

**ASSESSMENT REPORT**

**105B-01-2**

**SILVER SEVEN**

**PREPARED BY**

**DIAND TECHNICAL SERVICES**

**OCTOBER, 1993**

**105B-01-2**

**SILVER SEVEN**

**LOCATION**

Latitude: 60° 08'07"N

Longitude: 130° 25'44"W

The mine site is located 8.2km by trail north of Mile 701 of the Alaska Highway. The mill site for the mine is located adjacent to the access trail near the Alaska Highway. The access trail leaves the Alaska Highway on the west side of Boulder Creek. The access trail is steep, fording Boulder Creek 3.8km north of the Alaska Highway. The mine site elevation is between 1500 - 1550m above sea level and the mill site is approximately 880m above sea level. The trail is rough and steep but can be slowly driven at selective times of the year with a four wheel drive vehicle. Variable flows in Boulder Creek will limit vehicle access. At the time of inspection the creek was approximately 0.5m deep.

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

**WORK HISTORY**

July, 1943 - Staked by Cominco as Bach claims and hand trenched.

May, 1951 - Restaked as Tungsten by P. Rodstrom for Yukon Tungsten Corporation Ltd. which drove a 161.5m adit and 71.6m raise and installed a 45.4 tonne mill that produced 465 units of concentrate between 1951 and 1953. This work was partially financed by Chillicopper Corporation Ltd. Fringe claims were acquired during this period by Whitehorse Tungsten Corp. Ltd. and by Yukon Mining Corp. Ltd. and Amalgamated Yukon Mining Ltd.

August, 1957 - Restaked as Lum by K. Lumsden and as Hope in June, 1961 by P. Fisher and P. Bochon who transferred them to Farmont Mining Syndicate and Native Minerals Ltd.

July, 1968 - June, 1969 - Restaked by Silver Seven Mines Ltd. as Luck, Morn, and Seven which were mapped, soil sampled, and trenched in 1970-71 and 1976 by Amax Exploration Ltd. under option.

July, 1973 - R.C. Coutts tied on Windy claims.

March - October, 1974 - Fringe staked as Bug and Piggy by Delphi Resources Ltd.

1979 - Optioned by a joint venture composed of Serem, Pan, Ocean and Amax which drilled one 587m hole and two holes in 1980 to 1019m. The adjoining ULY claim was staked to the west by R. Osborne in August, 1977 and trenched in 1978 by Goraco Minerals Ltd. These were optioned with the Silver Seven claims in 1979.



1981 - The Serem-Pan Ocean-Amax joint venture drilled one 549m hole in 1981 before dropping its option in 1982.

1983 - Claims transferred to Goldex Resources Inc. which trenched in 1987.

1987 - First Yukon Silver Resources Inc. tied on Odie claims.

April, 1988 - North half restaked as Fiddler claims by M. Neilsen with prospecting and sampling in 1989.

### **CLAIMS STATUS**

Status of mineral claims including claim names and numbers, claim expiry dates, and current owners in the vicinity of the Silver Seven site have been noted as of 1993/09/23 as follows;

<u>CLAIM NAME/NUMBERS</u>	<u>EXPIRY DATE</u>	<u>OWNER</u>
Fiddler 1-6	21 January, 1992	M. Neilsen
Fiddler 7-24	12 April, 1989	M. Neilsen
Bug 5-8	31 December, 1991	Goldex Resources Inc.
Piggy 18, 20	31 December, 1990	Goldex Resources Inc.
Piggy 17, 19, 27-32	31 December, 1991	Goldex Resources Inc.
Jarret 1-2	30 June, 1993	Bernard Kraft

The major commodity identified at this site is tungsten with minor commodities of tin, lead, zinc, copper, silver, and molybdenum.

### **CURRENT SITE CONDITIONS**

The Silver Seven exploration site is located in the Cassiar Mountains in the southeast corner of the Yukon Territory. The site is on the top of an unnamed mountain ridge between Spencer Creek and Boulder Creek north of the Alaska Highway, and is separated into two distinct areas, namely;

- the adit location with the main underground workings approximately 100m below the top of the ridge, and the area of surface trenching at the top of the ridge approximately 300m to the north of the adit, and
- the mill site adjacent to the Alaska Highway.

