Teck-Pogo, Inc.
Pogo Project Road

Rights-of-way
ADL 416809
ADL 417066

AS 38.05.850
Final Decision

I. Action Requested

Teck-Pogo Inc., (Teck-Pogo) has applied to the Division of Mining, Land and Water (DMLW), Department of Natural Resources (DNR) for a 500-foot wide corridor to construct a private, exclusive right-of-way from the Shaw Creek Road near the Richardson Highway, to the Pogo Mine Project. A map of the route is shown in Attachment 1, and a general vicinity map is in Attachment 2.

This application for a right-of-way is part of the suite of authorizations requested for the Pogo Mine Project by Teck-Pogo. Because the Pogo Mine Project will require a federal National Pollution Discharge Elimination (NPDES) permit, and a federal wetlands fill permit, a federal Environmental Impact Statement process has been completed by the Environmental Protection Agency. The EIS process has analyzed three alternative routes to the Pogo Mine Project (shown in Attachment 2):

- ***The Shaw Creek Hillside All-Season Road*** is the applicant's preferred alternative, and the route that has been applied for. The applicant has applied for a right-of-way for mine use only, with some exceptions for other resource extractive projects in the area. Under the applicant's proposal, the entire road would be closed to public use and would be reclaimed at the end of the mine's life. This route is on state land.

- ***The South Ridge All-Season Road*** would follow the ridgelines to the southeast of Shaw Creek from the Quartz Lake Road to the mine. This route is primarily on state land.

- ***The Shaw Creek Flats Perennial Winter Trail*** route would start as a winter-only road across the Shaw Creek Flats. After about 15 miles, the winter-only portion of the road would become an all season route, following the same alignment as the Shaw Creek Hillside Route from this point to the mine. This route is primarily on state land.

This is DNR's Final Decision on Teck-Pogo's right-of-way request to the DMLW to provide access to the Pogo Mine Project. This decision has DNR issuing two rights-of-way along the applicant's proposed route, the Shaw Creek Hillside All-Season Road, subject to special stipulations, including valid, existing rights, on state owned and managed land. DNR is authorizing access to the Pogo Mine as a combination of a private exclusive right-of-way and a public right-of-way (during the mine life as a restricted use right-of-way), and the right-of-way width will be the disturbance footprint

associated with the finished road (estimated at about 100 feet). In making this decision, DNR has considered all the information gathered in the Pogo Mine EIS process, the permitting process for advance exploration activities (which has been ongoing since 1997), and the current permitting process.

In this decision, DNR is issuing a right-of-way for the Shaw Creek Hillside All-Season Road, with the first 23 miles as a public right-of-way to DNR (ADL# 417066), and the remaining 26 miles as a private exclusive right-of-way to Teck-Pogo (ADL# 416809). On the first 23 miles, from the Shaw Creek Road to the east side of the Gilles Creek crossing, the road will be restricted to Pogo Mine-related uses and approved commercial timber harvesting uses during the life of the mine. After the mine closes, the first 23 miles will not be reclaimed and will be open to the public. On the final 26 miles, from west of the Gilles Creek crossing to the mine, the road will be restricted to Pogo Mine-related uses only, and will be reclaimed at closure of the mine.

II. Scope of Review and Finding

In reviewing this project, DNR looked at whether the proposed use is an appropriate use of state land and whether it provides the greatest economic benefit to the state and the development of its resources. In making this determination, DNR has examined the reasonably foreseeable, significant effects of the construction and use of the Pogo Project Road, including the effects on state land. DNR's decision evaluates the application with respect to material issues and facts, available land management information, public and agency comment, and DNR responsibilities under AS 19, AS 41, AS 38.04, AS 38.05, and specifically AS 38.05.850. This decision discusses the potential effects in general terms that may occur with construction and operation of the rights-of-way and the mitigation measures that DNR is imposing as terms of the rights-of-way permit to reduce or eliminate possible adverse effects.

III. Authority

The authority to issue rights-of way for the road resides in AS 38.05.850 and AS 41.17.400. Rights-of-way issued by the DNR under the authority of AS 38.05.850 are exempt from the best interest finding requirements of AS 38.05.035(e). However, AS 38.05.850 requires public notice before issuing the right-of-way because the director has determined by evaluation of the nature and duration of the intended use that the rights-of-way are not functionally revocable. Also, AS 41.17 defines the purpose of state forests and establishes the Tanana Valley State Forest. AS 41.17.400 specifically contemplates that transportation corridors through the state forest can be established.

IV. Administrative Record

Right-of-way application files (ADL# 416809 & ADL# 417066), the Tanana Basin Area Plan (TBAP), the Tanana Valley State Forest Management Plan, and the Pogo Project files comprise the administrative record for this request. DNR's Proposed Decision to

issue a right-of-way for the Pogo Project along the Shaw Creek Hillside Road route is based upon a complete review of this record including the Right-of-Way Application for the Pogo Project (June 2002), Pogo Project 2003/2004 Goodpaster Winter Road Construction and Operation Plan (November 2003), Reclamation and Closure Plan for the Pogo Project (December 2002, updated October 2003), Pogo Project Plan of Operations (February 2002, updated November 2002 and October 2003), Pogo Project Environmental Baseline Characterization Documents (December 2000, as updated) and the Final Environmental Impact Statement for the Pogo Gold Mine Project (September 2003) and all the associated public comment and other supporting documents.

V. General Information

A. Legal Description and Title

The following table summarizes the land title, classification and road status for the Shaw Creek Hillside Road alternative. Portions of the access route cross state mining claims. The sections where these claims are located are shown in the table below. See Attachment 2 for the map depicting land ownership.

LEGAL DESCRIPTIONS FOR SHAW CREEK ROAD (WEST TO EAST)					
LEGAL DESCRIPTION	SECTION	GRANT	STATUS	CLASSIFICATION	LENGTH (Feet)
T7S, R8E	27 NE 1/4, NW 1/4	GS 1068	TVSF	8A, Mineral Production/Timber Production/Wildlife Habitat	2577
	22 SW 1/4, NE 1/4	GS 1068	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	6329
	15 SE 1/4, SW 1/4, NW 1/4, NE 1/4	GS 1068	TVSF, mining claims	8A, 8C, Mineral production/Timber Production/ Wildlife habitat	7201
	10 SE 1/4	GS 1068	TVSF	8C, Mineral production/Timber Production/Wildlife habitat	70
	11 SW 1/4, SE 1/4, NE 1/4	GS 1068	TVSF	8C, Mineral production/Timber Production/Wildlife habitat	6254
	12 NW 1/4, NE 1/4, SE 1/4	GS 1068	TVSF	8C, Mineral production/Timber Production/Wildlife habitat	6325
T7S, R9E	7 SW 1/4, SE 1/4	GS 1160	TVSF	8C, Mineral production/Timber Production/Wildlife habitat	4298
	18 NE 1/4	GS 1160	State Patent	7A1, Public Recreation/Wildlife Habitat	1471
	17 NW 1/4, NE 1/4	GS 1160	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	6022
	16 NW 1/4, NE 1/4, SE 1/4	GS 1160	TVSF	8C, Mineral Production/Timber Production/Wildlife habitat	5547
	15 SW 1/4, SE 1/4	GS 1160	State Patent	7A1, Public Recreation/Wildlife Habitat	5545

	14 SW 1/4, SE 1/4	GS 1160	State Patent	7A1, 7A2, Public Recreation/Wildlife Habitat/Forestry	4435
	11 SW 1/4, SE 1/4, NE 1/4	GS 1160	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	6011
	12 NW 1/4, NE 1/4	GS 1160	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	3292
	1 SE 1/4	GS 1160	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	3086
T7S, R10E	6 SW 1/4, NW 1/4, NE 1/4	GS 1133	State Patent	7A2, Public Recreation/Wildlife Habitat/Forestry	6928
	5 NW 1/4, SW 1/4, SE 1/4	GS 1133	State Patent, mining claims	7A2, Public Recreation/Wildlife Habitat/Forestry	6070
	4 SW 1/4, SE 1/4	GS 1133	State Patent, mining claims	7A2, Public Recreation/Wildlife Habitat/Forestry	5422
	3 SW 1/4, SE 1/4	GS 1133	State Patent, mining claims	7A2, Public Recreation/Wildlife Habitat/Forestry	5289
	2 SW 1/4, SE 1/4	GS 1133	State Patent, mining claims	7A1, 7A2, Public Recreation/Wildlife Habitat/Forestry	5289
	1 SW 1/4, NW 1/4, NE1/4	GS 1133	State Patent	7A1, Public Recreation/Wildlife Habitat	6351
T6S, R10E	36 SE 1/4	GS 3703	TVSF	8D, General use	367
T6S, R11E	31 SW 1/4, SE 1/4, SE 1/4, NE 1/4	GS 3704	State TA'd	7A1, Public Recreation/Wildlife Habitat	6166
	32 NW 1/4	GS 3704	State TA'd	7A1, Public Recreation/Wildlife Habitat	2523
	29 SW 1/4, SE 1/4	GS 3704	State TA'd	7A1, Public Recreation/Wildlife Habitat	4063
	28 SW 1/4, SE 1/4	GS 3704	State TA'd	7A1, Public Recreation/Wildlife Habitat	5355
	27 SW 1/4, NW 1/4	GS 3704	State TA'd	7A1, Public Recreation/Wildlife Habitat	3052
	22 SW 1/4, NE 1/4	GS 3704	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	6152
	15 SE 1/4	GS 3704	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	1687
	14 SW 1/4, NW 1/4, NE 1/4	GS 3704	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	6545
	13 NW 1/4	GS 3704	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	25
	12 SW 1/4, SE 1/4	GS 3704	State TA'd	7A1, 7A2, Public Recreation/Wildlife Habitat/Forestry	5399
T6S, R12E	7 SW 1/4, NE 1/4	GS 3705	State TA'd	7A1, Public Recreation/Wildlife Habitat	6704
	8 NW 1/4	GS 3705	State TA'd	7A1, Public Recreation/Wildlife Habitat	160
	5 SW 1/4, SE 1/4, NE 1/4	GS 3705	State TA'd	7A1, Public Recreation/Wildlife Habitat	6719
	4 NW 1/4	GS 3705	State TA'd	7A1, Public Recreation/Wildlife Habitat	1494
T5S, R12E	33 SW 1/4, SE 1/4, NE 1/4	GS 3689	State TA'd	7A1, Public Recreation/Wildlife Habitat	4999
	34 NW 1/4, SW 1/4, SE 1/4	GS 3689	State TA'd	7A1, Public Recreation/Wildlife Habitat	4522
T6S R12E	3 NE 1/4, SW 1/4	GS 3705	State TA'd	7A1, 7A2, Public Recreation/Wildlife Habitat/Forestry	3854
	2 SW 1/4, SE 1/4	GS 3705	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	4529
	11 NE 1/4	GS 3705	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	2537
	12 NW 1/4, NE 1/4	GS 3705	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	7170
T6S, R13E	7 NW 1/4, NE 1/4, SE 1/4	GS 3706	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	5903
	8 SW 1/4, SE 1/4	GS 3706	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	5562
	17 NE 1/4	GS 3706	State TA'd	7A2, Public Recreation/Wildlife Habitat/Forestry	1187

	16 NW 1/4, SW 1/4, SE 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	6731
	15 SW 1/4, SE 1/4, NE 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	7312
	14 NW 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	440
	11 SW 1/4, NE 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	7125
	2 SE 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	2347
	1 SW 1/4, NW 1/4	GS 3706	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	4115
T5S, R13E	36 SW 1/4, NW 1/4, NE 1/4, SE 1/4	GS 3690	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	9294
T5S, R14E	31 SW 1/4, SE 1/4	GS 3691	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	5037
	32 SW 1/4	GS 3691	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	187
T6S, R14E	5 NW 1/4, NE 1/4	GS 3707	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	5236
	4 NW 1/4	GS 3707	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	2146
T5S, R14E	33 SW 1/4, SE 1/4	GS 3691	State TA'd, mining claims	7D3, Public Recreation/Wildlife Habitat/Forestry	3359
	34 SW 1/4, NW 1/4	GS 3691	State TA'd, mining claims	7D2, Public Recreation/Wildlife Habitat	5694
	27 SW 1/4	GS 3691	State TA'd, mining claims	7D2, Public Recreation/Wildlife Habitat	1625

B. Tanana Basin Area Plan and Tanana Valley State Forest Plan

The rights-of-way are located on state lands primarily within the Tanana Basin Area Plan's (TBAP) Subregion 7, management units 7A (Shaw Creek) and 7D (Goodpaster River). The subunits are, 7A1, 7A2, 7D2, and 7D3. Subunits 7A1 and 7D2 both have designated primary uses as public recreation and wildlife habitat. Subunits 7A2 and 7D3 have primary uses of public recreation, wildlife habitat, and forestry. Management units 7A and 7D, including all subunits, are open to mineral entry.

The first portion of the road will cross Management Unit 7A, which is to be managed for its forest resources and the protection of water quality, wildlife habitat, and public recreation values. The second portion of the road, and the mine are both in Management Unit 7D, which is recognized for having moderate to high mineral potential, and is to be managed for multiple use with an emphasis on recreation and fish and wildlife. TBAP also states that a variety of resources in these management units will require access construction prior to development or extraction of the resource. The plan specifies forest areas, recreation lands, and mineralized terrane areas as examples of such resources. The construction of the road to allow permanent access to the forest and recreation resources for the first half, and access for the life of the mine on the second half of the road is consistent with the plan.

Both Managmement Units 7A and 7D are subject to the Areawide Land Management Guidelines for Subsurface Resources in the Tanana Basin Area Plan, which include goals for the management of mineral resources in the planning area. These goals include contributing to Alaska's economy by making subsurface resources available for

development, protecting the integrity of the environment and affected cultures, and to aid in development of infrastructure, including roads, to support the mining industry. This right-of-way will provide access to the Pogo Mine from the Richardson Highway subject to the stipulations imposed by DNR, and will allow the development of the Pogo Mine.

The lower Goodpaster River Corridor is in Subunit 7D1, and is recognized for its scenic and recreational values. Management guidelines for this subunit state that development activities within Subunit 7D shall be designed to minimize the visual impacts to the scenic values of the lower Goodpaster River Corridor. The preference for the Shaw Creek Hillside All-Season Road alternative is consistent with this guideline, as it is not visible from the lower Goodpaster River Corridor.

Management Unit 7D has a specific guideline for public notice for activities in this management unit. The plan requires consultation with the Goodpaster Review Working Group in reviewing proposed timber sales, access plans, and other activities requiring public notice. This working group consists of 11 organizations that participated in the 1991 review of the Goodpaster River/Quartz Lake management units of TBAP (these organizations are listed in Appendix G of TBAP). DNR has consulted with, and sought input from, these organizations in developing this decision.

The first portion of the road also crosses parts of Management Unit 8 of the Tanana Valley State Forest, and generally coincides with a preexisting alignment for a proposed road to provide access for timber harvest and public use of this subunit of the state forest. Management Unit 8 (Shaw Creek), is to be managed for commercial timber production and mineral exploration and production. The management guidelines for this management unit specify that primary all-season access to this management unit is planned from the existing Shaw Creek Road.

C. Background

General location: The Pogo Gold Mine Project is located about 38 miles northeast of Delta Junction, and about 85 miles east of Fairbanks. The mine is located on the Goodpaster River, a clearwater tributary to the Tanana River. The mine is about 45 miles upriver from the confluence of the Goodpaster and Tanana rivers. Currently the minesite is accessible only by air, boat, or winter trail.

Area to be developed: Teck-Pogo will be developing an underground mine at the Pogo site. The geologic resource is approximately 5.6 million ounces of gold, and the project would employ up to 700 workers during construction and up to 360 workers during operation. The mine will use crushing, grinding, gravity concentration, floatation, and cyanide leaching processes to extract the gold, and the tailings would be placed both back underground, and in an engineered disposal area in the Liese Creek valley.

Operating period: The Pogo mine will operate 24 hours a day, 365 days a year. Development of the mine is projected to start in the winter of 2003, and the mine construction would take approximately two years. The mine is anticipated to have a life of at least 11 years. At the end of mine life, Teck-Pogo proposes to seal and reclaim the

mine, and reclaim the access road. Exploration activities are anticipated to continue during the mine life to locate possible areas for expansion and associated mine development. If exploration activities are productive, the mine life could be extended beyond 11 years.

Mine Access: Teck-Pogo will build a 49-mile access road from the Richardson Highway to the mine site (the Shaw Creek Hillside All-Season Road). The access road will be maintained and operated on a year-round basis. The road will be built to a width of either 24 feet, or, in steeper sections, to16 feet with a safety berm. All bridges will be single lane. There will be a 390' long bridge over the Goodpaster River. Road grades will be limited to 7%. Mine-related traffic on the road will consist of approximately 10 to 20 vehicle trips per day during normal operations (mine trucks, service vehicles, employee buses, government vehicles, etc.). Additional traffic will be expected during construction of the mine. Approximately 30,000 to 40,000 tons of freight will be hauled into the mine each year. Please refer to Section VII below for a detailed discussion of the Shaw Creek Hillside All-Season Road alternative.

D. Traditional Use Finding

In accordance with AS 38.05.830, a traditional use finding is required for a disposal of state land in the unorganized borough. This finding shall consider the effects that the disposal may be expected to have on the density of the population in the vicinity of the land, and the potential for conflicts with the traditional uses of the land that could result from the disposal. The Pogo Mine and the entire Shaw Creek Hillside All-Season Road is in the unorganized borough.

DNR reviewed information in the record, including the Final Environmental Impact Statement (FEIS), in making its traditional use finding. A comprehensive analysis of the existing population and traditional uses of the land in the vicinity of the Pogo Project and the access routes has been completed and is presented in Chapter 3 of the FEIS for the Pogo Mine Project, herein adopted by reference. This chapter of the FEIS describes in detail the affected environment of the project, including the socioeconomics, population, land use, and traditional subsistence use areas. The FEIS analysis shows that the traditional uses of lands in the project area include subsistence, trapping, hunting, fishing, and boating.

The environmental consequences of the proposed Pogo Mine Project and several alternative development scenarios and access routes have also been analyzed during the Pogo Project EIS process, and are presented in Chapter 4 of the FEIS, herein adopted by reference. The analysis of environmental consequences includes an analysis of the impacts of the proposed project on traditional uses and the population of the affected land, including the impacts on traditional subsistence use areas, socioeconomics, population, and land use.

Because the access to the Pogo Mine will be largely restricted to uses related to the mine, and because a large portion of the access road will be reclaimed after the life of the mine, the impacts on traditional uses, subsistence uses, land uses will be minimal,

especially on the portion past Gilles Creek. There will likely be some additional use of the lands in the lower Shaw Creek valley as the first 23 miles of the road would not be reclaimed after cessation of mining, and would then be open to the public. But this use is not expected to be significant because the public use will only eventually occur up to Gilles Creek. After cessation of mining, the road will dead-end halfway up the Shaw Creek valley, and there are no significant recreational resources along this portion of the road, and terrain and vegetation limit access away from the road corridor to other lands.

However, there may be an increase in hunting pressure on these lands. But because public access will only be eventually allowed on the first 23 miles of the road, and because Teck-Pogo has a no-hunting or fishing policy for its workers, this increased hunting pressure would be mostly in the lower Shaw Creek valley, and only after the closure of the mine. If this increased pressure begins to result in significant impacts on the fish and game resources in this area, then these impacts can be mitigated by appropriate fish and game harvest management by the boards of Fish and Game.

In addition, the issuance of these rights-of-way will not increase these impacts in the long term, because the first portion of the road would be constructed in any event, regardless of the Pogo Project. The DOF's Tanana Valley State Forest Management Plan calls for all-season public access to this portion of the State forest, which is almost coincident with the proposed Pogo access. Under the DOF's plans, the first section of the lower portion of the road would likely have been constructed already if it were not for the pending Pogo Project. Once constructed, the DOF's road would have been open to the public.

Also, because the workforce will be bussed to and from the mine, and will not reside in the immediate vicinity of the mine, the population of the land in the immediate vicinity of the mine will not change. There will likely be some increase in population in the Delta Junction and Fairbanks areas resulting from the mine construction and operation. These impacts are explained in the FEIS, and are largely viewed by these communities as positive contributions to their economies.

Based on the analysis of environmental consequences of the proposed Pogo Project, DNR is issuing a traditional use finding that issuing these rights-of-way will have no significant effect on the density of the population in the vicinity of the project, and will have minimal potential for conflicts with the traditional uses of the land in the vicinity of this project.

VI. Public Participation and Response to Comments

A. Public Participation

AS 38.05.850 requires public notice of the right-of-way if DNR determines that the right-of-way is not functionally revocable. DNR has determined that the right-of-way is not functionally revocable for the purposes of this statute because of the road's purpose, the extent of construction necessary, and the intended public use of a portion of the road upon completion of mining. The road will be constructed to provide ground access to a

multi-million dollar project. Construction of the road will require disturbance of the soils and changing of the grade of the natural terrain through cutting and filling. In addition, while the term of the road is 15 years, that term may be extended under certain conditions. Further, upon completion of mining, the access road through the Tanana Valley State Forest will be managed by the state to provide access to state lands. In accordance with AS 38.05.850(c), DNR included these rights-of-way in the public notice for the Pogo Mine Project.

The draft decision for the Pogo Right-of-Way was included as an appendix in the Draft Environmental Impact Statement (DEIS) for the Pogo Mine Project, and received the same public review as the DEIS. This review consisted of a 60-day public review period from March 14, 2003 to May 13, 2003, a mailing of the notice of availability of the DEIS, including the DNR documents, to over 400 people and organizations, newspaper advertising in the Fairbanks Daily News Miner and the Delta Wind, and publication of the notice of availability of the DEIS and DNR documents on the DNR and State of Alaska web sites, and the in Federal Register.

Two public meetings were held during the 60-day review period. The first meeting was held in Delta Junction on April 29, 2003, and 62 people signed in at the meeting. The second public meeting was held in Fairbanks on April 30, 2003, and 98 people signed in at this meeting. Also, numerous articles appeared in state and local newspapers and trade journals during the public notice period.

In addition, the Environmental Protection Agency and DNR have consulted with affected Indian Tribes and other affected organizations and agencies about the Pogo Mine Project throughout the development of the FEIS. Also, in September of 2000, two public meetings were conducted as part of the scoping process for the EIS development. A more detailed discussion of public and agency participation in this process is included in Chapter 1 of the FEIS.

The FEIS was also noticed in the Federal Register on September 19, 2003 for a 30-day public review period, and advertisements were run in the Fairbanks Daily News Miner and the Delta Wind newspapers. Notice was also sent of the FEIS availability to over 400 people and organizations on the project's mailing list.

Throughout this process, DNR staff have consulted with the agencies and organizations in the Goodpaster Review Working Group, as required by the Tanana Basin Area Plan (see Tanana Basin Area Plan above).

B. Response to Comments

184 comments were submitted to the EPA, DNR, and DEC on the Draft EIS and related agency authorizations. 55 of these were submitted at the public meetings, and the rest were submitted in writing or by e-mail.

Most of the comments supported the Shaw Creek Hillside Route as outlined in the Preliminary Decision, with one exception: the majority of commenters supported closing the first half of the road to public access during the life of the mine.

Seven commenters opposed the Shaw Creek Hillside Route because they felt that impacts would be greater to fish & wildlife resources of Shaw Creek drainage, and because of greater impacts to residences along Shaw Creek Road. Nine commenters asked that the entire road be left after mine life, and three claim holders asked that they be allowed to use all of the road. Ten commenters asked that the entire road be reclaimed after mine life. Seven commenters asked that the road be available for public use, of which two wanted the first half open during mine life. Two commenters specifically asked that the first half of the road be open to public use during mine life.

The following is a summary of comments by issue, and DNR's response to those comments.

1) Public Use of the Road. DNR should adopt the "Alternative Management Option" as outlined in Attachment 7 of the Preliminary Decision, and should close the first half of the road to public use during mine life.

Response. DNR has adopted the "Alternative Management Option," and the entire road will be closed to general public use during the 11-year projected life of the mine.

2) DOF Access to Shaw Creek Valley. The assumption that the Division of Forestry would eventually build an all season access to the Shaw Creek Valley state forest units is not valid. The value of the timber in these state forest units would not pay for the access, and seasonal access would suffice.

***Response*.** All-season access to the Shaw Creek Valley state forest units has clearly been a longstanding high priority for the Division of Forestry. Construction of the all-season timber access would be authorized through a timber sale contract by now if it were not for the Pogo Mine Project permitting process and the anticipated construction of a road for mine access purposes through the state forest. The initial easement across private lands at the end of Shaw Creek Road for all-season access to Unit 8 of the Tanana Valley State Forest was acquired by DNR in the 1970s. The first timber sales in Unit 8, with all-season access provisions, went through the review process in 1995. The all-season access route has been through both public and agency review in the 5-Year Timber Schedule annually since 1990. The Division of Forestry has been ready to offer sales in Unit 8, including construction of all-season access, for several years now. In anticipation of the sales in Unit 8, the Division of Forestry had already purchased bridges, culverts, and road fabric for construction of an all season road into the Tanana Valley State Forest at the end of the Shaw Creek Road. In order to coordinate access routes, the Division of Forestry decided to delay its road construction plans until the Pogo Mine permitting was completed.

Because operating timber harvesting equipment on steep slopes in winter conditions poses significant safety and operational concerns, the steep topography on the north

side of Shaw Creek Flats necessitates all-season access to properly manage the timber resources located there. In addition to the safety and operational concerns with winter-only logging, the short 3-month window for winter harvest activities makes it very difficult to sustain a viable timber industry under a winter-only access road. A year-round supply of timber provides a stronger economic base for harvesters and sawmills. Delta's forestry industry cannot survive on winter only access. The Division of Forestry needs to have all-season access to timber sale areas because most of the Delta forestry area is currently accessible only during winter months. Even the Gerstle River area, one of the few areas traditionally accessible year round, has become accessible only during winter months in recent years due to flooding.

Lastly, the statute creating the Tanana Valley State Forest specifically contemplates that the DNR can establish transportation corridors in the Tanana Valley State Forest. See AS 41.17.400(b). That subsection contains no requirement that such access be restricted to seasonal access.

3) Inadequate Notice for TVSF Management Plan Revision. Inadequate notice was given for the revision to the Tanana Valley State Forest Management Plan that replaced the wording in the plan from winter access to all season access for timber harvesting in the Shaw Creek units.

***Response*.** The original 1988 Tanana Valley State Forest Management Plan did not limit access to timber sales in Unit 8 to winter-only, and there has not been a revision of the Tanana Valley State Forest Management Plan that replaced the wording in the plan from winter access to all season access for timber harvesting in the Shaw Creek units. In fact, the 1988 management plan for Unit 8 stated "All-season roads will be built when feasible to facilitate summer timber harvest." The first TVSF plan clearly allowed all-season access to Unit 8 and the north side of Shaw Creek Flats. The intent to provide year-round access to Unit 8 remains unchanged in the current Tanana Valley State Forest Management Plan.

