of Part One that are relevant to this application include the vision for Otago-2066, distinctive features, values and issues of Otago, and Otago by 2026. However, there are no relevant objectives or policies. ✓

Part Two

- Western Lakes and Mountains/Nga Puna Wai Karikari a Rakaihautu Place
76. The application area is located within the Western Lakes and Mountains/Nga Puna Wai Karikari a Rakaihautu Place. This Place is recognised for its tussock covered ranges, lakes and the popular tourist destinations such as Queenstown. It is an area of spectacular glaciated mountain ranges, and below the snowline a complete sequence of indigenous vegetation exists. This Place has outstanding landscape, ecological, cultural and recreational values. The mountain, lake and river landscapes and rich history have long attracted people for recreation to this Place. Outdoor recreation and tourism activities are highly valued with outdoor activities such as tramping, mountain biking and skiing. Queenstown is a focal
- ✓

point for tourism and the areas surrounding it are important nationally for commercial tourism.

Outcome

77. The mountains are cherished natural wonders that draw international and domestic visitors and provide an outstanding backdrop to and locations for a wide range of outdoor adventures and activities. Prominent landscape and geological features (ridgelines and mountain tops) remain in their natural state, or are unmodified beyond their state at the time of becoming public conservation lands. More people enjoy a wide range of recreational opportunities and experiences within the recreation settings across the Place, which enables people to choose between remote, quiet and tranquil places.
78. In and around Queenstown people experience frequent aircraft activity and noise. Frequent aircraft activity occurs at Glenorchy airstrip. Regular to frequent encounters with aircraft occur in heli-skiing blocks during winter. Visitors can generally expect occasional encounters with aircraft. ✓
79. Collaborations with Ngai Tahu, business, communities and other interested parties have helped achieve more conservation and enhanced prosperity across this Place. ✓
- Richardson-Upper Shotover area
80. The application area is located within the Richardson-Upper Shotover area of the Place. The area has a rich mining and pastoral farming history; with many historic sites within Whakaari Conservation Area. Recreational opportunities include tramping, heli-skiing, mountain biking, horse riding, camping and picnicking. Tramping, and short walks, mountain biking and horse riding are popular activities in Whakaari Conservation Area. Heli-biking operations are also located in Whakaari. Wilding trees pose a threat to the area and preventing their spread is a priority. ✓

Outcome

81. A wide range of recreational activities complements the natural and historic heritage of the Richardson-Upper Shotover area. Secure public walking access

is available to public conservation lands in the Richardson Mountains and these areas remain tranquil places where people enjoy nature on its own terms with few or no recreational facilities. Visitors regularly encounter aircraft activity during winter in the Richardson Mountains for heli-skiing. Occasional encounters occur elsewhere for scenic landings and activities such as heli-biking. ✓

Part Three

Aircraft

82. The application area is located within the Orange Zone; areas where there are complex issues to be managed and require the use of limits or other mechanisms when considering concession applications. This zone could be used as a guideline for how to manage place based effects, however, there are no relevant policies to this access arrangement application. ✓

Mining

83. Policies 3.16.1 and 4.16.2 are relevant to this application. These policies require the consideration of access arrangement applications on a case by case basis in accordance with the Crown Minerals Act 1991 and review the conditions of access arrangements if monitoring shows that adverse effects are greater than expected or if new adverse effects arise. ✓

Comment

84. The likely impacts of the proposed exploration drilling have been considered in relation to the above outcome statements for Western Lakes and Mountains/Nga Puna Wai Karikari a Rakaihautu Place and Richardson-Upper Shotover, and specifically addressed throughout section 4 of this report. ✓

85. The application is for an area with notable amenity value, is growing in popularity with recreational users, and has significant historic value. The Applicant's proposed mitigation and conditions in the draft AA would address all of the above except localised short term disruption of recreational users from helicopter noise and the general imposition of an industrial activity in the area. ✓
Conditions in the draft AA would restrict drilling from 23 December to 6 February inclusive and helicopter usage during peak recreational hours. Overall

it is considered that the proposed activities would be consistent with Policies 3.16.1 and 3.16.2. ✓

(d) The safeguards against any potential adverse effects of carrying out the proposed programme of work