Two shafts (or raises from the adit) were found in the vicinity of the trenching above the adit location. One open shaft was sealed by a column of ice below the annual zone of thaw and the other shaft was covered with a hinged unlocked plywood door.

The first development at this site was the excavation of the underground adit and raises between 1951 and 1953. The remaining infrastructure appears to be from this period. This is evident from the type of adit construction, remaining mine loadout facility, and

vintage of the remaining buildings on site. The trenching, as noted above, took place much later in 1978.

Ore from the underground mining was hauled over the rough, steep trail 8.2km from the mine to the mill. There is no remaining evidence that there was a proper (culvert or bridge) crossing of Boulder Creek. Remnants of infrastructure at the mill site includes concrete foundations from the mill and tailings contained in a natural depression below the mill site. According to the historical records milling took place between 1951-1953. **It is important to note that the tailings area is void of any vegetation after 40 years.**

The surface material at the mine site consists of weathered oxidized bedrock across the weathered peak in the area of the adit and trenching. However, the mill site and tailings pond is situated on an eroded alluvial deposit made up of sand and gravel. This material is porous and well drained.

Vegetation at the mine location consists of short grasses, stunted willows, and a variety of sub-arctic alpine vegetation. The adit is above tree line. The mill site and tailings pond area is well drained and surrounded by pine to 8-12m high.

There are no streams or surface water in the vicinity of the adit or mill area. Both areas are subject only to snowmelt generally seeping away from these sites.

Disturbance from exploration around the adit covers an area approximately 1 hectare in size whereas the trenching covers an area approximately 0.5x1.0km in size. The site has been developed with roads crossing the exploration area and a gridwork of exploration trenching to a depth of 3-4m. Most of the trenching is confined to one area. The vegetation has been removed wherever road or trenching operations took place. The waste from the adit, approximately 900-1000 cubic metres of material, has been dumped near the entrance of the adit. Rail tracks for ore cars extends from the adit entrance to the edge of the waste dump and load out facility, a distance of approximately 40-50m. The entrance to the adit is open and can be accessed by the public.

A small amount of infrastructure has been left near the mine adit, namely;

- one 5x10m plywood clad camp building with wooden floor,
- one 6x8.5m core shed frame (walls collapsed) with scattered core and core in core boxes,
- one 6x7m plywood clad tool and equipment storage shed adjacent to the load out,
- load out facility consisting of interlocked logs 4m wide and 5m high.

The only infrastructure remaining at the mill site consists of four large foundation blocks. The tailings pond is approximately 25-30m in diameter. Depth of tailings is unknown without further investigation. One metal barrel and a few miscellaneous pieces of metal are scattered around the tailings pond area.

## **RECOMMENDATIONS**

Activity at this site dates back over 40 years with the major activity taking place from 1951-1953. The mine operated with a mill constructed in the vicinity to concentrate the ore generated from this site. As a result, tailings were generated and deposited in a natural depression near the mill site adjacent to the Alaska Highway. The environmental impact from the mill site and mine site will be dealt with separately as these sites are over 8km apart.

### **Mine Site**

Mining activity at this site has resulted in disturbance to the site mainly from the construction of a mine haul road, trenching, adit excavation, a waste dump, and associated buildings for the mining activity. According to the work history the majority of the work took place between 1951-1953. The remaining infrastructure (buildings, adit, entrances to the raises, and load out) is continuing to deteriorate and is either collapsing or becoming unsafe. Recommendations for each site item is presented separately.

Mine Adit - The mine adit is open, the supporting timbers are old and weakening, and although remote, is accessible to the public. It is recommended that the adit be properly sealed or permanently covered.

Mine Buildings - Three old plywood clad buildings, one that has already collapsed, remain at the site. These buildings are continuing to deteriorate from the weather and will eventually collapse. These structures are small and not expected to cause any environmental problem. It is recommended that if a site clean-up program is conducted at this site, the buildings should be piled and burned. However this is considered a low priority. No spilled or stored hydrocarbon products were found around the mine site.

