LOG NO: 09-21 RD.
ACTION:
FILE NO:

Diamond Drilling Report

Maggie Property

NTS 92G/10W, 11E

Vancouver Mining Division

Lat. 49° 38' N Long. 123° 01' W

Owner/Operator: Minnova Inc.

by: G. S. Wells

August 1990

Claims

Jarmilla Fr.	Harold Fr.
Mar	Bob
Celeste	Jody
Falcon	Santanna
Janette	Clarke
War Eagle	

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,297

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Appendices

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1. Introduction

Minnova Inc. acquired the Maggie claims from International Maggie Mines Ltd. in 1987 to evaluate the volcanogenic massive sulphide potential of the property. This report describes the results for two diamond drill holes which tested IP anomalies on the War Eagle claim. The work was done during the period of September 27, 1989 to September 30, 1989 by Frontier Drilling Ltd.

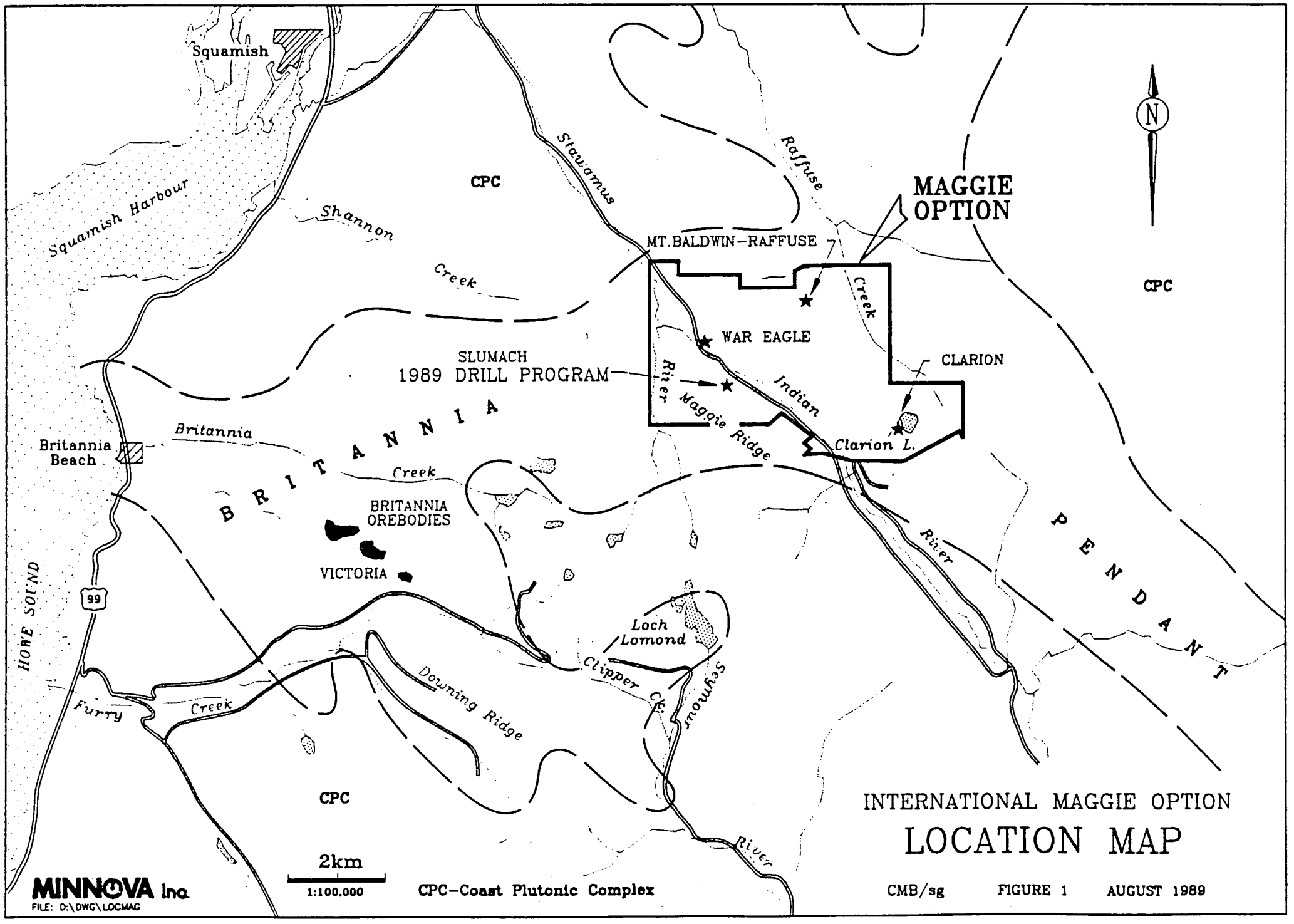
a. Location, Access and Physiography

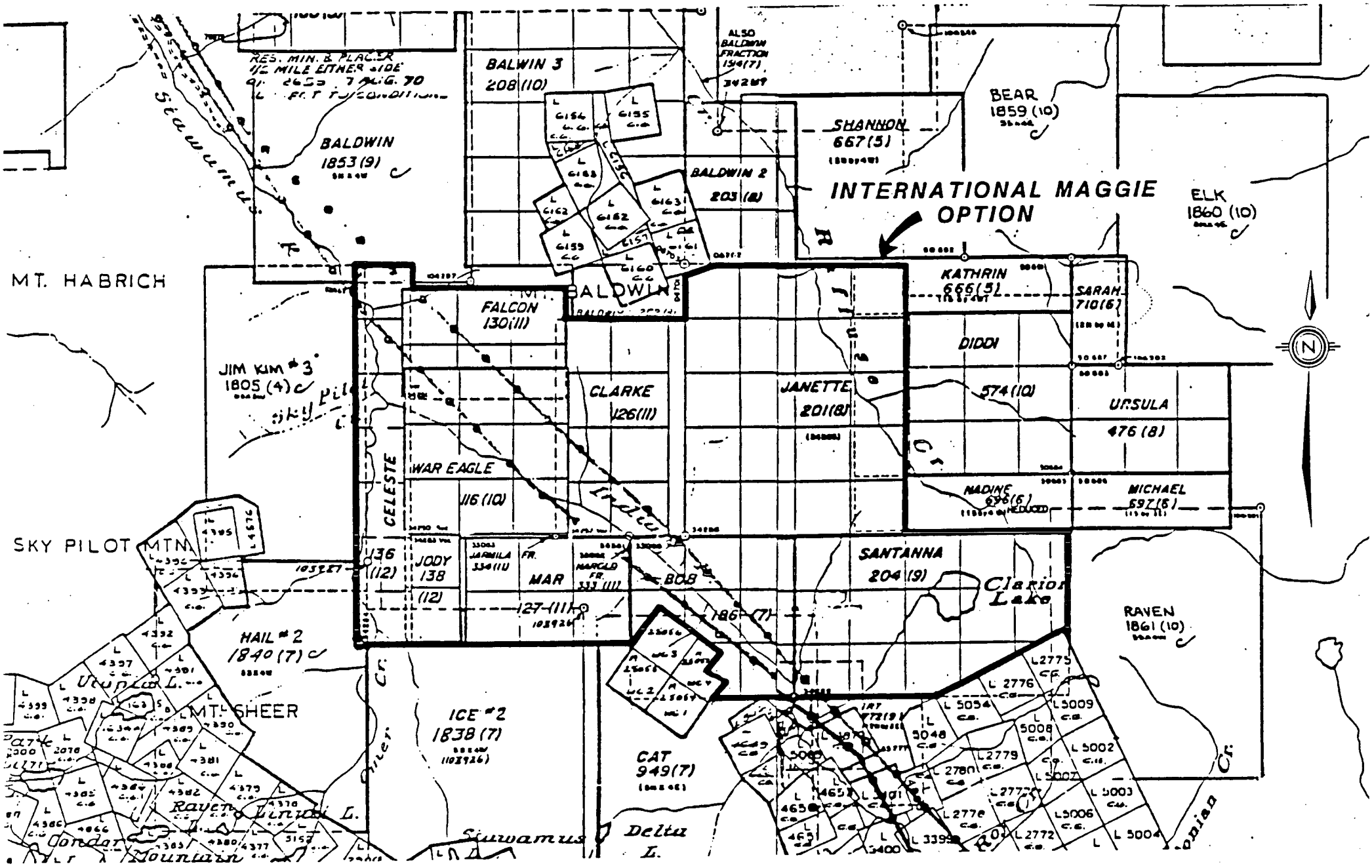
The Maggie property is located about 10 kilometres southeast of Squamish, B.C. in the rugged Coast Range mountains just north of Vancouver (Figure 1). The property staddles the Indian River Valley and is accessed by a rough logging and powerline access road which runs south along the valley floor. Most of the property has been logged to an elevation of 1000 meters except for the Slumach area where steep bluffs remain forested with original growth Douglas fir and hemlock.

b. Mineral Rights

The drilling was carried out on the War Eagle claim which is part of the 78-2 supp. group (Figure 2). The status of these claims is as follows:

Claim Name	Record No.	Units	Month of Record
Jarmilla Fr.	334	1	November
Harold Fr.	333	1	November
Mar	127	6	November
Bob	186	9	July
Celeste	136	7	December
Jody	138	2	December
Falcon	130	6	November
Santanna	204	15	September
