ARIS SUMMARY SHEET

District Geologist, Nelson — Off Confidential: 90.03.17

ASSESSMENT REPORT 18570 — MINING DIVISION: Slocan

PROPERTY: Tommy
LOCATION: LAT 49 59 30 LONG 117 15 55
UTM 11 5537518 480984
NTS 082F14W

CAMP: 006 Slocan Camp

CLAIM(S): Tommy Fr.
OPERATOR(S): Dickenson Mines
AUTHOR(S): Makepeace, D.K.
REPORT YEAR: 1989, 21 Pages
COMMODITIES
SEARCHED FOR: Silver,Lead,Zinc
KEYWORDS: Triassic,Slocan Group,Siderite,Galena,Sphalerite
WORK
DONE: Geochemical,Geological
GEOL 1.0 ha
SOIL 23 sample(s) ;PB,ZN,AG

LOG NO: 0322	RD.
ACTION:	
FILE NO:	

THE TOMMY FRACTION CLAIM #5234

SANDON, BRITISH COLUMBIA
SLOCAN MINING DIVISION

NTS: 82 F/14 NW
Latitude: 49° 59' 30", Longitude: 117° 15' 55"

GEOLOGICAL/GEOCHEMICAL REPORT

Pepared for

DICKENSON MINES LIMITED
SILVANA DIVISION

By

DAVID K. MAKEPEACE, P. ENG.
SILVANA CHIEF GEOLOGIST/ENGINEER

MARCH 16, 1989

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1 INTRODUCTION

1.1 General Description

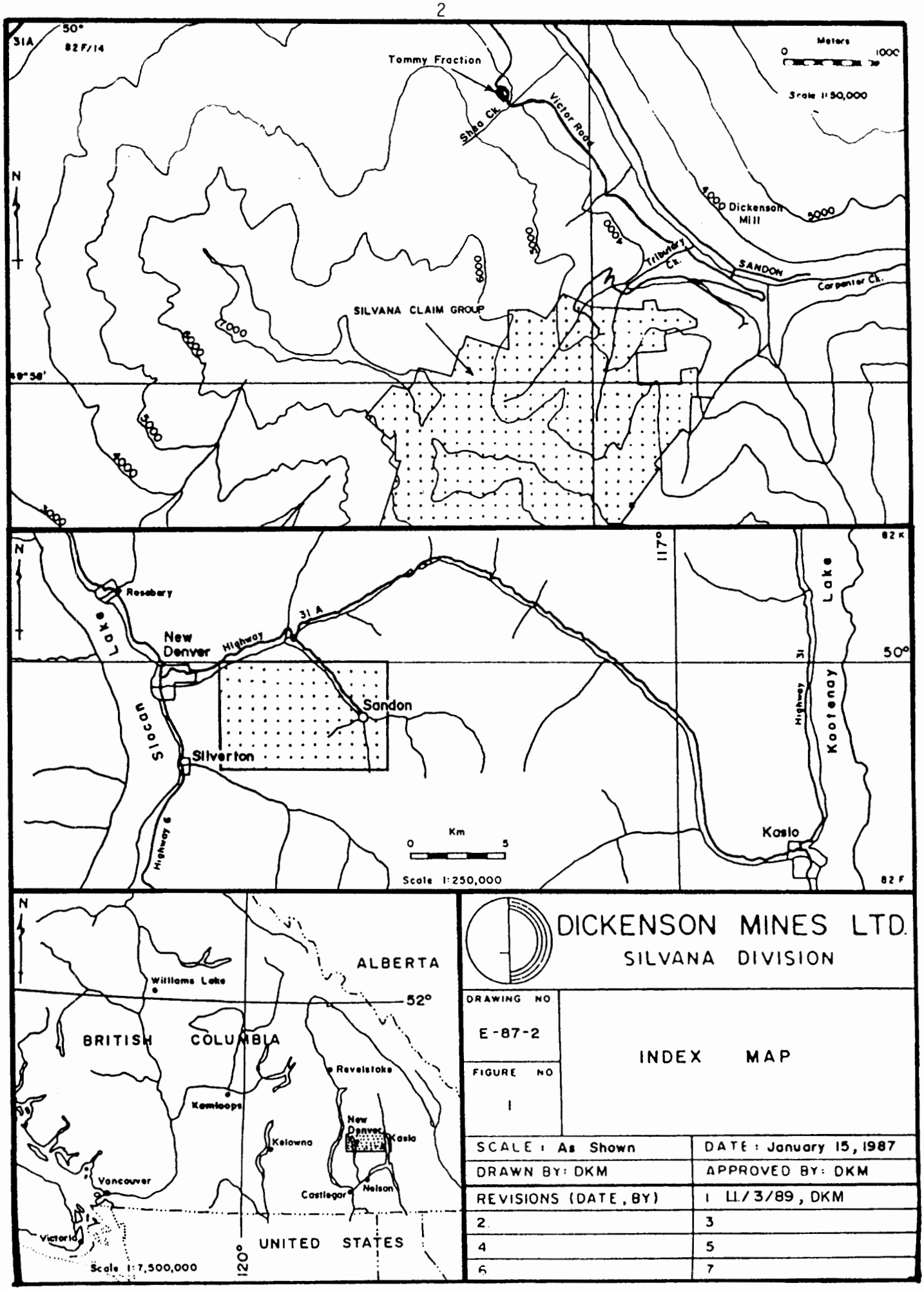
The Tommy Fraction is a fractional mineral claim in the Slocan Mining Division. The total area of the fraction is 0.1932 hectares. The claim is 3.2 km NW of Sandon and 7.5 km east of New Denver [see Figure #1]. The claim is bounded on the north and east by the Lone Bachelor M. C. [L4564], on the south by the Hinckley M.C. [L1720] and on the west by the Silver Ridge M.C. [L14624].

The Tommy Fraction is on the north flank of "Silver Ridge" and is at 1295 meters [4250 feet] elevation. Access to the property is via a paved highway [#31A] from New Denver, east to Three Forks [6.2 km], then 6.1 km southeast on a good gravel road to Sandon. From Sandon a good gravel road passes through the Dickenson Mines Limited mill yard and uphill of their tailings ponds and is called the Victor Road. The Victor Road crosses the Tommy Fraction at approximately 3.5 km. from the mill.

