

Department of Natural Resources

DIVISION OF MINING, LAND & WATER
Mining Section
Northern Office

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Response to Comments on the Department of Natural Resources

Draft Plan of Operations Approval F20229339POA,

Draft Reclamation Plan Approval F20229339RPA,

&

Draft Incidental Material Sales Contract

For the

Teck American Incorporated

Anarraaq – Aktigiruq Phase I Exploration Program

August 12, 2022

Introduction

Notice to the Public Start: June 10, 2022

Notice to the Public End: July 11, 2022

The Anarraaq – Aktigiruq Exploration Program is currently a helicopter supported, surface-based exploration program for lead-zinc resources, located on State of Alaska mining claims, held by Teck American Inc. (TAI) approximately 9-miles north of the Red Dog Mine, 50-miles northeast of the village of Kivalina and 89-miles north-northeast of Kotzebue. This project is also located within the Northwest Arctic Borough and State Lands are located within the Kotzebue Sound Region of the Northwest Area Plan (2008) on lands designated for Minerals and Habitat.

Under the Plan of Operations and Reclamation Plan subject to this public notice, TAI is proposing the construction of a 9.3-mile-long access road across TAI owned, State of Alaska mining claims and NANA corporation private property, 3.1-miles of secondary roads on TAI owned, State of Alaska mining claims to connect the access road to laydown and vent-raise pads, surface pads for construction of future facilities under Phase II and four material sites, two of which are located on State of Alaska mining claims, located along the access road to supply make-up material for the construction of previously listed facilities. Currently existing access to the Anarraaq – Aktigiruq Exploration Program is limited to helicopter, snow-machine or cross-country hiking access across high-alpine and arctic tundra environments. As a part of the Plan of Operations submittal subject to this public notice, TAI has requested that the State of Alaska restrict access along the proposed access road and at the proposed surface pads in order to protect public safety and comply with the State of Alaska Air Quality Permit.

This document summarizes and addresses the comments received on the Alaska Department of Natural Resources draft Plan of Operations Approval (PoOA) No. F20229339POA, draft Reclamation Plan Approval (RPA) No. F20229339RPA and associated draft Incidental Material Sales Contract (MSC). The PoOA addresses the use of the surface of State of Alaska mining claims for the development of a mineral interest, the RPA addresses the requirements for reclaiming the disturbance on State of Alaska and NANA lands to a more natural state and the costs associated with conducting these activities after the completion of the project and the MSC addresses the disposal of State of Alaska materials to TAI for use in this project.

Substantive comments concerning the requirements of the draft DNR PoOA, RPA and MSC and the State's responses are contained within the following pages. The State responded to comments outside the scope and beyond the regulatory authority of these approvals only to address that they are beyond the scope of DNR's authority and should be addressed to the agency with authority. Changes made to the draft DNR approvals resulting from comments received during the public notice period are reflected in the final approval documents. Minor changes made to the approvals for correcting typographical and grammatical errors, formatting or clarifying information are not detailed in this document.

Opportunities for Public Participation:

To ensure public and agency opportunities for participation, the DNR:

- Published a Notice to the Public and Request for Information with associated documents to the State of Alaska Online Public Notice site from June 10, 2022 through July 11, 2022
- Posted information relating to the Notice to the Public and Request for Information from June 10, 2022 through July 11, 2022 on the:
 - o State of Alaska, DNR, Division of Mining, Land, & Water (DMLW) homepage
 - o DNR, DMLW, Mining Section homepage
 - DNR, DMLW, Mining Section, Large Mine Projects webpage for the Anarraaq Aktigirug Exploration Program

Comment Overview:

The State received comments from Mr. John Miscovich and the Council of Alaska Producers in support of the proposed Phase I project. The State also received one comment from Ms. Nancy Wainwright on behalf of the Kivalina IRA Council with a list of concerns and approval-specific comments. Below is an outline of the comments with concerns on the DNR approvals and the State's responses to those comments.

Comment: 'It is concerning, however, that the documents attached to the public notice contain DNR'S already-completed final Plan of Operations Approval (POOA) and Reclamation Plan Approval. These already-prepared permits appear contradict DNR's statement that it intends to "gather input for a decision" as the public notice states.'

DMLW Response: The Draft approvals posted online as a part of the notice to the public were watermarked as DRAFT, did not have an effective date or signatures and were posted for transparency and to ensure the public had an opportunity to comment on any general or specific stipulations that the State is considering.

