Appendix E.D

Response to Comments on Draft EIS

Non-Governmental Organization Comments

MAY-13-03 TUE 03:08 PM FAX NO. P. 01

01

Alaska Forest Association, Inc.

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KETCHIKAN, ALASKA 99901-6599
Phone 907-225-6114
FAX 907-225-5920
Web Site www.akforest.org

May 13, 2003

Hanh Gold
NEPA Compliance Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue, OW-130
Seattle, WA 98101

By FAX: 206-553-0165

RE: Teck-Pogo, Inc.'s Gold Mine Project

Dear Mr. Gold:

We support the Pogo Gold Mine Project. This development activity will help the economy of the State as well as the area around the mine. The project should be permitted in a manner that will reasonably protect the local environment; just like is being planned for the timber sale activities in the vicinity. The access road should be built as an industrial road to accommodate the mining activities as well as potential logging activities. | D1-1

Please permit the project without delay. The EIS appears to be more detailed than is necessary to analyze the potential impacts. Please work to reduce the time and cost of these EIS documents in the future. | D1-2

Thank you for the opportunity to comment.

Sincerely,

Owen J. Graham
Executive Director

COMMENT RESPONSE:

D1-1 Thank you for your comment.

D1-2 Thank you for your comment.

02

ALASKA MINERS ASSOCIATION, INC.

3305 Arctic Blvd., #202, Anchorage, Alaska 99503 • (907) 563-9229 • FAX: (907) 563-9225 • www.alaskaminers.org

May 10, 2003

3

Ms. Hanh Gold
NEPA Compliance Coordinator
EPA
1200 Sixth Avenue, OW-130
Seattle, WA 98101

FAX 206-552-0165

RECEIVED
MAY 15 2003
U.S. EPA REGION 10
OFFICE OF WATER

RE: Pogo Gold Project DEIS Comments

Dear Ms. Gold,

The Alaska Miners Association (AMA) is a non profit membership organization established in 1939 to represent the mining industry. The AMA is composed of individual prospectors, geologists and engineers, vendors, small family mines, junior mining companies, and major mining companies. Our members explore for and produce gold, silver, platinum, diamonds, lead, zinc, copper, coal, limestone, sand and gravel, crushed stone, armor rock, etc. Our members live and operate in all parts of Alaska, including the Delta Junction area where the project is located.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Pogo Gold project. I would like to begin by complementing the agencies involved in this DEIS for their efforts in three specific areas:

First, for developing and including the Findings & Draft Decisions for several of the major permits that will be required for the mine in this combined comment opportunity. I believe that this approach provides both an efficient permitting process and a clearer public process. It is often not feasible to have several permits ready at the same point in time but when it can be done I believe it is beneficial. Having several of the permits ready at the same time allows the general public to see more of a project as a complete picture. Local communities typically do not understand the legal notice and comment requirements, they just want to see a project move forward. When there are many different comment periods for different permits their eyes glaze over and they become confused and cynical about the process which has often taken far longer than they had hoped. | 02-1

Second, I wish to complement the agencies on the innovative approach being used for management of water discharges. This is a very workable and important approach when there are extreme restrictions on the use of standard mixing zones that can be developed by the state. | 02-2

Third, I wish to complement the agencies on the thoroughness of this DEIS. As I have reviewed the material I have not identified any area that was not adequately addressed in the documents. If any thing, it appears that the detail is more than should have been necessary when considering the very minor level of environmental risk involved in most aspects of the project. | 02-3

D2

Regarding the several permits included in this comment - we support issuance of each of these permits as written:

- Preliminary Finding and Decision for material sale.
- Preliminary Finding and Decision for long-term surface lease for staging area.
- Proposed Decision to issue a road ROW for access road from the Shaw Creek Road to the Goodpaster River.
- Proposed Decision to issue a power line ROW.
- Proposed Decision to issue a millsite lease.

D2-4

The one area remaining to be settled is whether or not the Shaw Creek Road will be closed to the public for its entire length or will the western portion be open to the general public. We believe it is essential that the entire road to be closed to non-commercial uses and to the general public during the life of the mine.

We feel that the safety and traffic congestion issues must be the primary concern and the result is that the road should be closed to non-commercial uses. The thought of private motorhomes on that road meeting fuel trucks carrying 10,000 gallons each is not a pretty picture. It is possible that no problems would result but the risk is simply too great. The safety and environmental liabilities and potential problems of an accident are simply too great. It is important that the road be available to other industrial uses and we support that approach.

D2-5

Thank you for the opportunity to comment on this DEIS. We urge that it become Final at the earliest feasible date so construction can begin on this exciting project.

Sincerely,

Steven C. Borell, P.E.
Executive Director

cc: Ed Fogles, State of Alaska DNR

COMMENT RESPONSE:

D2-1 Thank you for your comment.
D2-2 Thank you for your comment.
D2-3 Thank you for your comment.
D2-4 Thank you for your comment.
D2-5 Thank you for your comment.

MAY-29-2003 THU 10:03 AM SURFACE MINING FAX NO. 1 907 269 8930 P. 02/02

D3

Ed

Alaska Outdoor Council

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DEPARTMENT OF NATURAL RESOURCES
DIV. OF MINING LAND & WATER

MAY 21 2003

DIRECTOR'S OFFICE
ANCHORAGE

03 MAY 19 PM 1:59
SEE NEW ADDRESS

Bob Loescher
Director, Division of Mining and Water
Department of Natural Resources
400 Willoughby Avenue
Juneau, AK 99801-1724

Dear Director Loescher,

On behalf of the Board of Directors, please accept our comments regarding public access options for permitting and approval of construction of the Pogo Mine on state lands.

It is our understanding there are two public access options for comment: one that would allow access to approximately 23 mile after the life of the mine and the other option would allow access to 23 mile during operation of the mine. None of the options at this point appear to allow access to the remaining portion of the road that would eventually extend 50+ miles to the Goodpasture River.

As you can well imagine, having access to the Goodpasture River and the remaining portion of the road past 23 mile is strongly supported by many of our members. We recognize that this is currently not a formal option of the permitting and public comment process, however, we also recognize that this issue could be revisited in a separate public comment process during operation of the mine should the opportunity for access during this process have passed by. If possible, we would encourage your approval of public access to the Goodpasture River during this public process.

D3-1

We understand the concerns and reasons for limiting public access such as safety standards, potential traffic conflicts, and the fact that the road is being built entirely from private funds. We also understand however that the road is being built *across* public lands, that previous precedent on privately funded roads across public lands favors public access, and that reclamation of the road would be an additional expense to the Pogo Mine and thereby possibly reduce the likelihood of other private-public joint ventures that seek to promote responsible resource development.

Alaskans of all ages and genders greatly enjoy the outdoors and the opportunity for reasonable access to it – this is one of those opportunities and we encourage your pursuance of it.

Thank you for the opportunity to comment and we look forward to your response.

Sincerely,

Mike Kramer
Chairman, Access Committee

CC: Tom Irwin, Commissioner, DNR
The Honorable Frank Murkowksi, Governor, State of Alaska
Karl Hanneman, Alaska Regional Manager, Teck-Pogo Inc.

"Protecting your hunting, fishing, trapping, and outdoor heritage since 1953."

Received May-29-03 10:00am From-1 907 269 8930 To-YUKON PACIFIC CORP Page 02

COMMENT RESPONSE:

D3-1 Thank you for your comment.

04

CENTER for SCIENCE in PUBLIC PARTICIPATION
224 North Church Avenue, Bozeman, MT 59715
Phone (406) 585-9854 / Fax (406) 585-2260 / web: www.csp2.org / e-mail: csp2@csp2.org
"Technical Support for Grassroots Public Interest Groups"

May 13, 2003

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Fm: David M. Chambers, Center for Science in Public Participation

RE: COMMENTS OF THE POGO MINE PROJECT DRAFT EIS

POGO TECHNICAL ISSUES

Section 2.3.8 – Development Rock Storage

There are no data from the acid-base accounting, column leaching tests and humidity cell tests presented in the DEIS. 04-1

Recommendation: This is a significant omission in the DEIS.

In particular, a distinction between waste rock that is potentially-contaminating, and that which is non-contaminating, is drawn at 600 ppm arsenic or 0.5% sulfur. This information is not presented in the body of the EIS, but appears only in the Drat Monitoring Plan attached to the Solid Waste Permit in Appendix E. Potential contamination, especially from arsenic, is of concern. The data utilized to justify the selection of these cutoff limits should be presented in the EIS, or appendices. 04-2

Recommendation: A summary of the data that lead to the development of these waste segregation criteria should be given either in Section 2.3.8 where segregation of mineralized and non-mineralized rock is discussed, and/or in Section 4.3 – Water Quality, where there is a discussion of Development Rock Disposal and the resultant water quality.

Recommendation: And, at a minimum graphs from the leaching and humidity cell tests, and the acid-base accounting data should be included as an appendix to the EIS. 04-3

Section 3.5.4 – Site Meteorology

The minesite is fairly warm and dry during the summer months. Has the net evaporation for the summer months been measured as part of the meteorological monitoring? 04-4

Recommendation: The net evaporation (or net precipitation) for the site should be discussed in this section.

Section 4.1 – Surface Water Hydrology/Tailings Disposal

The Recycle (water) Tailings Pond (RTP) collects water from snowmelt, stormwater runoff from the mill, camp and associated roads, and seepage from the dry-stack tailings. The RTP is designed to provide storage for snowmelt runoff and the 100-year, 24-hour-intensity storm.

In the discussion of potential impacts in this Section it is stated:

> "Given the 11-year projected project life, there is approximately a one-in-four probability that a storm discharge would occur from the RTP to Liese Creek during the life of the mine." (DEIS, p. 4-8) 04-5

There are 8 contaminants that could exceed Alaska water quality standards if such a discharge occurs. (Table 4.3-6, p. 4-29) This suggests the design criteria of a one-in-four probably of a discharge during the mine life pose a higher risk of contamination from overflow of the RTP during a large storm than should be expected. It is typical to use design criteria for tailings ponds that will hold contaminated waste to be engineered for snowmelt plus the maximum flood event.

Recommendation: In this case, it would be appropriate to increase the freeboard of the RTP dam so that at a minimum, any discharge would be diluted by the inflow of stormwater to meet the applicable water quality standards before the storm discharge would occur. If these criteria cannot be met by stormwater dilution, then the dam should be designed to hold snowmelt plus the maximum flood event.

Section 4.3 – Water Quality/Surface Dry Stack Water Quality After Mine Closure

a. Underground placement of mineralized waste rock

Table 4.3-4 lists the projected water quality of the seepage and runoff from the dry stack. Arsenic levels are predicted to be 1,600 / 5,100 ug/L (mean / reasonable worst case). These are very high levels of arsenic.

237,000 tons of mineralized waste rock is to be permanently stored in the tailings facility. (Table 2.1, Development Rock Quantities, Pogo Plan of Operations, November 2002 Supplement, p. 2-1) It is not clear from the information presented in the DEIS how much of this arsenic load is due to the mineralized waste rock. There is also additional long term risk for contribution of arsenic and other metals from this mineralized waste due to localized acid drainage in the stack.

It is planned that 411,000 tons on non-mineralized waste rock will be stored underground during mine production (Table 2.1, Pogo Plan of Operations, November 2002 Supplement), so there is room underground to store the mineralized waste presently designated for surface disposal in the dry stack. If the mineralized waste presently designated for surface storage could be placed underground in place of the non-mineralized waste rock, the potential for long term contamination from this waste could be lessened. It is possible that the costs of double-handling this waste could be justified by the lower risk of long-term contamination in the tailings facility. 04-6

Recommendation: A careful look at the potential environmental benefits, and the potential costs of dealing with higher than predicted levels of contamination from this waste – versus the costs double handling this waste as backfill – should be evaluated in the DEIS.

b. Possible error in Table 4.3-7

The mean for SO_4 is listed in Table 4.3-7 as 634 mg/L, while the reasonable worst case untreated is only 386 mg/L. 04-7

It does not make sense that the mean is higher than the reasonable worst case value.

c. Clarification of Iron discharge value in Table 4.3-14

The values for the discharge of iron (total) from the Off-River Treatment Works to the Goodpaster River exceed the values for the discharge of iron (dissolved) from the water treatment plant to the Off-River Treatment Works. Possible explanations for this are: (1) background river water contains more iron than the discharge from the treatment plant; (2) the level of total iron in the discharge from the treatment plant is significantly higher than the dissolved level; or, (3) there is an error in the calculation of the one of the values. D4-8

Recommendation: Since iron is the only constituent in the table that shows an increase from the Water Treatment Plant to the River discharge, a good explanation of this situation needs to be given in the DEIS.

Section 4.4 – Air Quality

The Pogo Mine is located in a relatively dry area. During the summer, dry tailings placed in tailings area will eventually dry out if not covered, and could create a dust problem. The living quarters for the miners are approximately 3000 feet from the tailings area. D4-9

There is no discussion in the DEIS of the possibility of dust from the tailings, or of how this will be addressed (watering, etc.) if this becomes a problem.

Section 4.5 – Noise

It appears that the living quarters for the miners will be approximately 2000 feet from the mill. The confined Liese Creek Valley could channel this noise up and down the length of the valley. D4-10

There is no analysis in the DEIS of the potential impacts of noise on mine worker living area.

Section 5.2 – Identification of the Environmentally Preferable and Preferred Alternatives

a. Disturbance due to expanded gravel pits

Table 5.3-1 lists "Expanded existing gravel pits and develop new pits" as the environmentally preferable and preferred alternative over "Crush nonmineralized development rock".

Further justification for this decision is given in the Executive Summary:

> "Summary analysis of the two sub-options indicated that overall impacts to wetlands and wildlife would be low, with some positive benefits from newly created ponds in the gravel pits." (Section S.12.1, p. S-17)

Conflicting information presented in the DEIS that raises questions about this conclusion.

From "Gravel Source" – Section 4.9.2, p.4-98: D4-11

> "Expanding existing gravel pits and developing new ones, rather than crushing development rock, would cause surface disturbance to an additional approximately 72 acres on the Goodpaster Valley floor. Approximately 4 acres of such disturbance adjacent to the airstrip would be in Conservation Priority Index high-value habitats. Therefore, mining gravel would have substantially more overall habitat impact than would crushing development rock for gravel."

This statement, which identifies "…substantially more overall habitat impact than would crushing development rock for gravel…" does not support the conclusion in the Executive Summary which states "…overall impacts to wetlands and wildlife would be low…"

Recommendation: Given this information, and supported by general logic that avoiding disturbance of an additional 72 acres would be environmentally preferable if crushed rock could be used in the place of mined gravel, it would seem that the environmentally preferable and preferred alternative should be the "Crush nonmineralized development rock" over the "Expanded existing gravel pits and develop new pits". D4-11 Cont'd.

