

TRUE NORTH PROJECT DESCRIPTION

prepared by

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1.0 INTRODUCTION

1.1 Overview

The True North Project operator is Fairbanks Gold Mining, Inc. (FGMI), a wholly owned subsidiary of Kinross Gold Corporation.

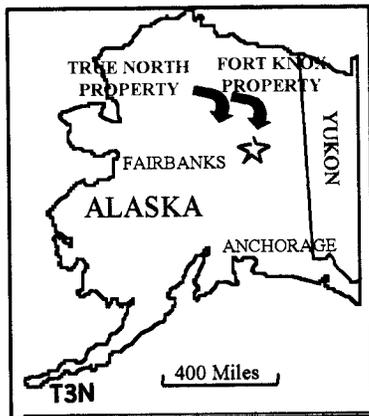
The True North Project is within the Chatanika River watershed located on the northwest flank of Pedro Dome approximately 25 miles northeast of Fairbanks (Figures 1-1 and 1-2). The ridge lines drain into Murray Creek, a tributary of Dome Creek to the south; and Louis Creek, Whiskey Gulch, and Spruce Creek, tributaries of Little Eldorado Creek to the north.

The True North deposit is hosted by calcareous and carbonate-altered schist. The ore body is elongated northeast gently dipping to the southwest. The estimated reserves for the True North "Hindenburg" and "East" pits are 7.4 million tons, averaging 0.062 oz/t. FGMI exploration crews are currently drilling to further define mineralization in the area. Exploration activities will continue during the mine life in order to locate possible areas for expansion and associated mine development. Kinross is optimistic that additional development will proceed as exploration drilling confirms additional reserves. Sampling and data collection will include metallurgical characterizations of the ore and development rock. Other activities will include environmental baseline studies, hydrologic studies, laboratory and pilot plant tests for process design and ore grindability, geotechnical studies, and basic engineering studies for project design and permitting.

The mine will operate year-around with conventional open pit mining averaging 30,000 tons per day, processing 2:1 with 88% recovery, and producing approximately 180,000 ounces of gold annually. Mining will be similar to a gravel pit or rock quarry, therefore no process components will be present at the property. Approximately 10,000 tons of ore per day will be trucked to the Fort Knox mill for processing. Mining of the Hindenburg and East pits are projected to begin in the third quarter of 2000 and continue for approximately three years. Development costs are estimated to be between \$20 and \$30 million.

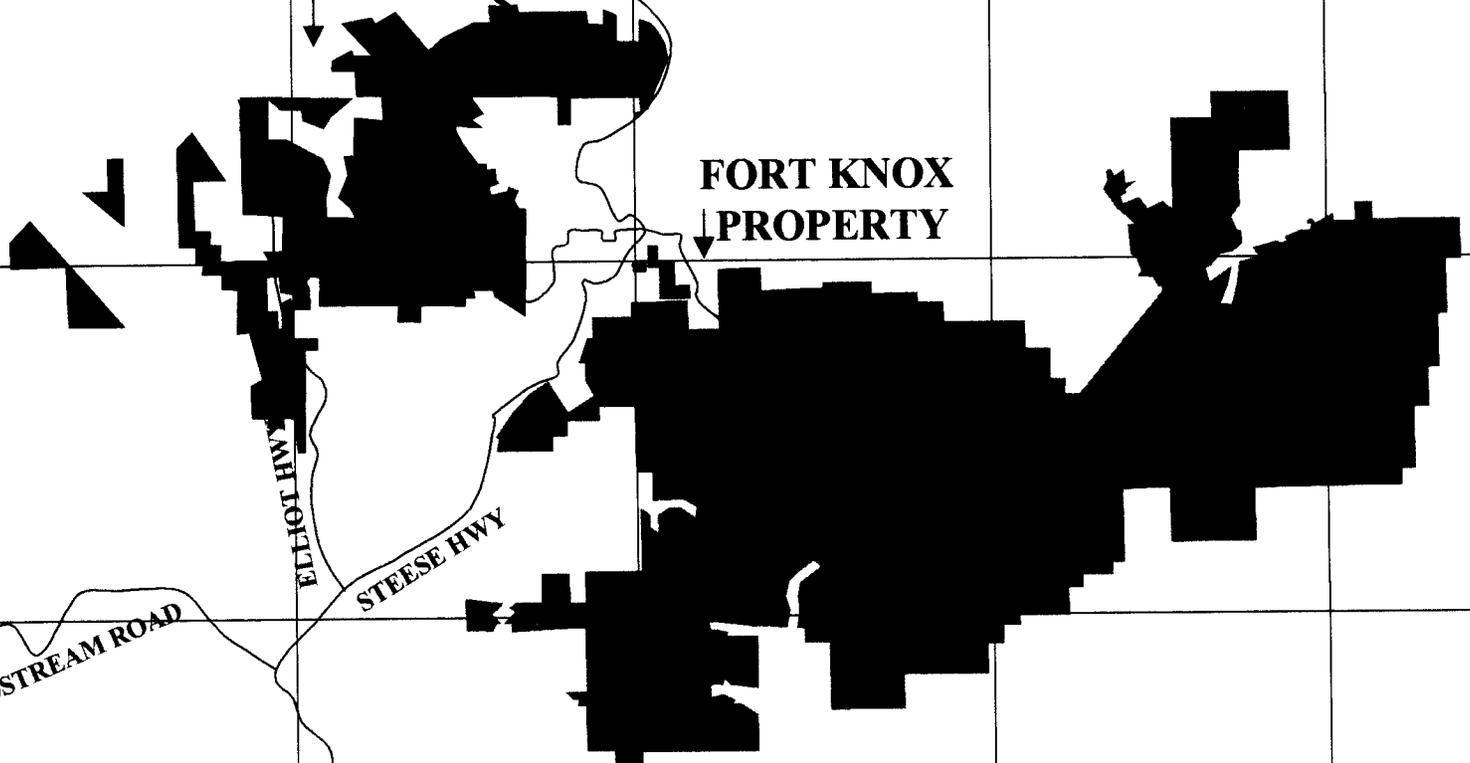
The mine's estimated annual operating expenditures for labor, power, and support services are \$14 million. Most of these expenditures occur in Fairbanks and throughout Alaska. The operational work force is expected to be 100 to 110 people.

The project design is based on exploration drilling results and prefeasibility studies. Prefeasibility studies included environmental baseline studies and alternative analysis.



**TRUE NORTH
PROPERTY**

**FORT KNOX
PROPERTY**

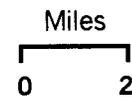


T1N
T1S

FAIRBANKS

R2W R1W

R1E R2E





**TRUE NORTH
PROJECT
LOCATION MAP**

Figure 1-1

1.2 Project Location and Land Status

The True North Project is located 25 miles northeast of Fairbanks, on the northwest flank of Pedro Dome. True North is accessed via the Steese Highway to Cleary Summit, then 6.5 miles via a gravel road skirting the south side of Pedro Dome.

The True North Project area consists of a mixture of 452 state claims, 21 federal patented claims, and 2,036-acres of Alaska Mental Health Trust Land. FGMI will be applying for an Upland Mining Lease (Figure 2-1) for development within a portion of the True North Project area. More specifically, the Upland Mining Lease is located in portions of Sections 21, 27, 28, 29, 32 & 33, T1N, R1E, Fairbanks Meridian.

1.3 History

1.3.1 Area History

In 1901, Felix Pedro and Tom Gilmore discovered gold in a gravel bar near the mouth of Fish Creek; however, they decided not to stake the discovery because they considered it to be only a spring freshet deposit and not a valuable placer deposit (Parker, 1929). They continued prospecting in the area; and, on July 22, 1902, Pedro made a discovery on Pedro Creek starting a stampede into what became the Fairbanks District (Parker, 1929).

Pedro's discovery resulted in the establishment of Fairbanks as a major mining center (Cashen, 1971). By 1904 Fairbanks had become one of the principal gold producing districts in Alaska. Placer production peaked in 1909 (Parker, 1929) marking a transition from the relatively low grade, easily mined shallow placers to the high grade, underground "drift mines" (Parker, 1929). Between 1903 and 1930 an estimated 3.9 million ounces of placer gold and 100,000 ounces of lode gold were recovered from the district (Hill, 1933).