Comment: 'The POOA states that the proposed duration of the DNR approval is five years "XXX, 2022 through XXX 2027." The DNR Plan of Operations approval references "Plan of Operations, Anarraaq and Aktigiruq Exploration Program; Phase I - Exploration Access Road and Surface Pad Construction" but no details in the approval indicate the possible scope of "Phase II" and Phase III referenced in Teck's Reclamation Plan.'

DMLW Response: The notice to the public and the Approvals associated with it are only for the Phase I Plan of Operations and Reclamation Plans. Any subsequent submittals of Phase II or a potential Phase III would require new approvals to be issued by the State and would be subject to additional notice to the public and opportunity to comment.

Comment: 'Before issuance of Teck's A&A POO approval there should be an analysis of Teck's past and currently-approved exploration activities, including analysis of baseline data, and reasonably foreseeable Phase II, and Phase III and possible future mineral development from the site.'

DMLW Response: The State has no statutory or regulatory requirements to review past actions or cumulative & speculative future actions prior to the issuance of an approval. This notice to the public is only for the activities currently being proposed under Phase I of the proposed Plan of Operations and Reclamation Plan. Future proposed actions would be subject to additional State review of those actions at the time they are submitted.

Comment: 'Before issuance of Teck's A&A POO approval DNR must address the cumulative impacts of the exploration activities, and the associated cumulative impacts of the Red Dog Mine, DMTS and recently permitted activities to allow expansion of the Red Dog mine. Consideration of cumulative impacts is constitutionally required throughout all the phases of a project under the holding of Sullivan v. REDOIL 311 P. 3d 625 2013). The phasing of the project (Phase I, Phase II, Phase III)3 imposes on DNR a duty to scrutinize each phase and a duty to consider cumulative effects. DNR must fulfill its constitutional duties consider the cumulative effects and take a continuing "hard look" at those impacts throughout all phases of the projects. Nothing in DNR's proposed permit approval documents indicates that DNR has taken a hard look at the cumulative effects of the A&A POO in association with the existing Red Dog mine, or future anticipated phases of the A&A project.'

DMLW Response: This comment discusses Sullivan v REDOIL, which involved a DNR 'best interest finding' regarding an oil and gas lease sale. In the REDOIL case, the court explained that the Department must continue to take a 'hard look' and critically analyze cumulative effects of the project related to the lease. The court also stated that after the lease stage, the Department did not need to make repeated, new best interest finding during each phase of oil and gas development. REDOIL did not analyze the ongoing 'hard look' principle in the context of the issuance of a Plan of Operations in support of mineral development. In addition, the submittal by TAI of future project phases would be subject to State agency review and notice to the public for input and consideration prior to the State issuing an approval.

To the extent that the 'hard look' principle applies to the Department's evaluation of TAI's Plan of Operation and Reclamation Plan, the Department is satisfied that it has carefully scrutinized this application.

Comment: 'It is noteworthy that Teck's Red Dog operations have been identified as high priority violations" for having significant air quality violations in 11 out of 12 reporting quarters. 4 DNR analysis should include information on whether the proposed A&A POO will contribute to the air quality violations associated with Teck's operation.'

DMLW Response: Air Quality falls under the jurisdiction of ADEC and is considered outside the scope of this review. Additionally, mining operations conducted at the Red Dog Mine by Teck Alaska, Inc. are considered separately from proposed exploration activities being conducted by Teck American Inc.

Comment: 'Teck's A&A POO states: "For Phase II, TAI will submit a Plan of Operations in mid-2022, and several other permit applications that, once approved, will authorize construction of surface and underground facilities and other regulated activities associated with the underground exploration program." 5 Since it is now "mid-2022" Teck, and presumably DNR, have plans or concepts for Phase II that the public should be permitted to review to adequately comment on the potential cumulative impacts of this project. Without that information, Kivalina is deprived of the ability to adequately comment on these aspects of the whole project.'

DMLW Response: DMLW has not received any plans for a proposed Phase II Plan of Operations or Reclamation Plan. Under consideration for this review are the items identified within the Phase I Plan of Operations and Reclamation Plan. Once TAI submits Phase II plans to DNR, the State will conduct additional review and notice to the public of these activities prior to considering the issuance of new approvals.

