

1971 Property Examination



SILVER SEVEN TUNGSTEN PROPERTY

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$ 6068.00

[Handwritten signature]
Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

[Handwritten signature]
Commissioner of Yukon Territory

AMAX Vancouver Office

February 1972

F.R. Harris

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SUMMARY

The Silver Seven Tungsten Property of 88 claims is located in the southern Yukon, 57 miles west of Watson Lake. Geological mapping, a geochemical soil survey, and surface sampling of the mineralized zones were done in September 1971.

Wolframite veins were discovered on this property in 1943, and it has been subjected to periodic exploration since that time. The property is currently owned by Silver Seven Exploration Limited.

The property is two miles east of the Cassiar batholith, and is underlain by Cambrian calcareous sedimentary rocks which have been metamorphosed and contorted by the batholith. Two small quartz diorite dykes are the only intrusive rocks exposed on the property.

Four types of mineral deposits occur on the property.

1. Quartz-galena-wolframite-cassiterite veins, which contain concentrations of wolframite.

2. A dyke-like quartz breccia zone which is from 10 to 120 feet wide and 2000 feet long. The scheelite is irregularly disseminated in this 550 foot section, with assays ranging from less than 0.01% WO_3 to 3.80% WO_3 .

3. Replacement type base metal mineralization occurs on the property and has been previously tested by diamond drilling.

4. Narrow quartz-galena-sphalerite veins which follow shear zones in the calcareous schists, are also exposed on the property.

INTRODUCTION

In September 1971 the Silver Seven Tungsten Property, in the southern Yukon, was examined. The property contains wolframite-quartz veins, scheelite bearing quartz breccia, and base metal mineralization and is owned by Silver Seven Exploration Limited. AMAX carried out geological mapping, a geochemical soil survey, and surface sampling of the mineralized zones over a period of two weeks.

Location and Access

The property is in the Yukon Territory, 57 air miles west of Watson Lake. It is reached by a three mile road which extends north of the Alaska Highway at Mile 701.6. The last mile of this road is only accessible by four-wheel drive vehicle.

Physiography

The property is on the eastern flank of the Cassiar Mountains. The terrain consists of rounded hill tops and gently dipping valleys with some steep walled cirques. Elevations on the property range from 3400 feet to 5100 feet, with tree line at 4800 feet. Vegetation consists of balsam fir and spruce, with buckbrush extending one to two hundred feet above tree line.

On hill tops drift is less than five feet thick but this thickens downslope. Outcrop is largely restricted to stream valleys, hill tops, and ridges.

The Rancheria and Boulder Creek valleys served as Pleistocene outwash channels, and now contain thick deposits of sand and gravel.

Previous Work

The wolframite-bearing quartz veins were discovered in 1943 by prospectors working for Cominco Ltd. These veins are now known as the Fiddler West zone.

From 1951 to 1953 Yukon Tungsten Corporation Limited put in a 530 foot adit and 235 feet of raises to test the underground extension of the wolframite veins. A small mill was built near the Alaska Highway, but there was no production, and the mill later burned down.

In 1961 the lead-zinc-silver Luck showing was found 1.7 miles southwest of the wolframite veins. In 1962 it was optioned to Scurry Rainbow Oil Company Limited who did trenching, a geochemical soil survey, self-potential and E.M. geophysical surveys, and drilled 13 holes with a total length of 2597 feet. This showing is now on ground held by Silver Seven Exploration Limited.

In 1969 Silver Seven Exploration Limited did bulldozer stripping and discovered a scheelite-bearing quartz breccia zone 1500 feet east of the wolframite veins which is now referred to as the Fiddler East zone. In 1971 more bulldozer stripping was done in an attempt to extend the scheelite zone.

Over the years the wolframite veins have been high graded but the results of these operations are unknown.

REGIONAL GEOLOGY

The property is on the eastern flank of the northwest trending Cassiar geanticline. The eastern edge of the Cassiar batholith, of biotite quartz monzonite and granodiorite, is two miles west of the Fiddler West zone. Most intrusive rocks in this batholith are Late Mesozoic in age (Pool, Raddick and Green, 1960).

The claims are underlain by contorted calcareous schists, phyllites, and marble believed to be of Lower Cambrian age. The regional trend of these rocks is north to north-northwest.

Four miles east of the Cassiar batholith, and two miles east of the adit on the property, are calcareous shales and limestone. This decrease in metamorphism, from marble and schist on the property to limestone and shale east of the property indicates that metamorphism was caused by the Cassiar batholith.

Pleistocene continental glaciers moved from west-southwest to east-northeast (Pool, Raddick and Green, 1960). The abundant granitic float on the property has been derived from the Cassiar batholith to the southwest.

PROPERTY GEOLOGY (Figure 2)

Summary

The claims are underlain by contorted calcareous schists and argillaceous phyllites which trend to the northwest and are of Cambrian age.

The property contains: wolframite-galena-quartz veins (Fiddler West zone), a quartz breccia zone containing scheelite (Fiddler East zone), a lead-zinc-silver replacement zone (Luck showing), and lead-zinc-silver-quartz veins (Pete showing).

Rock Types

The calcareous schists are fine grained, and range in composition from unbedded marble through a bedded mica-calcite schist to argillaceous phyllite. The beds contain variable

amounts of white mica, biotite, quartz and calcite, and are generally about $\frac{1}{2}$ " thick. The calcareous schists frequently contain up to 1% disseminated pyrite.

Two easterly trending dykes are the only intrusive rocks exposed on the property. One is 4000 feet north of the quartz breccia zone and the other is 1800 feet south of the breccia (Figure 1). The northern dyke is 20 feet wide and contains small ($\frac{1}{32}$ ") phenocrysts of quartz (10%), plagioclase (2%) and biotite (2%) in an aphanitic felsic matrix. The southern dyke is massive, fine grained, and contains an estimated 57% plagioclase, 35% quartz, 7% muscovite, and 1% disseminated pyrite. The dykes are believed to be quartz diorite in composition.

Structure

The most common attitude of the bedding is a north-northwesterly strike, and an easterly dip. Schistosity was found to be parallel to, or at an angle to the bedding. On the hill containing the Fiddler West zone, the bedding is horizontal or dips gently south.

In places the schistose rocks are highly contorted and the axes of these small folds generally plunge to the southeast.

The scheelite bearing quartz breccia zone is believed to mark the northwestern edge of a northeasterly trending fault zone. The most recent movement along this fault has sheared phyllite and quartz veins just south of the quartz breccia zone. This younger shear zone is delineated by two parallel lineaments 300 to 400 feet apart (See Figure 1), just south of the quartz breccia. Other lineaments south and east of this fault may also be surface expressions of faults.

Mineralization

Fiddler West Zone (Figure 3)

The Fiddler West zone is on the hill west of the dry lake. Mineralization is in a series of an echelon quartz veins

6 to 36 inches wide, which strike east-west and dip south 25 to 50 degrees. Some of the veins contain concentrations of wolframite, galena, scheelite, fluorite and minor amounts of cassiterite, stannite, sphalerite, chalcopyrite, and pyrite. The quartz veins frequently have $\frac{1}{2}$ " bands of light green mica on either side. The downdip extension of the main wolframite-quartz was explored by an adit, an inclined raise, and vertical raise. Due to ice filling, and burned out timber, the underground workings were not visited.

Three veins were found which contained local concentrations of wolframite and galena. They are described below in order of decreasing tungsten content.

1. The main vein, on which most work has been done, and which is estimated to contain the greatest concentration of wolframite, is exposed on top of the hill near the north facing cliff. Irregular concentrations of wolframite and sulphides are restricted to the northern 70 feet of this 6 to 18 inch quartz vein, with only a trace of wolframite observed in the southern part of this vein. An 18 inch channel sample taken near the inclined raise assayed 4.35% WO_3 . A sample over a two foot width in this same area by Sevensma assayed 0.34% WO_3 . This 70 foot section is estimated to contain 1.0% WO_3 .

2. The eastern 100 feet of an eight inch quartz vein 400 feet east of the main vein, contains an estimated 0.5% WO_3 , with only a trace of wolframite seen outside the eastern section.

3. The western 60 feet of an 8 to 36 inch wide quartz vein exposed on the northern cliff face, contains up to 3.0% wolframite in irregular patches. Two 3 foot long samples across this vein assayed 0.67% WO_3 and a trace of WO_3 . This 60 foot section is estimated to contain 0.5% WO_3 .

The quartz veins are very coarse grained and drussy with subhedral to euhedral crystals up to 6 inches long and 2 inches

wide.

There are at least two ages of quartz veins. The high grade tungsten vein at the inclined raise is sheared and friable but is cut by a massive glassy two foot quartz vein, which is almost barren.

Fiddler East Zone (Figure 3)

The Fiddler East mineralized zone is 1500 feet east of the wolframite veins, and was discovered in 1969 by bulldozer trenching. Mineralization consists of scheelite which is unevenly disseminated in a quartz breccia zone. Minor fluorite and calcite were the only other minerals seen in the quartz breccia.

