



APMA F20249828
Boulder Creek-Fireweed Uranium
Tubutulik River, Boulder Creek & Granite Creek
Koyuk Mining District
Memorandum of Decision

Applicant(s):
Panther Minerals (AK) Inc.

Date:
October 2, 2024

1. Requested Land Use and Proposed Activity Description:

Broad Proposed Activity Description: Panther Minerals (AK) Incorporated (Panther) is requesting a five-year authorization for an initial phase hardrock exploration program with the Boulder Creek Claim Block 30 miles north of the Elim on the Seward Peninsula. Panther is proposing approximately 30-50 drill holes total from approximately 11 drill pads on state and federal mining claims within the Boulder prospect and Fireweed Prospect. Drill holes are expected to have a maximum depth of 1,000ft. The equipment being utilized for the drilling will be an LF-70 rotary diamond core drill rig. Access to the claim block is via aircraft to an existing runway with travel between camp and drill locations using ATV's. The exploration program is proposed to be performed during the summer field season, generally from June to September. The purpose of the project is to define the uranium resources in the area. This memorandum of decision is limited to the proposed uses of state lands and the issuance of a Miscellaneous Land Use Permit, not for the activities proposed on the federal claims.

Proposed Surface Occupancy: The proposed surface use is limited to a temporary camp located within the claim block on ADL 741187. The camp is located on the existing airstrip on state land. The camp will consist of approximately 12 people and utilize existing tent platforms located from previous exploration projects. Tents will be dismantled at the end of field season and stored for the following year.

Waste: The project will utilize a hand dug pit privy and grey water into a hand dug sump. Solid waste will be disposed in a burn barrel. The applicant has applied separately to Alaska DEC for a camp/lodge solid waste general permit to allow a small landfill. The proposed land fill is outside the scope of this decision.

Fuel Storage: The project proposes to use and/or store less than 1,320 gallons of petroleum products. The majority of fuel will consist of diesel fuel, Jet A and 100LL aviation gasoline. Transportation and storage of fuel products will be in 55-gallon drums. Most drums will be stored

at the airstrip with some smaller storage quantities at drilling locations. Given the small volume of fuel a SPCC is not required however, the project will use best management practices for fuel storage and refueling including having spill kits and absorbents will be available at the camp, drill and pumps sites. No waste oil will be stored on site.

Acres Disturbance and Reclamation Bonding:

Panther proposed to disturb approximately 0.23 acres of BLM managed lands and 0.24 acres state managed lands. Total proposed disturbed acreage is 0.47 acres. Panther intends to reclaim all drill sites prior to the end of field season or as soon as the sites are no longer needed.

The drill sites will be reclaimed by covering the disturbance with the stockpiled topsoil and vegetative mat, allowing natural seeding to prioritize revegetation. Reclamation of drill sites will be completed immediately upon removal of drill rig or at the end of the season.

All equipment and structures will be removed at the end of service life or when the project is concluded. Equipment will be dismantled and removed according to applicable State and Federal laws. The camp will be restored and cleaned of debris. Regrowth is anticipated to start shortly after demobilization. This project is currently bonded through the Statewide bond pool for 1 acre.

Water, Fish, Wildlife, Wetlands and Cultural Surveying:

Water use and water quality, fish and habitat mitigation, wildlife mitigation, wetlands impact and cultural resources are managed and regulated by the following agencies:

- Alaska Department of Natural Resources, Division of Mining, Land & Water, Water Section (DMLW-Water)
- Alaska Department of Natural Resources, Office of History and Archeology (OHA)
- Alaska Department of Fish and Game, Habitat Division (ADFG)
- Alaska Department of Environmental Conservation (ADEC)
- U.S. Army Corps of Engineers, Alaska District (USACE)

2. Relevant Statutory Authorities

- AS 38.05.020 Authority and Duties of the Commissioner
- AS 38.05.035 Powers and Duties of the Director
- AS 38.05.255 Surface Use of Land or Water
- AS 38.05.850 Permits
- AS 27.19 Reclamation

3. Relevant Regulatory Authorities

- 11 AAC 97 Mining Reclamation
- 11 AAC 96 Miscellaneous Land Use
- 11 AAC 86 Mining Rights

4. Proposed Permit Area Location

- a. Geographic Location:** Panther Minerals has 36 state, and 11 federal mining claims close to the Tubutulik River in the Darby Mountains approximately 30 miles north of the village of Elim Alaska. USGS topographic maps are Bendeleben A-1, A-2, B-2.

b. Legal Description:

Federal Claim Block:

Kateel River Meridian Township 5 South Range 18 West Sections 11, 14, 23

State Claim Block:

Kateel River Meridian Township 5 South Range 18 West Sections 5, 11, 14, 23 & 24

Kateel River Meridian Township 5 South Range 19 West Sections 13, 14, 15, 23 & 24