Raises and Vertical Shafts - Two unmarked shafts (raises) above the adit are still in place. One of the shafts is covered with an unlocked plywood door and the other shaft is open. As a precaution, the two shafts should be properly sealed to prevent anybody from entering them and possibly injuring themselves.

Loadout - The loadout outside the entrance to the adit is constructed of locally cut logs, measures 3x5m and is 3-5m high, is held together with wire cables, and is deteriorating and beginning to collapse. This poses a safety hazard if someone inadvertently climbs this structure causing it to collapse. If a clean-up program is conducted at this site, this structure should be knocked down or dismantled to eliminate any safety hazard.

Rock Waste - The waste rock at the entrance to the adit consists of approximately 1000 cubic metres of steeply sloped material. Little can or needs to be done with this pile of rock. If a clean-up program is conducted the rails should be removed between the adit entrance and the end of the waste pile.

Trenching - The damage caused by the trenching conducted across this site is mainly aesthetic with damage to the vegetation and surface disturbance. The native material is weathered rock with few nutrients and is very slow to naturally revegetate. As the site is very remote with a harsh climate, natural revegetation is really the only practical solution. Because the material is naturally coarse the trenched areas are not showing any evidence of erosion. There are no streams in the area to be impacted from the mine site.

### Mine Site Summary

Work at this site has been ongoing for over 40 years with no obvious signs of significant damage to the environment. The highest priority for clean-up at this site is for improving the safety aspects of the site. The clean-up of buildings and related infrastructure is considered incidental to the safety requirements. However because of the remoteness of the site, the little amount of site infrastructure in the area, and absence of any observed significant ongoing environmental damage, the priority for improving this site is considered to be **LOW**.

### Mill Site

The only remains of the mill site are the concrete foundations and a few metal scraps. The mill appears to have burned down as some charred timbers were found near the concrete foundations. It is recommended that these foundations simply be left as they are. The vegetation has regrown around the mill site and little remains to be cleaned up.

There is no remaining evidence, with the exception of an open trench close to the mill site, of how the tailings was moved from the mill to the tailings area downslope of the mill. However, one can speculate that tailings was deposited by gravity through either a pipe or flume. There is no evidence that any proper tailings structure was constructed. It appears that the tailings was simply dumped into the natural depression and any liquids either seeped into the soil or evaporated. The tailings, consisting of sand sized particles and covering an area 25-30m in diameter, is void of any vegetation after 40 years. Animal droppings were evident across the site indicating the tailings might be used as a "salt lick". The surrounding vegetation did not exhibit any obvious signs of distress at the time of inspection.

**It is recommended that the tailings and surrounding vegetation be sampled and analyzed for contaminants.** Soil sampling at and below the surface should be completed to determine if any contaminants leached into the surrounding soil. Although the site is not likely to be used by local or passing population, it is close to the Alaska Highway and also appears to be frequently used by animals which could be ingesting any residual contamination. Any testing should determine whether or not the tailings could have any adverse effects on the animal population in the area.

### Mill Site Summary

Since the deposit of tailings, into what appears an unprepared site over 40 years ago, shows no sign of revegetation it is recommended that testing of the soil and vegetation be completed to determine;

