

GEOLOGICAL REPORT

ON THE

CIMADORO GROUP

MORESBY ISLAND-QCI

SKEENA M.D.

103F/1

LAT: 53° 05'    LONG: 132° 15'

BY

EFREM SPECOGNA

OCTOBER 25, 1989

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VANCOUVER, B.C.

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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## SUMMARY

The Cimadoro prospect is a new discovery which appears to be a typical stratabound volcanogenic massive sulphide discovery.

Previous copper anomalies outlined by the sampling and the silting led to a sulphide discovery.

Mineralization occurs between the karmutsen porphyritic mafic flows and rhyolitic flows.

A mapping report of the mineralized area was conducted and an independent sampling of the mineralization confirmed the previous results.

A base map of the Cimadoro area was constructed from air photos.

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INTRODUCTION

The Cimadoro prospect is a recent discovery that is a typical stratabound volcanogenic massive sulphide deposit.

HISTORY

The area covered by the Cimadoro claims, the Lucimin claims, and the surrounding area was first prospected by Trinco and Specogna in 1971 searching for a porphyry copper deposit.

Extensive silt collection and rock prospecting was performed. Geochem assays analysis were paid in part by Kennco and Cities Services, but mostly by Dennison Mines. Mercury and copper anomolies were detected at several localities but poor accessibility resulted in no work til 1988.

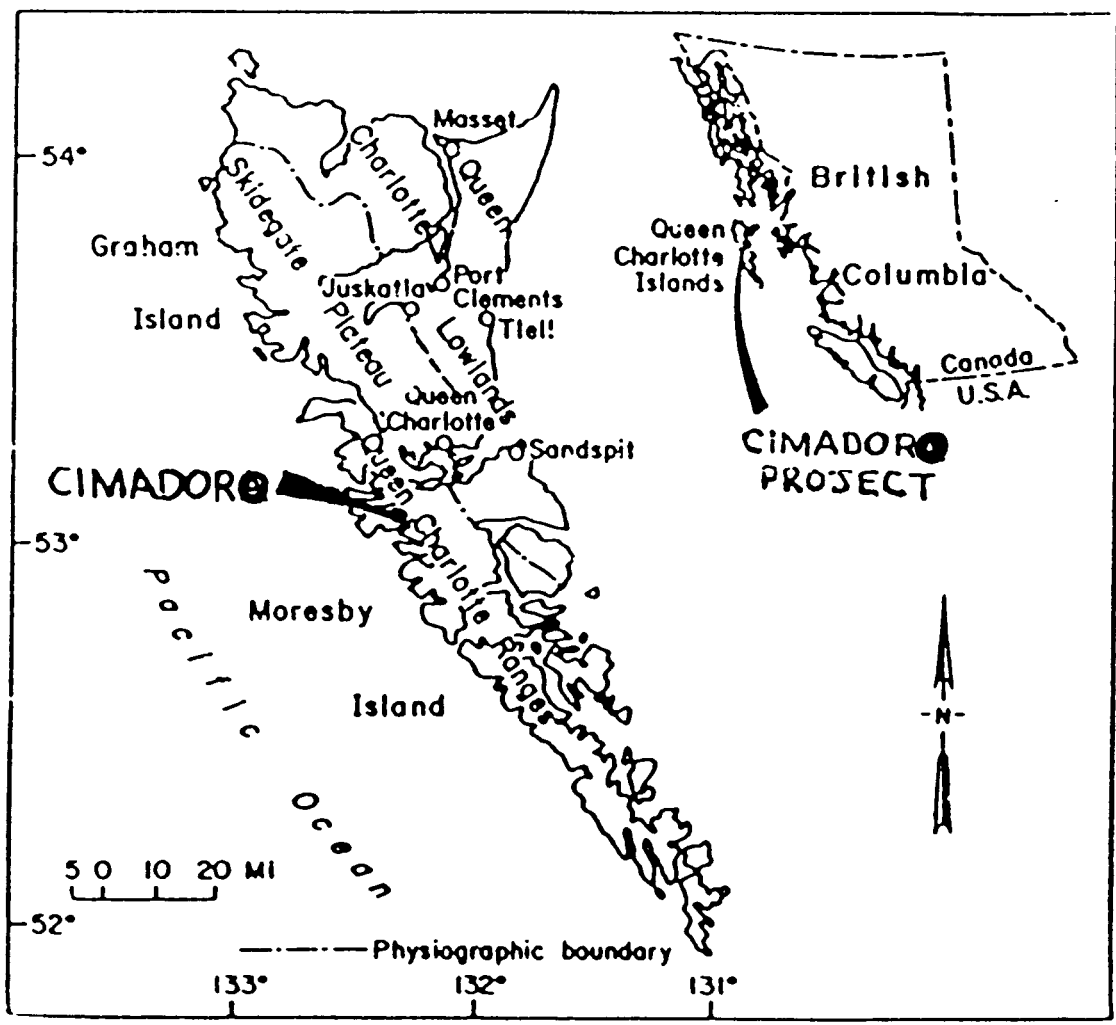
In 1988 the writer visited the area, which is now more accessible. A logging road has been extended to within 500 meters of one of the old copper anomolies. Prospecting resulted in the discoveries of massive sulphides. The Cimadoro claims were staked for Specogna Mineral Corporation and later sold to Doromin Resources Ltd.

The writer spent several days rock chip sampling and silting the latter to compare 1971 and 1989 analysing techniques.

Dr. Robert Gale visited the property in September of 1988 in a downpour of rain, to confirm gold values in the showings and to prepare a report for the purpose of raising capital via the V.S.E. A copy of Dr. Gale's report is contained in Appendix I.

The recommendation to build an access road to the showings could not be fulfilled by the company because a cutting permit from some forestry employees could not be secured, even though various trips to the area by numerous government department representatives found no environmental problems.

The property was then dealt to Teck Corporation in June of 1988. Also in June, an attempt by Dihedral Exploration to map the rock bluff hosting the sulphide mineralization was thwarted by bad weather. More readily accessible ground was mapped. A copy of Dihedral's report is contained in Appendix II.



DOROMIN RES. LTD.  
FIGURE 1.  
LOCATION MAP

## REGIONAL GEOLOGY

The rocks in the area have been mapped by Dr. A. Sutherland Brown as triassic volcanic with comagmatic porphyry flows and limestone lenses. Karmutsen formation at this locality was supposed to have covered the largest intermittent areas on the Queen Charlotte Islands. This is now doubtful, as in the center of the area rocks of uncertain age are exposed over a large area.

## LOCAL GEOLOGY

The rocks to the east and northeast of the Deena River are mapped by Dr. A. Sutherland Brown as karmutsen regionally metamorphosed.

To the south and southwest the rocks are of unknown age. They are comprised of andesitic tuffs, cherts, rhyolites, limestones, intrusive sills, and sills or dikes of volcanic rocks similar to the karmutsen.

## MINERALIZATION

The mineralization is located between the karmutsen porphyritic flows to the northeast, and rhyolitic flows to the southwest. It appears to be vertical or possibly slightly overlain by the karmutsen. The limestone is divided from the mineralization by a shreaded andesitic tuff containing 2% to 3% barium. The andesitic tuff is in contact with several tens of meters thick coral beds that extend for several 1000 meters to the northwest and possibly all the way to Marble Island.

## STATEMENT OF COSTS

Base Map	\$ 6,220.00
Dr. G.E. Gale Geological Report, and Dihedral Exploration Ltd Geological Report	10,000.00
Assessment Report	500.00 -----
TOTAL COSTS	\$16,720.00 =====

STATEMENT OF QUALIFICATION

I Efrem Specogna certify that I am a self-taught prospector and I have been prospecting for 30 years in British Columbia.



Efrem Specogna  
October 26, 1989



**R.E. GALE AND ASSOCIATES INC.**

4338 RUTH CRESCENT  
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PRELIMINARY REPORT-CIMADORO GOLD PROSPECT  
MORESBY ISLAND-Q.C.I.  
SKEENA M.D. 103F/1

BY R.E. GALE, PHD. P.ENG.  
SEPTEMBER 18, 1988

## INTRODUCTION

On September 29, 1988 in company with E. Specogna, M. Specogna and R. Tremblay, I examined and sampled a showing on the Cimadoro claims, Queen Charlotte Islands, covering a new gold discovery made by E. Specogna.

This was a brief examination to determine the type of rocks hosting the gold mineralization and confirm the general tenor of the gold values as found in Mr. Specogna's initial work.

The results of my initial look at the showing are encouraging and a serious program of exploration of the whole claim group is recommended.

## LOCATION AND ACCESSIBILITY

The location of the Cimadoro 1-4 claims is shown in Figures 1 and 2. The claims are located in NTS area 103F/1 near the headwaters of Deena Creek on Moresby Island, the southernmost island of the Queen Charlotte Islands, about 32 Kms. WSW of Sandspit airport.

The centre of the claims is readily accessible by good gravel active logging roads but to reach the showings, a one hour climb by foot to a point about 200 metres in elevation above the road is necessary at the present time. Road access to the showings can be constructed as part of a future exploration program.

## CLAIMS AND OWNERSHIP

The Cimadoro gold prospect is covered by a block of 4 claims comprising 80 units. The claims are recorded in the name of Specogna Minerals Corporation and were located by E. Specogna July 15, 1988, being recorded August 4, 1988 in the Skeena Mining Division.

Claim Name	Record Number	Units	Anniversary Date
Cimadoro 1	6835	20	August 4, 1989
Cimadoro 2	6836	20	"
Cimadoro 3	6837	20	"
Cimadoro 4	6838	20	"

The location of the Legal Corner Post for the 4 claims is as shown in Figure 2. The claims have not been surveyed so that the exact position of the claim boundaries is not known at present.

