

**PLACER LAND USE APPROVAL FOR A CLASS 4
OPERATING PLAN**

Pursuant to the *Placer Mining Act* and the *Placer Mining Land Use Regulation* made thereunder, the Yukon Water Board hereby approves the Class 4 Placer Land Use Operating Plan as submitted by:

H3 Mining Company
Box 893
Crofton, B.C.
V0R 1R0

APPROVAL NUMBER:	AP17021	WATER LICENCE:	PM17-021
WATERSHED:	Klondike River		
HABITAT CLASSIFICATION:	Operational: Low Restoration: Low, Moderate-Low		
LOCATION:	Latitude: 63° 55' 09" N Longitude: 139° 16' 14" W		
EFFECTIVE DATE:	The effective date of this approval shall be the date on which the signature of the Chairperson of the Yukon Water Board is affixed.		
EXPIRY DATE:	September 6, 2027		


The operating plan shall be subject to the restrictions and conditions contained herein, and to the restrictions and conditions contained in the *Placer Mining Act* and the *Placer Mining Land Use Regulation* made thereunder.

Dated this 15th day of
September, 2017



Witness

Approved by:


(Digitally signed by Greg Komaromi)
Vice-Chairperson
Yukon Water Board

PART A DEFINITIONS

“Act” means the *Placer Mining Act*.

“Application” means application for water licence PM17-021 and placer mining land use approval AP17021, and any subsequent information presented to the Yukon Water Board up to the date of the Board’s decision.

“Board” means the Yukon Water Board.

“Claims” means any parcel of land located or granted for placer mining; and “Mining Property” includes, besides claims, any ditches or water rights used for mining thereon, and all other things belonging thereto or used in the working thereof, for mining purposes.

“Inspector” means any person designated as an Inspector under the Act.

“Operation” means a placer land use operation.

“Operator” means a person who engages in a placer mining land use Operation.

“Regulation” means *Placer Mining Land Use Regulation*.

“Road” means a pathway for vehicular traffic, the construction of which requires the movement of rock or earth.

“Special Waste Management Facility” means an operation which handles or disposes of special wastes generated by other persons or operations, and which is approved in accordance with the provisions of the *Special Waste Regulations* of the *Environment Act* of the Yukon Territory.

“Stripping” means excavation, undertaken as part of an operation, that is limited to the removal of trees, brush and vegetative mat.

“Trail” means an access to a site within a claim or lease that is constructed with little or no movement of rock or earth.

“Trenching” means excavation that extends below the vegetative mat, undertaken as part of an operation.

“Vegetative Mat” means the organic surface of soil characterized by the accumulation of organic matter, or partly decomposed organic matter, derived mainly from leaves, twigs and woody materials and includes the root mass of living vegetation.

PART B GENERAL CONDITIONS

1. This approval applies to those grant (claim) numbers that are included in water licence PM17-021, including any amendments thereto.
2. All operating activities must comply with the operating conditions contained in Schedule 1 of the *Placer Mining Land Use Regulation* and with the operating plan AP17021 submitted. Where there is a discrepancy between the operating plan submitted and this approval, the terms of this approval shall prevail.
3. The Operator must contact Department of Energy, Mines and Resources, Compliance Monitoring and Inspections Branch, every year before beginning operations and at least 2 weeks prior to leaving the site at the end of every season.
4. All risk of fire hazards must be avoided.
5. All solid waste, including debris, equipment, barrels, drums and scrap metal must be safely stored on the operation site while the Operation is carried out and must be disposed of in accordance with the *Solid Waste Regulations* when the Operation ceases.
6. No condition of this approval limits applicability of any statutory authority.

PART C WILDLIFE

7. All incidents with wildlife must be reported to the District Conservation Officer in Dawson City.
8. Brush removed during the Operation must not be piled so that it blocks movement of wildlife or people.
9. At seasonal closure, any materials that may result in injury to wildlife including, but not necessarily limited to, wire, steel, glass or plastic must be removed or safely stored.

PART D INVASIVE PLANT SPECIES

10. The Operator shall implement best management practice for the management of invasive plant species. The Operator shall refer to the most current version of the *Best Practices for Managing Invasive Plants on Roadsides*.

