

TRUE NORTH PROJECT

RECLAMATION PLAN

Submitted to:

**Alaska Department of Natural Resources
Division of Mining, Land and Water
3700 Airport Way
Fairbanks, Alaska 99709**

and

**U.S. Army Corps of Engineers
Alaska District - Regulatory Branch
P.O. Box 898
Anchorage, Alaska 99506-0898**

Submitted by:

**Fairbanks Gold Mining, Inc.
A Subsidiary of Kinross Gold Corporation
P.O. Box 73726
Fairbanks, Alaska 99707-3726**

September 2000

TABLE OF CONTENTS

	PAGE
<u>1.0 INTRODUCTION</u>	1
<u>1.1 Purpose</u>	1
<u>1.2 Project Summary</u>	2
<u>1.2.1 Location and Land Status</u>	2
<u>1.2.2 General Environmental Information</u>	4
<u>2.0 APPLICANT INFORMATION</u>	5
<u>2.1 Claims, Surface and Millsite Lease Information</u>	5
<u>2.2 Corporation Officer Completing Application</u>	5
<u>2.3 Designated Contact Person</u>	5
<u>2.4 Corporate Information</u>	5
<u>2.5 Alaska Registered Agent</u>	6
<u>2.6 Corporate Guaranty and Reclamation Bonding</u>	6
<u>3.0 PROJECT DESCRIPTION</u>	6
<u>3.1 General</u>	6
<u>3.2 Surface Disturbances</u>	9
<u>3.2.1 Placer and Other Mining Disturbances as of July 1999</u>	9
<u>3.2.2 Areas and Acreage of Disturbance</u>	9
<u>4.0 RECLAMATION PLAN</u>	11
<u>4.1 General</u>	11
<u>4.1.1 Changes to Scope of Reclamation Activities</u>	12
<u>4.1.2 Land Use</u>	12
<u>4.1.2.1 Land Use Prior to the True North Project</u>	12
<u>4.1.2.2 Land Use During True North Project Operations</u>	13
<u>4.1.2.3 Refuse</u>	13
<u>4.1.3 Reclamation of Pre-Mining Disturbances</u>	14
<u>4.1.4 Schedule of Reclamation Activities</u>	14
<u>4.1.4.1 Reclamation During and Directly After Construction</u>	14
<u>4.1.4.2 Concurrent Reclamation</u>	15
<u>4.1.4.3 Temporary Closure</u>	15
<u>4.1.4.4 Final Reclamation</u>	16
<u>4.1.5 Public Safety</u>	16
<u>4.1.6 Post-Mining Topography</u>	16
<u>4.1.6.1 Drainage</u>	16
<u>4.1.6.2 Pit Slope Stability</u>	17
<u>4.1.6.3 Development Rock Dump Slope Stability</u>	17
<u>4.1.6.4 Permafrost Conditions</u>	18
<u>4.1.7 General Reclamation Procedures</u>	19
<u>4.1.7.1 Earthwork</u>	19

<u>4.1.7.3 Revegetation</u>	22
<u>4.1.7.3.1 Growth Medium</u>	22
<u>4.1.7.2.2 Seedbed Preparation</u>	22
<u>4.1.7.2.3 Fertilizer and Fertilization</u>	23
<u>4.1.7.2.4 Seed and Seeding</u>	23
<u>4.1.7.2.5 Mulch</u>	24
<u>4.1.7.2.6 Revegetation Timing</u>	25
<u>4.1.7.2.7 Revegetation Cover Criteria</u>	25
<u>4.1.7.2.8 Public Access</u>	26
4.2 <u>Area Specific Reclamation</u>	26
4.2.1 <u>Action Plan for Reclamation of Mining Roads within Millsite Lease</u>	26
4.2.2 <u>Action Plan for Reclamation of Pits</u>	26
4.2.3 <u>Action Plan for Reclamation of Development Rock Dumps</u>	28
<u>4.2.3.1 Development Rock Potential For Acid Rock Drainage (ARD)</u>	29
4.2.4 <u>Action Plan for Reclamation of Building and Equipment Sites</u>	30
4.2.5 <u>Action Plan for Reclamation of Miscellaneous Sites</u>	31
<u>4.2.5.1 Action Plan for Reclamation of Wells and Well Closure</u>	31
<u>4.2.5.2 Action Plan for Reclamation of Fence Removal</u>	32
<u>4.2.5.3 Action Plan for Reclamation of Electrical Power Facilities</u>	32
4.2.6 <u>Surface Water and Groundwater Protection Plans</u>	32
<u>5.0 APPLICANT STATEMENT OF RESPONSIBILITY</u>	32
<u>6.0 ESTIMATE OF RECLAMATION COSTS AND LONG-TERM POST RECLAMATION MAINTENANCE OBLIGATIONS THROUGH 2003</u>	34
6.1 <u>Reclamation Cost Estimates and Bond Adjustment</u>	34
6.2 <u>Reclamation Plan and Performance Bond Evaluation</u>	35
<u>7.0 ACKNOWLEDGEMENTS</u>	35
<u>REFERENCES</u>	36