Janette	201	20	August
Clarke	126	8	November
War Eagle	116	9	October


Squamish
Squamish Harbour
Shannon
Creek
CPC
Stawamus
Raffuse
MAGGIE
OPTION
MT.BALDWIN–RAFFUSE
Creek
CPC
WAR EAGLE
SLUMACH
1989 DRILL PROGRAM
River
Indian
Maggie Ridge
CLARION
Clarion L.
Britannia
Britannia
Beach
Creek
B R I T A N N I A
BRITANNIA
OREBODIES
VICTORIA
HOWE SOUND
99
Loch
Lomond
Clipper Ck.
Seymour
River
P E N D A N T
River
Furry
Creek
Downing Ridge
CPC
2km
1:100,000
CPC–Coast Plutonic Complex
N
INTERNATIONAL MAGGIE OPTION
LOCATION MAP
CMB/sg
FIGURE 1
AUGUST 1989
MINNOVA Inc
FILE: D:\DWG\LOCMAG



NTS 92G/10W,11E

INTERNATIONAL MAGGIE OPTION

CLAIM MAP

MINNOVA

0 1 2km

c. History

The Maggie property has been explored sporadically by a number of companies for many years. The property has long been recognized as having good potential for hosting economic mineralization similar to the nearby Britannia deposits. Systematic drill testing of targets began in 1978-9 when Placer Development Limited drilled 10 holes totalling 1310 metres in the area of the War Eagle adit, a 35 meter underground development by Maggie Mines (now International Maggie Mines Ltd.). Placer terminated their option in 1980 and over the next two years Maggie Mines drilled an additional 37 holes (4500 meters) again, concentrating on the War Eagle area. A number of well mineralized zones were encountered but no ore grade material was defined (Archibald, 1982). In 1983 Maggie Mines discovered the Slumach Vein (1 km southeast of War Eagle) a narrow, gold-rich quartz-sulphide vein. The vein was discovered after following up highly anomalous soil samples collected by Placer. After drilling several short holes Maggie then drove a 55 meter cross-cut in only to discover a dyke in place of the vein. A raise and a further 18 meters of drifting on the structure was done. Unfortunately mineable widths were not present.

