



Province of
British Columbia

Ministry of
Energy, Mines and
Petroleum Resources

FILMED

ASSESSMENT REPORT
TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) DRILLING	TOTAL COST \$10,210
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AUTHOR(S) **ROBERT FRIESEN** SIGNATURE(S) *R. Friesen*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED **7/7/89** YEAR OF WORK **89**

PROPERTY NAME(S) **SAMATOSUM (Mill Group of Claims)**

COMMODITIES PRESENT **Ag, Cu, Zn, Pb, Au**

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION **Kamloops** NTS **82M/4W**

LATITUDE **51° 10'N** LONGITUDE **119° 49'W**

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units) PROGENIX (Lot 1706); Mineral Lease M 123, Mining or Certified Mining Lease ML 12 (claims involved)]:

**HN-9 (15 units); HN-10 (15 units); WG-4 FRACTION (1 unit);
WG-5 FRACTION (1 unit); KIM FRACTION (1 Unit)**

OWNER(S)
(1) **MINNOVA INC. (70%)** (2) **REA GOLD CORPORATION (30%)**

MAILING ADDRESS
**3rd Floor - 311 Water Street
Vancouver, B.C. V6B 1B8**

**World Trade Centre
Suite 536**

OPERATOR(S) (that is, Company paying for the work)
(1) **MINNOVA INC.**

**899 Canada Place
Vancouver, B.C. V6C 2R1
GEOLOGICAL BRANCH
ASSESSMENT REPORT**

MAILING ADDRESS
As above

19,200

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):
The property is underlain by northwest striking, northeast dipping, sedimentary and volcanic rocks of the Eagle Bay formation. Economic mineralization is present in the vicinity of the property near the contact of mafic volcanic rocks and a sedimentary sequence of cherts, argillites, and muddy tuffs, which strike northwest on to the Mill Group.

REFERENCES TO PREVIOUS WORK
A.R. "Mill Group of Claims" 16/03/89

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground			
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)	102.1 m (1 Hole; NQ)	HN-9 (in Mill Group)	\$10,210
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			
			TOTAL COST
			\$10,210

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

LOG NO. 1023	PD
ACTION:	
TITLE NO.	

MINNOVA INC
SAMATOSUM JOINT VENTURE

ASSESSMENT REPORT FOR THE KIM FRACTION
WITHIN THE MILL GROUP OF CLAIMS

INTRODUCTION

The Mill Group of claims consist of the following claims and fractions located at the northeastern portion of the ground forming a Joint Venture block between Minnova Inc. and Rea Gold Corporation.

<u>CLAIM</u>	<u>TITLE NO.</u>	<u>NO. UNITS</u>
HN-9	4857	15
HN-10	4858	15
WG-4 FR.	5316	1
WG-5 FR.	5373	1
KIM FR.	7961	1

This report summarizes the results of diamond drill hole RG-263, completed within the Mill Group on Claim HN-9, to fulfill assessment requirements sufficient to keep Kim Fraction in good standing until the year 2000. Figure 2 shows the claim configuration of the group and the location of RG-263.

LOCATION AND ACCESS

The property lies approximately 30 kilometers east of Barriere in the Adams Plateau area of the Kamloops Mining Division. Access is via the Squaam Bay Road lying east of Highway 5, beginning three kilometers south of Barriere; up the new mine access road and along the Johnston Lake Forest Service Road.

PHYSIOGRAPHY

The Mill Group of claims lie at an elevation of about 1100 meters in the Johnston Creek valley, a hanging valley draining southwest into Sinmax Creek. The slopes and valleys are normally heavily forested, but the claim group area has been extensively logged.

The climate is moderate with temperatures ranging from extremes of -25 degrees Celsius in Winter to 30 degrees Celsius in the Summer.

Precipitation is semi-arid to moderate. The snow free period runs from May to November.

OWNERSHIP

The Mill Group is part of a package of claims forming a Joint Venture with Rea Gold Corporation (Minnova 70%, Rea Gold 30%).