During the boom years of 1903 to 1905 (Cashen, 1971), towns sprang up on numerous creeks throughout the region (Wold, 1971). In 1908, 5,000 people lived in Fairbanks and another 5,000 lived in the surrounding area. By 1910, however, the Fairbanks population had dwindled to 1,500 (Cashen, 1971). Mining activity steadily declined from 1910 to 1915 (Anon., 1916) and continued to drop until the 1920's when dredges were introduced. The U.S. Smelting, Refining, and Mining Company dba Fairbanks Exploration Company (F.E. Co.) operated 12 dredges in the Fairbanks Mining District in 1930, but in 1953 only six operating dredges remained (Cooley, 1954). Mining activity rose from the late 1920's until World War II when gold mining was suspended under the war moratorium. Activity remained low until the price of gold began to rise in the 1970's.

Lode gold mining did not start in the Fairbanks District until 1910 (Brooks, 1915) and it peaked in 1913 (Hill, 1933) when 10 mills were operating (Brooks and others, 1914). Lode mining declined during the First World War (Hill, 1933) and revived after construction of the Alaska Railroad in 1923 (Boswell, 1979). Total lode gold production from the Fairbanks District to 1960 was 239,247 ounces (Cobb, 1973).

In 1984 lode gold mineralization was discovered at what was to become the Fort Knox Mine. Between 1987 and 1991, a number of companies were involved for varying lengths of time in exploration and pre-development of the Fort Knox Project. In January 1992, Amax Gold Inc. (AGI) acquired 96 percent ownership of Fairbanks Gold Ltd., a publicly held British Columbia corporation, and merged Gilmore Gold Inc., a closely held Delaware corporation, into AGI. On March 31, 1992, AGI acquired the remaining 4 percent of Fairbanks Gold Ltd, thus obtaining full ownership of the Fort Knox Project. AGI established FGMI as the operating company for the mine. On June 1, 1998 AGI and Kinross Gold Corporation merged. FGMI is a wholly owned subsidiary of Kinross Gold Corporation.

Construction of the Fort Knox Mine began in the first quarter of 1995 and processing of ore commenced November 1996. Commercial production was achieved March 1997 and gold production has remained at approximately 350,000 ounces of gold annually. The mine employs approximately 260 workers and generates a positive \$107 million impact on the local economy (McDowell Group, 1999).

1.3.2 History of the True North Project

Major Placer Mining Activity

In 1924, the F.E. Co. began purchasing large tracts of land and constructing a water conveyance system, the Davidson Ditch, in preparation for dredging activities. The Davidson Ditch was an engineering milestone that consisted of approximately 90 linear miles of hydraulic ditch, flumes, and siphons.

Dredging in the drainages surrounding Pedro Dome began in 1924 on Cleary Creek when the Chatham Gold Dredging Company built a 1.5-cubic foot dredge. It was located at the mouth of Chatham Creek. In 1928, a 10-cubic foot dredge owned by F.E. Co. started mining on lower Cleary Creek and worked the Chatanika Flats. A third dredge started mining on the middle of Cleary Creek in 1929. This third dredge was a 6-cubic foot model owned by F.E. Co. After 18 years of successful operation, this dredge was moved to Little Eldorado Creek in 1947 and operated in the middle reaches of the creek. After eight years on Little Eldorado Creek, the dredge was moved to Dome Creek, where it currently sits. Dredging ended in Dome Creek in 1959. All F.E. Co. dredging operations were discontinued by 1964 (Higgs, 1996). Smaller scale placer mining operations have continued in Little Eldorado Creek and Dome Creek up to the present time.

Lode Mining Activity

The largest lode production from mines in the immediate True North area came from the Soo property, also known as the Spaulding, patented in June 1913. From 1912 to 1914, this mine produced \$75,000 - \$100,000 with the gold price at \$20.67 per ounce. Other lode mines and prospects in the True North area are the Newsboy, Sunrise, Robinson, Hidden Treasure, and Dome View. The Dome View was staked in 1917, on the north flank of Pedro Dome at the 2,000-foot elevation by the Wackwitz Brothers. The adit was 145-feet long and attained a depth of 100-feet. The vein was 12 to 40-

inches wide, averaging 30-inches. The Newsboy mine is two miles north-northeast of Pedro Dome. The veins on this property were extensively stoped. The original shaft was 350-feet deep (Hill, 1933).

Poz and Contardi worked the Hindenburg mine, located in the heart of the True North Project, producing stibnite during the summer of 1916. A 25-foot shaft accessed their drifts. During WWI approximately 200 tons of high-grade stibnite ore were shipped.

John Rogash located the Ohio claims in the East pit area in 1916 and three shallow shafts were dug on a quartz-stibnite vein striking east west (Hill, 1933).

In 1942, Mike Myntti drove a 140-foot crosscut and installed a stamp mill at the Hindenburg Mine, centrally located within the Hindenburg pit. The mineralized zones are variably described as nearly flat lying or dipping 60 degrees SE (Haskins, 1981). During this same year Myntti worked on the Markovich property, near the south end of the proposed Hindenburg pit, shipping 16-tons of ore containing 38% antimony, which was taken from small pods and stringers (Joesting, 1942).

The Chomco claims covering the northern portion of the True North Project were purchased and worked in the late 1960's and early 1970's by Frank Mate and Richard Raines who discovered five mineralized zones using geochemical prospecting. Various lessees have continued excavation of the Hindenburg area and have explored the Ohio prospect and the south trench area.

In 1990, Amax Gold Incorporated (AGI) negotiated a mining lease on the Chomco claims. A 4-hole, 1,000-foot, drilling program was completed in 1991. These results prompted expansion of the property position by acquiring the Shepard claims in the winter of 1991 and by staking the open ground in Spruce Creek in the fall of 1991. An expanded exploration program in 1992 included soil sampling, a geophysical survey, trenching, and a 16-hole, 5,332-foot drilling program.

In 1993, AGI sold their interest in the True North property to La Teko Resources, Inc. Between 1993 and 1994 La Teko drilled 57,302-feet of exploration holes. In 1995 Newmont Exploration Limited (NEL) and La Teko formed a joint venture (65%: 35% respectively) to explore the property. Between 1995 and 1998 NEL completed a multi-faceted exploration program that included extensive soil sampling, wetland delineation and cultural resource surveys, geophysical surveys, trenching, drilling, metallurgical testing, geological interpretation, computer modeling, and reserve definition.

In 1999, Kinross acquired La Teko and purchased Newmont's 65% interest in True North. A 14,000-foot drilling program was completed to further define reserves in the Hindenburg area and to define area hydrology, material characterization for acid rock drainage (ARD) potential, geotechnical survey, permafrost evaluation, and the mineralized area to be encompassed by the prospective Upland Mining Lease area for the True North Project.

1.4 Geology

1.4.1 Regional Geology

The True North deposit is located within the Yukon-Tanana terrane, which is bounded on the northeast by the Tintina fault and on the southwest by the Denali fault. The Yukon-Tanana terrane consists of accreted metamorphic rock of primarily sedimentary origin that were subjected to greenschist, amphibolite, and eclogite-facies grade metamorphism. Intermediate to felsic plutons and stocks intruded the metamorphic rocks during the Cretaceous Period (85 – 95 million years ago).

The Yukon-Tanana metamorphic rocks, within the Fairbanks mining district, are primarily composed of the Chatanika terrane and the Fairbanks Schist. The Chatanika terrane is postulated to have been thrust over the Fairbanks Schist prior to retrograde metamorphism of both units to greenschist facies and the Cretaceous intrusive activity. High angle northeast striking faults transect the district and offset all rock types.

1.4.2 True North Deposit

The True North property is bisected by the high angle northeast striking Eldorado Fault that emplaced the Fairbanks Schist, in a high angle contact with the allochthonous Chatanika terrane. The True North deposit occurs in a structurally complex mineralized zone within the Chatanika terrane, parallel to the Eldorado Fault. Ore zones are typically gently dipping, variably brecciated zones that may be related to regional thrust faulting. The thickness and shape of the breccia zones are widely variable and appear to have been modified by higher angle faults.

Calcareous and carbonate-altered schist of the Chatanika terrane hosts the True North deposit. These rocks have been subdivided into three main lithologic subunits: (1) a slate unit consisting of slate and fine-grained carbonaceous quartzite; (2) a mafic schist unit consisting of chlorite-biotite-amphibole schist, eclogite, amphibolite, and marble; and (3) a felsic unit consisting of muscovite schist, quartz-muscovite-biotite schist, and quartzite. The felsic and mafic schist units are the main hosts for gold at True North.