However, the DEIS also states that "Underground development operations could not produce sufficient rock in time meet the critical path for construction…" (DEIS Table 5.1-1, p. 5-7) While this assertion is not supported by the waste rock production data presented in Table 2.1, Development Rock Quantities, Pogo Plan of Operations, November 2002 Supplement, p. 2-1, which accounts for 347,000 tons of nonmineralized rock produced in exploration and pre-production that is programmed for surface storage, as opposed to 140,000 yd^3 of gravel required for the mine area (DEIS Table 5.1-1, p. 5-7) – the quality of the crushed rock may not be of sufficient quality to meet the various construction needs (e.g. for concrete aggregate and road surfacing), although these tests have apparently not been conducted. D4-12

Recommendation: On the assumption that the gravel would be needed to meet construction specifications, it would still seem that avoiding disturbance of the 4 acres of "Conservation Priority Index high-value habitats" next to the airport would not pose a severe hardship to the timing or cost of the mining project, and might provide some significant habitat benefit.

b. Choice if "Lined" versus "Unlined" as the environmentally preferred alternative

Table 5.3-2 lists "Unlined dry stack" and "Unlined RTP" as the environmentally preferable and preferred alternative over "Lined dry stack" and "Lined RTP".

In Section 4.2.3 – Options Not Related to Surface Access/Tailings Facility Liner, p. 4-18, it is stated that:

> "A lined RTP likely would reduce seepage loss from the facility."

This conclusion makes sense.

Regardless of the results of the modelling for seepage from the tailings themselves, and for seepage from a lined versus an un-lined tailings facility, logic strongly suggests that a lined facility would most likely be more protective of the environment than an un-lined facility. D4-13

Again, it is understandable why the un-lined tailings facility was chosen over the lined facility, a choice that is weighed by cost considerations.

Recommendation: From a purely environmental standpoint, it is difficult to understand why the "Lined dry stack" and "Lined RTP" are not the environmentally preferable and preferred alternatives in the DEIS over "Unlined dry stack" and "Unlined RTP". The lined options should be the environmentally preferable and preferred alternatives.

POGO DRAFT EPA NPDES COMMENTS

1. Monitoring for Arsenic

There is no proposed permit standard for arsenic.

Arsenic is the primary contaminant in the orebody.

For the calculation of the Reasonable Potential Determination for arsenic, an Effluent Concentration of 1.54 ug/L was used. (Fact Sheet, Draft Permit AK-005334-1, Table C-3, p. C-5)

The arsenic in the ore and waste, which is predicted to manifest itself in the water in the RTP – 1,136 ug/L (95% annual maximum dissolved, DEIS Table 4.3-5), and 5,360 ug/L in the mine seepage (DEIS Table 4.3-1), will be reduced in the Water Treatment Plant to 30 ug/L (Water Management Plan Supplement, June 2002, Table 2.4, p. 2-18).

The input arsenic level to the Water Treatment Plant is 5,360 ug/L (95% annual maximum, Water Management Plan Supplement, June 2002, Table 2.3, p. 2-15). The estimated Effluent Concentration for arsenic from the Water Treatment Plant (WTP) is 30 ug/l (95% annual maximum dissolved, Water Management Plan Supplement, June 2002, Table 2.4, p. 2-18). This removal efficiency – a 99.44% reduction in arsenic in the treatment plant effluent – has yet to be demonstrated at the Pogo water treatment plant.

04-14

If any of these numbers are used for the calculation of the Maximum Projected Effluent Concentration, it results in a positive determination of reasonable potential.

From a logical standpoint, it makes sense to measure and set a permit limit for the discharge of a contaminant that has been this problematic from an environmental management standpoint

Recommendation: Arsenic should be regulated with a discharge standard in the NPDES permit.

2. Monitoring for Iron at Outfall 011

The Fact Sheet has listed iron as a contaminant with a reasonable potential to exceed the water quality standard for iron (Fact Sheet, Draft Permit AK-005334-1, Table C-3, p. C-6). Rather than monitor iron at Outfall 001, EPA has elected to monitor iron at Outfall 011 (internal monitoring) to avoid the potential for exceeding water quality standards should the background iron in the Goodpaster River naturally exceed the standard. However, in specifying the monitoring frequency for Outfall 011, EPA has specified only a quarterly grab sample (Appendix B, Draft NPDES Permit, Table 2, page 5 of 30).

04-15

Recommendation: Iron should be monitored at Outfall 011 at a weekly frequency like other contaminants in the permit with reasonable potential to exceed, since this is the compliance point for iron, and since it is not being monitored at Outfall 001.

3. Monitoring for Nickel

Although nickel is listed as a contaminant for monitoring at Outfall 001 in Table 1 of the Draft Permit, it is not listed in the similar Table 1 of the Fact Sheet. Since nickel is identified as a contaminant with the reasonable potential to exceed water quality standards (Appendix B, Fact Sheet, Table C-3, p. C-6), it is assumed that the error lies in Fact Sheet Table 1 rather than in the Draft Permit Table 1.

04-16

Recommendation: Nickel should be regulated with a discharge standard in the NPDES permit.

POGO DRAFT ADEC WASTE DISPOSAL PERMIT COMMENTS

1. Standards for Revegetation (Draft Permit Section 1.9.3.2)

The Draft Permit lists the condition for judging successful revegetation as:

> "A vegetative cover of 30% after 3 years or as prescribed in the most recent Department approved Reclamation and Closure Plan." (Appendix E, Section 1.9.3.2)

The Draft Permit criteria above contains two important elements of revegetation criteria – a quantitative target for measuring revegetation success, and a time period against which to measure/judge this criteria.

There are a number of additional factors that are important for revegetation. These include:

- Successful revegetation can be determined when the vegetation on the site is similar in diversity and productivity to the surrounding, undisturbed lands for five consecutive growing seasons without human intervention, like irrigation or chemical treatment.
- Success also depends on the ability of the vegetation to control erosion over time, without any physical inputs from the mine operator.
- All disturbed lands, except for permanent water areas, should be seeded or planted to achieve a vegetative cover of diverse native species.
- The timing of revegetation is important. Plantings should be established in the first growing season after completion of the mining operation, and as soon as the site is prepared for planting with the appropriate growth medium.
- Certification of any seed used in the mine reclamation as weed-free. Weeds are proliferating at an alarming rate across the public lands. The Secretary of the Interior has identified control of weeds as one of the priorities for the Department.

04-17

a. More detailed description of revegetation requirements is recommended

For example, the Greens Creek Mine Reclamation Plan contains the following revegetation criteria:

> "Revegetation success will be monitored for three years following seedbed preparation, fertilization, seeding, mulching, and temporary erosion control measures. Fall revegetation surveys will be conducted the first year and a fall survey will be conducted the second and third year. Growth, ground cover, and species survival will be measured and reported on an annual basis."
>
> (Kennecott Greens Creek Mining Company General Plan of Operations, Appendix 14 - Reclamation Plan, October 2000, p. 2-5)

04-18

and;

> "Vegetation establishment and success on each reclaimed facility shall be monitored through the establishment of transect lines. Transect locations for all reclaimed areas shall be selected by KGCMC in consultation with the appropriate agencies. Vegetation inspections of all reclaimed areas shall follow the following guidelines:
>
> - Visual inspections of vegetation cover by life-form will be conducted (including annual grass, perennial grass, forbs, shrubs, trees, litter and standing dead.) Evidence of dieback, subsidence, slope failures or erosion will be noted.
> - Inspections will be conducted on permanent transects.

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- Pedestrian traffic will be restricted to the downhill side of the transect line and people will not be allowed to walk on the plots.
- Vegetation monitoring will be conducted once each year during peak standing biomass.

"Revegetation efforts shall be considered successful when the following conditions are met:

- The total vegetative cover (including live biomass of perennial species, litter, and standing dead) in each revegetated area is equal to or exceeds 80 percent aerial cover, with a 90 percent statistical confidence limit;
- The density of actively growing trees is within 80 percent of target levels contained in the approved reclamation plan with a 90 percent statistical confidence;
- The reclaimed wetland and plant meadow areas have at least three graminoids present each with relative herbaceous cover value equal to or greater than 5 percent, with no one graminoid comprising more than 70 percent relative cover;
- The reclaimed upland forest areas have at least two species of trees and one species of shrubs present, with each species comprising no less than 5 percent or no greater than 95 percent of the relative density value.

"If vegetation monitoring indicates that, due to natural or other causes, a reclaimed area does not exhibit the potential to achieve the revegetation standards described above, a report shall be prepared which describes the area in question, the situation as identified, probable causes, and a corrective action plan. This report shall be submitted by KGCMC to the appropriate agencies within 60 days of problem identification. Following approval of the plan by the appropriate agencies, KGCMC shall implement the plan in a timely manner. The corrective actions to be taken may include, but need not be limited to, re-establishment of topsoil thickness, reseeding, and replanting of trees and shrubs.

(Kennecott Greens Creek Mining Company General Plan of Operations, Appendix 14 - Reclamation Plan, October 2000, p. 2-7 and 2-8:)

Since this standard is already in use in Alaska, it may be appropriate to adopt it for the Pogo mine too.

D4-18 CONT'D.

b. Specifying a Next-Step if the revegetation standard is not met

The permit should also specify what next step(s) will take place if the revegetation standard is not met.

For example:

"If revegetation criteria are not met, then within one year an evaluation of the problems resulting in the failure of the revegetation will be evaluated by an independent revegetation expert, and a new revegetation plan will be developed in conjunction with this expert for approval by ADEC."

D4-19

c. Changing the revegetation standard

Establishing adequate revegetation standards is too important an issue to the public to allow the possibility of a last minute change in the reclamation plan, which would not receive public scrutiny, to take place.

Recommendation: The vegetation standard should remain a part of the permit, and should be changed only according to the standard permit modification procedures.

D4-20

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Page #8

2. Financial Assurance Calculation (Draft Permit Section 3)

Reclamation at the Pogo Project is planned to occur both concurrent with operations and after mining and milling have ceased. The two principle objectives to reclamation and closure of the Pogo Project are (1) to stabilize the land for post-mining use, and (2) to ensure water quality is not influenced after mining.

Reclamation is described in five phases. Phase I involves reclamation of disturbance from exploration and construction areas not needed for reclamation. Phase II describes concurrent reclamation activities including reclamation of stockpiled mineralized development rock. Phase III includes final reclamation and closure of the mine site including removing facilities not needed for closure, stabilizing the site, and setting up a temporary closure camp. Phase IV, entitled post closure reclamation, begins once mine site closure is complete and includes operation of the water treatment plant for up to ten years and monitoring and maintenance. Phase V is post closure monitoring which will begin once water quality standards are met and all reclamation is complete. This includes a five year monitoring period for groundwater, stormwater, and surface water.

The Pogo Project reclamation plan and closure cost estimates were prepared in accordance with standard engineering cost estimation procedures and are consistent with methods commonly used by industry as well as state and federal agencies. The Pogo Project reclamation and closure costs are estimated at $21,651,000 to cover the cost of mine site reclamation and closure, water treatment, and monitoring and maintenance of reclamation work, and surrounding water quality.

Current financial assurance amounts estimated for the Pogo Project guarantee reclamation takes place in the event of bankruptcy, or other circumstances where reclamation is not completed by Teck-Pogo Incorporated and joint venture partners are evaluated in this report. This technical review is based on analysis of the existing reclamation plans and financial assurance cost estimates provided in the POGO Project Documentation Series for Permitting Approval Reclamation & Closure Plan, December 2002.

D4-21

If the state of Alaska becomes responsible for reclamation at the Pogo Project it is critical that adequate funding is available for completion of the required tasks. It is well documented at other mine sites (e.g. Summitville Mine in Colorado; Zortman Landusky, Beal, and Basin Creek mines in Montana; and Brohm Mine in South Dakota) that in the event the operating company files bankruptcy costs incurred by the State to perform reclamation are significantly higher than those originally estimated (Kuipers 2000). In some cases costs incurred by state and federal agencies can be 10 to 100 times higher than those estimated in reclamation plans and financial assurance calculations (Kuipers 2000). For these reasons this review of the Pogo Mine reclamation plan and financial assurance(s) takes a conservative approach to cost estimating.

CSP² has calculated several estimates of the Pogo reclamation bond based on several scenarios, described below. At a minimum, we believe that the reclamation bond should be increased to $27,786,454 (Scenario 1), and possibly to $$34,491,185 (Scenario 2). In order to choose a "recommended" scenario, we need additional information/detail on some of the reclamation details. Scenario 3 and Scenario 4 are provided to estimate what the State's financial liability should water treatment be required for longer than the 10 year term assumed in the reclamation plan – a term that can probably be described as an estimate.

Financial assurance estimates calculated in this review were performed in accordance with standard cost estimation procedures and are consistent with methods commonly used by state and federal regulatory agencies. Site-specific reclamation tasks and associated areas of disturbance were developed from the

aforementioned financial assurance estimate. Assumptions, reclamation tasks and associated costs used in this estimate are the same as those used in the existing reclamation plan and financial assurance(s), except where noted in the explanations for each scenario.

First, the existing financial assurance estimate was replicated (as Scenario 0) in a format that allows for unit costs to be determined for specific reclamation tasks. Next, four scenarios were developed where unit costs, indirect costs, and project timelines were evaluated and varied as described in the following sections. Finally, cash flow worksheets were generated for each scenario.

Detailed estimate calculations and the resulting scenarios and assumptions are available on request from **CSP²**. Table 1 below summarizes the financial assurance amounts calculated for this review.

Table 1. Pogo Project Financial Assurance Costs Summary

Pogo Project Reclamation Plan	Pogo Project	CSP² Scenarios			
	Scenario 0	**Scenario 1**	**Scenario 2**	**Scenario 3**	**Scenario 4**
	Based on 2002 reclamation plan.	Based on 2002 reclamation plan with increased indirect costs.	Based on Scenario 1 with changes to unit costs.	Based on Scenario 2 with 50 years water treatment.	Based on Scenario 2 with 100 years water treatment.
Capital Costs	$13,474,394	$17,292,139	$19,327,837	$20,559,837	$22,099,837
Operating Costs	$8,177,388	$10,494,315	$15,163,348	$59,743,666	$110,215,666
Total	$21,651,782	$27,786,454	$34,491,185	$80,303,503	$132,315,503

04-21

Pogo Project Scenario 0

For Scenario 0 labor costs, equipment costs, material costs, and volumes estimated for specific reclamation tasks used duplicate those provided in the cost estimation worksheets in the Pogo Project reclamation plan. Subcontract costs estimated were added into the labor estimates. Equipment costs and efficiencies are based on contractor quotes. These costs are typically estimated with the Caterpillar Performance Handbook, but the estimated equipment costs for the Pogo Project tend to coincide with other Alaska mine site estimates. Wage rates are not based on the Davis Bacon Wages for Alaska; however, the hourly wage rates used seem to coincide with labor costs estimated at other mines in Alaska. Material costs are based on contractor estimates.

