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ASSESSMENT REPORT
FOR THE
1991 LIMESTONE TESTING PROGRAM
ON THE
CART MINERAL CLAIM

OMINECA MINING DIVISION

NTS 93 L/16

LATITUDE 54 54' N

LONGITUDE 126 18' W

OWNED BY: EQUITY SILVER MINES LIMITED

WORK BY: EQUITY SILVER MINES LIMITED

REPORT BY: D. J. HANSON

DECEMBER 1991

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,129

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SUMMARY

In June 1991, Equity Silver Mines Ltd. collected two, 100 kilogram bulk samples from the south end of the limestone ridge on the Cart mineral claim. The samples were sent to two suppliers of vertical kilns for testing.

The results of this testing indicate that it may be possible to calcine Cart limestone in a vertical kiln to produce quick lime. A pilot kiln test is recommended to confirm these results.

INTRODUCTION

i) LOCATION, PHYSIOGRAPHY and ACCESS

The Cart mineral claim is located on the southwest side of Babine Lake approximately 6 km west of the town of Granisle, B.C. The claim is approximately 600 km north-northeast of Vancouver (see Figure 1).

The most prominent geographic feature on the property is a 2500 metre long, 120 metre high, northwesterly trending ridge with a rock bluff along its southwestern side. With the exception of this bluff, outcrop is rare in the area of the claim. The area is forested with mature spruce, pine, and fir. The southwest corner of the claim has been clear-cut.

Access to the property is by helicopter from Houston or Smithers or via recently upgraded logging roads to the southwest corner of the claim block from Topley Landing. Topley Landing is 43 km north of Topley which is situated on Highway 16, 262 km west of Prince George and 119 km east of Smithers. Daily jet air service from Vancouver is available to both Prince George and Smithers.



Figure 1. Property Location Map

ii) CLAIM OWNERSHIP and STATUS

The Cart mineral claim is owned wholly by Equity Silver Mines Ltd. of Houston B.C. The record number of the twenty unit claim is 10,006. The current expiry date is November 25, 1992 pending acceptance of this report.

Equity operates a 10,000 tonne/day open pit silver-copper-gold mine approximately 80 km south of the Cart property and uses approximately 6,000 tonnes of quick lime annually to treat acidic water.

iii) PREVIOUS WORK

The Cart mineral claim was located in 1988 to cover a prominent limestone ridge. In 1989, laboratory testwork on chip samples indicated that the limestone was of very high purity (Aziz, 1990). Later in 1989 a program of bedrock trenching was conducted at the south end of the ridge.

iv) PURPOSE

The purpose of the 1991 bulk sampling program was to test the suitability of Cart limestone as feed for a vertical calcining kiln.