In addition, there was an unprecedented amount of public process throughout the management plan update project. From the beginning of this update project in 1994, working groups were established to help guide the process for the management plan update. There were public members on each of the working groups, and others members of the public attended the meetings and took advantage of the opportunity to offer their opinions and shape the land management decisions. The Citizens' Advisory Committee (CAC) met about eight times a year to hear and review the recommendations of the Working Groups. The CAC examined each recommendation and accepted most of those recommendations, some with modification. All 12 members of the CAC are from the public, and all of the CAC meetings are in the evening when the public can most easily participate. The CAC meetings were advertised to the public. The Board of Forestry meets three or four times a year and all of those meetings are public meetings. One of the Board's meetings is in Fairbanks each year. The Board of Forestry meetings that occur outside of Fairbanks are teleconferenced to Fairbanks. The Planning Team (the agency staff responsible for developing and revising the state forest management plan) meetings are public as well. The meetings of these various groups were all

advertised so the public could fully participate in the public process of revising a land management plan.

The formal public comment period for the draft Tanana Valley State Forest Management Plan began on September 22, 2000, and ended on November 7, 2000 – much longer than the 30 days required by state law (AS 38.05.945). Public meetings on the draft plan were held in Minto, Manley Hot Springs, Fairbanks, Tok, Delta Junction, and Nenana during this period. This public comment period was advertised by mailing a six-page, newspaper-type brochure to about 600 individuals and groups; by display ads in the Fairbanks, Tok, Delta Junction, and Nenana newspapers; by posting in the DNR office building in Fairbanks, and by an electronic notice on the State's website. Fifty-four people or groups commented; some of the comments were very detailed. DNR analyzed all of the comments and many of the comments resulted in changes to the plan. All of the comments were responded to, and both the comments and DNR's response were posted on the Internet.

The draft Tanana Valley State Forestry Management Plan, as modified by DNR's consideration of the public comments, was then advertised by the intent-to-adopt notice. That notice period began on July 23, 2001 and ended on September 10, 2001, a total of 51 days, again, longer than the 30 days required (AS 38.05.945). Three sets of comments were received, none of which required a change to the plan. The intent-to-adopt notice was advertised by mailing a six-page brochure to the same 600 people on the mailing list; by ads in the Anchorage, Fairbanks, Tok, and Delta Junction newspapers; by posting in the DNR office building in Fairbanks; and by electronic notice on the State's website. In addition, the notice was mailed to each of the entities required by AS 38.05.945 (e.g., Doyon Regional Corporation, local governments), plus additional courtesy notices to other groups --- a total of 57 mailings. This notice was also provided to all post offices in the area with a request that it be posted.

The Tanana Valley State Forest Management Plan was subject to extensive notice. Further, the intent since the plan's inception was to provide year-round access into the Shaw Creek units.

4) Public Safety on Shaw Creek Road. The state should not subject the residents of Shaw Creek road to the impacts (public safety, noise, property devaluation) from the increased traffic due to the mine development. The Pogo development will change the character of the road and the Shaw Creek residential area for the worse.

Response. The State of Alaska will do everything practicable and prudent to mitigate the possible adverse impacts to the residents of Shaw Creek Road (specific mitigation measures are discussed elsewhere in this document). However, there will undoubtedly be some impacts to the residents of Shaw Creek Road from increased traffic from the construction of this road, mine use of this road, and future public access to the first half of the road. Shaw Creek Road is a public road that provides access to a large block of multiple use State land. State land is managed for multiple concurrent use, including mineral and other industrial development. It would be unrealistic for the residents bordering on wide spreads of state land to expect that state land would not be developed at some point in the future. This is especially true given that resource development for

these state lands has been specifically contemplated for many years now, starting with the timber planning in the 1970s. The management intent for these lands was determined, after a public process, by the Tanana Basin Area Plan in 1985. Another public process further refined this management intent when the TBAP was updated in 1991. In addition, the 1988 Tanana Valley State Forest Management Plan and its 2001 update also underwent significant public process to determine management intent for these lands. The existing road itself was developed for access to agricultural land in the Shaw Creek Valley.

DNR understands that regardless of mitigation measures, increased traffic on Shaw Creek Road will still impact the residents to some degree. However, it would be irresponsible for DNR to prohibit all commercial uses of Shaw Creek Road and force resource development interests to construct separate access to bypass a public road. This would unnecessarily add costs to the mining project and unnecessarily commit state lands for a duplicate function. Residents of Shaw Creek Road have had ample opportunity to participate in these processes, and most should have been aware of the State's management intent for these lands prior to purchasing property along the road.

5) Public Safety on Shaw Creek Road. The Shaw Creek Road will be unsafe for the projected increased levels of traffic. There have already been several accidents on the blind corners involving small vehicles and commercial vehicles. Overflow ice on the road adds to unsafe driving conditions in the winter. The State will be liable for any accidents that result from Pogo/Forestry trucks using the Shaw Creek Road.

***Response*.** The Alaska Department of Transportation and Public Facilities (DOT&PF) has reviewed the Pogo Project documentation, including the Plan of Operations, the Right-of-Way Application, and the Draft Environmental Impact Statement, and has determined that the publicly maintained Shaw Creek Road can safely handle the projected traffic levels resulting from the Pogo Project. DOT&PF must approve a Driveway Permit for the access road, and this permit may require additional mitigation measures.

Overflow ice is a common problem on Alaskan roads in the winter months, and there are well established methods to control or eliminate this hazard. Maintenance of the Shaw Creek Road will continue to be the responsibility of DOT&PF, with assistance from Teck-Pogo. Maintenance levels on the Shaw Creek Road and will increase during the life of the Pogo Mine.

Liability issues on the Shaw Creek Road relating to commercial use will be no different here than they would be on any other public road in Alaska. DOT&PF has reviewed the existing road, the proposed mitigation measures, and has determined that the projected traffic levels can be safely handled by the road. Teck-Pogo and any other operators using the road will be liable for any negligent actions they may take. Also, all public users of any public road in Alaska share the responsibility for safety with the other users, be they commercial or non-commercial.

6) Tenderfoot Sub-Option. The State should require Teck-Pogo to construct the Tenderfoot sub-option because this route would eliminate impacts on the Shaw Creek

Road residents. The FEIS's argument that the Tenderfoot option is not optimal because traffic speeds would have to be kept at 25 mph is flawed because the speed limit on the Shaw Creek Road is already 25 mph. In order to make the Shaw Creek Road safe for commercial traffic, the road will have to undergo costly re-construction and rerouting. The Tenderfoot sub-option would open up more of the State Forest.

***Response*.** DNR has determined that it would not be prudent to require Teck-Pogo to spend millions more to construct a road with more safety concerns and technical construction difficulties than the currently existing public road already in place (see Section VII, Access Alternatives). This is especially true since the existing road has been identified for resource development use for many years now. Further, DOTP&F has determined that the Shaw Creek Road can safely handle the increased traffic levels and the mine traffic resulting from the Pogo Project. DNR will take practicable measures to mitigate impacts from increased use, but all residents along Shaw Creek Road should expect increased use of the road due to development of the Pogo Mine or any other resource development of these, and neighboring, lands.

The Tenderfoot route would cross the same number of drainages as if the road started at the end of the existing Shaw Creek Road. The Tenderfoot route would open up a little more of the State Forest than is currently accessed. However, it would be to the detriment of the forest industry because the additional haul costs would be significantly higher due to the adverse grades and more miles of road that would need to be added. This would be magnified many times over when considering that the majority of the timber base is east of the Alyeska pipeline, nearer to the Shaw Creek Hillside All-Season Road. The timber industry prefers the existing Shaw Creek route due to its positive impact on the feasibility of future timber sales and safety of the relatively flat and straight road compared to the hilly Tenderfoot route.

This comment does correctly point out that the existing speed limit on the Shaw Creek Road is 25 mph, not 35 mph. The DEIS was in error on this point, and the FEIS has been corrected accordingly.

7) Use by Claim Holders. DNR should allow use of the entire road by claim holders for access to their claims. Staging areas for mineral exploration should be provided along the road.

Response. Any claim holders wishing to use the Pogo Mine access road must obtain a separate authorization from DNR in accordance with the terms outlined in Section XII. After the Pogo Mine's life, the first half of the road will be open to use by the public, including use by claim holders.

At this time, Teck-Pogo's application for construction of the road does not include the construction of staging areas along the road.

8) Disposition and Use of Road. The entire length of the road should be left permanently, and be available for public use, perhaps by issuing a limited number of permits.

Response. The use and disposition of the Pogo access road was one of the more significant issues addressed by the EIS and also by DNR in its public process for issuing the right-of-way. DNR agrees with the conclusion of the EIS that the environmentally preferred alternative for the Pogo access road is to reclaim the second half of the road, and to restrict public use of the entire road for the life of the mine. Impacts to most of the resources identified in the EIS would be lessened with restricted public access and with the reclamation of the second half of the road. More detail of these impacts can be found in Section IX of this document, and in the EIS.

Also, the overwhelming majority of comments we received on this issue supported the management decision to restrict public access for the life of the mine, and to reclaim the second half of the road. DNR has determined that issuance of a private exclusive right-of-way for the second half and restricting public use of the first half during the life of the mine is in line with its management objectives for these state lands, and is compatible with the applicant's purposes for this road, and most adequately protects the public.

9) Existing Users. Existing users of the Shaw Creek drainage need lifetime access.

Response. The road will not disrupt existing use, so current users of Shaw Creek Valley will still be able to access the valley by the means they always have accessed the valley. Further, it would not be feasible for DNR to determine who would qualify as an existing user. There are undoubtedly many people who have used the Shaw Creek Valley over the years, and it would be extremely difficult to set guidelines for determining who gets to use the road and who does not.

10) Disposition of the Road. The entire road should be reclaimed after the mine life.

Response. DNR is requiring that only the second half of the road be reclaimed after the mine's life. Public access on the second half would have the greatest potential for impacts to resources, and would open up the Goodpaster River Valley. By reclaiming the second half, these impacts would be avoided. DNR has determined that the first half of the road should be retained for public use after the mine's life. This portion of the road provides access to the Tanana Valley State Forest and other State Lands, in accordance with state land plans for this area. The Division of Forestry has had longstanding plans to construct the first half of the road, and would do so if the Pogo Mine were not to be developed. If Teck-Pogo were to reclaim the first half of the road, the Division of Forestry would have to re-construct the road for any future timber sales. This would reduce the amount of state revenue for the timber sales, and would not be fiscally prudent.

11) Public Use of Road. Most public won't have CB radios, so it will be difficult for the public to communicate with commercial traffic on the first half of the road.

Response. DNR has determined that the entire road should be closed to public use during the mine's life.

12) Permitting Other Uses. The provisions for permitting other uses of the second half of the road and for not reclaiming the second half of the road should be stricter.

Response. DNR has revised the process for permitting other uses of the second half of the road, and for not reclaiming the second half of the road. Please refer to Section XII, Final Decision.

13) Control of Access. Teck-Pogo should control the access on the road, not the State.

Response. Teck-Pogo will control access on the second half of the road, and will ensure that only mine-related users are allowed on the road. The first half of the road will only be open to mine-related uses, timber harvesting, and government use. DNR will only authorize timber harvesting in accordance with the provisions that the harvesting not interfere with the mine operations.

14) Winter Road Construction. Six inches of snow cover is adequate for winter road travel.

Response. DNR will only authorize the use of the winter roads if it has determined that the frost depth and snow cover are adequate to protect the trails. As the Goodpaster Winter Trail and the Shaw Creek Valley winter trails have been used in the past, they are generally in a condition where they may not need much snow cover to protect the existing trail.

15) Access Road Buffer. DNR should have a 660-foot buffer either side of the road where no logging or material extraction would be allowed.

Response. A 660' buffer would not be practical because most of the material sources necessary for road construction would be within this buffer, and thus would be unavailable. Also, this buffer would eliminate a substantial amount of the available timber proposed for sale by the Division of Forestry. A relatively small percentage of the road corridor will be impacted by material sites and timber harvesting activities. Measures will be taken where practical to screen the road from these activities.

16) Construction Camps. Will there be any impacts from the temporary construction camps?

Response. Yes, there will be some impacts from construction camps. However, measures will be taken to minimize these impacts. Authorizations will be required for the camps, which will address wastewater disposal, water supply, sanitation, and hazardous materials. Also, each temporary camp and the temporary airstrips will be reclaimed after their use.

17) Campground. DNR should build a public campground at the end of the first half of the road.

Response. Recreation facilities may be eventually constructed along the first portion of the road, after the mine has ceased operation and the road has been opened to the public. The construction of such facilities will also depend on available funding.

18) Cyanide Spills. There is a possibility of cyanide spills into Shaw Creek drainages during transportation along the road.

Response. The possibility of a cyanide spill into one of the Shaw Creek drainages is low. The EIS determined the probability of any spill along the road to be 1.9 $x10^{-7}$ spills per mile. Cyanide is transported in solid form, and in very secure shipping containers, so the risk is minimal (please refer to Section 4.3.4 of the FEIS).

19) USAF Air Activities. Increased access to the Pogo area will result in more complaints about the USAF air activities in this area.

Response. The second half of the road into the Pogo area will be closed to general public use, so there should not be any increases in complaints about air activities in this area. It is possible that once the first half of the road is opened to public use, there might be more complaints about air activities. However, public use of state lands, and potentially development, should not be restricted in order to minimize the likelihood of complaints about air activities.

20) Culverts. All culverts should conform to technological standards for fish passage.

Response. All culverts on potential fish-bearing streams will conform to state standards for fish passage and will require a fish passage permit from DNR's Office of Habitat Management and Permitting.

21) Settlement. Settlement and other development should be encouraged along the road.

Response. Settlement is not an allowed use of the state lands adjacent to the Pogo Mine access road. In order for these state lands to be available for settlement, DNR's land use plan for this area (the Tanana Basin Area Plan) would have to be modified. Other development, such as timber harvesting, will be allowed to occur along the Pogo access road. In fact, the first half of the road accesses the Tanana Valley State Forest, and specific provisions are being made to allow the use of this road to access the State Forest for timber harvesting.

22) Hunting & Fishing. A no-hunting/fishing corridor should be established along the road.

Response. Hunting and fishing are regulated by the Boards of Fish and Game. These boards can implement restrictions on hunting and fishing if they determine that there is a need for the regulations based on increased pressure on the resources. The second half of the road is restricted to mine use and will be reclaimed after the mine's life. And, for the life of the mine, there will be no public access along the first half of the road. Hunting and fishing pressure is not expected to increase during the life of the mine, and after the mine's life, only on the first half of the road. Also, Teck-Pogo has a no-hunting and no-fishing policy for its workers.

23) Impacts to Shaw Creek. There is inadequate or inaccurate data on the fish and wildlife resources of the Shaw Creek valley. More analysis and concern has been focused on the Goodpaster drainage than the Shaw Creek drainage. The Shaw Creek Hillside route will have greater impacts on fish and wildlife and cultural resources. The South Ridge route has fewer stream crossings and lesser impacts on wildlife.

Response. As a result of public and agency comments during the public comment period, additional information was added on the impacts to fish and wildlife in Chapter 4 of the EIS. The Final Pogo Mine Project EIS has thoroughly evaluated the impacts from the Shaw Creek Hillside Route on all resources, including fish, wildlife, and cultural resources of both the Shaw Creek and Goodpaster valleys. Although there are more stream crossings on the Shaw Creek Hillside All-Season Road than on the South Ridge Route, the EIS shows that the impacts from the Shaw Creek Hillside All-Season Road will not be significant and can be mitigated. All stream crossings must be approved by biologists from DNR's Office of Habitat Management and Permitting. All culverts will conform to ADF&G standards for fish passage. All culverts will require a fish passage permit from DNR's Office of Habitat Management and Permitting.

24) Impacts to Wilderness Character. The Goodpaster/Shaw Creek drainages should be left wild, with reduced human use. Opening up the Shaw Creek Valley with a road will displace an existing business that relies on wilderness.

Response. Both State land plans for this area, the Tanana Valley State Forest Management Plan (TVSFMP) and the Tanana Basin Area Plan (TBAP), have identified state lands in both the Goodpaster and Shaw Creek valleys as land to be managed for multiple uses. Mineral development and timber harvesting are among the allowed uses of these lands. These plans were developed and updated over many years, with extensive public participation. In particular, the TVSFMP calls for improved access to the portions of the state forest in the Shaw Creek Valley for timber harvesting and other forest uses.

DNR will do everything practicable and prudent to mitigate the possible adverse impacts to the existing users of the Shaw Creek Valley. TBAP does recognize the special character of the Goodpaster River Valley, and DNR is taking this into account in authorizing this right-of-way by prohibiting public use of the second half of the road, and by requiring this portion of the road to be reclaimed after the mine's life.

25) Funding for Land Management. Teck-Pogo should provide funding for increased land management needs resulting from increased use of the area.

Response. Teck-Pogo will provide some level of funding for agencies to conduct inspection and monitoring activities along the road corridor and at the mine site. However, DNR does not consider it prudent or necessary for Teck-Pogo to provide funding for management needs that may result from increased public use. Any increased public use is in alignment with DNR's long-term management plans for the Shaw Creek Valley. Such increases in public use would have occurred with the scheduled development of the logging road into the TVSF.

26) Noise Impacts Underestimated. The noise impacts to Shaw Creek residents have been underestimated.

Response. In response to comments received during the public notice period, the EIS team reviewed the noise impacts analysis. The noise model was re-run based on an erroneous assumption in the DEIS that the speed limit on the road was 35 mph, instead of 25 mph. A revised analysis of the noise impacts is presented in Chapter 4 of the final EIS. With the exception of shift change traffic, noise levels are projected to increase by 4 dBA to 7 dBA, generally considered a moderate impact. Shift change traffic (busses transporting the workers) will increase noise levels by 2 dBA to 16 dBA, but only for two 1-hour periods every 4 days. DNR understands that this increase may still be unacceptable to some residents along the Shaw Creek Road. However, this road provides access to a large area of undeveloped multiple-use state land, and increased use (and corresponding increased noise impacts) is inevitable. Based on the moderate anticipated impact, the industrial nature of the right-of-way, and the planned uses of Shaw Creek Road, DNR has determined that further mitigation of the noise impacts is not feasible or prudent. Please refer to Section IX.E for a discussion on noise impacts.

27) Section Line Easement. DNR should not use the section line easement to access the mine road from Shaw Creek Road.

Response. In this Decision, DNR is authorizing a right-of-way that would connect to the Shaw Creek Road via an easement negotiated by Teck-Pogo and DNR across three private parcels. Because this easement will be given to the State for public use after the mine's life, upon application from local landowners, DNR will begin a process to vacate the section line easement.

28) Gilles Creek Bridge. The second half of the road should be reclaimed to a point south of the Gilles Creek Bridge, including the bridge.

Response. This decision states that the second half of the road will be reclaimed up to, and including, the Gilles Creek bridge.

29) Maintenance and Staging Area. The Maintenance and Staging area should be on the Richardson Highway.

Response. DNR has determined that the Maintenance and Staging area should be on the Richardson Highway instead of at the originally proposed location near the TAPS crossing. Please refer to the Final Finding and Decision on the Competitive Land Lease (ADL #416953) which addresses this issue.

30) State Funding for Road Construction. The State should pay for the construction of the first half of the road.

Response. Teck-Pogo has not requested that the State pay for construction of any portion of the road, and is prepared to pay those costs itself. Portions of the first half of the road could be funded through the timber sale process, but the resulting road would

not be to the standards necessary for Teck-Pogo's use. In addition, gravel will be provided to Teck-Pogo at a discounted rate as there is a public benefit to the road. Other State funding may someday be available for constructing portions of this road, but acquiring this funding could take years, and Teck-Pogo is not willing to wait that long. As long as Teck-Pogo is the sole commercial user, other than timber harvesters, it is appropriate that Teck-Pogo pay the maintenance and construction costs for the entire road, as it will be used primarily for development of the Pogo Mine.

31) 1993 State Selection Routes. The State should use the routes proposed in the 1993 land selection process to access the mine.

Response. The identification of possible routes in 1993 does not necessarily determine DNR's land management decisions, which must be made on current facts. Teck-Pogo has very specific requirements regarding where the mine access road should be located. Three potential routes were identified for analysis in the EIS process, and a great effort was made to study each route and their resulting impacts. DNR has determined that the Shaw Creek Hillside All-Season Road is the most appropriate route to access the mine.

32) Railroad Access. The mine should be accessed only by railroad.

Response. Railroad access to the mine was identified early on in the EIS process as not economically feasible.

33) Turnouts. There should be turnouts on the portion of the road open to public use.

Response. As no portion of the road will be open to public use during the mine's life, there will be no need for public turnouts. After the mine's life, State land management agencies will work with Teck-Pogo to prepare the first half of the road for general public use. Design details such as turnouts, will be decided upon at that time.

34) Bridges. Use bridges instead of culverts wherever possible.

Response. Bridges will be used instead of culverts wherever possible. Five bridge crossings are proposed for the Shaw Creek Hillside All-Season Road. The other crossings are over streams which are small and can adequately be crossed with properly designed culverts. All culverts must be approved by DNR, and if the streams contain fish, then the culverts also need fish passage permits from DNR's Office of Habitat Management and Permitting.

35) Winter Road Alternative. The winter road alternative is unacceptable due to increased risks to the Alyeska Pipeline.

Response. DNR has determined that the winter road alternative is not the preferred alternative, and is authorizing the Shaw Creek Hillside All-Season Road.

VII. Access Alternatives

The Pogo Mine EIS reviewed four alternatives for access to the mine site. Other alternatives, including the Goodpaster Winter Trail and air-only access, were reviewed early in the EIS process, and were determined to be not feasible or practicable, and thus were not included in the EIS analysis. The four alternatives reviewed in the EIS and the DNR AS 38.05.850 process were:

- Alternative #1: No Action Alternative
- Alternative #2: Shaw Creek Hillside All-Season Road
- Alternative #3: South Ridge All-Season Road
- Alternative #4: Shaw Creek Flats Perennial Winter Trail

The access road alternatives are shown on the map in Attachment 2.

DNR is authorizing two rights-of-way for a modified version of Teck-Pogo's proposed route, Alternative #2, the Shaw Creek Hillside All-Season Road. Below is a discussion of each alternative, along with a rationale for why the other action alternatives were not selected. Also discussed below is the rationale for why the Goodpaster Winter Trail and the air-only access alternatives were deemed not feasible.

ALTERNATIVE #1: No Action Alternative

In the No Action Alternative, the Pogo Mine would not be developed. This alternative was used as a baseline for comparison with the action alternatives to determine impacts. The No Action Alternative does assume that DNR's DOF will implement its Tanana Valley State Forest Management Plan, which includes construction of an all-season road along the same alignment as the first 23 miles of Alternative #2, Teck-Pogo's proposed route.

ALTERNATIVE #2: Shaw Creek Hillside All-Season Road

Teck-Pogo's proposed route is Alternative #2, the Shaw Creek Hillside All-Season Road. Generally, Teck-Pogo's proposal is as follows. This alternative would be a 49.5-mile, mostly two-lane, all-season road. It would begin at the end of the existing approximately 2-mile long Shaw Creek Road on the west side of Shaw Creek, and cross the Trans-Alaska Pipeline System (TAPS) approximately 4.5 miles from the Richardson Highway. It would proceed up the northwest side of the Shaw Creek Valley for a distance of approximately 26 miles. It then would cross Shaw Creek and climb 18 miles over the divide into the Goodpaster River Valley and cross the river to the mine site. The highest road elevation would be 3,300 feet; the lowest 970 feet. All but the first mile of this alternative would be on DNR managed land. Portions of the first mile may be located on public easements across private parcels.

The road would have either a 24-foot surface, or in steep areas an 18-foot surface with a safety berm. Conventional cut-and-fill road construction methods would be used on the

majority of the road alignment. Limited areas traversing permafrost and/or wetlands would use a thick (4 to 6 foot) fill section placed over geotextile fabric. Segments between Shaw Creek and the Goodpaster River would require blasting and/or ripping of bedrock.

The road surface would be gravel or crushed rock. Approximately 1.3 million cubic yards of material would be moved to complete road construction. An estimated 250,000 cubic yards of gravel and 220,000 cubic yards of rock for road surfacing would be required from 22 potential material sources.

The road would have a maximum grade of 7 percent. There would be two long grades of 5 to 7 percent: one of approximately 4.3 miles long, climbing from Shaw Creek to the Shaw Creek/Goodpaster divide; and one approximately 3.2 miles long, descending to the Goodpaster River. There would be no turnouts, but there would be truck safety run outs on the two major grades. Roadside berms would be installed at all bridges, at sharp curves on steep grades, and where the road passes bodies of water deeper than three feet. Corrugated metal pipe drainage culverts would be installed at all drainage crossings. The road would be designed for a speed of 35 miles per hour, and bridges would be single-lane. Radio contact would be maintained between all mine vehicles and mine security, and traffic would be controlled to avoid interference at one-lane sections.

The road would meet or exceed American Association of State Highway and Transportation Officials (AASHTO) standards as a resource development road. Because the road would transect the Tanana Valley State Forest, the design criteria have been developed to meet or exceed the proposed DOF Northern Region forest road standards for moderate to heavy, long-term, year-round use.

The appropriate authorizations would be required from the Joint Pipeline Office and the Alyeska Pipeline Service Company for the crossing of the TAPS right-of-way. These authorizations would address safety, security, and pipeline integrity issues.

During mine operations, there would be an estimated annual transport of 30,000 to 40,000 tons of freight to the mine, with negligible tonnage of backhaul. Mine-related large truck traffic would average approximately 5 to 10 round-trips per day, 7 days per week, during the day or at night. In addition, there would be an average of approximately eight other daily vehicles: periodic personnel change outs by bus (2 round trips per day), Teck-Pogo administrative personnel (3 round trips per day), maintenance equipment (2 round trips per day), and state and federal agency vehicles (1 round trip per day). Overall, mine-related vehicle use would average between 10 and 20 round trips per day.

Depending on the project's particular needs, the number of trucks or other vehicles on a given day could be substantially higher than the average, while on other days there might be few or no trucks or other vehicles. During mine development and after the road is complete, traffic on the road would average approximately 50 vehicles per day (both semi-tractor trailers and light vehicles) during intense periods of mine construction.

In addition to the daily mine traffic, there may be additional traffic on the Shaw Creek Road during shift changes. If the bus terminal/staging area is located near the TAPS

crossing (as proposed by Teck-Pogo), then 180 workers will have to be transported to the staging area via the Shaw Creek Road. Assuming the worst case scenario of each worker driving his or her own vehicle (many would undoubtedly carpool) this would mean 180 vehicle trips into the staging area, and then 180 vehicle trips back out to the Richardson Highway about four hours later. The shift changes would occur every four days. DNR proposed an option that the bus terminal could be located on the Richardson Highway, thereby replacing these vehicle trips on the Shaw Creek Road with 6 bus round trips every 4 days (please see the discussion on Bus Terminal/Maintenance Facility Sub-Options below).