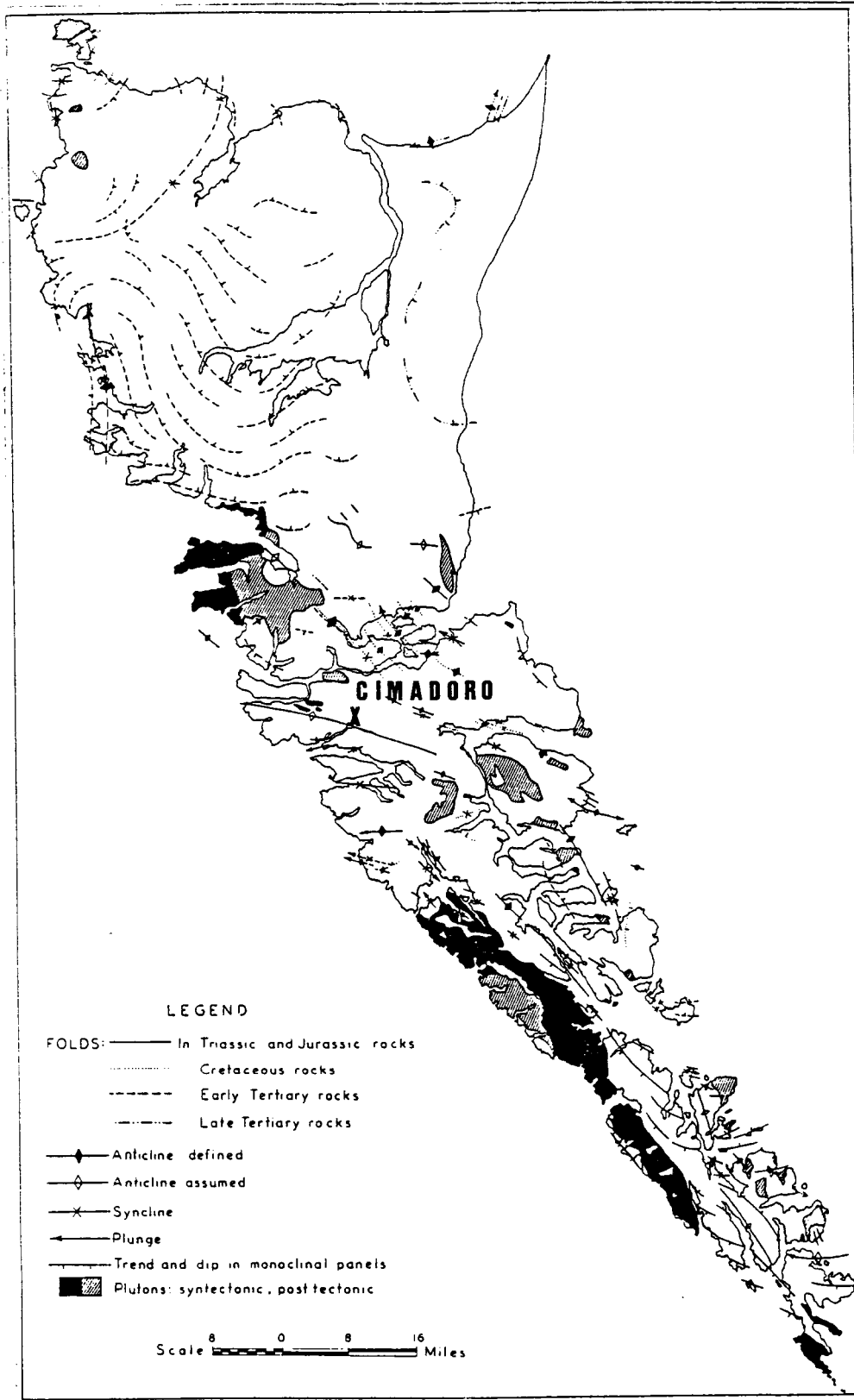
### GENERAL GEOLOGY

Figure 3 shows the general geology of the Deena Creek area around the Cimadoro claims as taken from B.C. Department of Mines Bulletin 54, 1968.

According to Bulletin 54, the country rocks in the claims area are Triassic Karmutsen volcanic rocks, andesite and basalt, which contain interbeds of limestone, especially near the top of the sequence. The trend of bedding is shown as WNW dipping steeply NE.

As shown in Figure 4, also taken from Bulletin 54, the claims area lies close to the axis of a WNW trending anticline running for 30 kilometres across northern Moresby Island. Syntectonic intrusions appear to follow the same trend as the western end of the major fold axis. The presence of float material of dioritic intrusive rock on the Cimadoro claims suggests that intrusive rocks may be present in the claims area.

Triassic-Jurassic Kunga Formation limestone overlies the Karmutsen volcanic rocks in the map area, and it is possible that these rocks could also occur on the Cimadoro claims as would be determined by detailed work.



FROM BCDM BULL. 54

**DOROMIN RESOURCES**

Q.C.I.  
 SKEENA MD. STRUCTURAL GEOLOGY

Scale 1" = 10 MI.	Date 9 / 88	Approved	File No. FIG. 4
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R.E. GALE AND ASSOCIATES INC.

## GEOLOGY-CIMADORO SHOWING

The showings on the Cimadoro claims occur near the base of prominent cliffs in a small steep ravine at the headwaters of Deena Creek. The area is strongly fractured and being rapidly eroded with blocks of rock tending to move downslope on steep talus slopes. Because of the presence of strong quartz replacement and oxidized pyrite, the structure and other geological relationships in the showings are not clear. Figure 5 shows the results of the preliminary study of the geology of the showings.

### (1) INITIAL DISCOVERY AREA

The initial discovery was of mineralized boulders in a small creekbed quite far downhill to the northeast of the showings, at an elevation of about 350 metres. The boulders were found in a parallel but separate drainage from the ravine where the mineralization was later found in place by Specogna.

Two one-metre diameter boulders examined are composed of abundant fine grained pyrite and chalcopyrite with traces of galena and sphalerite replacing thin bedding laminations in a strongly silicified limestone. Lesser sulphides also occur as coatings along fractures cutting the replacement sulphides along the bedding. Sample 061301 consisting of random chips from both rocks assayed 0.62% Cu., 0.11% Pb., 1.34% Zn., 0.92 oz. Ag./ton and 0.009 oz. Au/ton. The bedrock source of the boulders was not seen, but it must lie to the NNE of the Main showing, and the type of alteration and mineralization noted in the boulders is similar to that seen in the Main showing.

### (2) MAIN AND WEST SHOWINGS

At an elevation of about 500 metres, silicified limestone and chert mineralized with sulphides are exposed in outcrop on both the east and west sides of a NNW trending steep ravine. The floor of the

ravine is covered by talus, mainly derived from higher up the ravine. Some of the talus is dioritic suggesting the possibility that dioritic intrusive rocks may be present nearby, although these rocks could also be a phase of the volcanic rocks which are the main country rocks in the area.

#### (2A) WEST SHOWING

In the West showing in the ravine a one metre wide band of limestone lies in the hangingwall of a thin gouge-filled fault striking NW and dipping 80 degrees to vertical to the southwest. The footwall rock is a dark green andesite or gabbro dike or flowrock. The limestone grades westward and upward into a highly siliceous altered limestone and/or chert carrying disseminations and fracture fillings of pyrite, chalcopyrite and sphalerite. A 0.3 metre vertical chip sample taken from the base of the silicified zone upwards, sample 061307, assayed 0.29% Cu., 0.07% Pb., 0.57% Zn., 0.18 oz./ton Ag. and 0.003 oz./ton Au. The vertical and horizontal extensions of this mineralization are obscured by overburden, but about 5 metres higher uphill, outcrops of chert carrying weak disseminated pyrite are exposed.

#### (2B) MAIN SHOWING

On the NE side of the ravine in the Main showing, the rocks are strongly fractured, faulted and in places strongly oxidized. Some large blocks of rock may have fallen out of position from the cliff above where some blocks of rock appear to be loose and somewhat unstable. Only the base of the cliff at the edge of talus was examined and sampled.

The host rock in the Main showing appears to be silicified limestone, bands of which are heavily pyritized along bedding or fracture zones. Some of the rock with only a little sulphide is very

heavy and must be composed of either ankerite or barite. Anomalous Ba. in geochemical amounts is present in assays, but not enough to suggest the presence of massive barite. Further assaying for Ba. will be required to prove or disprove its presence in significant amounts.

Fracture trends in the showing are NNE to E-W and NW. A steep-dipping prominent fault trending N30-40 East cuts upward through the bluff. Along the east side of the fault, a strong 1 metre wide zone of red clay fault gouge occurs. Sample 061304, a grab sample of this red oxidation product assayed 1.212 oz./ton Au., 39.72 oz./ton Ag., 2.05 % Pb. and 0.27% Cu. Four other samples taken of weakly oxidized rocks on either side of the fault showed gold values ranging from 0.049 to 0.121 oz./ton Au.

It is evident that there has probably been some enrichment and accumulation of gold values in the strongly oxidized fault gouge material, but judging by the relatively high gold assay of the oxidized gouge, better gold values may be associated with mineralization along the NE fault than in the surrounding rocks. The gold values along the fault below the zone of oxidation can only be determined by drilling the fault structure below the outcrop because surface oxidation is probably deep here.

It appears from the initial examination that the best mineralization is associated with the NE fault and that the Main zone of mineralization trends northeast. On the southwest, this zone may be terminated or offset by faulting along the northwest trending ravine. Similarly, the mineralized zone may be offset or terminated in the cliff face to the northeast. The presence of the mineralized boulders in a branch ravine to the NNE suggests that the mineralized zone may continue some distance to the NE, but more detailed work is required to substantiate this impression.

SAMPLE RESULTS

Sample descriptions are shown below in Table One. Analytical results are included as Appendix One.

TABLE ONE-CIMADORO GOLD-DESCRIPTION OF SAMPLES

Sample Number	Type Sample	Location
061301	Chips from 2 boulders 1 metre in diameter-silicified banded limestone with strong pyrite and chalcopyrite.	Gully east of main gully
061302	Grab sample, silicified, heavily pyritized limestone.	Main showing
061303	Picked sample, heavily pyritized silicified limestone.	Main showing Same spot as 061302
061304	Red, clay-rich gouge zone along N 30 E. fault zone, approx. 1 metre wide. Grab sample.	Main showing
061305	Strong pyrite in limestone, west side of fault. Vertical chips across 0.7 metres.	Main showing
061306	Chip sample across 0.3 metre wide NW trending fracture zone-silicified, pyritized limestone.	Main showing
061307	Vertical chip sample across 0.3 metres- silicified, pyritized limestone with good sphalerite.	West showing



## CONCLUSIONS AND RECOMMENDATIONS

The Cimadoro gold prospect is a new discovery of a type possibly not previously known in the Queen Charlotte Islands. Although base metal skarn deposits replacing limestone in the Karmutsen volcanics are known in the Queen Charlottes and also Vancouver Island, gold associated with base metals and pyrite replacing limestone is known in British Columbia mainly only in gold deposits in Cambrian limestone in the Barkerville area.

As a new completely untested property, Cimadoro is deserving of an immediate program of detailed mapping and sampling to be followed by diamond drilling, once the structural controls and approximate dimensions of the mineralized zone are determined.

In addition to road building in the first phase of work, some helicopter use will be required for access to the more rugged parts of the property, both of which will add substantially to the cost of the geological work to be done in the first phase. Helicopter use might also be required for drill moves in the second phase-drilling program.

## ESTIMATED COST

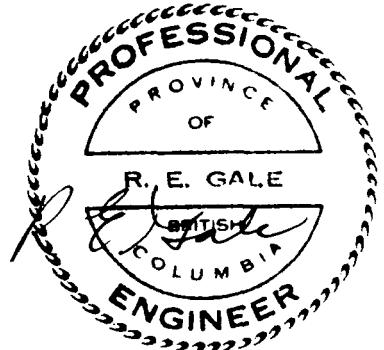
### (1) FIRST PHASE

Preparation of base map from airphotos 1:5000 scale	\$ 5,000
Mapping- Wages-2 men	5,000
Consulting Fees	4,000
Roadbuilding including some drilling-blasting	25,000
Room and board and travel expenses	5,000
Truck rentals and fuel	5,000
Helicopter charter 20 hours at \$550/hr.	11,000
Report and office costs	3,000

Assaying	2,000
Contingency	10,000
	-----
Total	\$ 75,000

(2) SECOND PHASE

Diamond drill 800 metres NQ drilling at all up	
cost of \$150 / metre	\$ 120,000
Helicopter support- 40 hours at \$550/hr.	22,000
Consulting Fees	8,000
Assays	5,000
Report and office costs	5,000
Contingency	20,000
	-----
Total	\$ 180,000
Grand Total	\$ 255,000



R.E. Gale Ph.D., P.Eng.