Minnova Inc entered into an agreement with Maggie Mines in 1987 and began exploring the Slumach area for volcanogenic massive sulphide deposits. An integrated program of geology, lithogeochemistry and geophysics has been followed up by diamond drilling.

2. Work Done

This report summarizes the results of two diamond drill holes totalling 318.5 meters which tested IP anomalies (Figure 3). Holes MM-20 and MM-21 were both drilled on the War Eagle claim. The diamond drilling was done by Frontier Drilling Ltd. Drill logs are included in Appendix I.

Lithogeochemical samples were taken routinely throughout the hole, sent to Min-En Laboratories in North Vancouver and analyzed for major and trace elements (SiO_2, TiO_2, Al_2O_3, CaO, Na_2O, K_2O, MgO, Fe_2O_3, P_2O_5, Ba, MnO_2, S, Ag, As, Cu, Pb, Zn, Au, Sb) using a total digestion ICP technique. Mineralized sections were analyzed for Cu, Pb, Zn, Ag and Au using an atomic absorption method. The drill core is stored in the Trimen yard in Squamish.

3. Geology

a. Regional Geology

The Maggie property is underlain by a late Jurassic to early Cretaceous sequence of volcanic and sedimentary rocks ranging from basalt to rhyolites assigned to the Gambier group (Roddick, 1979). These units have been intruded by Coast Plutonic Complex rocks of a variety of lithologies. The Coast event has been dated at about 100 Ma (Heah, 1982). The volcanic package in the Indian River valley has been interpreted as an earlier volcanic cycle than that which hosts the Britannia orebodies 10 kilometers to the west. This interpretation is in agreement with mapping by James (1925) who assigned the volcanic and sedimentary rocks in the Indian-Stawamus River area to the Lower Goat Formation and is based on the following evidence:

1. The volcanic and sedimentary assemblage in the Indian River valley forms a west facing panel dipping beneath Sky Pilot mountain.

2. The interfingered basalt flows and argillites which constitute Sky Pilot and Goat Ridge dip gently south and can be traced, without interruption, into the footwall of the Britannia Mines sequence.

b. Property Geology

The rocks exposed on the Maggie property consist of northwest striking mafic to felsic flows and pyroclastics with well bedded turbidite and chert sequences. In the vicinity of holes MM-20 and MM-21 these units dip 50° to the southwest. Elsewhere on the property a number of large quartz feldspar porphyritic bodies exist and are interpreted to represent felsic eruptive centers. These centers are located immediately northeast of the War Eagle area and along the ridges on the eastern side of the property. The sedimentary units lie stratigraphically above the felsic material and indicate a quiescent, basinal environment existed, an ideal time for the deposition of massive sulphide deposits. This preceded the eruption of basaltic magmas occurring along the top of the prominent knob (Maggie Knob) on the southwest side of Indian River. Numerous vertical feeder dykes of similar chemistry to the basalts crosscut underlying stratigraphy on the western side to the property. The volcanics in this area have also been strongly hornfelsed due to the intrusion of the Mountain Lake pluton. The metamorphic grade of rocks on the property is that of lower greenschist facies and locally lower amphibolite grade in the contact aureole of the later intrusions.

Two mineralized occurrences are present on the property and both have been subject to detailed diamond drilling and minor underground development. The War Eagle showing consists of pyrite-chalcopyrite-sphalerite stringer mineralization and the Slumach vein is a narrow, gold rich quartz-sphalerite vein. No economic tonnage has been delineated at either showing.

4. Diamond Drill Results

Holes MM-20 and MM-21 tested IP anomalies 700 meters and 400 meters southeast of the War Eagle showing respectively. Hole MM-20 intersected a sequence of argillites, cherts and epiclastic

dacitic ashes. Locally enriched zones of pyrite and pyrrhotite (1-3% py, po) occur throughout this sedimentary sequence. No zones of economic mineralization were intersected.

Hole MM-21 intersected a sequence of rhyolite breccias, epiclastic lapilli-tuffs and argillites. Sulphide content is locally enriched (1-2% py) in the sediments. No zones of economic mineralization were encountered in this hole.

Geochemically both holes intersected a relatively unaltered sequence of volcanic rocks.

5. Conclusions

The IP anomalies tested by holes MM-20 and MM-21 can be explained by zones of weak pyrite, pyrrhotite mineralization. No economic sulphides were intersected. The lithogeochemistry indicates that there is no hydrothermal alteration associated with these sulphide zones.

Further work on the property should focus on testing geophysical anomalies in areas of known hydrothermal alteration and stringer mineralization such as the War Eagle area.