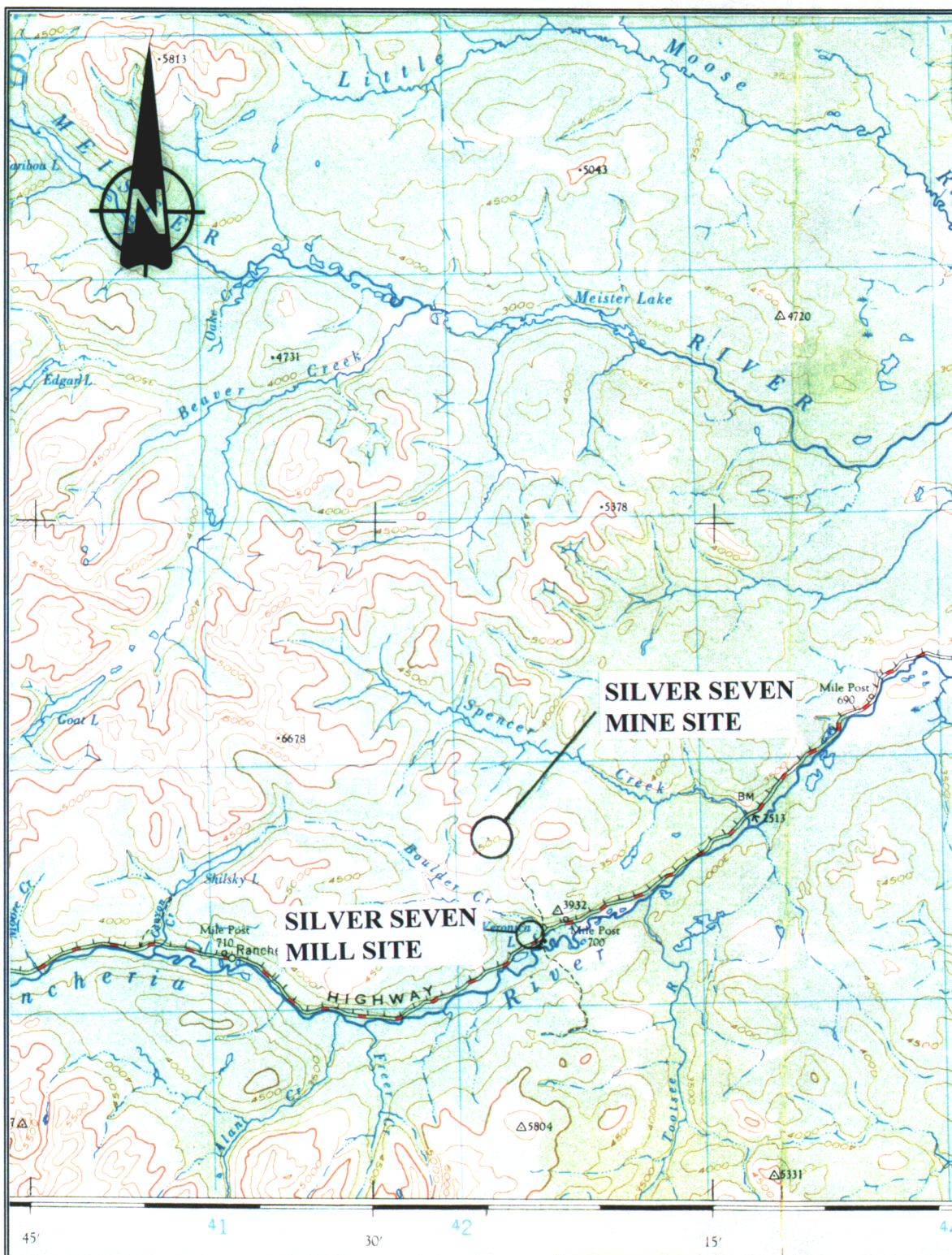
- why is the tailings not revegetating,
- the levels of any contamination found in the area, and
- the extent of any confirmed contamination in the area.

Because the site shows signs of stress and is being extensively used by the local animal population but as the site is fairly remote from any settled area and no obvious problems have arisen, it is recommended that this site be given a **MEDIUM** priority for further assessment.