Comment: 'DNR's POO Approval and Reclamation Plan approvals contain no analysis, and consist only a recitation of the conditions of approval. However, based upon the information available, the following should be evaluated and addressed by DNR:

Analysis of whether the activities avoid impacts to waters of the U.S. and minimizes unavoidable impacts to waters of the U.S;'

DMLW Response: The administration of avoidance, minimization, and mitigation for impacts to waters of the U.S. is under the authority of the USACE and the 404 Permit process. As such, this is outside the scope of review.

Comment: 'Analysis of whether the A&A POO allows for reasonable concurrent use, maximum beneficial use, common use, a general reservation for fish and wildlife of water resources, that it allows for and protects wildlife under the principle of sustained yield or protects the public interest or the public trust;'

DMLW Response: The proposed Phase I Exploration Program is occurring on State of Alaska mining claims owned by TAI located within the boundaries of the Kotzebue Sound Region of the State of Alaska Northwest Area Plan. The specific region is designated with a management intent for Mineral Development and Habitat and directs the State to manage for mineral values. Further, TAI is operating on State mining claims, which include Surface Uses under 11 AAC 86.145 such as the building of roads for the purpose of accessing the mineral estate. Issuance of the PoOA and RPA as drafted would require TAI to abide by the Caribou Policy that they have submitted. Additionally, the RPA would require that upon closure of the project, proposed facilities are reclaimed to a State that allows for the natural revegetation and the reestablishment of renewable resources. Finally, the protection of fish and wildlife resources are under the jurisdiction of the Alaska Department of Fish & Game (ADF&G) and TAI must adhere to all ADF&G requirements to ensure these protections.

Comment: 'Analysis of whether the proposed bond of \$5,430,97 is sufficient financial assurance to protect the State's interest and resources. We note than in 2018, a bond of \$5,093,646 was proposed for Teck's 2018 POO. If that bond was correct (which Kivalina asserted it was not) then with inflation, the bond today would be \$5,929,155. That figure (and DNR's figure) includes no cost escalation due to transportation or other factors.'

DMLW Response: DNR has received and reviewed a copy of the Standardized Reclamation Cost Estimator (SRCE) from Teck America and has determined that the costs included in the SRCE submitted sufficiently accounts for the activities that are proposed both on State of Alaska and NANA lands as a part of the current Phase I submittal. The difference in what an inflation adjusted 2018 proposed bond amount to the current proposed bond does not account for engineering and redesign of project components between these different submittals.

Comment: 'Provision of letters of credit or any other guarantor of DNR's proposed bond. It is noted that POO Appendix B states: "The State and TAI will negotiate a final bond amount prior to the approval of the Phase I Plan of Operations." [Appendix B at p. 21]. However, it appears that DNR has already approved Teck's proposed bond amount. Please provide Kivalina with the final bond amount "negotiated, provide the bases for the negotiated amount, and allow Kivalina and the public sufficient time to comment on that negotiated amount."

DMLW Response: The General Stipulation for Financial Assurances in the Reclamation Plan Approval dictate what the total financial assurance amount will be and that

operations may not begin until Teck America has submitted the bond in a form and substance that is approvable by DNR. As previously stated the bond amount was calculated using the SRCE software and reviewed and accepted by ADNR as a reasonable estimate of the reclamation costs.

Comment: 'In the current proposal, there is an insufficient bond amount for post reclamation monitoring (\$10,588) and there appears to be no requirement for closure and post-closure monitoring involvement of the Tribe to ensure that subsistence is protected.'

DMLW Response: The post reclamation monitoring amount listed in the SRCE is meant to cover the expense of an independent field geologist or engineer to travel to the site during the growing season and ensure that revegetation is occurring within the boundaries of the Phase I Reclamation Plan Approval Area. The State reclamation standards under 11 AAC 97.200 thru 11 AAC 97.250 do not provide for the State to require tribal involvement or the reclamation of subsistence resources.

Comment: 'There is insufficient detailed information about engineering design, and redesign and plan development in the SRCE as well as information needed to account and design for actual conditions at the time of reclamation and closure.'

DMLW Response: The SRCE is intended to account for the reclamation of the site during the period of maximum disturbance and reclamation liability for Phase I. The 3% indirect for Engineering, Design & Construction applied to the direct costs are meant to cover for any potential unforeseen circumstances that may necessitate a redesign of the reclamation of the site.

Comment: 'The bond calculation does not include State agency administration costs administration includes costs incurred by state and federal agencies in situations where reclamation and closure are performed by regulatory agencies.'

DMLW Response: The SRCE includes a 5% indirect cost for Contract Administration which is intended, in part, to cover the cost of the agency administration of any reclamation that the State would need to conduct.