Fine-grained gold is closely associated with pyrite, arsenopyrite, and (less directly) stibnite in the unoxidized portion of the True North deposit. Gold occurs in drusy quartz veins and altered and brecciated schist adjacent to the quartz veins. The most intensely mineralized zones are graphitic breccias with numerous quartz-carbonate-sulfide veins. Less intensely mineralized zones contain fewer quartz veins in variably brecciated, iron carbonate and calcium carbonate altered schist. Weakly mineralized to unmineralized zones are calcite-altered and are locally brecciated.

2.0 PREFEASABILITY STUDIES

2.1 Baseline Analysis

2.1.1 Environmental Analysis

True North has conducted an environmental baseline analysis consisting of four main components:

1. Surface and Ground Water Hydrologic Studies
2. Wetland delineation (3)
3. Cultural resource survey (2)
4. Socioeconomic Evaluation
 - A) Visual impacts
 - B) Land values
 - C) Noise impacts
 - D) Traffic impacts

Newmont provided some surface hydrological information with limited static levels from exploration drill hole logs. However, the information was incomplete. FGMI began surface water sampling and groundwater delineation in September of 1999. The water baseline program for both surface and water hydrology has been augmented and includes installation of thermistors to evaluate permafrost impacts on groundwater hydrology. Nine groundwater-monitoring wells were installed in December 1999 and sampling began in January 2000. Monitoring and sampling will continue through development, operations, reclamation, and closure.

ABR, Inc. performed three wetland delineations for True North. No high value wetlands are located within the Upland Mining Lease area. Approximately 164 acres of wetlands will be disturbed due to roads, office and maintenance facilities, an ore stockpile, and development/growth medium dump sites.

Northern Land Research, Inc. performed two cultural resource surveys. From these studies, it was determined that a total of 38 known historic properties are located within the current True North claim boundary. Of these 38 historic properties, only five are expected to require additional levels of documentation (four from the Spruce Creek area and one from the Dome Creek area). All five sites are outside of the proposed Hindenburg/East pits and ancillary facilities development.

The socioeconomic evaluation considered the possible impacts accrued by residents surrounding the True North Project. The four main evaluations were conducted as near as one mile and as far as ± 8 miles (Mining Public Consent, LCC).

From the information gathered by these studies, alternative mine plans were developed.

2.2 ALTERNATIVE ANALYSIS

2.2.1 Processing Alternatives

Processing alternatives considered:

1. Regional Mill
2. Heap Leach
3. Stand Alone Mill

Regional Mill: A conventional milling facility exists within 12.5-miles of the True North ore deposit. This option would require no processing component on the True North mine site. Ore would be trucked to the regional mill for processing. The ore would be treated and tailings material deposited within an existing zero discharge facility. No additional disturbance would be necessary on the True North site to accommodate a mill and ancillary facilities. No additional disturbance would be required in the surrounding drainages for creation of a dam and tailing storage minimizing the potential adverse impact to surface and groundwater.

Heap Leach: Constructing a heap leach facility would require additional disturbance for construction of leach pads, solution ponds, and recovery facilities. Solution ponds containing sodium cyanide would be required as essential process components. Provision would need to be made for crushing and materials handling requiring more surface disturbance. Large quantities of water would need to be obtained from water wells and or pumping facilities built in the surrounding drainages for use in the leach facility. Impact to the view shed would be increased with the creation of large mounds as material is crushed and stacked on the heaps. Most likely the heap leach pads and solution ponds would be constructed on the ridges as being the most open available space. Traffic from Fairbanks would increase as a result of additional process employees and the required shipment of reagents.

Stand Alone Mill: Construction of a stand-alone mill would entail additional disturbance for mill buildings, leach tanks, reagent storage areas, stockpile areas, crushing and support facilities. A conventional mill would require construction of a dam and tailing impoundment. Large quantities of water would need to be obtained from water wells and or pumping facilities built in the surrounding drainage. Site usage of reagents would increase. Traffic from Fairbanks would increase as a result of additional mill employees and the required shipment of reagents.

2.2.2 Ore Transfer

Ore transfer alternatives considered:

1. Trucking
 - A. Off Highway Trucks
 - B. Over the Highway Trucks
2. Conveyor

Trucking: Trucking ore from True North to the Fort Knox mill is considered a viable alternative. It involves no special equipment or out of the ordinary accommodations.

Off Highway Trucks: Off highway trucks were considered for the ore haul. They carry large volumes of material and so would decrease the number of truck trips required to make the required tonnage. The disadvantages of off highway trucks for this particular instance are several. Their large size in relation to other traffic expected to share the road would create a potential safety hazard. Trucks from True North will be required to cross an existing highway. Off highway trucks would have a greater impact on noise to the existing residences.

Over the Highway Trucks: By carefully specifying the design of the tractor-trailers it is possible to achieve increased payloads from conventional over the highway type trucks. This allows for minimizing the volume of truck traffic on a daily basis. Because these are conventional type trucks the safety concerns for other road traffic are minimized. Conventional trucks are designed and built to minimize impacts due to noise.

Conveyor: Practical experience over four years of operation of a relatively short conveyor system at the Fort Knox Mine indicates this would be a less than viable alternative. A conveyor from True North would need to be approximately 12-miles in length and traverse varying topography. In addition a conveyor would be required to bridge the existing Steese Highway. Multiple transfer points would be required with attendant motor drive units, bag houses for fugitive dust emissions and ever-pervasive spillage of material would add to the already significant problems associated with operating a conveyor in this environment. Noise from carrier rollers is seen to be a source of concern to the existing residents. A conveyor could potentially create an attractive nuisance and thereby become a safety concern and liability to the company. At 12-miles in length over varying topography there would be no practical way of preventing pedestrians be they hikers, bikers, snowmachiners or just the curious from climbing in, around, on, under and through the conveyor structure endangering themselves being caught in the moving machinery. The conveyor would also inhibit terrestrial wildlife species from traversing the system.

2.2.3 Road Alternatives

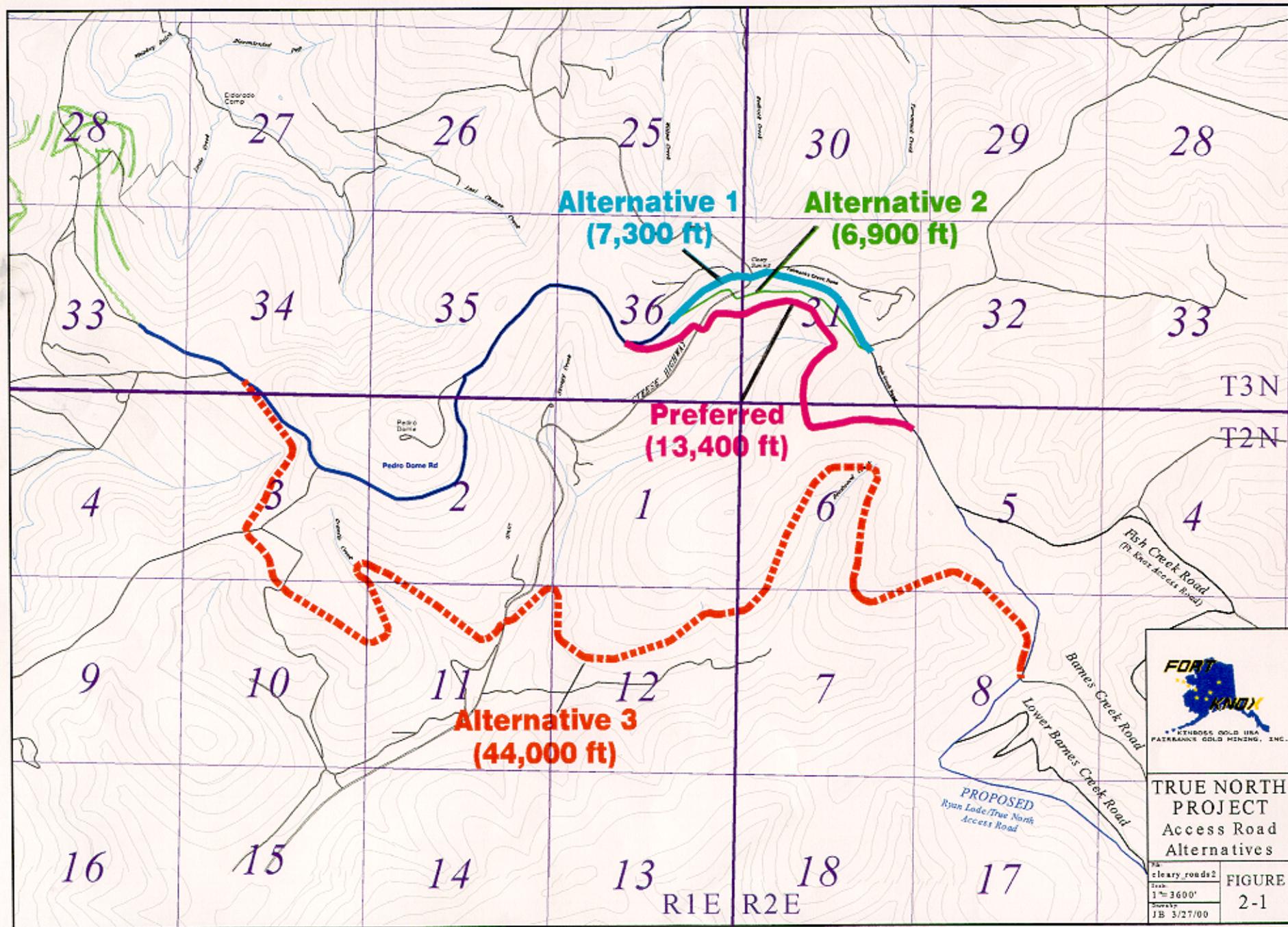
Four alternative road options were considered in examining trucking ore to Fort Knox mill (Figure 2-1). All the alternatives involve varying degrees of improving existing access and or new road construction. The Preferred Alternative and Alternatives 1 and 2 consider utilizing and upgrading approximately 1.1-miles of the existing Barnes Creek Road from its intersection with Fish Creek Road to the Fort Knox transmission line then constructing approximately 2.9-miles of new road at a seven percent grade around the head of Barnes Creek to tie in with the existing top of the Fort Knox low grade stockpile. Alternative 3 ties in with Barnes Creek Road at the transmission line and does not utilize the existing 1.1-miles of Barnes Creek Road.

