

ASSESSMENT REPORT

105B-04-2

LOGJAM

PREPARED BY

DIAND TECHNICAL SERVICES

OCTOBER, 1993

105B-04-2

LOGJAM

LOCATION

Latitude: 60° 01'55"N

Longitude: 131° 35'38"W

The exploration site is located 20km north of the Alaska Highway by trail, and is approximately 3.2 kilometers north of the British Columbia-Yukon border near the headwaters of an unnamed tributary to the Smart River.

The exploration site is near the base of a cirque at an elevation between 1280-1350m above sea level on an unnamed peak of the Dorsey Range of the Cassiar Mountains.

Site maps are attached as Appendix A and site photographs are included as Appendix B to supplement this report.

WORK HISTORY

July, 1944 - First staked as KP claims by Hudson Bay Mining and Smelting which drilled 9 holes in 1945. The property was fringe staked in 1945 by Western Ranges Prospecting Syndicate which was incorporated as Yukon Ranges Exploration Ltd. in 1949.

June, 1958 - Restaked by W. McKinnon as Mel claims

August, 1961 - Mac claims added by W. McKinnon. Claims were optioned in 1961-62 by Kootenay Base Metals Ltd. which performed hand trenching.

1965 - 1967 - Logjam Silver Mining Ltd. commenced underground drifting and drilling. This work was continued by the owners in 1966 through a private company, Nitset Exploration Ltd. which went public as Pure Silver Mining Ltd. Work completed from 1965 to 1967 included 698m of drifting on two levels, 794.6m of underground drilling, and 24km of road.

April, 1972 - The IT claims to the north were staked by P. Poggenburg and trenched in 1973.

January, 1973 - The property was restaked as Barb claims by A.M.P. Exploration Ltd. which repaired the road in 1973 and optioned the claims from 1974 to 1977 to Darva Resource and Development Ltd., which added more Barb claims in September, 1974 and performed minor rehabilitation work.

1979 - The property was optioned by Rebel Development Ltd. which built an access road and trenched and sampled in 1980 and 1981.

1980 - 1981 - Pure Silver Mining Ltd. installed a complete trailer camp, reopened the lower adit and advanced the 4 Vein drift 14.3m.

1982 - The claims reverted to A.M.P. Exploration Ltd. which performed a legal survey and completed 3 drill holes (318.5m) in 1986, 9 drill holes (601.4m) and 17m of drifting in 1987, and road building in 1988.

CLAIMS STATUS

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

<u>CLAIM NAME/NUMBERS</u>	<u>EXPIRY DATE</u>	<u>OWNER</u>
Barb 1-24, 1F-6F, 29-30, 100F-103F	08 October, 1994/1996	A.M.P. Exploration & Mining Co. Ltd.

The major commodities identified at this site are silver and gold with minor commodities of lead, zinc, and tin.

CURRENT SITE CONDITIONS

Access to the site is by a 20km trail from the Alaska Highway near Mile 756 and follows along the east side of the Smart River. The access road fords several small tributaries to the Smart River, the deepest at the time of inspection (1993/06/20) being approximately 0.4m deep. A bridge crossing Two Ladder Creek just north of the British Columbia-Yukon border is in very poor condition with the approaches washed out, and the decking in poor condition. The integrity of the foundations and superstructure would need to be checked in detail if this bridge is to be used. The last 5 kilometers of the road is impassable with several deep seated slides across the road. Most of the road is overgrown and would need significant work to re-establish this road corridor before it could be used.

Recent road access appears to have taken place from the Logtung exploration site. This alternative access crosses the mountain ridges between the two sites, a distance of approximately 10km. The distance from the Alaska Highway using this alternate route is 25km. This access is useable for a very limited time, as this trail is snow covered for at least 10 months of the year. At the time of inspection on 1993/06/20 this road was still snow covered and inaccessible with all-terrain vehicles. This access road is also very steep.

The site is made up of two areas;

- the exploration area on and across the steep mountain slopes, and
- the abandoned camp in the lower portion of the mountain cirque.

Exploration Site

The exploration site has been developed with drill sites and adits above tree line. The sites are situated on either barren bedrock or weathered bedrock covered with lichens. Vegetation ranges from none at the highest sites to short alpine grasses and willows at the lower sites.