R.E. Gale and Associates Inc.

September 18, 1988

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

GEOCHEMICAL/ASSAY 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. AD DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK AG\*\* + AU\*\* BY FIRE ASSAY FROM 1/2 A.T.

DATE RECEIVED: AUG 31 1988 DATE REPORT MAILED: *Sept 7/88* ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

SPECOGNA MINERALS CORP. File # 88-4102

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Tl	B	Al	Na	K	V	Ag**	Au**
	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	PPM	oz/t	oz/t	
061301	7	6218	1162	13415	30.7	19	63	1084	12.01	208	5	ND	1	124	136	30	17	11	8.92	.003	5	13	.50	9	.01	5	.14	.01	.01	1	.92	.007
061302	18	450	12899	28704	105.0	29	6	207	6.87	172	5	3	1	21	141	57	2	57	.40	.046	2	63	.28	8	.05	8	.37	.01	.12	2	3.05	.049
061303	12	418	6173	5239	223.5	6	7	1239	1.24	108	5	5	1	111	21	67	2	3	5.88	.015	4	1	.05	33	.01	2	.29	.01	.01	1	7.01	.121
061304	73	2731	20544	4260	288.0	86	45	6675	16.55	590	13	34	1	34	9	52	2	97	.24	.145	9	85	1.70	117	.09	2	3.98	.01	.13	1	39.72	1.212
061305	28	343	2865	5423	111.5	34	7	1937	2.56	90	5	3	1	126	23	51	3	39	16.90	.039	7	33	.30	19	.04	2	.72	.01	.14	1	3.13	.102
061306	12	261	4361	3607	99.3	2	2	450	2.41	45	5	2	1	74	13	75	2	5	3.10	.005	2	3	.03	20	.01	2	.10	.01	.01	1	3.32	.078
061307	9	2932	733	56565	6.8	62	18	485	9.78	111	5	ND	1	5	194	6	19	56	.34	.016	4	101	1.49	6	.01	5	.91	.01	.01	3	.18	.003
STD C	19	61	38	131	7.2	72	31	1044	4.12	45	16	7	36	52	20	17	20	61	.48	.086	39	60	.92	180	.06	40	2.00	.06	.14	12	-	-

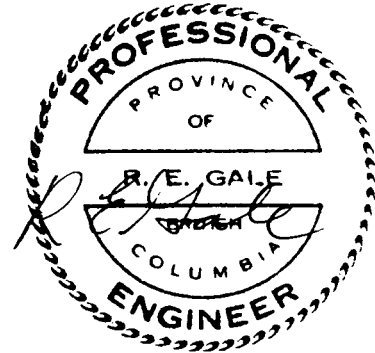
- ASSAY REQUIRED FOR CORRECT RESULT for Pb Zn > 10,000 ppm  
 Ag > 35 ppm

CERTIFICATE

-----

I, Robert E. Gale , do hereby certify that:

1. I am a geological consultant with R.E. Gale and Associates Inc. with my office at 4338 Ruth Crescent, North Vancouver, British Columbia.
2. I graduated from Stanford University with a PhD. in geology in 1965.
3. I have been practicing my profession as a geologist for thirty three years.
4. I have been a member in good standing with the Association of Professional Engineers of British Columbia since 1966.
5. This report is based on my examination of the Cimadoro Claims and the study of available data on the area.
6. I have no interest in the property directly or indirectly or in Specogna Minerals Corporation or Doromin Resources nor do I expect to receive any such interest.
7. This report on the Cimadoro claims may be used for the corporate purposes of Specogna Minerals Corporation or Doromin Resources as long as the context of the report is not altered so as to change its meaning.



Robert E. Gale, PhD. P.Eng.  
R.E. Gale and Associates Inc.  
September 18, 1988

GEOLOGIC REPORT  
on the  
CIMADORO PROPERTY

June 15, 1989

by  
DIHEDRAL EXPLORATION  
Box 110918  
Anchorage, AK 99511

for  
DOROMIN RESOURCES, ltd.  
Suite 615 - 837 West Hastings  
Vancouver, B.C. V6C 1B6

DIHEDRAL EXPLORATION  
- Cimadoro Property  
May 31-June 1, 1989

Geoff Radford  
Box 110918  
Anchorage, AK 99511

Kate Bull  
Box 81418  
Fairbanks, AK 99708

Report was compiled by K. Bull

## INTRODUCTION

In May, 1989 Geoff Radford of Dihedral Exploration was contacted by Efrem Specogna of Doromin Resources, ltd. in a request to map and sample the Cimadoro property on Moresby Island, B.C. The proposed work was estimated to take two days, and was completed by Geoff Radford and Kate Bull on May 31 and June 1, 1989. This report describes what Dihedral Exploration did at Cimadoro and what conclusions we reached as a result of that work. A complete historical overview of the property or of the regional geology is not included in this report, but these may be found in reports by R.E.Gale (1988) and by A.Sutherland Brown (1968).

The Cimadoro property consists of four claims located on the west side of Moresby Island, Queen Charlotte Islands, B.C. (Figures 1 and 2). The claims are accessible by logging roads, and the mineralized shows can be reached by walking 3-400m in elevation up moderately to steeply graded rock slides and slopes from the road's end.

The work completed by Dihedral Exploration in May, 1989 included:

- construction of a topographic and a geologic map of an approximately 300 square meter map area which includes and extends beyond the known mineralization, the Main and West Shows, and a new mineralized zone, the New Show (Plate 1). This map follows the host rock unit of the discovery mineralization and the surrounding units.

- construction of a detailed geologic map of the Main (and West) Show (Plate 2).

- sampling of each rock unit and additional outcrops for assay and for hand sample referral.

Also included in this report are:

- Sample Descriptions

- Compiled Field Notes which includes descriptions of outcrops within the detailed map, Plate 2.

## PROCEDURES

Mapping was done by tape and compass survey, with mapping/sampling stations established as control points. The stations were marked in the field with flagging and with metal tags inscribed with Dihedral's name, the station number and the date. The station locations are noted in the compiled field notes and on the included maps. Sample locations are marked by flagging in the field and recorded in the notes and on the maps.

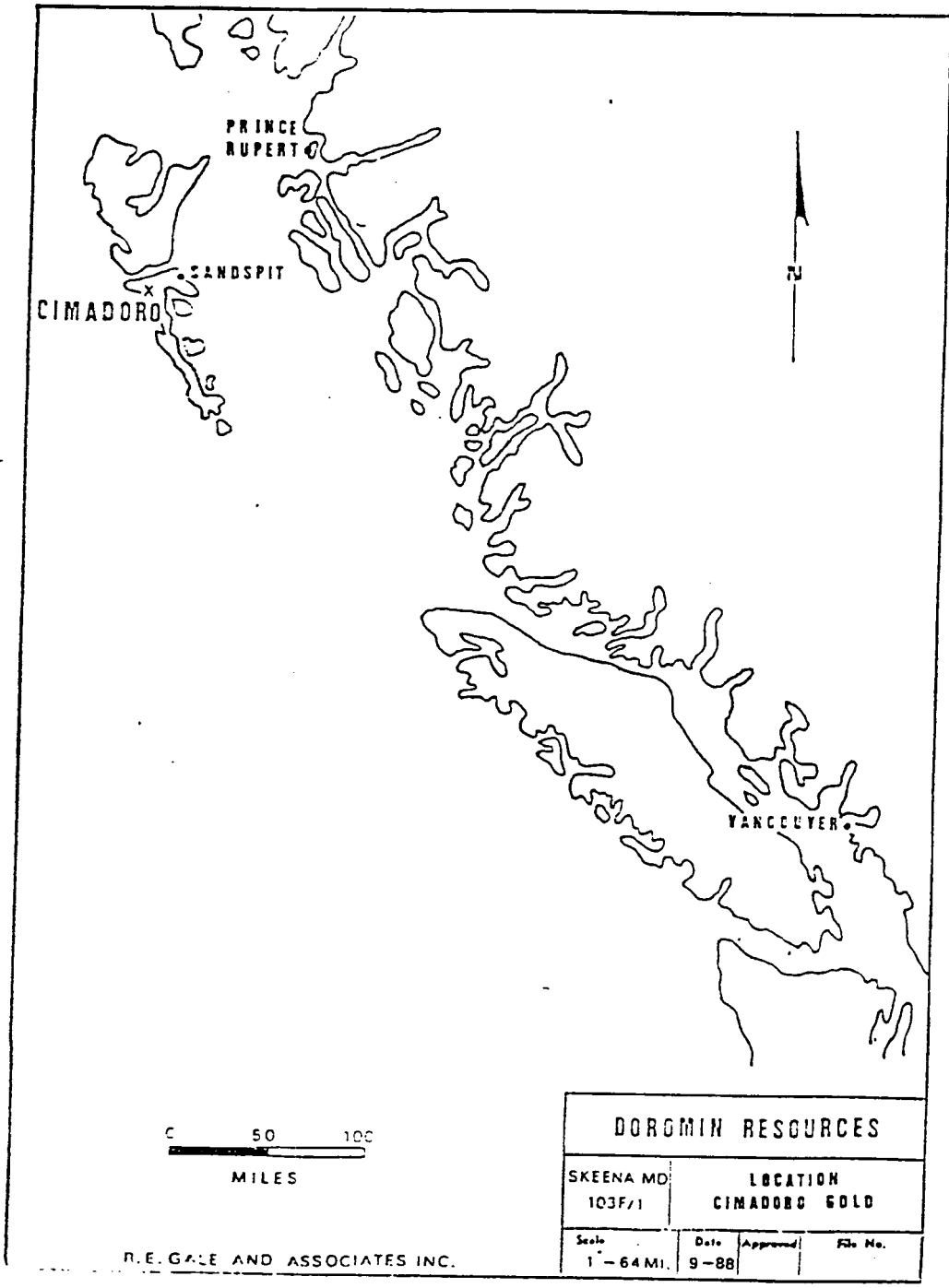


Figure 1. Location of Cimadoro Property, B.C. (from Gale, 1988)