HISTORY

Intermittent exploration activity in the area since the 1920's has resulted in the discovery of numerous occurrences of base and precious metal sulfides. Of these, only the Homestake Mine in the Sinmax Creek valley reported any production. The Rea Gold mineralization was discovered in 1983, by Mr. A. Hilton, of Kamloops. The discovery was the result of a two year prospecting program based on recent government geological maps and the aid of a field geochemical kit. Anomalous silt and soil samples localized the prospecting to an area on the northwest flank of Samatosum Mountain which revealed a hematitic gossan overlying massive sulfides; which was to become known as the Discovery Zone. The property was subsequently optioned by Rea Gold Corporation who in turn optioned the property to Minnova Inc. (then Corporation Falconbridge Copper). Exploration drilling successfully outlined two more small, metallurgically difficult massive sulfide zones containing significant grades of gold. Minnova Inc. renegotiated their deal with Rea Gold which saw Rea Gold assume control of a small concession immediately surrounding the known mineralization in return for Minnova's increased interest (to 70%) in the remainder of the property. Exploration of other targets on the property eventually led to the discovery of the Samatosum Silver Deposit about 500 meters to the northwest of the Rea Deposit. The "Sam Deposit" as it is also known began production in May of this year.

PROPERTY GEOLOGY (FIG. 2)

Overall, the Joint Venture property is underlain by structurally complex rocks of the Paleozoic Eagle Bay Formation which generally consist of four principal northwest trending, northeast dipping rock units, which from northeast to southwest are: limestone, mixed cherts and argillites, mafic volcanics, more mixed cherts and argillites but with minor felsic to intermediate volcanics, argillites, and finally a felsic package of rocks which occupy the western half of the property. The Samatosum Deposit lies within the structural hangingwall of the sedimentary package near the mafic volcanics; and the Rea Deposit lies within the structural footwall of the sedimentary package in fault contact with the lower argillite package of rocks. Outcrop on the Mill Group is sparse; however, it appears that it is underlain by mafic volcanics, and mixed cherts and argillites. Regional alteration is mainly chlorite dominated; however local,

possibly ore-related sericitic alteration, and silicification by flooding and veining is common in the vicinity of the ore stratigraphy.

DRILL RESULTS: RG-263

Hole RG-263 is located about 900 meters north northwest of the northern end of the Samatosum orebody at an elevation of 1098 meters and was drilled to test a zinc soil anomaly located in the area several years ago. As part of an extensive ongoing drill program on the property to locate new reserves, it also adds important geological information to our database.

Specifically, the hole data is as follows:

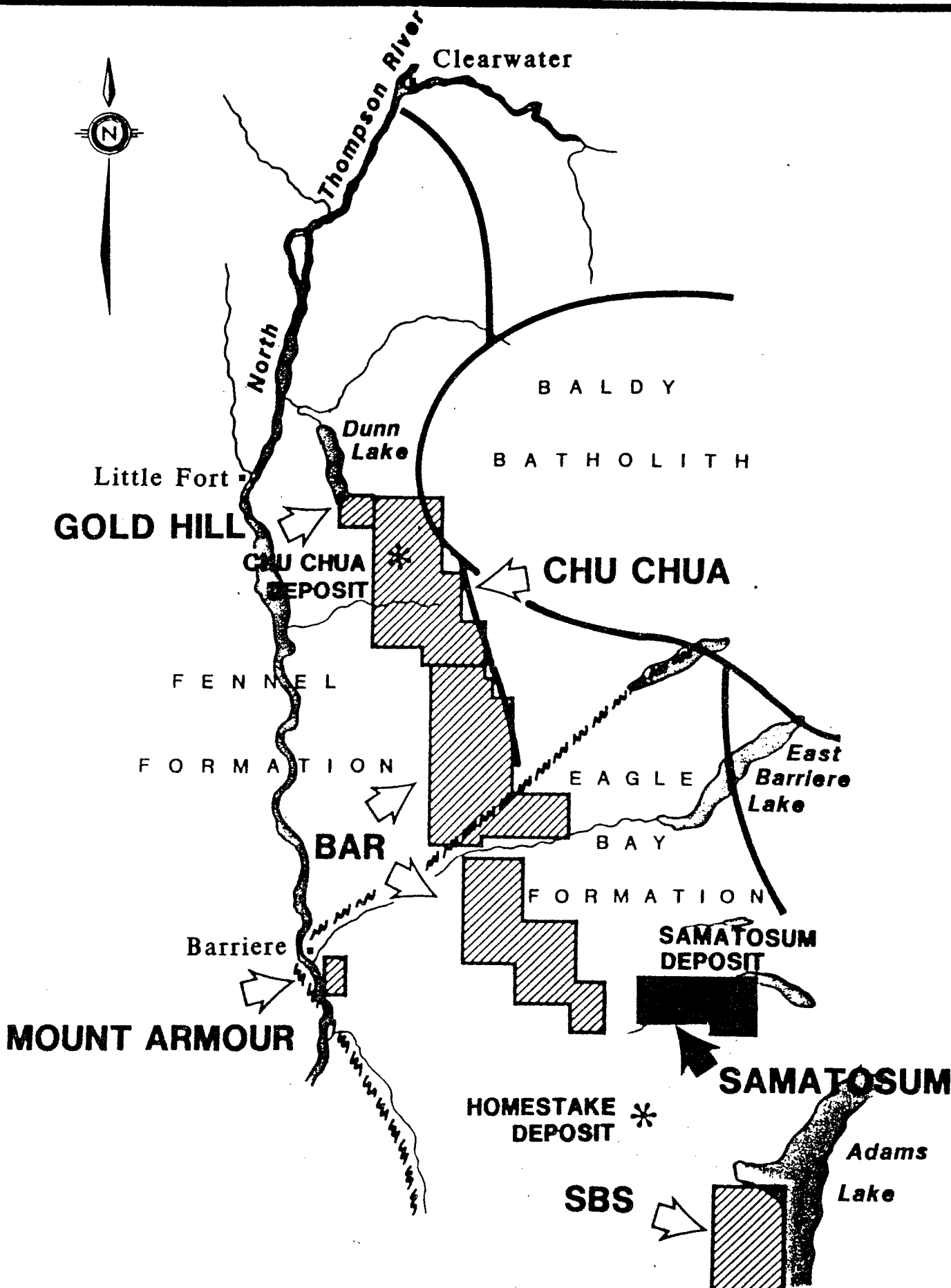
Collar Co-ordinates (grid):	108+58mW/962mN
Azimuth:	180 (grid), 225 (Astro)
Collar Dip:	-50
Length:	102.1m
Core Size:	NQ
Start Date:	June 20, 1989
Finish Date:	June 22, 1989

This hole was not successful in locating any zinc or other base metal mineralization although some broken pieces of massive pyritic sulfides were found in a highly faulted zone between 14.3m - 32.3m. The interval containing the sulfides is in a highly faulted argillite, muddy tuff and chert unit to 70.2 meters; showing local strong sericitization and dolomitization. This interval most likely represents the lower portion of the Samatosum Horizon. From 70.2m - 102.1m the hole intersected mafic tuff which is moderately altered by sericite and dolomite and locally displays silica flooding. Four assay samples and two lithogeochemical samples were analyzed with no significant results. A copy of the drill log and a hole plot is included with this report.

CONCLUSIONS AND RECOMMENDATIONS

Hole RG-263 is only one hole of a long-term drill program on the Joint Venture property. Drilling is expected to continue through the life of the Samatosum Mine in a committed effort to locate new ore reserves.