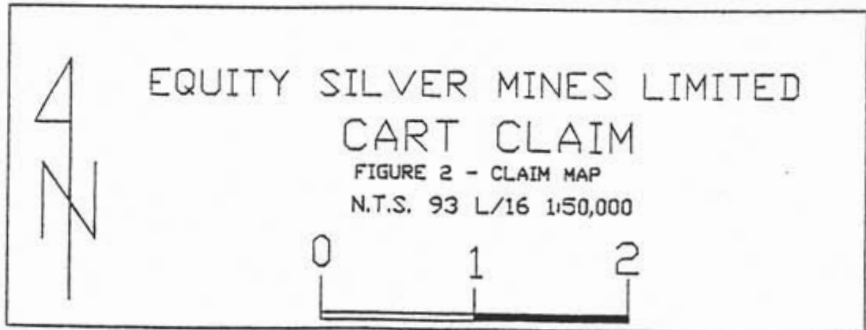
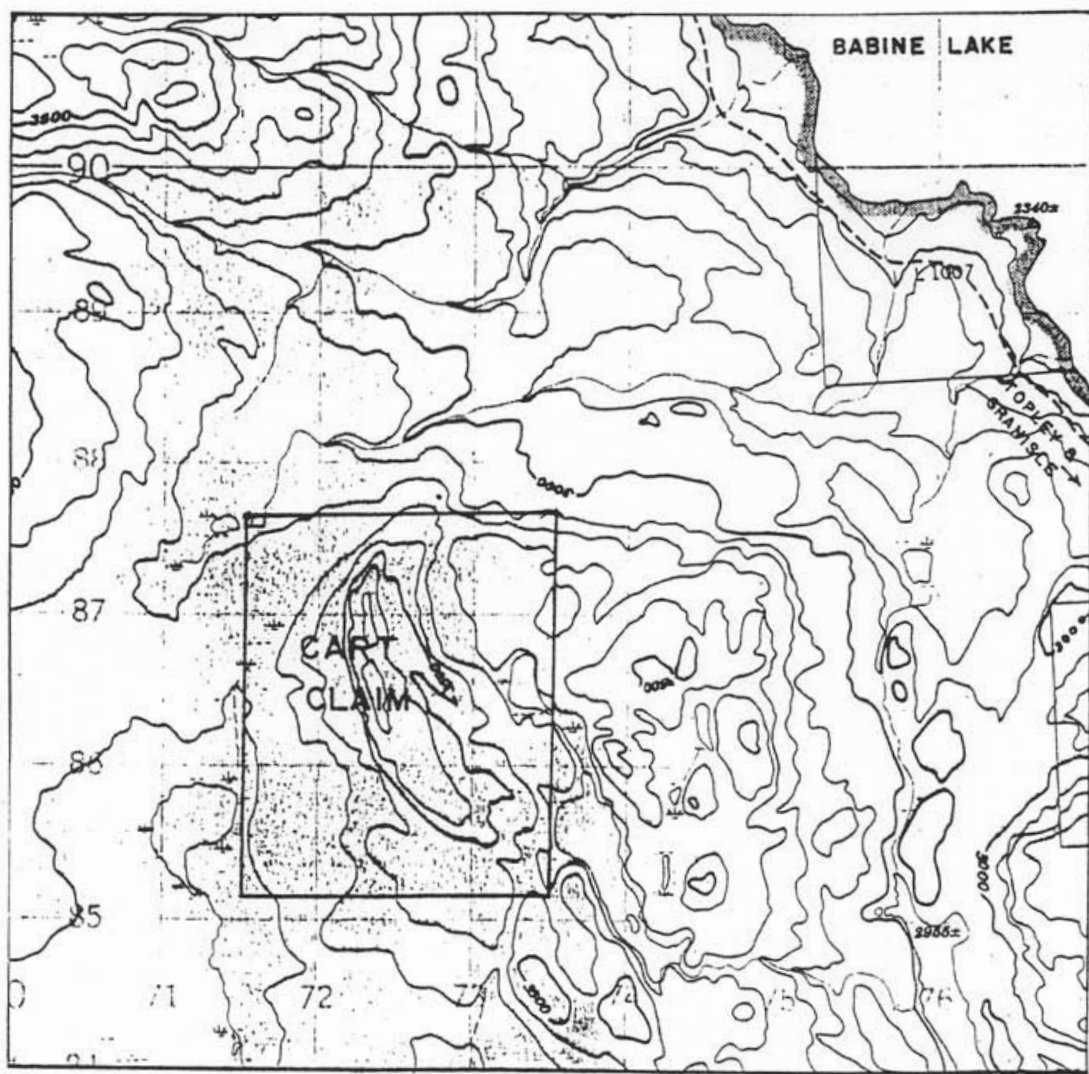


Figure 2 - Cart Claim Map

REGIONAL GEOLOGY

The Cart claim is situated on the northwest side of the Skeena arch within the Intermontane tectonic belt of west-central British Columbia. Structurally, this region is dominated by extensive block faulting. According to Tipper & Richards (GSC : open file 351, 1976) the area of the claim is underlain by Upper Permian limestone in fault contact with volcanic and sedimentary rocks of the Upper Triassic Takla formation.