Kateel River Meridian Township 4 South Range 18 West Section 35

5. Land Status Information

The requested activities lie with the State of Alaska general selection GS 5764. The subject lands within KRM T5S R18W are under Tentative Approval on April 25, 2006

The requested activities lie with the State of Alaska general selection GS 5765. The subject lands within KRM T5S R19W are under Tentative Approval on May 16, 2006

The requested activities lie with the State of Alaska general selection GS 5755. The subject lands within KRM T4S R18W are under Tentative Approval on May 24, 2006

Mineral Closing Orders

None

Leasehold Location Order

None

Municipal Selection

None

Other Permits, Leases or Actions

TWUA F2024-081 Panther Minerals AK Inc.; Status Application Complete

Land Agreements, Settlements, Conveyances, Reconveyances and Municipal Entitlements of land

None

Other Land Information

Regional Native Corporation: Bering Straits Native Corporation although no corporation lands are involved.

Description of activities above lie within the management provisions or may be affected by the Northwest Area Plan, adopted October 2008, for the following regions:

Area Plan: Northwest Area Plan

Plan Name: Chapter 3: Norton Sound Region

Description:

- **Designation: Mineral**
- **Classification: N-01**
- **Prohibited Uses: None**
- **Management Intent:** Manage for mineral values. Grazing is recognized as an appropriate use. Mineral development is considered appropriate within the unit but shall consider impacts upon grazing activities and habitat and shall adhere to the following guideline: Authorizations issued in this unit involving long-term or permanent uses are to consider impacts upon the WACH, particularly during the winter when parts of this unit are used as part of their winter range. Consult ADF&G prior to issuing an authorization involving a long term or permanent use. Maintain access associated with local/regional trails and RST 16 Topkok-Candle.
- **Resources and Uses:** This large unit encompasses an area considered to have high to very high mineral potential; this area was selected by the state for its mineral value. Uranium prospects are under exploration (2008) within parts of the unit. Except for the westernmost part of the unit, mountainous topography is characteristic and generally coincides with the alignment of the Darby Mountains. This western area is part of much larger lowland, and it is typically level and has relatively good drainage. Vegetation corresponds with elevation and drainage. Within mountainous terrain, alpine tundra and barren rock are common. The

generally flatter western part is characterized by high brush. Portions of the unit are utilized by the WACH as part of their prime winter range. A number of streams within the western, level part of the unit support anadromous fish. An RS 2477 route (RST 216, Topkok-Candle) traverses the northern part of the unit in a generally west-east direction. Portions of this unit have been used historically for reindeer herding, although this activity is limited at present (2008).

6. Access

Access to the project is by aircraft to an existing runway on state mining claims. Access between the airstrip and the drill locations will be via helicopter and/or established ATV trails.

7. Permitting Background/History of Applicant Compliance

Panther Minerals AK Inc. do not have outstanding non-compliance with the State of Alaska

8. Project Review and Agency Notice

The Division provided the application for review and opportunity to comment for the activities considered for authorization under this summary. The following entities were notified on July 11, 2024, for comment on the application: The Alaska Department of Fish and Game (ADFG), Alaska Department of Environmental Conservation (ADEC), ADNOR Water Resources Section (ADNR-Water), ADNOR State Historic Preservation Office (AK SHPO), U.S. Army Corps of Engineers (USACE), Bureau of Land Management (BLM), and all interested parties that requested notification. Agencies were given opportunity to review the application materials and submit comments for a 14-day period.

Agency Review Comment and Issue Response:

DNR Water Section: This operation will require a TWUA. The water section has assigned file number TWUA F2024-081.

DNR Response: Thanked the DNR Water Section for the information.

ADF&G issued their Fish Habitat Permit FH24-III-0151 for the water withdrawal in response to receiving the agency review.

DNR Response: Thanked ADF&G for receiving a copy of the FHP.

Public Notice:

The division issued a public notice of the application and supporting documents on July 11, 2024. Notice was distributed using the State of Alaska Online Public Notice System for 14-day period.

Online Public Notice and Request for Information

The division received 133 comments of opposition from the public. No comments were in support of the proposed project. Public comments have been reviewed and cataloged in the administrative record. Public Comments and Responses are summarized in Attachment B.

9. Potential Environmental Risk

This decision considers the environmental factors directly related to the authorization for use of state lands, specifically whether the approval of the authorization is in the State's interest. The purpose of this consideration is to identify any associated mitigation measures or other requirements necessary to protect the public interest while informing the overall decision of whether or not to approve the authorization.

The environmental risks associated with this activity are low. Risks may be minimized by following the permit stipulations and utilizing BMP for ore storage and transportation.