The only surface water in the area occurs from snowmelt. No streams are on the higher slopes.

Steep trails interconnect all areas with the exception of an adit which appears isolated mid-point on a steep mountain face. This isolated adit can be reached by traversing the steep mountain slope on foot.

The drill sites are generally situated on the steep slopes above the adit location and had been constructed by means of a "cut and fill" operation. This type of construction requires material to be removed from the slope and mass wasted downslope to provide a level driving surface wide enough for equipment to use. This results in obvious scarring of the surrounding mountain slopes and depending on the soil and water (surface and groundwater) conditions, can lead to slope instability and erosion problems. Because of the steep terrain in the area, the exploration trails are seen from some distance away.

An exploration adit is situated near the base of the steep mountain slope. The entrance to this adit, on a north facing slope, was covered with snow at the time of inspection, so an inspection of the adit entrance condition could not be completed. A relatively small pile of waste rock has been dumped over the face of the slope and is at its natural angle of repose. The other adit, mid-point on the steep mountain face appears to have a wooden structure supporting rails and a dump. Rock waste has been dumped off this structure and has formed a "chute" of waste rock to the base of the mountain. This second adit appears to be quite old.

Abandoned Camp

The abandoned camp below the exploration area, is located adjacent to the headwaters of an unnamed creek near the base of a mountain cirque on a silty end moraine deposit. The vegetation surrounding the camp site is black spruce to 8m high. A creek fed from meltwater from the cirque upslope flows past the camp site. At the time of inspection on 1993/06/20 the creek was approximately 2-3m wide and generally less than 0.3m deep. This creek served as the drinking water source for the camp when it was in operation. No fish habitat were observed in this small creek at these high elevations. According to documentation the camp site was used as recently as August, 1987.

The following infrastructure was found remaining at this site;

1) Buildings

- * 1 - ATCO 3.0x9.1m trailer used as an office,
- * 1 - ATCO 3.0x15.8m kitchen trailer,
- * 3 - ATCO 3.0x15.8m sleeper trailers complete with washroom facilities joined to form one building,
- * 1 - 3.7x6.7m plywood shed used for analyzing rock core,
- * 1 - 3.0x6.1m wooden tool shed,
- * 1 - 3.0x5.5m plywood shed (with lean-to) complete with roll of plastic hose,
- * 1 - 2.4x3.7m wooden shed used for housing diesel generator

The trailers have not been dismantled and are in a "set up" condition. Plumbing is connected to some form of underground sewage disposal system on the downslope (north) side of the trailer camp. Overhead electrical service is connected between the generator building and the trailer compound, however the diesel generator has been removed. Remnants of a PVC water line between the creek, to the east of the camp site, and the trailer compound is also still in place. The pump has been removed.

The trailers are in reasonably good condition considering that they do not appear to have been used or maintained for at least five years. The rate of deterioration will likely increase if these trailers are left unattended much longer.

The remaining outbuildings are simple plywood or wood clad sheds and storage buildings. These buildings are unpainted and deteriorating from the weather.

2) Fuel Storage Tanks

- * 1 - 6.1x2.1m diameter empty storage tank,
- * 1 - 6.1x3.0m diameter empty storage tank (vertical),
- * 23 empty 204 litre barrels,

All fuel storage tanks and barrels have been emptied and no hydrocarbon products were found at this site.

3) Miscellaneous

- * over 100m of 100mm diameter aluminum irrigation pipe,
- * over 100m rail,
- * one core rack structure with full core boxes, and
- * scattered junk including an old Dodge truck, sleigh, 20 litre pails, timber, electrical wire, etc.

The aluminum irrigation pipe and the rail have been stacked in one location adjacent to the vertical storage tank on the east side of the camp.

RECOMMENDATIONS

Most of the work at this site, according to historical records, took place over two separate time periods, from 1965-1967 and 1986-1988. The remaining building infrastructure seems to have been installed between 1980-1981. It appears that when the exploration work was completed, the equipment was removed from the site, the camp was shut down, all fuel was removed from any remaining storage tanks, and most of the remaining waste was piled in distinct piles. Specific recommendations for the camp and exploration areas are presented below.