1.2 Property History

The early history of the Tommy Fraction is not well known. The earliest claim staked in the immediate area was the Hinckley M.C. [L1720]. It was located approximately 1894 and a crown grant was issued to the Hinckley and Black Colt Mining Company on August 22, 1898. The Montana M. C. was located shortly after the Hinckley [1895 ?] as shown on a legal survey map done by Mr. C. Stosse, provincial land surveyor on July 20, 1897. No other information is known about the Montana claim except that a crown grant was never issued for it. The Lone Bachelor M.C. was located June 27, 1895 and recorded July 10, 1895 by G. A. Petty. It was legally surveyed by T. S. Clements, P. L. S. on September 23, 1900 and a crown grant issued on March 28, 1901. At this point if the Montana claim lapsed, a fraction could have been created. A crown grant was issued for a fractional claim [Snowstorm Fraction, L3445, Slocan Mining Division] of the approximate same size [0.3 acres] as the Tommy Fraction, to a Mr. G. Alexander on March 20, 1899. This could be the original Tommy Fraction.

No information about the immediate area around the Tommy Fraction is recorded until 1935 when Mr. C. E. Cairnes mentions the "Black Colt - Silverite Claims" [pg 17, Memoirs 184]. The "Silverite Group" includes the Silver Ridge M. C. [L14624] and possibly the Tommy Fraction as well. Most of the activity of the "Silverite group" was centred immediately to the west of the fraction, on the Silver Ridge M. C..



DICKENSON MINES LTD.

SILVANA DIVISION

DRAWING NO: E-87-2	INDEX MAP
FIGURE NO: 1	

SCALE: As Shown	DATE: January 15, 1987
DRAWN BY: DKM	APPROVED BY: DKM
REVISIONS (DATE, BY)	1 11/3/89, DKM
2	3
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6	7

The Silver Ridge M. C. [L14624] overlays most of the original Montana M. C.. The claim was located before 1935 [from Mr. C. E. Cairnes' Memoirs 184] and the original owner is unknown. The claim was legally surveyed by Mr. H. A. Dawson, B. C. L. S. between September 9 and 15, 1937. At the time of the survey, the Tommy Fraction was labeled "Crown Land". The date that the Silver Ridge crown grant was issued, is unknown. In 1945, Mr. J. H. Corey was the owner of the Silver Ridge M. C., the Silver Ridge Fraction M. C. [L14625] and the "G" Fractional claim. The "G" Fractional claim most likely is the previous name for the Tommy Fraction.

In 1946, Mr Corey's claim group was optioned to Mr. L. N. Smith of Excelda Mines Ltd. This company formed a new company called Silverite Mines Limited and also optioned the Speculator M. C. [L3994], Consolidated Virginia M. C. [L3992], Elk M. C. [L3993] and the Black Colt M. C. [L1721] at the same time. Mr. A. M. Richmond, Mining Engineer produced a report for Silverite Mining Ltd., in March 1946. The "G" Fractional was hardly mentioned and no claim maps accompanied the report.

In 1950, the Slocan Base Metal Mines Limited was formed and took over all the claims from Silverite Mines Limited. Mr. L. N. Smith was manager of the company. Most of the work done on the group was on the Black Colt M. C. and Silver Ridge M. C.. The "G" Fractional is not mentioned in any Slocan Base Metal Mines Limited reports later than 1950. The claim must have lapsed in early 1951.

Mr. G. A. MacMillan located and recorded the Tommy Fraction [Record No. 931] July 19, 1951 for Lone Bachelor Mines Limited [ViolaMac Mines Limited]. A Certificate of Work was filed for the claim from 1952 to 1954 but the details of the work done were not described. The fraction was trenched by Lone Bachelor Mines Limited in 1955. Mr. W. M. Sharp bulldozed the eastern extension of the "Slocan Base Metal's Lode". Six hundred cubic yards [460 cubic meters] of overburden were stripped off to expose the lode. Mr. J. C. Black stripped another 61 m. [200'] of overburden on the Tommy Fraction in 1957.

Mr. S. J. Pedley, agent for ViolaMac Mines Ltd. and Mr G. A. MacMillan grouped the Tommy Fraction with several other fractions and the Victor M. C. [L4565], Provident M. C. [L14817], Claire M. C. [L14816], Cinderella M. C. [L3621], Archie M. C. [14876] and the Hidden Treasure M. C. [L14815] crown grants, in August, 1960. The new group was called the "Victor Group". Four hundred dollars of development raising and sub-drifting done on the Claire M. C. [Victor Mine] was applied to the Tommy Fraction, August 1960.

Mr. S. J. Pedley, agent for ViolaMac Mines Ltd., Lone Bachelor Mines

Ltd. and Mr G. A. MacMillan formed a new group in June, 1964. All the fractions and crown grants in the "Victor Group" were combined with the Lone Bachelor M. C. [L4564], "D" Fraction M. C. [L14877] and the Keyser M. C. [L3632] to form the "Victor-Lone Bachelor Group". ViolaMac Mines Ltd. [Mr. S. J. Pedley] applied $500.00 worth of development raising and sub-drifting on the Claire M. C. [Victor Mine] to the Tommy Fraction in July, 1964. ViolaMac Mines Limited became Kam Kotia Mines Limited on March 11, 1966. Kam Kotia Mines Limited [Mr. J. C. Black] applied $200.00 worth of development drifting and sub-drifting on the Claire M. C. [Victor Mine] to the Tommy Fraction in July, 1968. Kam Kotia Mines Limited [Mr. W. Hogg] applied $200.00 worth of development raising, winzing and sub-drifting on the Claire M. C. [Victor Mine] to the Tommy Fraction in October, 1970. In June, 1971 there were two years of assessment work done on the Tommy Fraction [?]. The Tommy Fraction lapsed on July 21, 1973 [?].

The claim remained open [?] until Mr. D. K. Makepeace an agent for Dickenson Mines Limited located and recorded the Tommy Fraction [Record Number 5234] on March 19, 1987. Dickenson Mines Limited [Mr. D. K. Makepeace] paid cash in leu of work done on the claim [$110.00] in 1988.

1.3 1988 Exploration Summary

Exploration on the Tommy Fraction consisted of soil geochemistry and claim boundary work. The geochem done on the Tommy Fraction was part of an on-going, close-spaced geochem grid that will eventually cover all the Victor-Lone Bachelor group of claims. The Tommy Fraction is in a stategic location. It is located between the Slocan Base Metal Lode to the west and the Hinckley Lode to the southeast. The Hinckley M. C. and the Silver Ridge M. C. are owned by different companies. The necessity to accurately locate the boundaries of the claim was essential. Several survey pins and a cut line was located and tied into the close-spaced geochem grid.