The quartz breccia is a dyke-like body which strikes N60°E and dips steeply south. It is intermittently exposed over a length of 6500 feet and has a maximum width of 120 feet. The breccia contains up to 30% angular fragments of calcareous schist and quartz. The fragments are up to four inches across and the matrix is fine to medium grained quartz. Some fragments are unaltered while others are highly silicified and are represented by only a faint outline. In the areas of highest grade scheelite the calcareous schist fragments are more completely altered and scheelite is concentrated around these relict fragments. In some areas the breccia contains numerous drussy vugs.

The contact between the quartz breccia and calcareous schists to the northwest is either sharp, or gradational through a quartz stockwork zone up to 75 feet wide, the southern contact of the quartz breccia is a fault zone of sheared calcareous schist and quartz veins. The quartz and scheelite are believed to have been emplaced along a fault zone which has been subjected to recurrent movement.

Narrow, subparallel, quartz breccia, quartz, and calcite veins occur on either side of the main quartz breccia zone. Just east of the dry lake, and north of the west end of the breccia

zone some of these veins were found to contain minor amounts of scheelite and malachite. All scheelite is associated with quartz breccia or veins.

All outcrops along the quartz breccia zone were examined by ultra-violet lamp and scheelite only occurs in a 550 foot section of the breccia just east of the dry lake. In this 550 foot section there are two zones which were estimated to contain from 1 to 2% WO_3 . The higher grade zone is 140 feet east-southeast of the dry lake. This zone trends 90° and is 30 feet long and 7 feet wide. Two representative samples from this area assayed 3.80% WO_3 and 1.05% WO_3 . The second high grade zone (75 feet long and 13 feet wide, with the long axis trending $N30^\circ E$) is 450 feet northeast of the dry lake. Representative samples from this zone assayed 0.12% WO_3 and 0.10% WO_3 and 0.08% WO_3 . These two zones were estimated to contain approximately the same amount of scheelite when examined by ultra-violet lamp and the reason for low assays in the second zone is unknown. Nineteen other samples from this 550 foot section of quartz breccia gave assays ranging from less than 0.01 to 1.10% WO_3 , with only three assays greater than 0.10% WO_3 .

Luck Showing (Figure 5)

The Luck showing is a small lead-zinc-silver deposit 1.7 miles southwest of the wolframite veins which was tested by diamond drilling in 1962. Calcite veins associated with the base metals contain up to 0.18% WO_3 as scheelite.

Host rocks at the Luck showing are highly contorted calcareous schists and phyllites which contain an estimated 1% pyrite. Axes of small tight folds in the schist plunge 10 to 20° to the southeast.

Sphalerite, pyrite and galena are disseminated in a fine grained dolomite-muscovite schist which shows folding similar to

360'

440'

Old claim posts
No tags

440

1" minor qtz.
no sulphides
observed

Pits Filled in

Rusty gossan
few sulphides mostly
q. fluor.

441

Shear filled with qtz. galena
shalerite, fluorite - 1" to 4"

4" Shear with
qtz. and galena

4" Shear with
no sulphides

442

qtz. fluorite vein

ASSAYS

No.	WIDTH	Ag	Pb	Zn
440	4"	11.4	8.36	8.30
441	4"	159.1	34.58	1.91
442	8"	17.0	22.78	3.67

3" qtz. bx. vein

1/2" Rusty Shear

16E

Line 30 N

18E

19E

PETE SHOWING GEOLOGY

Scale: 1" = 50', FIG. 5

SILVER SEVEN PROPERTY - based on map by P.H. Sevensma, assay samples by Sevensma,
modified by F.R. Harris and T.J. Godfrey

the host rock. The sulphides appear to have replaced the calcareous host rocks converting them to dolomite-muscovite schist. The sulphides, particularly galena, also occur in narrow irregular veins.

Surface exposure of the mineralization is confined to one outcrop 70 feet long by 30 feet wide, and limonite stained boulders in the trench just east of the outcrop. The mineralized outcrop is fractured and strongly limonite stained. Some of these fractures are filled with narrow calcite-scheelite veins. A three foot, easterly striking calcite-scheelite vein marks the northern contact between the base metal mineralization and calcareous schists and is believed to have been emplaced along a fault. The scheelite is disseminated, or occurs as narrow veins which cut the calcite vein. Calcite veins occur in some of the other trenches on this showing but none contain scheelite.

Base metal mineralization was intersected in six of the 13 holes drilled. Following, is a list of the intersections and assays. The assays are from Sevensma's 1969 report.

Hole No. & Dip	Total Intersection of Base Metals	Footage Assayed	Ag	Pb	Zn
1 @ 45°	10.0 from 80.0 - 90.0	88.0 to 90.0	4.18	6.68	9.67
2 @ 50°	21.4 from 81.6 - 103.0				
3 @ 65°	39.0 from 66.0 - 105.0	66.0 to 105.0	1.66	1.47	8.32
4 @ 65°	20.6 from 51.0 - 71.6	51.0 to 71.6	2.05	3.45	8.47
5 @ 45°	3.8 from 36.7 - 40.5	36.7 to 40.5	1.03	3.05	2.91

During the current examination two representative samples were taken from the mineralized outcrop, the assay results are listed below:

Sample Number	Area	Ag	Pb	Zn	WO ₃
33448	10x2'	1.36	.90	2.52	0.09
33449	10x2'	.68	.44	7.64	0.03

Two representative samples were also taken from the three foot calcite-scheelite vein north of the base metal showing. These gave assays of 0.18% WO_3 and less than 0.01% WO_3 .

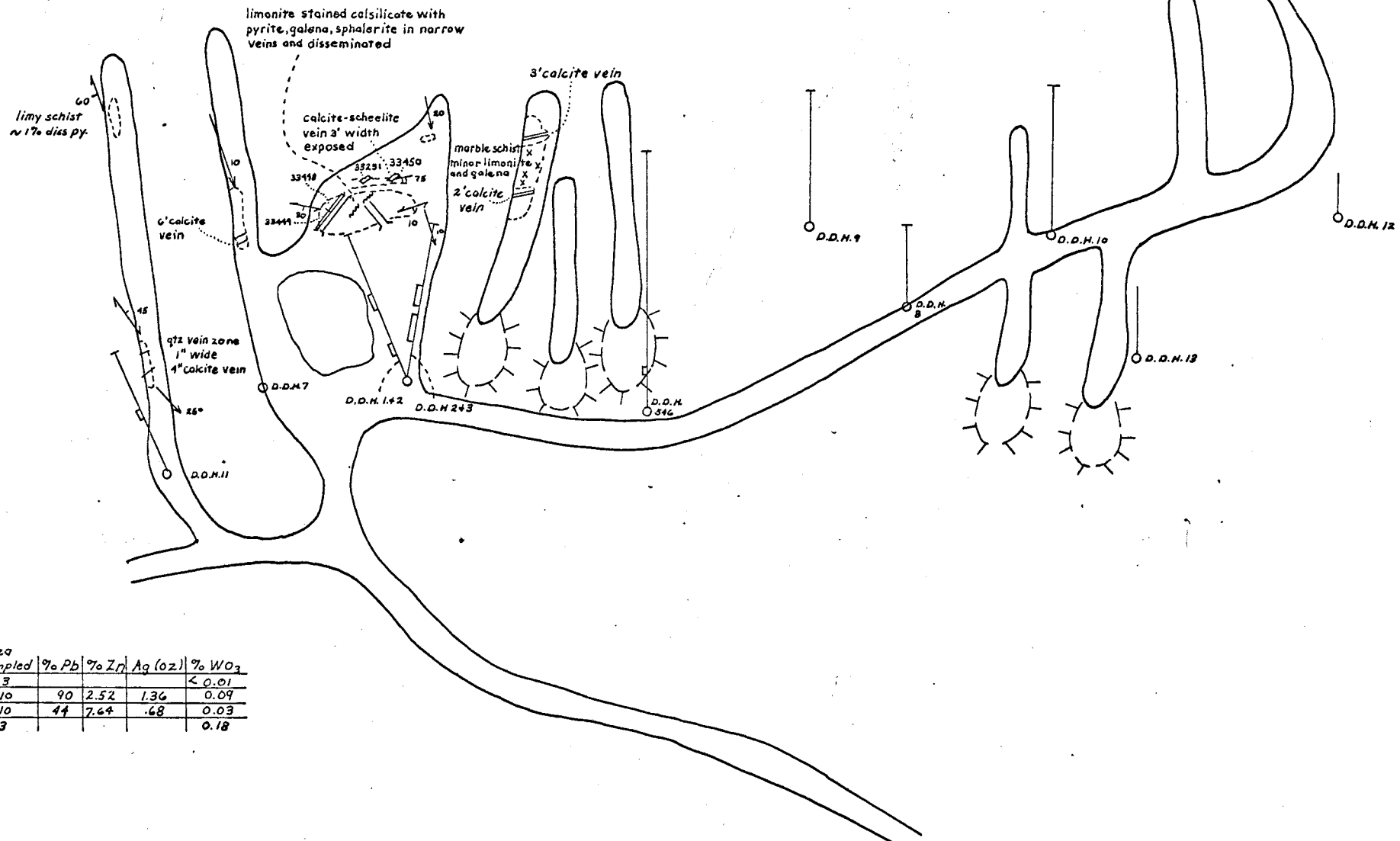
Diamond drill hole data indicate that the base metals occur in an easterly trending lens-shaped zone 3 to 40 feet thick, which dips 30 to 45° south and is approximately 300 feet long.