R. Friesen
2/10/89



ADAMS/BARRIERE PROPERTY LOCATION MAP

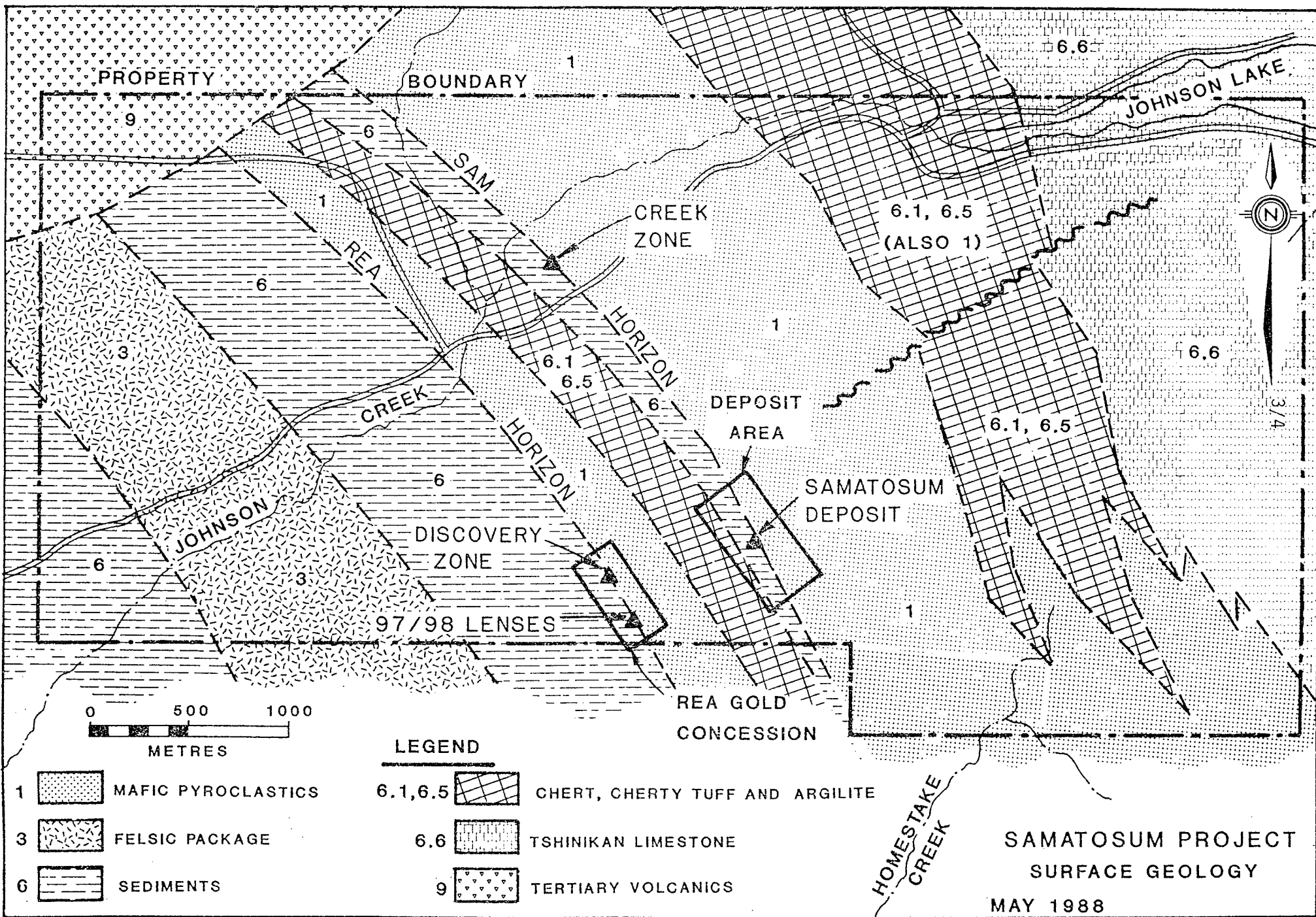


Fig 2.