Scenario 0 was generated to determine unit costs for specific reclamation tasks used in the Pogo Project cost estimate. Unit costs are evaluated and changed in subsequent scenarios. Although data inputs for Scenario 0 were derived from the Pogo reclamation plan slight differences in total amounts are observed. The Scenario 0 reclamation plan financial assurance amount differs by $782 ($21,651,000 - $21,651,782). This results in less than a <1.0% difference when compared to the financial assurance generated for the Pogo Project.

Review of the Pogo Project reclamation plan and associated financial assurance calculation revealed the following observations:

- *Reclamation plan needs more detail re closure tasks.* Periodic reevaluation will be necessary are more accurate volumes and project timelines are determined.

- A detailed reclamation and closure schedule illustrating estimated timeframes for closure of major mine components (underground mine, impoundments, etc.) was not included in this reclamation plan. This is commonly used to generate a cash flow worksheet to determine the present dollar amount required to post financial assurance.

- Wetland habitat seems to comprise a significant (40%) portion of the land area proposed for disturbance under this proposal. Wetland reclamation and/or reconstruction for closure is often more costly than revegetation on 'dry land'. The cost estimate provided in Appendix F of the reclamation plan does not readily differentiate between wetlands and 'dry land' reclamation. Additional consideration should be given to the cost of contouring and revegetation planned on wetlands, and these areas should be distinguishable in the detailed cost estimation worksheets.

- The reclamation plan and cost estimate include costs for salvage of mine site equipment and facilities. No salvage credit was applied to the cost estimate.

- Water treatment after closure will utilize existing water treatment facilities until compliance standards are achieved. According to the reclamation plan water treatment facilities are planned for use up to 10 years after closure. The Pogo Project reclamation plan does not provide assurance that ARD problems from underground mine workings (a majority of sulfides and CN will be disposed of in paste) have been evaluated and will not occur, while the Liese Zone contains two tabular low-sulfide (3%) quartz zones. Based on experience at other mine sites with acid generating materials, ARD impacts can be expected to continue for a significant time period following reclamation. Although conditions will most likely improve following reclamation, water treatment facilities may be needed well into the future.

  Due to the significant impacts on groundwater and surface water quality ARD has been demonstrated to cause, the potential for long-term water treatment should be examined more closely. The possible need for water treatment facilities into the future is addressed in Scenarios 3 and 4 of this review where water treatment is continued for periods of 50 and 100 years respectively.

- Maintenance and monitoring plans are not adequately described in the reclamation plan. Water quality assurance monitoring is presented as a singe line item for Phases I through IV, and it is not clear if this is intended for site inspections or analysis costs, or both. For all 5 reclamation phases a detailed monitoring schedule including monitoring sites, parameters to be measured, frequency, and duration should be determined.

  In addition to monitoring, a detailed maintenance schedule should be developed. This should include regular inspections and maintenance as needed for the plugged portals, engineered soil covers, impoundment stability, revegetation success, etcetera.

04-21

CSP² Scenario 1

Scenario 1 duplicates the Pogo Project reclamation plan (Scenario 0) financial assurance capital and operating costs with changes made to indirect costs as noted below. Scenario 0 indirect costs are calculated at 20% of the estimated contract costs, and Scenario 1 indirect costs are 54% of the estimated contract costs. The difference results from increases in Scenario 1 indirect costs to account for additional mobilization/demobilization, engineering redesign, procurement, construction management, contractor overhead, additional agency administration and inflation.

A financial assurance cost estimate should be performed under the assumption that reclamation is performed by a third-party under contract to the appropriate regulatory agency. Factors including contractor ownership, standby, overhead, engineering redesign, etcetera result in higher costs than those typical of reclamation costs when performed by mining companies. Indirect costs represent one of the most common areas in which financial assurance requirements are underestimated (Kuipers 2000). Indirect costs are added to this estimate to account for additional costs incurred in the event of agency management and oversight of reclamation and closure.

The Pogo Project cost estimate included indirect costs for contingency (5%), mobilization and demobilization (2%), contractor profit and overhead (10%), and agency administration (3%). In this estimate, indirect costs amount to 20% of the operating and capital contract costs.

The following indirect costs were applied to **CSP²** Scenario 1:

D4-21

- *Contingency.* Contingency costs reflect the level of detail and completeness of the cost estimate, as well as the degree of uncertainty of factors and assumptions used in the cost estimate. A contingency amount of 5% was applied to the estimated contract costs in the Scenario 1 cost estimate, which is the same percentage used in the Pogo Project cost estimate.

- *Mobilization / Demobilization.* Mobilization/demobilization costs account for the transport of equipment and materials to and from the mine site, as well as infrastructure needs. A mobilization/demobilization amount of 5% was applied to contract costs estimated in Scenario 1. The Pogo Project cost estimate uses 2% for mobilization / demobilization.

- *Engineering Redesign.* Engineering redesign costs stem from a lack of detailed information and plan development in a financial assurance estimate, as well as the need to account and design for actual conditions at the time of reclamation and closure. An engineering redesign cost of 3% was applied to the estimated contract costs used in Scenario 1. The Pogo Project cost estimate did not include any amount for engineering redesign.

- *Engineering, Procurement, Construction Management.* This indirect cost accounts for the requirement of construction engineering, procurement, and construction management on behalf of the agencies in the event they become responsible for reclamation. An indirect cost of 5% of the contract costs was used in Scenario 1, while the Pogo Project cost estimate does not account for the cost of this activity.

- *Contractor Overhead.* Contractor overhead accounts for administrating, management, public relations, safety, environmental, legal, performance bonding and other costs associated with doing

business. A contractor overhead cost of 15% was applied to the estimated contract costs used in the Scenario 1 cost estimate. The Pogo Project cost estimate included 5% for contractor overhead.

- *Contractor Profit.* This indirect cost accounts for contractor profit. A contractor profit amount of 10% was applied to Scenario 1. The Pogo Project financial assurance estimate includes a contractor profit rate of 5%.

- *Agency Administration.* Agency administration includes costs incurred by state and federal agencies in situations where reclamation and closure are performed by regulatory agencies. Agency administration costs were accounted for as 8% of the contract costs in Scenario 1, and 3% of the contract costs for the Pogo Project cost estimates.

- *Inflation.* Inflation indirect costs account for the difference in the dollar value between the time the estimate was generated and reclamation and closure are performed. An inflation amount of 3% was applied to the contract costs estimated in Scenario 1. Inflation was not accounted for in the Pogo Project estimate.

Application of these indirect costs in Scenario 1 results in an overall increase of 28% over Scenario 0. The Pogo mine reclamation plan costs were estimated as $27,786,454 under Scenario 1. Indirect costs for Scenario 1 amount to 54% of the estimated operating and capital contract costs, while indirect costs were 20% for Scenario 0.

CSP² Scenario 2

D4-21

Scenario 2 includes the addition of indirect costs as described for Scenario 1, as well as changes to unit costs and reclamation tasks as described below.

- *Growth Media application.* The Pogo Project reclamation plan uses a 6 inch cover of growth media where required before revegetation. This cover depth may not be adequate to apply sufficient amount of growth media to all surfaces. For example, the most common surface receiving growth media in this estimate are gravel pads that will most likely require greater than 6 inches of cover for long-term success and stability.

  Scenario 2 assumes application of a 12 inch cover of growth media to ensure that all surfaces are adequately covered with the growth media upon application. Unit costs for this item were doubled to account for additional hauling and growth media application required. Unit costs and volumes of growth media required were doubled for each specific reclamation task for this item. Contingent growth media stockpiles discussed in the reclamation plan should be evaluated for adequate growth media volume to provide 12 inch covers.

- *Re-Seeding Costs.* The unit costs estimated in the Pogo Project reclamation plan for re-seeding seem low when compared to other operations. The revegetation procedures described in Appendix B of the reclamation plan describe different methods for minimally disturbed and highly disturbed areas. Minimally disturbed areas are to be scarified and fertilized to allow for natural recovery, while highly disturbed areas are prepared and reseeded.

  Scenario 2 uses a revegetation unit cost of $1,500/acre ($0.31/yd) on flat surfaces, and all surfaces are assumed to be flat (detail not provided in cost estimate). These unit costs are based on Montana

Department of Environmental Quality (MDEQ) financial assurance recommendations based upon agency experience. In addition, minimally disturbed areas not planned for reseeding in Scenario 0 were included in the revegetation costs of Scenario 2. This includes the drystack cover, solid waste facility cover, and airstrip.

- *Sludge Disposal.* Sludge from water treatment facilities will be backfilled underground while the mine is operating. After closure of the underground mine, sludge disposal will be required for the 10 year water treatment period. A sludge disposal unit cost of $20,000/year to dispose of sludge generated from water treatment activities was added to Scenario 2.

- *Water Treatment Plant.* The Pogo Project reclamation plan assumes that existing water treatment facilities will be utilized after closure for up to 10 years, or until water quality standards are met. The water treatment plant is anticipated to operate at 180 gpm for 8 months per year for 10 years. A cost of $3,500,000 for 10 years of water treatment at this flow rate results in a unit cost of $6.00/1000 gallons treated water.

  Scenario 2 assumed a water treatment cost of $10.50/1000 gallons treated, based on the average unit cost of similar water treatment plants. At the same flow rate, this results in a 10 year water treatment cost of $6,531,840.

D4-21

Application of these additional costs in Scenario 2 results in an increase of the current financial assurance amount by 59%. The Pogo Project reclamation plan costs were estimated as $34,491,185 under Scenario 2.

CSP² Scenario 3

Scenario 3 utilizes the same assumptions and changes made in Scenario 2, with the addition of 50 years of water treatment. As previously discussed, the Pogo Project reclamation plan does not include adequate detail regarding water quality, quantity, and acid rock drainage impacts to assess the adequacy of the estimated maximum 10 years of water treatment and 20 years of monitoring and maintenance.

Therefore, Scenario 3 was developed to determine the cost differences should water treatment, monitoring, and maintenance need to be extended for 70 years (50 years water treatment plus 20 years monitoring and maintenance). In this case, water treatment plant operation and maintenance costs were increased to reflect an operational period of 50 years. This includes a sludge disposal cost of $1,000,000 for 50 years of water treatment. Water treatment plant operating costs are estimated at $32,550,000 for this timeframe. Water treatment plant capital replacement costs totaling $4,614,000 were also assumed. For capital replacement costs, a water treatment plant capital cost of $2,614,000 was assumed based on the CSP² water treatment plant capital unit cost of $6,535/gpm and a water treatment plant capacity of 400 gpm.

Monitoring and maintenance under this scenario is performed as described in the reclamation plan with the time period extended. Long-term operation and maintenance expenses increased to $5,234,490. As mentioned previously, more detail is needed to determine the activities planned for post-closure monitoring to assess its adequacy. Under this scenario monitoring planned for Phases I to IV was extended for 50 years at an annual cost of $50,000 per year, and Phase V monitoring was not changed.

Application of these additional costs in Scenario 3 results in an increase of the current financial assurance amount by 271%. The Pogo Project reclamation costs were estimated as $80,303,503 under this scenario.

CSP² Scenario 4

Scenario 4 utilizes the same assumptions as Scenario 2, with the addition of 100 years of water treatment to mitigate acid generating drainage. This scenario was developed to determine the cost difference if water quality standards were not met for 100 years after closure. Monitoring and maintenance under this scenario continue for 120 years, or 20 years after water quality standards have been met.

In this case, water treatment plant operation and maintenance costs were increased to reflect an operational period of 100 years. Water treatment plant operating costs are estimated at $65,100,000 for this timeframe. Water treatment plant capital replacement costs of $4,614,000 were assumed. Sludge disposal costs for 100 years of treatment were estimated at $2,000,000.

D4-21

Monitoring and maintenance under this scenario is performed as described in the reclamation plan with the time period extended to 120 years. Long-term operation and maintenance expenses increased to $7,734,490. As mentioned previously, more detail is needed to determine the activities planned for post-closure monitoring to assess its adequacy. Under this scenario monitoring planned for Phases I to IV was extended for 100 years at an annual cost of $50,000 per year, and Phase V monitoring was not changed.

Application of these additional costs in Scenario 4 results in an increase of the current financial assurance amount by 511%. The Pogo Project reclamation plan costs were estimated as $132,315,503 under Scenario 4.

Recommendation: At a minimum, we believe that the reclamation bond should be increased to $27,786,454 (Scenario 1), and possibly to $$34,491,185 (Scenario 2).

References

Kuipers, JR. February 2000. *Hardrock Reclamation Bonding Practices in the Western United States.* Boulder: National Wildlife Federation.

COMMENT RESPONSE:

D4-1 A summary of the acid-base accounting and kinetic tests has been added to Section 4.3.2.

D4-2 A summary of the waste rock data on which the waste rock segregation criteria were developed has been added to Section 4.3.2.

D4-3 These data are contained in Appendix C of the February 2002 Water Management Plan (Teck-Pogo Inc., 2002b).

D4-4 Text discussing site specific evaporation data has been added to 3.5.4.

D4-5 Section 4.1 states that to provide for storage of both snowmelt runoff and the 100-year, 24-hour storm event, the RTP volume would have to be an estimated 30 million gallons. The applicant has proposed a more conservative design, using a probabilistic method that resulted in a 40 million gallon design capacity.

The model that was developed to estimate water quality in the RTP is likely to be representative of normal weather conditions, but is likely to be conservative during periods of extreme high flows. As noted by the commenter, a storm that approached or exceeded the 40 million gallon capacity would result in substantial dilution within the RTP prior to any storm discharge. In the model, however, this dilution has not been accounted for, as the water quality of the various inflows to the RTP are not adjusted based on the magnitude of the flow. As a result, it is the rare probabilistic occurrence of extreme flows together with extreme water quality that results in the modeled exceedances. In reality, these combinations of events are unlikely to occur, and any discharge caused by a storm in excess of the 100-year storm event likely would be masked by the effects of storm runoff from the watershed in general.

D4-6 An evaluation of the potential environmental benefits and economic costs of placing additional mineralized waste rock underground has been added to Section 4.3.2.

D4-7 The comment is correct that the average sulfate concentration is greater than the reasonable worst case concentration for the estimated quality of the mineralized development rock seepage as listed in Table 4.3-7. The average sulfate concentration (634 mg/kg) is a conservative value based on results of actual development rock seepage from the exploration adit. The reasonable worst case value (386 mg/kg) was based on laboratory leaching rates and geochemical modeling. These values should have been adjusted previously to be consistent. The reasonable worst case value should have been increased somewhat. The values used, however, have resulted in a conservative estimation for the average case, and increasing the sulfate reasonable worst case concentration would have had a small effect on the water quality predictions.