Preferred Alternative: Residents of Cleary Summit proposed an alternate route crossing the Steese Highway farther to the west than the existing intersection and

circumnavigating a large topographic feature on the east side of the Steese Highway before tying into Fish Creek Road approximately 2,500-feet south of the nearest residence. This route leaves the existing Pedro Dome/True North road on the west side of the ridgeline immediately south west of the subdivision on the Pedro Dome side of the Steese Highway to create a new intersection approximately 2,400-feet south west of the existing intersection on a straight section of the highway. The new alignment crosses the Steese at a 90-degree angle then contours the hillside to a point from whence it climbs at a four percent grade to the west side of the topographic feature then flat to its intersection with Fish Creek Road. The State of Alaska Department of Natural Resources and the Mental Health Trust control the land status. This alternative adds about 6,500-feet of new road construction to Alternative 2. In the process, it lessens the grade down slope of the neighboring residences and therefore should lessen the noise they should experience due to loaded trucks coming up the grade. It also move the alignment further down slope of the residences and out around a major topographic feature that will serve to minimize the traffic noise. Viable alternatives to minimize dust from traffic include; chemical treatment (calcium chloride, etc.), chip seal, or asphalt.

Alternative 1: This involves following the existing Pedro Dome/True North road from the True North site to the existing intersection with the Steese Highway, crossing the Steese and following the existing Fish Creek Road to the intersection with Barnes Creek Road. The site distances at the existing Pedro Dome Road/Steese Highway intersection are not sufficient and pose a significant safety hazard. Considerable reworking of the intersection would be required to improve the site distances involved. An overpass was also considered and discarded as a potential safety hazard due to build up of ice under the overpass and on a curve. This alternative would route truck traffic close to existing residences on both sides of the Steese Highway. Local residents requested that we look at alternates to this route to move the traffic farther away from their residences.

Alternate 2: In order to address the safety concern at the existing intersection an alternate route was proposed, leaving the existing Pedro Dome/True North road on the southwest side of the ridgeline, southwest of the existing subdivision on the Pedro Dome side of the Steese Highway, creating a new intersection approximately 792-feet southwest of the existing intersection midway in a straightaway section of the Steese Highway. This alignment then crossed the Steese at a 90-degree angle, then turned to contour the hillside for a distance of 500-feet from which it climbed at a six percent grade to enter Fish Creek road near its present intersection with Fairbanks Creek Road. The approach to the Steese Highway on the west side and the departure on the east consisted of approximately 6,900-feet of new road construction. The State of Alaska Department of Natural Resources and the Mental Health Trust control the land status. Meetings with the State of Alaska Department of Transportation indicated that this proposed alternative meets site distance requirements and is acceptable to them. Local residents of Cleary Summit, after first indicating this was an acceptable alternative, expressed concern over the traffic noise they would experience in the area of the proposed tie in at Fish Creek Road. The residents also indicated that the proposed intersection for Alternative 2 maintained no better site distance than the existing intersection.



Alternative 3: This alternative would depart the existing Pedro Dome/True North road on the west side of Pedro Dome before it crosses the headwater of Dome Creek and travel down for approximately four miles at a six percent grade crossing Granite Creek before creating a new intersection with the Steese Highway at/or near Pedro's Monument. The alignment then crosses the Steese Highway at a 90-degree angle and parallels the highway to a point where it crosses Goldstream Creek then up at six percent for approximately four miles. There are residences on the hillside behind Pedro's Monument and this alignment passes in their general area. Due to the limited ability to control and maintain private access, crossing the Steese Highway in the area of Pedro's Monument, a major tourist destination, increases the interaction with pedestrian traffic decreasing safety and increasing liability. Land status along this alignment is uncertain. The need to rebuild the existing Pedro Dome/True North road is not avoided, as there would continue to be light vehicle traffic back and forth between Fort Knox and True North, though the extent of the rebuild would be less due to the nature and the volume of traffic anticipated. An estimated 44,000-feet of new road would need to be built crossing two major drainages. Due to the circuitous and up and down nature of this route, cycle times will be increased necessitating additional trucking units. Additional issues involving land acquisition, limited access, safety, fugitive dust, additional maintenance equipment, and maintenance costs are factors that make Alternative 3 the least preferred option.

3.0 TRUE NORTH MINE COMPONENTS

3.1 General

This section describes the components of the True North Project including the open pit mine, development rock dumps, ore stockpile, growth medium stockpile, ore haulage, shop/office, power supply, water supply, and general infrastructure including access roads (Figure 3-1 & 3-2).

3.2 Basic Design Information

The basic design parameters for the True North Hindenburg and East Pits are summarized as follows:

MINE LIFE

- Current projection 3 years;

WORK FORCE

- 100 to 110 employees;
- No living accommodations on site;
- No cafeteria;

OPERATING PERIOD

- Pit operations 24 hours per day;
- Mining 365 days per year;

ORE PRODUCTION RATE

- An average 3.5 million tons of ore per year at a rate of approximately 10,000 tons of ore per day hauled to Fort Knox mill for processing (mining rates vary seasonally);

PIT

	<u>Hindenburg</u>	<u>East Pit</u>
• Pit Ore Tons:	7.0 million	0.4 million
• Pit Waste Tons:	14.0 million	1.5 million
• Pit Dimension (N-S):	2,000-ft	500-ft
• Pit Dimension (E-W):	2,200-ft	1,000-ft
• Crest Elevation:	1,650-ft	1,530-ft
• Bottom Elevation:	1,150-ft	1,200-ft
• Bench Height:	10 to 20-ft	10 to 20-ft
• Pit Slopes:	35° to 50°	30° to 45°
• Haul Road Width:	80-ft	80-ft
• Haul Road Grade:	8%	8%

DEVELOPMENT ROCK

- Approximately 20,000 tons per day;
- Strip ratio 2:1;

ORE STOCKPILE

- Located near the maintenance complex;

GROWTH MEDIUM STOCKPILE

- All material suitable for establishing a viable vegetative cover consistent with the designated post-mining land use;

ORE HAULAGE

- 24 hours per day;
- 365 days per year;
- An average 3.5 million tons per year at a rate of approximately 10,000 tons per day hauled to the Fort Knox mine site (mining rates vary seasonally);
- Conventional tractor-trailer, 60 to 100 tons per load;
- 100 to 170 truck loads to the mill per day;

EQUIPMENT

- Loaders (2) 13-yard;
- Haul trucks (3) 100-ton;
- Ore trucks (9) tractor-trailer;
- Blast hole drill (1) 45,000-lb pull-down class;
- Support equipment: track dozers, a rubber-tired dozer, motor graders, water trucks, a backhoe, small trailer-mounted light plants;

ELECTRICAL REQUIREMENTS

- Grid power following the same alignment as the access road (approximately 3-miles) supplied by Golden Valley Electric Association;
- 480-volt, 3-phase power;

WATER SUPPLY

- Water supply well drilled to provide approximately 540 gallons per day (gpd);
- Bottled water will be purchased for drinking water;

ACCESS AND EXPLORATION ROADS

- 100-foot right-of-way (50-feet either side of centerline) mine access road;
- 80-foot mine haul road;
- 30-foot exploration access road.