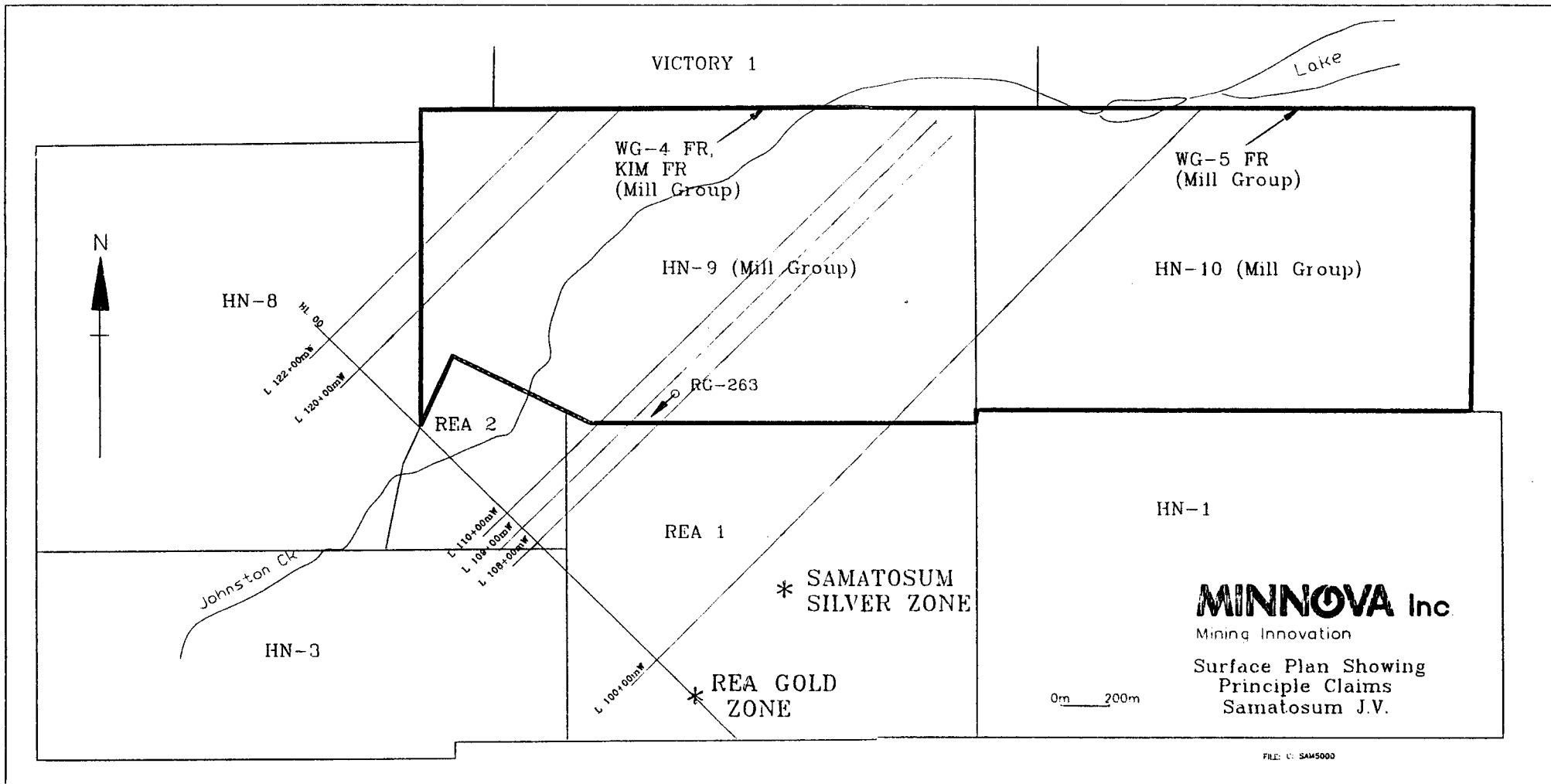


Fig. 3

ITEMIZED COST STATEMENT

1.	Diamond Drilling:		
	Atlas Drilling;	102.1m @ \$76/m:	\$7760
2.	Salaries:	R. Friesen 2 days @ \$400/d:	\$800
		Kerry Curtis 2 d @ \$300/d:	\$600
		Al Low 2 days @ \$150/day:	\$300
3.	Room and Board: (K. Curtis and A. Low)		
		4 man days @ \$80/day:	\$320
4.	Vehicle Rental: (R. Friesen and K. Curtis)		
		2 vehicles/2days @ \$60/day:	\$240
5.	Assaying:	4 assays @ \$30 ea.	\$120
		2 lithochemical @ \$35 ea.	\$70

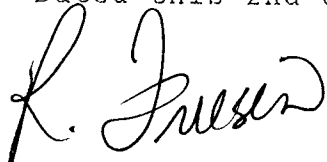
TOTAL: \$10,210

STATEMENT OF QUALIFICATIONS

I, Robert Friesen certify that:

1. I am the Chief Geologist, Samatosum Project, and reside at 455 Laurier Drive, Kamloops, B.C.
2. I have a B. Sc. in Geology from the University of British Columbia (1967).
3. I have practised my profession continuously since 1967.
4. I personally supervised the work reported herein.

Dated this 2nd day of October, 1989.

A handwritten signature in cursive script, appearing to read 'R. Friesen', written in black ink.