D4-8 A clarification has been added to the text discussing Table 4.3-14 in Section 4.3.3.

D4-9 Text has been added to Section 2.3.6 to reflect the comment.

D4-10 Text has been added to Section 4.5.2 to reflect the comment.

D4-11 The response to this comment, and to the following comment (D4-12), are interrelated. Sections 4.9.2 (Gravel Source), 4.9.3 (Alternative 4, Water Discharge), 4.18.2 (Gravel Source), 5.2.1 (Gravel Source), S.12.1 (Gravel Source), and associated descriptions in Table 5.1-1 (4.18 Technical and Economic Feasibility) and Executive Summary Appendix A Table A-1 (4.18 Technical and Economic Feasibility) all have been redrafted and expanded to better discuss these issues. The option to mine gravel still remains in both the Environmentally Preferable Alternative as well as the Preferred Alternative, as discussed in Section 5.2.1.

D4-12 See response to comment D4-11 immediately above, particularly Section 4.9.3 (Alternative 2, Water Discharge, Off-river Treatment Works).

D4-13 Sections 4.18.3 (Tailings Facility Liner), 5.2.2 (Tailings Facility Liner), S.12.2 (Tailings Facility Liner), and associated descriptions in Table 5.1-2 (4.18 Technical and Economic Feasibility) and Executive Summary Appendix A Table A-2 (4.18 Technical and Economic Feasibility) all have been redrafted and expanded to better discuss this issue. The unlined tailings facility option still remains both the Environmentally Preferable Alternative as well as the Preferred Alternative.

D4-14 This issue will be addressed in ADEC's 401 Certification and EPA's response to comments with the final NPDES permit, both of which will be issued after publication of this FEIS.

D4-15 This issue will be addressed in ADEC's 401 Certification and EPA's response to comments with the final NPDES permit, both of which will be issued after publication of this FEIS.

D4-16 This issue will be addressed in ADEC's 401 Certification and EPA's response to comments with the final NPDES permit, both of which will be issued after publication of this FEIS.

D4-17 These suggestions will be considered in ADEC'S final decision for issuance of the waste disposal permit, which will occur after publication of this FEIS.

D4-18 These suggestions will be considered in ADEC'S final decision for issuance of the waste disposal permit, which will occur after publication of this FEIS.

D4-19 These suggestions will be considered in ADEC'S final decision for issuance of the waste disposal permit, which will occur after publication of this FEIS.

D4-20 These suggestions will be considered in ADEC'S final decision for issuance of the waste disposal permit, which will occur after publication of this FEIS.

D4-21 These suggestions will be considered by ADEC, in consultation with ADNR, for ADEC's final waste disposal permit which will be issued after publication of this FEIS.

05

DELTANA COMMUNITY CORPORATION
P.O. Box 930
Delta Junction, Alaska 99737

RESOLUTION
Deltana Community Corporation
Delta Junction, Alaska

Resolution #2203-03

Whereas Deltana Community Corporation provides community services to the residents of the Delta area (unorganized), including, but not limited to: utilities, fire protection, community facilities, trails, bridges and roads; and

Whereas Deltana Community Corporation receives and administers State, Federal and Private grant funds for the benefit of all Delta area residents; and

Whereas the business of Deltana Community Corporation shall be managed by a Board of Directors, which shall exercise all powers of the corporation; and

Whereas Deltana Community Corporation provides a voice for local residents in the community;

THEREFORE BE IT RESOLVED that the Deltana Community Corporation supports the DEIS "Agency Preferred Alternative". Under this alternative, Shaw Creek Hillside all-season road will be open to general public use for the first 23 miles where the road is within or adjacent to the Tanana Valley Forest, and then closed for the remaining 26 miles to the mine. D5-1

Passed and Approved at a meeting of the Deltana Community Corporation held on April 10, 2003.

By: _____
Paul E. Knopp, President

Attest: _____
Kathy Sonnichsen, Administrator

COMMENT RESPONSE:

D5-1 Thank you for your comment.

APR-29-2003 10:10 FROM:DELTA CHAMBER OF COM 907 895 5141 TO:19072698930 P:1/1

06

DELTA CHAMBER OF COMMERCE

RESOLUTION 2003-006

WHEREAS, teckcominco/Teck-Pogo Inc., Mining Corporation is proposing the development of the Pogo gold project, an underground mine that would produce 350,000 ounces to 500,000 ounces of gold annually, and

WHEREAS, an all-season road along Shaw Creek is proposed to provide access to the site from the Richardson Highway, and

WHEREAS, the Delta Chamber of Commerce is concerned with the overall economic well-being of the Delta area community, and

WHEREAS, the economic recovery strategy of the Delta area includes mining as a major component of that strategy, and

WHEREAS, teckcominco/Teck-Pogo Inc., Mining Corporation's operation may be a key element in the economic recovery for the Delta area and its residents if Delta becomes the service center for the mine, and

WHEREAS, teckcominco/Teck-Pogo Inc., Mining Corporation has already shown local hire and local purchase practices;

THEREFORE BE IT RESOLVED THAT the Delta Chamber of Commerce supports the Preferred Alternative Plan of the Draft Environmental Impact Statement, for all mining operations for the Pogo Gold Mine Project. D6-1

BE IT FURTHER RESOLVED THAT the Delta Chamber of Commerce supports Department of Natural Resources "Alternative Management Option" for the management of the road, and that the first 23 miles of the road remain intact and open to public use after mining is completed. D6-2

Passed and approved by the general membership on 4/10/03, 2003.

Signed: _____
Frederick W. Sheen, President

PO Box 987 • Delta Junction, Alaska 99737 • 907-895-5068 • 1-877-895-5068 toll free • 907-895-5141 fax • deltacc@wildak.net
www.DeltaJunctionAlaska.com

COMMENT RESPONSE:

D1-1 Thank you for your comment.

D1-2 Thank you for your comment.

07

Delta Regional Economic Development Council

WORKING TOGETHER TO CREATE A BRIGHTER FUTURE

P. O. Box 780 Delta Junction, AK 99737

To: Agencies

From: Delta Regional Economic Development Council

Date: April 22, 2003

The Delta Regional Economic Development Council (DREDC) is a nonprofit organization that represents most of the economic and social service interests in the greater Delta Junction community (see attachment of members). The DREDC works to coordinate efforts to expand the local economy and improve the quality of life in the region. The DREDC comments reflect a comprehensive position of the community.

It is the position of the DREDC to support the proposed mine permit as summarized in the Preferred Alternative on pages 5-34 through 5-37 of the Draft EIS, published March 2003. The DREDC also supports the Alternative Management Option as stated in the Pogo EIS, appendix D.3, with minor additions. This option is both reasonable and most likely to maintain the quality of life in the area with the least negative impact on the residents that live nearby. The economic benefit of this project will affect the Delta region for many years. It is our estimation that strictly controlling the road corridor will minimize the alteration to the current land use and reduce the environmental impact in the area. 07-1 07-2

We would like to see the Preferred Alternative permitted with the following additions:

- The road corridor is closed at the point of new construction to use other than mine related and logging traffic.
- A 660 foot aesthetic buffer will be left on each side of the road corridor. This buffer should not be logged or quarried.
- Any alteration to use of the closed section of the road must come to the public for comment. Additional permitting should be required to alter this use.
- An employee parking area will be permitted and constructed at the Richardson Highway intersection or nearby along the Richardson Highway instead of further up Shaw Creek Road.
- The entire road and power line corridor should be closed for hunting and access to hunting by motorized vehicle for ½ mile on each side for the entire length of the road that will be constructed.

07-3

We recognize and appreciate the extensive efforts the agencies have committed to this process. If further comments are needed, please contact our council.

Sincerely,

Paul Knopp, President

07

Delta Regional Economic Development Council

WORKING TOGETHER TO CREATE A BRIGHTER FUTURE

Board Members

Paul Knopp, President
Seat: Agriculture
President
Farmer

Whit Hicks, Vice President/Treasurer
Seat: Natural Resources Development
Executive Director
Delta Mine Training Center

Karla Giese, Secretary
Seat: Business Development
Small Business Owner
Fitness in Time

Steve Fields
Seat: Deltana Community Corporation
Board member

Susan Kemp
Seat: City of Delta Junction
Council Member
City of Delta Junction

Larry Smith
Seat: Tourism
Board Member
Delta Convention and Visitors Bureau

Mike Jenkins
Seat: Delta Chamber of Commerce
Board Member
Delta Chamber of Commerce

Nancy Morris
Seat: Social Development
Teacher

Michelle Trainor
Seat: Delta/Greely School District
Board Member
Delta/Greely School District

JudyDewar
Seat: Regional Planning
Adult Learning Programs of Alaska

P O. Box 780 Delta Junction, AK 99737

Date Passed: April 21, 2003

A RESOLUTION BY THE DELTA REGIONAL ECONOMIC DEVELOPMENT COUNCIL IN SUPPORT OF THE POGO MINE PROJECT

WHEREAS, the Delta Regional Economic Development Council is a nonprofit organization that represents the economic and social service interests in the greater Delta Junction community

WHEREAS, Teck-Pogo, Inc. (Tech-Pogo) has invested over $70 million to study, design, and permit the Pogo Gold Mine Project, and

WHEREAS, Tech-Pogo, upon receipt of the agency permits, will employ over 500 people during construction and over 300 hundred people for the life of the mine, and

WHEREAS, the United Stated Environmental Protection Agency (EPA), with the State of Alaska Department of Natural Resources (DNR) and the U.S. Army Corps of Engineers, has published a Draft Environmental Impact Statement (DEIS) on March 14, 2003, and

WHEREAS, the DEIS presents the EPA's and cooperating agencies preferred alternative, titled Environmentally Preferable and Preferred Alternatives on pages 5-34 through 5-37, including Figure 5.3-1, and

WHEREAS, DNR has requested public comment on the DEIS,

NOW THEREFORE BE IT RESOLVED THAT the Delta Regional Economic Development Council supports the Preferred Alternative described in the final Environmental Impact Statement with the following amendments:

- The road/powerline corridor will be closed at the end of the existing Shaw Creek Road to all access except mine traffic and limited access to Division of Forestry timber sales,
- DNR plan a 660 foot aesthetic buffer (no timber harvest or quarrying) on each side of the access corridor in consideration of future uses,
- Any use of this corridor other than currently proposed Teck-Pogo operations will require a public comment opportunity, and additional permits as required by State and Federal regulations,
- The entire road/powerline corridor will be closed to hunting for ½ mile on each side of the road during the life of the mine,
- Teck-Pogo is permitted to construct a secure parking and staging area somewhere other than Shaw Creek Road or the access corridor to reduce traffic on the residential section of Shaw Creek road.

07-3

BE IT FURTHER RESOLVED THAT this resolution be distributed to:

EPA
U.S. Army Corps of Engineers
Commissioner Tom Irwin, DNR
City of Delta Junction
Teck-Pogo Inc.
Alaska State Legislature

President 4-22-03 Date Karla M. Giese 4/22/03 Secretary Date

COMMENT RESPONSE:

D7-1 Thank you for your comment.

D7-2 Thank you for your comment.

D7-3 Closure of state land to hunting, and means of access for hunting, are regulated by the Alaska Board of Game through a separate process outside the scope of this EIS. The other issues in this comment will be addressed by ADNR in its final decision for issuance of the ROW, which will occur after publication of this FEIS.

08

Comments on the Pogo Gold Mine Draft Environmental Impact Statement: May 12, 2003

Of the Proposals presented in the draft EIS, the Goodpaster River Property Owners Association (GPRPOA) are in favor of Proposal #1 with the following exceptions:

ACCESS CONCERNS:

1) Whereas, one of the founding purposes of the GPRPOA is to protect the pristine quality of the Goodpaster River drainage, the members of the association feel that access and use of the all-season road as well as the power line easement that will run near it, should be designated for Private Pogo Mine business traffic only. If it were open to public access, the impact and pressure on the river and surrounding habitat would be increased and its value as wilderness would be compromised. 08-1
2) In addition, there should be a buffer zone along the road corridor for its entire length that would preclude any hunting, fishing, or other recreational activity by any person within one half mile on either side of the road. 08-2
3) In reference to the proposal for Public Access along the first 25 miles of the mine road, we feel that the road should remain private with no public access. This way there will be one entity, Pogo, responsible and liable for the road. 08-3

MINING OPERATIONS CONCERNS:

1) We are concerned that the proposed volume of discharge into the river at 400 gpm could cause changes in the nature of the river such as river bed variations and seasonal problems associated with freeze-up and break-up. 08-4

WINTER ICE ROAD CONCERNS:

The building and using of a winter road over the existing winter trail has potential for great impact on the trail users as we have experienced in the past. We would ask Pogo to take a proactive, rather than reactive, attitude toward the safety and accommodation of all trail users. Allowing current trail users to give input during the planning stages of this aspect of the project will not only enhance our co-existence on the trail, but should also lend a wealth of knowledge of the trail that could be helpful in the road building. Furthermore, the safety of each and every property owner is our concern, regardless of their location along the trail, either first or last, and regardless of how easy or difficult it will be to accommodate their safe travel. In particular we have the following comments: 08-5

1) The trail will need to be widened from its current dimensions to accommodate safe passage of vehicle traffic and trail users, including snow machines and dog teams.
2) The portion of the road bed that will be traveled by the traditional users should be the original trail as opposed to rough, hazardous new portions of the road. This is to prevent damage to snow machines and sleds.
3) Water crossings should be bridged to prevent overflow problems and to ensure safe passage of trail users.
4) The Winter Road should not be built with less than 12 inches of accumulated snow on the ground.
5) Where trees and brush are cut, the slash should be hauled away to leave the trail in its normal scenic condition.

Steven D. Wood
President, Goodpaster River Property Owners Association

COMMENT RESPONSE:

D8-1 Thank you for your comment.

D8-2 Closure of state land to hunting, and means of access for hunting, are regulated by the Alaska Board of Game through a separate process outside the scope of this EIS.

D8-3 Thank you for your comment.

D8-4 The reader is directed to the discussion of water discharge for Alternative 3 in Section 4.1.3.

D8-5 These suggestions will be considered by ADNR for its final decision for issuance of the winter road permit, which will occur after publication of this FEIS.