Pete Showing (Figure 6)

This showing is 4000 feet southwest of the wolframite veins and consists of a 4 inch lead-zinc-silver vein which has been emplaced in a shear zone.

The host rocks are limonite stained phyllites and calcareous schists which contain several limonite stained shear zones. One southeasterly trending shear zone, which is exposed in four trenches over a length of 180 feet, contains a four inch quartz-fluorite vein with local concentrations of galena and sphalerite that assay high in silver (See Figure 6).

1050'



Area Sampled	% Pb	% Zn	Ag (oz)	% WO ₃
33251 3x3				< 0.01
33448 2x10	90	2.52	1.36	0.09
33449 2x10	44	7.64	.68	0.03
33450 6x3				0.18

GEOLOGY OF LUCK SHOWING

Scale: 1" = 100'

Based on map by P.H. Sevensma,

Assay samples by F. Harris,

Modified by F. Harris

FIG. 6

GEOCHEMISTRY

970 Soil samples were taken at 200 foot intervals on east-west lines 1000 feet apart over an area 12,000 feet square (Figure 2).

To establish the limits of tungsten mineralization, south of the quartz breccia zone, samples were taken at 200 foot centers over an area 5500 by 2800 feet (Figure 4).

Geochemical Environment

The timber line is roughly at 4800 feet and above this elevation hill crests have many features, generally associated with sub-arctic tundra terrain. Vegetation is restricted to stunted buckbrush and arctic dwarf willow with occasional alpine fir and hemlock. Frost heaved rock fragments, frost boils and medallion features are common although there is no evidence of extensive permafrost. Since the region falls within the southern fringe of the permafrost zone, development may be restricted to isolated patches on north facing hill slopes and where there is a thick protective vegetation cover.

At lower elevations vegetation becomes more prolific and the timber is more or less continuous. A moderate thickness of boulder clay (20-30 feet) has been deposited especially on the southwest facing ridge flanks. Talus fans predominate on the steeper north and east slopes. Major drainage channels, e.g. Boulder Creek, flow in deeply incised valleys, cut into thick fluvioglacial deposits.

The soils and landscape features developed over the property are characteristic of both a subarctic environment and

of warmer forested regions to the south. Above timber line topsoil is often thin or completely absent and frost boils, frost heaves, medallion features are common. The arctic brown soil typically consists of 6-8 inches of dark brown humic rich loam (A horizon) overlying a grey-brown loamy clay often mottled with irregular lenses or bands of black humus. On exposed hill slopes and crests the total overburden depth may only be 2 to 3 feet and the subsoil contains a high proportion of angular rock fragments. These features suggest that active solifluction has played a significant part in the transport of material on the hill slopes.

At lower elevations, within the continuous mature timber, wooded brown soils have developed from a parent boulder clay. This soil type differs from the arctic-brown equivalent in that the A horizon is generally 4 to 6 inches thick, the underlying B horizon more uniform in texture and contains no humic mottling.

Local environment variations may be related to the formation of swamps on the floor of U-shaped valleys. Peats and humic gleysols may be common under these conditions and the copious precipitation of iron hydroxides, in the drainage channels, has been observed. On the fluvioglacial terraces above the major creeks, a sandy subsoil, largely of granitic material supports a young, post burn growth of lodgepole pine. In some areas erosion has completely removed the topsoil and surface vegetation. The small number of pH determinations that have been made on samples indicate a soil pH of above 7 on the hill slopes and crests, where subarctic environment features are common, but lower values i.e. 6.0 - 7.0 in wooded brown soils below the timber line.

Geochemical Results

The threshold and anomalous ranges for Pb, Zn, Ag, Cu and W in soil samples from both the regional and the detailed grid were established from graphs of cumulative frequency per log ppm. The values are tabulated below.

<u>Metal</u>	<u>Background</u>	<u>Positive</u>	<u>Anomalous</u>	<u>Highly Anomalous</u>
W	0- 10 ppm	11- 25 ppm	26- 40 ppm	> 40 ppm
Zn	0-180	181-250	251-450	>450
Pb	0- 60	61-120	121-250	>250
Cu	0- 60	>60		
Ag	0- 1	> 1		

Regional Soil Anomalies (See Figure 2)

A large high contrast (up to 25 X threshold) irregularly shaped tungsten anomaly occurs over the Fiddler West Zone. The southern spread of this anomaly may be caused by downslope transport of the mineralization by solifluction. The tail off to the northeast is probably caused by glacial transport which was from southwest to northeast.

A low contrast (2-3 X threshold) tungsten anomaly which trends east-west, and is one mile northeast of the Fiddler West zone, is not related to known tungsten mineralization. This anomaly may be glacially transported from the Fiddler East and West zones.

Of the nine Pb-Zn-Ag anomalies outlined on the regional grid, five are associated with known occurrences of base metals. The anomalies are discussed below, in order of decreasing contrast.

Four thousand feet northeast of the adit a high contrast Pb-Zn-Ag anomaly is coincident with high W and Fe values. This anomaly may be partially caused by glacially transported mineralization from the Fiddler East and West zones.

Two lower contrast Zn-Pb-Ag anomalies occur 4000 feet northeast of the adit and 5000 feet southwest of the adit.

A third, large Pb-Zn-Ag anomaly, extends 3000 feet beyond the southern edge of the detailed grid, and includes the base metal veins of the Pete zone.

Of less significance are the lower contrast, Pb-Zn-Ag

anomalies at the southern edge of the regional grid. One anomaly includes the Luck showing and has been caused by it. The other anomaly 5000 feet west of the Luck showing is of lower contrast.

A lower contrast (2 X threshold) Cu anomaly with Fe values >5% and corresponding high Ni values trend northeast-southwest and defines the mineralized quartz breccia zones.

Detailed Grid Soil Anomalies

Figure 4 shows Zn-Pb-W values for all samples on the detailed grid and outlines anomalous areas of these elements.

The highest contrast for tungsten (6 X threshold) is over tungsten mineralization of the Fiddler West zone.

High contrast Zn-Pb and Zn anomalies northwest of the cabins are associated with Fiddler West mineralization. Other Pb-Zn-Ag anomalies south of the base line may be explained by glacial transport of mineralization from the Pete zone, which is to the southwest.

AMAX Vancouver Office

February 1972

F.R. Harris

REFERENCES

- CATHRO, R.J. (1969); Tungsten in the Yukon - 3rd Northern Resources Conference, Whitehorse, Y.T.
- GEOLOGICAL SURVEY OF CANADA - Map 10-1960 Wolf Lake
- GREEN, L.H. & GODWIN, C.I. (1963); Mineral Industry of the Yukon, G.S.C. Paper 63-38, pp 31-32
- GREEN, L.H. (1965); Mineral Industry of the Yukon Territory, G.S.C. Paper 66-31, pp 80 to 82
- LITTLE, H.W. (1959); Tungsten Deposits of Canada, Economic Geol. Series No. 17, p 37
- SEVENSMA, P.H. (1969); Silver Seven Exploration Ltd. Boulder Creek area, Company Report
- SEVENSMA, P.H. (1971); Silver Seven Exploration Ltd. Boulder Creek Claims, Company Report

APPENDIX I

Expenditures while on the Silver Seven Property

Salaries

F.R. Harris, 601-535 Thurlow Street, Vancouver, B.C. Aug. 29 - Sept. 14, 1972 17 days @ \$50.00/day	\$ 850.00
T.J. Godfrey, 601-535 Thurlow Street, Vancouver, B.C. Sept. 9 - Sept. 13, 1972 5 days @ \$50.00/day	250.00
L.G. Hicks, Box 29, Pouch Cove, Nfld. Aug. 29 - Sept. 14, 1972 17 days @ \$20.00/day	340.00
M.A. Bennett, Box 534, Vanderhoof, B.C. Aug. 29 - Sept. 14, 1972 17 days @ \$15.00/day	255.00
R.E. Lett, 601-535 Thurlow Street, Vancouver, B.C. Sept. 9 - Sept. 13, 1972 5 days @ \$50.00/day	250.00
D.L. Miles, 2825 Fandell Street, Nanaimo, B.C. Aug. 29 - Sept. 5, 1972 8 days @ \$15.00/day	120.00
M.D. Bradley, 6000 Iona Drive, Vancouver, B.C. Aug. 29 - Sept. 5, 1972 8 days @ \$15.00/day	120.00
Robert. Howbolt, General Delivery, Watson Lake, B.C. Sept. 2 - Sept. 13, 1972 12 days @ \$20.00/day	240.00
Total man-days 89 days	<u>\$2,425.00</u>
Camp accommodation and board @ \$7.00/day for 89 days	\$ 623.00
One 4x4 vehicle @ \$20.00/day for 17 days	\$ 340.00
One pickup truck @ 15.00/day for 17 days	\$ 255.00
970 Soil samples analyzed for tungsten, lead, and zinc @ \$2.50/sample	<u>\$2,425.00</u>
TOTAL expenditure while on the Silver Seven Property	<u>\$6,068.00</u>

APPENDIX II

Procedures for Collection and Processing
of Geochemical Samples

Analytical Methods for Ag, Mo, Cu, Pb, Zn,
Fe, Mn, Ni, Co and W in sediments and soils;
Mo, Cu, Zn, Ni and SO_4^{--} in waters.