3.3 General Site Plan

Figure 3-1 and Figure 3-2 show the general arrangement of the True North Project. The open pit mine is located on the northwestern flank of Pedro Dome. The shop maintenance complex is southeast of the pit along the access road. Administrative functions will be coordinated from the Fort Knox Mine site.

Existing road access to the True North Project is from the Steese Highway to Cleary Summit, then 6.5 miles via the gravel road around Pedro Dome.

3.4 Mining

3.4.1 Mining Method and Equipment

Production rates for the conventional open pit mine will average 10,000 tons per day of ore and 20,000 tons per day of development rock. Standard drilling and blasting techniques will be used to break the ore. Ore will be drilled using blast hole drills. Blasting will occur once a day, five days a week. Once blasted, the ore will then be loaded using a 13-cubic front-end loader.

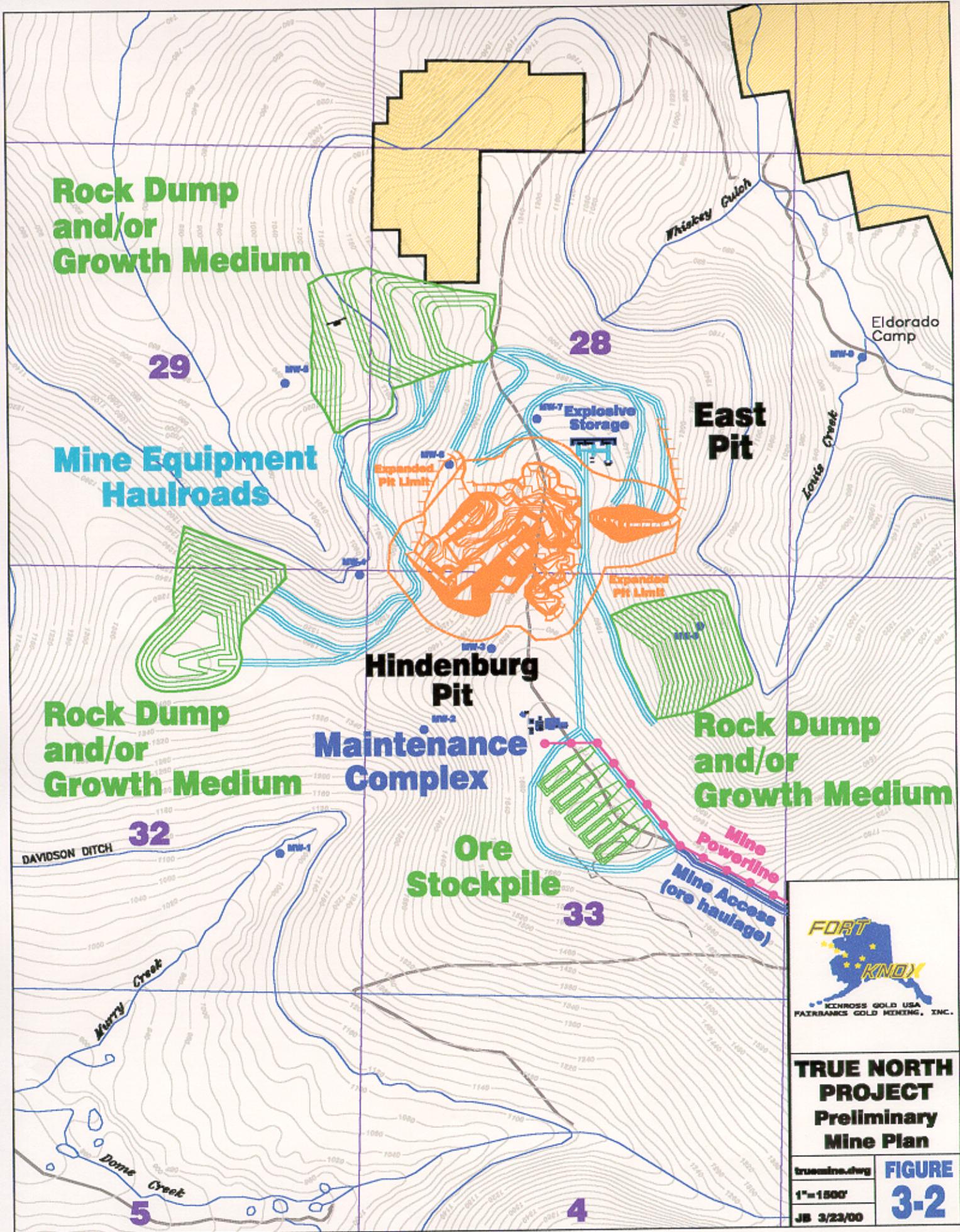
Ore will be transported from the pit by conventional highway tractor trucks pulling 60 to 70-ton trailers. The ore will be trucked to the Fort Knox Mill for processing. During inclement weather or at other times when it is not possible to truck to Fort Knox, ore may be stockpiled at True North by 100-ton off-road haul trucks.

Auxiliary mine equipment will include an ammonium nitrate and fuel oil (ANFO) truck, track dozers, a rubber-tired dozer, motor graders, lube and service trucks, water trucks, a backhoe, and small trailer-mounted light plants.

3.4.2 Open Pit, Development Rock Dumps, and Ore Stockpile

Depending on material type, bench heights will vary between 10 and 20-feet, based on production, grade control, and geotechnical considerations. Overall pit wall slopes will vary from 35 to 50 degrees, depending on rock competency (Figure 3-2).

Haul roads are generally 80-feet wide with a maximum grade of 8%; this provides safety by giving separation for mine personnel and equipment. The primary exit from the pit is on the north and east rims. The exit point of the pit will vary as mining progresses.



TRUE NORTH PROJECT
Preliminary
Mine Plan

truemine.dwg
 1"=1500'
 JB 3/23/00

FIGURE
3-2

The ore stockpile will be located near the maintenance complex. Ore will be hauled to this location during inclement weather or when ore transport to Fort Knox is not possible, and stockpiled for reloading into ore haul trucks for transportation to Fort Knox.

To the extent possible, rock and materials from other disturbed areas on the site are used as borrow or fill material in construction of project facilities. Unusable or excess rock, for which there is no immediate opportunity for backfill, will be placed in rock dumps for possible use at mine closure. Where practical, backfill will occur on previously mined areas as needed.

FGMI anticipates mining two 12-hour shifts per day, seven days a week, 365 days a year, at an average of 30,000 combined tons ore and development rock per day.

3.4.3 Growth Media Stockpiles for Reclamation

Topsoil and overburden suitable to establish a viable vegetative cover at mine closure will be stockpiled for temporary storage until concurrent reclamation activities begin and/or until final closure.

3.5 Access and Exploration Roads

Existing road access to the mine is from the Steese Highway to Cleary Summit, then approximately 6.5 miles of gravel road skirting the south side of Pedro Dome. The Steese Highway is a secondary highway (Figure 2-1) that is maintained year-around by the Alaska Department of Transportation and Public Facilities (ADOT&PF).

Pending an agreement with ADOT&PF, FGMI will install warning lights 300-feet north and south of the Steese Highway intersection.

The preferred route crossing the Steese Highway will be farther to the west than the existing intersection and will circumnavigate a large topographic feature on the east side of the Steese Highway before tying into Fish Creek Road approximately 2,500-feet south of the nearest residence. This route leaves the existing Pedro Dome/True North road on the west side of the ridgeline immediately south west of the subdivision on the Pedro Dome side of the Steese Highway to create a new intersection approximately 2,400-feet south west of the existing intersection on a straight section of the highway. The new alignment crosses the Steese at a 90-degree angle then contours the hillside to a point from whence it climbs at a four percent grade to the west side of the topographic feature then flat to its intersection with Fish Creek Road. This route lessens the grade down slope of the neighboring residences and therefore should lessen the noise they would experience due to loaded trucks coming up the grade. It will also move the alignment further down slope of the residences and out around a major topographic feature that will serve to minimize the traffic noise, visual impacts, dust and vibration from traffic.