Under DNR's modified proposal, the first portion of the road would receive some additional traffic from commercial timber harvesting activities. The commercial timber harvesting traffic has been estimated in the EIS as 2 to 3 daily round trips for commercial logging vehicles. The public use of the first half of the road will not be allowed until after the mine's life. At that time, public use will generate additional traffic on the road. However, there are currently no estimates for the volume of this traffic. It is anticipated that this traffic will not be significant, as the public portion of the road dead ends half way to the mine, and there are few significant recreational resources along this portion of the road corridor.

Six single-span, single-lane bridges between 60 and 85 feet long would be required across five creeks: Rosa (two crossings), Keystone, Caribou, Gilles, and Shaw. The Goodpaster River crossing would be a six-span, single-lane bridge, 390 feet long. Bridges would have a design capacity of approximately 100 tons, with a maximum axle load rating of 60 tons. The bridge across the Goodpaster River would need US Coast Guard approval.

For safety reasons, Teck-Pogo proposes that the entire road be a controlled access industrial road with traffic restricted to Pogo-related vehicles, government agency traffic, and commercial timber harvesting vehicles. There would be a security gate near the end of Shaw Creek Road, and another security gate approximately one mile east of the TAPS crossing. These gates may be operated and monitored by mine security personnel using remote-controlled video cameras.

Road construction would proceed from four headings: one at the Goodpaster (east) end; one at the Shaw Creek (west) end; and two in the middle (central). The Goodpaster winter trail, from Quartz Lake up the Goodpaster River, would be used to stage construction equipment for the east heading. The winter trail in the Shaw Creek valley would be used to establish the two central headings. The TAPS workpad or the existing Shaw Creek Road would be used to establish the west heading. Temporary camps would be established at both the east and central headings. Temporary airstrips would be constructed as wider areas on the road alignment at the east and central headings. Construction would be supported by air until the all-season road was serviceable.

Two temporary camps will be constructed within the right-of-way. Temporary Camp 1 will be located immediately to the west of the Goodpaster River, and would be approximately 250' by 500'. Temporary Camp 2 would be located immediately to the west of Gilles Creek, and would be approximately 470' by 650'. The camps will be used

as laydown areas, and will also house up to 35 persons each, with housing, food service, water and wastewater facilities. Each camp will also have a temporary 2,000' airstrip along the alignment of the right-of-way. The camps will be used for approximately 12 months.

Winter Trail Use

Teck-Pogo will use both the Goodpaster winter trail and the Shaw Creek Winter Trail to mobilize construction equipment and supplies during this winter season. The Goodpaster winter trail starts at Quartz Lake and follows the Goodpaster River to the minesite. This is the same route as was used in the 1997/1998 exploration mobilization. The Shaw Creek winter trail runs from the Richardson Highway near Shaw Creek, up the Shaw Creek valley.

The Goodpaster winter trail would be used to mobilize construction equipment, materials, camp facilities, and fuel to the mine site in order to develop a construction heading and complete the Goodpaster River bridge. Approximately 800 truck trips over the course of one winter season would be required to stage the necessary construction materials and equipment. The freight would be hauled over the winter road 7 days per week, 24 hours per day, in convoys of 6 to 12 vehicles, for an average of 10 convoys per week. Depending on weather conditions, convoys may depart as frequently as every six hours. Each convoy will be lead by a pilot vehicle which will be in contact with the mine site or the Delta staging area at all times. Schedules will be posted at the trail head.

Teck-Pogo will modify the trail in several locations to improve safety and help mitigate conflicts between Pogo related traffic and recreational users.

- **Progressive Creek Hill.** A cut will be made near the top of the hill to generate borrow to widen and regrade the east side of the hill. If practical given snow and ground conditions, a snow lane parallel to the road will be provided for snowmachiners and other recreational users of the trail. Approximately one acre would be disturbed.
- **Quartz Lake Hill.** Some clearing and earthwork will be undertaken along approximately one mile of this section to improve sight distances and provide for a snow lane for recreational users. Approximately 5.8 acres would be disturbed.
- **Seven Mile Creek.** About 1,000 feet of this portion of the trail will be regarded to improve safety on the sideslope. Approximately .8 acres would be disturbed.
- **Quartz Lake to Goodpaster River Widening.** The trail between Quartz Lake and the first crossing of the Goodpaster River will be generally widened by about 10 feet to provide for a snow lane to accommodate recreational users. This widening will be done using a masticator or brush grinder, which will grind up the vegetation and minimize disturbance to the root mat.

The winter trail will require 9 crossings of the Goodpaster River. Teck-Pogo will use temporary steel and wood bridges instead of relying on ice at these crossings. The bridges will be more reliable than snow or ice bridges, and will provide for better under-ice flows. Minor additional clearing will be necessary in some locations to accommodate these bridges. The bridges will be supported by log cribbing.

If ice conditions allow, Teck will use the same route around the south and east shore of Quartz Lake as Teck used in the 1998 exploration mobilization. Heavy haul vehicles will travel no more that 10 mph, and at least 100 yards apart across the lake. Openings or ice ramps will be used to allow for snow machine/other vehicle passage across any berms that may form during trail maintenance, and the road will be constructed so that it will not block access to private parcels. If safe operating conditions do not exist on the Quartz Lake route, Teck-Pogo will use an alternative trail from the end of the existing Forestry road just south of Quartz Lake around on the hills to the east to join the Goodpaster winter trail near the top of Quartz Lake Hill.

Construction and use of the winter road will commence as soon as the early entry authorization is issued, and will continue to mid-March if road and weather conditions allow. Loads will be staged from Delta Junction to a temporary laydown area adjacent to the shore of Quartz Lake just south of the trailhead. This staging area will be about 500 feet by 80 feet, and will hold about 10 full trailers and 10 empty trailers. Full trailers will be hauled from this laydown area to the mine with a fleet of winter road trucks, which return the empty trailers to the Quartz Lake laydown area.

A communications building and refueling station will be constructed on the trail a short distance from Quartz Lake. A convoy schedule will be posted at the communication boilding. Pilot cars will follow and proceed all convoys. Teck-Pogo proposed a gate at the first Goodpaster River crossing to keep unauthorized users from driving highway vehicles on the road—however, after further discussion with the agencies, Teck-Pogo has agreed to place this gate at the communications building near Quartz Lake.

Teck-Pogo proposes to mitigate conflicts with recreational users of the winter trail by providing a separate snow lane adjacent to the road from Quartz Lake to the first Goodpaster River bridge crossing (except at Progressive Creek Hill, as noted below). For the rest of the road to the mine, pilot cars will stay out in front of the convoy to alert any recreational users. As there may not be enough room to install a separate snow lane in the cut at Progressive Creek Hill, hazard flashers will be installed on both sides of the hill to warn other users of approaching convoys. Also, an alternate trail will be maintained around Progressive Creek Hill. If alternative routes prove unacceptable, Teck-Pogo will operate at no charge a weekly freight haul service for hauling snowmachine sled type freight.

The Shaw Creek Valley winter trail would also be constructed to allow mobilization of materials and equipment to a construction heading at Gilles Creek. This winter trail will require some clearing and limited re-grading. The use of this winter trail would include approximately 50 truck trips for initial mobilization, and then approximately 10 truck and 10 light vehicle round trips per day, over the course of one winter season until breakup.

Shaw Creek Egress Sub-Options

Four sub-options for connecting the Shaw Creek Hillside All-Season Road to the Richardson Highway were considered (See Attachment #4 for a map of these sub-options):

1) Shaw Creek/Rosa Sub-Option. This sub-option would use the existing Shaw Creek Road, from the Richardson Highway to its end, then along an easement negotiated with property owners to access state land. There are three different potential easements that could be used to gain access to state lands through the private parcels (See Attachment #5 for a map of these routes).

- The first potential easement (the Forestry easement) has been already negotiated by DOF to access timber sales in the state forest. This easement leaves the Shaw Creek Road almost at its end, and heads west to cross Rosa Creek through private property on a 100-foot wide public easement. The road then goes north on state land and then crosses the northwest corner of another private parcel on a 100-foot wide public easement. The route then turns west and re-crosses Rosa Creek, and then continues north toward the designated pipeline crossing. Each crossing of Rosa Creek would be on a 65' span bridge. This easement crosses three private parcels. This easement option was presented in the Proposed Decision for this action.
- The second potential easement (the section line easement) would follow the section lines directly north from near the end of the existing Shaw Creek Road. DNR has determined that legal section line easements exist, and could be used to access state lands through the private parcels. The first segment of this easement would cross an active farm field, and then proceed between several private parcels. Although this easement provides a very direct route with minimal wetlands impacts and stream crossings, it could have significant impacts on the private parcels. This easement option was presented in the Proposed Decision for this action.
- The third potential easement is located on private land. This easement would cross four separate parcels of private land, one of which is owned by the applicant. The applicant has negotiated agreements with the owners of the other three parcels, and all agreements ensure that the easement would allow public access to the State Forest after the mine's life. This easement option would be shorter that the Forestry easement, and would avoid the two stream crossings on that easement route. This is the preferred easement route. Refer to Attachment 3 for a map of this route.

2) Pipeline Sub-Option. This sub-option would exit the Richardson Highway on a TAPS access road approximately one half mile east of Shaw Creek Road, and then follow the pipeline to where it intersects the Shaw Creek/Rosa sub-option. This option was dropped from consideration in the EIS for the following reasons: this option would have required going under the elevated pipeline, and the road would have to be excavated to provide room for mine vehicles; the existing bridge on the TAPS workpad would have to be reconstructed to handle the loads associated with mine traffic; and the route would follow the pipeline for about 4 miles, and consequently would pose a safety risk to the pipeline from potential

vehicle collisions. Overall, the security risks to the pipeline are significant enough to warrant dropping this sub-option from consideration.

3) Keystone Sub-Option. This sub-option would start at the same TAPS access road as the Pipeline Sub-Option, but the route would cross the pipeline immediately, and head almost directly north to join the Shaw Creek Hillside All-Season Road. This option was also dropped from consideration in the EIS for the following reasons. This sub-option would have required extensive excavation to go under the pipeline just like the Pipeline Sub-Option. Also, extensive filling of wetlands would be necessary along the 3.5 miles of this route that would cross a portion of the Shaw Creek Flats, known for its prime waterfowl habitat.
4) Tenderfoot Sub-Option. This sub-option would leave the Richardson Highway about 3 miles west of Shaw Creek Road, and proceed about 3.5 miles over a hill until it intersected the Shaw Creek Hillside All-Season Road near the head of Shaw Creek Road. Based on an analysis of this route provided by Teck-Pogo, this would not be a feasible sub-option because of steep grades, gullies, and other terrain limitations. This sub-option would cost an additional $2.5 to $3 million to construct, and would provide a road that would terminate in the vicinity of an already existing state maintained road.

Based on its own analysis of the information and public comments gathered to date in the process, and on the analysis in the EIS, DNR finds that the Shaw Creek Hillside All-Season Road with the Shaw Creek/Rosa Sub-Option is the most feasible. DNR also finds that a public right-of-way to DNR for the first half, with restricted public access and an agreement for Teck-Pogo's use during the life of the mine, and a private exclusive easement for the second half of the road is the most appropriate right-of-way option.

Bus Terminal/Maintenance Facility Sub-Options

A staging area consisting of a maintenance shop and employee bus terminal needs to be developed to serve the right-of-way. There were two sub-options under consideration by DNR in the Proposed Decision. The first, proposed by Teck-Pogo, would have this staging area located just west of the TAPS crossing. Employees would leave their vehicles in the parking area and be transported to the mine site by bus. The staging area would also be used for staging and worker parking during construction of the road and mine. The staging area would be fenced and gated for security. The staging area would be located within the footprint of Material Site #3, and would be 450 feet by 650 feet, approximately 6.7 acres.

The second sub-option would have the staging area located within the footprint of Material Site #2, which is adjacent to the Richardson Highway. The advantage to this location would be a reduction in traffic volumes on the Shaw Creek Road, as the mine workers would not have to drive this road to get to the bus terminal. If the staging area is located on the Richardson Highway, up to 180 vehicle round trips every 4 days on the Shaw Creek Road would be replaced with 6 bus round trips every 4 days.

After the public review process for the DEIS and the proposed decisions, the applicant submitted an application for a third alternative parcel to be used for the staging area.

This parcel is also adjacent to the Richardson Highway in the same general vicinity as Material Site #2, but is on more suitable land, and is less prone to flooding. The Preliminary Decision for the disposal of the staging area land was amended to reflect this third parcel, and was put out for additional public notice.

The decision to offer one of these parcels for Teck-Pogo's proposed uses is not part of this right-of-way decision. The land necessary for the staging area under any sub-option would be made available to Teck-Pogo by issuing a competitive long-term lease under AS 38.05.070-075. After reviewing public comments submitted both during the original public review period and the public comment period for the amended Preliminary Decision, DNR has decided that the third parcel is the preferred location for the staging area. That decision is being made and issued separately under AS 38.05.035(e). DNR will offer this parcel in a competitive lease disposal.

ALTERNATIVE #3: South Ridge All-Season Road

Alternative #3 is the South Ridge All-Season Road. This 46-mile route would generally follow the ridge southeast of the Shaw Creek Valley, between that valley and the Goodpaster River Valley. It would begin at the intersection of Quartz Lake Road and the existing DOF road near the public recreation area on Quartz Lake and then travel northeast, crossing the divide between Rapid and Indian creeks. It then would climb the ridge, generally following the ridgeline to the northeast, and descend to the Goodpaster Valley in the vicinity of the mine. This route would require only one bridge, across the Goodpaster at the mine site.

Design standards, traffic volumes, and the management of the road would be similar to the Shaw Creek Hillside All-Season Road.

Based on the information collected to date, DNR does not believe the South Ridge All-Season Road is the best alternative. This route would have impacts on a greater number of residences and recreational users (at Quartz Lake) than would either of the Shaw Creek routes. In addition, the South Ridge route has greater visual impacts as it is predominantly above timberline, and it is closer in proximity to the Goodpaster River valley, which has been identified as a sensitive area by the Tanana Basin Area Plan due to its unique character, high fish and wildlife values, and high recreational use. There are operational concerns with the road as it will be subject to poor visibility and blowing snow. Also, poor soil conditions on the first portion of this route are less suitable for road construction and will increase road maintenance costs.

ALTERNATIVE #4: Shaw Creek Flats Perennial Winter Trail

Alternative #4 is the Shaw Creek Flats Perennial Winter Trail. This approximately 46-mile alternative would begin at the TAPS Pipeline access road off the Richardson Highway, half a mile east of Shaw Creek. This alternative would follow the existing winter trail in the lower Shaw Creek Valley to a point between Caribou and Gilles creeks,

and then would turn north and intersect the Shaw Creek Hillside all-season road route. It then would follow the all-season route approximately 30.5 miles to the mine site.

This alternative was included in the EIS to evaluate the impacts from the mine access if the first portion of the road were only available on a seasonal basis. If the first portion of the road was a winter-only route, then the public use, and associated resource impacts, would likely be different from those associated with an all-season road.

This alternative was developed by the agency team in consultation with members of the public during the alternatives screening process in the EIS. During scoping, several commentors requested that the EIS evaluate winter road access to the project. The agency team evaluated both the existing Goodpaster Winter Trail and the Shaw Creek Flats Perennial Winter Trail, and for each of the criteria of water quality, wetlands, fish, wildlife, existing privately-owned lands, existing recreational and commercial uses, and subsistence, the Goodpaster route showed greater impacts than the Shaw Creek Flats Perennial Winter Trail and therefore was dropped from further consideration.

Alternative #4 was developed to provide the most viable winter route available. One of the weakest links in the Goodpaster Winter trail alternative was the Goodpaster River crossings, both from an environmental and an operational perspective. Therefore Alternative #4 includes a bridge at the Goodpaster River to reduce these risks. Due to the mountains between the Shaw Creek valley and the Goodpaster valley, approximately 18 miles of the route would require cut and fill construction similar to an all-season road, even for winter access. The area between upper Shaw Creek valley and Gilles Creek has two large stream crossings and several areas of perennial aufeis, where bridges and all-season construction skirting the problem areas are the only means of achieving a reliable transportation system. Thus while the Alternative #4 route would be used only in the winter, the second portion of the route would essentially be constructed to all-season standards, while the first portion of the route in the Shaw Creek flats near the Richardson Highway would follow a perennial winter trail.

This perennial winter trail would be constructed every year of the project's life, beginning in late November or early December. It is expected the trail would be useable for approximately ten weeks each year, two weeks longer than would a traditional winter road. The trail surface would be bladed flat and would require small cuts and fills and limited removal of some surface organics, including clipping off tussocks. This flatter micro topography would allow a drivable snow and ice surface to be constructed more quickly each winter, thus providing a longer winter operating window than a traditional winter road. Traffic would consist of approximately 30 to 35 large trucks per day, seven days per week, day and night.

Design standards for the all-season portion and the management of the road would be similar to that for the Shaw Creek Hillside All-Season Road. This alternative would necessitate the use of air support especially when the winter trail is not useable.

Based on the information collected to date, DNR does not believe the Shaw Creek Flats Perennial Winter Trail is the best alternative. The Tanana Valley State Forest Plan

already calls for all-season access to the point where the winter trail would end, and the all-season road would begin. The DOF would likely begin construction of this road immediately if it were not for the Pogo Project. This alternative would require Teck-Pogo to restrict their access operations to the winter road even though an all-season road would be constructed by the DOF to reach the same destination.

There are other considerations that lead DNR to believe this is not the best alternative. There would be significant wetlands impacts from smoothing the route in the Shaw Creek flats. Also there would be increased operational constraints on Teck-Pogo due to the limited seasonal window that the winter road could be used. These constraints would result in increased costs to the company, and would make it more difficult to respond to emergency situations such as accidents or spills. Recent climactic variation leads DNR to the expectation that there will be at least one season during the mine's life where the winter road will not be useable. The unreliability of winter-only access will result in greater operating costs, and increase the chances that Teck-Pogo could experience temporary shutdowns.

DNR's recent experience with permitting Teck-Pogo's exploration activities using a winter road have shown that the operational constraints of the short winter road window can lead to great stresses both on the operator and agencies. These stresses can result in more safety concerns, higher likelihood of accidents or spills, and a reduced ability for agencies to monitor the project effectively. DNR believes that an operation of this magnitude requires reliable and stable transportation system that can operate on a year-round basis.

AIR-ONLY ACCESS OPTION

The option of providing access to the Pogo Mine primarily by air was evaluated early in the EIS process and was determined to be neither practicable nor feasible, and thus was not included as an alternative in the EIS.

Teck-Pogo provided an analysis of the air-only option (Evaluation of an Air-Only Option for Logistical Support for the Pogo Mine, March 2001). This analysis showed that the air-only option would not be feasible because: 1) a lack of a site near the mine where a 5,000' airstrip could be constructed and reliably operated; 2) surface access would still be required because of the size and quantity of materials required for construction of the mine; 3) the additional cost and complexity of air-only access would make the project potentially uneconomic and expose the company to unreasonable business risk.

This analysis was reviewed by state and federal agencies involved in the EIS process. It was determined that this option should not be carried forward for further consideration. It was clear to DNR that it would be impossible for Teck-Pogo to develop and operate the Pogo Mine without some surface access in addition to air access. Thus a winter road would have to be utilized throughout the project life to move large equipment, provide access during inclement weather when air travel is precluded, and to provide an emergency access route. This alternative would then be almost identical to Alternative #4, the Shaw Creek Flats Perennial Winter Trail. DNR also determined that the

additional financial burden to the company was unreasonable, and would endanger the feasibility of the project.

VIII. Authorization Alternatives

The DNR had a number of options with respect to management and construction of the proposed road. Since the road's purpose is to serve the Pogo Mine Project, it is DNR's intent (and Teck-Pogo's proposal) that Teck-Pogo will be responsible for all construction and maintenance of the road. The primary issue which needed to be resolved was whether public access should be allowed on or excluded from all or a portion of the road.

The DNR could have authorized public access on the entire Pogo Project road, with restrictions for seasonal, maintenance, operational or security reasons. Allowing public use of the entire road is not the DNR's preferred alternative because the road is being constructed to serve the Pogo Mine and is intended primarily for mine-related traffic. Any other commercial uses would be allowed consistent with the terms described in XII below. Allowing full public access would result in increased safety risks due to the mixing of mine truck traffic with light vehicle traffic, especially on the last portion of the road where the steep grades require the road to be narrower with safety berms.

A private exclusive right-of-way for the second portion of the road was DNR's preferred authorization in the Proposed Decision. Under a private exclusive right-of-way, Teck-Pogo would be responsible for all construction and maintenance, and the public would not be able to use the right-of-way. In the Proposed Decision, a gate would have been constructed near Gilles Creek to prevent public use of this private exclusive right-of-way. The private exclusive right-of-way would have been restricted to mine-related uses only (with exceptions for government agencies and land management purposes). Uses other than mine related uses would have been prohibited for this portion of the road, unless DNR made a determination to authorize additional uses. Because of the greater safety concerns with the steeper grades and narrower road surface on the latter part of the road, and because of the greater public concern about resource impacts to the Goodpaster River watershed, DNR favored a private exclusive right-of-way from Gilles Creek to the Goodpaster River. Under the Proposed Decision, the first portion of the road, from Shaw Creek Road to Gilles Creek, would have been issued as a public right-of-way to DNR, and would have been open to the public and other commercial resource development use. In the Proposed Decision, DNR acknowledged that there were some safety and operational concerns with public use of any portion of the road during mine life, and it encouraged the public to comment on this issue.

During the public comment period for the Proposed Decision, DNR received a large number of comments on this issue. The comments overwhelmingly supported closing the first half of the road to public use during the mine life. DNR carefully considered these comments in its further analysis of this issue.

DNR has determined that the entire road should be closed to general public use during the mine's life. There are considerable safety concerns with mixing public and industrial traffic on the road. Even though the expected operational traffic is not projected to be

great, there will also be added traffic from timber harvesting and other potential resource development. There will still be an increased probability of a vehicular accident along the road if the public traffic is allowed to intermix with the mine traffic. The road will be a maximum of 24-feet wide, narrowing to 16 feet wide in places, and all the bridges will be single lane. The general public traveling on the road will not likely have CB radios and will not be able to communicate with the mine traffic. The potential for a great influx of public driving this road, most of them non-professional drivers, and some driving large motor homes, would pose unacceptable safety risks to both the public and the industrial drivers on the road.

Also, there clearly would have been times when the road would have been closed to the public in any case. For example, during periods of heavy construction (such as the first two years of the project's life, or during periods where major modifications to the mine may be undertaken), there would be far greater volumes of industrial traffic on the road. Public restrictions would have been in place at these times. In addition, the road would have been closed during times when road conditions warranted such restrictions (such as spring breakup).

Allowing the public unrestricted use of any portion of the road may increase the possibility of accident-related spills of hazardous materials. Some concern was expressed during the public comment period about the possibility of spills into one of the road's stream crossings. While the chance of a chemical spill is limited in any case, DNR believes that prohibiting public use will further reduce the chances of accidental spills into the waters of the Shaw Creek drainage.

Restricting public use of the first half for the life of the mine will also alleviate some of the impacts on the residents of Shaw Creek Road as there will be less traffic on the road until it is opened to public use after the mine closes.

Closure is consistent with the investment being made by Teck-Pogo as well. Teck-Pogo is constructing this road at its own expense to support the Pogo Mine Project. The road from the end of the Shaw Creek Road to the west side of Gilles creek is projected to cost approximately $8 million. The capital development costs for the entire Pogo Mine Project are estimated at $250 million. Based on this sizeable investment and the purpose for the road construction, it is reasonable to restrict the public's use to protect Teck-Pogo's investment until after the life of the mine.

Under AS 41.17.200(a), the primary purpose of the state forest is "multiple use management that provides for the production, utilization, and replenishment of timber resources while perpetuating personal, commercial, and other beneficial uses of resources." The development of the Pogo Mine Project is a beneficial use of the state's resources, and the construction of the road through the state forest facilitates the development of those other state resources. Also fulfilling one of the primary purposes of the state forest, the road into the state forest will immediately provide for the utilization of timber resources in the Shaw Creek Valley. While the road will be closed to the general public during the life of the Pogo Mine, the road will be open for timber management and extraction purposes during the life of the Pogo Mine.

The state will be provided with a road into the state forest that exceeds the standard of road that would be able to be built with state funding. As discussed in section XI (Economic Benefits), the road development costs are substantial and the value of the road being constructed by Teck-Pogo through the State Forest is approximately $8 million. This road will provide good-quality access to the state's timber resources. And it will provide good-quality access to the state forest by the general public after the life of the Pogo Mine. This facilitates both timber resource use currently and personal use of the state forest in the future.

In addition, the restriction on public access is narrowly tailored to minimize the impact to public use of the state forest. The restriction on public access only applies to the right-of-way itself and does not impede public access to the state forest generally.

I find that restrictions on public access to the right-of-way through the state forest during the Pogo Mine life are necessary in order to carry out the purposes of AS 41.17, protect public safety, and facilitate development of the Pogo Mine. In making this finding, I have considered AS 41.17.200-.400 and the Tanana Valley State Forest Management Plan.

The closure of the entire Pogo Mine access road to public use during the mine's life is consistent with the land management policies for the Tanana Valley State Forest. The Tanana Valley State Forest Management Plan, Chapter 2, Public Access, Management Guideline II.G. states:

> **G. Limiting Access**
> Access to land within the State Forest may be curtailed at certain times to protect public safety, allow special uses, and prevent harm to the environment. Examples of conditions that may justify limiting public access are fire management, timber harvest operations, and high soil moisture content when traffic may cause extensive damage to roads and trails.

The plan also states in Chapter 2, Transportation, Management Guideline N:

> **N. Road Use Restrictions**
> Forest roads may be closed temporarily or seasonally for public safety or to protect the road surface from damage. Road use may be restricted temporarily to minimize hazards that result from conflicting use, such as during periods of active industrial use.
>
> Access restrictions shall comply with AS 41.17.200(b), AS 41.17.230(a), AS 38.05.300(a), AS 38.04.058, and AS 38.04.200 and other applicable statutes. Access restrictions for reasons other than protecting the resource or providing for public safety will require a finding of incompatibility.

While these rights-of-way will be allowed for forestry, the road being constructed and maintained by Teck-Pogo for access to the Pogo Mine is not a "forest road" contemplated under Chapter 2 Guideline N. Further, DNR has determined that restricting public access along the Pogo Mine access road complies with these plan provisions, and all applicable statutes, since it is necessary to carry out the purposes of

the state forest system, including the need to protect public safety. The restrictions on public access are to the rights-of-way themselves, not to the State Forest in general. Public access to the extent that it occurs now will continue, except that the rights-of-way that are being constructed by Teck-Pogo for mine use will be closed to public access until after the mine life. Public access is restricted to ensure public safety during the mine life and to protect property by reducing the chance of an accident that would cause a spill of hazardous substances into the environment.