Amax Exploration, Inc.
Vancouver Office.

September 1970

R.F. Horsnail

SAMPLE COLLECTION

Soils

B horizon material is sampled and thus organic rich topsoil and leached upper subsoil are avoided. Occasionally organic rich samples have to be taken in swampy depressions.

Samples are taken by hand from a small excavation made with a cast iron mattock. Approximately 200 gms of finer grained material is taken and placed in a numbered, high wet-strength, Kraft paper bag. The bags are closed by folding and do not have metal tabs.

Observations as to the nature of the sample and the environment of the sample site are made in the field.

Drainage Sediments

Active sediments are taken by hand from tributary drainages which are generally of five square miles catchment or less. Composite samples are taken of the finest material available from as near as possible to the centre of the drainage channel thus avoiding collapsed banks. More than one sample is taken if marked mineralogical or textural segregation of the sediments is evident.

Some 200 gm of finer material is collected unless the sediment is unusually coarse in which case the weight is increased to 1 kg. Samples are placed in the same type of Kraft paper bag as are employed in soil sampling. Water samples are taken at all appropriate sites. Approximately 100 mls are sampled and placed in a clean, screw sealed, polythene bottle. Observations are made at each site regarding the environment and nature of the sample.

Rock Chips

Composite rock chip samples generally consist of some ten small fragments broken from unweathered outcrop with a steel hammer. Each fragment weighs some 50 gms. Samples are placed in strong polythene bags and sealed with non-contaminating wire tabs. Samples are restricted to a single rock type and obvious mineralization is avoided.

Soil, sediment and rock samples are packed securely in cardboard boxes or canvas sacks and dispatched by road or air to the AMAX geochemical laboratory in Vancouver.

SAMPLE PREPARATION

Packages of samples are opened as soon as they arrive at the laboratory and the bags placed in numerical sequence in an electrically heated sample drier (maximum temperature 70°C).

After drying soil and sediment samples they are lightly pounded with a wooden block to break up aggregates of fine particles and are then passed through a 35 mesh stainless steel sieve. The coarse material is discarded and the minus 35 mesh fraction replaced in the original bag providing that this is undamaged and not excessively dirty.

Rock samples are exposed to the air until the outside surfaces are dry; only if abnormally wet are rocks placed in the sample drier. Rock samples are processed in such manner that a fully representative $\frac{1}{2}$ g sample can be obtained for analysis. The entire amount of each sample is passed through a jaw crusher and thus reduced to fragments of 2 mm size or less. A minimum of 1 kg is then passed through a pulverizer with plates set such that 95% of the product will pass through a 100 mesh

screen. Where samples are appreciably heavier than 2 kg the material is split after jaw crushing by means of a Jones splitter. After pulverizing the sample is mixed by rolling on paper and is then placed in a Kraft paper bag.

SAMPLE DIGESTION

Digestion tubes (100 x 16 mm) are marked at the 5 ml level with a diamond pencil. Tubes are cleaned with hot water and concentrated HCl. 0.5 g samples are weighed accurately, using a Fisher Dial-O-Gram balance, and placed in the appropriate tubes.

To each of the samples thus prepared are added 2 ml of an acid mixture comprising 15% nitric and 35% perchloric acids. Racks of tubes are then placed on an electrical hot plate, brought to a gentle boil ($\frac{1}{2}$ hour) and digested for $4\frac{1}{2}$ hours. Samples unusually rich in organic material are first burned in a porcelain crucible heated by a bunsen burner before the acid mixture is added. Digestion is performed in a stainless steel fume hood.

After digestion tubes are removed from the hot plate and the volume is brought up to 5 ml with deionized water. The tubes are shaken to mix the solution and then centrifuged for one minute. The resulting clear upper layer is used for Cu, Mo, Pb, Zn, Ag, Fe, Mn, Ni and Co determination by a Perkin-Elmer 290B atomic absorption spectrophotometer. Analytical procedures are given on the following pages.

ANALYTICAL PROCEDURESSilver

1. Scope - This procedure covers a range of silver in the sample from less than .5 to 1000 ppm
2. Summary of Method - The sample is treated with nitric and perchloric acid mixture to oxidize organics and sulphides. The silver then is present as perchlorate in aqueous solution. The concentration is determined by atomic absorption spectrophotometer.
3. Interferences - Silver below 1 gamma/ml is not very stable in solution. Maintaining the solution in 20% perchloric prevents silver being absorbed on the glass container. Determination must be completed on the same day as the digestion.

Samples high in dissolved solids, especially calcium, cause high background absorbance. This background absorbance must be corrected using an adjacent Ag line.

Silver AA Settings P.E. 290

Lamp - Ag

Current 4 ma position 3

Slit 7 A

Wavelength 3281A Dial 287.4

Fuel - acetylene - flow - 14

Oxidant - air - flow - 14

Burner - techtron AB_51 in line

Maximum Conc. 3 to 4x

Calibration

1. Set 1 gamma/ml to read 40 equivalent to 20 gamma/gm
Factor $\frac{1}{2}$ x meter reading
Check standards
4, 10, 20, 40 ppm Ag in sample
2. Set 15 gamma/ml to 100 equivalent to 100 ppm
Check standards
40, 100 ppm
Factor directly in ppm Ag
3. Rotate burner to maximum angle
Set 10.0 gamma/ml Ag to read 100
Check standards
100, 200, 400, 1000 ppm Ag
Factor 10x scale reading
4. Samples higher than 1000 ppm should be re-analyzed by assay procedure
5. Background correction for sample reading between 1 to 5 ppm
Calibrate AA in step 1
Dial wavelength to 300 (peak)
Read the samples again
Subtract the background reading from the first reading

Standards

1. 1000 gamma/ml Ag - 0.720 gm Ag_2SO_4 dissolved in 20 mls Hx10_3
and dilute to 500 mls
2. 100 gamma/ml Ag - 10 mls of above + 20 mls HClO_4 , dilute to
100 mls

3. Recovery spiked standard

5 gamma/ml Ag - 5 mls 100 gamma/ml dilute to 100 mls with
"mixed" acid

Working AA Standards

Pipette .2, .5, 1, 2, 5, 10 mls of 100 gamma/ml and 2, 5 mls 1.000 gamma/ml dilute to 100 mls with 20% HClO₄. This equivalent to 4, 10, 20, 40, 100, 200, 400, and 1000 ppm Ag in the sample .50 gm diluted to 10 mls.

Recovery Standard

Pipette 2 mls of 5 gamma/ml Ag in mix acids into a sample and carry through the digestion. This should give a reading of 20 ppm Ag + original sample content.

Follow the general geochemical procedure for sample preparation and digestion.

For low assay Ag, the same procedure is used. Ag is then calculated in oz/ton.

$$1 \text{ ppm} = .0292 \text{ oz/ton}$$

conversion factor

$$\text{oz/ton} = .0292 \times \text{ppm Ag}$$

Zn Geochemical AA Setting

Lamp Zn

Current 8 #3 Slit 20A

Wave length 2133 Dial 84.9

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - P.E. short path 90°

Range

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

0 - 50 gamma/ml Factor 10x - 0 to 1000 ppm

For Waters - Burner AB- 51 in line 1 gamma/ml read 100 to give 0
to 1000 ppb

High Zn Burner Boling in line. Wavelength 3075. Dial 250 Slit 7A
Fuel 14 Air 14.5

0 to 1000 gamma/ml read 0 to 20 Factor 400 x

Pure Standard 10,000 gamma/ml

1 gm Zn dissolved, H₂O, HCl, HNO₃, HClO₄, fumed to HClO₄ -
make up to 100 mls H₂O

1000, 100 gamma/ml and 100 ml by dilution in 20 % HClO₄

0 to 200 gamma/ml Zn use combined Cu, Ni, Co, Pb, Zn standards

Pipette

1, 2, 3, 5, 8, 10 mls of 10,000 gamma/ml - dilute to 100 mls
with 20% HClO₄ to give

100, 200, 300, 500, 800, 1000 gamma/ml Zn for high standards

Co Geochemical AA Setting

Lamp - 5 multi element

Current 10 #4 Slit 2A

Wavelength 2407 Dial 133.1

Fuel - Acetylene Flow 14

Oxidant - Air Flow 14

Burner - AB 51 in line

Range

0 - 10 gamma/ml read 100 Factor 2 x reading to 200 ppm

0 - 20 gamma ml read 100 Factor 4 x reading to 400 ppm

Burner at maximum angle

0 - 100 gamma/ml read 100 Factor 20 x reading to 2000 ppm

0 - 200 gamma/ml read 100 Factor 40 x reading to 4000 ppm

Standards - 1000 gamma/ml

1.000 gm cobalt metal dissolved in HCl, HNO₃, and fumed into
HClO₄, dilute to 1 liter