86. To safeguard against adverse effects occurring if access is granted, the Ministers are able to impose any conditions considered necessary as part of an access arrangement that will safeguard against any adverse effects that might result from the proposal. The Applicant has included many safeguards within the application itself to address adverse effects. Where appropriate these are reflected in conditions of the draft AA. The draft AA also includes additional safeguards where considered necessary to minimise the potential effects of the proposal. The key safeguards included are:

- pressure cleaning equipment to avoid the spread of exotic weeds ✓
- avoiding areas of mature beech forest and other areas of vegetation where possible ✓
- Minimise vegetation clearance and soil disturbance at all times ✓
- utilising existing tracks only and using helicopters to access drill sites where existing tracks are not available ✓
- rehabilitation requirements to stockpile and re-spread all topsoil and cleared vegetative matter ✓
- Cap all drill holes upon the completion of drilling ✓
- Have an ecologist check drill sites and surrounds for the presence of breeding falcon during breeding season (September – December) and revise drilling locations as required to avoid disturbing breeding pairs ✓
- Requirement to “kea proof” camp and drill sites ✓
- Requirement to obtain a Wildlife Act authority for the potential disturbance or killing of absolutely protected herpetofauna, most notable being the takitimu gecko ✓
- Placement of a fish guard will be placed over the nozzle of the water takes ✓
- Having an archaeologist brief drilling staff prior to drilling operations so staff can identify and avoid any features in the proximity of proposed drill sites ✓
- An archaeologist will visit sites prior to drilling to ensure no sites would be impacted ✓
- The use of helicopters to access some drill sites thus reducing ‘on the ground’ transport requirements ✓
- Operations not permitted during high visitor months (December – February inclusive) and public holidays ✓
- Helicopter use is restricted from high visitor times of the day, 11am – 4pm ✓

- Drilling activities would be well notified at the entrance to the main Whakaari track ✓
- The camping facilities and storage structures must be of suitably coloured to blend into the surrounding landscape ✓
- The helicopter landing/hovering zone must be secure and have safety signage to prevent visitors wandering onto the site ✓
- Concessionaires for the Whakaari Conservation Area must be notified of the activity 2 weeks prior to commencement of works ✓

87. These conditions form a comprehensive set of safeguards that together with the standard conditions included in the main body of the AA should avoid or minimise the loss of conservation values wherever possible. ✓

(da) Direct net economic and other benefits of the proposed activity

88. The application suggests that there would be the following direct economic benefits from the proposal:

- Benefit to the local Glenorchy community from the utilisation of local labour, local helicopter operator and use of Glenorchy's shops and facilities by company staff and contractors. ✓
- Benefits to the Crown from ongoing permit fees and the gaining of information regarding the economic value of tungsten and gold deposits in the area. ✓

89. The Applicant did not provide further information in support of these benefits. ✓

90. It is likely that there would be direct benefits to the local community as suggested by the Applicant. However, these are likely to be relatively small. Ongoing permit fees are not necessarily a benefit to the Crown as fees are generally to meet ongoing costs of administering and managing permits and applications. Should the exploration operations lead to the mining of minerals at a later date royalties to the Crown could be considered. However, this cannot be attributed to the exploration operations themselves, although the exploration activities are necessary for the resource to be sufficiently delineated in order for a commercially justifiable decision to be made on mining the resource. ✓

91. There is a defined resource in the area (Judah's Lode). However, the resource is only an Inferred Resource (reported in accordance with the JORC Code 2012) as such is not sufficient to allow for economic parameters to be applied but ^{it is} it is reasonable expected that the majority of the Resource could be upgraded to an

Indicated Resource (where technical and economic parameters could be applied) with continued exploration, as that proposed by the permit holder. ✓

92. The Crown through the Permit conditions and regulations under the CMA will obtain all data collected along with interpretations from the exploration activities. This data and any interpretations will add to the Crown's knowledge of its mineral estate. ✓

(db) if section 61C(3) applies, the recommendation of the Director-General of Conservation and summary referred to in that subsection

93. Section 61C(3) does not apply as the application is only for exploration activities. ✓

(e) Such other matters as the appropriate Minister considers relevant

Conservation Board

94. The Otago Conservation Board has not been consulted as this application does not meet the trigger mechanism for Board consultation. ✓

Resource Consent

95. The Applicant has applied for the relevant resource consents from the Queenstown Lakes District Council. The Department is currently reviewing the application in light of granting a s95 affected party approval. ✓

