ASSESSMENT REPORT

105D-02-3

ARCTIC CARIBOU

PREPARED BY

DIAND TECHNICAL SERVICES

NOVEMBER, 1993

105D-02-3

ARCTIC CARIBOU

LOCATION

Latitude: 60° 05'19"N
Longitude: 134° 41'53"W

The exploration site is located 8km south of the village of Carcross between Brute Mountain and Sugarloaf Hill in the Boundary Ranges (Coast Mountains). The site is accessible by road from the South Klondike Highway at the south end of the Nares River bridge. The site elevation is between 1500-1550m above sea level. This site is adjacent to and is covered by the same claims as 105D-02-2, named Big Thing.

Site maps showing the location of the site are attached as Appendix A to this report.

WORK HISTORY

As noted, the site is adjacent to and covered by the same claims as site 105D-02-2, named Big Thing. However, as the site is separate and distinct from the Big Thing site, it will be reported separately. The work history in this area follows.

July, 1905 - Staked as Caribou, Pride of Yukon, etc. claims as J.H. Conrad and transferred to Conrad Consolidated Mining Ltd. Development. Work included 137.2m of drifting on four levels plus a 707.1m crosscutting adit with several raises about 67m below the bottom of the shaft.

1910 - 1912 - 2290 tonnes of ore were mined by Conrad Consolidated Mining Ltd.

1915 - 1916 - A small amount of underground development was done under option by Alaska Corporation.

1936 - 1937 - Inca Mining Corporation Ltd. completed some surface trenching.

June, 1962 - The Peerless claims were staked on three sides of the original two claims.

July, 1965 - Arctic Mining & Exploration Ltd. optioned the three original leased claims from J. Phelps and J. Scott who had acquired them in 1942, added the adjoining Eagle claims, rehabilitated the old mine and started a new adit 6m below the lowest original level.

March, 1966 - The Peerless claims were transferred to Lion Nickel Mining Ltd. which extended the lower adit 229m in 1967 and drilled 33 holes (1617.3m) underground in 1968. National Malarctic Gold Mining Ltd. tied on the Jack claims.

1967 - 1969 - Construction of a 272 tonne mill started in June, 1967 for ore reserves of 231,336 tonnes. The mill operated between May - December, 1968 and March - October, 1969 and treated 50,751 tonnes. The name was changed to Arctic Gold & Silver Mining Ltd. in early 1968.

October, 1971 - The claims were transferred to Indian Mountain Metals Mining Ltd. Fringe staking included Silver claims in March, 1974 by D. Waugh and Sherrill claims in June,1975 by R. McConnell

1975 -1976 - Arctic Gold & Silver Mining Ltd. completed some underground rehabilitation and stockpiled a small tonnage of ore.

1978 - The original leases were transferred to Peso Silver Mining Ltd. which changed its name to Rex Silver Mining Ltd. in 1979.

1979 - 1983 - B.K. claims staked by D. Gleeson in 1979, AC and AU claims staked to the north by D. Branigan in 1980, and Ski-Doo claims staked to the northeast by Tally-Ho Exploration Ltd. in December, 1983.

1985 - 1990 - The leased claims were surrounded by Barb claims in May, 1985 by Boreal Engineering Services Ltd. for Feather Gold Resources Ltd. which performed hand trenching in 1986, conducted magnetometer surveys, soil sampling, and trenching in 1989 and 1990.

CLAIMS STATUS

Status of mineral claims including claim names and numbers, claim expiry dates, and current owners in the vicinity of the Arctic Caribou site have been noted as of 1992/05/15 as follows;

CLAIM NAME/NUMBERS	EXPIRY DATE	OWNER
Barb 1-34	3, May 1996.	Larry Barrett
Rat 1-12	15, December 1993	Feather Gold Resources Ltd.
Rat 13-29	15, March 1994	Feather Gold Resources Ltd.

The major commodities identified at this site are gold and silver. Minor commodities include lead, zinc, copper, and molybdenum. These commodities occur in three east striking veins in granodiorite of the Coast Plutonic Complex. Mineralization consists of pyrite, arsenopyrite, sphalerite, galena, and minor chalcopyrite.

CURRENT SITE CONDITIONS

The Arctic Caribou exploration site is located between Sugarloaf Hill and Brute Mountain near the headwaters of McDonald Creek on the Yukon Plateau of the Boundary Ranges (Coast Mountains). Site photographs showing current site conditions are attached as Appendix B to this report.