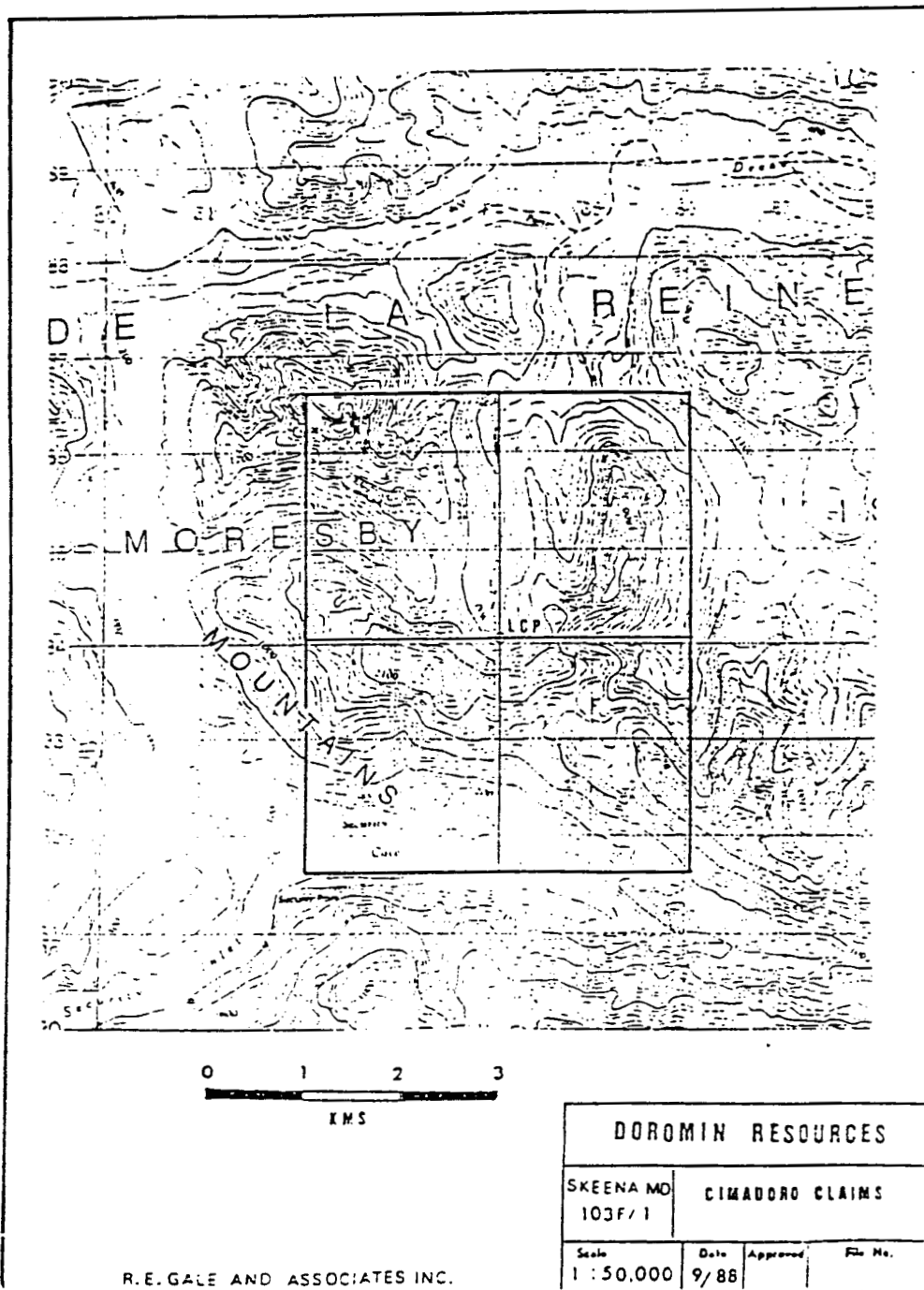


Figure 2. Detailed Location of Cimadoro Claims (from Gale, 1988)

The topographic map was constructed from station location and elevation recordings, and the geology outcrop map overlaid on that.

## ROCK UNIT DESCRIPTIONS

The Queen Charlotte Islands were regionally mapped by A. Sutherland Brown (1968). The Cimadoro property lies within the Karmutsen formation, a Triassic volcanic package described as including basalt massive flows, pillow lavas, pillow breccia and tuff, related sills, minor interlava limestone, and volcanic sandstone and shale. Sutherland notes that the stratigraphy of the Karmutsen varies throughout the islands, although none of the specific sections he lists are identical to the short stratigraphic section we mapped at Cimadoro.

Following are listed the rock units that were mapped on the property and descriptions of each rock type. Note that all descriptions and rock names are based solely on field observations. Refer to Plate 1 for rock unit and station locations.

**BASALT ("B")** - Identification of this rock, and of the "diorite" described below, as being extrusive or intrusive is difficult, especially since no applicable textures are seen (i.e. pillows, etc.). Thin section petrography might clarify the problem.

The only rock we called basalt in the map area was located at and east of station I, and is an aphanitic chlorite-rich rock which may have been a very fine grained version of the diorite described below.

**DIORITE ("D")** - very fine grained (.25-1mm) equigranular rock with mafic minerals comprising 50-60% of rock. Mafics have altered to chlorite. This unit is generally conformable, although locally may cross-cut bedding (e.g. southeast of station 3, approx. 13 meters, and in creek just west of station 10). Due to the fine grained texture of this unit and the chlorite alteration, it is often difficult to determine whether it is an intrusive or extrusive rock.

**PORPHYRITIC DIORITE ("Dp")** - inequigranular diorite, with 10% feldspar laths .5cm long, rare laths to 2cm, remaining rock is subequigranular .5-2mm. This unit is exposed at station 1, forming a low angle waterfall.

**ARGILLITE ("A")** - black, well indurated siltstone, well fractured and rarely without at least 3-5% pyrite in fractures and/or disseminated. The argillite unit which contains the Main Show mineralization is one continuous unit and is easily identified by its orange gossan weathering. The northern contact

of the argillite with the diorite (basalt?), north of stations 9 to 13 is probably a prominent cliff.

TUFFS, CHERTS ("TC") - massive to well-banded tuffs, cherty tuffs and cherts, dark gray to green to white. The tuffs and cherts vary laterally as well as vertically, making it difficult to break units out. A very distinctive banded light and dark gray chert unit is continuous, however. These cherts are banded on a centimeter scale, and are exposed at station 11, 20m up creek (south) from station 13, and across the creek (west) from station 16. The cherts exposed at station 7 may be the same banded cherts. They are less distinctively banded, white to purple and contain occasional lime green aphanitic mineral (maraposite?). These cherts also contain 1 sq. meter lenses (?) of mafic, chlorite-rich fine to medium grained volcanic or intrusive.

LIMESTONE ("L") - light to dark gray limestone and/or calcareous siltstone, ALWAYS mineralized. No calcareous unit mapped does not contain some disseminated pyrite at least, most contain massive to semi-massive pyrite. The main show mineralization and the show at station 16 are within a calcareous lens in the argillite package. Whether these calcareous lenses should be distinguished as a separate rock unit or are a result of calcareous ore fluids within the argillite package is a question which may be more certainly answered with further detailed work.

## MINERALIZATION

Following are descriptions of mineralization found in the entire map area (Plate 1). Plate 2 is a detailed geologic map including the Main and West Shows, and detailed descriptions of the outcrops in that map may be found in the Compiled Field Notes at the end of this report.

None of the mineralized zones were extensively sampled in detail, but rather only representative samples were taken due to time constraints.

### Main Show

The discovery mineralization, or Main Show, is an extremely gossanous lens within calcareous rocks within argillite (and tuff?). Mineralization consists of irregular lenses of massive galena, barite, sphalerite, pyrite, trace chalcopyrite (sample KB 7). Mineralization extends locally to the northwest and southeast as massive pyrite with 5% to trace sphalerite and galena in limestone/calcareous siltstone. At station 4 massive pyrite is in layers 3mm to 5cm thick, conformable to bedding strike but dipping southwest (foliation?).

West of station 5, just across the creek the calcareous unit contains massive to finely laminated pyrite with .5-2% galena (sample KB 5). Moving west on the same outcrop the pyrite forms

size-graded layers in less calcareous siltstone (sample KB 4).

#### West Show

The west show consists of 15-20% pyrrhotite and chalcopyrite with sphalerite in dark gray massive chert. Argillaceous layers contacting the chert on the bottom (north) of the outcrop contain trace chalcopyrite.

#### New Show

Up creek (southeast) from station 5 the argillites continue along strike to station 16 where there is another calcareous massive sulfide lens, approximately 5mx10m (Sample DI-7). The lens contacts altered diorite to the east and argillites to the west. Similar to the Main Show it is a calcareous lens containing massive pyrite with pods and lenses 1-2cm of sphalerite (total to 10%) and very fine grained chalcopyrite 1-3%, although no galena or barite have yet been identified.

#### Boulders

Massive pyrite and sphalerite boulders are present in the rock slide which drains the Main Show creek, in the creek which station 1 is in, and also in the creek to the east, by stations F, G and H (see Plate 1). Mineralized volcanic float is also present east of station G. These eastern creeks do not drain the Main or West shows, but would instead drain debris from the ridge above, where additional gossanous lenses have been seen.

## DISCUSSION and CONCLUSIONS

The mapping and sampling carried out by Dihedral Exploration on the Cimadoro property May 31-June 1 resulted in the identification of at least three rock units which extend consistently along a WNW strike for at least 300 meters. Mineralization is primarily found as, although not restricted to, gossanous calcareous lenses within a pyrite-rich argillite unit (Main Show, New Show).

The mineralized, highly gossanous lenses when exposed are easily visible from a distance. Several more of these lenses are visible along strike to the southeast, along the steep basin walls and on top of the ridge. Time and weather did not allow us to look at those outcrops. The presence of massive sulfide boulders in the drainage east of the Main Show drainage (stations F, G, H; see Plate 1) may indicate that the gossan outcrops above are indeed mineralized.

Thus the extent of massive sulfide mineralization is still unknown. Base metal mineralization has not yet been identified within the pyritic argillites northwest of the Main Show, although further investigation in that direction in the covered section may reveal other gossanous lenses. Mineralization to the southeast has good potential. In addition, the style of mineralization at the West Show is different than at the other shows in that the Cu and Zn are associated with pyrrhotite, there is a predominance of chalcopyrite, and mineralization is within a cherty, non-calcareous unit. This may indicate more than one kind of mineralization potential for the property.

The relationship of the mapped units to the Karmutsen Formation is as yet unclear. None of the rocks mapped as possibly being volcanic displayed pillow textures or epidote-calcite alteration in the style of the Karmutsen basalts exposed on logging roads just northwest of the map area. They may all be sills and dikes, and the sedimentary/tuff package may be part of the Triassic formation (or a sliver of older rocks??), but clearly no questions can be answered until further mapping is done.

No major structures were identified in the map area. Minor shears were observed in the creek at stations 10 to 11 and at the Main Show, and minor folds at the West Show outcrop, but no faults or large scale folds were observed.

## RECOMMENDED FUTURE WORK

As a result of the promising assays reported by R.E.Gale (1988), the identification of a new mineralized outcrop (New Show), the observation of the continuity of the mineralized host unit and additional gossanous lenses to the southeast, and the

possibility of different mineralization styles in the area, there is excellent economic potential in the Cimadoro property.

Clearly more extensive mapping and sampling needs to be done along strike on the ridgetop where Mr. Specogna has observed chert and tuff units and gossan can be seen from below, and in the steep basin walls where another gossan lens is exposed. Mapping should also continue along strike to the northwest.