At the end of the mine life, the road will be turned over to DNR for access into the State Forest, including access to the State Forest by the general public. Development of the road by Teck-Pogo, with its allowed logging usage, fulfills one of the main purposes of chapter 41, the production and utilization of the state's timber resources. In addition, it facilitates future public access into the State Forest for personal, commercial, and other beneficial uses.

Because the temporary access restriction is for the purpose of protecting public safety and minimizing hazards along the rights-of-way that would result from public use during the active industrial mining use, a finding of incompatibility is not required under Guideline N.

DNR will issue the first half of the road (from Shaw Creek Road to Gilles Creek) as a public right-of-way to DNR, and will allow Teck-Pogo to restrict access to mine-related traffic, government use, and commercial timber harvesting use, during mine life as outlined in Section X.A. This first portion of the road would not be reclaimed after mine life. At that time, the first half would be open to general public use. It is DNR's intent that the second portion of the road (from the west side of Gilles Creek to the Goodpaster River) be issued as a private exclusive right-of-way, and be reclaimed after the mine's life.

IX. Reasonably Foreseeable, Significant Effects

In evaluating the reasonably foreseeable, significant effects of the proposed Pogo Mine access route, DNR relied on the extensive analysis of environmental consequences for each alternative in the FEIS. Below is a summary of the environmental consequences for each resource from Alternative #2, the Shaw Creek Hillside All-Season Road (taken from Chapter 4 of the FEIS), DNR's selected alternative.

This section does not compare the impacts from the three access alternatives. This comparison has been made in great detail in the FEIS, and the reader should refer to this document for more information.

This section does compare the impacts from DNR's preferred option of leaving the first portion of the road (from Shaw Creek Road to the Gilles Creek crossing) open to public access to the impacts expected from restricting public access on this portion for the mine's life. This section assumes that the second portion of the road (from the Gilles Creek crossing to the Goodpaster River) will be closed to public use, and will be reclaimed after the mine's life.

A. SURFACE WATER HYDROLOGY (Section 4.1.4 of the FEIS)

The Shaw Creek Hillside All-Season Road alternative would have 24 stream or river crossings, 17 of which would be culverts and 7 of which would be bridges. All crossings have been adequately designed and the culverts have been adequately sized to have minimal effects on the hydrology of the waterbodies. Additional runoff can be expected from the road surface and the embankments, but this will decrease as the embankments are revegetated. Best management practices will be utilized to keep sediment from entering the waterbodies. Detailed plans for each crossing must be provided to, and approved by, DNR before construction can begin.

Reclamation of the second portion of the road will eliminate any long-term effects of this portion of the road on the surface water hydrology. The first portion of the road will remain after the mine closes, but with the properly designed crossings, changes to surface water hydrology will be minimal. Access management of the first portion of the road is not expected to cause any significant impacts on surface water hydrology.

B. GROUNDWATER (Section 4.2.4 of the FEIS)

No impacts to groundwater flows are expected from any of the access alternatives.

C. WATER QUALITY (Section 4.3.4 of the FEIS)

The potential effects on water quality from the Shaw Creek Hillside All-Season Road are primarily from construction and operational erosion from the road and embankments into the 24 stream crossings, and potential fuel and hazardous material spills at one of these crossings.

With proper design of the crossings, utilization of best management practices for sediment control, and appropriate and timely revegetation of the road embankments, sediment transport into the waterbodies should be minimal, and limited mostly to the construction period. State agencies have reviewed the designs of the crossings, and the proposed best management practices described in the right-of-way application, and have determined that the road can be constructed and operated with minimal impacts to water quality. Detailed plans for each crossing must be provided to, and approved by, DNR before construction can begin.

There is also the potential for spills of fuel or other hazardous materials being transported into the mine. Teck-Pogo will be transporting various materials to the mine, including cyanide, cement, lime, sodium metabisulfite, and sulfuric acid. The EIS has analyzed the quantities and the frequencies with which these materials will be transported, and has determined the probability of a truck accident which could cause a spill is small. Even in the event of a truck accident, the hazardous materials such as cyanide are always shipped in secure shipping containers with redundant containment. However, to minimize the potential for damage to the environment, Teck-Pogo must

have operational plans for shipping and spill containment that must be approved by the State.

Reclamation of the second portion of the road would reduce or eliminate any effects on water quality from erosion. An exception to this would be during construction to remove the road, where sediment loads into the waterways could increase. However, best management practices will minimize the sediment transport. Also, removal of the road will eliminate the danger of a spill as no more materials would be transported.

With unrestricted public access on the first portion of the road, there could be a higher probability of spills resulting from increased public traffic on the road, and the resulting higher probability of accidents. With the public being restricted from using this first portion of the road during mine life, then the probability of spills would be less as the traffic volumes would be less, and the users of the road would primarily be professional drivers.

D. AIR QUALITY (Section 4.4.4 of the FEIS)

All access alternatives would have minimal impacts on air quality. There would be some generation of fugitive dust from use of gravel roads and the airstrip, and dust control mitigation measures would be required. The Shaw Creek Flats perennial winter trail option would have fewer fugitive dust impacts than using an all-season road. In addition, leaving the first portion of the road open for public access would have some additional impacts on air quality resulting from the increased traffic. Removal of the all-season road at the end of the Pogo project would limit the duration of fugitive dust impacts on air quality when compared to its continued use.

E. NOISE (Section 4.5.4 of the FEIS)

Detailed noise modeling was performed as part of this EIS process, and the results of this modeling are presented in the FEIS. Most of the Shaw Creek Hillside All-Season Road would be in remote setting, with no residences or other human habitation nearby. The exceptions to this are the seven residences along the Shaw Creek Road. At the residence with the most potential noise effects, the projected noise levels, excluding shift change traffic, would increase by 4 dBA to 7 dBA[1]. This noise level is normally equated to somewhere between a bedroom and light auto traffic, and is the equivalent of a quiet rural area with no activity. While this is not normally a high noise level, it could nevertheless represent a significant increase for this residence.

Additional noise impacts would be caused by the increased traffic during times when the shift change occurs at the mine, depending on where the bus terminal/staging area is located. The shift changes would occur every four days. Since the staging area will be located on the Richardson Highway, the traffic resulting from shift changes will be

[1] At one residence, the noise level would increase by 12 dBA, but this residence is owned by Teck-Pogo.

minimized on the Shaw Creek Road. This additional traffic will increase noise levels by 2 dBA to 16 dBA for a duration of about one hour, twice every four days[2].

If the staging area had been located near the TAPS crossing, then 180 workers would have to be transported to the staging area via the Shaw Creek Road. Assuming the worst case scenario of each worker driving his or her own vehicle (many would undoubtedly carpool) this would mean 180 vehicle trips into the staging area, and then 180 vehicle trips back out to the Richardson Highway. This additional traffic would have increased noise levels by 6 dBA to 27 dBA for a duration of about one hour, twice every four days.

Under DNR's originally preferred option of leaving the first portion of the road open to public use, the increased traffic was projected to increase the noise levels only by about 1 to 2 dBA (this noise increase was based on a worst-case scenario of an additional 35 vehicles per hour using the road). This increased traffic from public use would occur eventually in any case, as the DOF would construct the first portion of the road to access the state forest even if the Pogo Project were not to occur, and the forestry roads are traditionally open for public use. If the entire road was closed to public use, then the noise levels would be 1 to 2 dBA less than if the first portion of the road was left open for public use, which is expected to result in increased traffic levels.

Reclamation of the second portion of the road would reduce noise levels at the upper Shaw Creek and Goodpaster River valleys, as the use of this portion of the road would be eliminated. Because the second portion of the road will only be reclaimed after the Pogo Mine ceases operation, the mine traffic will no longer be a factor on the first portion of the road, and the noise levels will decrease along the Shaw Creek Road. Unrestricted public use of the first portion of the road after mine life would increase noise impacts because of the increased traffic levels.

It is estimated that approximately 100 flights per year, or approximately two per week, will be required to support the Pogo facility under the Shaw Creek Hillside All-Season Road alternative. During the construction of the all-season road, there will be a period of between 6 and 12 months where up to 30 flights per week will be needed to support construction. Because of the moderately high level of existing air traffic in the area, flight paths that avoid sensitive areas, and the relatively limited number of aircraft that would access the airstrip at the mine, no significant increase in noise impacts from air traffic is projected.

F. WETLANDS (Section 4.6.4 of the FEIS)

The Shaw Creek Hillside All-Season Road alternative would cut or fill 120 acres of wetlands and other waterways. The FEIS provides a detailed accounting of the different types of wetlands that would be eliminated by the construction of the road. Because the 120 acres of wetlands are spread over the 49-mile length of the road, the impacts from the loss of these wetlands is not significant.

[2] Noise levels will increase by 22 dBA at one residence, but this residence is owned by Teck-Pogo.

If the public had unrestricted access on the first portion of the road, wetlands impacts could be greater due to increased off-road vehicle use. This impact will likely happen once the road is opened to the public after the mine closes, even if the first portion is closed to the public during the mine's life. Also, this first portion of the road would have been constructed by the DOF, and open for public use, even without the Pogo Project.

G. SURFACE DISTURBANCE (Section 4.7.4 of the FEIS)

The Shaw Creek Hillside all-season road option and associated material sites will cause surface disturbance to approximately 762 acres. In comparison, the South Ridge all-season road alternative would cause surface disturbance to 759 acres. The winter only access option would disturb approximately 554 acres. This lower disturbance figure reflects the use of existing disturbed winter trails/roads that would eliminate necessity of disturbance for approximately 15 miles of all-season road.

H. FISH (Section 4.8.4 of the FEIS)

The Shaw Creek Hillside All-Season Road with the private easement sub-option, and with no public access during life of mine, will have a low to moderate level of impact on fish and habitat. The route would require six crossings of fish bearing streams. Four of these streams, Caribou, Gilles, and Shaw creeks and the Goodpaster River, are known to have important fish habitat and substantial fishery resources. The level of direct impacts from this route would be related to road design, i.e., width, alignment, drainage, type of crossings, construction timing, and type and volume of traffic. All crossings will have to be approved by DNR before construction can proceed.

As described in the water quality section, sediment control best management practices will be utilized during and after construction to ensure minimal sediment transport to waterways. All construction activities in the waterways, especially the Goodpaster River, must be approved by DNR before the activities can proceed.

As discussed above, the probability of a spill of any hazardous materials is considered low because of the relatively low frequency of transport, and the shipping container requirements. Also, Teck-Pogo must have spill plans approved by the state, so that in the unlikely event of a spill, damage to the environment can be minimized.

The impacts to fish from this route also would be related to access management during and after the life of the mine. Opening the first portion of the road to the general public would have raised overall impact to a low to moderate range because both direct and indirect impacts would increase due to traffic volume and recreational activities. The most restrictive management options (such as the no-public access option chosen by DNR) would have low overall impact. During mine operations, direct impacts on fish and habitat, as discussed above, will be low since access is limited to project needs on the entire length of the road. However, under either public access management option, impacts would not be significant.

I. WILDLIFE (Section 4.9.4 of the FEIS)

Construction of the Shaw Creek Hillside all-season road will cause surface disturbance to approximately 762 acres. The EIS presents a detailed accounting of different habitat types that would be disturbed by the road.

The total amount of habitat that would be disturbed by the road is not a large amount in the context of the project area. Because of the linear nature of the corridors, the low or absence of impacts on rarer or uncommon habitat classes, the abundance (within the project area as well as throughout Interior Alaska) of the habitat types that would be primarily disturbed, and the low disturbance to Conservation Priority Index habitats, the habitat loss resulting from the construction of the road will not be significant. Direct impacts from this alternative would be significant only to small mammals and only on a local basis.

The Pogo Mine and the access road are at the fringe of the Fortymile Caribou Herd's annual range. For the more critical period from May through September, caribou calves and cows would likely not be found in the vicinity of the mine and road. Impacts to caribou habitat are expected to be small.

Collisions with all-season road vehicles would occur for both small and large mammals. Although the project area generally does not receive large snowfalls, the cleared road surface flanked by snow berms would be favored for movements by larger animals, particularly moose, when snow depths were high. Because of the small number of vehicles that would use the road, this mortality would not be significant even on a local basis.

If the general public were allowed to use the first portion of the road, traffic would increase, as would collisions with wildlife. This increased mortality likely would be significant only on a local basis. Also, there would likely be increased hunting pressure on the lands in the vicinity of the first portion of the road if it was left open to the public. However, as this portion of the road will likely be constructed regardless of the Pogo Project, these impacts would occur eventually without the Pogo Project. As the second portion of the road would be reclaimed after the mine's life, the mortality along this section of the road would cease at that time.

J. THREATENED AND ENDANGERED SPECIES (Section 4.10.4 of the FEIS)

No federal or state-listed threatened or endangered plant or animal species are known or expected to occur in the project area. The only sensitive species that could be affected by the Shaw Creek Hillside All-Season Road Alternative is the northern goshawk. The Shaw Creek Hillside all-season road would traverse only medium value northern goshawk habitat throughout the Shaw Creek Valley, only crossing scattered areas of high value and low value habitats as it climbed to the Shaw Creek / Goodpaster River divide. From atop the divide this alternative would cross approximately equal distances of negligible, low, and medium value habitats, with some high value habitat interspersed, as it descended to the Goodpaster Valley.

It is possible that some nest trees could be removed when clearing the right-of-way. Northern goshawks nests along the access routes have been surveyed, and the Shaw Creek Hillside road and power line route would be in close proximity to three nests that were determined to be active in 1999 and 2000. Because it is unlikely that nest trees are a limiting factor in raptor populations in the project area, and because medium and high value goshawk habitat is found throughout the project area, loss of a few nests would not be significant on more than a local basis because of the larger home ranges of this species.

K. SOCIOECONOMICS (Section 4.11.4 of the FEIS)

The Pogo Mine Project is expected to have significant positive socioeconomic impacts on the Delta Junction area, the Fairbanks North Star Borough, and on the State as a whole. Capital development costs for the Pogo Project are estimated at $250 million. At full operation, the permanent work force for the Pogo Mine would total up to 360 workers. Up to 700 workers would be employed during the two-year construction period. In addition, about 180 indirect jobs would be created for the life of the mine. Pogo Mine's annual payroll during operation is estimated to be about $25.4 million.

The decision on the access route for the mine will have significant effects on how these socioeconomic impacts are distributed between the Delta Junction area and the Fairbanks North Star Borough. Since an all-season route is being chosen, it is likely that more mine workers will choose to reside in the Delta Junction area, and thus this area will likely see a greater positive economic benefit from the mine. If a winter-only route were chosen, then mine workers would have the ability to reside farther from the mine as the shifts would be longer (with corresponding longer off-work periods), and worker transportation would be by air.

A detailed analysis of the socioeconomic impacts of the Pogo Project are presented in the EIS. Also, Section XI of this proposed decision provides additional information on how DNR has determined that the economic benefits of issuing this right-of-way will provide the greatest economic benefit to the state and the development of its resources, as provided for in AS 38.05.850(a).

L. LAND USE (Section 4.12.4 of the FEIS)

The potential effects from the Shaw Creek Hillside All-Season Road on land uses in the Goodpaster River valley and the upper Shaw Creek valley are not expected to be substantial as the second portion of the road will be restricted to Teck-Pogo's use only. While DNR does not have any other proposals for development in this area, new proposals are always a possibility. Rights-of-way issued by DNR have a standard stipulation allowing DNR to grant additional authorizations to third parties for compatible uses on or adjacent to the land under the rights-of-way. There is a possibility that the existence of a road could spur additional proposals in this area. DNR recognizes the need to evaluate the impacts of any additional uses before authorizing them, and is proposing a process by which to do this (see Section XII below).

There would be some additional use of the lands in the upper Shaw Creek and Goodpaster River valleys if the first portion of the road was open to public use, as some recreationists could stage from the end of the road to access more remote locations.

If the first portion of the road was left open to the public, there could also be increased use by the public of state lands in the lower Shaw Creek valley. Since the first portion of the road is closed to public access for the duration of the Pogo Mine Project, the increased public uses of these state lands would not occur until after the mine's life. However, because the DOF will build this portion of the road even without the Pogo Project, these changes to land uses in this area would eventually occur in any case. The Tanana Valley State Forest Management Plan calls for public access to state forest units in this area. However, the DOF would still likely authorize commercial timber harvesting in the state forest subunits accessed by the Pogo road.

However the road is managed, there are likely to be some changes to land uses in the Delta Junction area due to increased demand for housing and other services. Additional residential uses could be expected in Delta Junction, along the Richardson Highway, and possibly along the Shaw Creek Road.

M. SUBSISTENCE (Section 4.13.4 of the FEIS)

The effects on subsistence resources from the Shaw Creek Hillside All-Season Road will primarily result from any increased public access to the Shaw Creek and Goodpaster River valleys. Because the entire road will be restricted primarily to mine-related use, the second portion of the road is scheduled to be reclaimed after the mine's life, and because of Teck-Pogo's strict no-hunting/no-fishing policy for its employees (while at the mine and on the second portion of the right-of-way), the effects on subsistence resources in the upper and lower Shaw Creek and the Goodpaster River valleys are expected to be negligible.

There would be some additional use of the lands in the Upper Shaw Creek and Goodpaster River valleys if the first portion of the road was open to public use, as some recreationists could stage from the end of the first portion of the road to access more remote locations. Even under this scenario, it is unlikely that the Goodpaster River Valley would have seen much increase due to the distance and the terrain.

If the first portion of the road had been left open to the public, there would be some increased hunting and fishing pressure on the lands in the lower Shaw Creek valley. This could result in increased competition for subsistence resources. Since the first portion of the road is closed to public access for the duration of the mine's life, the competition for subsistence resources in this area should not change for the duration of the project. Public use of these state lands is expected to increase eventually in any case, either via the already-planned DOF road, or via the Pogo road after the mine when the DOF takes over management of, and allows public use on, this portion of the road that accesses the state forest.

N. CULTURAL RESOURCES (Section 4.14.4 of the FEIS)

As a result of the cultural resources review conducted during the EIS process, three cultural sites have been identified along the route of the Shaw Creek Hillside All-Season Road. Determination of eligibility as National Register of Historic Places was determined for one of these sites, and the road alignment was altered and placed approximately 200 feet from this site. The other two sites were determined not to be eligible. The route of the road has been modified to avoid the third site. Additional mitigation measures, such as route modification to avoid the sites, may be required for the other two sites as well, depending on the results of the National Register of Historic Places eligibility determination.

There are seven documented cultural sites near the Shaw Creek Road, none of which have been evaluated for National Register eligibility. These sites could be impacted if the Shaw Creek Road is widened from its current running width, or the route is modified. Mitigation measures would be required if these sites could be impacted.

In addition, DNR, EPA, and the US Army Corps of Engineers have developed a Programmatic Agreement for the Pogo Project which outlines how cultural resources are to be handled throughout the life of the project. The agreement describes how inadvertent discoveries will be treated, how human remains will be treated, and how the affected Tribal Governments and other affected parties will be consulted. A draft of this agreement is included as an appendix to the EIS.

Restricting public access on the first portion of the road for the mine's life will reduce the number of users of that portion of the road, and will lessen the impacts on cultural resources in the lower Shaw Creek Valley by reducing the possibility of looting or inadvertent damage from general public use.

O. VISUAL RESOURCES (Section 4.15.4 of the FEIS)

The majority of the Shaw Creek Hillside All-Season Road is in a high visual absorption capability area (visual absorption capability is the ability of the landscape to accommodate human alteration). The entire route would be visible for airborne travelers. Views from the Shaw Creek Road would be most affected due to the close proximity to the road. Views from the Richardson Highway may also be affected, but this impact is likely to be minimal because of the greater distances and screening.

Impacts to visual resources affected would be greater if the first portion of the road was open for general public use during the life of the mine, as the increased traffic would increase the number of headlights visible at night, and may also contribute to increased dust. Once the first portion of the road is opened to general public use after the mine's life, these impacts are likely to occur (as they would have under a DOF road constructed into the TVSF).

Reclamation of the second portion of the road will reduce or eliminate any visual effects from the road after the mining operation is completed.

P. RECREATION (Section 4.16.4 of the FEIS)

Recreational use patterns will not significantly change for the Upper Shaw Creek valley or the Goodpaster valley as the second portion of the road will be restricted to Teck-Pogo's use only. There may be some additional recreational use of the Shaw Creek Valley when the first portion of the road is opened to public use at the end of mine life, as some recreationists could stage from the end of the first portion of the road to access more remote locations. It is unlikely that the Goodpaster River Valley would see much increase at the opining of the first portion of the road, due to the distance and the terrain.

If the Shaw Creek Hillside All-Season Road were open to public use for the first portion during the mine's life, there would likely be increased recreational use of the lands in the lower Shaw Creek valley, and the adjacent Tanana Valley State Forest. The most significant increase in recreational use would likely be during hunting season. These impacts of recreation are anticipated to occur when the first portion of the road is opened at the end of mine life.

Since the first portion of the road will be closed to public access, recreational use patterns are not expected to change significantly for the life of the mine. However, after the mine's life, the first portion of the road will be retained and managed by the DOF for access to the state forest and for public use, so some increase in recreational use can then be expected.

Q. SAFETY

Mine-related large truck traffic would average approximately 5 to 10 round-trips per day, 7 days per week, during the day or at night. In addition, there would be an average of approximately eight other daily vehicles: periodic personnel change outs by bus (2 round trips per day), Teck-Pogo administrative personnel (3 round trips per day), maintenance equipment (2 round trips per day), and state and federal agency vehicles (1 round trip per day). Overall, mine-related vehicle use would average between 10 and 20 round trips per day. During the period when the mine is being constructed, vehicle trips on the road will be significantly greater, totaling up to 50 round trips per day.

DNR has determined that it best meets its and Teck-Pogo's objectives to close the entire road beyond Shaw Creek Road to public access. Therefore, the safety concerns to the general public will be non-existent for the entire route. There will still be some safety concerns with any commercial users (such as timber operators) of the first portion of the road, as this traffic co-mingles with the mine traffic.

Regardless of public restrictions on the mine road, there may be safety concerns for the general public along the Shaw Creek Road, which will remain open to public use under any scenario, and even during construction. These safety concerns will be the greatest during the period when the mine is being constructed, because the traffic will be at its highest levels. Once construction has been completed, traffic levels will decrease. DNR

has worked with the Department of Transportation and Public Facilities regarding safety issues on the Shaw Creek Road. DOT&PF has determined that the publicly maintained Shaw Creek Road can handle the projected traffic levels.

R. CUMULATIVE IMPACTS (Section 4.19 of the FEIS)

The EIS presents an extensive discussion of the potential cumulative impacts of the Pogo Mine Project and the proposed access routes. The cumulative impacts have been analyzed for each resource in the EIS's Chapter 4, Environmental Consequences, and summarized in a table in Section 4.19 of that chapter. The analysis of cumulative impacts assumed the development of two hypothetical mines near the Pogo Project—one mine would be a separate mine operated by another company and having its own ore processing facilities, and the other mine would be a satellite mine of the Pogo Mine, with ore processing taking place at the Pogo mill. The addition of these mines and extending the mineral extraction industry in this area would prolong the negative effects discussed above, and if there were several mines operating at the same time, then the impacts could be somewhat higher.

There is some level of cumulative impact to almost all of the resources evaluated by the EIS. In general, the cumulative impacts from the physical road itself are not significant, especially with restricted public access and reclamation of the second portion of the road. However, the road facilitates development of the Pogo Mine Project. The cumulative impacts of the road, including the cumulative impacts of the mine itself, are described in detail in the EIS. The three bullets below summarize the cumulative impacts that would result if the ***entire all-season road were to remain open for public use after the Pogo Mine's life and not reclaimed***:

- For five resources (fish, wildlife, subsistence, visual, and existing recreation), cumulative impacts could be low to moderate within the project area, and high locally.

- For two resources (socioeconomics, and new recreational users), cumulative impacts could be beneficial.

- For nine resources (surface water hydrology, groundwater hydrology, water quality, air quality, noise, threatened and endangered species, land use, cultural resources, and safety), cumulative impacts were considered low to very low.

Removing and reclaiming the second portion of the road would reduce the cumulative impacts for all these resources, except for socioeconomics and new recreational users.

Most of the concern for cumulative impacts resulting from the Shaw Creek Hillside All-Season Road arises from the potential increased access to a large block of State land, and the potential for additional resource development on this land. These cumulative impacts will be significantly decreased since public access is restricted along the entire length of the road. If the first portion of the road were left open to the general public, the cumulative impacts resulting from the Pogo Project would not be significantly different

than those anticipated from the development of the DOF's road (which would occur regardless of the Pogo Project).

DNR expects that in the future it will receive requests from other resource development concerns for authorization to use the Pogo Road for additional development in the area. If a significant project similar to Pogo were to become reality, then it would certainly not be prudent land management to ask the new developer to construct a second road to the area. Some provision must be made to plan for this eventuality. DNR will require a public process to analyze the effects of additional road users on the resources of this area before authorizing any new users of the Gilles Creek to Goodpaster River portion of this right-of-way (see Section XII below).

The FEIS analyzes the potential cumulative impacts of the Pogo Project using two hypothetical mines. However, given that it takes a minimum of between 10 and 15 years to bring a large mine from discovery to production, and that there has been no additional significant discovery yet in this area, it is unlikely that there will be another Pogo-sized mine operating in the area during the projected life of the Pogo Mine. However, there is the potential that a discovery could be made in the near term, and that as the Pogo Mine nears the end of its life, another large mine could be on the horizon. Under this scenario, DNR may delay the reclamation of the Pogo Road. However, with continued restricted public access on the latter portion of the road, the cumulative impacts from that future prospect will be limited to those arising from that mine.

X. Authorization Terms and Conditions

A. Road Use

The entire road will be closed to general public use. DNR may authorize use of the first portion of the road from Shaw Creek Road to Gilles Creek by timber operators for timber harvesting activities.

- DNR will provide Teck with the names of all authorized users of the road, the period of time the authorizations are in effect, and the authorized time, type, and location of the road use.
- DNR will require authorized users to repair or pay for damages attributed to their use of the road, subject to prior notification and consultation with the Permittee.
- DNR will notify Teck-Pogo before an authorized user can conduct any maintenance of the road, subject to prior notification and consultation with the Permittee.
- Authorized users will abide by all Teck-Pogo's safety, traffic, and communication procedures.
- Authorized users must provide financial assurance in the form of a bond or similar mechanism that will guarantee repairs to the road in the event of significant damage.

- Intersections of any spur timber roads with the Pogo Mine Access Road must be designed in accordance with Teck-Pogo's design requirements, and must be signed appropriately.
- Teck-Pogo may temporarily restrict use of the road during times of heavy use or during periods with adverse road conditions.

Government agencies, and other users approved by DNR, will have access along the road, at no cost, for mine administration purposes and for general land and resource management purposes. See Section XII below for details on how DNR would authorize other uses.

B. State Material/Gravel Usage

Teck-Pogo has identified 22 material sites from which they have applied to remove 470,000 cubic yards of material for constructing the road. The sale of this material to Teck-Pogo is addressed separately in the Final Finding and Decision for Competitive Material Sale ADL# 416816.