The site is above treeline and is covered with short grasses and alpine vegetation. The headwaters of McDonald Creek is directly below the adit approximately 20m. This is an intermittent stream flowing only during spring run-off and the summer melting period.

The exploration site appears to have been developed a long time ago, and may date back to the original exploration in the area in 1905. As noted, this site may have been developed in conjunction with the Big Thing property and exploration was likely undertaken as part of the overall development in the immediate area. The most significant activities included underground development and trenching. Ownership also changed several times over this period.

The remaining infrastructure is confined to two areas, namely;

- mine adit and waste dump, and
- trenching site.

A description of the remaining infrastructure follows.

Mine Adit and Waste Dump

An open exploration adit remains at the site. At the time of inspection on 1993/06/21 the entrance to the adit was still covered by snow. This entrance to the adit is accessible to the public. The waste rock extending beyond the adit entrance covers an area approximately 30x50m. The thickness of the waste rock pile extends to 20m deep.

Railway track once used by ore cars is still in place extending from inside the exploration adit to the waste dump. Once outside the adit, the track extends onto the waste dump and down the waste pile slope. Over 100m of rail is still in place across the waste rock dump. As noted, a portion of this track is now in an eroded gully in the waste rock dump. It appears that severe erosion has taken place above and below the adit and some avalanching may have also occurred at this site resulting in the track dropping downslope.

Metal waste consisting of mostly pipe and rail is scattered over the site and dumped over the waste pile. Approximately 100m of railway track is in place outside the adit. A pile of core boxes with core has been left on-site. Two old empty barrels were also found at the site.

Three small buildings are still on-site. These buildings include;

- 1 - 4x3m log cabin,
- 1 - 2x3m wooden shed, and
- 1 - 4x3m wooden shed.

These buildings are old and collapsing and are effectively worthless.

Trenching Site

Across the creek to the west trails have been extended towards Brute Mountain. These trails are associated with a significant amount of trenching that has occurred all along the trails. This has resulted in some erosion along the trails.

RECOMMENDATIONS

Exploration activity at this site has resulted in disturbance to the site mainly from the construction of exploration tote roads, trenching, and adit excavation. According to the work history and site inspection, it is apparent that little work has taken place at this site for a long time.

Recommendations for site remediation are specified for the trenching site and adit and waste dump separately.

Mine Adit and Waste Dump

The mine adit is unsecured and open to the public. Because this site is accessible by road and close to populated areas (Whitehorse and Carcross), the open adit should be considered a safety hazard. The adit should be sealed to prevent the public from entering it. If the adit is left unsecured a potentially **HIGH** level of risk remains for an accident to occur.

The waste area has been developed by dumping the waste rock over the slope below the adit. This was developed by extending railway track from the adit to the edge of the slope. As noted, the waste rock was dumped down the slope below the adit and is steeply sloped between 35-40 degrees. Because of a small gully above the site, snowmelt has been channeled through the waste area resulting in severe erosion above and below the adit.. Some avalanching may also have occurred at some time in the past. The result is waste material is being transported downslope and spreading onto the valley floor below. Approximately one hectare of vegetation has been destroyed at the time of inspection. It appears that most of the waste pile erosion has happened, however the erosion process is expected to continue for some time. This will result in additional deposition of material downslope, most of which will remain on the deposit that has been created. Some new material will eventually deposit along the leading edge of the fan resulting in some further destruction of the vegetation.

An assessment of the damage indicates that;

- deposition of the material has destroyed approximately one hectare of vegetative cover,
- additional damage will result if the erosion process is allowed to continue unimpeded,
- the damage to date is not encroaching on any streams or affecting any fish habitat,
- because the erosion is occurring, the possibility exists for triggering a slide of the remaining waste dump.

Although the damage has caused visual impact, site remediation plans will require additional work before the site can be stabilized. These site remediation plans to consider include;

- constructing a toe berm on the eroded outwash to contain any future erosion,
- backsloping the eroded gully through the waste dump and riprapping the sides of the waste material to reduce the risk of future erosion, or
- diverting flows from the gully to eliminate the potential for erosion.

The solutions presented above all require additional site disturbance before any revegetation or other rehabilitation programs could be considered. Because of the complexity of the work needed to improve a relatively small problem in a remote area, it is recommended that the site remediation program be considered only if other **LOW** priority sites are being addressed.