2 GEOLOGY

2.1 General Geology

The Tommy Fraction lies in the Slocan Series sediments of late Triassic age. Generally the sediments are predominantly interbedded black argillites and medium to dark grey quartzites. Limestones and slates are also found in varying proportions in the sequence. The Kaslo Series volcanic formation is to the north of the sediments and is early Triassic in age. The Nelson Batholith of Jurassic age is immediately south of the Slocan Series and is the cause of the granitic/pegmatitic

sills and dykes in the sediments. Late stage lamprophyre dykes intrude the metamorphosed sediments.

The Slocan sediments have been severally folded, fractured and faulted. The regional northwest-southeast trending asymmetric "Slocan Syncline" is thought to be Middle Jurassic and is the first recognizable deformation in the sediments. The Nelson Batholith probably caused most of the pre-lode faulting in the area. The lode structures themselves are faults. Some of the structures appear to have normal-type faulting while others appear to have thrust-type faulting. The "Main" lode, where most of the production of the Slocan Mining Camp has come from, appears to have both types of faulting. The lodes strike east-west or northeast-southwest and crosscut the synclinal axis . The Nelson Batholith is thought to be the heat engine used to inject the mineralized hydrothermal fluids into these lode-faults. The source of the mineralization itself is not known. Late stage faulting and shearing chopped up, deformed and remobilized the lode structures to their present state.

The sediments have been metamorphosed to a chlorite grade regional greenschist facies. Silicification is present in the sediments and the lodes. Graphitization from the late stage shearing mentioned above is present throughout the lode structures.

The lode structures are hydrothermal in origin. There are two types of breccia found in the lodes. The first type is the "fragmental" or "vein" breccia. This breccia contains very angular fragments of country rock with a calcite, siderite and minor quartz matrix. The fragments have a varying degree of coarseness. The second type is the "sheared" or "flow" breccia. This breccia is characterized by elongated, mylonitic-style argillaceous-quartzite fragments in a graphite/groundmass matrix with or without calcite and siderite. This type of breccia is derived from the late stage shearing deformation mentioned above. This post-depositional shearing deformed "fragmental" breccia and previously non-brecciated material into new "flow/sheared" breccia. This deformed breccia-type not only altered the texture of the rocks but shredded and boudinaged the ore minerals. Lode structures are less than 50 feet [15.24 m] wide and most are approximately 2 to 10 feet [0.61 to 3.05 m] wide. Within the lode structure there can be up to 4 mineralized veins present.

The mineralogy of the lode structures can be represented by what is found in the "Main" lode. The main ore mineralization consists of argentiferous galena and sphalerite. There are minor amounts of chalcopyrite, tetrahedrite, native silver, pyrargyrite and very minor amounts of stephanite, argentopyrite and acanthite. Other metallic

minerals present in varying amounts are pyrite, pyrrhotite and arsenopyrite. The gangue minerals are calcite, quartz, orthoclase feldspar, siderite, tourmaline, chlorites, clay minerals and laumontite. Other minerals that have been identified in the area include smithsonite anglesite, chrysocolla, malachite, maganese wad, limonite and hematite.

2.2 Property Geology

The only outcrops on the Tommy Fraction are on the Victor Road. A combination of geological mapping and geochemical soil sampling around the Tommy Fraction has been used to interpret the geology on the claim. The sediments are predominantly thin-bedded argillaceous quartzites that have up to 15% graphite. Limonite is present in the exposed outcrops and is derived from the oxidation of the pyrite in the rock. Many small fractures cross-cut the argillitic quartzites. The strike is generally 310° to 360° Az. and the dip ranges from 35° to 45° to the southwest. There are many small veins of calcite and/or quartz with minor pyrite in the outcrops. Pyrrhotite is found throughout the sediments in minor amounts.

There are two lodes on either side of the Tommy Fraction. The Slocan Base Metal Lode to the west and the Hinckley Lode to the east. The Slocan Base Metal [SBM] Lode strikes 050-060°Az and dips 45-85° [average 60°] southeast. The lode is 0.2 to 1.4 meters wide. The lode is horizontally off-set by numerous faults from 0.3 to 9.1 meters. The lode is a siderite, calcite fragmental breccia. Only minor sphalerite is present. Two portal have been collared on the Silver Ridge M. C., very near the Tommy Fraction to explore the SBM Lode. The upper portal [SBM Adit (1952),1347 m.] never intersected the lode. The lower portal [SBM (1961),1307 m.] drifted on the lode for 315 meters. No stoping was done.

The Hinckley Lode, to the east, appears to be more complex, where it has been explored by the underground workings. It has been cut by several major faults and appears to be dragged northward in the west end of the upper Hinckley portal [1206 m.]. Its strike and dip can not be estimated from the limited surface and underground exposure. The lode has economic amounts of galena and sphalerite. It also has more pyrite and graphite than the SBM Lode. The upper portal appears to be the main producing adit on the Hinckley. The recorded total production from the Hinckley is 116 tons with 2 oz Au; 2,967 oz Ag; 35,780 lbs. Pb; 18,250 lbs. Zn and 129 lbs. Cd. In 1988, a new adit [3800 Level] was developed. A 272 tonne [300 ton] sample from this development work assayed approximately 3.0 oz Ag/ton, 2.4 % Pb, 5.6% Zn.

It is the opinion of the author that the Hinckley and the SBM Lodes are one and the same. There would be a horizontal right-hand movement of

the lode of 120 meters caused by either a major fault or a warp in the lode structure between the lower SBM portal and the upper Hinckley portal. Both possibilities exist elsewhere in the Slocan Sediments. The Tommy Fraction lies directly between these two portals. In general, some of the best mineralization found in lode systems can be found where the lode has been faulted off. Even though the Tommy Fraction covers a small area, it could have a excellent potential for economic mineralization.