PART E RESTORATION PRACTICES

11. If the Vegetative Mat is disturbed during the mining operation, it must be removed so as to protect the seed and root stock contained within the Vegetative Mat.
12. The seed and root stock must be stored separately from any overburden or bedrock removed for use in re-establishing the Vegetative Mat when the Operation ceases.
13. All areas disturbed during the mining operation including, but not limited to, fuel and waste storage areas, clearings, corridors, camps, supporting infrastructure, trenches and drill sites, must be left in a condition conducive to re-vegetation by native plant species comparable to similar, naturally occurring, environments in the area.
14. Conditions conducive to re-vegetation include provisions of an adequate soil layer with moisture retaining ability, no soil contamination by hydrocarbons or other hazardous substances, provision of adequate seed or root stock and contoured or otherwise stable slopes.
15. If adequate seed stock or root stock is not naturally available, re-seeding or transplanting of vegetation is required. Only non-invasive species may be used for re-seeding or transplanting.
16. All areas disturbed during the mining operation must be re-sloped, contoured or otherwise stabilized to prevent long-term soil erosion, slumping and subsidence.
17. All mining operations must be carried out to avoid or minimize damage to, and loss of, permafrost.
18. Available overburden must be stockpiled for use in future site restoration, and such stockpiles must be located where they will not adversely affect the water quality in any watercourse.
19. Tailings and overburden, or other relocated materials, must be levelled and contoured into low relief piles. The slope of these low relief piles must be no steeper than 2 horizontal to 1 vertical. Any such slope over 15 metres in height must be benched.
20. The following conditions apply to Stripping:
 - a) trees and brush must be cleared first;
 - b) when it is economically viable to do so, timber suitable for sale must be salvaged and stockpiled;
 - c) topsoil and organic material must be stockpiled separately;
 - d) overburden must be located no closer than 5 metres from any standing trees; and
 - e) overburden may be stacked along the valley wall, but must be contoured to blend with the natural topography.

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21. All Trenching carried out by hand or with hand-held tools must be methodical. The trenches must be stabilized and marked in such a way as to minimize risk to the public.
 22. Trenches constructed with mechanized equipment must be backfilled by first depositing any removed overburden and bedrock and then replacing any vegetative mat that was removed to construct the trench.
 23. Trenches shall be maintained in a condition that prevents wildlife entrapment and public safety hazards.
 24. The Operator must ensure that all employees and contractors using equipment at trench sites are aware of these operating conditions for trenches.
 25. Reclamation shall be progressive over the term of this Placer Mining Land Use Approval.

**PART F HERITAGE RESOURCES AND ARCHAEOLOGICAL AND
PALAEONTOLOGICAL SITES**

26. All heritage resources and archaeological and palaeontological sites must be avoided.
27. If any heritage resources, archaeological objects or palaeontological objects are encountered, the Operator must:
 - a) immediately mark and protect the area from further disturbance;
 - b) contact the Chief of Placer Land Use at (867) 456-3822;
 - c) in the case of archaeological sites, human remains, grave sites, burial sites and all other abandoned, man-made structures older than 45 years old, immediately contact Heritage Resources and contact the Tr'ondëk Hwëch'in at (867) 993-7100;
 - d) set aside and protect fossils that are unearthed, and at the end of each season the Operator shall contact Yukon Palaeontology at (867) 667-8089 and contact the Tr'ondëk Hwëch'in;
 - e) immediately contact Yukon Palaeontology and contact the Tr'ondëk Hwëch'in if any mummified fossil remains with intact flesh are discovered; and
 - f) prevent any further disturbances from being carried out within 30 metres of an archaeological or palaeontological site until the Chief of Placer Land Use indicates in writing that the activities may proceed.

PART G ACCESS ROADS AND/OR TRAILS

28. Off-Road and Trail routes must be reconnoitred and must be used in a way that minimizes ground disturbances, damage to permafrost and sensitive wildlife habitat. Trail routes must be flagged.
29. Vehicles must be operated in a manner which avoids rutting or gouging of a Road or Trail.
30. If rutting, gouging, ponding or permafrost degradation occurs off-Road or Trail, vehicle use must be suspended or relocated to ground that is capable of bearing the weight of the vehicle without causing such damage, and the former routes must be restored in compliance with Part E of this approval.
31. If there is no Road or Trail, the Operator must comply with the following conditions when mobilizing heavy equipment to a site:
 - a) tracked vehicles with blades should be provided with mushroom pads to minimize terrain damage;
 - b) dozers must travel with the blade raised, so as not to rip up the Vegetative Mat;
 - c) vehicles may only be mobilized in ice-rich permafrost areas when the active layer is frozen, or when the surface is strong enough to support the vehicle without excessive permafrost degradation; and
 - d) use of skids on permafrost or wet ground is only allowed outside of winter, where it is not possible to use other means of equipment transportation.
32. At abandonment of a Road, the compacted Road surface must be scarified to promote re-vegetation.