If a site clean-up program is considered it is recommended that;

- the three remaining wooden buildings be dismantled and burned in an acceptable area,
- all metal waste including barrels and rail be removed from the site.

Trenching Site

It was observed that some erosion is occurring along the tote roads to the trenching sites. This level of erosion is not considered significant and attempting to improve local sites could result in delaying any natural remediation and revegetation that has started. It is recommended that the roads to the trenching sites and the trenches be left to revegetate naturally. Periodic reinspection should be considered to ensure that localized problem areas are not worsening with time.

Summary

Overall, some environmental damage has occurred and is continuing from erosion at the site. Eliminating the potential for further erosion is expected to be difficult and costly to accomplish. It is recommended that, before embarking on an expensive site remediation program for a relatively small site in a remote area that does not appear to be impacting on wildlife or fish habitat, the site should be reinspected periodically to monitor conditions.

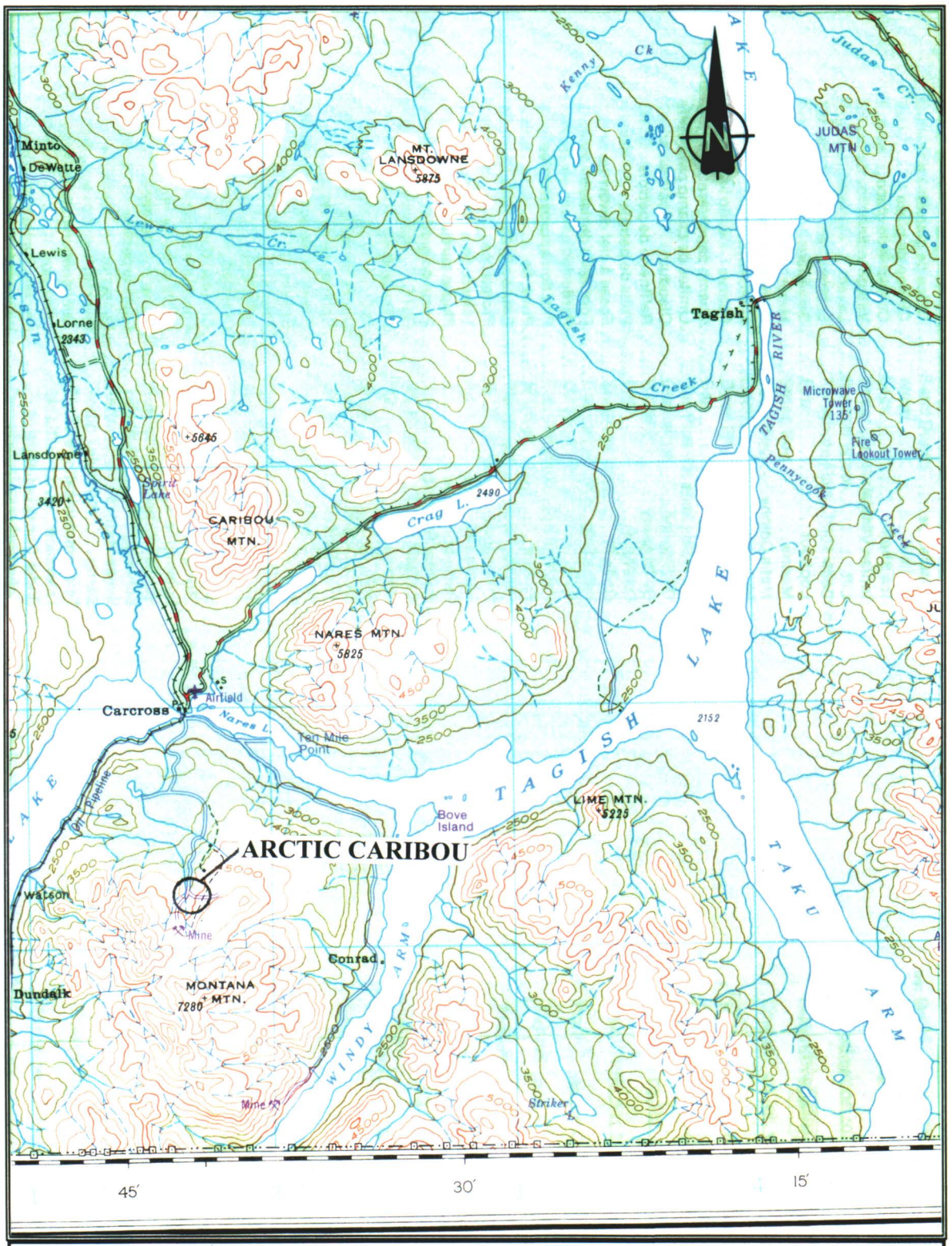
However, public safety of the open adit should be considered a **HIGH** level of risk if left unsecured and accessible, and it is recommended that closure of the adit be completed.