10. Performance Guaranty

Pursuant to 11 AAC 96.060(b), a performance guaranty is determined “based on the scope and nature of the activity planned and the potential cost of restoring the permit site.”

Upon review of the scope and nature of the proposed activities, in combination with the applicants’ history of acceptable compliance, the DNR has determined to waive the requirement under 11 AAC 06.060 for a performance guaranty. The DNR reserves the right to evaluate the performance guaranty at any time during the life of the permit, and at least annually. If a performance guaranty is required and not timely provided, the authorization will be nullified without further consideration.

11. Insurance

Insurance is a means to protect the state from liabilities incurred through the use of state property, or from damage to state property as a result of accidental or catastrophic events. This type of protection is necessary in the event of an accident or negligence that was consequentially connected to activities conducted on state land, and/or if the state is named in a lawsuit as a result of an accident or negligence.

In consideration of the requirements of 11 AAC 96.065, the DNR waives this requirement based on the scope and nature of the proposed activities. The DNR reserves the right to evaluate the insurance requirement at any time during the life of the permit, and at least annually. If insurance is required and not timely provided, the authorization will be nullified without further consideration.

12. Discussion:

The area in which exploration activities are to occur is within an area of the northern most area of the Darby Mountain pluton and within the Death Valley Tertiary Basin. The initial discovery of uranium was in 1977 by Houston International Mineral Corporation. The exploration program submitted by Panther Minerals is further expanding on the previous exploration that was conducted by the USGS in the 1940’s and late 1970’s and 1980’s. The results of the drill program revealed the largest known (Uranium) U₃₀₈ in Alaska based on industry reserve estimates. The Uranium resource is located within meta-autunite and Coffinite with an average enrichment of 0.27%. The drill program yielded a calculated reserve of one million pounds of uranium.

The area is within the Northwest Area Plan, the latest edition was adopted in October 2008. The project within the Norton Sound Region of the area plan with the designation for Minerals, with the specific management intent for the mineral values. The area is within the traditional Western Arctic Caribou (WACH) winter range. Mineral Exploration is proposed during summer months so impacts to WACH are anticipated to be very minimal. The existing RS2477 (RST 216, Topkok-Candle) historical trail is in the vicinity of the project location but will not be utilized or impacted under current project proposal.

The projects’ goal is to further define the deposit to the extent of the uranium mineralization in the Fireweed and Boulder Creek prospects. The project is conventional compared to other exploration projects with approximately 30-50 drill locations over a 5-year period using portable drill rigs to delineate the size and concentration of the uranium deposit. The drill holes will collect bulk rock samples to the surface and then be placed into core boxes and/or supersacks using best management practices that minimize samples to surface elements. There is minimal risk to human health. This project is not anticipated to cause above normal

background levels of uranium beyond what is considered naturally occurring. The limited number of drilling location and type of drilling proposed will not expose the area to any higher concentration that are found in the water, fish, and wildlife already due to natural occurring background radiation.

The proposed project will not involve mining any uranium, or concentrating the material as might be done at a uranium mine. Instead, exploration will be limited to drilling holes in the rock to bring samples to the surface to help determine if the site contains concentrations and quantities of the target minerals. The exploration activities do not pose any ability to influence the Tubutulik River with uranium concentrations above naturally occurring levels. Natural occurring levels are documented and have to this point not been identified as causing significant threats to the health of humans and wildlife as some public comments infer. The project will be utilizing existing surface structures for their camp as well as existing ATV trails & runway for access, significantly reducing impact to state lands. There are limited options in the surrounding area that are of similar character and as such no alternatives were considered.

The drill sites are to be reclaimed upon completion of exploration activities. Drill pads will be reclaimed by backfilling of the sumps, drillholes casing will be plugged with bentonite, and/or removed and/or cut off at, or below ground level depending on site characteristics. Stockpiled topsoil/organics will be spread over disturbance so that the natural contour of the land is maintained.

The Division did not receive comments from the State Historical Preservation Office regarding known cultural resources in the project area, however the applicant is aware that if a “chance find” of anything of cultural or archaeological significance, the project will cease operations and notify SHPO immediately. The issued permit contains a protective stipulation that includes an immediate stop work order.

13. Modified or Special Stipulations to be applied to MLUP for Mining Operations:

Drilling Waste and Cuttings Management:

1. Drilling mud and cuttings shall not be discharged into lakes, kettle ponds, streams, rivers, or wetlands.
2. Recirculation tanks or in-ground sumps to contain drilling mud, cuttings and discharged water from the drilling process must be used at any site utilizing water to aid in the drilling activity. Acceptable techniques include dug sumps, tanks and other settling or filtration devices designed specifically for cuttings management and previously approved by DNR.
3. Drill cuttings and additives in sumps must be allowed to sufficiently settle out of the drill water prior to backfilling the sump.
4. Settled drilling mud and all drill cuttings shall be sufficiently buried and graded to reasonably prevent oxidation.