3 1988 FIELD WORK

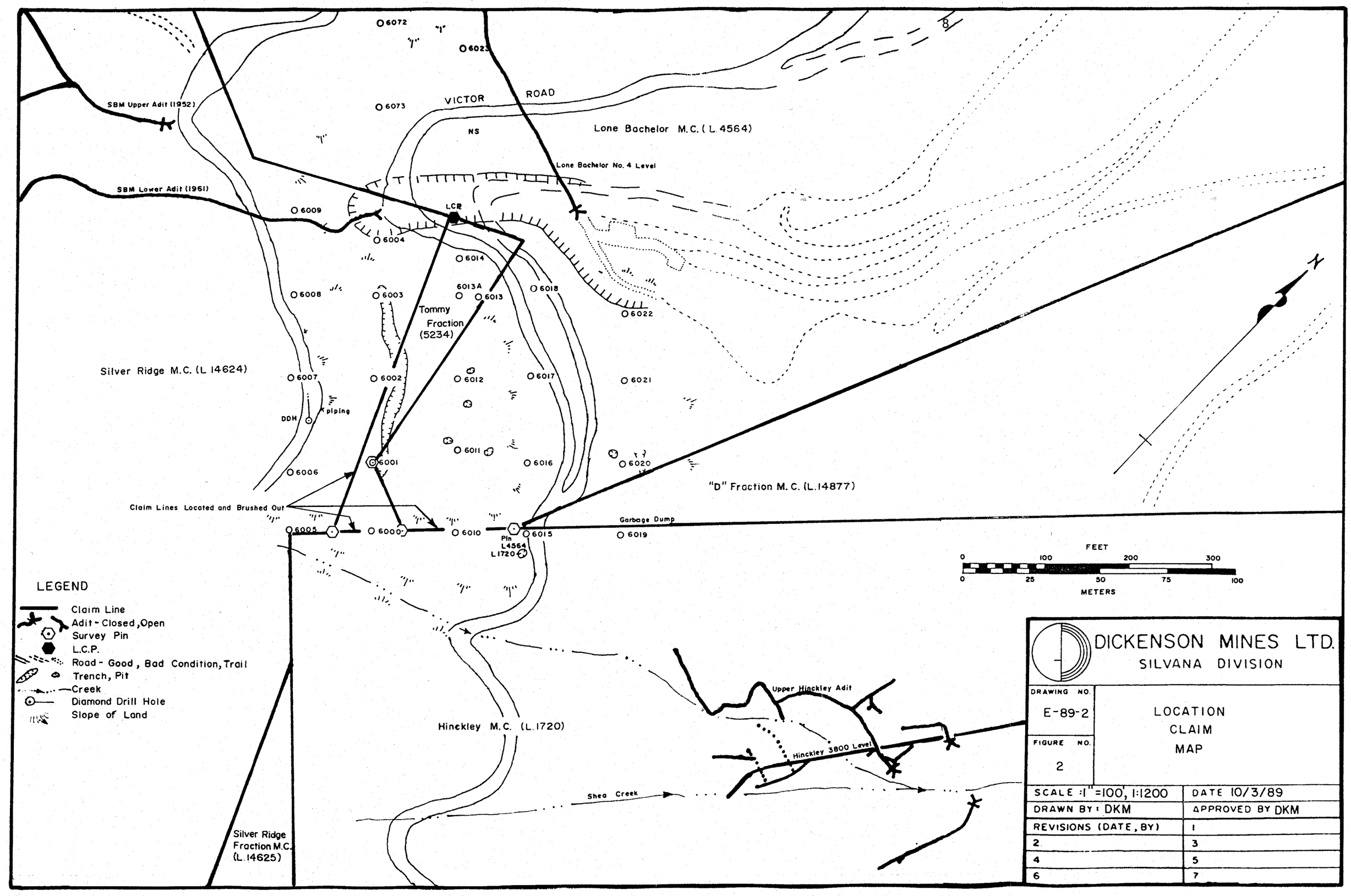
The field work consisted of claim boundary definition and geochemical soil sampling. The claim is so small [0.1932 ha] and irregular, in shape that the boundary had to be define so that further exploration could take place. Ownership of the various claims are as follows :

Tommy Fraction	[#5234]	- Dickenson Mines Limited
Lone Bachelor M. C.	[L 4564]	- Lone Bachelor Mines Ltd. [Dickenson Group of Companies]
"D" Fraction M. C.	[L 14877]	- Lone Bachelor Mines Ltd. [Dickenson Group of Companies]
Hinckley M. C.	[L 1720]	- Muskogee Minerals Limited
Silver Ridge M. C.	[L 14624]	- L. Olson [Skylark Resources Ltd.], optioned to Dragoon Resources Ltd.[?]

The Tommy Fraction is in a strategic position with respect to the various claims as well as the SBM - Hinckley Lode. Therefore one and a half days where used to locate survey pins and cut lines. Four metal survey pins were found : 1/ corner pin of the Lone Bachelor M. C. - Hinckley M. C. - "D" Fraction M. C.; 2/ corner pin of the Lone Bachelor M.C. - Hinckley M. C. - Tommy Fraction; 3/ corner pin of the Tommy Fraction - Hinckley M. C. - Silver Ridge M. C.; 4/ intermediate pin of the Tommy Fraction - Lone Bachelor M. C. [see Figure 2]. The Silver Ridge M.C. - Tommy Fraction claim line and the Hinckley M. C. - Tommy Fraction - Lone Bachelor M. C. were brushed out for a total of 192 meters.

The Tommy Fraction had been partially trenched in 1956 and 1957. The trenching would have disturbed the soil profile, at the time. In the last thirty years a new soil geochem profile, similar to the original profile would have reached equilibrium. Therefore a soil sampling program could be done with reasonable assurance that anomalies would match the bedrock geochemistry.

The sampling was done in conjunction with a larger geochem project that will eventually cover the Victor and Lone Bachelor group of claims with a close-spacing [30 m. by 30 m.] grid. Last year was the start of this project. A 762 meter flagged baseline was established over the



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SILVANA DIVISION

DRAWING NO. E-89-2	LOCATION CLAIM MAP
FIGURE NO. 2	
SCALE :1"=100', 1:1200	DATE 10/3/89
DRAWN BY : DKM	APPROVED BY DKM
REVISIONS (DATE, BY)	1
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Lone Batchelor-Victor claims, bearing 042°Az. Picket lines were compass and chained [slope corrected] at 90° to the baseline. Two pounds of the "B" horizon soil was sampled at each station, where ever possible. Sampled material was passed through a 3-mesh [0.6731 cm] Tyler Equivalent Mesh Sieve in order to remove any extraneous humic and/or detrital material. Sample depths ranged from 0.15 to 0.46 meters in depth. The samples were analysed for silver, lead and zinc at Acme Analytical Laboratories Ltd., Vancouver , B. C.. A total of 5 samples were taken on the Tommy Fraction by the sampling crew.

4 INTERPRETATION

Soil sampling has been done on the Dickenson Group of Companies properties in the Slocan Sediments since 1983. An average background for the three elements have been determined and applied to the Victor-Lone Bachelor grid. The background for the elements are as follows :

silver - 1.4 ppm
lead - 45 ppm
zinc - 240 ppm.