D9

GREATER ★ FAIRBANKS
CHAMBER
OF COMMERCE

250 Cushman St., Suite 2D, Fairbanks, AK 99701-4665
phone: (907) 452-1105, fax: (907) 456-6968
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Commissioner's Office
Received
APR 14 2003
Department of
Natural Resources

Introduced by:	Natural Resources
Other Review:	Transportation
Date Introduced:	March 25, 2003
Date Passed:	April 1, 2003
Date Transmitted:	April 8, 2003

Resolution 03-0401

A RESOLUTION BY THE GREATER FAIRBANKS CHAMBER OF COMMERCE IN SUPPORT OF THE POGO MINE PROJECT

WHEREAS, Teck-Pogo Inc. (Teck-Pogo) applied for permits in August, 2000 to construct a new underground gold mine at the Pogo project located northeast of Delta Junction, and

WHEREAS, subject to completion of the EIS process and receipt of the necessary permits, Teck-Pogo plans to invest approximately $250 million to build the mine, employing up to 500 people during the two years of construction with 300 people employed year-round for the 10-year life of the project, and

WHEREAS, the U.S Environmental Protection Agency (EPA), with the State of Alaska and the U.S. Army Corps of Engineers as cooperating agencies, published a Draft Environmental Impact Statement (DEIS) for the Pogo project on March 14, 2003 that identifies an agency preferred alternative for project development, and

WHEREAS, in the DEIS, the agencies selected the Shaw Creek Hillside corridor, the route proposed by the company, as the preferred route for the all-season access road to the project, and

WHEREAS, the Alaska Department of Natural Resources (DNR) has asked for public comment on the potential management strategies to be used for the road corridor, and

WHEREAS, Teck-Pogo has proposed to pay for construction and maintenance of the road, portions of which will be single lane, and has designed it for industrial use for 12 –20 vehicle trips per day, and

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GREATER ★ FAIRBANKS
CHAMBER
OF COMMERCE

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WHEREAS, the DNR "Alternative Management Option" to open the first half of the road to the public after mining is finished would result in improved safety during mining operations, fewer short-term environmental impacts, and increased revenue to the State, but would also allow immediate use of the road for timber management according to the five-year plan for the Tanana Valley State Forest, and

WHEREAS, the benefits that would accrue to the State from improved public access into this region would occur under the "Alternative Management Option" after mining operations are completed,

NOW THEREFORE BE IT RESOLVED that the Greater Fairbanks Chamber of Commerce supports the agency preferred alternative with the provision that DNR adopt the "Alternative Management Option" for the management of the road, and that the first 23 miles of the road remain intact and open to public use after mining is completed. D9-1

BE IT FURTHER RESOLVED THAT this resolution be distributed to:

U.S. Army Corps of Engineers
Alaska Congressional Delegation
Governor Frank Murkowski
Alaska State Legislature
Commissioner Tom Irwin, Alaska Department of Natural Resources
Teck-Pogo, Inc.
City of Delta Junction
City of Fairbanks
Fairbanks-North Star Borough Assembly

PASSED in Fairbanks, Alaska this 1st day of April, 2003 by the Greater Fairbanks Chamber of Commerce Board of Directors.

Terry Aldridge
Board Chair

Kara Moriarty
President/CEO

Benefactors
Alaska Airlines
Alaska Communications Systems
Alaska Railroad
Alyeska Pipeline Service Company
AT&T Alascom
BP Exploration (Alaska) Inc.
CellularOne
ConocoPhillips Alaska, Inc.
CTG Alaska
Denali State Bank
Design Alaska
Fairbanks Building & Construction Trades Council "The Unions"
Fairbanks Natural Gas, LLC
Fairbanks Urgent Care Center
First National Bank Alaska
Flowline Alaska
Fort Knox Mine
GCI
Golden Heart Utilities
Golden Valley Electric Association
Guardian Flight, Inc.
Key Bank of Alaska
Mt. McKinley Bank
North Star Computing
Northrim Bank
Santina's Flowers & Gifts
Tanana Valley Clinic
Third Sector Technologies, Inc.
Totem Ocean Trailer Express
Usibelli Coal Mine
WebWeavers
Wells Fargo Bank Alaska
Wendy's
Westmark Fairbanks Hotel & Conference Center
Williams Alaska Petroleum

COMMENT RESPONSE:

D9-1 Thank you for your comment.

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May 13, 2003

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Submitted by electronic mail and USPS

RE: Comments on the Draft Environmental Impact Statement and Associated Proposed Permit Decisions (State and Federal) for the Pogo Mine Project, Delta Junction, Alaska

Dear Ms. Hahn, Mr. Fogels and Mr. Boles:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement and associated proposed permit decisions for the Pogo mine project. Rather than send individual letters to the appropriate agencies and generate a significant courtesy copy list, we are submitting state and federal comments together in this letter. We also hereby incorporate by reference the comments from the Center for Science in Public Participation.

The Northern Alaska Environmental Center (Northern Center) is a non-profit environmental organization based in Fairbanks, Alaska. The Northern Center promotes conservation of the environment in Interior and Arctic Alaska through advocacy, education, and sustainable resource stewardship. The majority of our members are Alaskans who care deeply about the health and vitality of the environment that supports the communities in which they live and work.

Of primary concern to this organization and its members, and to Alaskans generally, is that our clean waters remain unpolluted. We want to continue to be able to

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drink Alaska water and eat Alaskan fish without fear that the water has been contaminated by heavy metals, industrial or human waste, or other toxics. We also want assurance that a corporation proposing new industrial development is fiscally responsible and accountable, and promotes sound environmental, labor, and human rights practices at all of its operations, regardless of country of location. And while these two issues – clean water and corporate accountability – are important wherever new industrial development is proposed in Alaska, they become even more so when it occurs in an area, such as the Goodpaster watershed, that is presently roadless, pristine, and of high biophysical and recreational value.

The Northern Center recognizes the significant efforts in design, data collection, and outreach expended by Teck-Pogo, Inc. ("Teck") during the project development and permit application phases. We also appreciate the level of scrutiny that EPA and other state and federal agencies have applied to the various components of the proposed project. We expect that Teck's commitment to protecting the environmental integrity of the Goodpaster region, to mitigating negative impacts to residents and users of the Shaw Creek and Goodpaster River areas, and to restoring the mine site, after closure, to a condition that will promote wildlife and recreation, will continue undiminished throughout the life of the mine. Likewise, we expect that the responsible state and federal agencies will continue their present level of involvement in monitoring environmental performance and compliance, and will remain responsive to public concerns and complaints, should any arise.

Additionally, because the Pogo deposit is high-grade with a current estimated reserve of approximately 5.2 million ounces of gold, is located on state land, and, most importantly, is in a region of exceptional biophysical, recreational and scenic value, we anticipate that Teck-Pogo, Inc., a wholly-owned subsidiary of Teck Cominco will pay royalties on all the gold that it extracts and exports. The Pogo project is owned by Sumitomo Metal Mining, Inc., arguably the world's oldest mining company and a member of one of the world's largest and most powerful group of companies and subsidiaries. Teck Cominco, itself a large multinational mining company with diversified holdings, will extract gold worth, at $300/ounce, over 2 billion dollars. Although there are significant capital costs associated with building a remote underground mine, it is reasonable to expect that there will be net income on Pogo gold because of the value of the deposit, and the financial solidity and assets of the project's backers.

Although the state's royalty structure allows numerous deductions from mineral value prior to assessing the 3% royalty fee, we believe one mark of good corporate responsibility is paying royalties on all metal produced by declining to engage in accounting practices that take maximum advantage of the net income structure. Our expectation, then, is that Teck-Pogo, Inc. will pay royalties on all gold mined, and that we will not see a duplication of the Fort Knox scenario, wherein Fairbanks Gold Mining, Inc. has extracted well over a billion dollars in gold, but has yet to pay a dime in royalties.

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Comments on the Draft Environmental Impact Statement, NPDES permit

I. Introduction

Teck has proposed developing an underground gold mine on undisturbed State land in the Goodpaster River Valley, 38 miles northeast of Delta Junction, Alaska. The surface water in the vicinity of the project is essentially undeveloped and pristine. Man-made structures modifying the flow regime or flow characteristics are nonexistent. Liese Creek is an intermittent stream and runs 2.2 miles before draining into the Goodpaster River.

The mining operations will result in the creation of 5.4 million tons of excess mine tailings and 2.65 million tons of excess development rock. In order to dispose of this waste, Teck will remove 85 percent of the moisture from the tailings and place them and the rock in the upper reaches of Liese Creek and its surrounding wetlands. This "dry-stack" disposal area consists of approximately 43 acres of wetlands and stream waters, all of which will be eliminated. In addition, Teck will impound Liese Creek, and pollutants from the dry-stack will be discharged into the creek and its surrounding wetlands.

II. The Alternatives Analysis Is Deficient Because the Agencies Failed to Analyze in Detail Any Disposal Location Other than Liese Creek that Does Not Involve the Use of a Stream or Wetlands

The DEIS employed a three-step alternatives analysis. The DEIS indicates that, in the first step, the agencies considered thirteen locations for the disposal of the tailings. However, the agencies analyzed only one disposal location in the next two steps: Liese Creek and its surrounding wetlands. The agencies must analyze in detail or, at least, discuss the reasons for eliminating the other disposal alternatives that do not impact any streams or wetlands.

D10-1

The alternatives analysis is the "heart of the environmental impact statement." 40 C.F.R. § 1502.14 (2002). NEPA requires the agencies to "[r]igorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. § 1502.14(a) (2002).

With respect to the filling of wetlands, the alternatives analysis must be even more rigorous. Where, as here, the activity "does not require access or proximity to or siting within [wetlands] to fulfill its basic purpose (i.e., is not 'water dependent'), practicable alternatives that do not involve [wetlands] are presumed to be available, unless clearly demonstrated otherwise." 40 C.F.R. § 230.10(a)(3) (2002) (emphasis added).

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These standards have not been met here. Appendix A to the DEIS indicates that thirteen disposal locations were identified, seven to the west and six to the east of the Goodpaster River. The agencies rejected the western sites as technically infeasible. Of the remaining six eastern sites, only one site did not involve mining waste disposal into a stream or wetlands, and the agencies summarily rejected that site because it had insufficient storage volume. The DEIS does not, however, indicate whether there are any other reasonable disposal locations that are not in waters or wetlands. Accordingly, the agencies have failed to rigorously explore all alternatives and has not "clearly demonstrated" that there are no alternative disposal locations to the wetlands.

D10-1 Cont'd.

III. NPDES Permits Are Required Both for the Disposal of the Mine Tailings and Development Rock into Liese Creek and its Surrounding Wetlands and for the Discharges from that Pile

Based on the information contained in the DEIS, it appears that Teck's NPDES permit will not include: (1) the disposal of 7.65 million tons of tailings and development rock into Liese Creek and the 43 acres of surrounding wetlands and (2) the discharge from the tailings/rock pile into Liese Creek and its wetlands. However, under the Clean Water Act, Teck must apply for an NPDES permit for these discharges.

The purpose of the Act "is to restore and maintain the chemical, physical, and biological integrity of the Nation's Waters." 33 U.S.C. § 1251(a). In order to fulfill this purpose, the Act prohibits the discharge of any pollutant into waters of the United States, except if done in compliance with the Act. 33 U.S.C. §§ 1311(a), 1342(a). The DEIS indicates that Liese Creek and its surrounding wetlands are waters of the United States. DEIS at 3-55 and Table 3.5-1. The mine tailings and development rock are pollutants. 33 U.S.C. § 1362(6). Therefore the disposition of the tailings and rock in Liese Creek and its surrounding wetlands and the subsequent discharges from that pile into the creek and wetlands are prohibited unless authorized by a permit.

D10-2

The DEIS does not explain why the agencies are not regulating these discharges. Pursuant to the Freedom of Information Act, we have obtained a document (attached) which indicates that the agencies may treat the entire 43 acres of wetlands and Liese Creek as a waste treatment facility. According to the document, once Liese Creek is impounded, the section above the impoundment will "be classified a waste treatment facility (WTF) and therefore would not be considered a water of the United States." Attachment at 1. This document contains a map which has a line encircling Liese Creek and its surrounding wetlands from the impoundment to just above the mineralized development rock stockpile. *Id.* at 2. The document explains that "[e]verything within the line is considered a waste treatment facility, therefore not subject to Corps authority." *Id.* at 1.

There is no provision in the Clean Water, however, which gives the EPA or the Corps the authority to convert "waters of the United States" into a waste disposal facility. In fact, in enacting the Clean Water Act, Congress intended to end the practice of using

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waters for waste disposal. *See* S. Rep. No. 92-414, at 7 (1971) ("The use of any river, lake, stream or ocean as a waste treatment system is unacceptable").

EPA's regulations also do not permit the use of waters of the United States for waste disposal. Those regulations prohibit the use of waters of the United States for the purpose of waste assimilation. 40 C.F.R. § 131.10(a). Furthermore, the fact that the Corps will issue a 404 Permit to impound Liese Creek does not convert the waters and wetlands above the dam into a waste treatment facility or change their status as "waters of the United States." EPA's regulations provide that "[a]ll impoundments of waters otherwise defined as waters of the United States" are still "waters of the United States." 40 C.F.R. § 230.3(s)(4) (2002). *See also* 33 C.F.R. § 328.3(a)(4) (same).

The document in the record discussed above indicates that the agencies believe that, if a permit were required, it would be a 404 Permit from the Corps and not a 402 Permit. This is incorrect. Section 404 permits apply to activities involving "the discharge of dredged or fill material into the navigable waters at specified disposal sites." 33 U.S.C. § 1344(a). Notwithstanding the Corps' recent rule change to the contrary, *see* 67 Fed. Reg. 31,129 (May 9, 2002), the Clean Water Act gives the Corps jurisdiction under Section 404 to issue permits only where the discharge of fill material has a constructive purpose, not where its purpose is the disposal of waste. This is precisely how the Corps construed the Section 404 program since Congress enacted the Clean Water Act and until the Corps's 2002 rule change. *See, e.g.*, 33 C.F.R. § 323.2(e), (f) (2001); Memorandum of Agreement Between the Assistant Administrators for External Affairs and Water, U.S. Environmental Protection Agency, and the Assistant Secretary of the Army for Civil Works Concerning Regulation of Discharge of Solid Waste Under the Clean Water Act, 51 Fed. Reg. 8,871 (Mar. 14, 1986). Accordingly, since the sole purpose of the disposition of the tailings and rock into Liese Creek is to dispose of waste, the Corps does not have jurisdiction to regulate that activity under Section 404. Instead, EPA has jurisdiction pursuant to Section 402.

D10-2 Cont'd.

In short, the Clean Water Act and EPA's regulations do not permit the agencies to convert Liese Creek and its surrounding wetlands into a waste treatment facility. Instead, they require Teck to obtain an NPDES permit for all of its discharges. Specifically, Teck must apply to EPA for (1) a 402 Permit to discharge the tailings and development rock into Liese Creek and its surrounding wetlands and (2) a 402 Permit for the discharges from the tailings and rock pile into Liese Creek.