LIST OF FIGURES

	PAGE
Figure 1-1 True North Site Location Map	3
Figure 2-1 Millsite Lease within Project Boundary	7
Figure 2-2 Millsite Lease Land Description	8
Figure 3-1 Project General Arrangement	10
Figure 4-1 Cross Sectional View of Pit	20
Figure 4-2 Cross Sectional View of Reclaimed Rock Dump	21
Figure 4-3 Present Groundwater Well Location Map	33

LIST OF TABLES

	PAGE
Table 1 Areas and Acreage of Disturbance	9
Table 2 Estimated Development Rock Volume and Tonnage	18
Table 3 Estimated Growth Medium Volumes	22
Table 4 Seed Mix	24
Table 5 List of Buildings at Completion of Mining	31

APPENDICES

APPENDIX A

Kinross Gold Corporation Environmental Policy

APPENDIX B

True North Project Upland Mining Lease Location Description

APPENDIX C

U.S. Fish & Wildlife Service *Estimating Wildlife Habitat Variables*

APPENDIX D

Acid Base Accounting Results for the 1999 Exploration Drilling Program
(20% of all holes drilled)

APPENDIX E

Reclamation Cost Estimate & Drawing

1.0 INTRODUCTION

1.1 Purpose

This True North Project Reclamation Plan document updates the reclamation plan prepared by Fairbanks Gold Mining, Inc. (FGMI) in February 2000. This current reclamation plan incorporates changes made by FGMI as a result of its ongoing design and analysis process, as well as those changes made in response to agency and public review and comments received.

The True North Project operator is Fairbanks Gold Mining, Inc. (FGMI), a wholly owned subsidiary of Kinross Gold Corporation (KGC). FGMI owns 65% of the True North Venture with the remaining 35% owned by LaTeko Resources, Inc. another wholly owned subsidiary of Kinross Gold Corporation. The True North Venture has lease agreements with the underlying claim owners; the agreements include the area of the Millsite Lease and additional claims within the overall exploration area listed in Section 2.0.

Fairbanks Gold Mining, Inc. (FGMI), has prepared this plan to address interim, concurrent, final reclamation and post-mining land use of the True North Project. This plan is submitted to the Alaska Department of Natural Resources, Division of Mining, Land and Water (ADNR) in accordance with AS 27.19.010 et. seq. and 11 AAC 97.100 et. seq. Concurrently, the plan is being submitted to the U.S. Army Corps of Engineers (COE) as required by the Clean Water Act Section 404 Permit No. M-940742, N-940742, O-940742, and P-940742, Murry Creek 2.

The True North Project and all operating and ancillary facilities are located on legally filed and held State mining claims. The State mining claims are on land administered by ADNR.

FGMI will reclaim exploration, development, and mining-related disturbances at the True North Project in a manner compatible with the land use selected and discussed herein. Reclamation practices will utilize best practicable established and accepted technologies and methodologies suitable to the interior forest or Taiga environment of the True North Project area. Where pertinent, documented successful practices from other interior forest region reclamation projects (i.e. Trans Alaska Pipeline, the Fort Knox Mine, and placer mining) will be implemented at the True North Project.

As generally discussed in the True North Project Description, reclamation practices are under constant scrutiny by government, industry, and the public. Although there are no process facilities, the True North Project is subject to the Alaska Reclamation Act. Therefore, reclamation plans must be, within the context of existing regulations, dynamic and capable of changing with the input of new information, ideas, and techniques (11 AAC 97.330 Amendment of Reclamation Plan).

Final reclamation (final contouring of development dumps, facility sites, and seed bed

preparation) will be initiated immediately and completed within two years of cessation of mining operations where affected land cannot practicably be reclaimed concurrently. Notification, in writing, of final closure will be given to the ADNR and COE within 90 days after cessation of mining operations.