PART H CAMPS

33. All campsites must be kept clean and tidy.
34. All buildings and other facilities must be on well-drained soil.
35. Combustible and odorous kitchen waste must not be permitted to accumulate.
36. All wood debris, empty drums, junked equipment and metal waste must be kept in a secure area for final disposal.
37. Compacted soil must be loosened to allow for natural re-vegetation. Areas not likely to re-vegetate naturally must be spread with topsoil.

PART I FUEL HANDLING AND TRANSPORTATION

38. A spill contingency plan for petroleum products and other hazardous substances must be in place, and a copy posted in the camp and at all fuel handling locations.
39. All petroleum products, hazardous waste and chemicals must be transferred and handled in such a manner so as to prevent spillage.
40. All petroleum products, hazardous waste and chemicals, with the exception of liquids associated with any water pump engine, must be stored in a secure manner no less than 30 metres from the ordinary high water mark of any water body.
41. All fuel tanks that exceed 4,000 litres must be registered with Government of Yukon Mining Recorder's Office.
42. When the fuel storage capacity exceeds 4,000 litres, secondary containment must be provided.
43. The secondary containment facility must be constructed of material impervious to petroleum products; and:
 - a) in the case of a single storage tank, be of sufficient size to accommodate at least 110% of the capacity of the storage tank; or
 - b) if there is more than one storage tank, be of sufficient size to accommodate 110% of the capacity of the largest tank or 10% of the total capacity of all the tanks, whichever size is greater.
44. All vehicles must be maintained and operated in a manner designed to prevent spills of fuel, lubricants, coolants or oil.
45. All waste petroleum products must be safely stored on site, be removed to a Special Waste Management Facility or disposed of in accordance with the *Special Waste Regulations*.
46. Sufficient spill clean-up equipment and materials must be in a state of readiness in order to clean-up all fuel spills.
47. If a spill or unauthorized discharge occurs, the Operator shall immediately implement the Spill Contingency Plan, and:
 - a) contain and clean up the spill;
 - b) contact the 24-hour Yukon Spill Report number, (867) 667-7244; and
 - c) contact an Inspector.

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48. A detailed written report on any spills or unauthorized discharges including, but not limited to, dates, quantities, parameters, causes and other relevant details and explanations shall be submitted to the Board, and a copy to the Chief of Placer Land Use, no later than 10 days after its occurrence.
 49. All fuel and chemical containers must be sealed when not in use.
 50. All containers of petroleum products with a capacity of 200 litres or greater must be clearly marked with the Operator's name and the contents.

PART J DRILLING

51. Vegetation other than within a drill sump must not be covered with drill cuttings.
52. Drill mud must be re-circulated when possible.
53. All drill fluids must be contained within a small (natural or artificial) sump in a suitable manner.
54. All drill holes that pose a hazard or that lead to ground water must be plugged in a suitable manner.
55. All drilling must be done in a way that minimizes its impact on wildlife and the public.
56. The location of drill holes must be marked on the ground by flagging or other suitable means.
57. There shall be no direct discharge from the drilling site to a watercourse.

PART K SEASONAL CLOSURE

58. The mine site must be left in a stable condition at the end of each mining season.
59. All mined or otherwise disturbed ground surfaces, including cut banks, fill slopes and tailings piles, must be stabilized annually.

PART L DECOMMISSIONING

60. Unless authorized under the *Solid Waste Regulations*, at final decommissioning everything must be removed from the site including but not necessarily limited to: all buildings; machinery; materials; fuel drums; used hydrocarbons; and solid waste and metal waste including junked vehicles.

61. The Operator must contact an Inspector not less than 2 weeks prior to final decommissioning.
62. The Operator may apply for a certificate of completion at the termination of the Operation, when all reclamation has been achieved.

PART M ADDITIONAL DECISION DOCUMENT TERMS

63. If active bird nests are discovered, project activities should be postponed in the nesting area until nesting is completed.
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