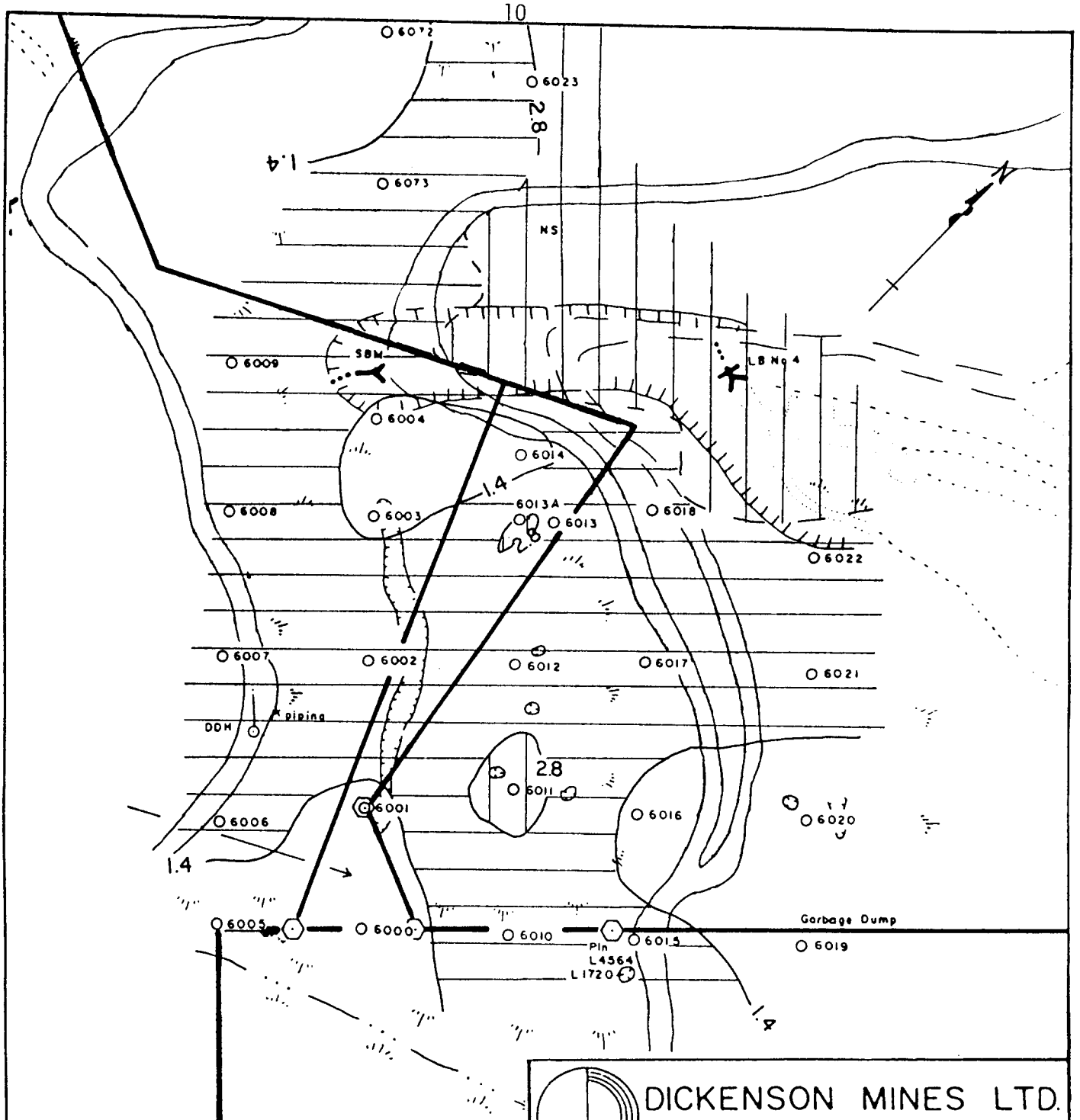
Appendix "A" shows the results of the sampling. Figure 3,4 and 5 show silver, lead and zinc respectively plotted on the sample location map.

All three elements indicate the presence of an anomaly at the north end of the Tommy Fraction, along the Victor Road [see Figure 6]. Mr. S. J. Pedley in 1961-1962, mapped the eastern extension of the Slocan Base Metal Lode in the same vicinity as this anomaly. The anomaly seems to indicate that the lode may be dragged to the south; east of the Tommy Fraction, on the Lone Bachelor M. C.. This would correspond well with the northerly extension of the Hinckley Lode in the upper adit.

There is also a slight silver/lead anomaly down the hill of the Tommy Fraction, directly below the old 1956-7 trenching. This could have been caused by the old trench and/or by a diamond drill hole above the trench, done by Skylark Resources Ltd. in 1985. The hole was drilled to intersect the SBM Lode below the SBM lower adit. It did not reach the lode because of very bad ground conditions in the hangingwall. The hole is making a small amount of water.

5 SUMMARY

The Tommy Fraction appears to have a long and mysterious history. The fraction was probably created from the intense overstaking of claims in the late 1890's to the early 1900's. At least on one occasion, the claim was forgotten about and lay open for several years before someone realized that it was open ground. It is very unusual to have any