Gary Wells

6. Cost Statement

War Eagle Claim DDH: MM-20, 21 filed for $21,780.69

Hole MM-20		
Contractor costs (see attached invoices)		$10,277.11
Colin Burge: 2 days @ $300/day		600.00
Truck: 2 days @ $50/day		100.00
Food/Housing: 2 days @ $40/day		80.00
	subtotal	11,057.11
Hole MM-21		
Contractor costs (see attached invoices)		9553.58
Colin Burge: 3 days @ $300/day		900.00
Truck: 3 days @ $50/day		150.00
Food/Housing: 3 days @ $40/day		120.00
	subtotal	10,723.58
	Total	$21,780.69

7. References

Archibald, G. F., 1982: Summary Report on Work Performed on the Janette, Mar and War Eagle Claims for Maggie Mines Ltd.

Heah, T., 1982: Stratigraphy, Geochemistry and Geochronology of the Lower Cretaceous Gambier Group, Sky Pilot area., BSc. thesis, UBC.

James H. T., 1925: Britannia Beach Map Area, B.C., Geological Survey of Canada, Memoir 158.

Roddick, J. A., Woodsworth, G. J., 1979: Geology of Vancouver West Half and mainland part of Alberni; Geological Survey of Canada, Open File 611.

8. Statement of Qualifications

I, Gary S. Wells, hereby certify that:

1. I hold an Honours Bachelor of Science degree in combined geology and chemistry (1975) from Carleton University, Ottawa, Ontario and a Ph.D degree in geology (1980) from Queen's University, Kingston, Ontario.

2. I am an associate member of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy.

3. I have practised my profession in exploration continuously since graduation in 1980.

Gary Wells

Gary S. Wells

Date: Sept 19/90

Statement of Qualifications

I, Colin M. Burge certify that:

1. I am an Exploration Geologist residing at 329 E. 12th St., North Vancouver, B.C.

2. I have a BSc in Geology from the University of Waterloo, Ontario (1981).

3. I have practised my profession since 1981.

4. I personally carried out and supervised fieldwork reported herein.

Colin M. Burge

Date: Sept 19/90

Appendix I

Drill Logs

HOLE NUMBER: MM-20

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: MAGGIE
PROJECT NUMBER: 618
CLAIM NUMBER: WAR EAGLE
LOCATION: Britannia-Squamish

PLOTTING COORDS GRID: Maggie
NORTH: 94.00S
EAST: 700.00E
ELEV: 863.00

ALTERNATE COORDS GRID:
NORTH: 0+94S
EAST: 7+ 0E
ELEV: 863.00

COLLAR DIP: -65° 0' 0"
LENGTH OF THE HOLE: 164.90m
START DEPTH: 0.00m
FINAL DEPTH: 164.90m

COLLAR GRID AZIMUTH: ° ' "

COLLAR ASTRONOMIC AZIMUTH: 45° 0' 0"

DATE STARTED: September 27, 1989
DATE COMPLETED: September 28, 1989
DATE LOGGED: 0, 0

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

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NX

CONTRACTOR: Frontier Drilling
CASING: 3.05 m
CORE STORAGE: Triton, Squamish

PURPOSE: To test an I.P chargeability high

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments	Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
47.55	.	-58° 0'	ACID	OK		.	.	.	.	.	
111.25	.	-53° 0'	ACID	OK		.	.	.	.	.	
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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.05	Casing					
3.05 TO 13.05	EPICLASTICS «EPI»	Colour: light purple and grey Grain Size: fine and medium grained -mixed epiclastics, strong biotite hornfels crystal tuffs and fine ashes, some hornfels related spots developed -occasional barren quartz knots and silica veinlets -argillaceous component ⌈4.10⌋ «FLT» -2 cm gouge ctc sharp at	25	-weak to moderate sericite associated with pyritic zones	-1-2% py/po 7.40-8.40 -3-5% po/py, finely disseminated possible sulphide mud	7.40-8.40 BCD 23451
13.05 TO 33.42	ARGILLITE «ARG»	Colour: black Grain Size: fine grained -homogeneous, massive aphyric - numerous 3-5 mm carbonate veins/veinlets -numerous fine ash type fracture filled with sulphide ⌈20.33-21.45⌋ «YMD» -hornblende phyric -steep core axis angle ⌈28.82⌋ «FLT» -2 cm gouge 25.80 -felsic ash bed with bedding contact at:	80		-1-3% po local stockwork type veinlets up to 1 cm wide -po, common as smears on foliation planes -pyrite in cherty horizons appears primary	locally very high po content - explains IP chargeability
33.42 TO 45.75	DAC ASH/LT/XT «EPI»	Colour: light pink to light grey Grain Size: fine to medium grained -felsic ash tuffs with occasional lithics -well bedded in places 1 cm beds at approximately -biotite hornfelsed	70	-nil	-nil	Turbidites 35.66-38.66 BCD 23452

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		42.12-42.50 YMD		—		—
45.75 TO 77.72	CHERT/ASH «CHT/ASH»	Colour: white and pinkish Grain Size: very fine to fine grained -well bedded cherts and cherty ash beds -cherts are ultra fine grained, homogeneous and 1-2 cm thick -minor argillaceous beds -cherty zones more frequent at top of unit {48.46} «FLT» -rubble zone {58.80} «FLT» -clay zone {64.25-65.20} «ARG» -1-3% po 69.75-70.22 -young mafic dike {72.15} «FLT» -2 cm gouge {72.80} «FLT» -clay gouge {73.60} «FLT» -2 cm gouge {73.95-75.52} «MD»		-nil	-tr-1% v.f.g. py in ash units	Turbidite cherty beds display flame structures indicating tops up hole, fining sequences in agreement 59.0-62.0 BCD 23453
77.72 TO 79.15	SHEAR ZONE «SZ»	Colour: grey and black Grain Size: fine grained -strongly deformed -variety of foliation directions -includes graphite and tectonized rock fragments		-moderate sericite	-1-2% f.g. disseminated pyrite	78.05-79.05 BCD 23453