Access by Federal and State regulatory personnel to the True North Project mine facilities for the purpose of inspecting for reclamation or other appropriate compliance areas are statutory/regulatory mandates and will be honored by FGMI, with the request that agents contact mine management to gain access. The health and safety of FGMI employees and that of regulatory personnel is the rationale for this request. Mining is regulated under the Mine Safety and Health Administration (MSHA). Their regulations require minimum training for employees and visitors for Hazard Recognition and Safety. Visitors as well as employees must wear safety equipment, approved by MSHA.

FGMI requests consideration by the regulatory agencies to conduct routine inspections during weekdays when administration and mine managers are available to answer questions and, if necessary, accompany agents to different areas of the site.

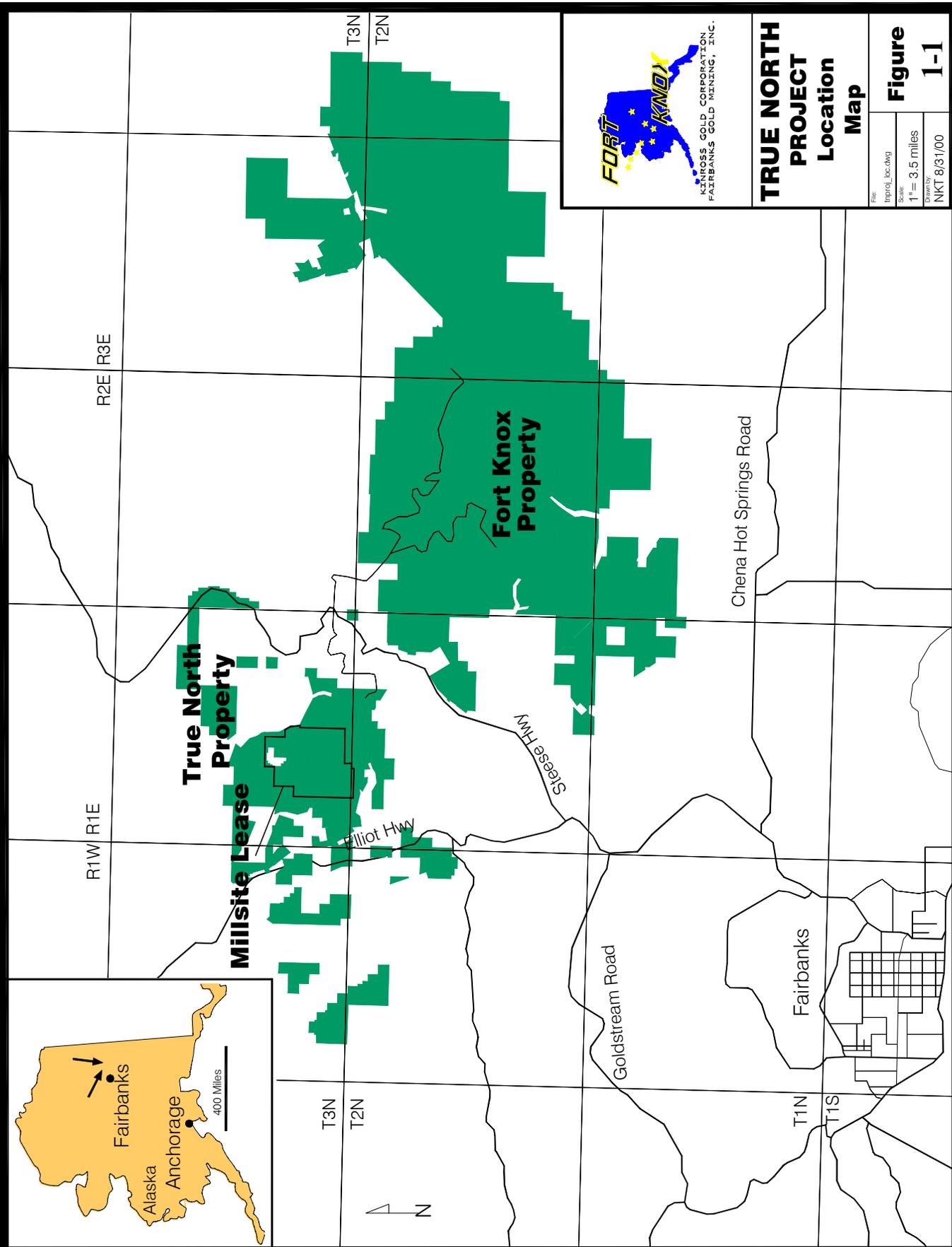
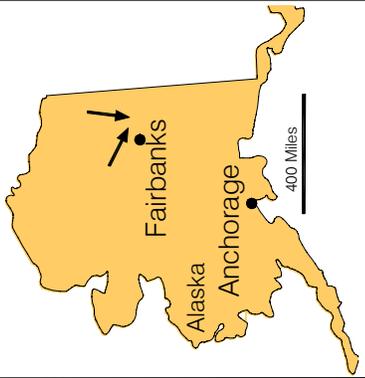
1.2. Project Summary