The 22 proposed material sites are distributed along the Shaw Creek Hillside All-Season Road from the Richardson Highway to the Pogo mine site. Material Sites #1 is adjacent to the Richardson Highway near the intersection with Shaw Creek Road, and Material Sites #3-24 are along the alignment of the proposed road. The impacts from developing these material sites was considered in the EIS and in the DNR final finding for the material sale for the project.

Consistent with DNR's practice, Teck-Pogo can utilize any materials within the cut and fill boundaries of the Shaw Creek Hillside All-Season Road for no charge.

C. Environmental Risk Assessment

The construction, operation and maintenance of the Shaw Creek Hillside All-Season Road involves the use, transport, and storage of hazardous substances. No hazardous substances or fuels will be stored on the right-of-way, except at the designated staging and laydown areas during construction. Fuel and lubricants for the equipment, vehicle maintenance related fluids, ammonia nitrate, mine chemicals, and heating oil will all be hauled to the Pogo Mine project. The equipment driving the road will themselves contain fuel, oil and hydraulic fluids. Teck-Pogo will have an emergency response plan for hazardous material. Please refer to Section IX.C for additional discussion of the likelihood of a spill.

Based on its review of the record, the calculation of the risks, and the mitigation measures dealing with hazardous substances, DNR has determined that state lands have been adequately protected from those risks.

D. Survey

Teck-Pogo will be required to provide the DNR with an approved survey of the right-of-way for the entire constructed access road based upon DNR's as-built survey instructions. The as-built survey will also include the material site boundaries.

E. Performance Guaranty/Indemnification/Insurance

Performance Guaranty/Reclamation Bond: Teck-Pogo has proposed a reclamation bond in the amount of $2,262,583.00 for the reclamation of the entire Shaw Creek Hillside All-Season Road and the associated material sites. DNR has determined that the bond be used for the first half of the road as a performance guaranty and for the second half of the road as a performance guaranty and reclamation bond. In making this decision, DNR has made a determination that this bond amount is sound. Since the bond will function as a performance guaranty for the first half of the road, DNR may release a portion of the bond for the first portion of the road upon completion of road construction and after reclamation and closure of selected material sites. This road is an asset to DNR since it increases access to state land and resources and therefore increases the value of state lands near the road. A portion of the bond will be kept in place for the first portion of the road to ensure that Teck-Pogo returns the road at the end of the term of the right-of-way to the state in a condition that meets the design standards for Division of Forestry use, as determined by DNR.

DNR will determine the share of the bond necessary to guarantee reclamation of the second portion of the road, from Gilles Creek to the mine. In the event that Teck-Pogo assigns the mine project to another operator, DNR will require the new operator to secure a bond adequate to reclaim the second portion of the road and to ensure that the new operator can return the road at the end of the term of the right-of-way to the state in a condition that meets the design standards for Division of Forestry use, as determined by DNR. The bond must be in place prior to approval of the assignment. In the event that DNR makes a decision to allow the use of the road for other resource development activities after the Pogo Project's life, the bond will be reviewed and adjusted accordingly. The bond will be reviewed and adjusted periodically to adjust for market conditions and costs.

The reclamation bond posted by Teck-Pogo will also serve as the bond normally required by DNR for fuel handling, storage, and spills during construction and operation.

Indemnification: Upon notice from the State, Teck-Pogo will defend and indemnify the State with respect to any claim against the State alleged to arise out of the use of the Right-of-Way by Teck-Pogo or any affiliated party unless the claim against the State is based solely upon any alleged intentional act, negligence, or other misconduct on the State's part.

Insurance: Teck-Pogo will be required to maintain adequate insurance for the Pogo Project Road, consistent with the policies and limits required by the Millsite Lease. Teck-Pogo may be required to have General Commercial Liability Insurance, Auto

Liability Insurance, Professional Liability Insurance, Pollution Liability Insurance and All Risk Property Insurance.

F. Fees

The second portion of the road will be issued as a private-exclusive right-of-way (ADL# 416809). The fee for a private exclusive right-of-way is set by 11 AAC 05.010(e)(11)(B) as "an annual fee equal to the director's estimate of the yearly fair market rental value." In order to determine yearly fair market rental value, Teck-Pogo will be required to obtain an appraisal to determine the full, fair market value at the highest and best use of state land.

Because Teck-Pogo will bear the cost of constructing the road, the first portion of the road will be used by other commercial users, and the road will remain for public use after the cessation of mining, this portion of the right-of-way will be issued to DNR (ADL# 417066), and no fees will be charged to Teck-Pogo for its use of this portion of the right-of-way.

G. Right-of-way Term

The term for the private exclusive right-of-way, ADL # 416809, is 15 years. The Director of the DMLW may extend the right-of-way authorization if the road is needed for mining operations for this mine.

The term of the public right of way to DNR from Shaw Creek to the west side of Gilles Creek is indefinite. DNR will be entering into an agreement with Teck-Pogo to use the public right-of-way for a term of 15 years. Other uses of the public right-of-way will be authorized by DNR during the Pogo Mine Project, including forestry uses. The Director of the DMLW may extend the agreement with Teck-Pogo to use the public right-of-way if the road is needed for further mining operations at the Pogo Mine.

H. Early Entry Authorization

Once this Final Decision becomes effective, DNR will issue Teck-Pogo a land use permit for early entry for construction and use of both rights-of-way. Upon approval of the survey and appraisal, the DNR will issue itself a public right-of-way for the first portion of the road from the Shaw Creek Road to the west side of the Gilles Creek Crossing, and issue Teck-Pogo a private exclusive right-of-way for the second portion of the road from the west side of the Gilles Creek crossing to the Goodpaster River. The land use permit for early entry construction will include the special stipulations listed in Attachment 7. The stipulations attached to the early entry authorization are only those stipulations related to construction. The stipulations attached to the rights-of-way, and the stipulations in the Use and Maintenance Agreement (Attachment 6), will be only those stipulations associated with the long term use and maintenance of the access road.

The Early Entry Authorization will include Teck-Pogo's use of the Goodpaster Winter Trail consistent with Teck-Pogo's Pogo Project 2003/2004 Goodpaster Winter Road

Construction and Operation Plan (November 2003). The Early Entry Authorization also includes the use of the Shaw Creek winter trail and the TAPS right-of-way to gain access to the right-of-way for construction purposes. The Early Entry Authorization is subject to the stipulations in Attachment 7.

I. Traffic Impacts

Teck-Pogo has applied for a driveway permit from the Department Of Transportation and Public Facilities for the Shaw Creek Egress. DOT&PF may require additional traffic mitigation measures.

J. Right-of-Way Width

The width of these rights-of-way, from Shaw Creek Road to the mine, will be the clearing limits associated with the finished road, as determined by the survey.

K. Reclamation

Teck-Pogo will reclaim the second portion of the road, ADL # 416809, at the end of the mine life. Reclamation of this portion of the road will be done consistent with the Right-of-Way Application for the Pogo Mine Project, and the revegetation standards from the Pogo Mine Project Reclamation Plan will apply. In addition, Teck-Pogo should ensure that the road is reclaimed in a manner that will preclude or minimize use of the road by motorized vehicles. This may include creation of earthen and vegetative barriers, by roughening the surface of the road, and by regrading portions of the road prism.

L. Shaw Creek Road Egress

The issuance of the private exclusive right-of-way to Teck-Pogo and the agreement to allow Teck-Pogo to use the public right-of-way are conditioned on the State being provided rights-of-way across four private parcels. These rights-of-way must provide for eventual public access from the Shaw Creek Road to the public right-of-way at the end of the Pogo Mine's life, and Teck-Pogo, state, and other authorized users during the life of the Pogo Mine. Agreements with the owners of the four private parcels to be traversed by this road must provide for a grant of easement to the State of Alaska, with provision for unrestricted public access at the end of the Pogo Mine's life. The road across these three parcels will be built to the same standards as the public right-of-way, will have to be maintained at this standard during the life of the Mine, and will be delivered to the state at the end of the Mine life in that same condition.

If for any reason rights-of-way are not acquired by Teck-Pogo and the state across the four private parcels, then Teck-Pogo will have to construct the road across the designated forestry easement, or another easement which will provide permanent public access from the Shaw Creek Road to the Shaw Creek Hillside All-Season Road. This easement has already been negotiated by the Division of Forestry to access timber sales in the state forest. It crosses three private parcels and state land, involves two

crossings of Rosa Creek (with 65-foot bridges), and is longer than the preferred route above.

XI. Economic Benefits

Article VIII, § 1 of the Alaska Constitution states, "It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest." Granting a right-of-way for an access road to the Pogo Mine Project is consistent with this policy.

These rights-of-way encourages the development of the state's resources by facilitating development of the Pogo Mine Project, which has a geologic resource of approximately 5.6 million ounces of gold. The public interest is protected as the first right-of-way (ADL# 417066) will provide future public access to the Tanana Valley State Forest, as outlined in the Tanana Valley State Forest Management Plan, and the right-of-way is subject to stipulations to mitigate the potential negative effects of development and use of the right-of-way. The public interest is protected with respect to the second right-of-way (ADL# 416809) because as a private-exclusive right-of-way, it will keep public access at the levels currently experienced for this more remote area. Further, operations on the right-of-way must be conducted in a manner that would not unduly conflict with other users of the area, neighboring properties and residences. The right-of-way permit will specifically reserve to the State the right to grant additional authorizations to third parties for compatible uses (including other rights-of-way) on or adjacent to the land under the right-of-way. The grantee will be required to maintain the road in a safe, operable condition, therefore not placing a maintenance burden upon the State. Thus, the nature of a right-of-way interest, as well as the purpose for which it is sought (mine access) indicates that the grant of right-of-way is consistent with the public interest and is a good use of state land.

Issuance of these rights-of-way for a mine access road also is consistent with surrounding land uses. The Pogo Project is on state-owned lands within the Goodpaster River Management Unit 7D of the Tanana Basin Area Plan. This entire unit is open to mineral entry and is recognized for having moderate to high mineral potential. The entire unit is to be managed for multiple-use with emphasis on recreation and wildlife habitat. The entire unit is subject to the Areawide Land Management Guidelines for Subsurface Resources in the Tanana Basin Area Plan, which include goals for the management of mineral resources in the planning area. These goals include contributing to Alaska's economy by making subsurface resources available for development, protecting integrity of the environment and affected cultures, and to aid in development of infrastructure, including roads, to support the mining industry.

The first portion of the road also crosses parts of the Tanana Valley State Forest, and generally coincides with the alignment of the DOF proposed road to provide access for timber harvest and public use of these subunits of the state forest. This road is identified in the Tanana Valley State Forest Management Plan.

In issuing a right-of-way under AS 38.05.850, subsection (a) states that, "[DNR] shall give preference to that use of the land that will be of greatest economic benefit to the state and the development of its resources." In making this greatest economic benefit determination, DNR reviews its land use planning documents for initial direction, and considers the direct economic benefits to the State, the indirect economic benefits and whether the project encourages the development of State resources (such as gold mining). DNR also examines the negative (such as economic impacts to neighboring businesses) and positive (such as to the value of neighboring state lands) economic impacts to neighboring uses and compares them with the economic benefit of the proposed use. Taking all of this information into consideration (economic benefit of the right-of-way, any economic benefit from a directly competing project and any economic benefit or detriment to neighboring uses), DNR then determines whether the proposed right-of-way provides the greatest economic benefit to the State and the development of its resources (as opposed to leaving the land undeveloped or allowing another use of that land). DNR may also look at how the economic benefits change if the project is configured differently. In the case of the Shaw Creek Hillside All-Season Road there is no other project directly competing for use of the land. Some of the current uses of state land crossed by the right-of-way are timber harvesting, mineral exploration, viewshed, recreation, hunting, fishing, and subsistence.

The only known industrial project that could make use of this land would be the DOF's road for timber harvesting from Tanana Valley State Forest lands along the first portion of the road. As this right-of-way will permit use by commercial timber harvesting operators, this is not a use that is competing for this land. In fact, the Pogo Project and the construction of the Shaw Creek Hillside All-Season Road will facilitate timber harvesting activities in this portion of the state forest because Teck-Pogo will construct the entire road through the state forest on at least DOF's proposed timeline for the forestry road, to a better standard, and at Teck-Pogo's expense (both construction and maintenance) rather than the state's. The state will realize an economic benefit from the Pogo Road from increased revenues from timber sales.

There are no industrial projects that would make use of the second portion of the road. DNR will recognize an economic benefit from this portion of the road through the right-of-way fee based on the annual fair market value for this road.

In making its decision under AS 38.05.850(a), DNR is incorporating by reference the extensive socioeconomic analysis of the Pogo Mine Project that is part of the EIS. Section 3.16 of the EIS is a detailed analysis of the existing socioeconomics of the Pogo Project area, including Delta Junction, Fairbanks North Star Borough, and other communities in the project vicinity. Section 4.11 of the EIS analyzed the consequences of the Pogo Project on the socioeconomics of the area. It is clear from this analysis that the economic benefits to the region and to Alaska of the use of this land for the Pogo Mine access far outweigh any potential negative economic benefits.

Capital development costs for the Pogo Project are estimated at $250 million. Up to 700 workers would be employed during the two-year construction period for the Pogo Mine. At full operation, the permanent work force for the mine would total up to 360 workers. Including indirect jobs created by the mine, the Delta area workforce could increase by

up to 175 workers, which is anticipated to lead to a 17% increase in the Delta area population (by about 350 residents). Up to 425 new jobs would be created in the Fairbanks North Star Borough, increasing the total population by up to 850 residents.

The average wage at the mine is estimated to be $66,048/year (source: Pogo Mine FEIS), and the mine's annual payroll is estimated to be about $25.4 million. Including indirect jobs created by the mine, Delta's share of the annual payroll would be up to $9.4 million annually, or 20% of the Delta areas total payroll. The remaining share of the mine's annual payroll, including indirect jobs, is estimated to be approximately $27 million, and would mostly benefit the Fairbanks North Star Borough.

In addition, if a borough is formed for the local area which includes the Pogo Mine, substantial tax revenues could be realized by this new borough from the property taxes on the mine.

Direct economic benefits to the state could amount to as much as $9,428,000. The direct benefits to the state are those that will occur directly from Teck-Pogo or as a consequence of the Pogo Mine Project, which these rights-of-way facilitate. These benefits are estimated below:

- **Road Right-of-Way fee: $83,204.** This figure is based on 11 annual payments of $7,564, which is the estimated annual rental fair market value of the private exclusive road right-of-way (the annual rental is 8% of the fair market value of $94,545, based on $300/acre for 315 acres).
- **Powerline Right-of-Way fee: $172,000.** This figure is based on 11 annual payments of $15,636, which is the estimated annual rental fair market value of the powerline right-of-way (the annual rental is 8% of the fair market value of $195,300, based on $300/acre for 651 acres).
- **Millsite Lease Rental: $785,840.** This figure is based on 11 annual payments of $71,440, the annual rental fair market value of the millsite lease (8% of $893,000, based on $250/acre for 3572 acres. The per/acre value is based on the appraisal for the True North millsite lease).
- **Material use fees: $352,500.** Please refer to the preliminary decision for the Pogo Project material sales (ADL #416816) for the basis for this figure.
- **Uplands mining lease: $26,236.**
- **Surface lease for staging area: $8,800.00.** Recent land sales in the Delta Junction/Richardson Highway area indicate fair market values between $1000 and $2000 per acre. Estimating a value of $1500/acre, the staging area's FMV would be $10,050.00, and the annual rental would be $804 for 11 years.
- **Value of the Road: $8,000,000.00.** This is the amount that Teck-Pogo will spend to construct the first half of the road. The first half of the road will remain as permanent access to the Tanana Valley State Forest and other State lands. The State will realize the value of this portion of the road, as it would have had to construct this access even if the mine were not developed.

There is a possibility that the state will recognize added direct benefits from this right-of-way as a result of royalties and taxes. However, royalties and taxes are largely

dependant on the mine making a net profit. As such, the amounts that may become due are not yet known and are speculative. These are explained below:

- **Royalties:** The Pogo Gold deposit occurs on state lands. Therefore, it is subject to a production royalty of 3 percent of net profits paid to the State of Alaska. Assuming favorable gold prices, it is anticipated that the Pogo project will pay a significant production royalty to the state during operation.
- **Mining License Tax:** All mines in Alaska are subject to a Mining License Tax. This is a graduated tax imposed on net profits generated from mining activities. If net profits are less than $40,000, the amount due is $0.00; if net profits are greater than $40,000 and less than $50,000, the amount due is $1,200 plus 3 percent of the excess greater than $40,000; if net profits are greater than $50,000 and less than $100,000, the amount due is $1,500 plus 5 percent of the excess over $50,000; if net profits are greater than $100,000, the amount due is 7 percent of the excess over $100,000. There is a 3.5 year holiday from mining license tax at the start of a mining operation. Assuming favorable gold prices, it is anticipated that the Pogo project will pay significant mining license taxes to the state during its mine life.
- **Corporate Income Tax:** All corporations operating in Alaska, regardless of the business they undertake, are subject to Corporate Income Tax. Corporate tax rates in Alaska are based on net income and are graduated from 1 percent to 9.4 percent based on increments of $10,000 of taxable income. The 9.4 percent maximum rate applies to taxable income of $90,000 or more. Assuming favorable gold prices, it is anticipated that the Pogo project will pay significant corporate income taxes to the state during its mine life.

There are currently no other known competing projects for the rights-of-way or in the vicinity of the rights-of-way. However, potential negative impacts to uses in this area may include a possible reduction in property values to the 6 households of Shaw Creek Road, possible loss of revenues to any commercial hunting guides that may use portions of the project area, and possible impacts to the subsistence economy of the local residents. These negative impacts are expected to be small (see discussion above in sections IX.I, IX.L, IX.M, and in Chapter 4 of the FEIS), and certainly be outweighed by the positive economic benefits of the project.

Viewed in its entirety, the economic benefits of issuing the rights-of-way substantially outweigh any potential negative effects. In addition to the benefits to the state and the development of its resources, the Fairbanks and Delta Junction areas will receive an immediate benefit from additional jobs, local spending, and taxes. The potential negative impacts to local residents will be limited and are not expected to be significant. All of these factors support DNR's determination that the access road provides the greatest economic benefit to the state and the development of its resources.

XII. Final Decision

DNR is required under AS 38.05.850 to "give preference to that use of the land that will be *greatest economic benefit to the State and the development of its resources."* In

making that decision, DNR has evaluated the economic and non-economic impacts to the State including those to nearby residences and other uses of the lands. DNR takes its initial direction from applicable land use plans. DNR's applicable land use plan for State lands, the Tanana Basin Area Plan, designates the primary use for State land in the area to be public recreation, wildlife habitat, and forestry. All of the management units that are crossed are open to mineral entry. The plan recognizes that prior to development and extraction of resources, access would have to be first constructed. The Tanana Basin Area Plan was adopted and revised after a long and extensive public process involving many rounds of meetings and comment.

When making a decision under AS 38.05.850, DNR looks at economic impacts, including fiscal and other impacts. However, DNR does not restrict its view to only those quantifiable economic impacts. If DNR viewed its responsibility under Section .850 as a fiduciary responsibility to maximize economic return, it would not have established as stringent stipulations as it did. The Department takes a larger view of its responsibilities, including its concern for neighbors and its concern for the overall health of businesses — mining or otherwise — that use State land. DNR attempts to maximize return to the State and minimize negative effects to the State or to other groups to the extent reasonable based on the cost of mitigation compared with its benefit.

DNR has evaluated all of the impacts to neighboring residents and businesses, and has concluded that it has appropriately balanced impacts to the mining company and impacts to the residents. The State and others have a right to develop the land, even though there may be impacts from that development. DNR has imposed what it believes are reasonable standards to decrease the potential impacts to residences and businesses, including the economic impacts.

DNR has evaluated the economic impacts to the State and the development of its resources compared with the economic effects on the residents and the businesses.

The Department of Natural Resources has determined that Teck-Pogo's request to construct, maintain, and use the Shaw Creek Hillside All-Season Road route to access the Pogo Project will provide the greatest economic benefit to the state for this land. The Department comes to this conclusion based on its economic analysis, which shows the large direct, indirect, and other benefits of the Pogo Mine Project and these rights-of-way to the state. The economic loss to the state from the negative impacts on residents and neighboring uses is small in comparison.

DNR is issuing these rights-of-way as a public right-of-way to DNR for the first portion, from Shaw Creek Road to the west side of the Gilles Creek crossing, and as a private exclusive right-of-way for the second portion, from the west side of the Gilles Creek crossing to the Goodpaster River.

The first portion of the road will be closed to general public use, and open for commercial timber harvesting as approved by DNR. A gate will be installed on the road near the end of the existing Shaw Creek Road.

Any commercial timber operators wishing to use the first portion of the road must provide financial assurance in the form of a bond or similar mechanism that will guarantee repairs to the road in the event of significant damage. Timber sale contracts issued by the Division of Forestry will require operators to repair or pay for damages attributed to their use of the road.

The first portion of the road will not be reclaimed after the life of the mine. After the mine ceases operation, this portion of the road will be managed by the DOF, and open to use by the general public.

The public will be restricted from using the second portion of the road between Gilles Creek and the Goodpaster River. Teck-Pogo will have exclusive use of this portion of the road for mine-related purposes only. Government agencies, and other users approved by DNR, will have access along this portion of the road for mine administration purposes and for general land and resource management purposes.

Other uses of the road are prohibited, unless DNR makes a determination to authorize additional resource development uses. In making this determination, DNR shall establish an application and permitting process which will consider:

- Input from, and consultation with, the public and agencies,
- Input from the Goodpaster Review Working Group as established in the 1991 Tanana Basin Area Plan[3],
- The impacts of additional resource development and road use on the resources identified in Section IX of this decision[4], and
- Appropriate reimbursements by new users to Teck-Pogo or its assigns for road construction and maintenance.

The second portion of the road will be reclaimed after the life of the Pogo Mine in accordance with Teck-Pogo's right-of-way application. Teck-Pogo has proposed a bond in the amount of $2,262,583.00 to ensure that the State has the financial capability to reclaim the entire road and associated material sites in the event that Teck-Pogo is not able to do the reclamation work. DNR may release a portion of this bond once the material sites have been reclaimed and once the first portion of the road has been constructed. In the event that Teck-Pogo assigns the mine project to another operator, this bond must be kept in place. In the event that DNR makes a decision to allow the use of the road for other resource development activities after the Pogo Project's life, this bond must be maintained in full by the subsequent users.

It is the intent of this decision to ensure that the Gilles Creek to Goodpaster River portion of this road is reclaimed after the Pogo Mine's life, or after any other resource development use of the road that may have been authorized by DNR has ceased.

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[3] The Goodpaster Review Working Group is outlined in Appendix G of the Tanana Basin Area Plan. Additional members may be added to the working group to ensure that all interests are represented, including tourism, military, and a potential new borough.
[4] This analysis shall include an analysis of cumulative impacts and a review of any monitoring data collected during the Pogo Project.

Before DNR can change this management intent, DNR will make a determination in which the following shall be considered:

- Input from, and consultation with, the public and agencies,
- Input from the Goodpaster Review Working Group as established in the 1991 Tanana Basin Area Plan[5],
- The impacts of additional resource development and road use on the resources identified in Section IX of this decision[6].

DNR has evaluated the need to restrict public access along the Pogo Mine's access road, and has determined that this restriction is in compliance with applicable land management policies in the Tanana Valley State Forest Management Plan, and with applicable statutes and regulations. DNR has restricted public access and protect the development of the Pogo Mine Project. The restriction on public access is narrowly tailored to achieve the protection of public safety and property while preserving access to the Sate Forest in general. As discussed in Section VII Authorization Alternatives of this finding, the restriction will protect the public safety by avoiding the commingling of public and industrial traffic, and will protect property by reducing the chance of an accident-caused spill of hazardous substances into the environment. The restriction is narrowly tailored to achieve these objectives as the restriction will be in place only as long as the Pogo mine is operating. Further, at such time as DNR determines that this restriction is not necessary to protect public safety or property, DNR may remove this restriction from the road.

DNR has evaluated Teck-Pogo's request to use the Goodpaster Winter Trail and the Shaw Creek Winter Trail to mobilize equipment and supplies during this winter season, and has found that this request will balance the short-term mobilization needs of the project with the trail needs of the recreational users in the area. DNR acknowledges that there may be some inconvenience to the recreational users of the Goodpaster Winter Trail and the Shaw Creek Winter Trail. However, the inconvenience is minimized through stipulations dealing with road width, pilot cars, schedules, alternative trails, and other measures, and this inconvenience will be only for one season. Further any inconvenience to recreational users of state land is largely offset by the large benefit to the state from this project.

Teck-Pogo is authorized to begin work and use of the Goodpaster and Shaw Creek winter trails upon issuance of this decision and the Early Entry Authorization. Significant earthwork on the Shaw Creek Hillside All-Season Road must wait until after 30 days from issuance of this decision, unless the Commissioner first orders reconsideration of this decision.

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[5] The Goodpaster Review Working Group is outlined in Appendix G of the Tanana Basin Area Plan. Additional members may be added to the working group to ensure that all interests are represented, including tourism, military, and a potential new borough.

[6] This analysis shall include an analysis of cumulative impacts and a review of any monitoring data collected during the Pogo Project.

DNR has made its final decision after the public review processes for the Pogo Project FEIS and DNR's decision documents. DNR has evaluated the public comments received on this decision and on the FEIS, in particular those comments relating to the management of the mine access, in making its final decision.

_____**/s/**_____ December 18, 2003
Tom Irwin, Commissioner Date
Department of Natural Resources

Appeal Right and Procedure

This is a final administrative order and decision of the department for purposes of an appeal to Superior Court. A person adversely affected by this final order and decision may (1) appeal to Superior Court within 30 days in accordance with the rules of the court, and to the extent permitted by applicable law, or (2) first request reconsideration of this decision, in accordance with AS 44.37.011 and 11 AAC 02.020, to Tom Irwin, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501. Any such request for reconsideration must be received at that address, or received by being faxed to 1-907-269-8918, by January 7, 2004. Failure of the commissioner to act on a request for reconsideration by January 17, 2004 is a denial of reconsideration and is also a final administrative order and decision for purposes of an appeal to Superior Court. It may then be appealed to Superior Court within a further 30 days in accordance with the rules of the court, and to the extent permitted by applicable law. A copy of 11 AAC 02 may be obtained from any regional information office of the Department of Natural Resources. This decision goes into effect on January 18, 2004 unless the commissioner first orders reconsideration.