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
79.15 TO 150.25	EPICLASTICS & ARGILLITE «EPI/ARG»	Colour: purplish pink and grey Grain Size: fine to medium grained -felsic ash tuffs and wacke beds with predominantly felsic lithics, siliceous ash tuffs are sometimes cherty -homogeneous felsic ashes are pinkish due to biotite hornfels interbedded with massive black argillite with frequent pyrrhotite veinlets contacts are gradational 79.15-95.0 epi and ash 95.0-100.40 argillite 100.40-106.9 felsic ashes 106.9-111.30 argillite 111.30-111.60 cherty ash 111.60-116.0 argillite 116.0-117.35 cherty ashes 117.35-119.00 argillite 119.00-119.70 epiclastics 119.70-127.55 -argillite ┤126.80├ «FLT» -2 cm gouge ┤133.5├ «SZ» -shear zone strong intense deformation 127.55-142.44 -epiclastics, siliceous ash tuffs and minor argillaceous ash -thin bedded zones give ┤144.30├ «SZ» -shear zone, 20 cm intensely deformed rock 142.44-150.25 -massive argillite -strong po/py	45	┤127.55-150.25├ «5% po/py» 3-5% po/py in veinlets and possible beds	«po 1-2%» -po 1-2% as fracture fill sometimes forming stock works over 10 cm intervals i.e. 99.20 104.65-105.00 -po 7-10%, tr sph -cherty ash and sulphide horizon and minor quartz	104.65-105.15 BCD 23446 Horizon(?) 125.70-126.70 BCD 23447 140.01-140.51 bCD 23455 (traces)

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
150.25 TO 164.90	DAC ASH/LT «ASH/LT»	ctc sharp at Colour: pink and white Grain Size: fine to medium grained -strong mottling includes felsic lapilli, siliceous patches - possible fragments? -pink zones due to biotite hornfels -variety of different textures	75	-nil	-tr py, po	note: siliceous lapilli rip-ups give up hole tops may not be a separate unit 155.75-158.75 BCD 23456
	E.O.H.					

Sample	From (m)	To (m)	Length (m)	ASSAYS CU %	ZN %	PB %	AG g/T	AU g/T	BA %	GEOCHEMICAL CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	BA PPM	AS PPM	SB PPM		COMMENTS
23454	78.05	79.05	1.00							28	99	27	1.2	12	58	12	1		
23446	104.65	105.15	0.50							46	765	45	1.8	2	410				
23447	125.70	126.70	1.00							68	187	35	4.5	9					
23455	140.01	140.51	0.50							6	136	22	0.6	4	58	3	1		

Sample	From (m)	To (m)	Length (m)	AL2O3 %	BA %	CAO %	FE2O3 %	K2O %	MGO %	MNO2 %	NA2O %	P2O5 %	SIO2 %	TIO2 %	S %	TOT %	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPB	ZN PPM	AU PPB
23451	7.40	8.40	1.00	16.86	0.085	1.24	5.61	3.6	1.63	0.05	0.89	0.1	65.58	0.57	1.42	97.65	0.8	7	66	46	13	1	77	10
23452	35.66	38.66	3.00	17.74	0.06	2.38	3.37	3.86	2.41	0.1	1.35	0.12	64.33	0.44	0.95	97.11	1	1	40	13	31	1	56	5
23453	59.00	62.00	3.00	17.27	0.105	1.96	4.78	4.92	3.8	0.13	1.58	0.12	60.92	0.66	1.42	97.67	1.5	1	121	13	42	1	92	5
23456	155.75	158.75	3.00	16.28	0.07	1.51	2.63	3.29	2.22	0.07	2.94	0.09	67.64	0.31	0.1	97.14	0.8	1	75	10	29	1	56	5

HOLE NUMBER: MM-21

MINNOVA INC.
DRILL HOLE RECORD

IMPERIAL UNITS: METRIC UNITS: X

PROJECT NAME: MAGGIE
PROJECT NUMBER: 618
CLAIM NUMBER: WAR EAGLE
LOCATION: Britannia-Squamish

PLOTTING COORDS GRID: Maggie
NORTH: 42.00S
EAST: 400.00E
ELEV: 841.00

ALTERNATE COORDS GRID:
NORTH: 0+42S
EAST: 4+ 0E
ELEV: 841.00

COLLAR DIP: -60° 0' 0"
LENGTH OF THE HOLE: 153.62m
START DEPTH: 0.00m
FINAL DEPTH: 153.62m

COLLAR GRID AZIMUTH: ° ' "

COLLAR ASTRONOMIC AZIMUTH: 45° 0' 0"

DATE STARTED: September 28, 1989
DATE COMPLETED: September 30, 1989
DATE LOGGED: 0, 0

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

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: NX

CONTRACTOR: Frontier Drilling
CASING: 3.05
CORE STORAGE: Triton, Squamish

PURPOSE: Will test an IP chargeability high and a barium soil anomaly

DIRECTIONAL DATA:

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
25.91	-	-59° 0'	ACID	OK	
85.34	-	-58° 0'	ACID	OK	
122.84	-	-57° 0'	ACID	OK	
153.62	-	-55° 0'	ACID	OK	