Pipette

1, 2, 10, 20 mls into 100 ml vol flasks diluted to mark
with 20% HClO₄

This gives

10, 20, 100, 200 gamma/ml Co

Mixed - combination standards of Cu, Ni, Co, Pb, Zn

of

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml are used
for calibration

Mn Geochemical AA Setting

Lamp Multi element Ca, Ni, Co, Mn Cr

Current 10 #4 Slit 7A

Wave length 4030.8 Dial 425.2

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - P.E. short path (or AB 50)

Range

0 - 100 gamma/ml Factor 20x - 0 to 2000 ppm

0 - 200 gamma/ml Factor 40x - 0 to 4000 ppm

Burner 90°

0 - 1000 gamma/ml Factor 200x - 0 to 20,000 ppm

0 - 2000 gamma/ml Factor 400x - 0 to 40,000 ppm

EDTA Extraction - use AB 51 in line

0 - 20 gamma/ml Factor 4x - 0 to 400 ppm

Standards

Fisher 10,000 gamma/ml (ml)

10x Dilution 1000 gamma/ml

Pipette

.5, 1, 2, 3, 5, 8, 10, ml of 1000 gamma/ml

2, 3, 5, 8, 10, 15, 20 ml of 10,000 gamma/ml dilute to 100
mls with 20% HClO₄. This gives

5, 10, 20, 30, 50, 80, 100, 200, 300, 500, 800, 1000, 1500,
2000 gamma/ml.

Fe Geochemical AA Setting

Lamp - Fe

- Do not use multi element Fe

Current 10 #4 Slit 2A

Wavelength 3440.6 Dial 317.5

Fuel - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner - PE Short Path 90°

Range

0 - 5000 gamma/ml 0.1 x % - 0 to 10.0%

0 - 10,000 gamma/ml 0.2 x % - 0 to 20.0%

Higher Fe - 10 x dilution

Standards 10,000 gamma/mlWeigh 5.000 gms iron wires, into beaker, add H₂O, HCl, HNO₃,HClO₄, heat to HClO₄ fumes. Add HClO₄ to 100 mls + 100 mlsH₂O, warm, dilute to 500 mls

Pipette

1, 5, 10, 20, 30, 50, 80 mls 10,000 gamma/ml dilute to 100
mls with 20% HClO₄ to give100, 500, 1000, 2000, 3000, 5000, 8000 gamma/ml to be
equivalent to .2, 1.0, 2.0, 4.0, 6.0, 10.0%, 16.0% Fe in geochem
sample

Mo Geochemical AA Setting

Lamp ASL H/C Mo

Current 5 #5 Slit 7A

Wavelength 3133 Dial 260.2

Fuel - Acetylene Flow 12.0 to give 1" red feather

Oxidant - Nitrous oxide Flow 14.0

Burner - AB 50 in line

Caution read the operation using N₂O and acetylene flame at
end of general AA procedure

Range

0 - 10 gamma/ml Factor 2x - 0 to 200 ppm

Rotate burner to max. angle

0 - 50 gamma/ml Factor 10 x 0 to 1000 ppm

0 - 100 gamma/ml Factor 20 x 0 to 2000 ppm

Standards 1000 gamma/ml

Dissolve .750 gms MoO₃ (acid molybdic) with 20 mls H₂O, 6
lumps NaCH, when all dissolved, add 20 mls HCl, dilute to 500 mls
100 gamma/ml - 10 x dilution

Pipette

.2, .5, 1, 2, 3, 5, 8, 10 mls of 100 gamma/ml

2, 3, 5, 8, 10 mls of 1000 gamma/ml add 5 mls 10% AlCl₃
and dilute to 100 mls with 20% HClO₄

This gives

.2, .5, 1, 2, 3, 5, 8, 10, 20, 30, 50, 80, 100 gamma/ml Mo

Ni Geochemical AA Setting

Lamp P.E. H/C. Ni or multi element Cu, Ni, Co, Mn, Cr

Current 10 #4, Slit 2A

Wave length 3415 Dial 312.5

Fule - Acetylene Flow 14.0

Oxidant - Air Flow 14.0

Burner AB 51 in line

Range

0 - 20 gamma/ml Factor 4x - 0 - 400 ppm

0 - 100 gamma/ml Factor 20x - 0 - 2000 gamma

45° 0 - 200 gamma/ml Factor 40x - 0 - 4000 ppm

0 - 500 gamma/ml Factor 100x - 0 - 10,000 ppm

Ni in waters and very low ranges

Wave length 2320 Dial 113

Range 0 - 5 gamma/ml Factor 1x - 0 - 100 ppm

Standards 10,000 gamma/ml

1.000 gm pure Ni metal dissolved in HCl, HNO₃, HClO₄ to perchloric fumes, dilute to 100 ml H₂O

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% HCl

1, 2, 5, 8, 10 mls of 100 gamma/ml

2, 5, 8, 10 mls 1000 gamma/ml

2, 5, 8, 10 mls 10,000 gamma/ml - dilute to 100 mls in 20%

HClO₄. This gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200, 500, 800, 1000 gamma/ml

Combined Standards - Cu, Ni, Co, Pb, Zn is used as a working standard

Cu Geochemical AA Setting

Lamp Single Cu or

5 multi element

Current 10 for multi element #4 Slit 7A

4 for single #3 Slit 7A

Wavelength 3247 Dial 280

Burner Techtron AB 51 (For Cu in natural waters)

P.E. Short Path (For geochem)

Fuel Acetylene Flow 14

Oxidant Air Flow 14

Range

0 - 5 gamma/ml Factor 1x to 100 ppm (for low Cu)

0 - 20 gamma/ml Factor 4x to 400 ppm

Burner 90°

0 - 200 gamma/ml Factor 40x to 4000 ppm

Wavelength 2492 Dial 147

Burner in line

Range

0 - 1000 gamma/ml Factor 200x to 20,000 ppm

0 - 2000 gamma/ml Factor 400x to 40,000 ppm

Higher range than 40,000 ppm requires 10x dilution

Standards

10,000 gamma/ml

1.000 gm metal powder, H₂O, HCl, HNO₃ until dissolved, add

HClO₄, fume dilute to 100 mls

1000 gamma/ml 10x dilution above in 20% HClO₄

2000 gamma/ml 20 mls 10,000 gamma/ml - dilute to 100 mls in
20% HClO₄

100 gamma/ml 10x dilution 1000 gamma/ml dilute to 100 mls in
20% HClO₄

200 gamma/ml 10x dilution 2000 gamma/ml dilute to 100 mls in
20% HClO₄

Pipette

1, 2, 3, 5, 8, 10 mls 100 gamma/ml - dilute to 100 mls with
20% HClO₄ to give 1, 2, 3, 5, 8, 10 gamma/ml

Combined standards Cu, Ni, Co, Pb, Zn

1, 2, 5, 10, 20, 30, 50, 80, 100, 150, 200 gamma/ml

Pb Geochemical AA Setting

Lamp ASL H/c Pb

Current 5 ma Slit 7A

Wave length 2833 Dial 208

Fuel - acetylene Flow 14

Oxidant - air Flow 14

Burner AB 51 in line

Range

0 - 20 gamma/ml to read 0 to 80. Factor 5x 0 to 500 ppm

0 - 200 gamma/ml to read 0 to 80. Factor 50x 0 to 5000 ppm

Standards - 10,000 gamma/ml

1.000 pure metal, dissolved in HNO_3 , fumed to HClO_4 make up to 100 mls in 20% HClO_4

1000 gamma/ml and 100 gamma/ml Successive 10x dilutions in 20% HClO_4

Pipette

1, 2, 5, 8, 10 mls 100 gamma/ml

2, 5, 8, 10, 20 mls 1000 gamma/ml dilute to 100 mls in 20%

HClO_4 this gives

1, 2, 5, 8, 10, 20, 50, 80, 100, 200 gamma/ml

Combined Standards Cu, Ni, Co, Pb, Zn, are used as working standards

W in Soils and Silts

Reagents and apparatus

Test tubes - pyrex disposable

Test tubes - screw cap

Bunsen Burner

Flux - 5 parts Na_2CO_3

4 parts NaCl

1 part KNO_3 pulverized to -80 mesh

7% SnCl_2 in 70% HCl

20% KSCN in H_2O

Extractant - 1 part tri-n-butyl phosphate

9 parts carbon tetrachloride

Standards

1000 gamma/ml W

.18 gms $\text{Na}_2\text{WO}_4 \cdot 2\text{H}_2\text{O}$ dissolved in H_2O , make up to 100 mls

100 gamma/ml, 10 gamma/ml by dilution

Standardization

Pipette .5, 1, 2, 3, 5, 8, 10 ml of 10 gamma/ml

and 1.5, 2 mls of 100 gamma/ml - dilute to 10 mls

continue from step #4

Artificial colors - Nabob pure Lemon Extract, dilute with 1:1 ethanol and water to match. Tightly seal these for permanent standards

Procedure

1. Weigh 1.0 gram sample, add 2 gm flux, mix

2. Sinter in rotary for 2 to 3 minutes (Flux dull read for one minute)
3. Cool, add 10 mls H_2O , heat in sand bath to boiling, cool, let sit overnight
4. Stir, crush, and mix. Let settle
5. Take 2 ml aliquot into screw cap test tube
6. Add 7 mls $SnCl_2$, heat in hot water bath for 5 minutes ($80^\circ C$)
7. Cool to less than $15^\circ C$
8. Add 1 ml 20% $KSCN$, mix (if lemon yellow; compare color standard 10x)
9. Add $\frac{1}{2}$ ml extractant, cap, shake vigorously 1 minute
10. Compare color

Molybdenum in Water Samples

1. Transfer 50 mls to 125 separatory funnel
2. Add 5 ml .2% ferric chloride in conc HCl
3. Add 5 mls of mixed KSCN and SnCl₂
4. Add 1.2 mls isopropyl ether, shake for 1 minute, and allow phases to separate
5. Drain off water
6. Compare the color of extractant

Standardization

Pipette 0, .2, .5, 1, 2, 3, 4, 5, mls of 1 gamma/ml and 1, 1.5, 2, mls of 10 gamma/ml dilute to 50 mls with demineralized H₂O, and continue step #2.