Clean-up of buildings and metal waste should be considered if an ongoing waste clean-up program is undertaken in the area. However, the remaining waste is considered to have a **low** level of impact on the environment.

The roads to the trenching, and the site trenching should also be reinspected periodically to monitor ongoing conditions. At this time a relatively **low** level of concern is considered for repairing these areas.

APPENDIX A

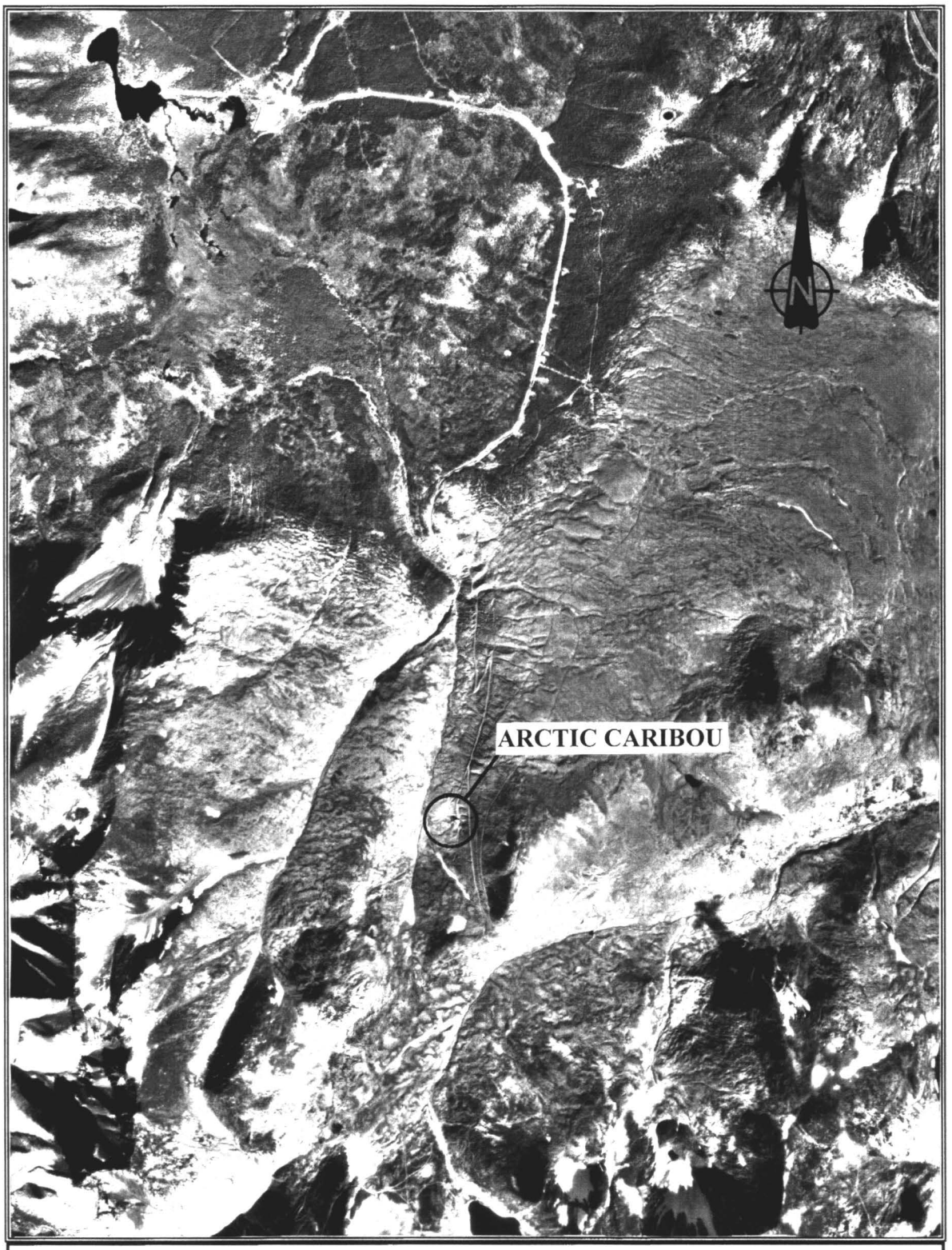
SITE LOCATION MAPS



SITE NAME: **ARCTIC CARIBOU** SITE NUMBER: **105D-02-3**

MAP NUMBER: **105D** YEAR: **1986** MAP SCALE: **1:250000**