Depth (m)	Astronomic Azimuth	Dip degrees	Type of Test	FLAG	Comments
-	-	-	-	-	

Gary Wells

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 3.05	Casing					
3.05 TO 12.00	RHYOLITE TUFF BRECCIA «RHY TBX»	Colour: white Grain Size: fine to medium grained -fragments up to 10 cm of porphyritic (feldspars) rhyolite in a siliceous matrix -fragment supported -fragment boundaries vague and often nebulous -fragment size variable-poorly sorted		-nil	-trace po	6.0-9.0 BCD 23457
12.00 TO 17.00	EPICLASTIC AND MINOR FELSIC LAP. AND BLOCKS «EPI/LT»	Colour: purple white Grain Size: fine to medium grained -occasional felsic block and lapilli in a finer grain epiclastic includes siliceous lapilli tuff -matrix supported {17.00} «FLT» -2 cm of gouge				transitional
17.00 TO 36.88	EPICLASTIC «EPI»	Colour: purple and grey Grain Size: fine to medium grained {17.00-20.73} «MD» -dike contains veinlets of py -well bedded crystal and lithic tuffs -finer siliceous beds probably ashes -grading direction gives uphole tops {22.71-24.13} «MD» {28.10-29.52} «MD» {30.00-31.10} «MD» ctc lost	70	-epidote selvedges on py veinlets -nil	18.40 and 20.45 -py in veinlets up 2 cm wide contains black mineral magnetite -tr py	20.3-20.80 BCD23458

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
36.88 TO 48.90	MAFIC DIKE, SILL OR FLOW «MD»	Colour: grey Grain Size: fine grained -massive -faintly feldspar(?) prophyritic otherwise a featureless unit		-nil	-nil	mod to strong biotite hornfels 5 metres into underlying unit suggest intrusive origin 42.29-45.29 BCD23459
48.90 TO 142.34	EPLICLASTIC «EPI/ARG/ ASH»	Colour: white to light pink Grain Size: fine to medium grained -well bedded silic felsic epiclastics -very well sorted -occasional cherty bed -well rounded 1 mm siliceous lapilli -occasional felsic lithic up to 1 cm size -minor argillite beds ⌊54.65-55.90⌋ «MD» 56.46-60.55 -strong argillaceous component ⌊75.91-77.2⌋ «MD» 77.65-95.25 argillite ⌊89.37-90.55⌋ «MD» ⌊79.43-80.80⌋ «MD»? -difficult unit but contacts are at steep angle to core axis suggesting it is intrusive ⌊98.63-99.28⌋ «YMD» -hornblende phyric ⌊103.8-104.6⌋ «YMD» -black, good chills ⌊104.60-112.87⌋ «MD»		-nil	-nil ⌊87.0-88.0⌋ «tr. cp/sph» -in 4 to 5 cm clot of quartz (fracture fill quartz) -occurs in what may be a dike	doubly graded 66.07-69.07 BCD23460 95.0-98.0 BCD 23461 felsic ash tuff

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-massive biotite hornfelsed mafic dike or flow, again steep core axis angles suggest intrusive -1-2 mm faint blueish spots in a biotite rich matrix ┤114.30-115.65├ «MD» as above ┤119.30-120.93├ «MD» as above below 125.0 -well bedded wackes, epiclastics sediments -minor offsets of beds frequent -very thinly bedded 1-3 cm beds at	80	-more felsic beds usually carry tr-1% py 138.50-140.50 -wacke beds containing 1-2% py with occasional sulphide clasts	130.15-133.15 BCD 23463 139.77-140.27 BCD 23464	108.36-111.36 BCD 23462 MD turbidite bed offsets suggest volcanic activity and associated earth quakes at this time
142.34 TO 153.62	ARGILLITE/ ASH «ARG» E.O.H.	Colour: black Grain Size: fine grained -massive black argillite -below 145.40 becomes hornfelsed -fine ash tuffs (felsic) ┤149.55-150.95├ «YMD»				

HOLE NUMBER: MM-21 | ASSAY SHEET | DATE: 27-November-1989

Sample	From (m)	To (m)	Length (m)	ASSAYS CU %	ZN %	PB %	AG g/T	AU g/T	BA %	GEOCHEMICAL CU PPM	ZN PPM	PB PPM	AG PPM	AU PPB	BA PPM	AS PPM	SB PPM		COMMENTS
23464	139.77	140.27	0.50							13	50	8	0.5	2					

Sample	From (m)	To (m)	Length (m)	AL203 %	BA %	CAO %	FE203 %	K20 %	MGO %	MNO2 %	NA20 %	P205 %	SIO2 %	TIO2 %	S %	TOT %	AG PPM	AS PPM	BA PPM	CU PPM	PB PPM	SB PPB	ZN PPM	AU PPB
23457	6.00	9.00	3.00	13.48	0.02	0.31	1.02	0.17	0.31	0.02	7.31	0.03	75.78	0.08	0.1	98.63	0.1	9	8	6	4	1	13	5
23458	19.30	19.80	0.50	13.33	0.025	16.21	14.87	0.69	4.37	0.46	1.7	0.4	41.86	0.7	3.78	98.38	2	5	16	191	17	4	61	5
23459	42.29	45.29	3.00	17.67	0.025	9.68	8.98	0.35	7.71	0.2	2.72	0.32	48.54	0.91	0.02	97.12	1.7	1	124	43	25	1	73	10
23460	66.07	69.07	3.00	14.43	0.115	1.18	1.75	2.12	2.86	0.04	2.39	0.09	71.75	0.19	0.07	96.97	0.2	1	103	4	29	1	40	5
23461	95.00	98.00	3.00	15.57	0.06	3.04	2.82	3.24	1.19	0.1	3.04	0.11	68.42	0.3	0.66	98.53	0.6	6	25	13	11	1	44	5
23462	108.36	111.36	3.00	17.47	0.03	10.19	8.67	1.1	7.47	0.23	2.29	0.32	48.6	0.97	0.19	97.55	2.2	1	91	47	26	1	80	5
23463	130.15	133.15	3.00	16.1	0.07	1.87	3.74	1.46	1.75	0.1	5.7	0.11	66.44	0.51	0.12	97.98	1	1	213	16	25	1	71	5