3.6 Fuel Supply, Storage, and Distribution

Fuel will be delivered to the site via trucks from various Alaska suppliers to a central fuel storage area (Figure 2-3). All fuel vessels will have secondary containment and have leak detection and collection systems. All tanks and dispensing stations will be in containment areas designed to hold at least 110% of the volume of the largest tank. Dispensing lines will have automatic shutoff devices.

Proposed fuel and waste oil storage tank sizes and locations are as follows:

<u>Type</u>	<u>Location</u>	<u>Total Gallons</u>
2-Diesel fuel storage	near shop	20,000
Heating oil storage	near shop	10,000
Unleaded fuel dispensing	near shop	4,000
Diesel fuel dispensing	near shop	4,000
Waste oil storage	near shop	10,000

3.7 Maintenance Complex & Office Buildings

The maintenance complex for the mobile mine fleet will be an 80-foot x 120-foot building (Figure 3-3 & 3-4). The maintenance complex will be used primarily for general preventative maintenance and small repairs. The Fort Knox mobile shop will be used for major over-hauls as needed. Adjoining one end of the maintenance complex will be a 30-foot by 40-foot wash bay. An oil water separator will be installed to collect oily sludge from the wash bay water prior to leach field disposal (Figure 3-3).

Two trailers will serve as office buildings and two trailers will function as lineout facilities for mine crews. The lineout facility will be used as a lunch room/conference room and contain bathroom and shower facilities (Figure 3-3). A fresh water holding tank will be placed adjacent to the lunchroom trailers.

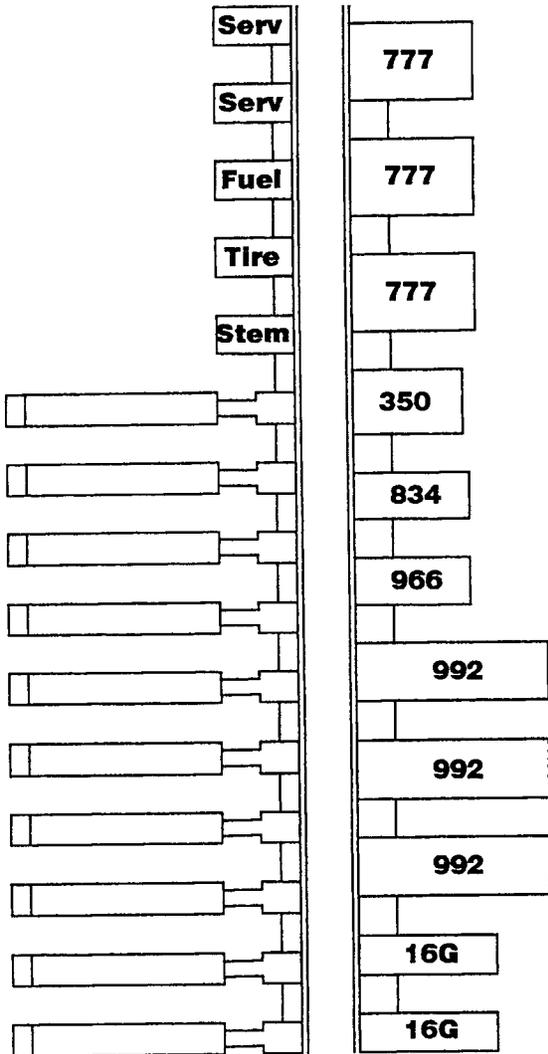
3.8 Refuse

All wooden pallets and cardboard from blasting supplies will be disposed of in the proposed on-site burn pit. Burning will be conducted once a week. A burn permit will be applied for prior to burning from the Alaska Division of Forestry during the months of May through September.

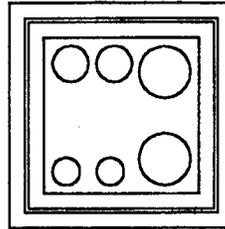
All waste material either listed as or meeting the characteristics of hazardous waste will be shipped off-site and disposed of according to applicable state, federal, and local regulations. All used oil filters will be drained, and disposed of either by recycling for scrap metal or by shipping to the Fairbanks North Star Borough (FNSB) solid waste landfill. Waste petroleum oils will be stored on-site for reuse as fuel for space heaters or transported off-site for recycling.

FGMI's waste minimization strategy is to recycle all materials where possible and promote innovative approaches to waste management. Refuse that cannot be recycled will be stored in dumpsters to be disposed of in the FNSB solid waste landfill.

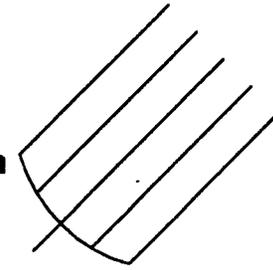
Ready Line



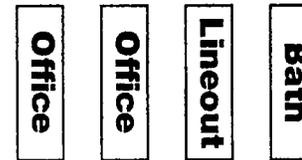
Diesel Fuel / Gasoline



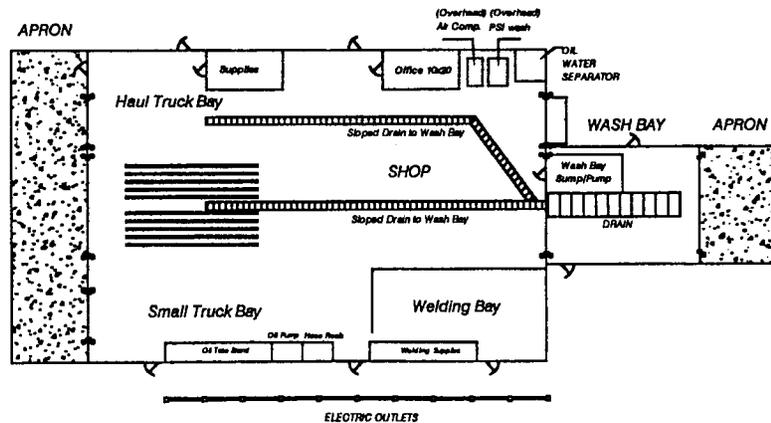
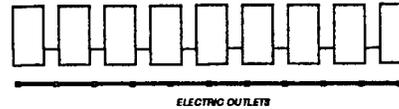
Leach Field



Burn Pit



Parking



PLAN VIEW SHOP & WASHBAY



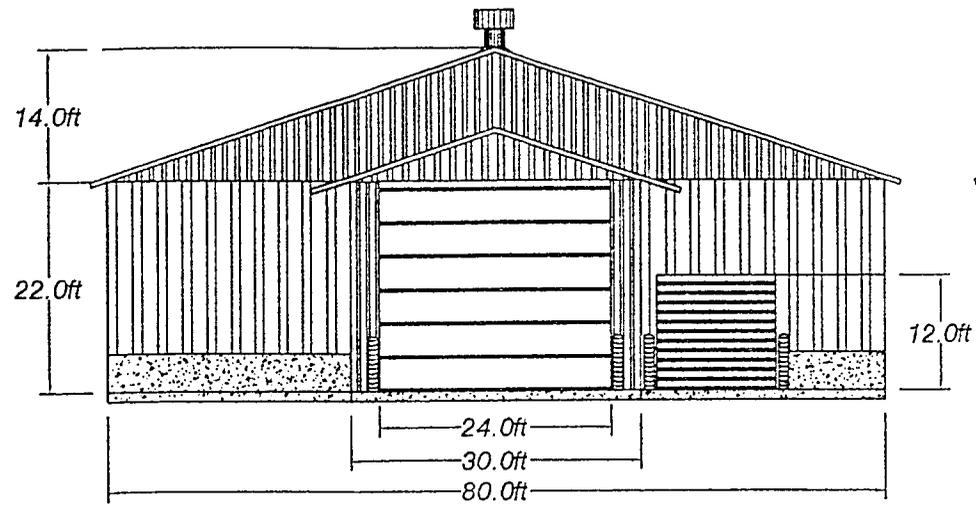
**TRUE NORTH PROJECT
Preliminary
Bldg. Plan**