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DRAWING NO. E-89-3	SILVER
FIGURE NO. 3	
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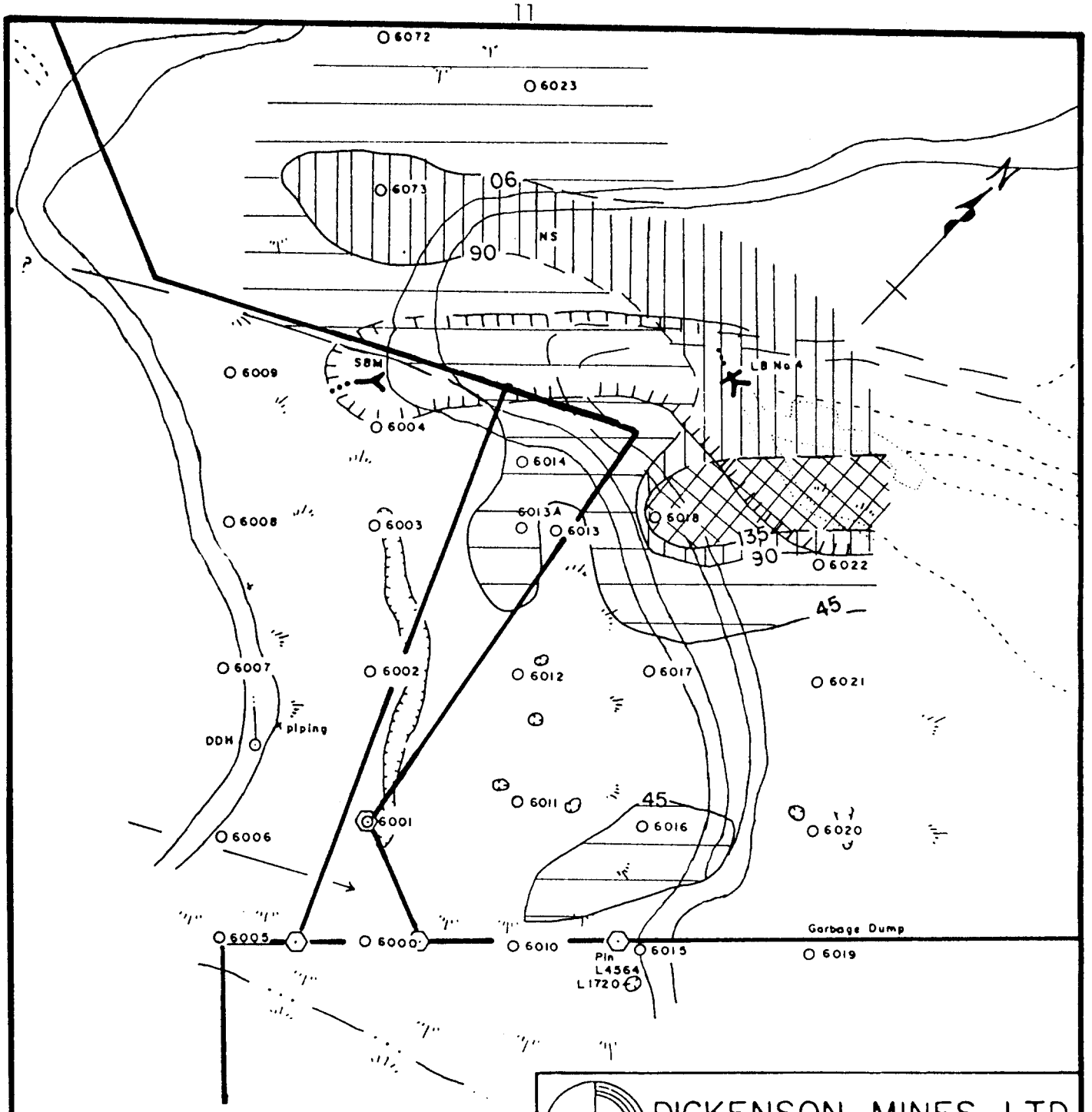

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DRAWING NO. E-89-4	LEAD
FIGURE NO. 4	

SCALE: 1"=100', 1:1200	DATE: 10/3/89
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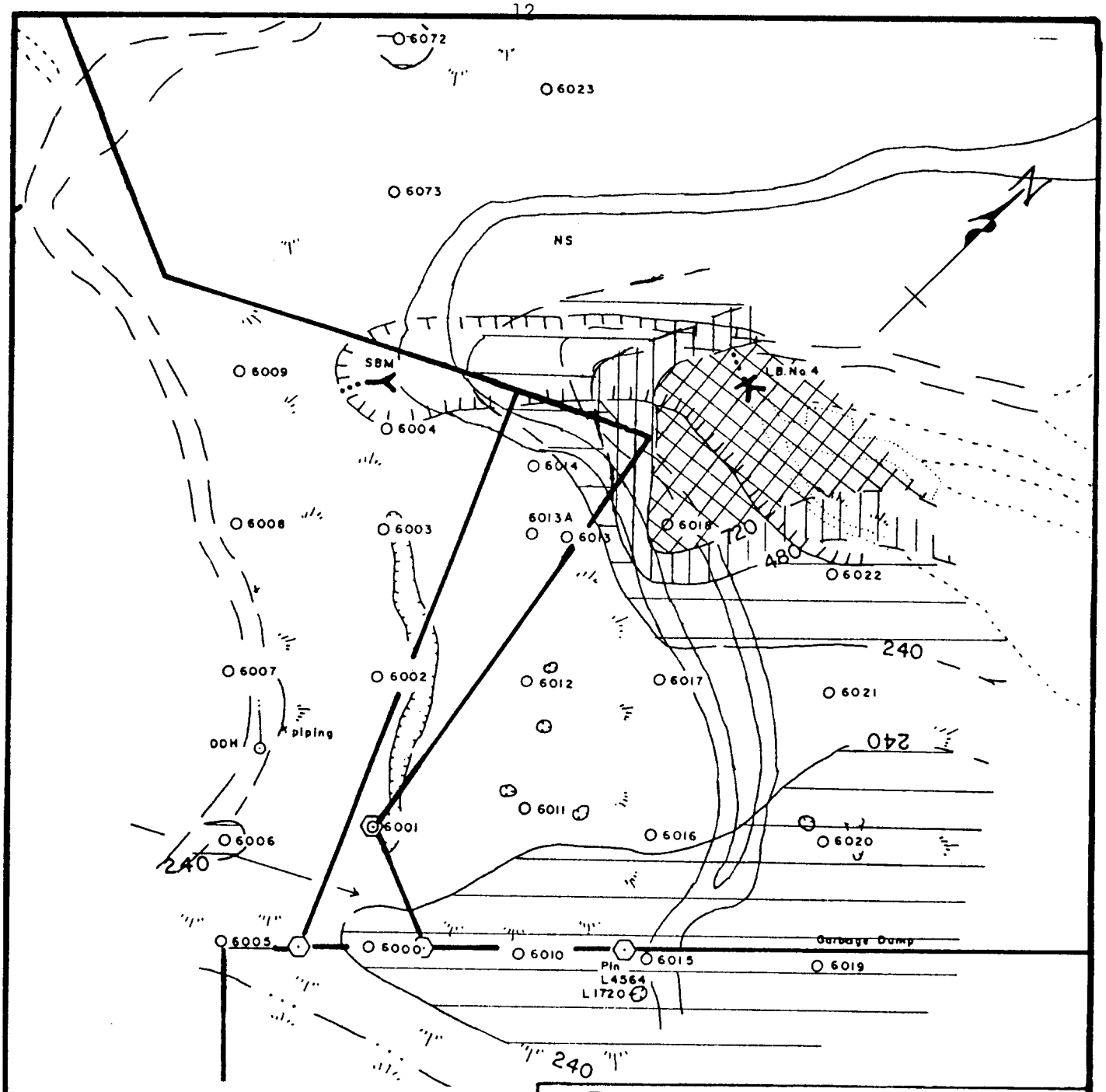