LOCAL GEOLOGY

As exposed on the rock bluff, the main ridge on the claim is underlain by light grey to black, massively bedded limestone that has been intruded by a few medium green, aphanitic andesite dykes. The limestone is weakly fractured with minor iron staining along fractures near surface. No fossils have been reported.

The bedding in the limestone strikes at 170 degrees and dips approximately 40 degrees to the east.

BULK SAMPLING PROGRAM

In June 1991, Equity personnel collected two, 100 kilogram samples from the area of previous trenching at the south end of the limestone ridge. The material chosen for each sample consisted of 10 by 10 cm (or larger), randomly selected pieces that had been ripped in the course of trenching. Approximately 15 kilograms was collected for each sample at each of seven locations equally spaced along a 300 metre strike length. See Figure 3 for sample locations.

The samples were sent to West's Process Engineering Pty. Limited in Australia and Societa Impianti Calce in Italy for muffle furnace testing.

DISCUSSION OF RESULTS

The results of the muffle furnace tests are included in Appendices I and II.

West's concluded that the Cart limestone "looks like it may be acceptable as a shaft kiln feed" and recommended a pilot test to confirm kiln performance.

Societa Impianti Calce concluded that the limestone was suitable as feed for their static vertical HPK and CBK kilns. They observed traces of clay on the limestone and suggested that a wash plant may be required.

CONCLUSIONS AND RECOMMENDATIONS

The 1991 testwork indicated that it may be possible to calcine limestone from the south end of the Cart claims in the vertical kilns manufactured by West's Process Engineering and Societa Impianti Calce.

A program of limited diamond drilling at the south end of the limestone ridge and a pilot kiln test to confirm muffle furnace tests are proposed to further evaluate the Cart limestone deposit for calcining.

STATEMENT OF EXPENDITURES

1. Sampling		
T. Wall - geologist, supervisor		
1 day @ \$200/ day		200.00
R. Graden - geologist		
1 day @ \$150/ day		150.00
D. Axani - sampling		
1 day @ \$120/ day		120.00
N. Bradshaw - sampling		
1 day @ \$100/ day		100.00
2. Transportation		
4X4 truck rental		
1 day @ \$50/ day		50.00
4 trac rental		
1 day @ \$50/ day		50.00
3. Living Expenses		
4 mandays @ \$35/ manday		140.00
4. Sample Transportation		
- to Vancouver		30.00
- to West's Process Engineering		283.00
- to Societa Impianti Calce		180.00
5. Report Preparation (includes drafting, typing, etc.)		400.00

TOTAL		\$ 1703.00

AUTHOR'S QUALIFICATIONS

I, Daryl J. Hanson, do hereby certify that:

1. I am a geologist residing at R.R.#1, Quick East Road, Telkwa, British Columbia, V0J 2X0.
2. I am a 1971 graduate of the University of British Columbia, Vancouver, B. C. with a Bachelor of Applied Science degree in Geological Engineering.
3. I was employed as a geologist in mining, exploration, and development capacities with Cyprus Anvil Mining Corporation in Faro, Yukon from September 1973 to April 1981.
4. Between May 1982 and October 1987, I was employed as a contract exploration geologist in northwestern British Columbia, principally with Equity Silver Mines Limited.
5. Since February 1988, I have been employed as an exploration geologist with Equity Silver Mines Limited.
6. I am a Fellow of the Geological Association of Canada.
7. I personally prepared this report.

Respectfully submitted,
Equity Silver Mines Ltd.

Daryl J. Hanson, B.A.Sc., F.G.A.C.
Exploration Geologist

REFERENCES

Aziz, M.L. (1990). 1989 Limestone Testing Program on the Cart Mineral Claim, B.C. Assessment Report

APPENDIX I

WEST'S PROCESS ENGINEERING PTY. LIMITED

LIMESTONE EVALUATION TEST RESULTS

3rd FLOOR, 1 CHANDOS STREET, ST. LEONARDS, N.S.W. 2065

FACSIMILE TRANSMISSION

DATE: 04/11/91 REF: B737 TO FACSIMILE NO: 0015 1 604 8452137
TO: JOHN MCKAY OF: EQUITY SILVER MINES LTD
FROM: BOB JURY PAGE: 1/2

REFERENCE OF CONTENTS: MUFFLE TESTS ON LIMESTONE SAMPLES

Regret delay in faxing you results of testwork. Muffle test results as follows:

1250°C MUFFLE

Heat from ambient temp to 1250°C at 200°C/hr and hold at 1250°C for 2½ hrs. Cool down overnight.