This equivalent to

1, 4, 10, 20, 40, 60, 80, 100, 200, 300, 400 ppb Mo

Artificial color - Nabob orange extract dilute with 1:1 H₂O to methanol to match. Seal tightly

SnCl₂ - 15% in 15% HCl

300 gm SnCl₂ · 2H₂O + 300 mls HCl, until SnCl₂ dissolved
dilute to 2 liters

KSCN - 5% in H₂O

Mixed SnCl₂ - KSCN

3 parts SnCl₂ to 2 parts KSCN

Water Samples Run for AA

1. Cu - 2 gamma/ml reads 80 scale therefore 1 unit = 25 ppb
2. Zn - 1 gamma/ml reads full scale therefore 1 unit = 10 ppb
3. Ni - 2.5 gamma/ml reads 50 scale therefore 1 unit = 50 ppb

Burner: long slot techtron burner in line

Sulphate in Natural Waters

1. Pipette 0.5 ml sulphate reagent mix into a colorimetric tube
2. Add 5 ml water sample and mix
3. Read at 343 *mμ* against a demineralized water blank
4. Read again at 400 *mμ* and subtract from sulphate reading
5. Calculate ppm sulphate from the graph

Reagent

Dissolve 54 grams red mercuric oxide (J.T. Baker 2620- Can Lab) in 185 ml 70% perchloric acid and 20 ml H₂O, shake for one hour. Add 46.3 grams ferric perchlorate [Fe(ClO₄)₃ · 6H₂O] (GFS 39) and 47 grams aluminum perchlorate [Al (ClO₄)₃ · 8H₂O] (GFS 2) Add 400 ml water to dissolve, let settle overnight, decant into bottle and make to 1 liter

pH MEASUREMENTS

Soil and drainage sediment samples are dampened with water in a glass beaker to a pasty consistency. Demineralized water is used for this purpose as it has a low buffer capacity and thus does not influence the pH of the sample. Measurement is made with a Fisher Acumet pH meter. Electrodes are stored in buffer overnight. A 30 minute warm up time is allowed for the instrument each morning. A 10 ml aliquot is taken from water samples for pH measurement.

AMAX EXPLORATION, INC.

A SUBSIDIARY OF AMERICAN METAL CLIMAX, INC.

PHONE (AREA CODE 604) 683-0474

#601-535 THURLOW STREET

VANCOUVER 5, BRITISH COLUMBIA

CERTIFICATE

I, Fred R. Harris of 7520 Lawrence Drive, North Burnaby, British Columbia, do hereby certify:

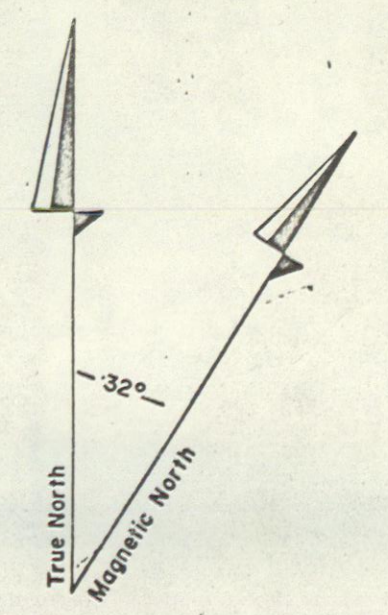
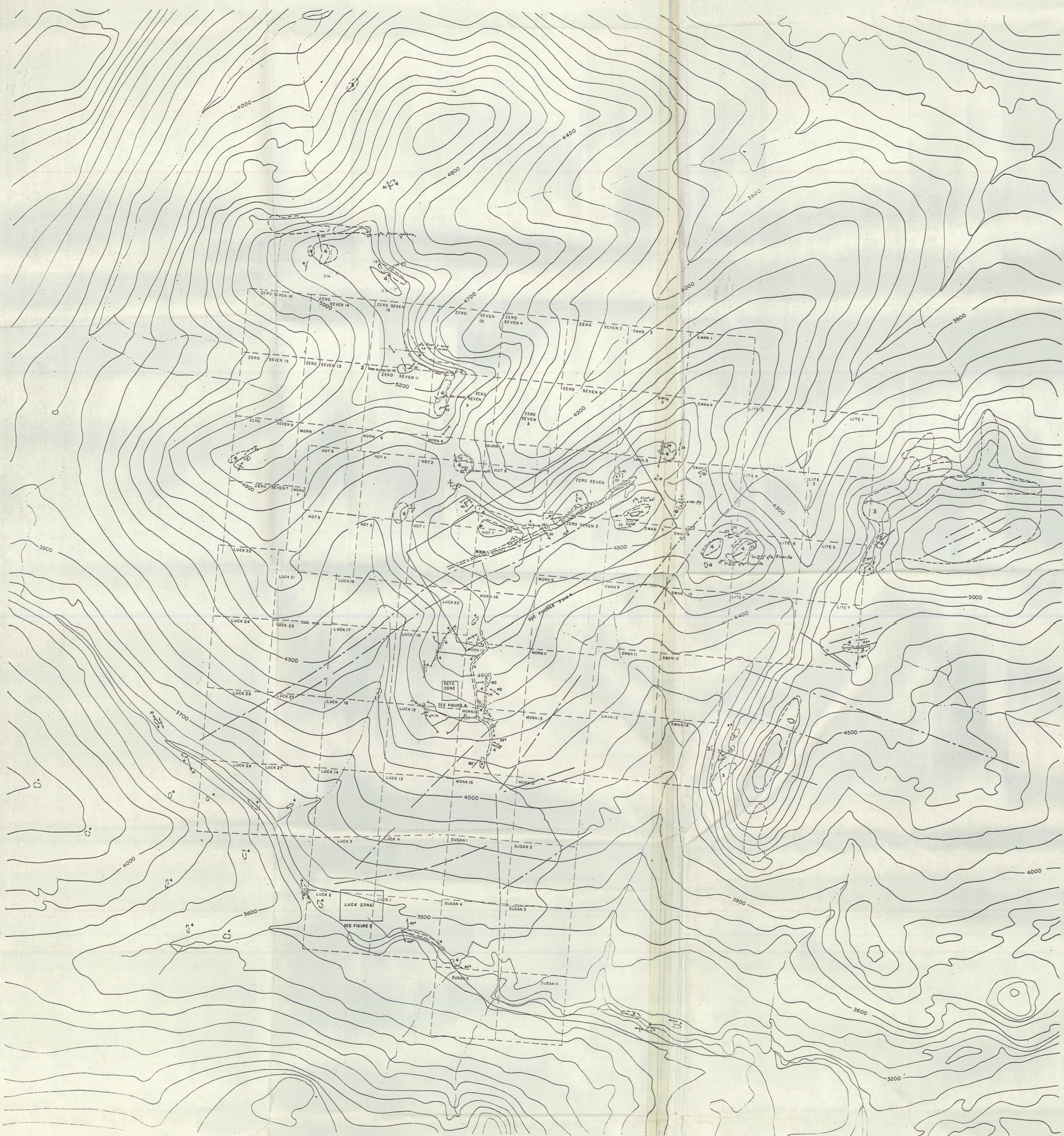
1. That I am staff geologist with Amax Exploration, Inc. of 601-535 Thurlow Street, Vancouver 5, B.C.
2. That I am a graduate of Univeristy of Western Ontario, B.Sc. Geology 1961, and University of New Brunswick, M.Sc. Geology 1964.

That I have practiced my profession as a geologist for the past eight years.

4. That I have personally supervised the geological - geochemical program on the Boulder Creek property of Silver Seven Exploration Ltd. described in my report of September 1971.