Compensation

96. Section 76 of the CMA states that the owner and occupier of any land that has an AA granted over it, is entitled to receive compensation. The draft AA includes the following compensation requirements: ✓

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- (a) [REDACTED] per annum for Exploration operations involving activities which are more invasive than 'minimum impact activities' (as that term is defined in the Act) to be paid at the time of presentation of an Annual Work Programme for the succeeding 12 months which contemplates such activities; and ✓
- (b) [REDACTED] per drill site, or per return visit to drill site; and ✓
- (c) An additional [REDACTED] per drill site where the clearance of indigenous vegetation occurs; and ✓
- (d) An additional [REDACTED] per annum where helicopters are to be used in association with the Exploration operations to be paid at the time of presentation of an Annual Work Programme involving helicopters in association with the Exploration operations for the succeeding 12 months. ✓

Bond

97. Bonds can be required for ensuring that the Permit Holder complies with the conditions of the AA and to allow the Department to recover costs of undertaking rehabilitation, weed control, rubbish removal or recovery of mining equipment should the applicant default. ✓
98. The Department considers a minimum bond to cover the foreseeable worst case scenario to be [REDACTED] which is included as a condition of the draft AA. The bond can be reviewed as part of the Annual Work Plan process and adjusted accordingly should the potential risks and/or costs be seen to increase. ✓

Insurances

99. It would be a requirement of any AA that insurances be in place for public liability and potential fires. The required amounts of insurance cover in this case would be [REDACTED] for aviation legal liability and [REDACTED] for general public liability. Proof of valid insurance would be required with an Annual Work Programme before an Authority to Enter and Operate (AEO) could be issued. ✓

7.0 Applicant's comments on draft report

100. The applicant has been provided the opportunity to provide comments on this report, however, comments were only received in relation to conditions in the draft AA. ✓

8.0 Conclusions and recommendation

101. In considering the relevant matters set out above, the following conclusions have been reached:

- The land under application has: low flora, aquatic and cultural values, moderate to high fauna values, and high landscape, amenity and historic values; ✓
- The mitigation being proposed by the Applicant in combination with special conditions in the draft AA should avoid most notable adverse effects of the proposed activities except localised short term impacts on recreational users and visitors to the immediate vicinity of drilling activities; ✓
- Treaty of Waitangi matters have been adequately addressed by the Applicant and Department staff, including Iwi consultation and the inclusion of safeguards to protect cultural sites and values; ✓
- The proposal is inconsistent with the purpose of the Conservation Act but consistent with the Conservation General Policy, purpose for which the land is held and the Otago CMS; ✓
- The required bonds and insurances would provide adequate financial assurances for the Crown if an AA was approved; and ✓
- Compensation include in the draft AA would address the residual adverse effects of the proposal. ✓

102. It is therefore recommended that the application to access areas of the Whakaari Conservation Area is approved subject to the draft AA and special conditions therein. ✓

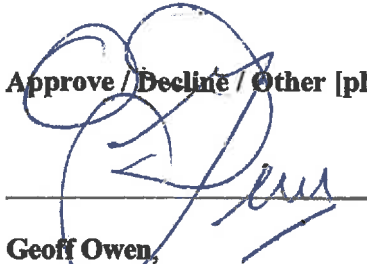
Aran Naismith
Senior Permissions Advisor

Date: 25/01/2018

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10.0 Decision

Approve / Decline / Other [please specify]

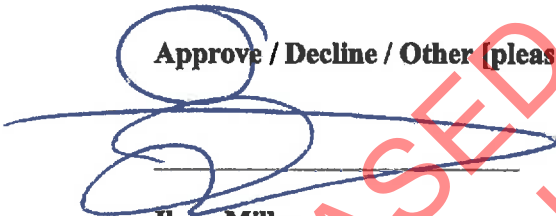


Date: 14/02-2018

Geoff Owen,
Operations Manager
Wakatipu District
Southern South Island Region
Department of Conservation

Decision makers' comments:

Approve / Decline / Other [please specify]



Date: 21/02/18

Ilana Miller,
National Manager Minerals
Energy & Resource Markets – Building, Resources & Markets Group
Ministry of Business, Innovation & Employment

Decision makers' comments:

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