In addition, in part dependant upon the assay results of Dihedral's samples, detailed chip samples should be taken and recorded to get better control on the relationships between metal values and rock and alteration types. On first observation the metals appear to be bedded and primary in nature, although more detailed study needs to be done to substantiate this. A primary origin of the sulfides within this sedimentary/volcanic package would indicate good potential for a high grade volcanogenic massive sulfide deposit.

REFERENCES

- Gale, RE (1988) Preliminary Report-Cimadoro Gold Prospect, Moresby Island-Q.C.I., Skeena M.D. 103F/1, IN Doromin Resources Prospectus, 1989, Doromin Resources, ltd., Suite 615-837 West Hastings St., Vancouver, B.C. V6C 1B6
- Brown, A. Sutherland (1968) Geology of the Queen Charlotte Islands, Bulletin 54, B.C. Department of Mines and Petroleum Resources.

Compiled Field Notes

May 31, June 1 1989

Doromina Resources

Dihedral Explorations

Cimadosa Property

May 31, June 1 1989

Moresby Is, B.C.

Elev. at log jam on road = 183m

Elev. at true end of road = 238m

- Note - all station numbers are marked in the field with orange flagging and small aluminum tags. These stations are identified by a number, with a date, and Dihedral's name. These station numbers are on all maps + figures submitted with the report.

ST ① is located at 335m elev, at the base of a prominent waterfall approx 500 meters south from the end of the logging road. Mr. Specogna has cut and flagged a trail from the road head up to this waterfall.



Pg (2)

May 31, June 1

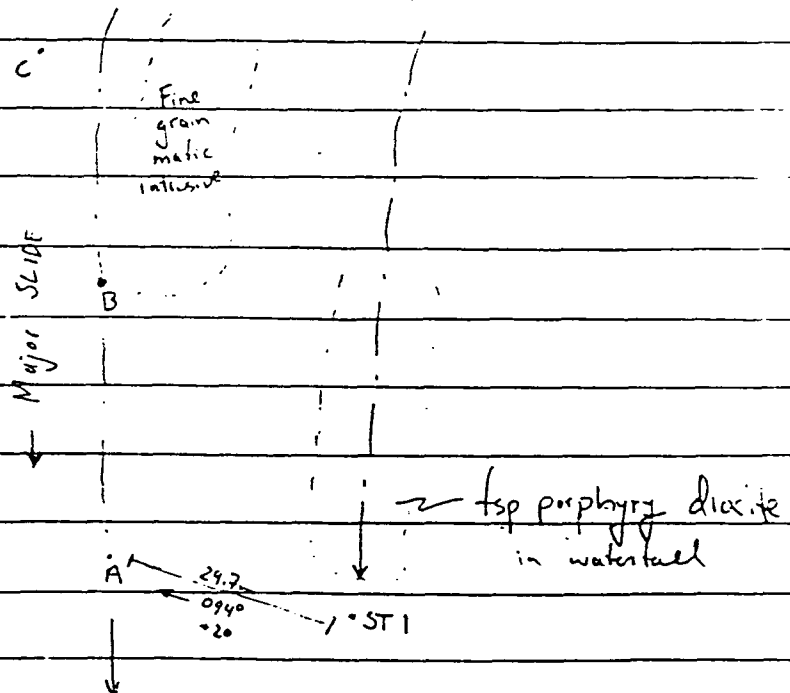
ST ① - waterfall with good exposure of a  
fsp porphyry diorite. Fsp typically to 5cm -  
occasionally to 2cm. Intrusive is slightly altered -  
mafic to chlorite. Very competent, well fractured

ST ① - (A) 29.7m, 094°, +20° inclination.

A is in center of a prominent rock slide

A-B (up slide) 100m, 158°, +31° inclination

B-C " " 75m, 165°, +33°

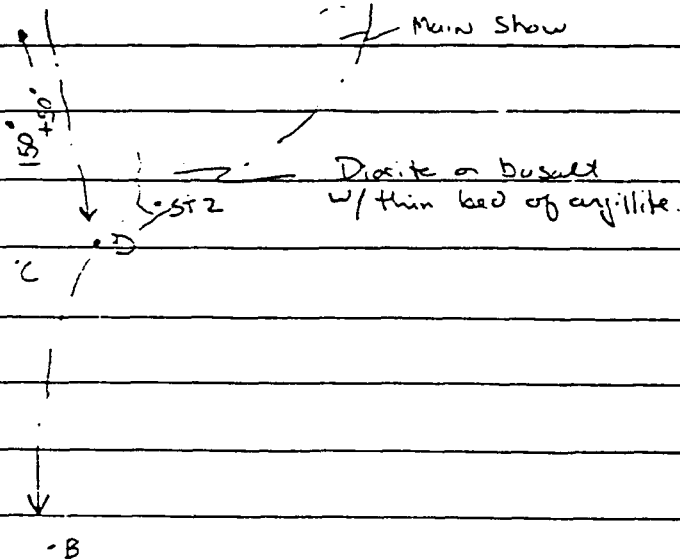


Pg ③

May 31 - June 1

C-D 13.6m, +10°, 242°

D = junction with steep waterfall



D - ST ② 5m, 242°, +10°

At ST ② a 20cm wide bed (?) of argillite is within a very fine gr. basalt or diorite. Contacts though, are conformable - 075° 80S.

Joints in basalt/diorite 025°, 75NW

ST ② - ③ 28.7m, +35°, 248°

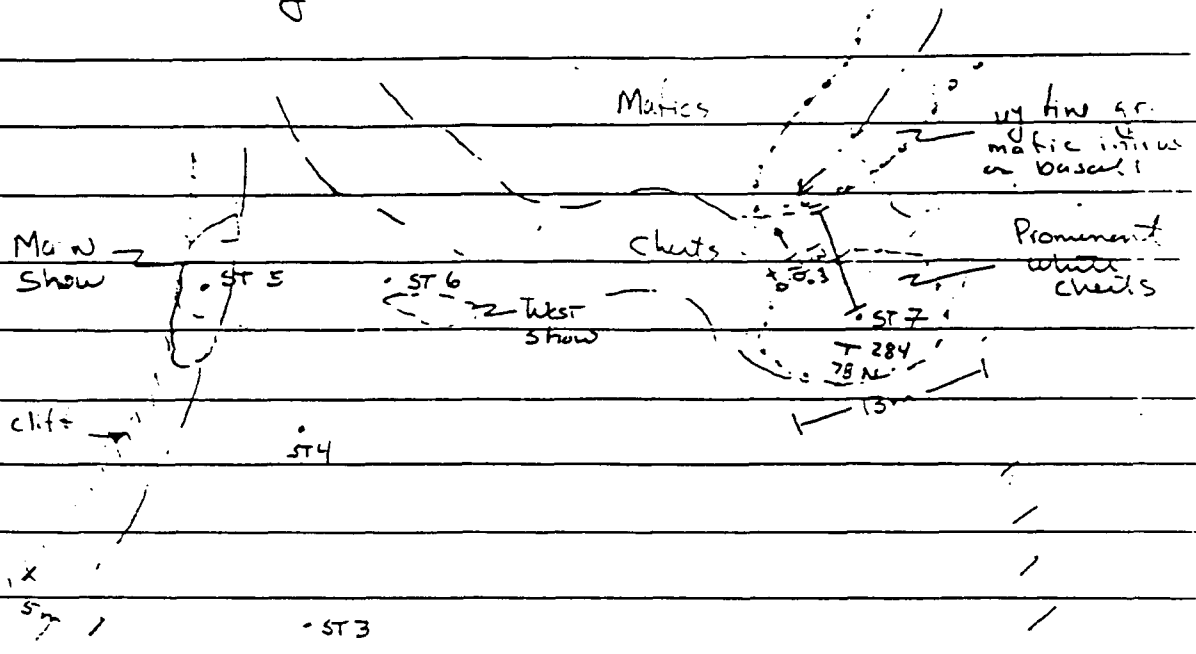
ST ③ - ④ 25.5m, +33°, 169°

ST ④ - ⑤ 19.5m, +38°, 115°

ST ⑤ - ⑥ 15.3m, -16°, 270°

ST ⑥ - ⑦ 30.7m, +20°, 280°

Pg (4)  
May 31 - June 1



See Map of Main Show  
Area for Details.

ST 6, "West Show" contains disseminated ccp, pyrite  
+ fine gr. sph in argillites + calc-schists.  
Much evidence of folding - detailed in  
map of the Main show. Bedding/banding  
between ST 6-7 is variable, dips change  
dramatically - also indicative of folding. See  
Detailed Map (Plate 2) and Detailed Map Descriptions  
(Page 11, these notes).

ST ⑦

Cherts in ST 7 outcrop are generally pure - ranging from white to dull purple to pale green (either a chloritic component or perhaps marafosite?)

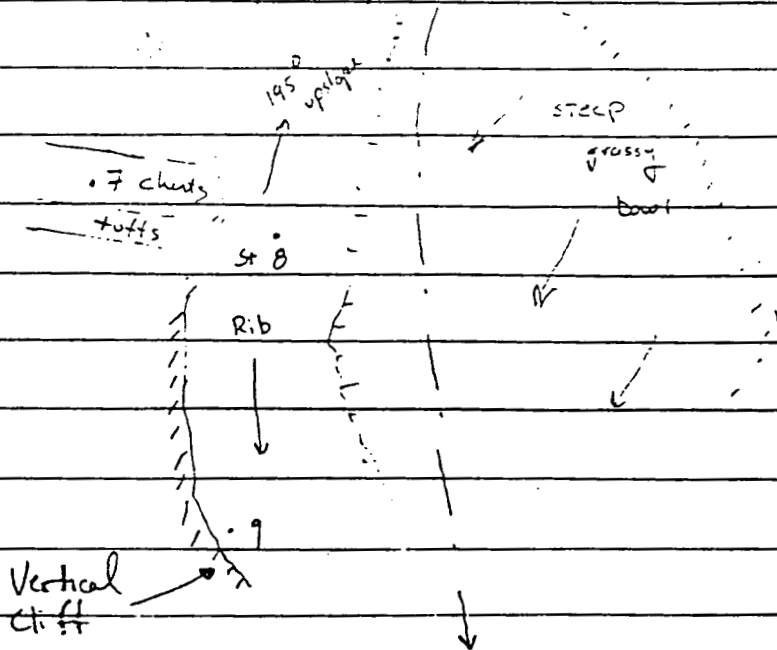
Banding generally runs ~ 280° w/ steep N. dip.

Within the cherts are clasts(?) or inclusions(?) or injections - 1m x 1m areas, of a dirty chloritic, calcareous fine to med gr. volcanic, or intrusive (mafic)

Cherts contact with fine gr. green diorite / basalt about 13-15m to the south. Actual contact is buried.