SITE LOCATION: LATITUDE: **60° 05'19"** LONGITUDE: **134° 41'53"**



SITE NAME: **ARCTIC CARIBOU** SITE NUMBER: **105D-02-3**

AIRPHOTO NUMBER: **A27040-71** YEAR: **1986** AIRPHOTO SCALE: **1:40000**

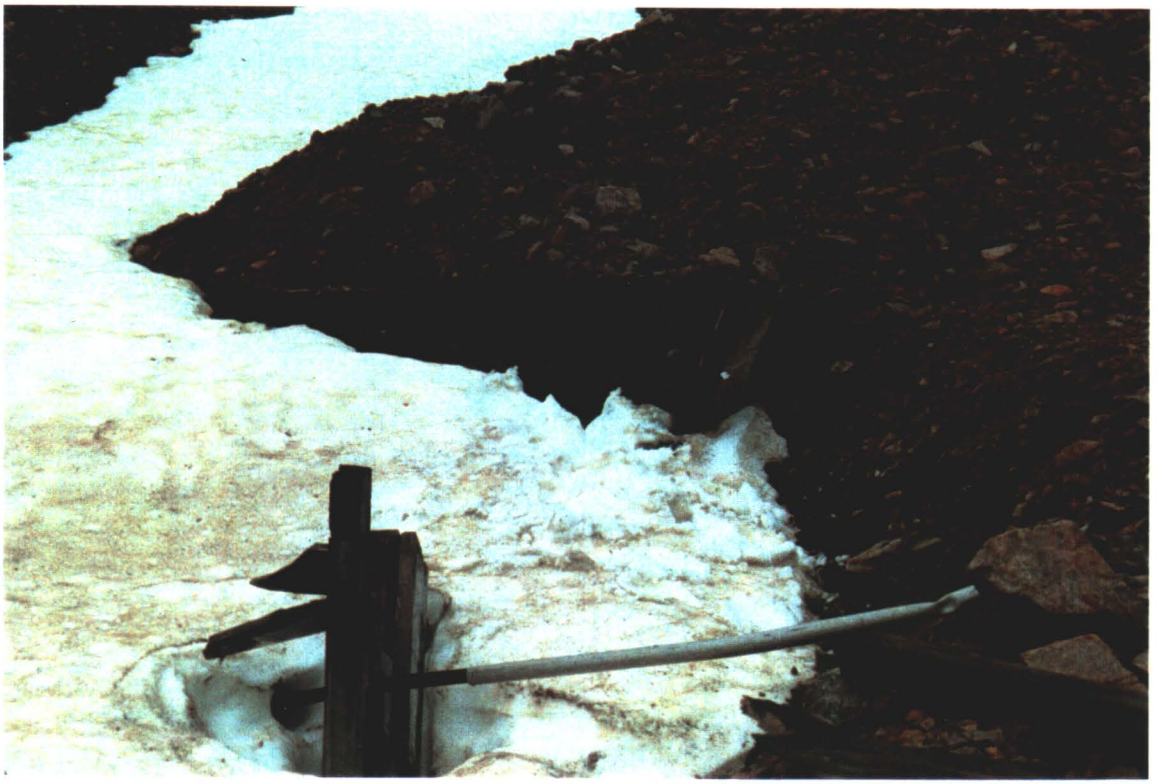
SITE LOCATION: LATITUDE: **60° 05'19"** LONGITUDE: **134° 41'53"**

APPENDIX B

SITE PHOTOGRAPHS

ARCTIC CARIBOU EXPLORATION AREA

MINE EXPLORATION BUILDINGS (ADIT IN BACKGROUND BEHIND SNOW)



MINE ADIT

EROSION GULLY THROUGH EXPLORATION SITE

WASTE ROCK DUMP

ROCK CORE

TRACK DOWNSLOPE ON WASTE ROCK DUMP

METAL WASTE (FOREGROUND) AND NEW ALLUVIAL FAN FROM WASTE EROSION

RAIL ADJACENT TO ADIT