Exploration Site

Drill Sites and Roads - As noted, the roads to the drill sites have been constructed on very steep rock talus slopes. These slopes are dry with very little vegetation cover. No sign of any slope instability or surface erosion was observed where the roads crossed the slope, and none would be expected to occur in future. The impact from these "road cuts" is visual, however it would not seem practical to restore the road cuts to the original surface profile in this very remote area. Doing so would be very costly, as well as additional disturbance to existing vegetation would cause additional damage.

Adit - The entrances to the adits at the time of inspection were inaccessible, one was covered in snow and the other is located on a very steep rock face. Closure of the higher adit would not likely be practical to complete as it is in a very remote and dangerous location. The lower adit, if it has not been properly sealed, appears to be covered by snow for likely at least 10 months of the year in a very remote location. An inspection of this adit during the last two weeks of July would be the best time to verify conditions at this adit. Recommendations could be made after this inspection is completed.

Abandoned Camp

The five ATCO trailers and four small storage sheds have been in place for approximately 12 years and are beginning to show signs of deterioration. These buildings are not likely to cause any specific environmental hazard, however the longer they are left at this site any residual value will disappear with time, and salvage will become more difficult.

Any site clean-up that is contemplated will have to be undertaken using the steep road access from the Logtung exploration site or alternatively using aircraft. The following steps for site clean-up would include;

- unhooking all sewer lines, water lines, and electrical service connections to the trailers,
- separating all trailers,
- repairing the Logtung road,
- loading all trailers and moving them over the Logtung road to the Alaska Highway,
- dismantling the largest tank,
- cataloguing all remaining rock core, loading and hauling it to an acceptable storage site,

- loading and hauling all tanks, barrels, and other metal waste from the site to the Alaska Highway, and
- dismantling, piling, and burning all wood buildings and other wood waste.

Site Summary

Environmental issues observed at the site relate to clean-up of the camp site. No major environmental hazards associated with mineral production were noted.

Site remediation, if undertaken would focus on removing the camp site and sealing off the entrance to the adit. Overall, site remediation work for this site would be considered a **LOW** priority as the remaining environmental hazards do not appear to be causing additional or long term damage to the area.

APPENDIX A

SITE LOCATION MAPS



SITE NAME: **LOGJAM**

SITE NUMBER: **105B-04-2**

MAP NUMBER: **105B**

MAP NAME: **WOLF LAKE**

MAP SCALE: **1:250000**

SITE LOCATION:

LATITUDE: **60° 01'55"**

LONGITUDE: **131° 35'38"**



SITE NAME: **LOGJAM**

SITE NUMBER: **105B-04-2**

AIRPHOTO NUMBER: **A27521-209** YEAR: **1989**

AIRPHOTO SCALE: **1:40000**

SITE LOCATION: LATITUDE: **60° 01'55"**

LONGITUDE: **131° 35'38"**

APPENDIX B

SITE PHOTOGRAPHS



1. CAMP SITE



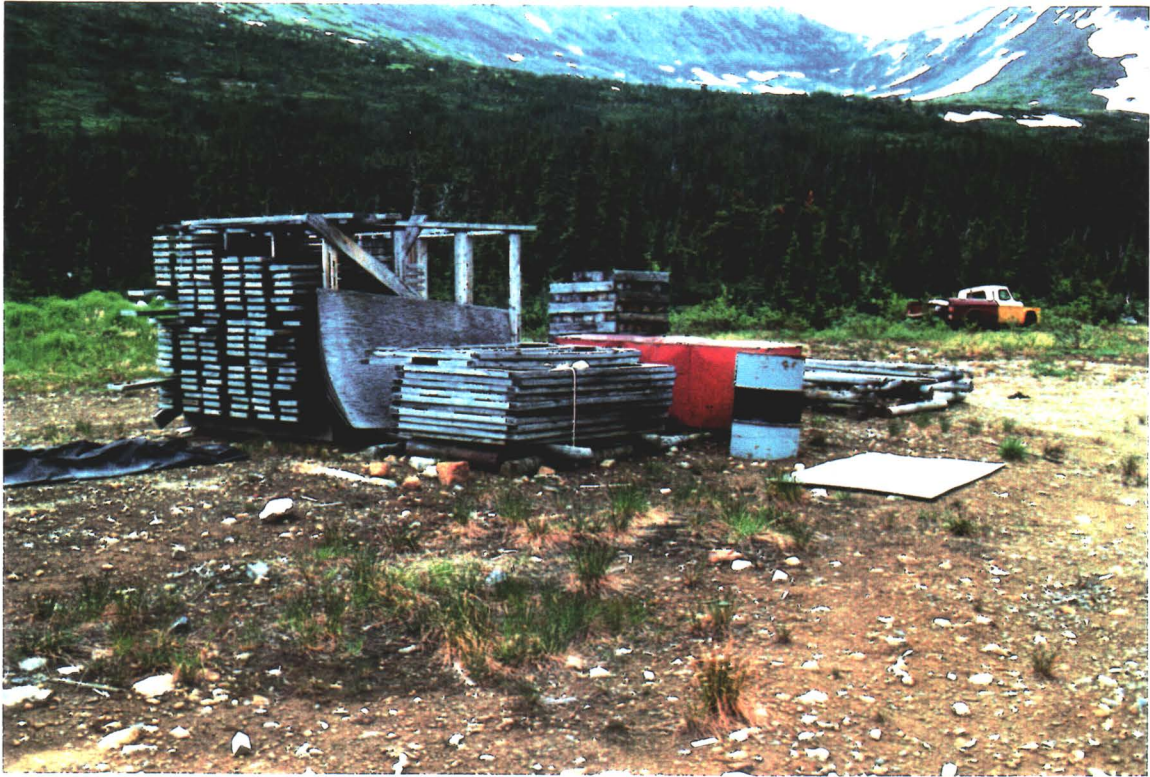
2. SLEEPING UNIT TRAILERS



3. KITCHEN TRAILER (YELLOW TRIM) AND OFFICE (RED TRIM)



4. ELECTRICAL SERVICE LINE FROM GENERATOR BUILDING



5. CORE STORAGE AND TRUCK