IV. The Draft NPDES Permit Should Regulate Arsenic and Require Weekly Monitoring for Iron

D10-3

The draft NPDES Permit is deficient because it does not contain a limit for arsenic, a primary contaminant in the orebody, and it requires only quarterly, as opposed to weekly, monitoring for iron.

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A. Arsenic

The DEIS predicts that the level of arsenic will be 5,360 µg/L in the mine seepage under reasonable worst-case conditions. DEIS at Table 4.3-1. This concentration was used as the input arsenic level to the Water Treatment Plant (95% annual maximum, Water Management Plan Supplement, June 2002, Table 2.3, p. 2-15). Since the estimated effluent concentration for arsenic from the treatment plant is 30 µg/L (95% annual maximum dissolved, Water Management Plan Supplement, June 2002, Table 2.4, p. 2-18), the agencies apparently have assumed that the treatment plant will remove 99.44% of the arsenic from its effluent. Whether Teck's treatment plant can achieve this removal efficiency has not been demonstrated. Therefore, the assumption that it will do so under reasonable worst-case conditions is not tenable. D10-3 cont'd.

If a more realistic removal efficiency were used, arsenic would likely exceed 30 µg/L. Arsenic should therefore be regulated with a discharge standard in the NPDES permit. Furthermore, in light of EPA's new limit of 10 µg/L for arsenic under the Safe Drinking Water Act, the agencies should consider using an interim limit which will become stricter after the State has amended its water quality standard for arsenic.

B. Iron

The Fact Sheet has listed iron as a contaminant with a reasonable potential to exceed the water quality standard for iron. DEIS App. at C-6, Table C-3. Rather than monitor iron at Outfall 001, EPA has elected to monitor iron at Outfall 011 (internal monitoring) in order to avoid the potential for exceeding water quality standards should the background iron in the Goodpaster River naturally exceed the standard. However, in specifying the monitoring frequency for Outfall 011, EPA has specified only a quarterly grab sample. DEIS App. at B-5, Table 2. Iron should be monitored at Outfall 011 at a weekly frequency like other contaminants in the permit. D10-4

V. A Lined RTP and Dry Stack Should Be the Environmentally Preferred Alternative

Table 5.3-2 includes an "Unlined dry stack" and "Unlined RTP" in the environmentally preferred alternative over a "Lined dry stack" and "Lined RTP." However, a lined facility would be more protective of the environment than an un-lined facility. Indeed, as the DEIS notes (p. 4-18), a "lined RTP likely would reduce seepage loss from the facility." Therefore, EPA should include the lined RTP and dry stack in the environmentally preferred alternative. D10-5

Comments on the Draft Environmental Impact Statement Relative to Segregation/Disposal of Waste (Development) Rock

The sections of the DEIS that deal with the disposal of waste (development) rock from the pre-production and operations phases of the Pogo mine have a few minor inconsistencies with the proposed Solid Waste Disposal Permit and Teck's proposed

D10

monitoring plan. This makes it difficult to follow exactly the process for dealing with potentially polluting waste rock.

First, on page 2-17 of the DEIS, under the applicant's preferred alternative, Section 2.3.8 Development Rock Storage, third paragraph, the applicant states: " During the exploration phase, the development rock would be segregated as mineralized or nonmineralized;…" It is unclear if this refers to the waste rock already excavated and stored at the 1525 portal as a result of earlier exploration, or if this includes additional waste rock that will be removed during the two-year pre-production period. If the latter, then the opening wording should be changed from "exploration" to "pre-production." While disposal of the mineralized waste rock from the various portals is described, it is unclear what will be done with the nonmineralized waste rock, and where it will be stored, if not used in surface construction. Also, the classification parameters for segregating the waste rock should be given here, as well as a more detailed schedule for the transport of the mineralized waste rock from the 1525 portal dump to the dry-stack tailings facility. Despite the 1525 portal dump being lined, mineralized waste rock should be moved to the dry-stack facility as soon as practicable, since that facility is covered by the Solid Waste Disposal permit, and more closely monitored than the 1525 portal dump. D10-6

Likewise, in Chapter 4, Environmental Consequences, Section 4.2 Ground Water, Alternative 4, Options Common to All Alternatives, Development Rock Disposal, first paragraph (page 4-30), the statement "During operation, these two types of rock might or might not be segregated" is confusing and provides insufficient information about the process for handling waste rock. This section should clearly indicate to a reader that 1) there will be a significant amount of development rock left underground (approximately 436,000 tons), which will not be segregated, since it will not be brought to the surface, and 2) that all development rock brought to the surface will either be tested and segregated, or, if not tested, assumed to be mineralized and disposed of in the dry-stack facility. D10-7

There should also be a schedule for the disposal of mineralized waste rock in the dry-stack facility – beyond the basic statement that it is projected that the mineralized waste will be encapsulated in the dry-stack by year 7. If the mechanics of dry-stack construction and accumulation dictate that the mineralized waste rock will not be incorporated/encapsulated before year 7, then this should be stated. D10-8

Comments on the Proposed Decision for the Pogo Project Right-of-Way, ADL 416809

While the Northern Center originally preferred the winter road option, we realize that with several warm Interior winters recently, the option of a winter ice road does not meet the transportation needs of Teck. Therefore, we neither oppose nor support the Proposed Decision for the Pogo Project – which would construct the all-season Shaw Creek Hillside Road – of which the first 23 miles would be open to the public and not D10-9

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scheduled for reclamation at end-of-mine life, while the remaining 26 miles would be for the exclusive use of Teck and reclaimed at end-of-mine life. D10-9 cont'd.

On the proposed decision document, we have the following comments.

I. Issuance of a Combined Right-of-Way for the Shaw Creek Hillside Route

If road access must be built for the Pogo mine project, we do not disagree with the State's proposed Right-of-Way decision for the Shaw Creek Hillside Route, including opening the first 23 miles to the public, for the following reasons *and contingent upon the following recommendations*:

- The first 23 miles wind in and out of the Tanana Valley State Forest. We believe that it is appropriate that a road that traverses a public resource, such as a state forest, remain open for all public uses, provided that DNR undertakes proper management actions, including monitoring of public use patterns, to protect the resource from degradation by off-road vehicles and to limit the development of unauthorized trails.
- TVSF regulations stipulate that all roads are multiple use – barring significant public safety concerns. The amount of mine traffic is projected at levels too low to cause significant public safety issues that cannot be controlled with proper management. D10-10
- Construction of this portion of the road is likely to increase public use of the existing Shaw Creek Road as well as of the portions of the TVSF that it accesses. However, it is reasonable to assume that this increase will come more from local residents (Delta area) than from people traveling from Fairbanks or elsewhere in the Interior. It is highly unlikely that this particular road will become a destination for auto tourists; therefore, the likelihood of collisions between RVs and mine traffic is remote.
- Although people living on Shaw Creek Road will be negatively impacted from increased traffic and noise, it is reasonable to assume that most of the increased noise and traffic will result from the operation of the mine, not from the public using the road. Therefore, making this portion private exclusive to Teck is not likely to significantly mitigate these negative impacts. On the other hand, by maintaining public access, the agencies will provide benefits to local residents and users such as access to the TVSF for personal-use firewood and building logs, more opportunities for small sawyers, and increased opportunities for some types of hunting (for example, grouse) and recreation.

We recommend that the first 23 miles of the Shaw Creek Hillside Route, except for those portions of the Shaw Creek Road that already exist, be closed at end of mine of life.

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II. Establishment of a Reimbursement for Services Agreement Between Teck-Pogo, Inc. and DNR

We recommend that during the life of the Pogo mine, Teck enter into a Reimbursement for Services Agreement (RSA) with the Alaska Department of Natural Resources that would reimburse costs for additional staffing of forestry/resource specialists, at a level determined to be sufficient by the Division of Forestry and the Division of Mining, Land and Water, for the purposes of monitoring public use and assisting in the management and protection of resources in the Shaw Creek units of the Tanana Valley State Forest, and in the coordination and organization of meetings of the Goodpaster Review Working Group, as needed. D10-11

Teck has an existing RSA with DNR that reimburses costs, including salaries, incurred during the preparation of their permits for the Pogo mine; therefore, this type of agreement is not without precedent. Further, an agreement to reimburse this type of staffing is consistent with Teck's recognition of the high value of the Shaw Creek and Goodpaster region's natural and recreational resources and its commitment to minimize environmental and community impacts resulting from the Pogo mine and access road.

III. Location of the Bus Terminal/Maintenance Facility Site

If the Shaw Creek Hillside Road is constructed, we recommend that the bus terminal/maintenance facility be constructed within Material Site #2, adjacent to the Richardson Highway, rather than west of the TAPS crossing, so as to reduce traffic on Shaw Creek Road. D10-12

IV. Process for Future Applications for Use of the Private Exclusive Right-of-Way

On page 37, fourth paragraph, the Proposed Decision states "other uses of the second portion [i.e. from Gilles Creek to the Pogo Mine] are prohibited, unless DNR makes a determination to authorize additional uses. In making this determination, DNR **will** consider:

- Input from the public and agencies,
- Input from the Goodpaster Review Working Group as established in the 1991 Tanana Basin Area Plan,
- The impacts of additional resource development and road use on the resources identified in Section IX of this finding, and
- Appropriate reimbursements by new users to Teck-Pogo or its assigns for road construction and maintenance."

(emphasis added). D10-13

First, we recommend substituting "shall" for "will." While we appreciate the intention within the Proposed Decision to set forth a process for handling future applications to use the private exclusive portion of the ROW, the process for granting additional users access must be mandatory, not discretionary. This will assure all

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stakeholders – including residents, Teck and its assigns, recreationalists, hunters, fishers, etc. – that the application process will not only be transparent and participatory, but that it can be counted on to occur if and when an application for road use is submitted to DNR. D10-13 CONT'D.

Second, we recommend that, under the second bullet point, the permit identifies the stakeholders that comprise the Goodpaster Review Working Group. Representatives from conservation, tourism, and potentially the military should be included. There should also be a process delineated for adding new interests (for example, a borough representative, should a Delta Borough be created) to the group. D10-14

Third, Section IX of the Proposed Decision evaluates "reasonably foreseeable, significant effects" of the Right-of-Way on identified resources. While this is important information to consider when evaluating a future application for use, this does not specifically include a cumulative impacts analysis, nor does this specifically require that DNR, in the future, evaluate data collected *after* road and mine construction in order to determine what, if any, impacts road and mine operation have had. Therefore, this bullet point should be modified to include stipulations that DNR will conduct a cumulative impacts analysis similar to that which was done during this permitting process, as well as review monitoring data that has been collected since baseline, to ensure that road and Pogo operations have not had significant deleterious effects on the Goodpaster, Shaw Creek, and surrounding environment. D10-15

Comments on the Draft Solid Waste Disposal Permit # 0131BA002

I. Segregation, Disposal and Monitoring of Waste Rock

Under Section 1.2 Limitations, stipulations governing the disposal of mineralized waste (development) rock should be tighter. Section 1.2.1 states that waste materials that are covered under this section include development rock that is limited to approximately 24,500 tons deposited weekly in the dry-stack facility (over life of mine of 11 years – roughly 14 million tons). Section 1.2.7 goes on to state: "The limitations in section 1.2 do not preclude the surface storage prior to treatment/disposal of development rock…" Teck's monitoring plan, which is incorporated into this permit, under Section 4.4.1 Development Rock Segregation & Storage, states "Development rock will be mined, brought to the surface, segregated by individual blasted rounds and held for assay. When the assays are complete, the material will be classified as 'mineralized' or 'nonmineralized' based on the classification procedure developed during the excavation of the underground exploration drift in 1999 and 2000." D10-16

Taken together, these references in the Solid Waste Disposal permit present a cloudy picture of how waste rock will be segregated, disposed of, and monitored. So that the public may better understand the classification/disposal process, as well as to be sure that the most conservative handling of potentially polluting waste rock is undertaken at all times at the Pogo mine, we recommend the following changes/clarifications:

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- The monitoring plan should clearly differentiate between waste rock that is left underground (and thus does not need to be segregated) and waste rock brought to the surface – which shall either be tested and segregated, or if untested, shall be classified as mineralized and deposited in the dry-stack facility.
- The classification procedure for mineralized/nonmineralized should be clearly outlined in the monitoring plan, rather than referenced.
- Limitation 1.2.7 should be modified such that the surface storage of waste rock prior to treatment/disposal is constrained to specific sites identified in the permit and plan of operations. There should also be a time limitation established on how long waste rock may remain in a temporary storage site prior to segregation and disposal.
- Restore the mineralized cut-off level for arsenic to 200 mg/kg rather than the proposed 600 mg/kg. There is no supporting test data provided in the plan of operations, the proposed Solid Waste Disposal Permit or the proposed monitoring plan that supports the elevation of the arsenic cut-off level. The justification for this elevation contained in Teck's Plan of Operations, February 2002 (and removed from the updated Plan of Operations, November 2002) is that this change is "based on the low arsenic values observed in seepage from the development rock stockpiles to date as well as updated test results…" (page 2-7, February 2002). Since this reference is deleted in the latest revision of the Plan of Operations, and no supporting data are provided to justify the decision, at a minimum, 200 mg/kg should remain the cut-off level, and the sulfur percentage and the arsenic concentration should both be stipulated in the limitations. D10-16 CONT'D.

Further, there are no stipulations in the Solid Waste Disposal Permit or in the proposed monitoring plan for testing and monitoring for acid generation potential in the waste rock brought to the surface. The cut-off for sulfur in segregating mineralized waste from nonmineralized is 0.5%. However, at the True North mine, where sulfur levels are roughly 0.01% in waste rock, FGMI is required to do quarterly acid/base accounting of all waste rock. If static evaluations show less than a 3:1 ratio of net neutralization to net acid generation, kinetic testing is required. The same should be required of waste rock brought to the surface at Pogo – especially since the sulfur levels are much higher at Pogo, even in the "nonmineralized" waste rock, than they are at True North. D10-17

Comments on the Reclamation & Closure Plan, December 2002

The Reclamation & Closure Plan identifies as one of its performance objectives the establishment of a viable vegetative cover that will not need fertilization after five years. This is an important goal that must be met if mine site reclamation is to achieve the goals of public recreation and wildlife habitat. As some mine site closures in the western United States have demonstrated, it is not uncommon to have reasonably good vegetative cover while there is care and maintenance of the site (i.e. fertilizer application), only to have the cover die out after the site is closed. Harsh climates with poor soil development, such as those in the western desert states and Interior Alaska, D10-18

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exacerbate the problem. It is also important that a hardy, invasive species does not dominate the new growth. Therefore, we urge the use of local species and the collection of local seeds for revegetation, as well as the use of the minimum amount of fertilizer for the shortest possible time. D10-18 Cont'd.