Robert Friesen

HOLE NUMBER: RG263

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: SAM	PLOTTING COORDS GRID: SAM	ALTERNATE COORDS GRID: SAM	COLLAR DIP: -50° 0' 0"
PROJECT NUMBER: 240	NORTH: 962.00N	NORTH: 9+62N	LENGTH OF THE HOLE: 102.10m
CLAIM NUMBER:	EAST: 10858.00W	EAST: 108+58W	START DEPTH: 0.00m
LOCATION: 109+00 SECTION	ELEV: 1098.26	ELEV: 1098.26	FINAL DEPTH: 102.10m

COLLAR GRID AZIMUTH: 180° 0' 0"

COLLAR ASTRONOMIC AZIMUTH: 225° 0' 0"

DATE STARTED: June 20, 1989
DATE COMPLETED: June 22, 1989
DATE LOGGED: June 30, 1989

COLLAR SURVEY: YES
MULTISHOT SURVEY: NO
RQD LOG: NO

PULSE EM SURVEY: NO
PLUGGED: YES
HOLE SIZE: NQ

CONTRACTOR: ATLAS
CASING: LEFT IN HOLE
CORE STORAGE: SAM EXPLN. CAMP.

PURPOSE: TEST OF ZINC SOIL GEOCHEM ANOMOLY.

DIRECTIONAL DATA:

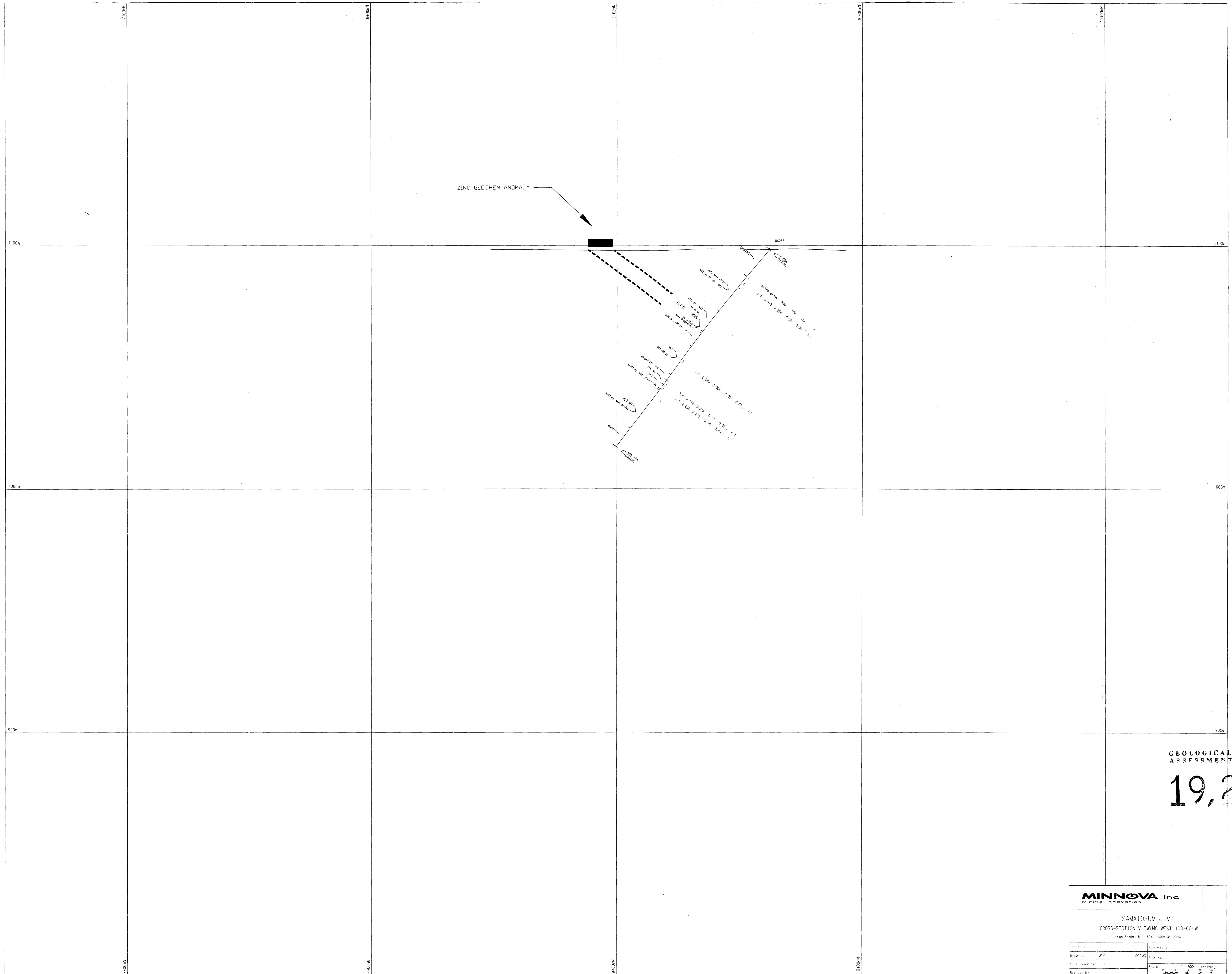
Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
41.50	-	-52° 0'	ACID	OK		-	-	-	-	-	
60.90	-	-54° 0'	ACID	OK		-	-	-	-	-	
102.10	-	-53° 0'	ACID	OK		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	
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-	-	-	-	-		-	-	-	-	-	
-	-	-	-	-		-	-	-	-	-	