ST 7-8 15.7m, +26°, 317°

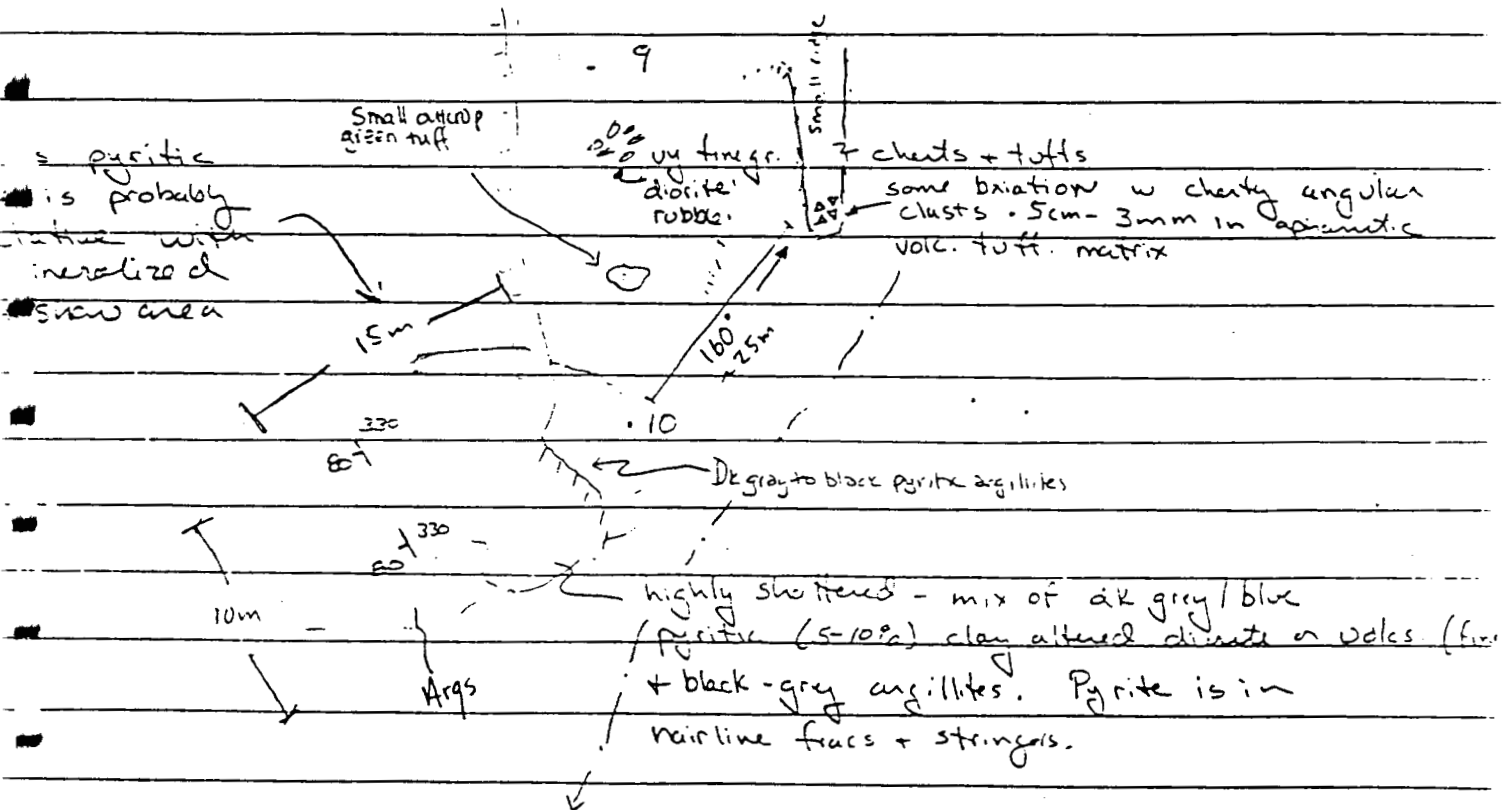
ST. 8-9 24.5m, -34°, 312°



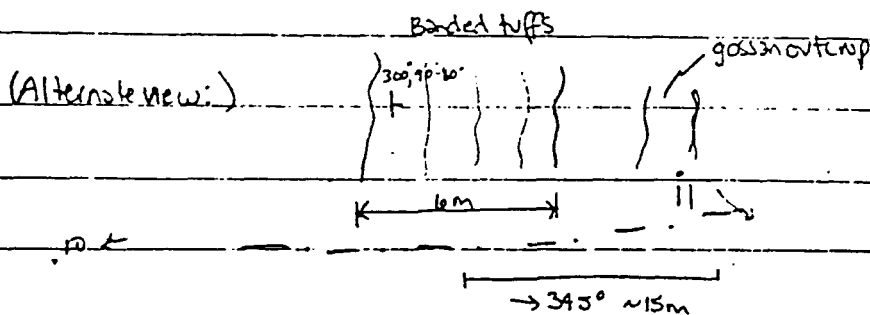
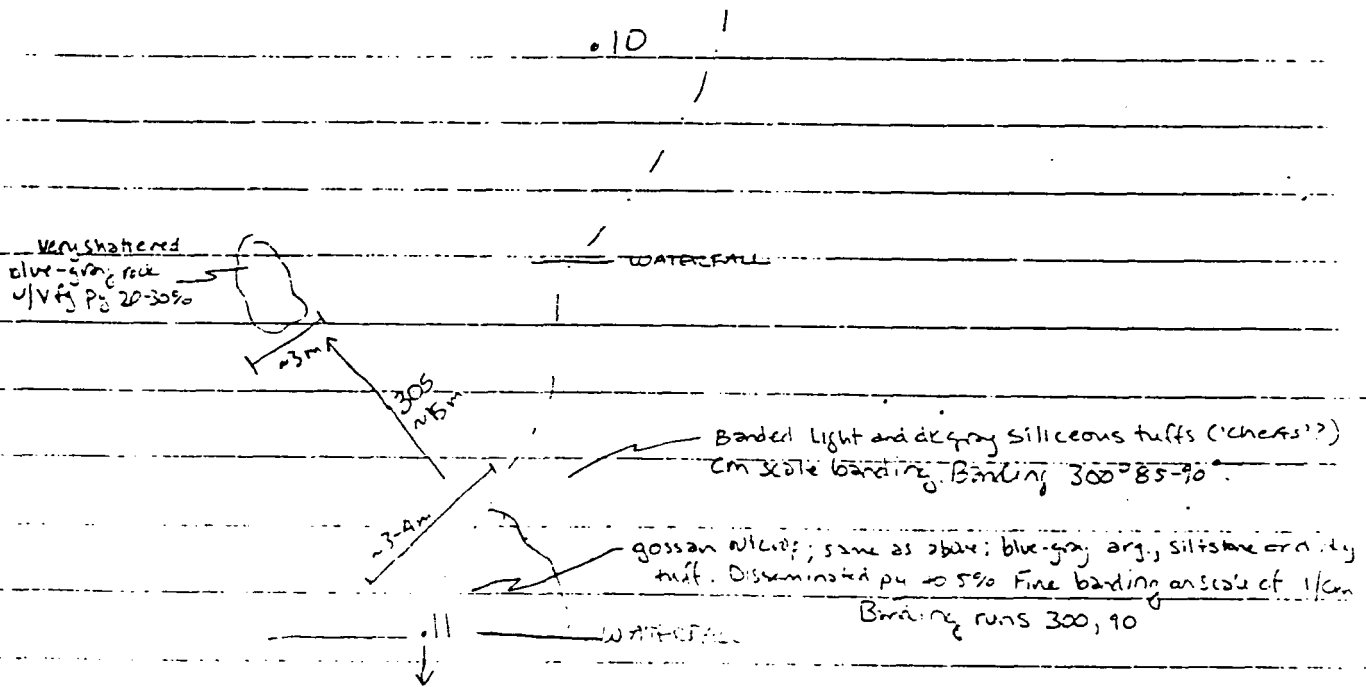
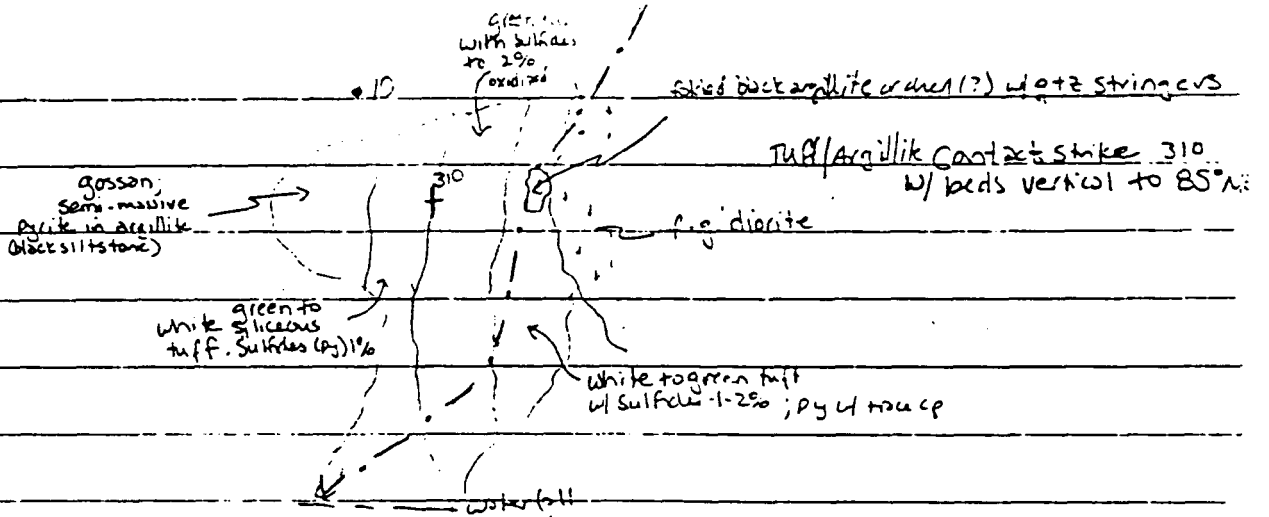
4.5m from 7, towards 8 -

white cherts grade into green cherts  
 or tufts - light green, aphanitic, soft w  
 many stringers of glz + fsp. Qtz stringers  
 running 060, 60SE