Result

Available lime - 95.6%
Loss of Ignition - 0.82%

Lime had spotted white/brown appearance with some minor flakes. There were some fine cracks which appeared to follow recrystallisation veins in the stone.

1350°C MUFFLE

Heat from ambient to 1350°C at 200°C/hr and hold at 1350°C for 2½ hrs. Cool down overnight.

Result

Available lime - 96.6%
Loss of Ignition - 0.47%

Lime had a spotted white/brown appearance similar to 1250°C sample above. However, the lime was harder with larger cracks. Breakage in to smaller pieces but not complete breakdown.

This stone looks like it may be acceptable as a shaft kiln feed. The main concern is breakdown of the stone or lime into fines. Even though the stone had crystalline veins of calcite (potential breakage planes) there was not a complete breakdown to fines. We still have two lumps of stone which will test again at 1350°C.

A complete analysis of the stone samples was not carried out as the high availability lime indicated that the stone was close to the analysis forwarded to us in your fax of 10th January, 1991.

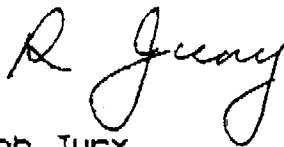
Should you wish to proceed further with the proposal, the next stage would be to carry out a pilot kiln test to confirm the stone/lime stability and access reactivity. A 100 kg sample in the size range of +100mm to -150mm is required for the pilot kiln test.

The cost for pilot kiln test including stone and lime analysis is \$A2000.00.

On completion of the tests we would then provide guarantee kiln performance.

We will fax results of the repeat 1350° muffle test next week.

Regards,



Bob Jury.

APPENDIX II

SOCIETA IMPIANTI CALCE

LIMESTONE EVALUATION TEST RESULTS

'91 07/22 15:14

IMPIANTI CALCE

01

Via Sporting Mirasola, 2,
20090 Novaresco di Opera (Milano) Italy
P. IVA 07583530154



Phone Domestic: 02/57604767-57600877-57600928
Phone Internat.: 39/2/57604767 57600877 57600928
Telex: 340626 SINCO I - Teletax 02/57601749

Società Impianti Calce srl

FACSIMILE MESSAGE

To: EQUITY SILVER MINES

From: SOCIETA' IMPIANTI CALCE S.r.l.

Att.: MR. JOHN MCKAY

Our ref.: PA/ss/Fax n° 4732

Your Ref.: ---

N° of pages: 1 (including cover)

Date: July 22nd, 1991.

PLEASE NOTIFY US IMMEDIATELY IF NOT RECEIVED PROPERLY

Subject: Limestone sample analysis.

Dear Mr. McKay.

We have made the burning tests of limestone samples sent us on July 17th, 91.

The tests, executed by us, have given a positive result, they have shown that the limestone can be easily utilized for the production of lime in our static vertical HPK and CBK kilns.

The unique remark about the samples is the superficial presence of clay traces, if this material could be present in the quarry, it is better to proceed with a stone washing before its utilization in the kiln.