1.2.1 Location and Land Status

The True North Project is within the Chatanika River watershed located on the northwest flank of Pedro Dome approximately 25 miles northeast of Fairbanks (Figure 1-1 and 1-2). The ridgelines drain into Murray Creek, a tributary of Dome Creek to the south; and Louis Creek, Whiskey Gulch, and Spruce Creek, tributaries of Little Eldorado Creek to the north. More specifically, the Millsite Lease boundary is located in portions of Sections 21, 27, 28, 29, 32, & 33, Township 3N, Range 1E, Fairbanks meridian (Figure 2-1). The project site is located entirely on State and University of Alaska land. There is no federal land involved within the project boundaries and the closest residence is approximately one mile from the project boundary.

The ore body and large majority of the project area are situated on State of Alaska land. Figure 1-1 shows the large block of FGMI's leased mineral rights. The True North ore body and ancillary facilities have been placed within the Millsite Lease (Figure 2-1).

The center of the ore body is located on the northwest flank of Pedro Dome on the ridge between Dome Creek and Eldorado Creeks. Calcareous and carbonate-altered schist hosts the True North deposit. The ore body is elongated northeast gently dipping to the southwest. True North's topographic features are shown in Figure 3-1.



True North Property
Millsite Lease

Fort Knox Property



TRUE NORTH PROJECT Location Map

File: \trproj_loc.dwg
Scale: 1" = 3.5 miles
Drawn by: NKT8/31/00
Figure 1-1

1.2.2 General Environmental Information

The True North Project area is in the Yukon-Tanana Uplands, characterized by rounded, even topped ridges with gentle slopes. The deposit is located on the northwest flank of Pedro Dome at elevations ranging between 1,760 to 1,200 feet.

The climate is continental sub-arctic with mean annual precipitation of less than 12 inches. The area is predominantly forested. Well-drained soils of the uplands and alluvial plains are covered mainly with white spruce (*Picea glauca*) and a mixture of broadleaf trees such as paper birch (*Betula papyrifera*) and quaking aspen (*Populus tremuloides*). The climax forest on well-drained soils in the area is white spruce. The moderately well drained and imperfectly drained soils may support forests similar to those on the well-drained soils, but more commonly black spruce (*Picea mariana*) and willow (*Salix spp.*) are found. Mosses (*Sphagnum spp.*), along with horsetail (*Equisetum spp.*) and grass, typically cover the ground. Shrubs such as willow, however, are also prevalent.

The poorly drained soils with a high permafrost table generally support communities of black spruce, willow, and alder (*Alnus spp.*). A thick moss mat, principally *Sphagnum spp.*, covers the ground. Lichens such as *Cladonia spp.* and *Peltigera spp.* are common in the moss mat also. This mat supports a dense cover of shrubs; primarily bog birch (*Betula glandulosa*), spirea (*Spirea beauverdiana*), Labrador tea (*Ledum decumbens*), cranberry (*Vaccinium vitis-idaea*), and blueberry (*Vaccinium uliginosum*). Tussocks of cotton grass (*Eriophorum spp.*) are also common, especially along the toe slopes. Poorly drained soils with a high permafrost table may be found on the northern exposures of the mountain slopes, especially those areas that are concave or broken. Spindly black spruce and a thick moss mat are typical on these sites. Permafrost is discontinuous throughout the project area, and does not exist on some north-facing mountain slopes where it normally would be expected. South-facing slopes receive much more radiation from the sun, and generally support white spruce, paper birch, and quaking aspen.

ABR, Inc. performed three wetland delineations for True North. No high value wetlands are located within the Millsite Lease area. The impacted wetlands are associated with permafrost and have vegetative cover of black spruce and a moss mat. Similar type wetlands are abundant in the True North Project area and surrounding region (ABR, Inc., 1996, 1997). Approximately 64 acres of wetlands will be disturbed due to roads and pit development. The office, shop, explosive storage area, development rock dumps, growth medium stockpile and ore stockpile will all be located on uplands.

The True North Project area does not currently support any threatened or endangered species, but does support populations of three species of concern: Northern Goshawk, Olive-sided Flycatcher, and lynx. Populations of these species appear to be present in numbers similar to other locations in interior Alaska. Suitable habitats for these species are abundant in the True North Project area and surrounding region (ABR, Inc., 1998).