Action Requirements on Inspection Reports

Complete and report any outstanding work requirements identified in any Department inspection report by the date specified in the inspection report for completion.

Fire Prevention, Protection, and Liability:

- a. The applicant shall take all reasonable precautions to prevent and suppress forest, brush, and

grass fires and shall assume full liability for any damages to state land resulting from the negligent use of fire.

- b. The State of Alaska is not liable for damage to the applicant's personal property and is not responsible for forest fire protection of the applicant's activity.

File Annual Work Plan

You are required to file an Annual Exploration Report by December 31st of each year; please ensure that your report contains the following information:

- a. A written narrative describing your activities and the reclamation measures utilized at all disturbances.
- b. A topographic map showing the portion of the claim block where surface disturbing exploration activities have occurred. The plan map should be at a scale of 1"=1/2 mile, or other appropriate scale sufficient to illustrate existing trails and roads; new trails and roads; drill hole locations (other than shallow auger holes); trench locations; the camp location; and any other surface disturbances (please distinguish between reclaimed and unreclaimed features).
- c. A photo, with appropriate caption, of each reclaimed drill site and exploration trench.
- d. A photo of representative sections of any new road or trail construction.
- e. A detailed description of the methods used to plug the drill holes.
- f. A list of Mining Claims by ADL# that contain unreclaimed disturbance at the end of the year and a total acreage that remains unreclaimed.

Additionally, each calendar year of the permit, the applicant shall file a work plan detailing the number, type and location of proposed activities under this authorization to be conducted for that exploration year, including any repairs and details of the repair plans. The Annual Work Plan is due by March 31. If no work is proposed, a timely statement shall still be filed.

Water Use:

In any fish bearing waters, each water intake structure shall be centered and enclosed in a screened box designed to prevent fish entrapment, entrainment or injury. The effective screen opening may not exceed 1/4 inch. To reduce fish impingement on screened surfaces, water velocity at the screen/water interface may not exceed 0.5 feet per second when the pump is operating.

14. Determination

When adjudicating a Land Use Permit, DMLW seeks to facilitate development, conservation, and enhancement of state lands for present and future Alaskans while minimizing disturbance to vegetative, hydrologic, and topographical characteristics of the area that may impair water quality and soil stability. The proposed activity will not adversely affect the State of Alaska's goal of categorizing and enhancing knowledge about our natural resources' characteristics for use by present and future Alaskans.

The project mining plan is used to assess the risk of damage, contamination, or other liability to state resources, and determine the best course to mitigate that risk through insurance, bonding, or alternative activities. Since the proposed activities are low-risk and utilize a small footprint, impacts to state land are expected to be minimal. No alternatives to the proposed activity were considered. The issued Land Use Permit will include standard Hardrock Exploration and Reclamation stipulations, Annual Exploration/ Reclamation Reports, and Filing Annual Work plans for each calendar year of the permit.

DNR has determined it appropriate to issue a stipulated miscellaneous land use permit for Hardrock

Exploration and Reclamation activities on lands owned by the State of Alaska.

The applicant is advised to review authorization documents carefully as well as the regulations under AS 27.19 (Reclamation), AS 38.05 (Alaska Land Act), 11 AAC 86 (Mining Rights), 11 AAC 96 (Miscellaneous Land Use), and 11 AAC 97 (Reclamation).

Michael LaDouceur

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LaDouceur
Date: 2024.10.02 15:02:30 -08'00'

Michael Ladouceur Recommended
Geologist III



David Charron Approved
Geologist IV

Date

10/04/2024

Date

15. Appeal

An eligible person affected by this decision, and who provided timely written comment or public hearing testimony to the department, may appeal the decision to the DNR Commissioner per AS 44.37.011 and 11 AAC 02. Any appeal must be received within twenty (20) calendar days after issuance of this decision under 11 AAC 02.040. An eligible person must first appeal a decision to the Commissioner before seeking relief in superior court. The Alaska Court System establishes its own rules for timely appealing final administrative orders and decisions of the department. Appeals may be mailed or hand-delivered to the DNR Commissioner's Office, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska, 99501; or faxed to (907)-269-8918; or sent by electronic mail to dnr.appeals@alaska.gov. Appeals must be accompanied by the fee established in 11 AAC 05.160(d)(1)(F), which has been set at \$200 under the provisions of 11 AAC 05.160 (a)-(b). A copy of 11 AAC 02 is available on the department's website at <https://dnr.alaska.gov/mlw/pdf/DNR-11-AAC-02.pdf>.

Attachments:

Attachment A- Public Comments and Response