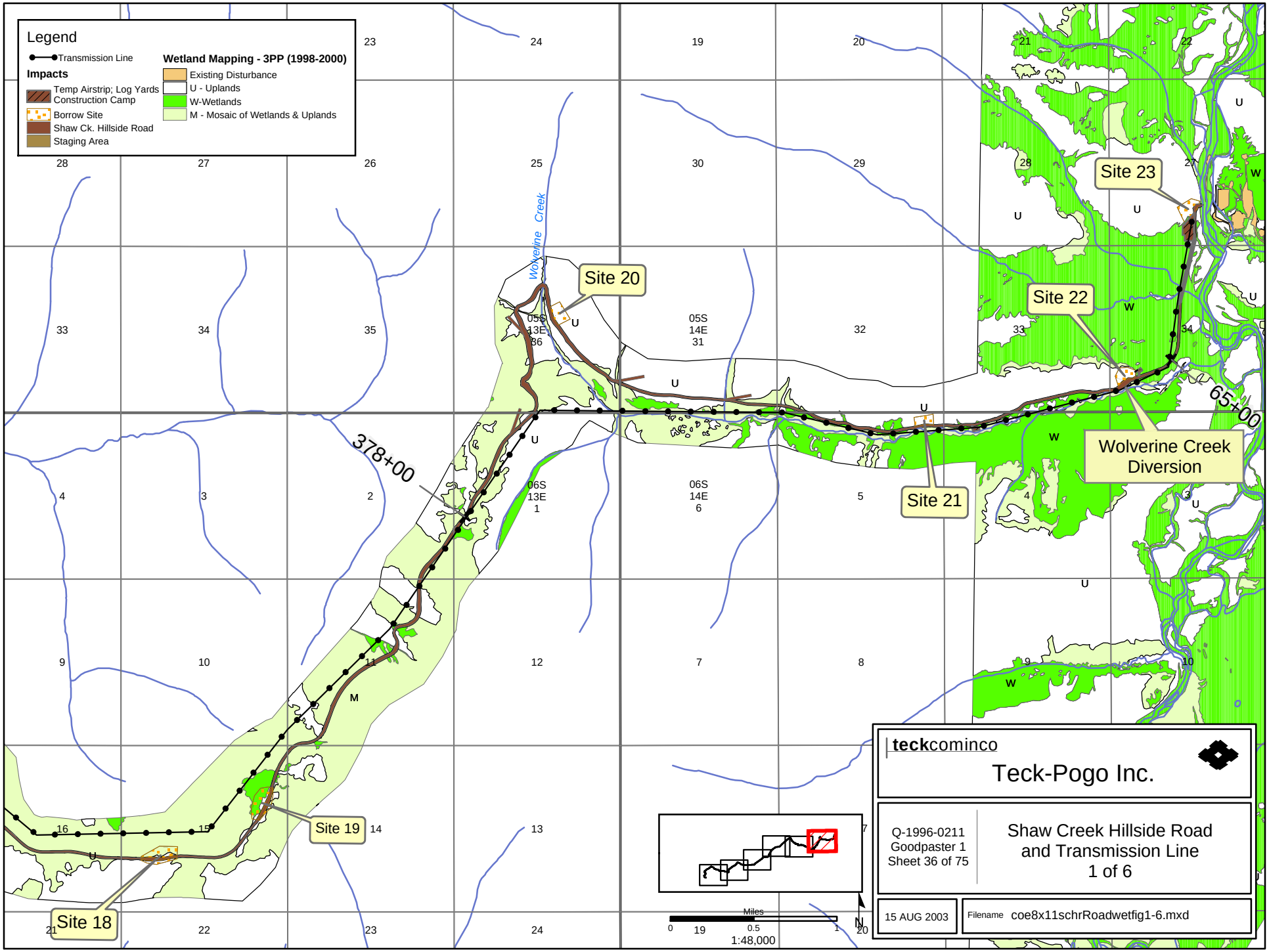
At the time a request for reconsideration is filed, an appellant may submit additional written material to support it, including evidence or legal argument. If the Commissioner orders reconsideration and if the Commissioner in his discretion under 11 AAC 02.050(a) further determines that there are questions of fact to be resolved that require a hearing, the hearing will be held in Fairbanks on January 12, 2004 at 10:00 A.M. at the Department of Natural Resources offices in Fairbanks, located at 3700 Airport Way. The hearing procedures under 11 AAC 02.050(b) will be announced at the time of his determination, if any. If a hearing is held, an appellant may submit additional written material at the hearing.

Attachments

Attachment 1: Maps of Rights-of-Way
Attachment 2: Land Status Map
Attachment 3: Shaw Creek Road Vicinity Map
Attachment 4: Special Stipulations-Controlled Use Public Right-of-Way
Attachment 5: Special Stipulations-Private Exclusive Right-of-Way
Attachment 6: Use and Maintenance Agreement
Attachment 7: Early Entry Authorization Stipulations

Attachment 1: Maps of Right-of-Way

Map 1 of 6



teckcominco

Teck-Pogo Inc.

Q-1996-0211
Goodpaster 1
Sheet 36 of 75

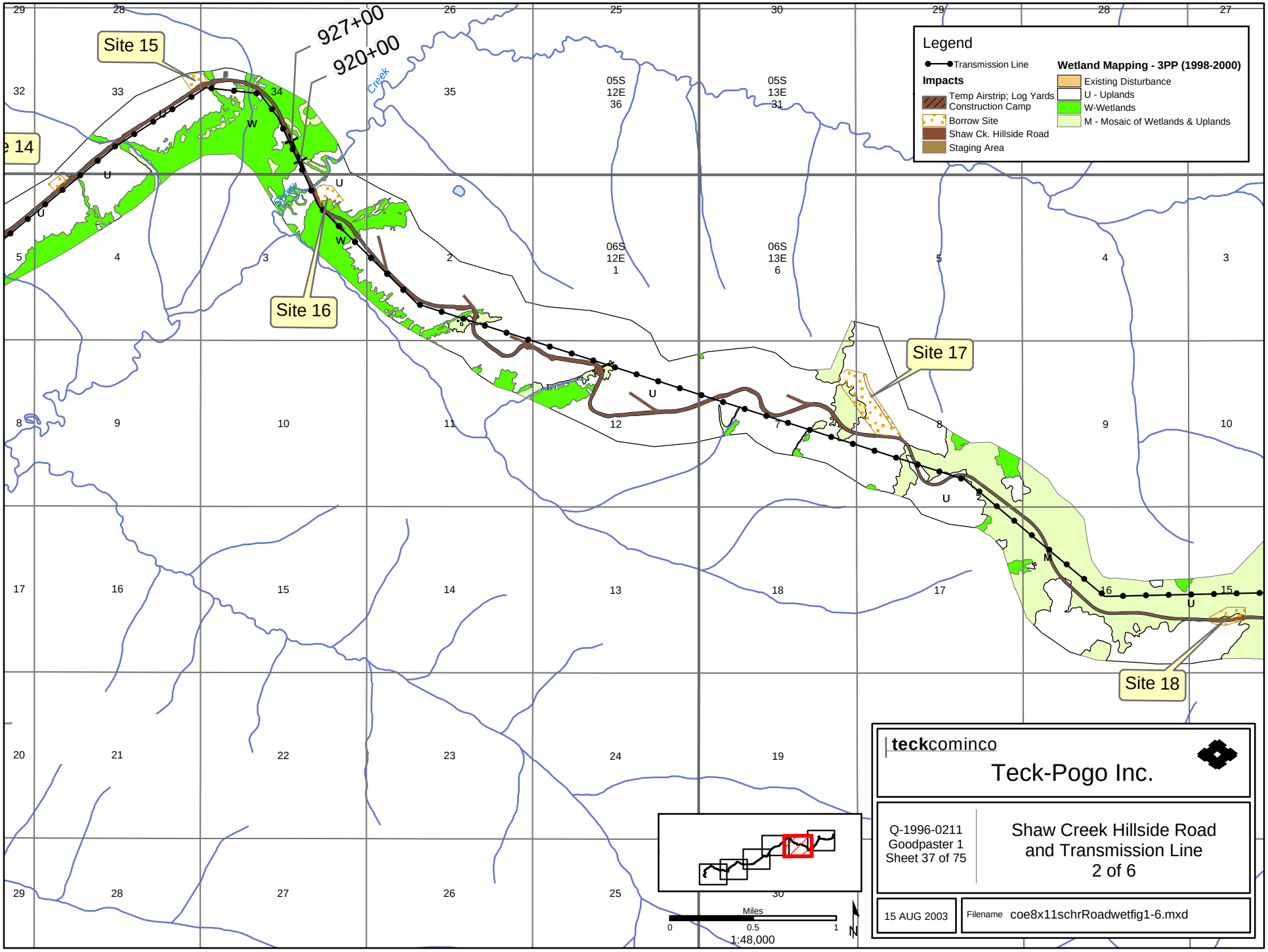
Shaw Creek Hillside Road and Transmission Line
1 of 6

15 AUG 2003

Filename coe8x11schrRoadwetfig1-6.mxd

Attachment 1: Maps of Right-of-Way

Map 2 of 6



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Teck-Pogo Inc.

Q-1996-0211
Goodpaster 1
Sheet 37 of 75

Shaw Creek Hillside Road and Transmission Line
2 of 6

15 AUG 2003

Filename coe8x11schrRoadwetfig1-6.mxd

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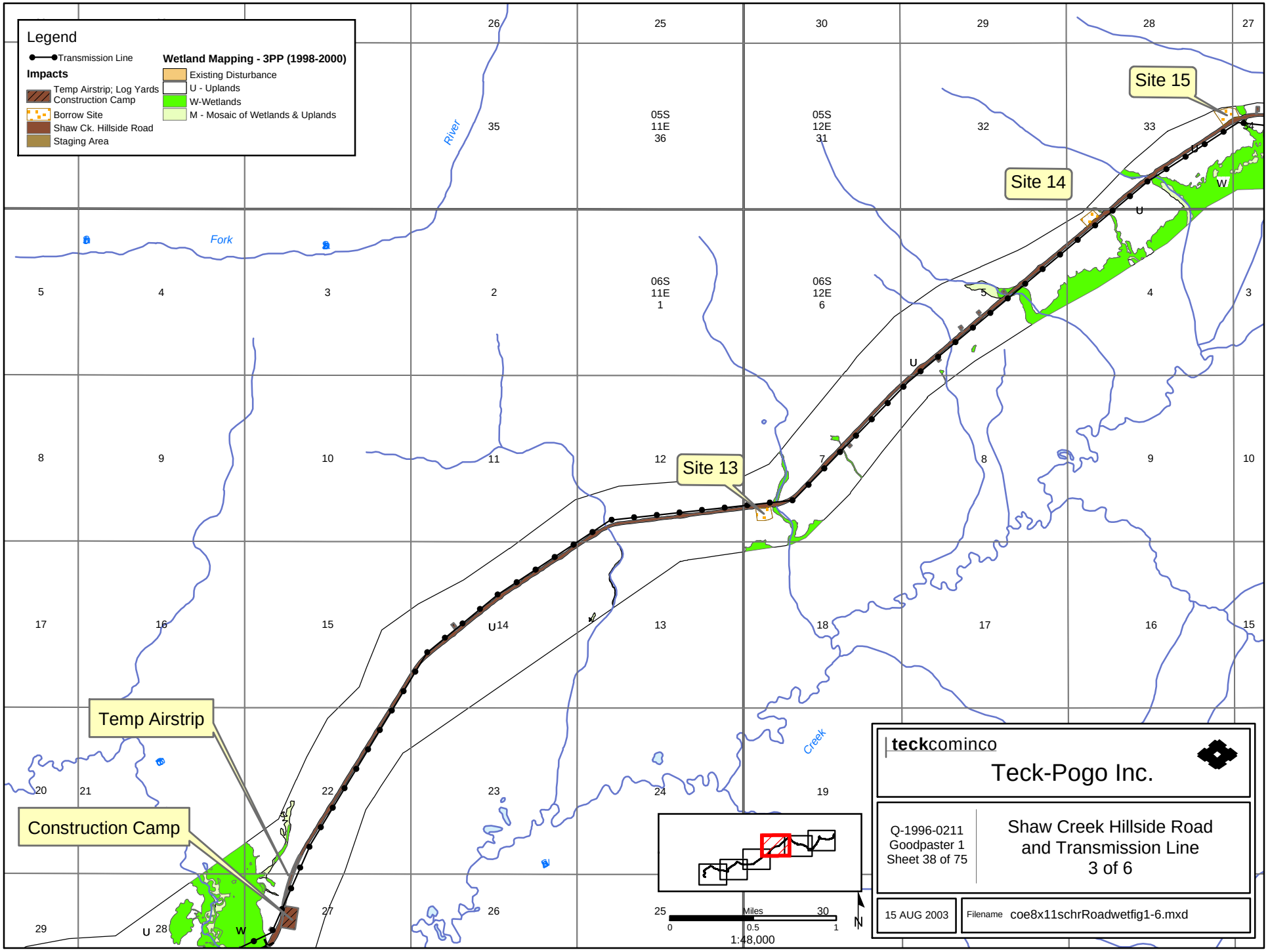

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Teck-Pogo Inc.

Q-1996-0211
Goodpaster 1
Sheet 38 of 75

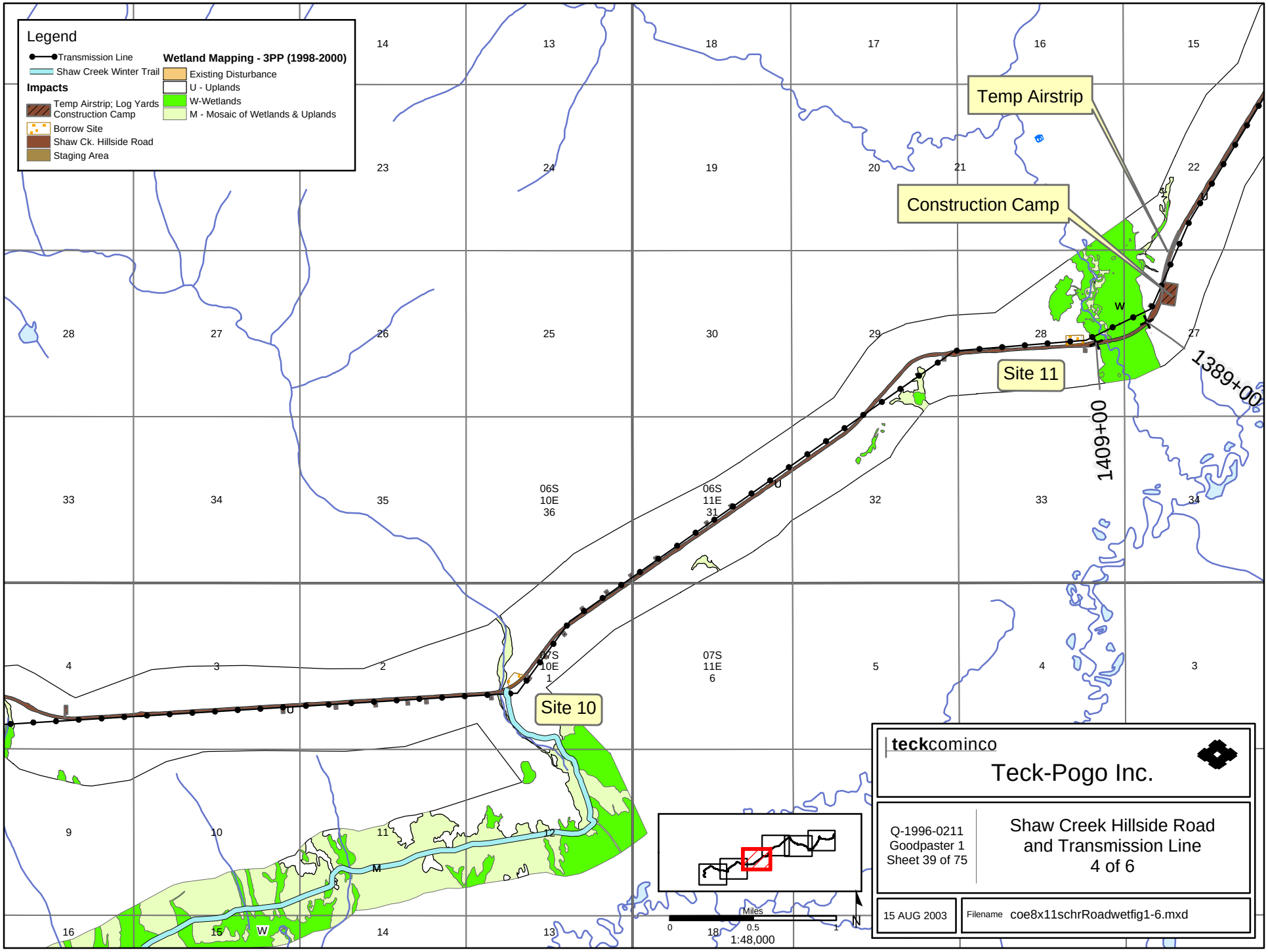
Shaw Creek Hillside Road and Transmission Line
3 of 6

15 AUG 2003

Filename coe8x11schrRoadwetfig1-6.mxd

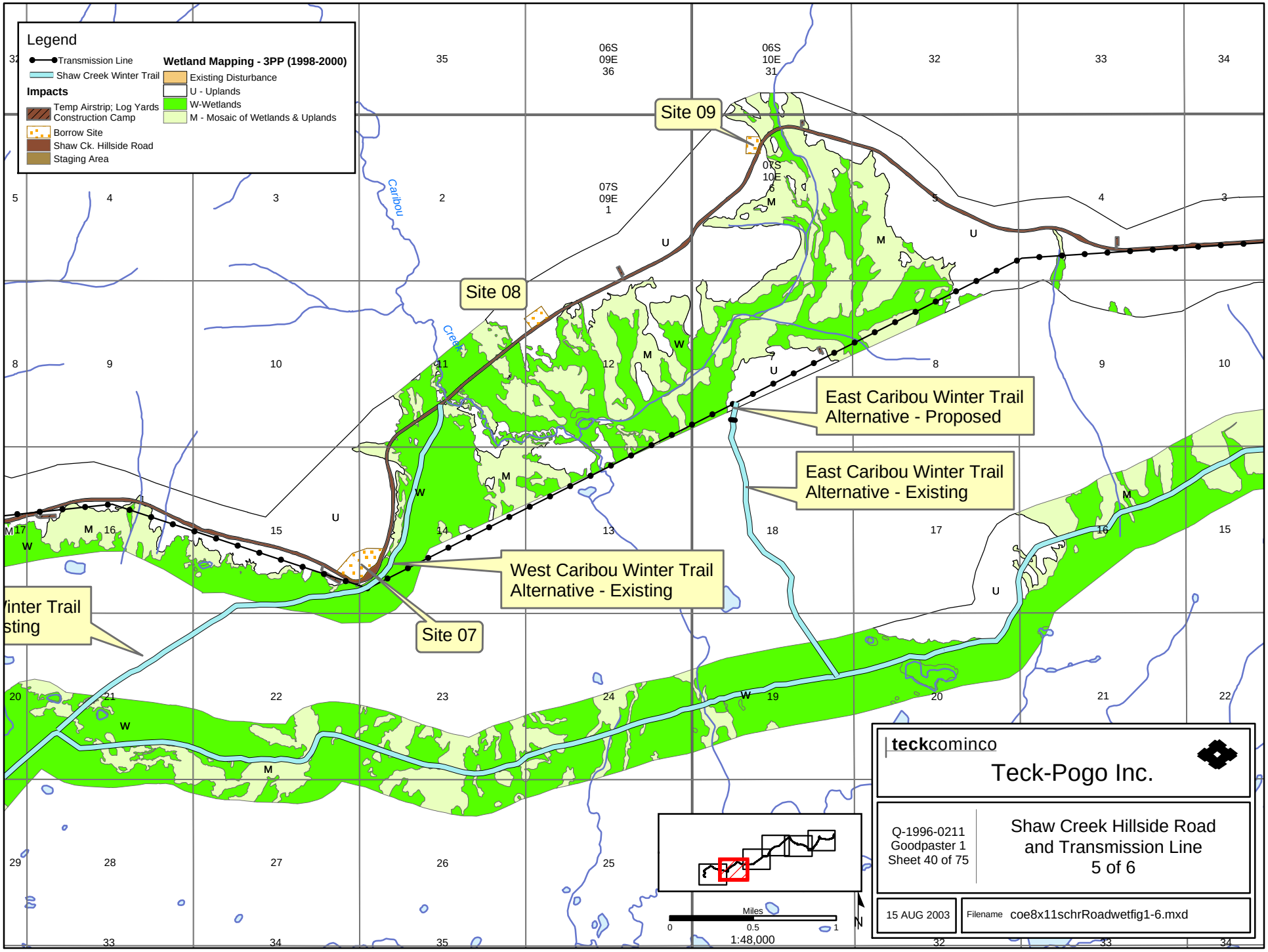
Attachment 1: Maps of Right-of-Way

Map 4 of 6



Attachment 1: Maps of Right-of-Way

Map 5 of 6



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Teck-Pogo Inc.

Q-1996-0211
Goodpaster 1
Sheet 40 of 75

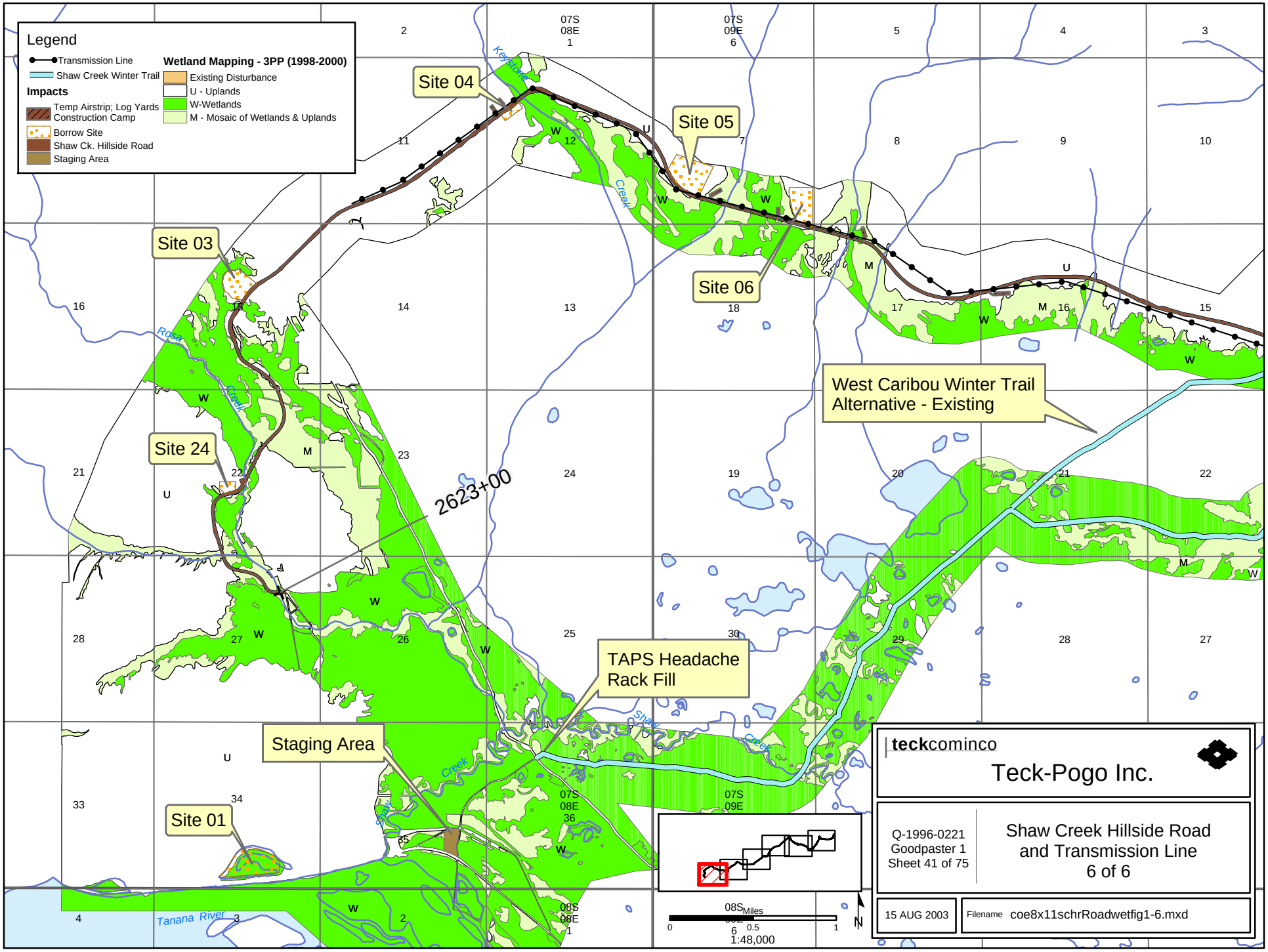
Shaw Creek Hillside Road and Transmission Line
5 of 6