File: TN SHOP

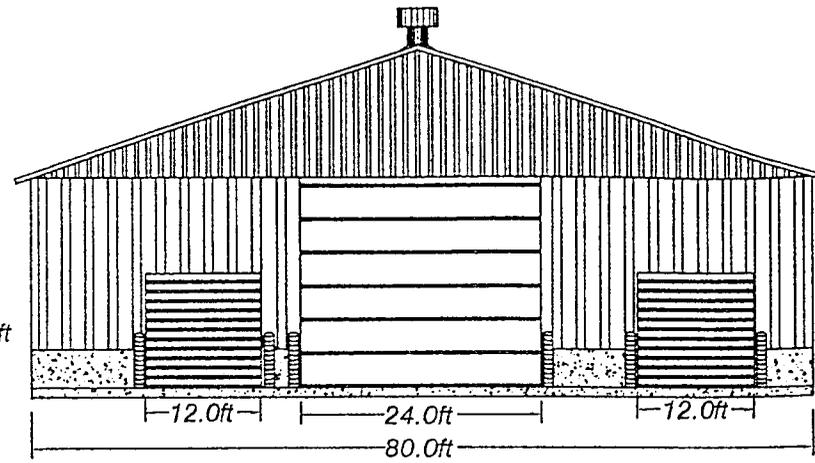
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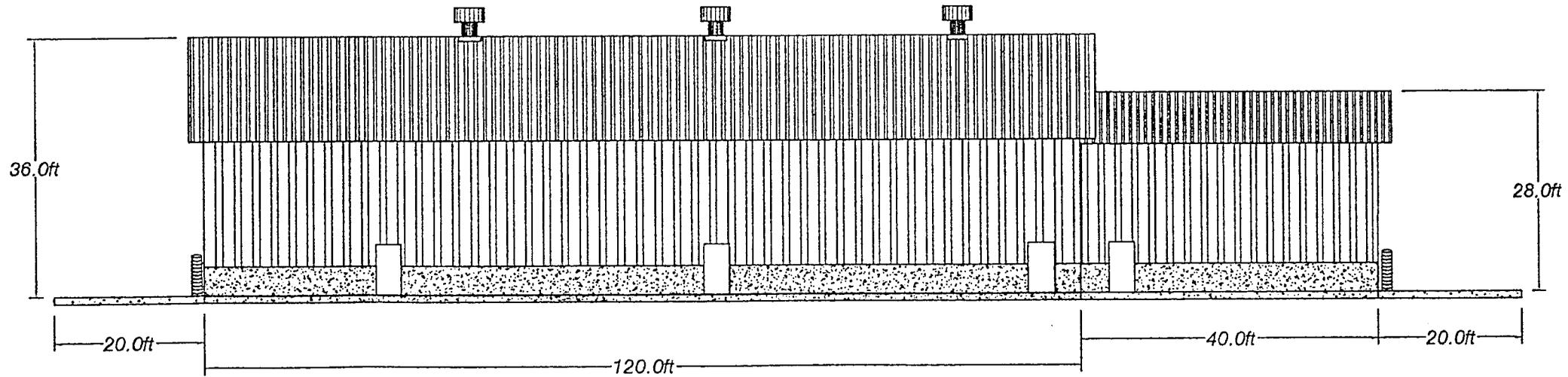
**FIGURE
3-3**



Rear Garage Doors Arrangement



Front Garage Doors Arrangement



Side Elevation



TRUE NORTH
PROJECT
Preliminary
Bldg. Plan

File: TN SHOP

Scale: 1"=15'

Drawn by: BA 3/24/00

FIGURE
3-4

3.9 Domestic Sewage

A septic tank and leach field will be used for domestic sewage treatment. Effluent will flow into a common leach field (Figure 3-3).

Sludge from the septic tanks will be periodically removed by a commercial pumping service and disposed of in accordance with the Alaska Department of Environmental Conservation (ADEC) approved procedures. Self-contained, vault toilets, regularly serviced by a commercial pumping company, will be used in the open pit and other remote areas of the mine.

3.10 Communication

The primary methods of communication at the True North will be on-site telephone systems and radios. The Fort Knox Mine security office will monitor all radio traffic and coordinate responses to emergency situations as well as routine warnings for blasting and hazardous materials transportation.

3.11 Explosives Storage

All explosives handling and storage will comply with applicable state and federal regulations. All explosives will be stored in appropriate enclosures located off a major haul road near the pit (Figure 3-5 & 3-6).

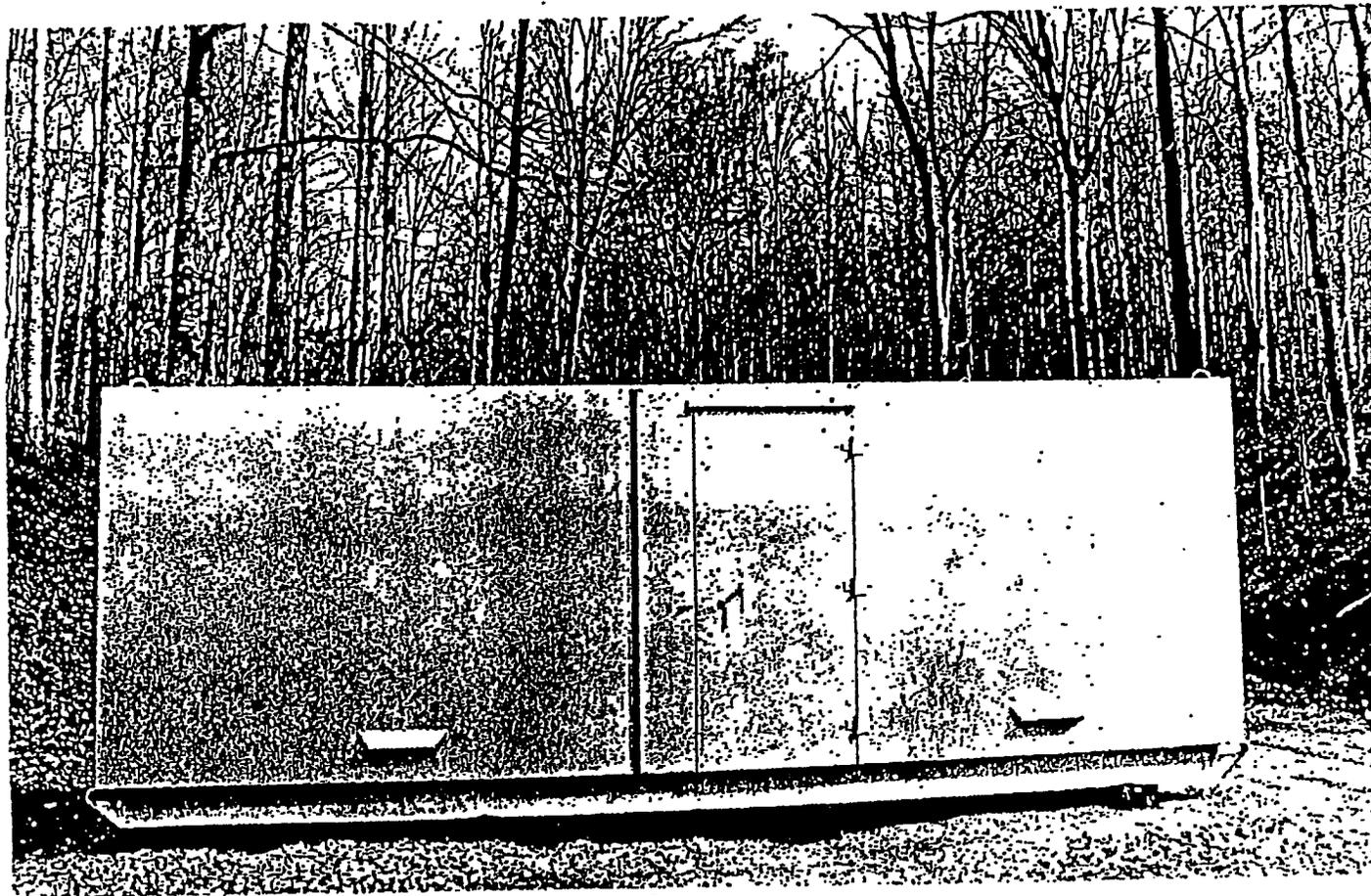
Caps, detonating cord, primers, and boosters will be stored in locked storage magazines. Bulk ammonium nitrate will be stored in two silos containing a combined total of approximately 100-tons. Blasting agents such as bagged ANFO and water resistant products will be stored in one or more secure trailers constructed for this purpose.

3.12 Fire Control and Suppression

Emergency response personnel will coordinate fire control and suppression. In addition, all personnel during their MSHA training will receive instruction in fire and emergency procedures.

In addition to an on-site fire truck, mine heavy equipment will be available for fire control and suppression. Available mine equipment will include a 9,000-gallon water truck with pumps and hoses, tracked dozers, graders, and a loader.