Dated this 27th day of September 1972

Fred R. Harris



LEGEND

- 1 Quartz breccia
- 2 Quartz diorite dyke
- 3 Marble
- 4 Limy schist, phyllite

SYMBOLS

- Bedding
- Foliation
- Lineation
- Fault
- Trench
- Outcrop

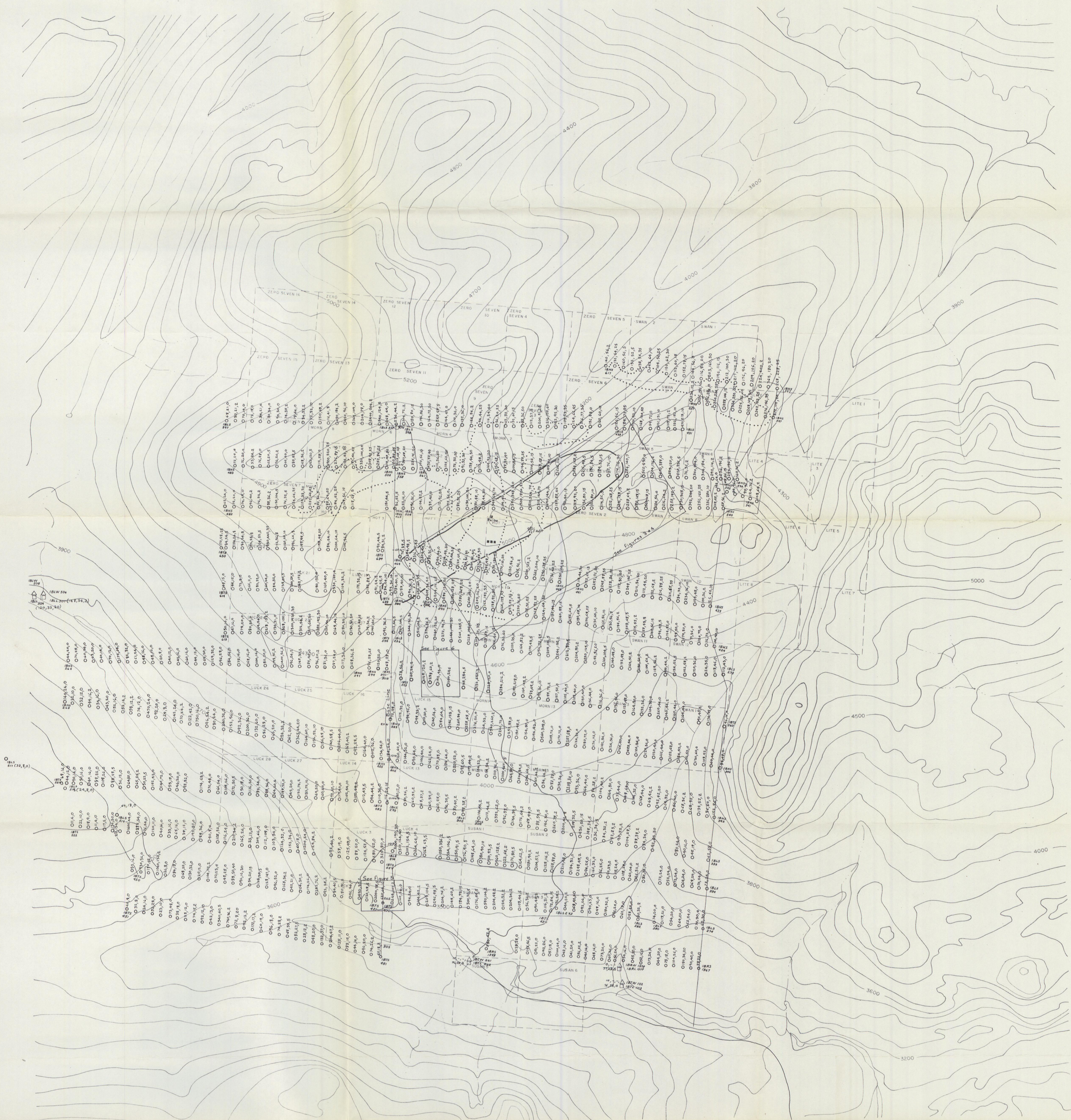
Lineament, from air photograph
 Claim boundaries taken from claim map 105 B 1

AMAX POTASH LIMITED
SILVER SEVEN TUNGSTEN PROPERTY
 WATSON LAKE MINING DIVISION — YUKON TERRITORY
REGIONAL GEOLOGY

1000' 0' 1000' 5000'

DATE	DRAWN BY	DATE	FIG. 1
REVISED	ALM	3/2/72	
	PRINTED	N.T.S. File	
		105-B-1	

To accompany report: "SILVER SEVEN PROPERTY REPORT" by F.R. Harris
 Geology by T.J.R. Godfrey, and F.R. Harris



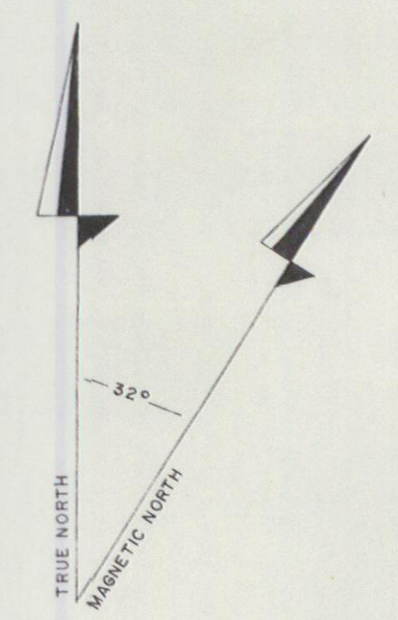
SYMBOLS

- 350, 75, 15 Soil sample, ppm zinc, lead, tungsten
- △ Water sample
- Silt sample

Claim boundaries taken from claim map 105 B 1

THRESHOLDS

Zinc	0-180 background	
	181-250 positive W > 25 ppm
	>250 anomalous	
Lead	0- 60 background	— Zn-Pb anomalies (>250 Zn, >121 Pb)
	61- 120 positive	— Cu >40 ppm
	121- 250 anomalous	
	> 250 highly anomalous	
Tungsten	0- 10 background	--- Mo anomalies
	11- 25 positive	
	> 25 anomalous	



AMAX POTASH LIMITED

SILVER SEVEN TUNGSTEN PROPERTY

WATSON LAKE MINING DIVISION - YUKON TERRITORY

REGIONAL GEOCHEMISTRY

DATE REVISION

DATE PRINTED

1000' 0 1000' 2000'

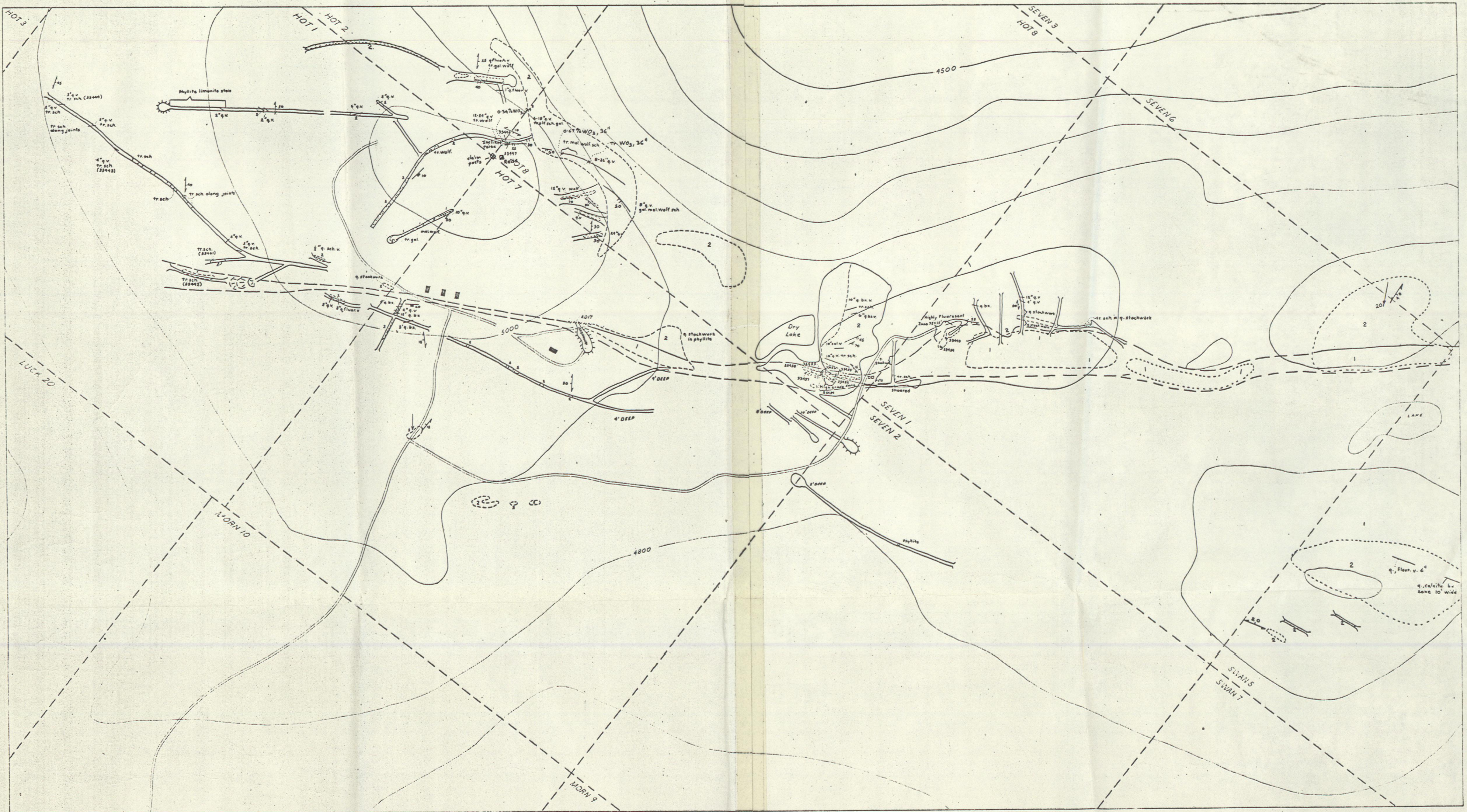
Drawn by: A.L.M., E.R.H.