15 AUG 2003

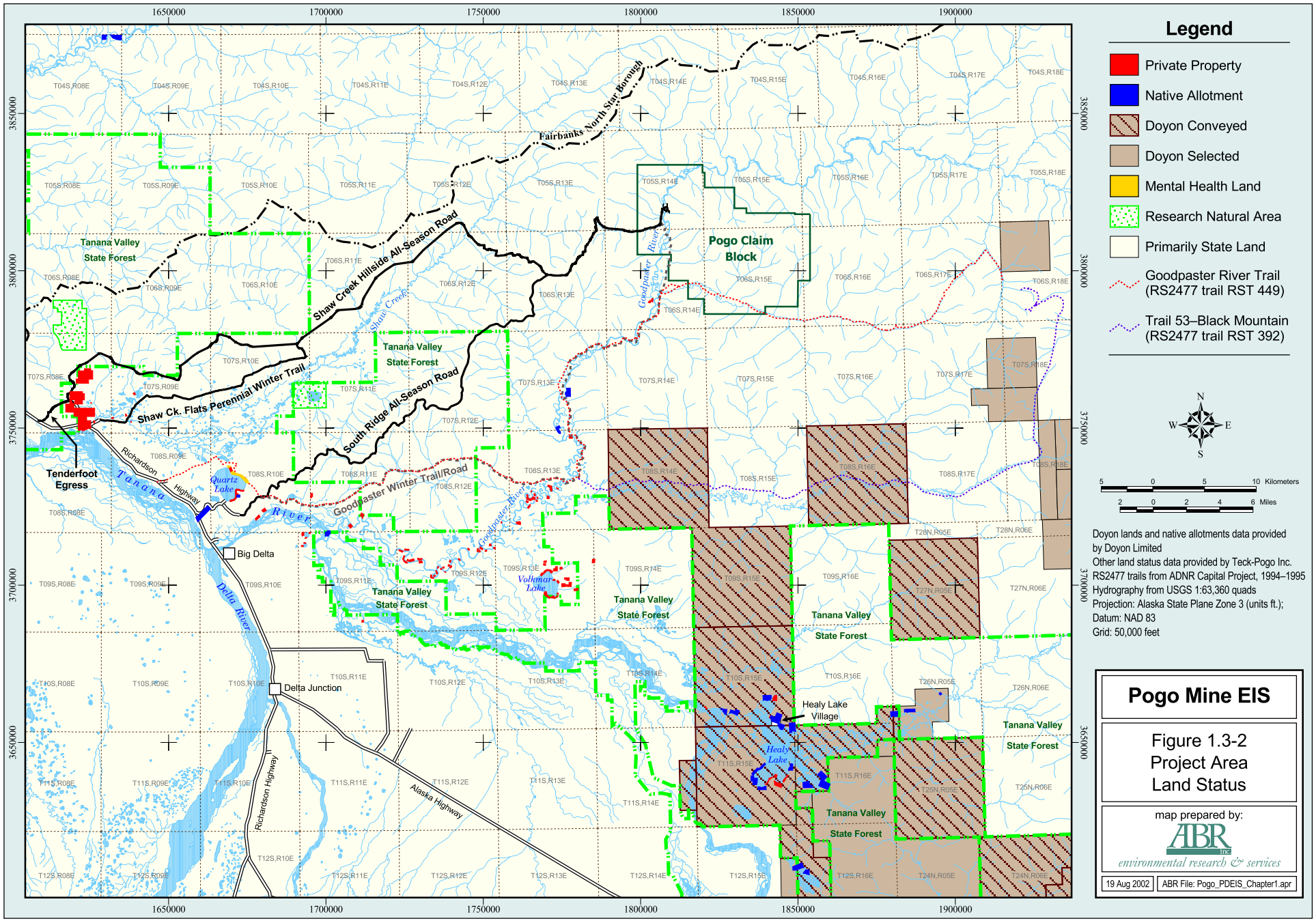
Filename coe8x11schrRoadwetfig1-6.mxd

Attachment 1: Maps of Right-of-Way

Map 6 of 6



Attachment 2: Land Status Map

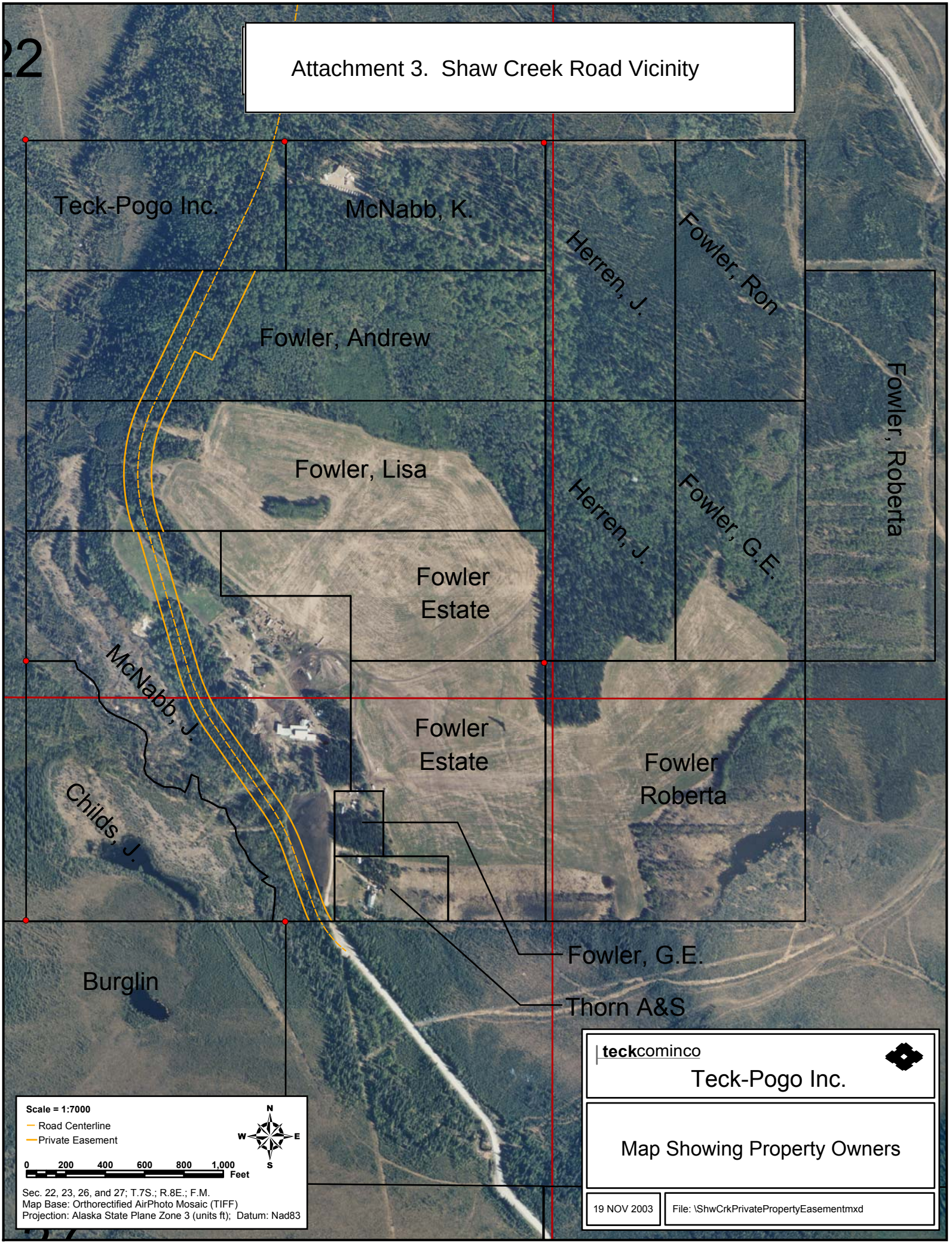


Pogo Mine EIS

Figure 1.3-2
Project Area
Land Status

map prepared by:
ABR inc.
environmental research & services

19 Aug 2002 | ABR File: Pogo_PDEIS_Chapter1.apr


Attachment 3. Shaw Creek Road Vicinity
Teck-Pogo Inc.
McNabb, K.
Herren, J.
Fowler, Ron
Fowler, Andrew
Fowler, Roberta
Fowler, Lisa
Herren, J.
Fowler, G.E.
Fowler Estate
McNabb, J.
Fowler Estate
Fowler Roberta
Childs, J.
Fowler, G.E.
Thorn A&S
Burglin
Scale = 1:7000
Road Centerline
Private Easement
N
W
E
S
0 200 400 600 800 1,000 Feet
Sec. 22, 23, 26, and 27; T.7S.; R.8E.; F.M.
Map Base: Orthorectified AirPhoto Mosaic (TIFF)
Projection: Alaska State Plane Zone 3 (units ft); Datum: Nad83
teckcominco
Teck-Pogo Inc.
Map Showing Property Owners
19 NOV 2003
File: \ShwCrkPrivatePropertyEasementmxd

Attachment 4

Controlled Use Public Right-of-way
ADL 417066
Special Stipulations

1. **Authorized Officer.** The Authorized Officer for the Department of Natural Resources is the Northern Regional Manager or designee appointed in writing. The Authorized Officer may be contacted at 3700 Airport Way, Fairbanks, Alaska 99709 or 907-451-2740. The Authorized Officer reserves the right to modify these stipulations or use additional stipulations as deemed necessary. To proceed in areas other than approved, Teck-Pogo (Permittee) must have prior approval from the authorized officer.

2. **Valid Existing Rights.** This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.

3. **Reservation of Rights.** The Division reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under this authorization.

4. **Construction and Maintenance.** During operation of the Pogo Mine, Teck-Pogo will construct and maintain this road.

   After the Pogo Mine closes, this right-of-way will be maintained by DNR consistent with other timber resource extraction roads operated by DNR. The road may be closed periodically for maintenance and seasonally to maintain the integrity of the road.

5. **Fuel and Hazardous Substances.** No fuel or hazardous substances shall be stored on the public right-of-way.

6. **Limitation of Public Use.** During the life of the Pogo Mine, this right-of-way is subject to the attached Road Use and Maintenance Agreement between DNR and Teck Pogo.

Attachment 5

Pogo Project Road Private Exclusive Right-of-way
ADL 416809
Special Stipulations

1. **Authorized Officer.** The Authorized Officer for the Department of Natural Resources is the Northern Regional Manager or designee appointed in writing. The Authorized Officer may be contacted at 3700 Airport Way, Fairbanks, Alaska 99709 or 907-451-2740. The Authorized Officer reserves the right to modify these stipulations or use additional stipulations as deemed necessary. To proceed in areas other than approved, Teck-Pogo (Permittee) must have prior approval from the authorized officer.

2. **Indemnification.** Upon notice from the State, Teck-Pogo will defend and indemnify the State with respect to any claim against the State alleged to arise out of the use of the Right-of-Way by Teck-Pogo or any affiliated party unless the claim against the State is based solely upon any alleged intentional act, negligence, or other misconduct on the State's part.

3. **Valid Existing Rights.** This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.

4. **Reservation of Rights.** The Division reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under this authorization.

5. **Performance Guaranty.** Teck-Pogo shall provide a surety bond or other form of security acceptable to the Division in accordance with the Agreement between the Alaska Department of Natural Resources and Teck-Pogo for Use and Maintenance of the Pogo Mine Access Road ADL 417066.

6. **Insurance.** Teck-Pogo is required to maintain adequate insurance for ADL 416809, consistent with the policies and limits required by the Pogo Mine Millsite Lease, including General Commercial Liability Insurance, Auto Liability Insurance, Professional Liability Insurance, Statutory Alaska Worker's Compensation and Employer's Liability Insurance, Pollution Liability Insurance and All Risk Property Insurance.

7. **Preference Right.** No preference right for use or conveyance of the land is granted or implied by this authorization.

8. **Alaska Historic Preservation Act.** Teck-Pogo will comply with the stipulations of the Programmatic Agreement By and Among The Advisory Council on Historic Preservation, The U.S. Environmental Protection Agency, The U.S. Army Corps

of Engineers, The State of Alaska, and The Alaska State Historic Preservation Officer Regarding the Pogo Gold Mine Project, executed on August 12, 2003.

9. **Assignment.** This right-of-way may be transferred or assigned with prior written approval from the Authorized Officer.

10. **Inspection.** Authorized representatives of the State of Alaska shall have reasonable access (as determined by the State) to the subject parcel for land management purposes and for the purposes of inspecting the right-of-way or the mine. The Permittee may be charged fees under 11 AAC 05.010(a)(7)(M) for routine inspections of the subject parcel, inspections concerning non-compliance, and a final close-out inspection.

11. **Compliance with Governmental Requirements.** Permittee shall, at its expense, comply with all applicable laws, regulations, rules and orders, and the requirements and stipulations included in this authorization. Permittee shall ensure compliance by its employees, agents, contractors, subcontractors, licensees, and invitees.

12. **Other Authorizations.** The issuance of this authorization does not alleviate the necessity of the Permittee to obtain authorizations required by other agencies for this activity.

13. **Violations**. This authorization may be revoked upon violation of any of its terms, conditions, stipulations, nonpayment of fees, or upon failure to comply with any other applicable laws, statutes and regulations (federal and state). A revocation may not become effective until 60 days after the Permittee has been notified in writing of the violation during which time the Permittee has an opportunity to cure any such violation.

14. **Use Fee.** Teck-Pogo will be required to pay $_____ per year (to be determined by appraisal) for use of the right-of-way. The initial use fee is due upon issuance of the R/W document. Subsequent use fees are due on or before the anniversary date of this authorization.

15. **Term:** The term of the right-of-way is 15 years. The Director of the DMLW may extend the right-of-way authorization if the road is required by Teck-Pogo for the development of additional mineral resources.

16. **Late Payment Fee.** The Permittee shall pay a fee for any late payment. The amount of the fee is the greater of either the fee specified in 11 AAC 05.010(a)(16)(A), or interest at the rate set by AS 45.45.010(a), and will be assessed on a past-due account until payment is received by the state. A returned check fee as provided in 11 AAC 05.010(a)(16)(B) will be assessed for any check on which the bank refuses payment. Late payment fees shall continue to accumulate until payment is received by the State.

17. **Change of Address.** Teck-Pogo shall maintain a current address with the Division. Any change of address must be submitted in writing to the Authorized Officer.

18. **Construction and Maintenance.** The State assumes no responsibility for construction and maintenance of improvements constructed on state land nor liability for injuries or damages attributable to that construction. The Permittee shall construct and maintain the road to Teck-Pogo's design standards for the life of the Pogo Mine.

19. **Fire Prevention, Protection, and Liability.** The Permittee shall take all reasonable precautions to prevent and suppress forest, brush, and grass fires and shall assume full liability for fire suppression costs and any damages to state land resulting from escaped fire.

20. **Destruction of Markers.** All survey monuments, witness corners, reference monuments, mining claim posts, bearing trees, and unsurveyed lease corner posts shall be protected against damage, destruction, or obliteration. The permittee shall notify the Authorized Officer of any damaged, destroyed, or obliterated markers and shall reestablish the markers at the permittee's expense in accordance with accepted survey practices of the DMLW.

21. **Site Maintenance.** The right-of-way subject to this authorization shall be maintained in a neat, clean and safe condition, free of any solid waste, debris or litter.

22. **Fuel and Hazardous Substances.**

    a) No fuel or hazardous substances shall be stored on the right-of-way.

    b) The permittee shall immediately notify DNR and DEC by phone of <u>any</u> unauthorized discharge of oil to water, <u>any</u> discharge of hazardous substances (other than oil), and <u>any</u> discharge of oil greater than 55 gallons on land. All fires and explosions must also be reported to DNR.The DNR 24 hour incident notification number is (907) 451-2678; the Fax number is (907) 451-2751. The DEC spill report number is (800) 478-9300. DNR and DEC shall be supplied with all follow-up incident reports.

    c) Should any unlawful discharge, leakage, spillage, emission, or pollution of any type occur due to permittee's, or its employees', agents', contractors', subcontractors', licensees', or invitees' act or omission, the permittee, at its expense, shall be obligated to clean the area to the reasonable satisfaction of the State of Alaska.

23. **Public Access to state lands.** There shall be no interference with generally allowed use of state lands adjacent to the right-of-way.

24. **Road Use.** Uses of the right-of-way shall be restricted to Pogo mine-related uses, government agencies for mine administration purposes and general land and resource management purposes (for example, fire suppression and research), and for commercial timber harvesting activities. Public access will not be allowed along this portion of the right-of-way. Teck-Pogo may implement reasonable and appropriate security measures, as approved by DNR, to comply with this stipulation.

25. **Reclamation.**
    a) This right-of-way will be reclaimed after the Pogo Mine's life, or after any other resource development use of the right-of-way that may be authorized by DNR, has ceased. Reclamation will have three objectives:
        - To promote long-term stability and revegetation by removing bridges and culverts and constructing ditches and water bars to disperse surface runoff.
        - To promote revegetation to the reclamation standards identified in the Reclamation Plan for the Pogo Mine, and the Pogo Mine Access Road Right-of-Way Application, by scarifying and fertilizing the road surface.
        - To minimize future use by vehicular traffic and all terrain vehicles by constructing appropriate physical barriers, roughening the road surface, and by regrading portions of the road prism.

    b) Before DNR can change the management intent for the right-of-way, DNR will make a determination in which the following shall be considered:

        - Input from, and consultation with, 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 the Final Decision for ADL 416809 and 417066.

Attachment 6
AGREEMENT BETWEEN
THE ALASKA DEPARTMENT OF NATURAL RESOURCES
AND
TECK-POGO
FOR USE AND MAINTENANCE
OF THE POGO MINE ACCESS ROAD
ADL 417066

Definitions.

For purposes of this Agreement, the term "DNR" means the Alaska Department of Natural Resources, Division of Mining, Land and Water (DMLW).

For purposes of this Agreement, the terms "Teck-Pogo" or "Permittee" means Teck Pogo, Inc.

For purposes of this Agreement, the terms "this right-of-way" and "Pogo Mine Access Road" mean that portion of the road, constructed by Teck-Pogo pursuant to the Early Entry Authorization for ADL 416809 and 417066, beginning at the termination of Shaw Creek Road and proceeding through the Tanana Valley State Forest and other DNR managed lands to the Gilles Creek vicinity (ADL 417066).

Use and Maintenance of the Pogo Mine Access Road.

The Pogo Mine Access Road will be used to provide logistical support for the Pogo Mine and shall be constructed and maintained primarily for this purpose. From the date of this agreement until the completion of final reclamation as required at the Pogo Mine, Teck-Pogo shall use and maintain the Pogo Mine Access Road subject to the stipulations attached to right-of-way ADL 417066 and the following stipulations.

Stipulations.

1. **Road Use During Life of Pogo Mine.** Consistent with the Final Decision (ADLs 416809 and 417066), this right-of-way will be closed to general public use. Uses of the right-of-way shall be restricted to Pogo mine-related uses, government agencies for mine administration purposes and general land and resource management purposes (for example, fire suppression and research), and for commercial timber harvesting activities. Teck-Pogo may implement reasonable and appropriate security measures, as approved by DNR, to comply with this stipulation.

2. **Construction and Maintenance.** The State assumes no responsibility for construction and maintenance of improvements on state land or liability for injuries or damages attributable to that construction and maintenance. The Pogo Mine Access Road may be closed periodically for maintenance and seasonally to maintain the integrity of the road.

3. **Indemnification.** Upon notice from the State, Teck-Pogo will defend and indemnify the State with respect to any claim against the State alleged to arise out of the use of the Right-of-Way by Teck-Pogo or any affiliated party unless the claim against the State is based solely upon any alleged intentional act, negligence, or other misconduct on the State's part.

4. **Performance Guaranty.** Teck-Pogo shall provide a surety bond or other form of security acceptable to the Division, payable to the State of Alaska DNR, for an amount acceptable to the Division. This guaranty shall cover both the private exclusive right-of-way ADL 416809 and the public right-of-way ADL 417066, and shall secure performance of the Permittee's obligations. The purpose of the guaranty is to ensure that after mine life, 1) the road is in reasonable condition for public use, and 2) that the public has access to the road in accordance with Section X.L. of the Final Decision for the Pogo Project Right-of-Way. This guaranty will also serve as the bond normally required by DNR for fuel handling, storage, and spills.

   The amount of the performance guaranty may be adjusted by the Authorized Officer for market conditions and costs. In addition, the performance guaranty may be adjusted upon approval of amendments to this agreement, changes in the development plan, and any change in the activities conducted on the premises. Upon completion of construction of the public right-of-way, the authorized officer may partially release the performance guaranty.

   Upon a determination by the authorized officer that the Permittee has satisfied the terms and conditions of this agreement and rights-of-way ADL 416809 and ADL 417066, including the reclamation of the private exclusive right-of-way ADL 416809, the performance guaranty may be released. The performance guaranty may only be released in a writing signed by the Authorized Officer.

5. **Insurance.** Teck-Pogo is required to maintain adequate insurance for the Pogo Mine Access Road, consistent with the policies and limits required by the Pogo Mine Millsite Lease, including General Commercial Liability Insurance, Auto Liability Insurance, Professional Liability Insurance, Statutory Alaska Worker's Compensation and Employer's Liability Insurance, Pollution Liability Insurance and All Risk Property Insurance.

6. **Assignment.** Teck-Pogo's right to use public right-of-way ADL 417066 under this road use and maintenance agreement may be transferred or assigned with prior written approval from the Authorized Officer.

7. **Inspection.** The Permittee may be charged fees under 11 AAC 05.010(a)(7)(M) for routine inspections of the subject parcel, inspections concerning non-compliance, and a final close-out inspection.

8. **Compliance with Governmental Requirements.** Permittee shall, at its expense, comply with all applicable laws, regulations, rules and orders, and the requirements and stipulations included in ADL 417066 and this agreement. Permittee shall ensure compliance by its employees, agents, contractors, subcontractors, licensees, or invitees.

9. **Reservation of Rights.** The Division reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land subject to this agreement.

10. **Violations**. This agreement may be revoked upon violation of any of its terms, conditions, stipulations, nonpayment of fees, or upon failure to comply with any other applicable laws, statutes and regulations (federal and state). A revocation may not become effective until 60 days after the Permittee has been notified in writing of the violation during which time the Permittee has an opportunity to cure any such violation.

11. **Fuel and Hazardous Substances.** The Permittee shall immediately notify DNR and DEC by phone of any unauthorized discharge of oil to water, any discharge of hazardous substances (other than oil), and any discharge of oil greater than 55 gallons on land. All fires and explosions must also be reported to DNR. The DNR 24 hour incident notification number is (907) 451-2678; the Fax number is (907) 451-2751. The DEC spill report number is (800) 478-9300. DNR and DEC shall be supplied with all follow-up incident reports.

    Should any unlawful discharge, leakage, spillage, emission, or pollution of any type occur due to Permittee's, or its employees', agents', contractors', subcontractors', licensees', or invitees' act or omission, the Permittee, at its expense, shall be obligated to clean the area to the reasonable satisfaction of the State of Alaska.

12. **Term.** The term of this agreement is 15 years. The Director of the DMLW may extend the agreement if the Pogo Mine Access Road is required by Teck-Pogo for the development of additional mineral resources.

13. **Change of Address.** Teck-Pogo shall maintain a current address with the Division. Any change of address must be submitted in writing to the Authorized Officer.

14. **Fire Prevention, Protection, and Liability.** Teck-Pogo shall take all reasonable precautions to prevent and suppress forest, brush, and grass fires and shall assume full liability for fire suppression costs and any damages to state land resulting from escaped fire.

15. **Public Access to state lands.** There shall be no interference with generally allowed use of state lands adjacent to the right-of-way.

16. **Site Maintenance.** The area subject to this agreement shall be maintained in a neat, clean and safe condition, free of any solid waste, debris or litter.

17. **Road Use.** Pogo Mine Access Road use shall be administered as follows for timber harvest activities:

    a. DNR will provide Teck-Pogo with the names of all authorized users of the road, the period of time that the authorizations are in effect, and the authorized time, type, and location of the road use.

b. DNR will require authorized users to repair or pay for damages attributed to their use of the road, subject to prior notification and consultation with the Permittee.
c. DNR will notify Teck-Pogo before an authorized user can conduct any maintenance of the road, subject to prior notification and consultation with the Permittee.
d. Authorized users will abide by all Teck-Pogo's safety, traffic, and communication procedures.
e. Authorized users must provide financial assurance in the form of a bond or similar mechanism that will guarantee repairs to the road in the event of significant damage.
f. Intersections of any spur timber roads with the Pogo Mine Access Road must be designed in accordance with Teck-Pogo's design requirements, and must be signed appropriately.
g. Teck-Pogo may temporarily restrict use of the road during times of heavy use or during periods with adverse road conditions.

18. **Administrative Agency Uses**. Government agencies, and other users approved by DNR, will have access along the road, at no cost, for the purposes of mine administration and general land and resource management.

19. **Point of Contact.** Teck-Pogo must provide the DNR a readily accessible point-of-contact for matters relating to the Pogo Mine Access Road. DNR will provide a point of contact for Division of Forestry related issues and a Division of Mining, Land and Water contact for mine and road purposes.

20. **Road Release.** Prior to termination of this Agreement, DNR and Teck-Pogo shall jointly inspect the Pogo Mine Access Road. Teck-Pogo shall complete any identified repairs prior to a final inspection by DMLW.

ALASKA DEPARTMENT OF NATURAL RESOURCES	TECK-POGO, INC.
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

Attachment 7

Pogo Project Road Early Entry Authorization
ADL 416809 (Private Exclusive R/W), 417066 (Public R/W),
and
416817 (Powerline R/W)
Special Stipulations

1. **Authorized Officer.** The Authorized Officer for the Department of Natural Resources is the Northern Regional Manager or designee appointed in writing. The Authorized Officer may be contacted at 3700 Airport Way, Fairbanks, Alaska 99709 or 907-451-2740. The Authorized Officer reserves the right to modify these stipulations or use additional stipulations as deemed necessary. To proceed in areas other than approved, Teck-Pogo (Permittee) must have prior approval from the authorized officer.

2. **Point of Contact.** The Permittee shall supply the name and telephone number of a person(s) familiar with the daily location of the permit activities and who can be easily contacted by the Northern Regional Office of the Division of Mining, Land and Water. Construction schedules shall be provided to DNR on a weekly basis for the two-week period following the submittal.

3. Indemnification. Upon notice from the State, Teck-Pogo will defend and indemnify the State with respect to any claim against the State alleged to arise out of the use of the Right-of-Way by Teck-Pogo or any affiliated party unless the claim against the State is based solely upon any alleged intentional act, negligence, or other misconduct on the State's part.

4. **Valid Existing Rights.** This authorization is subject to all valid existing rights in and to the land under this authorization. The State of Alaska makes no representations or warranties whatsoever, either expressed or implied, as to the existence, number, or nature of such valid existing rights.

5. **Reservation of Rights.** The Division reserves the right to grant additional authorizations to third parties for compatible uses on or adjacent to the land under these authorizations, consistent with the Commissioner’s Final Decision on these authorizations.

6. **Performance Guaranty.**

    a. Teck-Pogo shall provide a surety bond or other form of security acceptable to the Division, payable to the State of Alaska DNR, for an amount acceptable to the Division. This guaranty shall cover the private exclusive right-of-way ADL 416809, the public right-of-way ADL 417066 (including the Use and Maintenance Agreement for ADL 417066), and powerline right-of-way ADL 416817, and shall secure performance of the Permittee's obligations. The guaranty shall be in an amount sufficient to cover the reclamation of the

powerline, the private exclusive right-of-way, the completion of construction of the public right-of-way should construction of the public right-of-way not be completed by Teck-Pogo, and maintenance necessary to keep the public right-of-way to design standards during the life of this agreement. This guaranty will also serve as the bond normally required by DNR for fuel handling, storage, and spills.

b. The amount of the performance guaranty may be adjusted by the Authorized Officer for market conditions and costs. In addition, the performance guaranty may be adjusted upon approval of amendments to this authorization, changes in the development plan, and any change in the activities conducted on the premises. Upon completion of construction of the public right-of-way, the authorized officer may partially release the performance guaranty.

c. Upon a determination by the authorized officer that the permittee has satisfied the terms and conditions of this authorization and the powerline, private exclusive and public rights-of-way, and the Use and Maintenance Agreement for ADL 417066, including the reclamation of the private exclusive right-of-way, the performance guaranty may be released. The performance guaranty may only be released in a writing signed by the Authorized Officer.

7. **Insurance.** Teck-Pogo is required to maintain adequate insurance for the activites conducted under this authorization, consistent with the policies and limits required by the Pogo Mine Millsite Lease (ADL# 416949), including General Commercial Liability Insurance, Auto Liability Insurance, Professional Liability Insurance, Statutory Alaska Worker's Compensation and Employer's Liability Insurance, Pollution Liability Insurance and All Risk Property Insurance.

8. **Preference Right.** No preference right for conveyance of the land is granted or implied by this authorization.

9. Alaska Historic Preservation Act. Teck-Pogo will comply with the stipulations of the Programmatic Agreement By and Among The Advisory Council on Historic Preservation, The U.S. Environmental Protection Agency, The U.S. Army Corps of Engineers, The State of Alaska, and The Alaska State Historic Preservation Officer Regarding the Pogo Gold Mine Project, executed on August 12, 2003.