Although an "alpine grass meadow" is likely the only landform that the closed dry-stack will approximate, construction of the perimeter ditches further emphasizes the artificiality of the final landscaping. Establishing a more natural drainage pattern, rather than one of ditches outlining the edges of the dry-stack, would contribute to better restoration of the site. We recognize the importance of reducing erosion and breaching the engineered cover, but we urge consideration of alternatives – such as constructing armored drainages mimicking original drainage patterns of Liese Creek – rather than a contour ditch. D10-19

Again, thank you for the opportunity to comment on the Draft Environmental Impact Statement and proposed decision documents for the Pogo mine project. Please continue to keep us informed on project developments. Responses and questions may be directed to my attention at the address above.

Sincerely,

Mara C. Bacsujlaky, Assistant Director/Mining Coordinator

eCC: Victor O. Ross, USACOE

D10

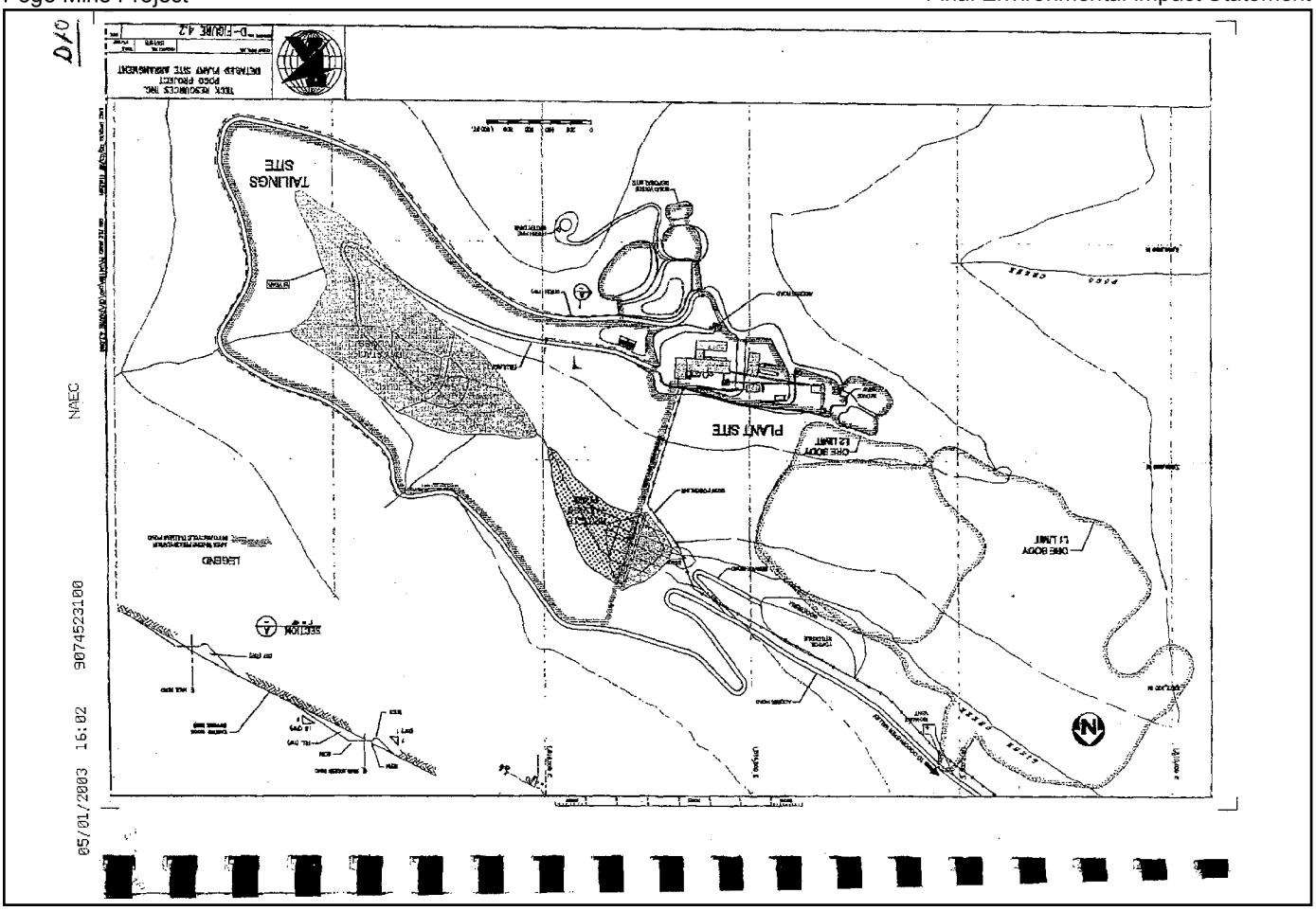
402/404

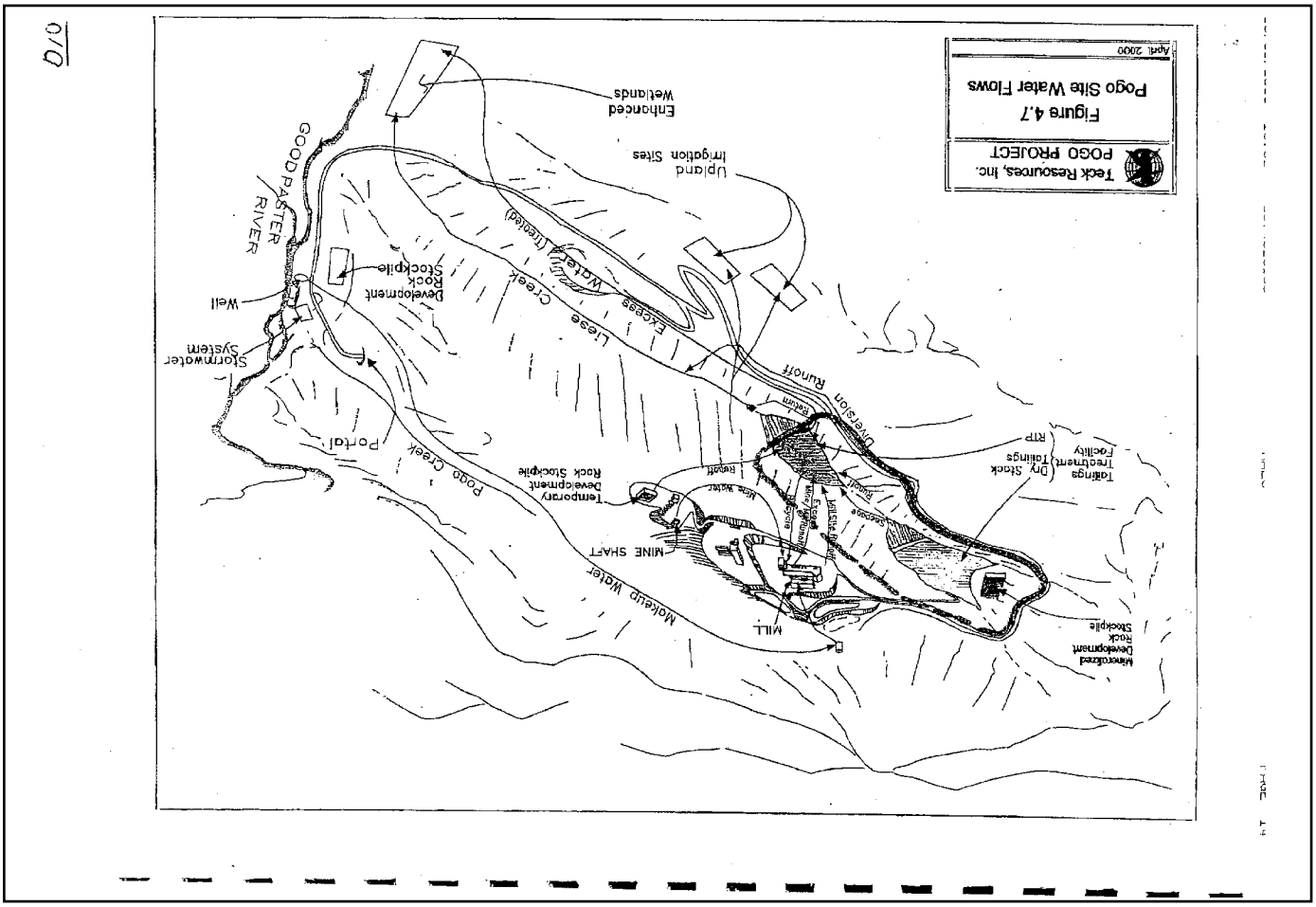
Refresher: Consensus was to utilize an establish a boundary (either by road/berm/diversion ditches) to define where the Corps', EPA's, and/or the State jurisdictional or permitting options would apply. We were proposing that everything within the established boundary be classified a waste treatment facility (WTF) and therefore would not be considered a water of the United States.

Second issue-if the EPA and the Corps cannot decide on specific jurisdictional boundaries, then is there a possibility of utilizing special conditions on the 401 to settle the differences.

1. Pink line indicates Corps jurisdiction boundary. Everything within the line is considered a waste treatment facility, therefore not subject to Corps authority.

2. Dotted lines section-pink: There are several proposals for closing the WTF boundary line question below the mill site.
   a. contour elevation to match opposing side.
   b. construct a collection and diversion berm to ensure all mill site runoff is ran into the treatment facility from at single point.
   c. there will be a road (purple dotted line Figure 4.2) around the entire waste treatment facility-what would it take to design it to act in a similar manner as the northern road/berm.


TAILINGS SITE
PLANT SITE
LEGEND
NAEC
05/01/2003 16:02 9074523100


Teck Resources, Inc.
POGO PROJECT
Figure 4.7
Pogo Site Water Flows
April 2003
Enhanced Wetlands
Upland Irrigation Sites
GOOD PASTER RIVER
Well
Stormwater System
Development Rock Stockpile
Liese Creek
Excess Water (Treated)
Diversion Runoff
Portal
Pogo Creek
Temporary Development Rock Stockpile
MINE SHAFT
MILL
Makeup Water
Tailings Treatment
Dry Stack Tailings Facility
RTP
Mineralized Development Rock Stockpile

COMMENT RESPONSE:

D10-1 The text in Appendix A, Section 1.2, that discusses the screening process for tailings disposal location has been redrafted to describe in further detail the analysis that was conducted to screen the location options to clearly demonstrate there were no reasonable disposal locations that would not impact wetlands.

D10-2 Changes to the dry-stack tailings facility construction plan have occurred since the Applicant's Proposed Project was described in Section 2.3 of the DEIS. The new plan, which details these changes, may be found in the COE 404 Public Notice contained in Appendix B of this FEIS.

In response to comments from the State of Alaska, the Applicant has proposed to augment the project's growth media balance by clearing, grubbing, and stockpiling the organic material from the dry-stack facility footprint. In addition, an erosion control/drainage blanket and under drain system consisting of nonmineralized rock would be placed within the footprint prior to placement of any tailings.

The COE regulates placement of dredge and or fill material into waters of the United States. Mechanized land clearing of wetlands is considered a discharge of fill material into those waters. Land clearing operations involving vegetation removal with mechanized equipment such as front-end loaders, backhoes, or bulldozers with sheer blades, rakes, or discs in wetlands; or windrowing of vegetation, land leveling, or other soil disturbances in wetlands, are considered placement of fill material and are regulated activities under COE jurisdiction. The placement of nonmineralized waste rock into cleared wetlands also would be regulated as placement of fill material into waters of the United States. Appendix B shows the volume of nonmineralized rock fill that would be placed into such waters.

A COE 404 permit may only be issued after the Applicant obtains a Certificate of Reasonable Assurance, or waiver of certification, from ADEC as required by Section 40l(a)(l) of the CWA. ADEC must certify that the State's water quality standards would not be violated.

Placement of the erosion control/drainage blanket in the dry-stack facility footprint would convert existing wetlands to uplands. Thus, tailings placed on the erosion control/drainage blanket would be placed in uplands. The COE does not regulate fill placement in uplands, and therefore no CWA Section 404 permit would be required for placement of dry-stack tailings. The tailings, however, would require a solid waste permit from ADEC.

An EPA NPDES permit for discharge of tailings would be neither required nor appropriate. Seepage collected from the dry stack would be directed from the under drain system to the RTP. All effluent discharges from the RTP would pass through the on-site treatment facility, and all water discharged from the treatment facility would be subject to effluent limits and other provisions of a NPDES permit.

D10-3 This issue will be addressed in ADEC's 401 Certification and EPA's response to comments with the final NPDES permit, both of which will be issued after publication of this FEIS.

D10-4 This issue will be addressed in ADEC's 401 Certification and EPA's response to comments with the final NPDES permit, both of which will be issued after publication of this FEIS.

D10-5 The reader is directed to the response to comment D4-13.

D10-6 The text in Section 2.3.8 (Waste Rock Storage) has been redrafted to reflect the comment.

D10-7 The discussion of development rock disposal in Section 4.3.2 has been redrafted to reflect the comment.

D10-8 Presenting an estimated schedule for disposal of mineralized development rock in the tailings dry stack is not considered reasonable at this time because there are many unknown factors that would make it of little practical value. All mineralized development rock brought to the surface and not immediately encapsulated in the dry stack would be stockpiled either on impervious geotextile layers on the valley floor below the existing 1525 Portal of the exploration adit (Figure 2.3-1 a), or temporarily within the dry stack footprint itself (Figure 2.3-1 e).

The only exception might occur below the existing 1525 Portal where the nonmineralized development rock is presently stockpiled. As this rock were used as fill material in the laydown area and for road construction, it would free up the existing engineered polypropylene lined pad and allow placement of additional mineralized development rock on the existing lined pad as temporary storage. If there were more mineralized rock than could fit on the existing lined pad, the excess mineralized rock would be temporarily stored immediately to the north of the existing lined pad and would be moved to the temporary stockpile within the overall footprint of the dry stack in upper Liese Creek within 2 years. It is projected that all mineralized rock would be encapsulated in the dry-stack tailings by year 7 of the project.

D10-9 Thank you for your comment.

D10-10 This issue will be addressed in ADNR's final decision for issuance of the ROW, which will occur after publication of this FEIS.

D10-11 This issue will be addressed in ADNR's final decision for issuance of the ROW, which will occur after publication of this FEIS.

D10-12 This issue will be addressed in ADNR's final decision for issuance of the competitive land lease which will occur after publication of this FEIS.

D10-13 This issue will be addressed in ADNR's final decision for issuance of the ROW, which will occur after publication of this FEIS.

D10-14 This issue will be addressed in ADNR's final decision for issuance of the ROW, which will occur after publication of this FEIS.

D10-15 This issue will be addressed in ADNR's final decision for issuance of the ROW, which will occur after publication of this FEIS.