Automatic and/or manually activated fire suppression systems will be installed on all heavy equipment. Handheld extinguishers will be installed in all heavy equipment and small vehicles. Buildings will meet fire suppression codes.



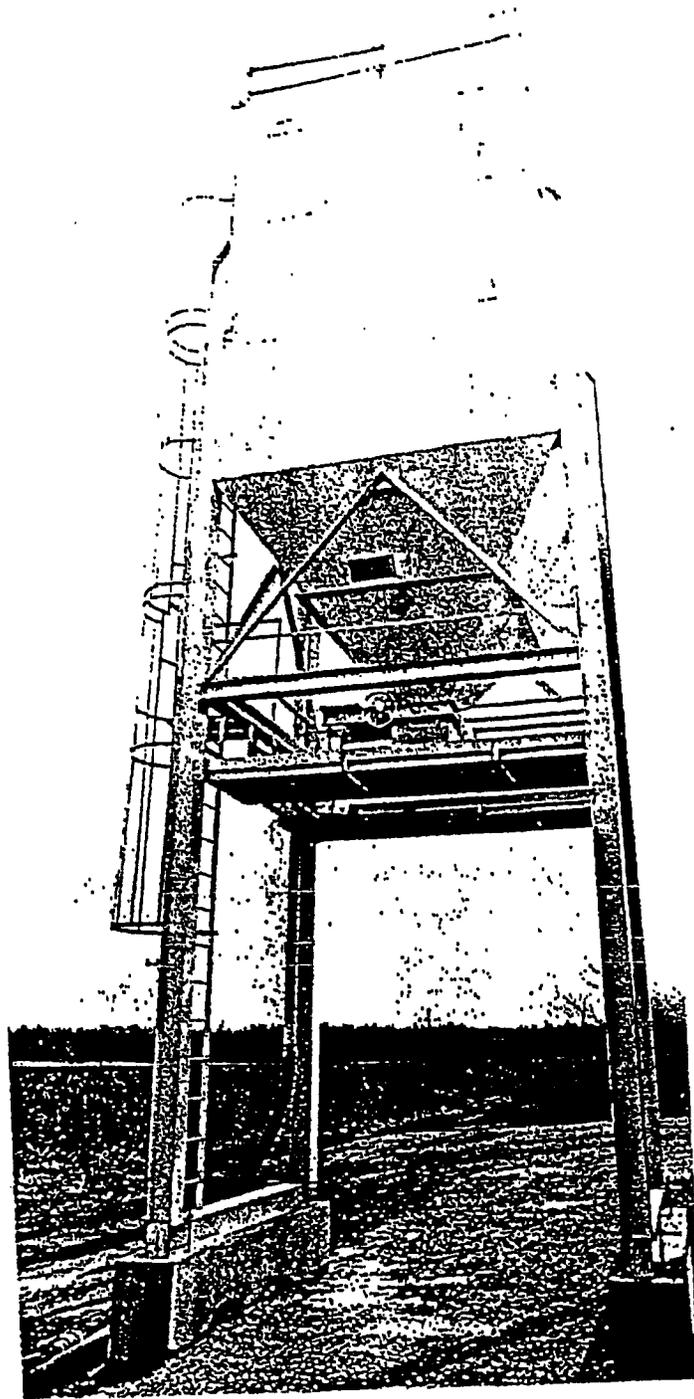
Fairbanks Gold Mining, INC.
a subsidiary of Kinross Gold U.S.A, Inc.

TRUE NORTH PROJECT

TITLE: *TYPICAL (TYPE 2)
EXPLOSIVES MAGAZINE*

DATE: 8/11/92

Figure 3-5



airbanks Gold Mining, INC.
subsidiary of Kinross Gold U.S.A., Inc.

TRUE NORTH PROJECT

TITLE: *TYPICAL (TYPE 5)*
AMMONIUM NITRATE BIN

DATE: 8/11/92

Figure 3-6

3.13 Environmental Management System

FGMI's Environmental Management System for True North will include the following:

- Project Description
- Reclamation Plan
- Storm Water Runoff Pollution Prevention Plan
- Spill Prevention Control and Countermeasure Plan (SPCC)
- Waste Disposal Procedure Pocket Manual
- Water Quality Monitoring Plan (will include development rock and ore characterization)

FGMI's Environmental Management System will also be designed to meet all applicable regulatory requirements.

3.14 Environmental Incident Response

The FGMI Environmental Services Personnel will coordinate control, containment, and cleanup of all on-site hazardous and non-hazardous material spills (petroleum products and process chemicals). For off-site spills, the responsible trucking company and/or product manufacturer will coordinate the initial response and cleanup.

3.15 Medical Emergency Response

Emergency response personnel will handle medical emergencies. Site personnel will be trained to handle injuries and illness as needed. Trained personnel will, to the best extent possible, be distributed throughout all shifts. Fort Knox personnel will assist True North with the Fort Knox Emergency Response Vehicle and personnel, if needed. In addition to on-site personnel and equipment, services of the Interior Ambulance & Rescue Squad and the U.S. Army's Medivac helicopter will be available, if needed.

4.0 CLOSURE AND RECLAMATION PLANS

4.1 General

Reclamation is a progressive, long-term process. Planning for reclamation was begun during conceptual design of the mine. Actual reclamation will begin during construction, when topsoil stockpiles and cut and fill slopes are stabilized. Significant reclamation will occur immediately after construction, particularly at material barrow sites. Reclamation will also occur concurrently with mining and upon cessation of the mining operations. This will include backfilling of pits as mining progresses.

The objectives of permanent closure and reclamation will be to stabilize, remove, or mitigate sources having the potential to degrade the lands and waters of the state, and, to leave the land and water in a condition that will allow for the designated post-mining land uses.

4.2 Post-Mining Land Uses

Fairbanks Gold Mining, Inc. is proposing, with the state resource management agencies' guidance to designate wildlife habitat as the post-mining land use.

4.3 Reclamation Plans

In general, the objectives of reclamation will be:

1. Stabilization and protection of surficial soil materials from wind and water erosion;
2. Stabilization of steep slopes through contouring and leveling to provide rounded land forms and suitable seed beds; and,
3. Establishment of long-term, self-sustaining vegetative communities through reseeding and/or promotion of natural invasion and succession.
4. Where approved, reclamation of mine features will provide unique wildlife habitat opportunities.

For the area and component-specific reclamation plans, which will govern actual reclamation activities, a comprehensive True North Project Reclamation Plan is being developed.

5.0 MAJOR PERMITS AND AUTHORIZATIONS

Presented below is a listing of the major permits and authorizations that FGMI will need to obtain for construction of the True North Mine.

5.1 State of Alaska Permits and Authorizations

5.1.1 Department of Environmental Conservation

- Certificate of Reasonable Assurance for Corps of Engineers 404 Permit
- Plan Review for Public Water Supply System
- SPCC Plan Approval
- Storm Water Discharge Pollution Prevention Plan

5.1.2 Department of Fish and Game

5.1.3 Department of Labor

- Certificate of Inspection for Fired and Unfired Pressure Vessel
- Employer Identification Number

5.1.4 Department of Natural Resources

- Burning Permits
- Field Archaeology Permit
- Right-of-Way for Brush Clearing & Equipment Storage
- Plan of Operations Approval (consisting of Project Description and Reclamation Plan)
- Permit to Appropriate Water
- Temporary Water Use Permit
- Upland Mining Lease
- Mental Health Trust Land Unit Approval; Right-of-Way (ROW) and Material Use
- ROW

5.1.5 Department of Transportation & Public Facilities

- Land Use Permit
- Agreement for Reconstruction and Maintenance of Access Road

5.1.6 Department of Public Safety

- Approval to Transport Hazardous Materials
- Life and Fire Safety Plan Check
- Plan Review Certificate of Approval for each Building

5.2 Federal Permits and Authorizations

5.2.1 Bureau of Alcohol, Tobacco, and Firearms

- Permit and License for Use of Explosives

5.2.2 Corps of Engineers

- 404 Wetlands Permit

5.2.3 Environmental Protection Agency

- SPCC Plan
- Stormwater Discharge Permit
- Pollution Prevention Plan

5.2.4 Mine Safety and Health Administration

- Notification of Legal Identity
- Training and Retraining of Miners Plan

5.3 Local Permits and Authorizations

5.3.1 Fairbanks North Star Borough

- Zoning Permit
- Subdivision Plat Approval

5.3.2 Power line Permits (issued to GVEA)

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