10. **Assignment.** This permit may be transferred or assigned with prior written approval from the Authorized Officer.

11. **All-season Road Design.** A professional engineer registered in Alaska shall approve/stamp the road design plans for ADL 416809 and 417066. Teck-Pogo's engineer shall certify that the road, as designed, meets or exceeds the Division of Forestry's standards as identified in the Forest Resource and Practices Act 11 AAC 95 Article 3 and the Tanana Valley State Forest Management Plan for an all season road. Bridges on Keystone and Caribou Creek shall be certified by DOT/PF. Drainage structures shall be adequate in size and number to maintain natural drainage patterns consistent with the 11 AAC 95.305. Drainage structures shall be properly located and maintained to prevent ponding and

erosion. Any blasting operations shall meet 11 AAC 95.335 as the minimum standards for State lands.

12. **Survey.** The Permittee shall submit a survey, depicting the as-built location of the road, powerline, and material sites, acceptable to the standards of the DMLW prior to the expiration of the early entry authorization.

13. **Inspection.** Authorized representatives of the State of Alaska shall have reasonable access (as determined by the State) to the subject parcels for land management purposes and for the purposes of inspecting the rights-of-way, material sites, and the mine. The permittee may be charged fees under 11 AAC 05.010(a)(7)(M) for routine inspections of the subject parcels, inspections concerning non-compliance, and a final close-out inspection.

14. **Compliance with Governmental Requirements.** Permittee shall, at its expense, comply with all applicable laws, regulations, rules and orders, and the requirements and stipulations included in this authorization. Permittee shall ensure compliance by its employees, agents, contractors, subcontractors, licensees, and invitees.

15. **Other Authorizations.** The issuance of this authorization does not alleviate the necessity of the permittee to obtain authorizations required by other agencies for this activity.

16. **Corrective Work Actions and Violations**.
    a. Directives. Directives may be issued for corrective actions that are required to correct a deviation from design criteria, project specifications, stipulations, state statutes, or state regulations. Work at the area subject to the Directive may continue while implementing the corrective action. Corrective action may include halting or avoiding specific conduct, implementing alternative measures, repairing any damage to state resources that may have resulted from the conduct, or other action as determined by DNR.
    b. Stop Work Orders. Stop Work Orders may be issued if there is a deviation from design criteria, project specifications, stipulations, state statutes, or state regulations and that deviation is causing or is likely to cause significant damage to state resources. Under a Stop Work Order, work at the area subject to the Stop Work Order may not resume until the deviation is cured and corrective action is taken. Corrective action may include halting or avoiding specific conduct, implementing alternative measures, repairing any damage to state resources that may have resulted from the conduct, or other action as determined by DNR.
    c. Revocation. This authorization may be revoked upon violation of any of its terms, conditions, stipulations, nonpayment of fees, or upon failure to comply with any other applicable laws, statutes and regulations (federal and state). A revocation may not become effective until 60 days after the Permittee has been notified in writing of the violation during which time the Permittee has an opportunity to cure any such violation.

17. **Use Fee.** The use fee is due upon issuance of this authorization. Until the appraisal is completed to determine the yearly fair market rental value of the private exclusive portion of the road from Gilles Creek to the Pogo Mine, Teck-Pogo will pay an annual fee of $7,564.00. This fee is based upon 11 AAC 05.010 (e)(11)(B) and an estimated value of $300 per acre, 100 feet wide and 26miles in length, and an 8% return per year. The final year's payment will be prorated and any unused portion will be applied to the first year's payment for the private exclusive right-of-way's rental.

18. **Term:** The term of the early entry authorization will be 2 years. The early entry authorization may be extended by the authorized officer on a yearly basis for completion of construction, survey and appraisal and to authorize use of the road and powerline until the rights-of-way are issued.

19. **Late Payment Penalty Charges.** The Permittee shall pay a fee for any late payment. The amount of the fee is the greater of either the fee specified in 11 AAC 05.010(a)(16)(A), or interest at the rate set by AS 45.45.010(a), and will be assessed on a past-due account until payment is received by the state. A returned check fee as provided in 11 AAC 05.010(a)(16)(B) will be assessed for any check on which the bank refuses payment. Late payment penalty charges shall continue to accumulate until payment is received by the State.

20. **Change of Address.** Teck-Pogo shall maintain a current address with the Division. Any change of address must be submitted in writing to the Authorized Officer.

21. **Construction and Maintenance.** The State assumes no responsibility for construction and maintenance of improvements constructed on state land nor liability for injuries or damages attributable to that construction. The permittee shall construct and maintain the road to the Teck-Pogo's design standards for the life of the Pogo Mine.

22. **Operation of Vehicles on the Powerline Right-of-way.** The operation of vehicles will be undertaken to minimize disturbances that will expose the mineral soil to thermal degradation and erosion. No disturbance beyond what is authorized by the US Army Corps of Engineers Wetlands Permit for the Pogo Mine and the Pogo Mine Access Road Right-of-Way Application is authorized.

23. **Fire Prevention, Protection, and Liability.**
    a. **Liability.** The permittee shall take all reasonable precautions to prevent, control, and suppress forest, brush, and grass fires and shall assume full liability for fire suppression costs and any damages to state land resulting from escaped fire.
    b. **Instruction.** Prior to construction, all personnel shall be instructed on fire protection measures, including these stipulations and the provisions of AS 41.15.010-.950 (Public Resources, Protection of Forested Lands) and 11 AAC 95.400-.490 (Forest Resources and Practices, Forest Fire Protection).

c. **Burning permit year-round.** The permittee shall obtain a burning permit before engaging in any burning under this authorization. Teck-Pogo shall notify, in accordance with the permit, the Delta Area Forestry Office before engaging in any large-scale burning (i.e., larger than a 10' by 10' pile) on a year-round basis, and before any burning, regardless of the size of the burn, from May 1st to September 31st. Burning permits may be obtained from the Delta Area Forestry Office. Any burning requiring notification to Delta Area Forestry shall be attended at all times.

d. **Fire danger level check.** From May 1st to September 31st, fire danger levels (Low, Moderate, High, Very High, and Extreme) shall be checked on a daily basis with the Delta Area Forestry Office at 895-4225.

e. **Cooking and warming fires.** From May 1st to September 31st, cooking and warming fires are prohibited except at the center of fire safe areas (such as mineral soil or gravel areas with a minimum size of 15' by 15') or with approved (by the Division of Forestry) cooking appliances/incinerators, which would prevent the escape of flying embers. Fires should be attended at all times and extinguished immediately after use. If the fire danger level reported by the Delta Area Forestry Office for this area is at High, Very High or Extreme, open flames, including debris burning, cooking and warming fires (including fires in fire-safe areas or with approved cooking appliances/incinerators), are prohibited under this authorization.

f. **Right-of-Way Clearing**. During Extreme conditions, right-of-way clearing shall be suspended.

g. **Equipment precautions.** All power saws, chain saws, brush cutters, vehicles, aircraft, and any other equipment with exhaust particles that might be exposed to forested land (land on which grass, brush, timber, and other natural vegetative material grows) shall be equipped with a spark-arresting device that complies with 11 AAC 95.480. Vehicles and aircraft used in forested land must have their exhaust manifolds far enough from forested ground to avoid igniting combustible material.

h. **Smoking materials.** Cigarettes, cigars, and other smoking materials are prohibited except for inside vehicles or at the center of areas that are fire safe. Fire safe areas are areas down to the mineral soil (whether cleared or naturally occurring) with a minimum size of 15' x 15'. Cigarette butts, cigar butts, and other smoking materials must be extinguished and dropped into the smoker's hand and felt for embers before being discarded into a suitable receptacle for the disposition or reception of burning material.

i. **Fire suppression tools and water on site.** From May 1st to September 31st, tools and water should be kept onsite to control any fire that may start on forested land. There should be 2 full backpack pumps (fedcos) for each work party, and each crewmember should have a hand tool (e.g., Pulaski, shovel, ax, etc.) and personal protective gear (at a minimum, gloves and a hardhat). Each crewmember operating a chainsaw or similar equipment should be equipped with a personal fire extinguisher.

j. **Communications.** Work crews shall have radios and/or cell phones capable of communicating with each work party and/or the Division of Forestry's Delta Area Dispatch. Uncontrolled fires shall be reported immediately to the Division of Forestry's Delta Area Dispatch at (907) 895-4227 (fire line).

k. **Flares or fusees.** From May 1st to September 31st, flares or fusees are prohibited except for use as an emergency signaling device and then, only over fire safe areas (15' x 15' mineral soil).

24. **Forest Resources.**
    a. Clearing of vegetation shall be kept to the minimum necessary to construct the rights-of-way. Clearing shall only occur within the authorized area.
    b. All non-merchantable timber less than nine inches in diameter measured at 4.5 feet above the ground (called Diameter Breast Height (DBH)), brush, and slash shall be disposed of in an approved manner to minimize the risk of fire, insects and disease.
    c. Minimum Salvage Specifications.
        1) Merchantable spruce 9" DBH and over will be salvaged from all areas being cleared.
        2) Merchantable aspen 10" DBH and over will be salvaged from the Pogo Mine Access Road and the power line from the Richardson Highway to the eastern side of the Division of Forestry timber sales at road station 2200.
        3) Merchantable birch 10" DBH and over will be salvaged from the Pogo Mine Access Rd and the power line from the Richardson Highway to road station 1650 (approximately 3 miles west of Gilles Cr).
        4) Merchantable trees will be severed from the stump while standing, topped at 6 inches diameter or at 40 ft. 6 in. length, whichever is longer, and limbed. Stems will not be further sectioned unless needed to achieve legal highway length or to remove defect as approved by the Forester in Charge. Any significant volumes of merchantable timber the Permittee uses for construction may be measured by the Division of Forestry and paid for at the bid rate for the Keystone Timber Sale. Fire killed timber may be used at no charge.
    d. Log storage yards. All merchantable timber must be removed to an approved log storage yard. Merchantable timber must be sorted and decked by species. Log yards must have all season access and accommodate efficient loading of timber.
    e. Keystone Timber Sale. All logs from clearing within the Keystone Timber Sale must be decked in the sale area or stored separately from other salvage timber. Merchantable timber that is decked or stored must be sorted by species.
    f. Log quality. Log handling, yarding, transportation and storage must preserve the quality of the timber. The logs will be kept clean of dirt and not damaged by equipment.
    g. Salvage volumes. The Forester in Charge will determine the volumes of timber to be salvaged in any given area based upon the density of merchantable timber in the area and market conditions. Minimum merchantable timber specifications are defined in Stipulation 23c.
    h. Forester in Charge. The Division of Forestry will designate a Forester in Charge for all timber clearing operations and related road construction. During business hours, the Forester in Charge can be contacted at 895-4223.

25. **Timber sales.** The Division of Forestry plans to sell the salvaged timber from the storage yards or as soon as practical. The Division of Forestry will coordinate the transportation of any timber along the winter roads or Pogo Mine Access Road with the Permittee through the Forester in Charge.

    a. DNR will provide Teck-Pogo with the names of all authorized users of the road, the period of time that the authorizations are in effect, and the authorized time, type, and location of the road use.
    b. DNR will require authorized users to repair or pay for damages attributed to their use of the road, subject to prior notification and consultation with the Permittee.
    c. DNR will notify Teck-Pogo before an authorized user can conduct any maintenance of the road, subject to prior notification and consultation with the Permittee.
    d. Authorized users will abide by all of Teck-Pogo's safety, traffic, and communication procedures.
    e. Authorized users must provide financial assurance in the form of a bond or similar mechanism that will guarantee repairs to the road in the event of significant damage.
    f. Intersections of any spur timber roads with the Pogo Mine Access Road must be designed in accordance with Teck-Pogo's design requirements, and must be signed appropriately.
    g. Teck-Pogo may temporarily restrict use of the road during times of heavy use or during periods with adverse road conditions.

26. **Destruction of Markers.** All survey monuments, witness corners, reference monuments, mining claim posts, bearing trees, and unsurveyed lease corner posts shall be protected against damage, destruction, or obliteration. The permittee shall notify the Authorized Officer of any damaged, destroyed, or obliterated markers and shall reestablish the markers at the permittee's expense in accordance with accepted survey practices of the DMLW.

27. **Site Maintenance.**
    a. The area subject to this authorization shall be maintained in a neat, clean and safe condition, free of any solid waste, debris or litter.
    b. During equipment maintenance operations, the site shall be protected from leaking or dripping hazardous substances or fuel. The Permittee shall place drip pans or other surface liners designed to catch and hold fluids under the equipment or develop a maintenance area by using an impermeable liner or other suitable containment mechanism.

28. **Solid Waste.**
    a. All solid waste and debris generated from the activities conducted under this authorization shall be removed to a facility approved by the ADEC prior to the expiration, completion, or termination of the authorization or activities.
    b. Paper products may be burned on site provided that measures (e.g. burn barrels, clearing of burn area to mineral soil) are taken to prevent wildfires.

c. Temporary storage and accumulation of solid waste (prior to its removal) shall conform to the following:
   1) solid waste shall be stored in a manner that prevents a litter violation under AS 46.06.080;
   2) putrescible wastes (material that can decompose and cause obnoxious odors) shall be stored in a manner that prevents the attraction of or access to wildlife or disease vectors; and
   3) the premises shall be maintained free of solid waste that might create a health or safety hazard.

29. **Fuel and Hazardous Substances.** Secondary containment shall be provided for fuel or hazardous substances.
   a. **Container marking.** All independent fuel and hazardous substance containers shall be marked with the contents and the Permittee's name using paint or a permanent label.
   b. **Fuel or hazardous substance transfers.** Except for hand operated equipment, secondary containment or a surface liner must be placed under all container or vehicle fuel tank inlet and outlet points, hose connections, and hose ends during fuel or hazardous substance transfers, where feasible and prudent. Appropriate spill response equipment must be on hand during any transfer or handling of fuel or hazardous substances to respond to a spill of up to five gallons. Transfer operations shall be attended by trained personnel at all times.
   Vehicle refueling shall not occur below the ordinary high waterline of any waterbody. This restriction does not apply to water-borne vessels provided no more than 30 gallons of fuel are transferred at any given time.
   c. **Storing containers within 100 feet of waterbodies.** Containers with a total capacity larger than 55 gallons which contain fuel or hazardous substances shall not be stored within 100 feet of a waterbody.
   d. **Exceptions.** The Authorized Officer may under unique or special circumstances grant exceptions to this stipulation on a case-by-case basis. Requests for exceptions should be made to the Authorized Officer.
   e. **Definitions.**
      1) **"Containers"** means any item which is used to hold fuel or hazardous substances. This includes tanks, drums, double-walled tanks, portable testing facilities, fuel tanks on small equipment such as light plants and generators, flow test holding tanks, slop oil tanks, bladders, and bags. Manifolded tanks or any tanks in a series must be considered as a single container. Vehicles, including mobile seismic tanks, are not intended to be included under this definition.
      2) **"Hazardous substance"** is defined as (A) an element or compound which, when it enters into the atmosphere, or in or upon the water or surface or subsurface land of the state, presents an imminent and substantial danger to the public health or welfare, including but not limited to fish, animals, vegetation, or any part of the natural habitat in which they are found; (B) oil; or (C) a substance defined as a hazardous substance under 42 U.S.C. 9601(14).

3) **"Secondary containment"** means an impermeable diked area or portable impermeable containment structure capable of containing 110 percent of the volume of the largest container. Double-walled tanks do not qualify as secondary containment unless valves and piping are contained within the outer double wall.
4) **"Surface liner"** means any safe, non-permeable container (e.g., drip pans, fold-a-tanks, etc.) designed to catch and hold fluids for the purpose of preventing spills. Surface liners should be of adequate size and volume based on worst-case spill risk.
5) **Notification.** The Permittee shall immediately notify DNR and DEC by phone of any unauthorized discharge of oil to water, any discharge of hazardous substances (other than oil), and any discharge of oil greater than 55 gallons on land. All fires and explosions must also be reported to DNR. The DNR 24-hour incident notification number is (907) 451-2678; the Fax number is (907) 451-2751. The DEC spill report number is (800) 478-9300. DNR and DEC shall be supplied with all follow-up incident reports.
6) **Remediation.** Should any unlawful discharge, leakage, spillage, emission, or pollution of any type occur due to Permittee's, or its employees', agents', contractors', subcontractors', licensees', or invitees' act or omission, the Permittee, at its expense, shall be obligated to clean the area to the reasonable satisfaction of the State of Alaska.

30. **Public Access to state lands.** There shall be no interference with generally allowed use of state lands adjacent to the rights-of-way.

31. **Road Closure during Construction.** Uses of the rights-of-way shall be restricted to Pogo mine-related uses, government agencies, and other users approved by DNR, for mine administration purposes, general land and resource management purposes (for example, fire suppression and research), and for commercial timber harvesting activities.

32. **Construction Camps.** The Permittee may establish two construction camps adjacent to the road right-of-way. One camp will be established on the west side of the Goodpaster River near the Pogo Mine and the second camp will be established near Gilles Creek. The camps and associated airstrips and laydown areas will be kept to the areas described by the right-of-way application, as amended, unless otherwise approved. The airstrips will be located within the road right-of-way.

33. **Reclamation of Construction Disturbance.** All necessary measures will be taken to prevent erosion and sediment from leaving the construction area. The Permittee will perform initial reclamation of construction disturbances immediately following road and powerline construction. Disturbed areas will be stabilized and revegetated. Compacted areas will be ripped and scarified. If necessary, growth media will be spread to improve revegetation. Revegetation procedures and standards from the approved ROW application and Pogo Mine

Reclamation Plan will apply. All necessary measures will be taken to prevent erosion and sediment from leaving the work area.

Winter Road Use. Stipulations 1 through 33 are applicable to the construction and use of the Shaw Creek and Goodpaster winter roads except as modified below.

34. **Trail Modifications.**
    a. The Permittee is authorized to modify the Goodpaster Winter Trail and adjacent topography in three locations; Quartz Lake Hill, Progressive Creek Hill and Seven Mile Creek, consistent with the Goodpaster Winter Road Construction and Operations Plan and the Corps of Engineers Section 404 Permit Application. Prior to performing other modifications, the permittee must receive the approval of the Authorized Officer.
    b. The trail may be widened by approximately 10 feet between Quartz Lake and Goodpaster River crossing #9. The brush and non-merchantable timber may be disposed of by hydroaxing, mastication or brush grinding. Care shall be taken to not tear or otherwise destroy the "root system" of the vegetative mat. If unavoidable disturbance to the root mat occurs, the organics and woody debris shall be distributed over the disturbed area to provide erosion protection until the vegetation is reestablished. The clearing shall not leave "stakes or stobs" that would result in potential damage to other trail users (i.e. snowmachines or dog teams).
    c. During the trail construction or trail widening at Quartz Lake Hill and the cut/fill at Progressive Creek Hill, an alternate route around the disturbed section of trail or safe passage through the area shall be maintained for snowmachine and dog team access. Safe passage may include the use of trail flaggers to regulate traffic flow and may result in short delays. During the construction of the winter road, particularly during the use of hydroaxes and similar type equipment, warning signs will be posted along the trail on either side of this activity.
    d. The additional trail clearing at river crossing, as depicted on the Goodpaster River Crossing Site Plan and Bridge Profile is approved, consistent with these stipulations. Clearing of vegetation, particularly along waterbodies, shall be kept to the minimum needed for the transit of construction equipment and supplies.
    e. Merchantable spruce must be salvaged consistent with the Forest Resources Stipulations. In general, merchantable aspen and birch salvage is not required on the winter roads, however, by mutual agreement of the Authorized Officer and the Permittee, merchantable hardwoods may be salvaged.
    f. With the exception of the three areas identified in "34a." above and other authorized areas, all trail modifications and operation of vehicles, on or off the trail, will be undertaken to minimize disturbances that will expose the mineral soil to thermal degradation and erosion. Off-trail and off-road travel should be limited to areas where there is adequate groundfrost and snow cover. Filling low spots in the trail with snow and ice is allowed.
    g. If dozers with shear-blades are used to clear vegetation, care shall be exercised to minimize the creation of "brush-berms" along the access route.

The Authorized Officer may require these “brush-berms” to be knocked-down or redistributed as needed, and to allow periodic access points to allow other trail users to enter, exit, and cross the trail at frequent intervals.

h. Pilot vehicles. During the use of the trail by convoys, pilot vehicles shall proceed and follow the convoys for safety purposes. The pilot vehicle shall notify the convoy of other trail users approaching, and the convoy shall slow or stop, at the discretion of the pilot vehicles, as necessary to provide safe passage for the other trail users. The Permittee shall install and operate warning lights on both sides of the Progressive Creek Hill to warn other users of a convoy in the area.
i. “Turn-Outs” and Equipment Storage along Winter Route. The construction of turn-outs, turn-arounds, and convoy passing zones is authorized as needed along the access route. Site selection for turn-outs and turn-arounds shall be done in such a manner as to minimize the cutting of vegetation. It is anticipated that equipment/supplies will be stored at various locations along the winter trail during the construction and use of the winter trail, and that temporary shelters for workers may be utilized during the construction of the ice road; these are authorized provided that they comply with all other stipulations contained within this Permit and DNR’s Title 41 Permit.

35. **Quartz Lake Staging Area.**

a. The Permittee may create a staging area on the northeast shore of Quartz Lake, south of the winter trailhead, to stage trailers. The Permittee shall provide for the security at the staging area whenever fuel or other hazardous substances are present by maintaining a minimum of one security/maintenance person on site at all times or securing the site and its contents to the satisfaction of the State. This stipulation modifies Special Stipulation 29c.
b. The Permittee may store fuel and erect a communication building on the uplands along side the winter trail near the trailhead at Quartz Lake. This stipulation modifies Special Stipulation 29c.
c. A barrier shall be installed, just off Quartz Lake, on the winter trail to prevent highway vehicles from traveling the trail. The barrier must be situated so that it will not prevent use by snowmachines, 4-wheelers, and similar vehicles. The Permittee must post a sign at the barrier, which provides readers with the name and a contact phone number of the Permittee. The sign must inform users that a temporary winter road is being constructed and maintained, and that convoys may be on the road. The sign must indicate that the trail remains open to snowmachines, 4-wheelers, and similar vehicles at all times; but short delays at Quartz Lake Hill, Progressive Creek Hill and Seven Mile Creek may occur during construction. The trail is closed to pick-up trucks and other highway vehicles unless permitted by the Department of Natural Resources. DNR permit contact information shall be provided on the sign.
d. The route across Quartz Lake shall approximately follow the south and east shores of the lake. The ice road shall not block access to private

parcels located along this section of the lake and must accommodate parking requirements for said parcels.

36. **Winter Road Maintenance.** During the construction and use of the winter road, the road must be appropriately maintained to allow for use by snowmachines, 4-wheelers, dog teams, and similar conveyances.

37. **Route clean up.** At the conclusion of the season, the entire route will be surveyed to pick up any debris attributable to the Permitee's use of the trail.

38. **Reclamation.** All cuts and fills, or any place where a significant amount of the vegetative mat has been removed, shall have seed and fertilizer applied to the affected sites in a manner that will facilitate germination and growth. All of the sites shall be treated consistent with the reclamation plan (i.e., seed requirements, fertilizer and application) for the Pogo Project Road. The entire winter trail route will be inspected in the summer of 2004 and subsequent summers to determine if reclaimed areas are stable. Temporary culverts shall be removed and the roadbed re-graded to restore or stabilize natural drainage, while maintaining long-term access for winter recreational access. Water bars to divert run-on and run-off shall be used as necessary to provide stabilization and to control erosion. After grading, the trail surface shall be scarified or ripped, if necessary, to promote revegetation.

39. Use of Lake and River Ice.

a. Crossings shall not contain extraneous material (i.e. soil, rock, brush, straw, or vegetation). Logs, timbers, other wood, or metal bridging material may be used in the construction of ice bridges, or to span open water, provided that the bridge is capable of supporting the vehicle loads, and the "non-ice" bridge materials are removed from the crossing at the end of the equipment move and, in any case, before break-up.
b. Clean snow and ice may be recovered from Thompson Lake for use on the trail and crossings only after drilling has confirmed that the ice thickness is adequate to support the equipment utilized. Other areas may be used with the approval of DNR's Office of Habitat Management and Permitting.
c. Signs will be placed upstream and downstream of each bridge crossing to warn recreational users of the bridge crossing. Each bridge location shall have a designated recreational user crossing area, with ramps, that will allow users to cross the winter road safely.
d. The DNR Office of Habitat Management and Permitting has authority for bridge placement and streambank modifications.
e. If equipment does break through the ice, the Permittee shall notify the Authorized Officer within 12 hours. If fuel or hazardous substances are involved, notification shall be immediate.
f. Vehicle maintenance/parking, campsites, and storage or stockpiling of material on the surface ice of lakes, ponds, or rivers is prohibited.

40. **Quartz Lake State Recreation Area.**

a. Interference with Public Use. The Permittee shall not restrict or interfere with free public use of or access to any state land, water, road, or park facility.
b. Protection of Park Land or Property from Damage. The Permittee agrees to conduct all activities in a manner that will minimize any disturbance to park resources and facilities and will protect from damage the lands, waters, facilities, and resources of the State in the areas of operation. If any disturbance occurs, the Permittee shall repair any such disturbance or damage. No alteration of natural materials or State Park facilities may occur without prior written approval.
c. Safety. The Permittee agrees to conduct all operations in a safe and professional manner, with due regard for the safety of park users. If pilot cars are required on the Richardson Highway, the pilot cars shall continue to accompany any oversized loads on the Quartz Lake Road. Signage shall be posted at the start of Quartz Lake Road warning park users of truck traffic.
d. Vehicle Operations. The Permittee agrees to conduct all activities involving on- and off-road operations of wheeled or track vehicles in such a manner as to minimize surface damage to park lands and resources.
e. Repair of Damage. The Permittee agrees to fully repair to the satisfaction of DNR all damage including ordinary wear and tear to State park roads, and facilities which occurs by virtue of the Permittee's operations authorized by this permit. The State will inspect the Quartz Lake Recreation Area when it is snow-free to determine if any damages occurred as a result of the Pogo winter access. If not satisfactorily repaired, the damages are subject to repair by the State at the expense of the Permittee.
f. The Permittee agrees to do the following as compensation for its use of the Quartz Lake State Recreation Area: pull the 12 concrete bumper logs, resurface, level, and compact the parking lot with 200 cubic yards of crushed d-1 then re-install the bumper logs.
g. Operational Area. Except as indicated below, the Permittee shall not use the developed park area as a staging/parking area without the prior approval of the Authorized Officer and the Division of Parks and Outdoor Recreation. The Quartz Lake Recreation Area parking lot can be utilized for the initial off-loading of equipment needed for the construction of the winter road. After completion of the winter road across Quartz Lake, subsequent off-loading or staging activities should occur at the staging area on the northeast shore of Quartz Lake, south of the winter trailhead, as authorized by Stipulation #33. The Forestry spur road should not be utilized for off-loading of equipment or staging, due to the limited visibility on Quartz Lake Road at this location.