Appendix II

Diamond Drilling Invoices

FRONTIER DRILLING LTD.
19644 33A AVE.
LANGLEY, B.C. V3A 7X1
PHONE: 604-530-4100

RECEIVED
OCT 18 1989
Ans'd

INVOICE

DATE October 5, 1989 PERIOD Sept. 16 - 30, 1989 INV. # 8908-3

JOB # Minnova/Maggie 8908 LOCATION Squamish, B.C.

IN ACCOUNT WITH: Minnova Inc.
4th Floor - 311 Water Street
Vancouver, B.C. V6B 1B8
Phone: 681-3771

PAGE ONE:	DRILL FOOTAGE CHARGES	$70,056,72
PAGE TWO:	FIELD COST CHARGES	$ 2,264.00
PAGE THREE:	SUPPLIES AND SERVICES	$ 4,032.55
	TOTAL INVOICE	$76,353.27

Invoice due October 27, 1989

MINNOVA INC.

VENDOR NAME	INVOICE NUMBER OR DATE	CURRENCY 1. CDN 2. US	F. I. L.
FRONTIER DRILLING	OCT 5/89	1	

ACCOUNT CODE			AMOUNT	CR X
GENERAL LEDGER	DETAIL	EXPLORATION PROJECTS		
~~7 05 8 0~~	~~6 0 1 0~~	~~2 1 6~~	~~33 744 37~~	
7 05 8 10	6010	618	76 353 27	

DRILL FOOTAGE CHARGES

	CASING			CORING		
HOLE NUMBER	FROM	TO	TOTAL	FROM	TO	TOTAL
MM-18				383	492	109
"				492	984	492 *
				984	1476	492 * *
				1476	1737	261 ***
MM-19	0	20	20	20	492	472
				492	984	492 *
				984	1237	253 **
MM-20	0	10	10	10	492	482
				492	541	49 *
MM-21	0	10	10	10	492	482
				492	504	12 *
Totals			40			1545
						1045 *
						745 **
						261 ***

CASING 40' ÷ 3.28 = 12.2 metres X $59.86 = $ 730.29

Coring 1545' ÷ 3.28 = 471. metres X $59.86 = $28,194.06

CORING 1045' ÷ 3.28 = 318.6 metres X $64.14 = $20,435.00

Coring 745' ÷ 3.28 = 227.1 metres X $66.42 = $15,083.98

CORING 261' ÷ 3.28 = 79.6 metres X $70.52 = $ 5,613.39

TOTAL DRILL FOOTAGE CHARGES $70,056.72

FIELD COST CHARGES

DATE Sept.	SHIFT	MAN HOURS RATE:$28.00	DRILL HOURS RATE:$38.00	DRILL HOURS NONOPERATING RATE:$28.00	TRACTOR HOURS RATE:$65.00	TRAVEL TIME RATE:$28.00	MISC. -
20	D	8	4				
21	D			2			
21	N	2	1				
25	D	10	5				
25	N	4	2				
26	D	10		6			
Oct 1	D	12					
		46	12	8			

MAN HRS. 46 hrs. X $28.00 = $1,288.00 TRACTOR HRS. 8 hrs. X $65.00 = $520.00

DRILL HRS 12 hrs. X $38.00 = $ 456.00 DRILL HRS.N/O -

TRAVEL TIME - MISC. -

TOTAL $2,264.00

SUPPLIES AND SERVICES

MUD AND ADDITIVES:

Lost circulation - 15 Pails Pac-Vis polymer @ $93.40	$1,401.00
TOTAL	$1,401.00

DRILL BITS CHARGED:

1 NQ core bits due to lost circulation fault @ 80% of $603.30	$ 482.64
TOTAL	$ 482.64

OTHER DIAMOND PRODUCTS:

MM-20 - 1 shoe
MM-21 - 1 shoe

3 NW casing shoes left in holes - $170.24	$ 510.72
1 NW casing shoes left in holes - $240.43 heavy set	$ 240.43
TOTAL	$ 751.15