DATE: 2/2/72

N.T.S. File 105-B-2

FIG. 2

To accompany report: "SILVER SEVEN PROPERTY REPORT" by F.R. Harris



LEGEND

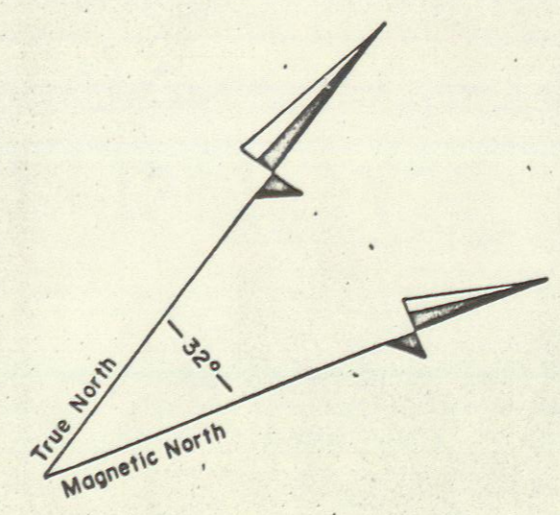
1	Quartz breccia
2	Limy phyllite

SYMBOLS

	Geological contact
	Outcrop
	Quartz vein
wolf	Wolframite
tr. gal.	Trace galena
sch.	Scheelite
Fluor.	Fluorite
	Foliation
	Lincation

ASSAYS

Number	Area Sampled	% WO ₃
33432	1' x 8'	3.80
33433	1' x 8'	0.09
33434	1.5' x 5'	<0.01
33435	1.5' x 5'	<0.01
33436	3' x 7'	<0.01
33437	5' x 5'	<0.01
33438	2' x 2'	0.15
33439	4' x 6'	0.08
33440	3" x 13'	0.10
33441	2' x 3'	<0.01
33442	2' x 3'	<0.01
33443	1' x 3'	<0.01
33444	2' x 2'	<0.01
33446	0.5' x 1'	<0.01
33447	4" x 1.5'	4.35



Claim boundaries taken from claim map 105 B 1

AMAX POTASH LIMITED

SILVER SEVEN TUNGSTEN PROPERTY

WATSON LAKE MINING DIVISION - YUKON TERRITORY

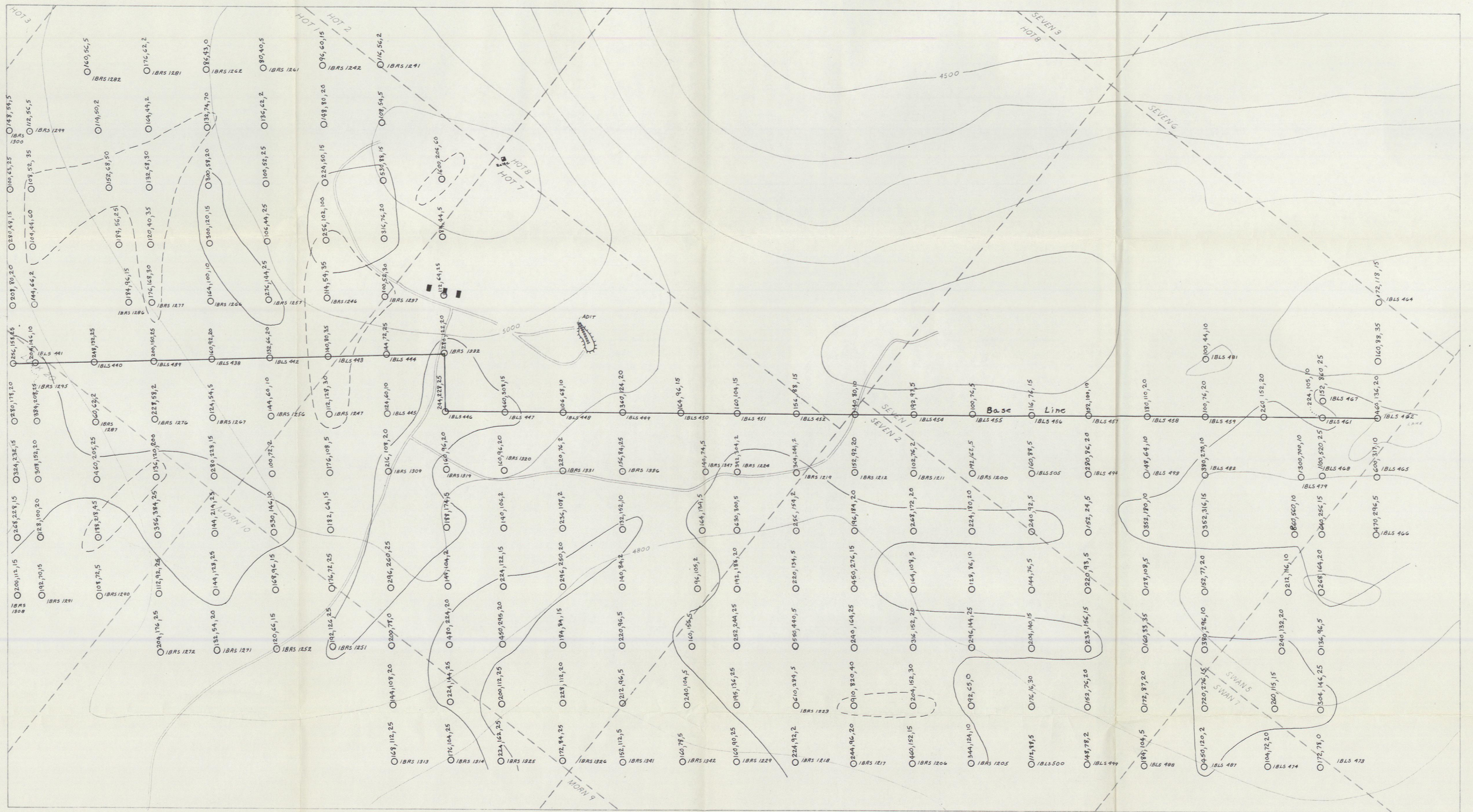
GEOLOGY OF FIDDLER

EAST AND WEST ZONES

200' 0' 200' 400'

DATE REVISION	DATE PLOTTED	DRAWN BY M.F.H.
		DATE 3/27/72
		NTS FILE 05-B-1

To accompany report: SILVER SEVEN PROPERTY REPORT by J. P. Harris



SYMBOLS

○ 350, 75, 15 Soil sample zinc, lead, tungsten

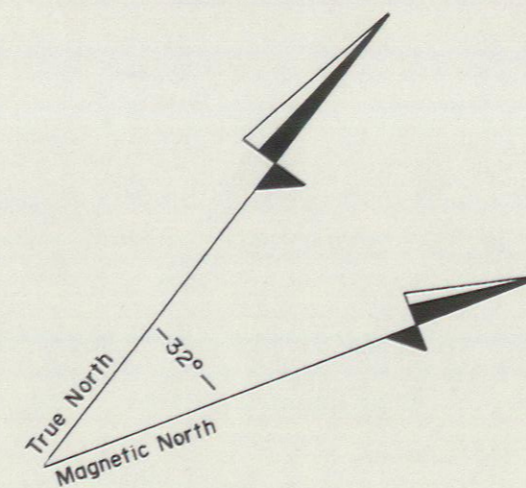
Claim boundaries taken from claim map 105 B 1

THRESHOLDS

Element	Range	Classification
Zinc	0-250	Background
	251-450	Anomalous
	>450	Highly anomalous
Lead	0-120	Background
	121-250	Anomalous
	>250	Highly anomalous
Tungsten	0-25	Background
	26-40	Positive
	>40	Anomalous

26 - 40 ppm W

Anomalous Zn-Pb-Ag



AMAX POTASH LIMITED

SILVER SEVEN TUNGSTEN PROPERTY

WATSON LAKE MINING DIVISION — YUKON TERRITORY

GEOCHEMISTRY OF THE DETAILED GRID

DATE REVISION	DATE PRINTED	Drawn by: A.L.M., FRH.	FIG. 4
		DATE: 2/2/72	
		N.T.S. File 105-B-1	

To accompany report: "SILVER SEVEN PROPERTY REPORT" by F.R. Harris