**APPENDIX A**

**SITE LOCATION MAPS**





SITE NAME: **SILVER SEVEN**

SITE NUMBER: **105B-01-2**

MAP NUMBER: **105B**

MAP NAME: **WOLF LAKE**

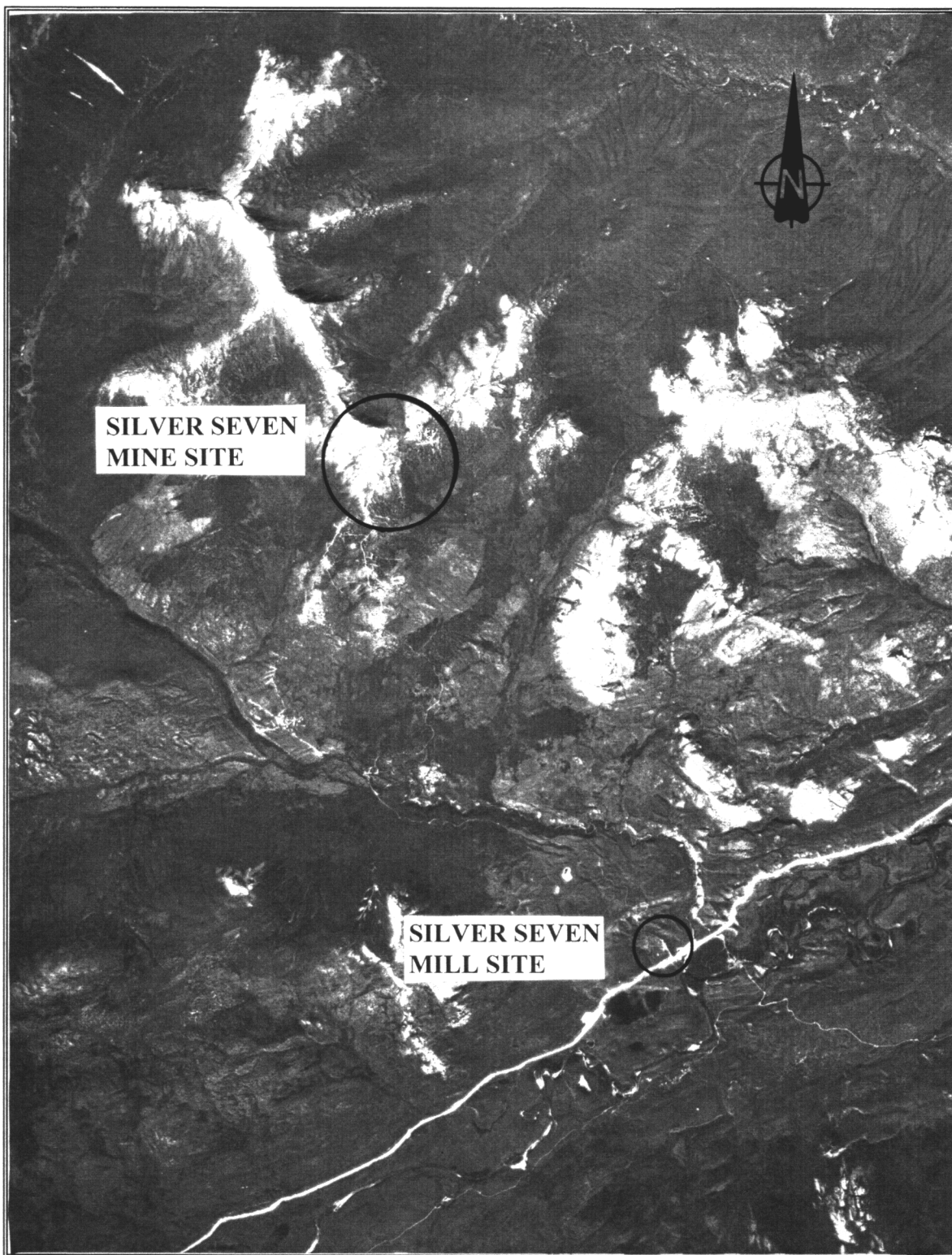
MAP SCALE: **1:250000**

SITE LOCATION:

LATITUDE: **60° 08' 07"**

LONGITUDE: **130° 25' 44"**





SITE NAME: SILVER SEVEN

SITE NUMBER: 105B-01-2

AIRPHOTO NUMBER: A25264-23 YEAR: 1979

AIRPHOTO SCALE: 1:64000

SITE LOCATION: LATITUDE: 60° 08'07"

LONGITUDE: 130° 25'44"



**APPENDIX B**

**SITE PHOTOGRAPHS**



1. OVERLOOKING MINE SITE



2. MINE ADIT AND RAIL





3. WASTE DUMP AND LOADOUT





4. OPEN ADIT



5. TOOL SHED AND LOADOUT





6. COLLAPSED STORAGE BUILDING AND PLYWOOD CLAD BUILDING



7. SPILLED ROCK CORE





8. OPEN SHAFT WITH PLYWOOD COVER



9. OPEN RAISE ABOVE ADIT





10. TRENCHING



11. TAILINGS POND AND SURROUNDING VEGETATION





12. MILL FOUNDATIONS





13. TAILINGS POND





14. INLET TO TAILINGS POND