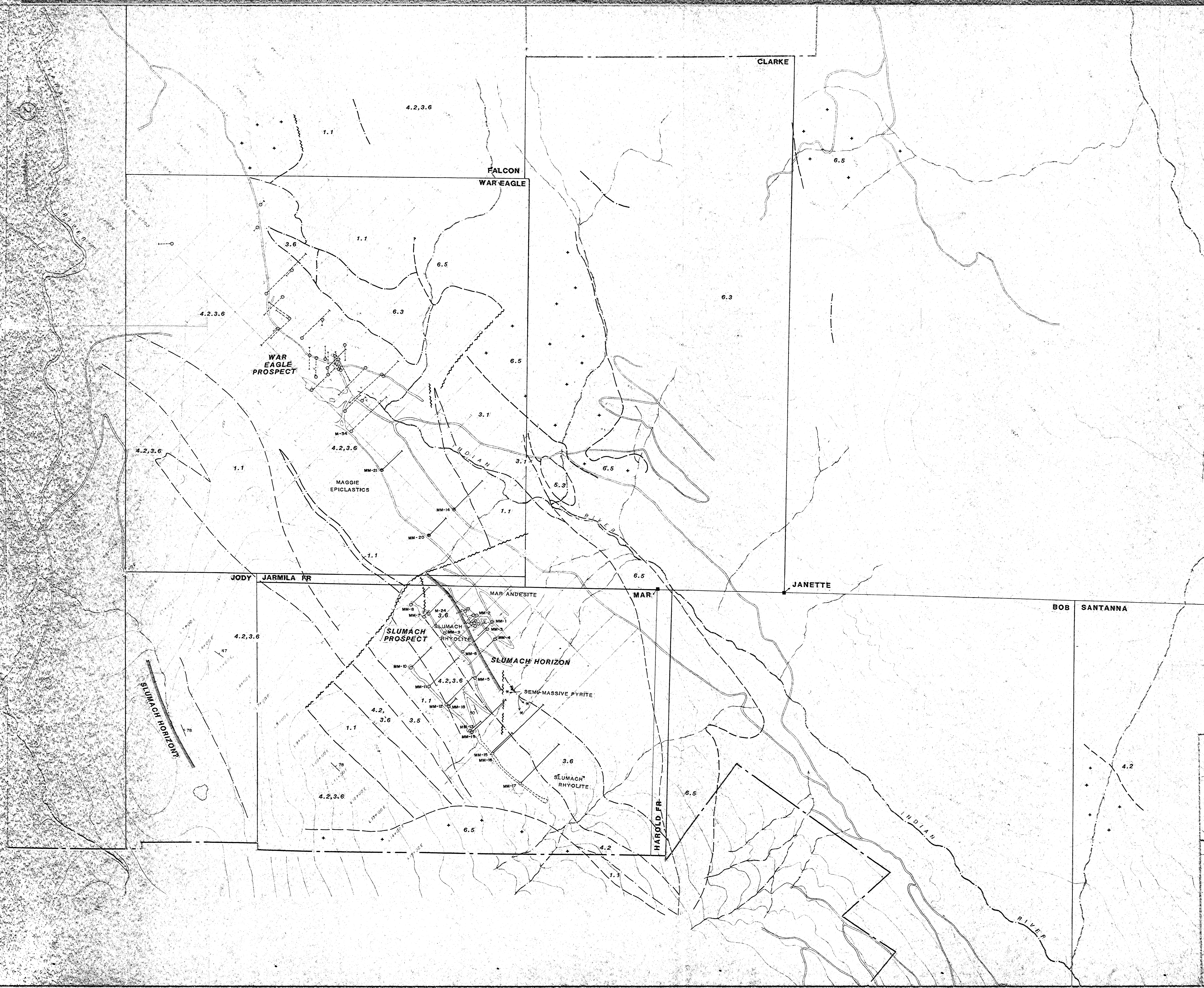
DRILLING TOOLS LOST OR DAMAGED:

7 NW 10' casing left in holes - $169.68 - MM-16, 17,18,19,20,21	$1,187.76
MM-20 - 10' casing	
MM-21 - 10' casing	
TOTAL	$1,187.76

MISC.:

COREBOXES:	
FUEL	
RENTALS	
HOLE TESTING 3 tests @ $70.00	$ 210.00
MISC.	
TOTAL	$ 210.00

TOTAL SUPPLIES AND SERVICES	$4,032.55



MESOZOIC

CRETACEOUS

COAST PLUTONIC COMPLEX

MOUNTAIN LAKE PLUTON
SQUAMISH PLUTON
FURRY PLUTON

LOWER CRETACEOUS

MIDDLE GAMBIER GROUP–BRITANNIA PENDANT

LITHOLOGY

- 6 FELSIC INTRUSIONS
  - 1 Dacite(in part synvolcanic-flows?)
  - 2 Rhyodacite
  - 3 Rhyolite
  - 4 Granodiorite
  - 5 Granite
- 5 MAFIC INTRUSIONS
  - 1 Basalt
  - 2 Andesite
  - 3 Diorite–Quartz Diorite
  - 4 Gabbro
  - 5 Diabase
  - 6 Lamprophyre
- 4 SEDIMENTS
  - 1 Chert(Silic. ash)
  - 2 Argillite Tuff Wacke
  - 3 Siltstone
  - 4 Greywacke
  - 5 Conglomerate
- 3 FELSIC VOLCANICS
- 2 INTERMEDIATE VOLCANICS
- 1 MAFIC VOLCANICS
  - 1 Massive Flow
  - 2 Pillowed Flow
  - 3 Pillow, Flow Breccia
  - 4 Breccia
  - 5 Lava/Dome
  - 6 Tuff/Ash
  - 7 Crystal Tuff
  - 8 Lapilli Tuff
  - 9 Lapillistone
  - 10 Tuff Breccia
  - 11 Debris Flow
  - 12 Heterolithic Breccia
  - 13 Monolithic Breccia

o--- PLACER or MAGGIE MINES DRILL HOLE

o— MINNOVA DRILL HOLE

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,297

MAP AREA

MINNOVA Inc.

MAGGIE OPTION

1989

GENERALIZED GEOLOGY & DRILL HOLE LOCATIONS

0 100 200 300 400 500

SCALE 1:5000

[illegible]

DRAWN BY: CMB/sg

DATE JUNE 1989

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