FEET
0 100 200 300
0 25 50 75 100
METERS

- 0-239 ppm
- 240-479 ppm
- 480-719 ppm
- 720-959 ppm

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DRAWING NO. E-89-5	ZINC
FIGURE NO. 5	
SCALE: 1"=100', 1:1200	DATE: 11/3/89
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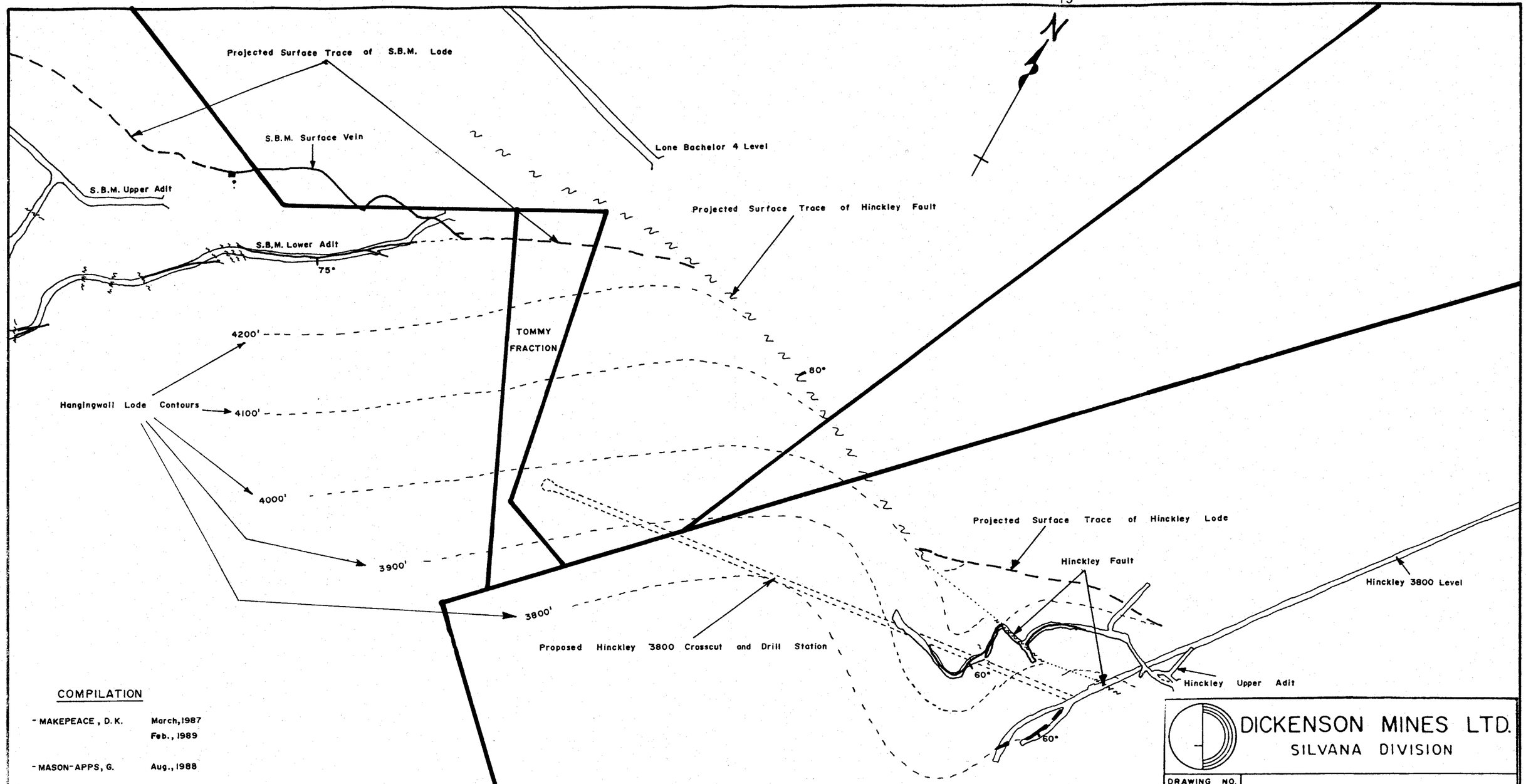

COMPILATION

- MAKEPEACE, D.K.	March, 1987
	Feb., 1989
- MASON-APPS, G.	Aug., 1988
- PENGELLY, D.	Nov., 1985
	Nov., 1986
	Nov., 1988
- PEDLEY, S.J.	Feb., 1961
	Jan., 1962
- SNELL, J.C.	Nov., 1985
	Nov., 1988

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DRAWING NO. E-89-6	INTERPRETATION AND RECOMMENDATION
FIGURE NO. 6	
SCALE : 1"=100', 1:1200	DATE 11/3/89
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open ground in an old mining camp. Its small size and unusual shape helped to hid it on the claim maps. The claim may be small but it is in a strategic location. It is along strike of the Slocan Base Metal Lode and Hinckley Lode systems. In 1988, the claim boundary was accurately located and brushed out. The Victor - Lone Bachelor geochem grid covered the Tommy Fraction. The results confirmed the presence of the eastern extension of the Slocan Base Metal Lode examined by geologists in the early 1960's. To the east of the Tommy Fraction, the geochem results seems to indicate that the lode structure is dragged to the south and could connect with the Hinckley Lode.

The Hinckley Lode has been explored recently by Muskogee Minerals Limited on the new 3800 level workings [1986-1988]. The mineral potential of the Hinckley Lode appears to be good, and a production decision may be made in the next couple of years [?].

It is the opinion of the author that the Hinckley and the Slocan Base Metal Lodes are one in the same structure. The Tommy Fraction therefore has very good mineral potential. The claim itself may have up to 210 meters of dip-length, 18 meters of strike-length and an average of 1.2 meters true thickness for an overall volume of 4536 cubic meters of lode material. An accurate ratio of mineralized lode to barren lode can not be made until exploration is undertaken in the form of surface diamond drilling and/or underground drifting and diamond drilling.

An itemized cost statement of the work done and claimed for, in 1988, is included in appendix "B".

6 RECOMMENDATIONS

The only surface diamond drilling that should be attempted is a small program of short holes to define the near surface mineral potential. History has proven many times in the area that deep surface diamond drill holes have a very good chance of not reaching their target due to faults and the variable competency of the sediments. The size and shape of the Tommy Fraction as well as the steep terrain in the area would make it difficult to establish drill stations. The most cost effective program would be to extend the Hinckley 3800 level to the west, in the footwall of the lode and establish a diamond drill station. A typical fan of up-holes would cover the entire lode on the Tommy Fraction from the one drill station. The ore block[s] could be all accessed from this level. The approximate cost of the development and drilling would be :

1.	183 meters of straight line drift [183 m. @ $491.80/m.]	$90,000
2.	6 drill holes totaling 610 m. [610 m. @ $65.57/m.]	$40,000
	Total raw development and drilling costs :	$130,000

The only other possible underground program would be to start a new portal on the Lone Bachelor or "D" Fraction M. C. at the 1250 m [4100'] elevation. A hangingwall cross-cut 146 m. long [$71,803] could be established. The extra development to establish a new level would probably off-set the savings of the shorter drift. At the drill station both up-holes and down-holes would be done. If ore was found below the 1250 m. level, the extension of the Hinckley 3800' level would be the logical solution, to extract the ore.