Comment: 'The bond calculation does not include inflation to account for the difference in the dollar value between the time the estimate was generated and reclamation and closure are performed.'

DMLW Response: The General Stipulation for Financial Assurances in the Reclamation Plan Approval requires that the total Financial Assurance amount shall be adjusted annually to account for inflation based on the Anchorage CPI.

Comment: 'The bond calculation does not include any identification of costs of reclamation of potentially acid-generating rock. 11 AAC 97.240.'

DMLW Response: Section 2.3 of the Plan of Operations (Construction Rock Management) discusses the on-site management of Potentially Acid-Generating (PAG) material encountered during the construction of Phase I. For Reclamation purposes, any PAG material that would have been encountered during construction would have already been disposed of as a part of the Construction Rock Management Plan and approved by ADEC. It is therefore not anticipated that there would be a need to further disturb any PAG associated with the reclamation of Phase I.

Comment: 'There should be an analysis of whether Teck previous activities have been successfully reclaimed to State standards and the costs of that reclamation provided for comparison purposes.'

DMLW Response: The State reviews the proposed reclamation of sites based on the specific activities that are being proposed, not based on other sites or activities that may require different reclamation practices.

Comment: 'There is no provision for the cessation of activities when impacts to species such as Golden Eagles and Bald Eagles are encountered. Teck proposes to "make note of any activity" and "take steps to reduce disturbance" with the only step identified is the use of "bird tape" to discourage birds from nesting. Kivalina recommends that a survey of the area for past and current nesting sites be conducted and that all activities near those sites be prohibited.'

DMLW Response: The State requires that operators comply with all applicable State and Federal Laws. Encounters with Golden and Bald Eagles and migratory birds are administered under a separate jurisdiction than the approval of the Plan of Operations or Reclamation Plan.

Comment: 'Teck proposes to restrict public and subsistence access for Phase I and Phase II of the project. Kivalina's ethnographic study has documented that this area is a high value subsistence area and restriction will have a significant adverse impact on the Tribe's subsistence activities, and its reasonable concurrent use of the area. DNR has provided no analysis of this impact and must do so before allowing any activity in the area to proceed. The negative impact of the DMTS Road on the caribou migration has been documented by Jim Dau and others. 6 Yet Teck proposes to use the same methods in the Access Road Caribou Procedures used for the DMTS. Therefore, the methods in Appendix D are unsatisfactory and should be revised.'

DMLW Response: Under 11 AAC 86.800 (b)(12), the operator may request sites to be closed to public access in order to protect public safety. The use of the proposed Phase I facilities by equipment may create an environment that presents a hazard to public safety and in order to prevent this conflict, the closure of the Phase I facilities to public access is appropriate. Note that the authorization to restrict public access only applies to a 100 meter buffer around the road and surface facilities; all other lands remain accessible to the public. Additionally, the limiting of public access to protect public safety is outlined in the State's Northwest Area Plan. Finally, similar public access limitations are also required by ADEC in the Minor Air Permit.

Comment: 'Teck's (or State agency) analysis of water quality background levels at all streams/wetlands that may be affected which will allow analysis of future sources of contamination on potentially-impacted streams and wetlands. This includes any co-located samples of surface water and groundwater. Kivalina has significant concerns about potential contamination of groundwater and surface water from past and reasonably foreseeable impacts of Teck's exploration in this region. Kivalina's past analysis of groundwater well chemistry demonstrates highly alkaline water passing through rocks high in salts and in an area with leadzinc deposits. The contamination risks from arsenic and antimony, (which are high in the dissolved concentrations) are a significant concern. Kivalina also seeks information on any assessment of acid drainage risk through bicarbonate and carbonate and sulfide concentrations or acid-base accounting testing.'

DMLW Response: This comment is not directed to a specific statutory to regulatory authority concerning the issuance of a Plan of Operations or Reclamation Plan Approval and may better be addressed by another agency such as the US Army Corps of Engineers (USACE) or the Alaska Dept. of Environmental Conservation (ADEC).

Comment: 'Teck postulates that the changes in the water quality (biomonitoring) in the A&A area are from similar causes as those resulting in higher TDS levels. However, there is no data to support such a conclusion. The traditional ecological knowledge (TEK) of the Tribe is that it is likely that the increased exploratory drilling, runoff, failure of silt fences, spills, and disturbance is a significant factor in the changes. DNR should require a thorough analysis of lowering pH, the decrease in chlorophylla concentrations, in increased TDS, and the decrease in species identified in ADF&G reports.'