6. CORE STORAGE AND PLYWOOD SHED (CAMP IN BACKGROUND)



7. SLEIGH AND TOOL SHED



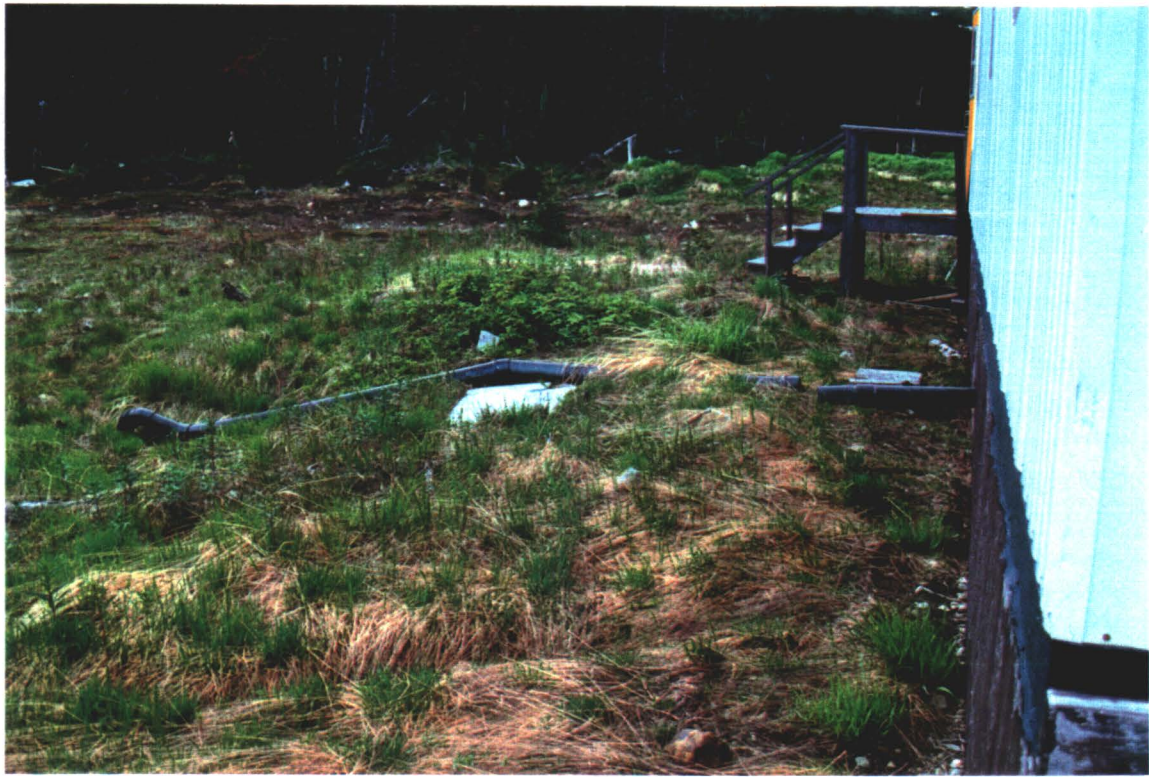
8. FUEL STORAGE TANK ON SKID FRAME



9. VERTICAL FUEL STORAGE TANK



10. EMPTY BARRELS



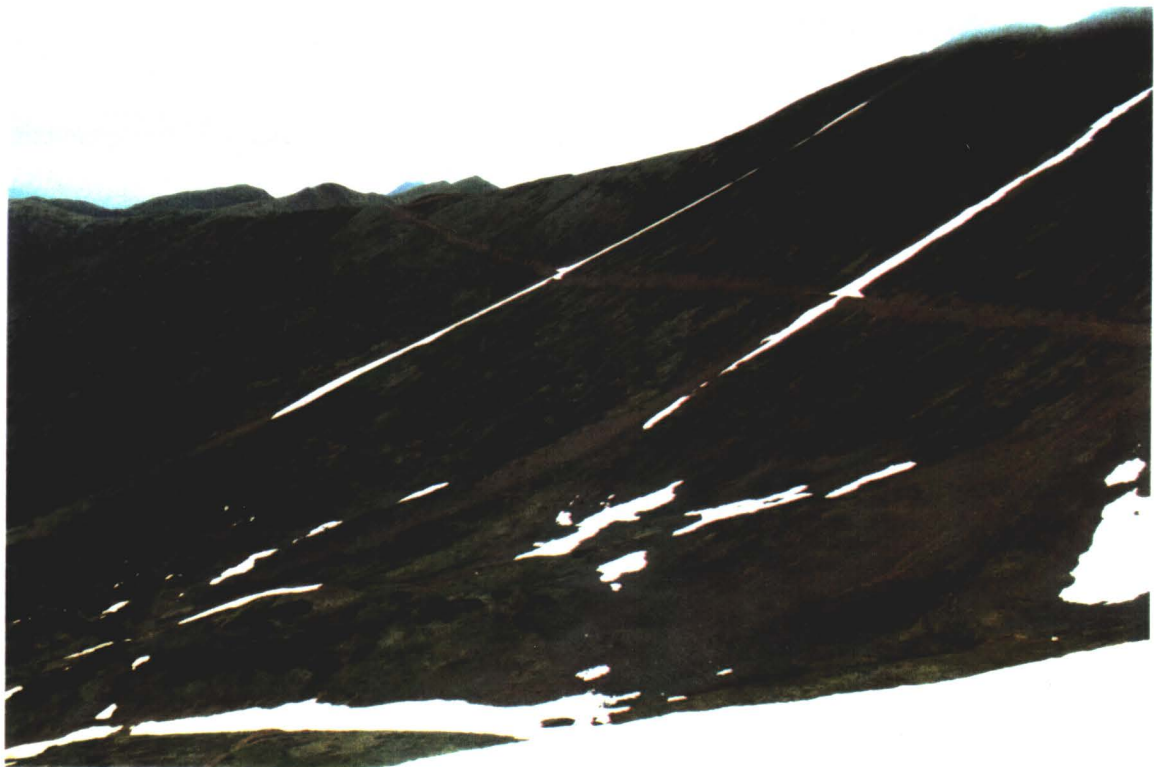
11. SEWER LINE FROM CAMP



12. OLD RAIL



13. ALUMINUM IRRIGATION PIPE



14. ACCESS ROAD BETWEEN LOGTUNG AND LOGJAM



15. ABANDONED ACCESS TRAIL AND BRIDGE ACROSS TWO LADDER CREEK



16. LOWER AND UPPER ADIT SITES



17. SLOPE FAILURE ACROSS ROAD