D10-16 These suggestions will be addressed in ADEC's final decision for issuance of the waste disposal permit which will occur after publication of this FEIS.

D10-17 This issue will be addressed in ADEC's final decision for issuance of the waste disposal permit, which will occur after publication of this FEIS.

D10-18 This issue will be addressed in ADNR'S final Plan of Operations Approval, which will be issued after publication of this FEIS.

D10-19 This issue will be addressed in ADNR'S final Plan of Operations Approval, which will be issued after publication of this FEIS.

D11

Testimony of Resource Development Council
On Pogo Gold Mining Project
Fairbanks, Alaska
April 30, 2003

Good evening. My name is Bill Brophy, a member of the Resource Development Council. I am here tonight testifying on behalf of RDC.

The Resource Development Council supports the Preferred Alternative identified in the Draft Environmental Impact Statement, with the provision that the Alaska Department of Natural Resources adopts the Alternative Management Option for management of the Shaw Creek Hillside access road. RDC also endorses the draft NPDES permit and the draft Alaska Department of Environmental Conservation waste disposal permit. D11-1 D11-2 D11-3

RDC is a statewide business association which works closely with Alaska's basic industries, including tourism, fishing, oil and gas, mining and timber. RDC's membership includes individuals and companies from these industries, as well as from support sectors such as construction, labor and other technical service providers, Native corporations and local communities.

The Pogo project is good for Alaska, especially for the Interior where it will boost economic activity and generate hundreds of new construction and permanent year-round jobs. Pending receipt of necessary permits, Teck-Pogo is prepared to invest a quarter billion dollars to construct the underground mine and its related infrastructure. The project will bring new opportunities for Alaska businesses and residents and will help sustain a healthy and growing mining industry in the state.

D11

The Teck-Pogo operation has been designed in such a way as to minimize operational impacts on the environment. The project is designed to meet Alaska water quality standards and it will not degrade the water quality of the Goodpaster River.

Regarding the issue of public use of the Shaw Creek Hillside road, RDC believes it would be better to keep the road classified for industrial use only while mining is occurring. The Alternative Management Option will lead to an increased margin of safety for the public during mining operations and it will result in reduced short-term impacts to subsistence and trapping, as well as wetlands from ORV use. D11-2

I will conclude by urging the EPA and the Alaska Department of Natural Resources to provide timely resolution of the permitting process so that the Pogo Gold Mine can move forward.

Thank you for the opportunity to provide comments regarding this important project.

Bill Brophy

COMMENT RESPONSE:

D11-1 Thank you for your comment.
D11-2 Thank you for your comment.
D11-3 Thank you for your comment.

D12

RESOURCE DEVELOPMENT COUNCIL

Growing Alaska Through Responsible Resource Development

RECEIVED
MAY -7 2003
U.S. EPA REGION 10
OFFICE OF ECOSYSTEM

May 2, 2003

Hanh Gold
U.S. Environmental Protection Agency
1200 Sixth Avenue, OW-130
Seattle, WA 98101

Dear Ms. Gold:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for the Pogo Gold Mining Project near Delta, Alaska.

The Resource Development Council supports the Preferred Alternative identified in the DEIS, with the provision that the Alaska Department of Natural Resources adopts the Alternative Management Option for management of the Shaw Creek Hillside access road. RDC also endorses the draft NPDES permit and the draft Alaska Department of Environmental Conservation waste disposal permit. D12-1 D12-2 D12-3

RDC is a statewide business association which works closely with Alaska's basic industries, including tourism, fishing, oil and gas, mining and timber. RDC's membership includes individuals and companies from these industries, as well as from support sectors such as construction, labor and other technical service providers, Native corporations and local communities.

121 West Fireweed Lane, Suite 250, Anchorage, Alaska 99503-2035
Phone: 907/276-0700 Fax: 907/276-3887 Email: Resources@akrdc.org Website: www.akrdc.org

D12

The Pogo project is good for Alaska, especially for the Interior where it will boost economic activity and generate hundreds of new construction and permanent year-round jobs. Pending receipt of necessary permits, Teck-Pogo is prepared to invest a quarter billion dollars to construct the underground mine and its related infrastructure. The project will bring new opportunities for Alaska businesses and residents and will help sustain a healthy and growing mining industry in the state.

The Teck-Pogo operation has been designed in such a way as to minimize operational impacts on the environment. The project is designed to meet Alaska water quality standards and it will not degrade the water quality of the Goodpaster River.

Regarding the issue of public use of the Shaw Creek Hillside road, RDC believes it would be better to keep the road classified for industrial use only while mining is occurring. The Alternative Management Option will lead to an increased margin of safety for the public during mining operations and it will result in reduced short-term impacts to subsistence and trapping, as well as wetlands from ORV use. D12-2

In conclusion, RDC urges the EPA and the Alaska Department of Natural Resources to provide timely resolution of the permitting process so that the Pogo Gold Mine can move forward.

Thank you for the opportunity to provide comments regarding this important project.

Sincerely,

RESOURCE DEVELOPMENT COUNCIL
For Alaska, Inc.

Carl Portman
Deputy Director

COMMENT RESPONSE:

D12-1 Thank you for your comment.
D12-2 Thank you for your comment.
D12-3 Thank you for your comment.

Alaska Support Industry
ALLIANCE
4220 'B' Street, Suite 200
Anchorage, AK 99503
Phone: (907) 563-2226
Fax: (907) 561-8870
www.akalliance.org

D13

THE ALLIANCE

... for responsible development of Alaska's Oil, Gas & Mineral Resources

April 22, 2003

Hanh Gold
NEPA Compliance Coordinator
U.S. Environmental Protection Agency
1200 Sixth Avenue, OW-130
Seattle, WA 98101

RE: POGO Gold Mining Project

Dear Mr. Gold:

The Alaska Support Industry Alliance more widely known as the Alliance is a non-profit state-wide trade association with chapters in Anchorage, Fairbanks and Kenai. The Alliance is comprised of over 420 member companies who derive their livelihood from Alaska's oil, gas and natural resources industries. The employment base represented by Alliance membership exceeds is over 25,000 Alaska residents.

The membership of the Alaska Support Industry Alliance endorses the Preferred Alternative identified in the Draft EIS, with the provision that the Alaska Department of Natural Resources adopts the Alternative Management Option for management of the Shaw Creek Hillside access road. D13-1

Pending receipt of permits, Teck-Pogo will invest over $250 million to begin construction of the underground mine. Teck-Pogo estimates that the Pogo Gold Mine will generate 500 new jobs during the first two years of construction and over 300 permanent year-around jobs during its proposed 11 years of operations. The Pogo project will be a major benefit to Interior Alaska as it will boost economic activity at a time when the state is approaching significant fiscal uncertainty. D13-2

We believe **the Alternative Management Option** for the Shaw Creek Hillside Road will result in increased safety for the general public and reduced short term impacts to subsistence living and impacts to wetlands from ORV use.

We urge EPA and Alaska DNR to provide a timely review and resolution of the permitting process so that the Pogo Gold Mine project can move forward.
Thank you for your time and this opportunity to provide public input on behalf of the Alaska Support Industry Alliance. Should you have any questions please do not hesitate to contact The Alliance office at 907-563-2226.

Sincerely,

Larry J. Houle
General Manager

cc: Karl Hanneman
Teckcominco
3520 International Street
Fairbanks, AK 99701

COMMENT RESPONSE:

D13-1 Thank you for your comment.

D13-2 Thank you for your comment.

D14

TOK COMMUNITY UMBRELLA CORPORATION
An Alaska Nonprofit Corporation
RESOLUTION OF THE BOARD OF DIRECTORS 03-06

THE BOARD OF DIRECTORS of the Tok Community Umbrella Corporation, held a board meeting on April 10, 2003 @7:30 P.M. in Tok, Alaska. A quorum of the board was present.

Whereas: This Corporation is organized exclusively for the promotion of social welfare as described in the Internal Code of 1954. The corporation will operate primarily to further the common good and general welfare of all the people of the community of Tok.

A RESOLUTION of the Board of Directors of the Tok Community Umbrella Corporation regarding support for future development of Teck-Pogo Inc for the development and operation of the Pogo Mine.

THE BOARD OF DIRECTORS of the Tok Community Umbrella Corporation hereby takes the following action:

Whereas: Tech-Pogo Inc representative conducted a public meeting in Tok this month;

Whereas: Tech-Pogo intent to employ 500 local people during the two years of construction with 300 local people employed year round for the 10 year life of the project;

Whereas: Tech-Pogo's policy is to hire local people and provide all the training needed for employment at the mine and operations;

Whereas: Tech-pogo company policy is a drug and alcohol free work environment they are willing to invest in the communities for drug and alcohol programs;

Whereas: Tech-Pogo intends to build 49.5-mile road into the mine and return it back to the State after operation of the mine ceases;

Whereas: Tech-Pogo pans to invest $250 million to begin construction by the end of 2003 for a new underground gold mine on state land 38 miles northeast of Delta Junction;

Whereas: The "Alternative Management Option" on the management of the road will;

a. increase safety for the public
b. reduce short term impacts to subsistence, trapping and commercial recreation
c. reduce short term impacts to wetlands from ORV use
d. Increase revenue to State from right-a-ways fees
e. Increase revenue to State from material sales
f. Increase revenue to State from timber sales
g. No change to existing public access to region

Whereas: Future development of an economic platform is limited

Whereas: The community as a whole supports the development of the project.

D14

1. THEREFORE LET IT BE RESOLVED:
Tok Community Board of Directors believes it is in the best interest of the community to support the future development of the road under the "Alternative Management Option" for Tech-Pogo Mine. D14-1

2. THEREFORE LET IT BE RESOLVED
Tok Community Board of Directors believes it is in the best interest of the community to support a timely development of the road and Pogo Mine. D14-2

Dated this 10th Day of April 2003, Tok, Alaska.

Debra A Muir, President

I, the undersign do hereby certify:

1. That I am the duly elected and acting secretary of Tok Community Umbrella Corporation, and:
2. That the forgoing Resolution represents action taken at the regular board meeting of the Tok Community Umbrella Corporation, held on April 10, 2003.

IN WITNESS WHEREOF, I have hereto subscribed my name and affixed the seal of the corporation.

Kathy Morgan, Secretary

COMMENT RESPONSE:

D14-1 Thank you for your comment.

D14-2 Thank you for your comment.

D15

Stephen Tack <sltack63@hotmail.com>
05/14/2003 02:20 AM

To: Hanh Gold/R10/USEPA/US@EPA
cc:
Subject: Fwd: RE: Tech-Pogo DEIS comments

>From: Bill Ridder <bridder@wildak.net>
>Reply-To: "bridder@wildak.net" <bridder@wildak.net>
>To: "'Stephen Tack'" <sltack63@hotmail.com>
>Subject: RE: Tech-Pogo DEIS comments
>Date: Tue, 13 May 2003 20:31:42 -0800
>
>Steve,
>Sounds good. Except for one key point. For safety. Don't you think that
>public access should be controlled for the entire road for the life of the
>mine? Public interference with mine traffic poses a very real potential
>hazard to the environment. Plus, it would decrease the state's profit from
>access fees. Keeping the road open would necessitate funds from the state
>to provide safety and management, such as pull off's, two lane bridges,
>trash pick up, etc.
>
>Bill
>
>-----Original Message-----
>From: Stephen Tack [SMTP:sltack63@hotmail.com]
>Sent: Tuesday, May 13, 2003 2:44 PM
>To: bridder@wildak.net
>Subject: Tech-Pogo DEIS comments
>
>We appreciate the opportunity to comment on the draft EIS for the Tech-Pogo
>mine project. Our group is very concerned that this project not damage the
>Goodpaster River or Shaw Creek in any way. The Goodpaster River is one of
>the finest Arctic Grayling streams in Interior Alaska and is also an
>important king and chum salmon spawning stream. Shaw Creek is an important
>grayling spawning stream as well as providing summer feeding habitat and
>some overwintering habitat. Though many aspects of such a large and
>complex
>project can potentially degrade the aquatic habitat or impact the fish
>resource directly, we feel that the draft EIS did a good job of
>recognizing
>these dangers and addressing them.
>
>There are two situations, however, that we would like to add additional
>support to:
>
>1. We are concerned about the potential impact of road crossings of the
>major tributaries of Shaw Creek. The findings in the EIS indicate that
>Caribou Creek is an important grayling spawning stream, but little seems to
>be known about the other tributaries, Rosa, Keystone, and Gilles Creeks.
> We
>would like to reinforce the indication in the EIS that bridges be used to
>cross these and any other large streams and that the work is done so as not
>to interfere with the movement of grayling into these streams during spring
>breakup and associated high flows. We also strongly support limiting the
>public access at Gilles Creek, and removing the road beyond Gilles Creek
>when commercial work has ended beyond this point.
>
>2. The second situation involves remediation of the barrow pits. There is
>an an opportunity here to develop one or more of the most accessible pits
>as

D15-1
D15-2
D15-3

D15

>stockable fishing lakes if they were contoured properly and on public land.
>We would like to see a requirement for at least one pit to be so developed
>as part of this project.
>In contrast, the pits in the Goodpaster flood plain present a considerable
>hazard to rearing fish during high water events. The EIS passes this off a
>minor problem "because most salmon and grayling spawning occurs below the
>mine site". This may be true of salmon, but there is many miles of river
>above the mine in which grayling spawn.
>. We wonder if there isn't a better way to remediate these pits than just
>abandoning them. We would like to see consideration of the effects of
>opening a river channel through the pits. We would like to see a discussion
>of this option involving ADF&G and DNR.
>
>Respectfully submitted by
>Stephen L Tack, for the board of directors of the Midnight Sun Chapter of
>Trout Unlimited
>
>_____
>The new MSN 8: advanced junk mail protection and 2 months FREE*
>http://join.msn.com/?page=features/junkmail
>

_____
Add photos to your e-mail with MSN 8. Get 2 months FREE*.
http://join.msn.com/?page=features/featuredemail

D15-3 cont'd.
D15-4

COMMENT RESPONSE:

D15-1 Rosa (two crossings), Keystone, and Gilles creeks will be bridged. The reader is referred to Section 2.3.3 (Access).

D15-2 Thank you for your comment.

D15-3 This suggestion will be considered by ADNR for its final Plan of Operations Approval, and final decision on Competitive Material Sale, which will be issued after publication of this FEIS.

D15-4 The Section 4.8.2 gravel source discussion describes potential impacts to fish from high water events, and identifies mitigation measures to reduce such impacts. The agencies are working to evaluate specific mitigation measures to address fish entrapment in the gravel pits during high water. Such measures will be considered by ADNR for its final Plan of Operations Approval, which will be issued after publication of this FEIS.