DMLW Response: This comment is not directed to a specific statutory to regulatory authority concerning the issuance of a Plan of Operations or Reclamation Plan Approval and may better be addressed by another agency such as the USACE, ADEC or the Alaska Dept. of Fish & Game (ADF&G).

Comment: 'It is respectfully requested the DNR prohibit any activity that may adversely affect cultural resources and/or subsistence resources and prohibit the appropriation, excavation, removal, injury or destruction of any State-owned, or Regional corporation-owned, or Tribal historic, prehistoric or archeological site without a permit, and confirmation to the Tribe that Teck has adequately surveyed and documented such resources.'

DMLW Response: The Plan of Operations Approval include General State Stipulations that address the protection of historic, prehistoric and archeological sites (Stipulation Below).

Alaska Historic Preservation Act. The Alaska Historic Preservation Act (AS 41.35.200) prohibits the appropriation, excavation, removal, injury, or destruction of any Stateowned historic, prehistoric (paleontological) or archeological site without a permit from the Commissioner of ADNR. Activities described in the Plan of Operations are subject to the following stipulations:

- a. If cultural or paleontological resources are inadvertently discovered as a result of or during the activities authorized by this Plan of Operations Approval, all activities which would disturb such resources shall be stopped and measures taken to protect the site. The U.S. Army Corps of Engineers archeologist (907-753-2716) and the State Historic Preservation Officer (907-269-8715) shall be contacted immediately so that compliance with state and federal laws may begin.
- b. If burials or human remains are discovered as a result of or during the activities authorized by this Plan of Operations Approval, all activities which would disturb such remains shall be stopped and measures taken to protect the site. In addition to the U.S. Corps of Engineers Archeologist and the State Historic Preservation Officer, the State Troopers shall be contacted immediately so that compliance with state and federal laws may begin.

Comment: 'It is further requested that DNR apply project-specific stipulations to safeguard the State's resources, rather than generic stipulations as those contained in the Plan of Operations Approval (i.e. conditions addressing "forestry resources." It is unclear why the POO Approval states that a condition "does not apply to the tailings storage facility" when that is not a feature of Phase I.'

DMLW Response: The stipulations in question are General Stipulations. Stipulations or conditions that do not apply to activities being proposed to an operation would not necessitate an amendment of the approval or require the removal as a Standard Stipulation. No changes have been made based on this comment.

Comment: 'Since DNR apparently already approved the material sale, and identified the cost \$75,000, it is requested that DNR provide the specific locations of the material sites, their relation to streams and wetlands be identified and how the cost of \$75,000 was calculated. There is no "attached sale area map." Teck's application indicates that it intends to use approximately 914,000 yards of material but states that at the four sites, material could be significantly larger (i.e. 4 acres expanding to 16 acres "or more"; 4.3 acres expanding to 13 acres; 5.5 acres expanding to 10 acres; 3.2 acres expanding to 4.5 acres). Without an accurate description it is not possible to adequately comment on the material sales and sites.'

DMLW Response: No material sale has been approved or authorized at this time. The attachment included in the public notice was a draft contract to be included for public review. The \$75,000 amount referenced in the draft contract is the earnest money deposit required under 11 AAC 71.045 and does not represent to total value of the material sale contract. The material sites on state land are identified as MS-1 and MS-5 and are shown in figures included in the plan of operations. The figures show the maximum extent to which the material sites may be developed.

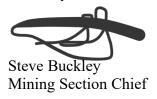
Public Records Request:

In addition to the comments listed in this document, the Kivalina IRA submitted a Public Records Request (PRR) for eighteen items. This PRR is being handled under a separate process from the Response to Comments.

Closing:

The State of Alaska thanks all parties for participating and providing comments during the course of the public review for this project. The State may consider substantive comments received after the public review period or issuance of the approval however those comments may not necessitate the amendment of an approval.

Sincerely,



Cc: William Groom, ADNR
Carolyn Curley, ADNR
Harvey Templeton, ADNR
Kyle Moselle, ADNR
Tim Pilon, ADEC
Audra Brase, ADF&G
Jack DiMarchi, Teck American, Inc.
Heidi Tillquist, Teck American, Inc.
Nancy Wainwright, representing Kivalina IRA
Karen Matthias, Council of Alaska Producers
John Miscovich, Public Commentor