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 14.30	«CASING»					
14.30 TO 70.20	«FLT'D SEDS» FAULTED SEDIMENTS	Grey to black. Fine grained. Intensely faulted and broken core. Mainly argillite, muddy tuff and chert, 30% qtz. veins with 30% of interval intense gouge. 14.3-32.3 «mut. mssx chips» broken and ground chips of muddy tuff and massive sulphides. 32.3-42.9 «flt. qv., mut.» 43.9-50.6 «60% qv., 40% ser. arg.» 50.6-65.2 «mut.» variably pyritic broken and gouged. 65.2-67.9 «gouged ser. arg.» strongly faulted & gouged. 67.9-70.2 «flt. bx.» rehealed, 60% qv. anc. fragments.		Strong sericite in clay gouge. Strong 40% grey sericite, plus dolomitization.	«14.3-16.0» «mssx fragments» in broken core. «60% py. tr. gn., cpy.» «tt in qv.» «20%-40% py.» 2-5% fine grained py. in clay gouge. Sulphide rich matrix.	Abundance of massive sulphide pieces in core. 10% recovery. 30% recovery. 30% recovery. 50% recovery.
70.20 TO 102.10	«ALT NT»	Green to grey. Fine grained. Moderate to intense altered mafic tuff sequence. Weak relict banding apparent. At 77.2m 72.4-73.0 «cht.» cherty zone. 92.7-102.1 «mpyro» flattened lappilli. END OF HOLE.	FOLIATION 85 BEDDING 45 CONTACT 30	Pervasive qtz.-dolomite alteration increases towards base. Possible silica flooding at top minor crosscutting chlorite (dark green) and traces of fuchsite. Possible silica flooding or primary chert horizon. Weakly sericitized clasts, minor qtz.-dol. veins.	«2-5% py. med. grained diss.» «5-10% py. med. grained» trace fuchsite	

Sample	From (m)	To (m)	Length (m)	ASSAYS					COMMENTS
				CU %	ZN %	PB %	AG G/T	AU G/T	
BCD20605	14.30	20.10	5.80	.024	.08	.03	2.2	.04	
BCD20606	57.20	58.70	1.50	.004	.01	.02	1.5	.08	
BCD20601	67.90	70.20	2.30	.016	.02	.13	2.4	.14	
BCD20602	71.30	72.40	1.10	.012	.09	.1	2.3	.03	

Sample	From (m)	To (m)	Length (m)	SI02 %	AL2O3 %	CAO %	MG0 %	NA20 %	K2O %	FE2O3 %	MNO2 %	TIO2 %	P2O5 %	CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	AS PPH	SB PPM	BA PPM	BAT %	TOT %
BCD20603	76.50	79.50	3.00	42.8	14.65	7.01	8.66	1.35	.86	9.27	.2	1.83	.33	84	189	76	1.0	5	1		45	.05	86.98
BCD20604	97.80	100.80	3.00	41.46	13.71	6.14	10.16	1.98	.06	11.20	.23	1.79	.35	80	143	71	1.1	100	68		21	.01	87.63

ZINC GECHEM ANOMALY



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,200

MINNOVA Inc Mining Innovation	
SAMATOSUM J. V. CROSS-SECTION VIEWING WEST 108.460mW <small>From 8120m @ 1150m, 100m @ 1020m</small>	
Truck no.	201-1111
Scale	20:1
Author	201-1111
Rev.	500