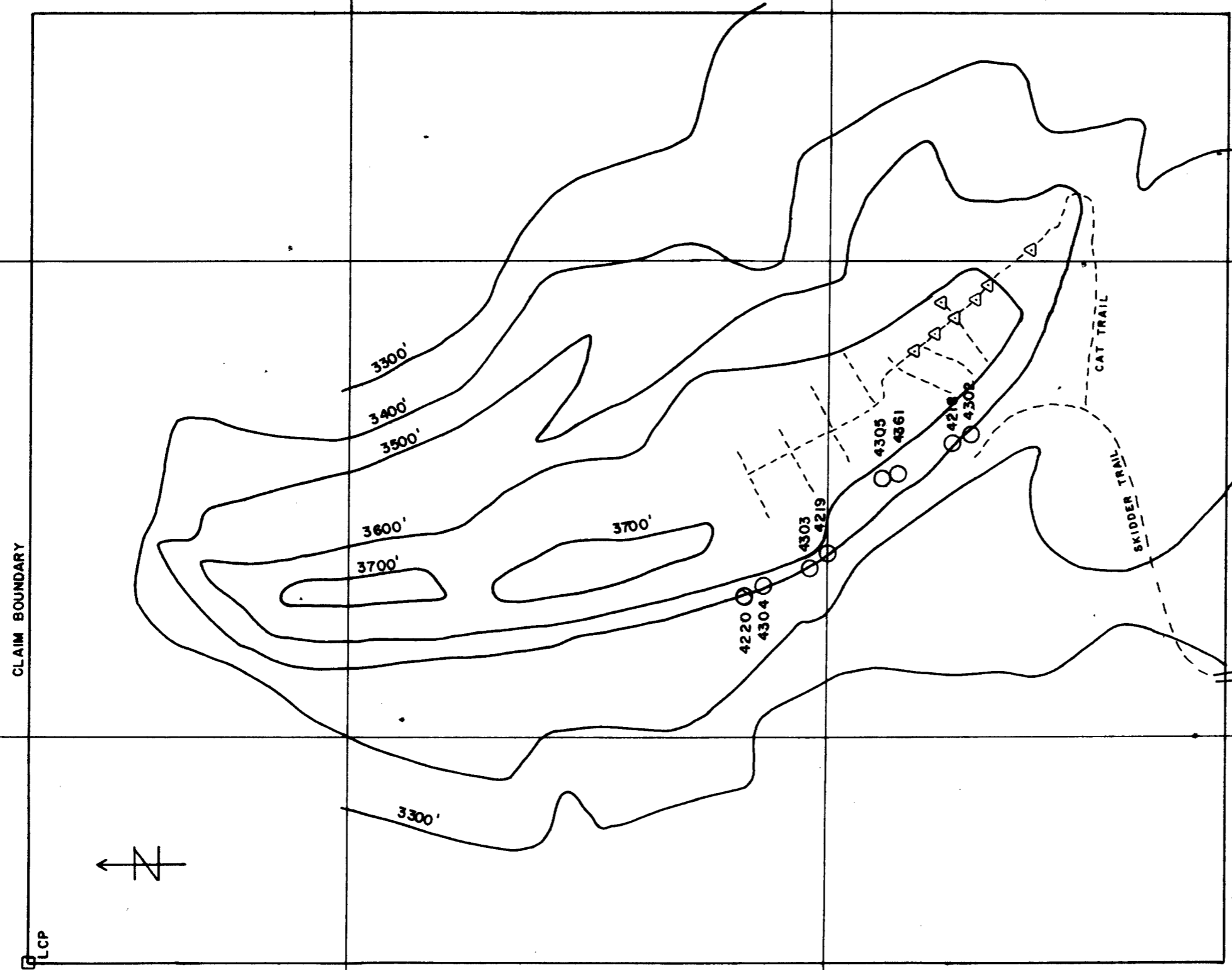
We remain at your complete disposal for everythink you will need.

Yours faithfully,

SOCIETA' IMPIANTI CALCE S.r.l.
ENGE. [Signature]

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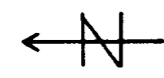


672000 m. E.

6085000 m. N.

- SAMPLE LEGEND
- 4220 1989 SAMPLE LOCATION
 - △ 1991 SAMPLE LOCATION

CLAIM BOUNDARY



LCP

DRAWN	SCALE 1:10,000
TRACED	DATE JAN 1992
APPROVED	REVISED MLA

EQUITY SILVER MINES LTD.
CART CLAIM

FIGURE 3 - SAMPLE LOCATIONS
FILE REF No.