6 REFERENCES

B. C. Department of Mines

1894 - 1936 : B.C. Dept. Mines, Annual Reports

Cairnes, C.E.

1934 : Slocan Mining Camp, British Columbia; Geol. Surv., Canada, Memoir #173

1935 : Descriptions of Properties, Slocan Mining Camp, British Columbia; Geol. Surv., Canada, Memoir #184

Hedley, M.S.

1952 : Geology and Ore Deposits of the Sandon Area, Slocan Mining Camp, British Columbia; B.C. Dept. Mines, Bulletin #29

Little, H.W.

1960 : Nelson Map-Area, West Half, British Columbia [82 F W1/2]; Geol. Surv., Canada, Memoir #308

Logan, J.M.

1986: Geochemical Constraints on the Genesis of Ag-Pb and Zn Deposits, Sandon, British Columbia; M.Sc. thesis, University of British Columbia, Van., B.C.

Makepeace, D.K.

1983 : Dickenson Mines Ltd., Silvana Division, 1983 Exploration Report; unpublished

1984 : Dickenson Mines Ltd., Silvana Division, 1984 Exploration Report; unpublished

1985 : Dickenson Mines Ltd., Silvana Division, 1985 Exploration Report; unpublished

1986 : Dickenson Mines Ltd., Silvana Division, 1986 Exploration Report; unpublished

1987 : Dickenson Mines Ltd., Silvana Division, 1987 Exploration Report; unpublished

1987 : Proposed Underground and Surface Program for the Hinckley Claim; unpublished

1988 : Dickenson Mines Ltd., Silvana Division, 1988 Exploration Report; unpublished

Pedley, S. J.

1960 : Summary Report on Several Silver-Lead-Zinc prospects in the Sandon Mining Camp, B. C.; unpublished

1960-1965 : Several maps and proposals for ViolaMac Mines Limited; unpublished

Phillips, S.L.

1984 : "More Ore in '84"- From Slogan to Success; Dickenson Mines Ltd., Silvana Division; unpublished

Richmond, A. M.

1946 : Report on Silverite Group of Mining Claims, Sandon, B. C.; unpublished

Snell, J. C.

1985 : Geological Report and Production Feasibility Study for Muskogee Excavating Inc.; unpublished

1988 : Geological Report for Muskogee Minerals Limited; unpublished

Zederayko, E. E.

1989 : Ore Reserve Report for Muskogee Minerals Limited; unpublished

Author's Qualifications

I, David K. Makepeace, currently residing in New Denver, British Columbia with mailing address : P. O. Box 337, New Denver, B. C., V0G 1S0, hereby certify that:

1. I am a graduate of Queen's University at Kingston, Ontario with a BSc[Eng.] degree in geological engineering, mineral exploration, graduating in 1976.

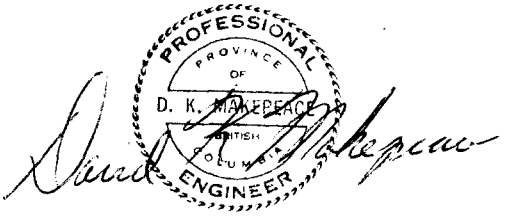
2. I am a mining and oil exploration geologist and have practised my profession since 1976.

3. I am a registered Professional Engineer with the Association of Professional Engineers of the Province of British Columbia as well as the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

4. I have worked as the exploration geologist for Dickenson Mines Ltd., Silvana Division from May, 1983 to September 1987.

5. I have worked as the chief geologist/engineer for Dickenson Mines Ltd., Silvana Division since September 1987.

6. The work described in this report was carried out under my direct supervision.



March 16, 1989.

David K. Makepeace, P.Eng.
Silvana Chief Geologist/Eng.

APPENDIX "A"

Sample Results

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: SEP 12 1988
DATE REPORT MAILED: Sept. 16/88.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL

ASSAYER: C. Leong. D.TOYE OR C.LEONG, CERTIFIED B.C. ASSAYERS

DICKENSON MINES LTD. FILE # 88-4407 Page 1

SAMPLE#	Pb PPM	Zn PPM	Ag PPM
6000	38	267	1.1
6001	21	176	1.2
6002	25	64	2.2
6003	16	154	.7
6004	33	141	1.2
6005	27	151	.5
6006	39	250	1.6
6007	23	197	1.7
6008	23	186	1.5
6009	38	168	2.0
6010	43	363	1.7
6011	37	213	3.3
6012	33	180	1.6
6013	36	152	1.6
6013A	62	227	2.9
6014	49	218	1.3
6015	26	307	1.7
6016	57	231	.9
6017	20	100	2.1
6018	167	611	1.8
6019	29	301	.9
6020	25	311	1.2
6021	28	188	1.6
6022	53	278	2.5
6023	76	352	2.8
6024	39	277	3.0
6025	41	302	5.7
6026	33	197	1.4
6027	26	269	2.3
6028	20	260	4.1
6029	19	273	2.1
6030	22	459	4.6
6031	26	178	4.2
6032	18	319	2.2
6033	21	185	5.7
6034	18	235	2.2
STD C	40	132	6.9

APPENDIX "B"

Itemized Cost Statement

ITEMIZED COST STATEMENT

1988 Tommy Fraction Claim Exploration Program

Company Labour :	
- 1.5 days to locate claim survey pins and clean out claim boundary [July 19,20, 1988]	
-Geologist [$125/day * 1.5 days]	187.50
-Assistant [$64/day * 1.5 days]	96.00
	283.50
- 1.5 days geochemical survey -establishing and sampling grid [July 20,21]	
-Geologist [$125/day * 1.5 days]	187.50
-Assistant [$64/day * 1.5 days]	96.00
	283.50
-6.0 days report generation - maps and report [March 2-3 & March 13-16]	
-Chief Geologist [$195/day * 6 days]	1170.00
Total Company Labour	$1737.00
Sample Assays : -5 soil samples assayed for silver, lead, zinc @ $5.10/sample	$25.50
Total Expenses for the Tommy Fraction for 1988	$1762.50