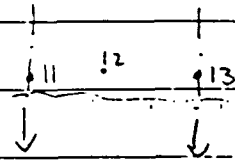
ST. 9-10 33.5m, -34°, 312°



ST. 10-11 50m, 335°, -45°

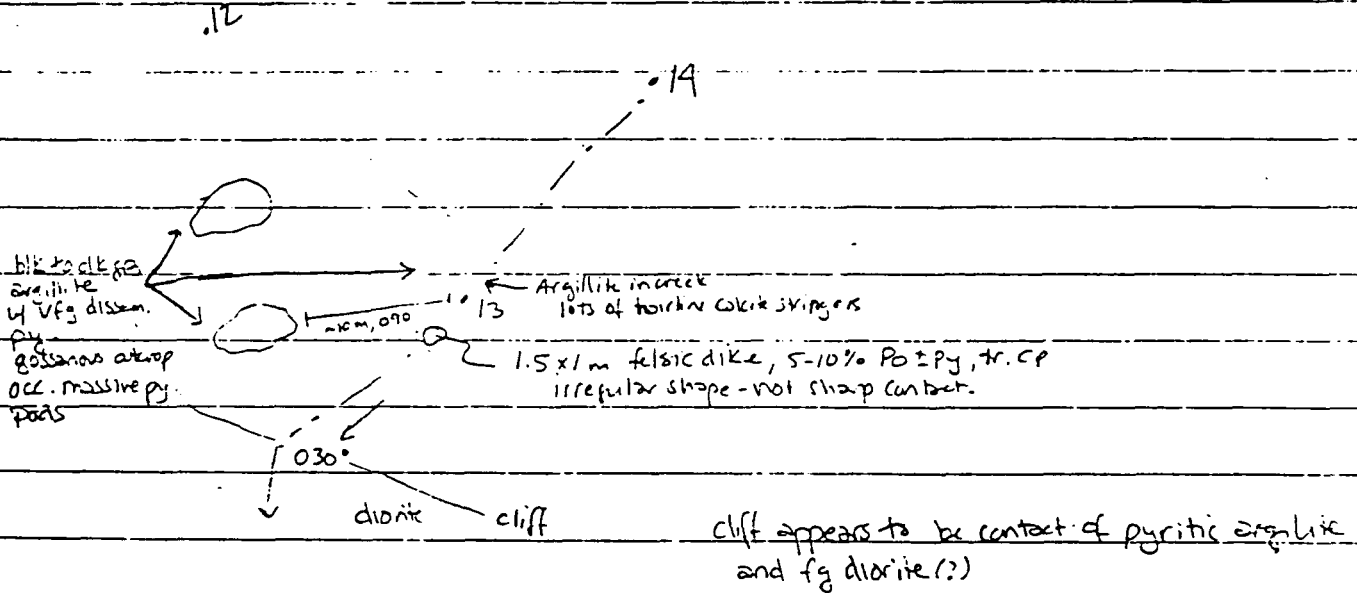


ST. 11-12 8.5m, 284°, +50°

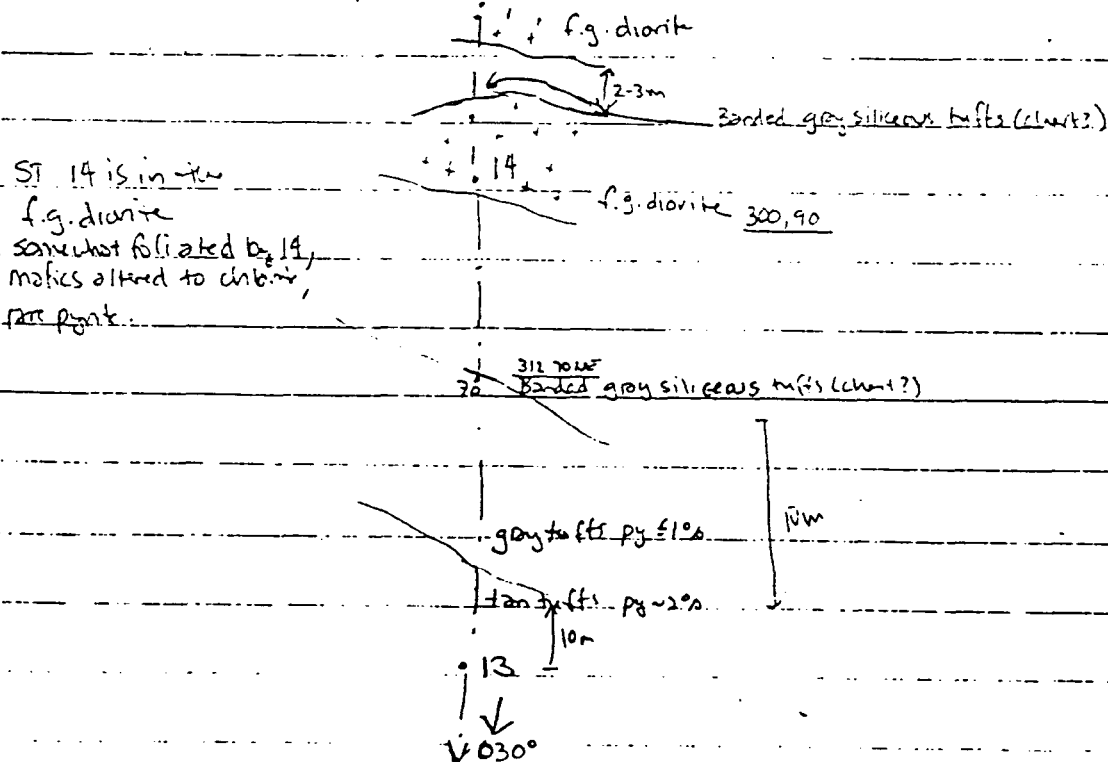


ST. 12-13 27m, 326°, -55°

(St. 13 in creek at 1300' elev.)

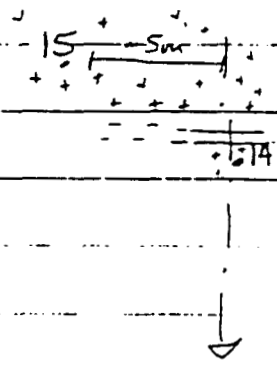


ST 13-14 34.3m, 208°, +45°



ST 14 is in the fg. diorite somewhat foliated by 14, mafics altered to chlorite, rare pyrite.

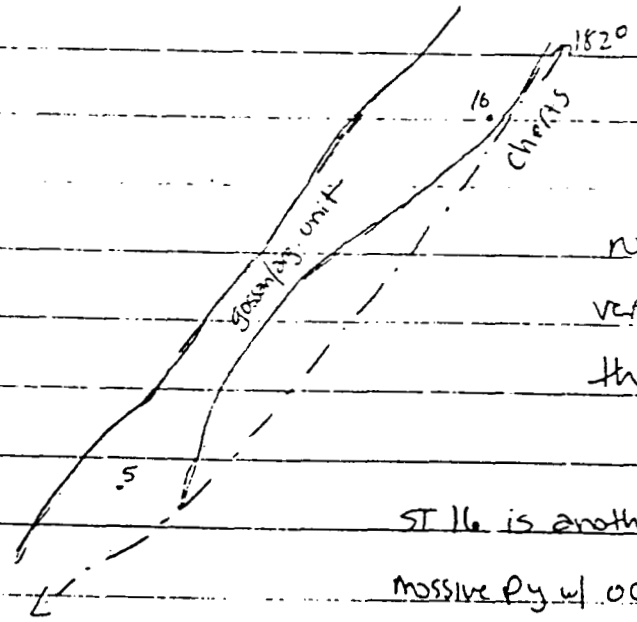
ST 14-15 29m, 180°, +56°



ST 15 still in diorite  
 fg diorite w/ chlorite &  
 Po to 1%  
 dark green to black

ST 15 - ST 10 45m, 099°, +0

ST 5 (main str. w) to ST 16 78m, 142°, +42°



ST 5 to 16 is directly  
 up creek. The pyritic argillite  
 runs directly up creek w/ an almost  
 vertical (to 75NE) dip. Cherts are on  
 the W side of creek

ST 16 is another massive sulfide occurrence  
 massive py w/ occ peds, lenses 1-2cm of Spel (total +/- 1%)  
 and vfg cp 1-3%

Note: sulfide zone is calcareous, although it is surrounded  
 by non-calcareous, argillite,  
 (less mineralized)

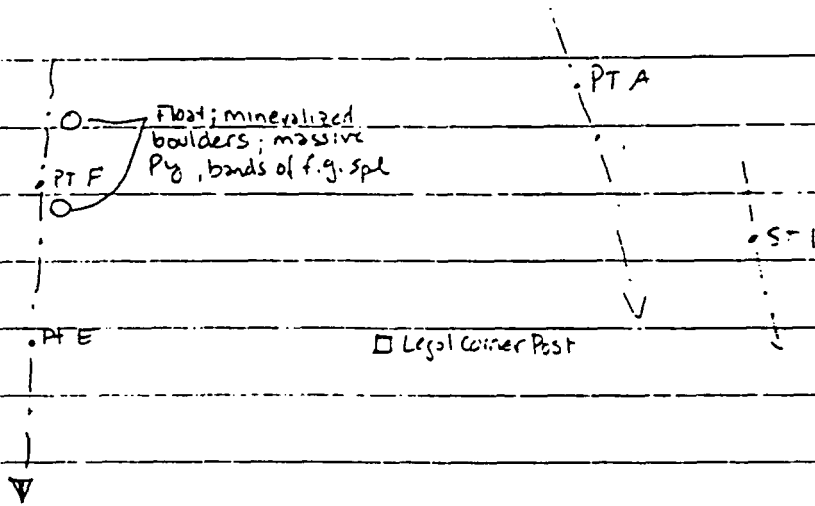


June 1:

A → LCP: 53m, 09°, -23°

LCP → E: 74m, 090° ± 0°

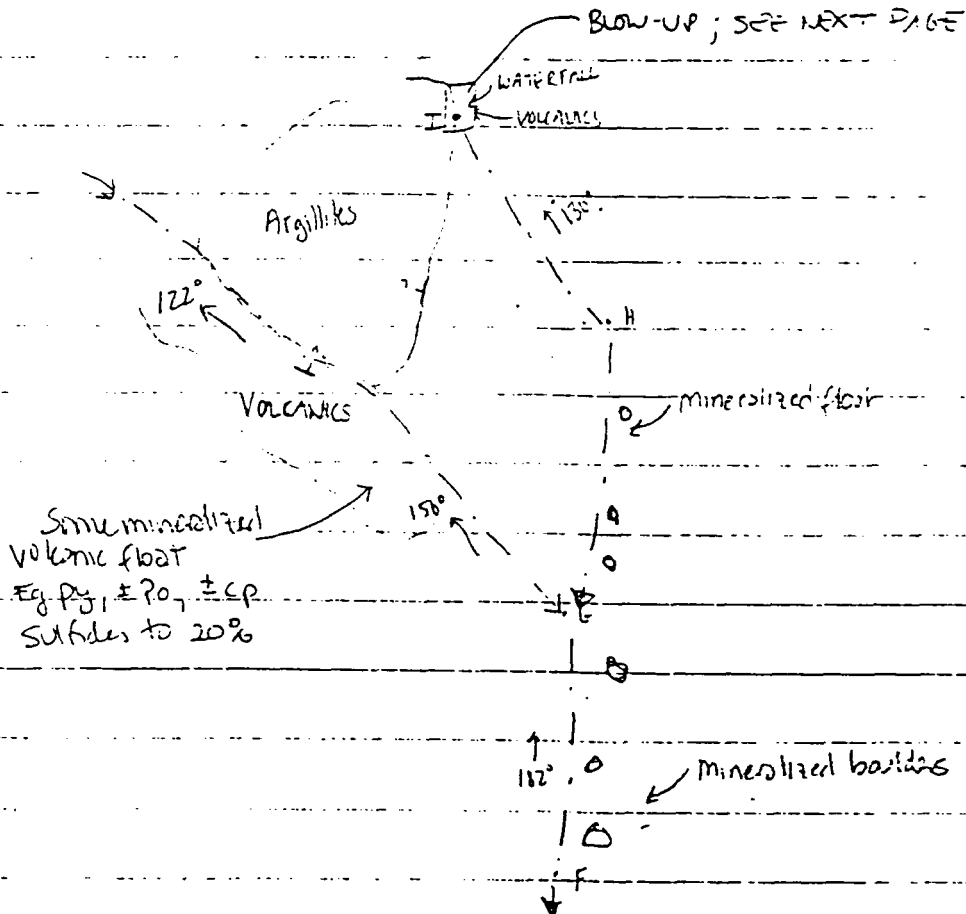
E → F: 43.3m, 182°, +25°

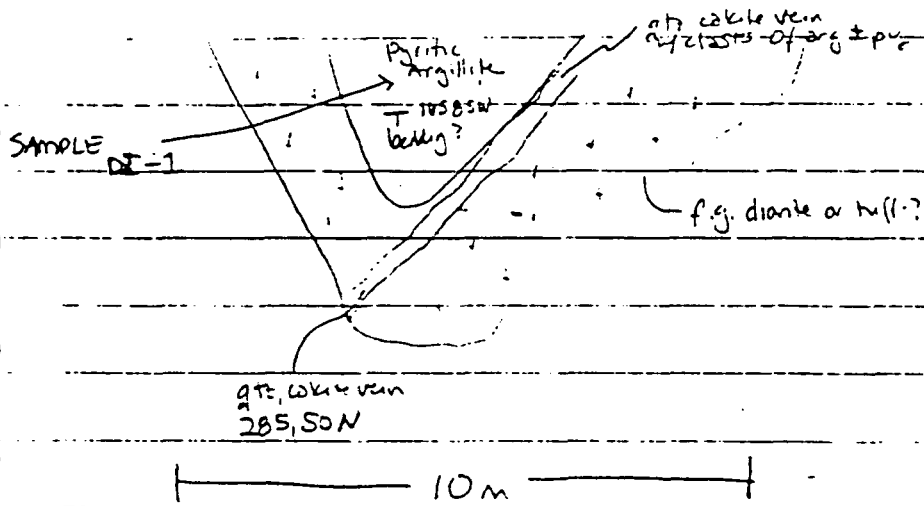


F → G: 12m, 182° + 25° (?)

G → H: 46.6m, 182°, +26°

H → I: 47m, 130°, = 30°



Blow up of ST 1, waterfall areaNOTES FROM DETAILED GEOLOGIC MAP (PLATE 2, SCALE 1:200)

ST3 → KB1 11.5m, 135°; very fine grained to aphanitic, dark green (chlorite), feldspars are vague. NO phenocrysts. Border phase diorite?

calcite stringers and fracture coatings of trace disseminated pyrite moving up creek (south).

→ contact of diorite with recessive .5m wide angular tuff/wacke.

cbsts are 2mm argillite (?), and ≤ 1mm tan to green volcanics?

This contact is argillite; protruding rib. Argillite is well fractured and gossanous. Disseminated Py & pyrrhotite to 3%, stringers of Py to 3mm wide, total Py + Po ~ 5%

south of prominent rib is lens of altered intrusive? white, calcareous, with cbsts of argillite and volcanic - ? contains 9mm py cubes to 3%. shear or fault gouge?

Contacts f.g. diorite; cross-cuts bedding of argillite. Arg is above diorite in outcrop.

Across creek, in continuous outcrop, is green tuff or vfg diorite. This is below station 4.

Station 4 => **KB 2** contact of white to gray layered (foliated?) limestone with layers of massive py to 25% for first ~meter away from contact w/ tuff/diorite. Then sulfides decrease to ~5% of rock. Layers vary in thickness and are pyrite, quartz, calcite and siltstone (arg). Thicknesses 3mm to 5cm, strike N65W-35SW -> dipping opp. of beds. => foliation? Outcrop ~5m thick.

**KB 3** => Along strike (S45E) and on the east side of creek is massive dark gray very fine grained massive pyrite in limestone. Massive pyrite gives rock the dark gray-green color.

← Across creek again (to W side) from **KB 3** is same limestone, but the rock is bedded, striking N65W45NE. (This is N75E of station 6, S45E of station 4). Outcrop is ~8m across. Moving west along outcrop the rock becomes less calcareous. At **KB 4** can see very fine layers of pyrite, showing varying grain size (grading) and abundance.

Up creek 5m from strike/dip spot of above, moving along same outcrop

=> **KB 5** the limestone is white to light gray indicating lateral gradation along strike. Sulfides in distinct small layers, pyrite and .5% galena. Also py + gal disseminated ~1-2%.

Total sulfides ~10%. (This is SEOW from station 5, due East of St. 6)

On strike with station 5 (N65W), ~8-10m, possible to access rocks coming from below; rocks appear to be tuffs - see grain size grading.

Pyrite is all through these rocks. Extreme gossan starts .3m towards St. 5 from here. Bedding at N65W55NE.

Station 5 is the main show. The zone is extremely thin and thin

Complete gossan for  $\sim 10\text{m} \times 10\text{m}$

[KB6]: Black gossan. Heavy  $\Rightarrow$  Barite?

Structure in the gossan zone needs detailed work: Very confusing!

Find both NE and NW dipping foliation, extreme fracturing, shearing and possibly some faulting.

[KB7] 1m under <sup>(south of)</sup> Station 5. Massive galena + barite with sphalerite  $\pm$  chalcoprynite and gossan.

Across creek,  $\sim 50\text{m}$  from St. 5 is light gray limestone. This contacts with siliceous rich LS of [KB5] in creek. Gray LS has lots of calcite veins and stringers, some quartz. Contains 2-4mm hard black crystals in calcite veins -?

To southwest is outcrop of green-gray cherty tuffs. They vary in siliceous and volcanic components vertically and laterally.

Bedding: N65W V (to 85NE). (This is S55E from Station 6, S55W from Station 5).

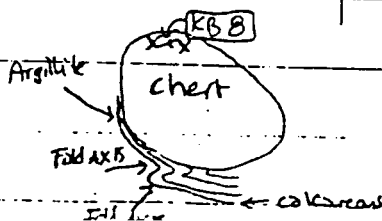
$\sim 5\text{m}$  N65W another small outcrop of same cherty tuffs. Covered from here to Station 6.

Station 6: "West Show". Rounded outcrop. Could possibly be out of place boulder -?. Rounded "boulder" is dark gray chert -

[KB8]  $\Rightarrow$  with  $\sim 15-20\%$  (?) pyrrhotite and chalcoprynite, with lesser sphalerite.

Under chert are a  $\sim 3\text{m}$  bed of foliated argillite and a  $\sim 3\text{m}$  thick bed of pyrite-rich foliated limestone (= calcareous schist?). Trace chalcoprynite in

both beds. These thin units display two cleavages, one at N40W 85SW, and one at NS30E. They also bend around in a small S fold, with fold axes at S20W 23° and S55 12°

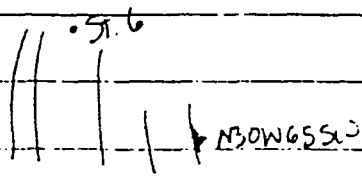


5m N80W from Station 6 cherty / schist foliations are (beds?)

N30W 65SW, contain disseminated pyrite

7m N80W from ST. 6 the beds are flattening out: to N10W 35SW and the siliceous beds have more pelitic component, containing very fine grained sulfides and chert lenses

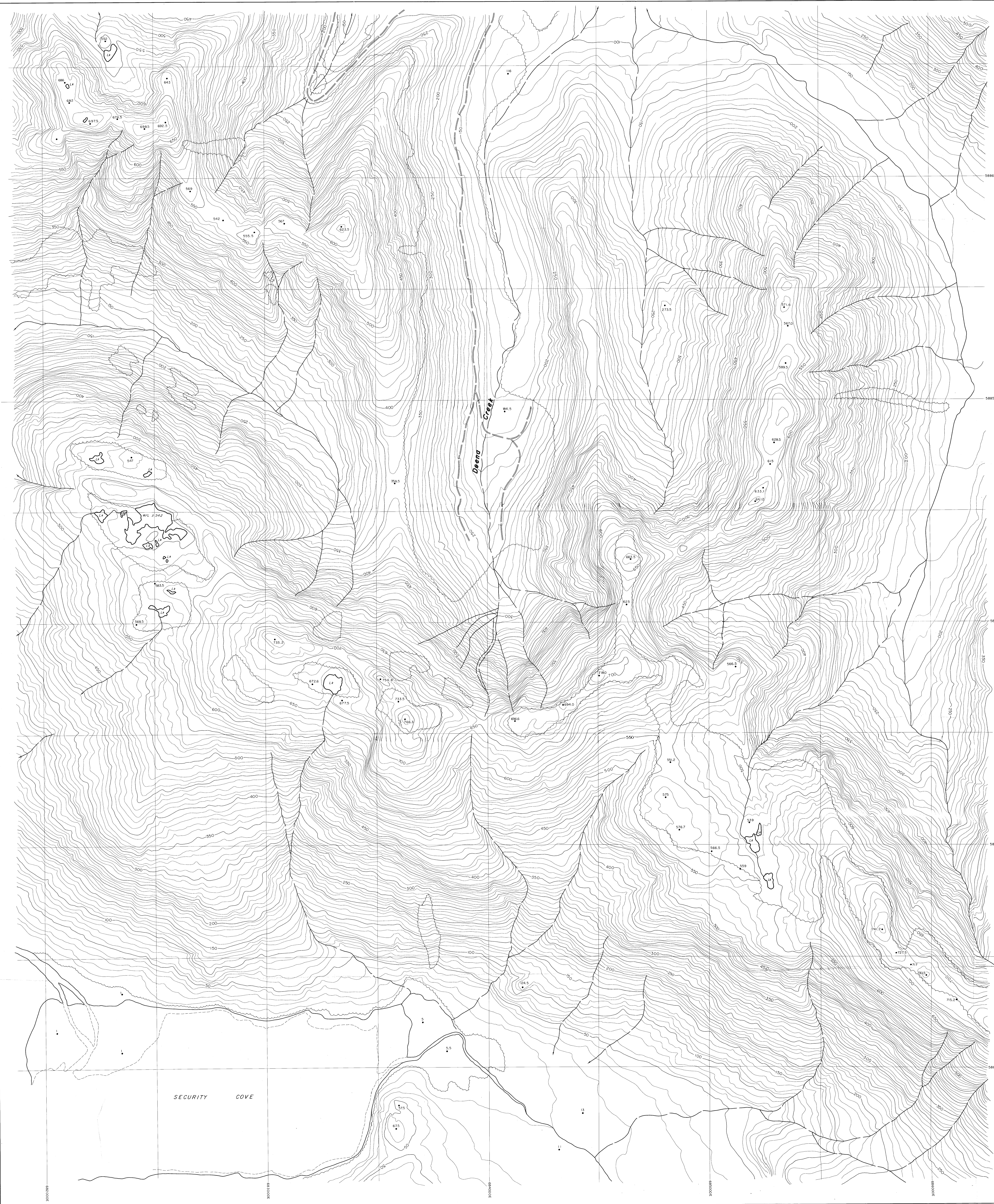
9m from ST. 6 beds are ~ horizontal



note; dips are SW, not NE like all bedding in map area.

N10W 35SW

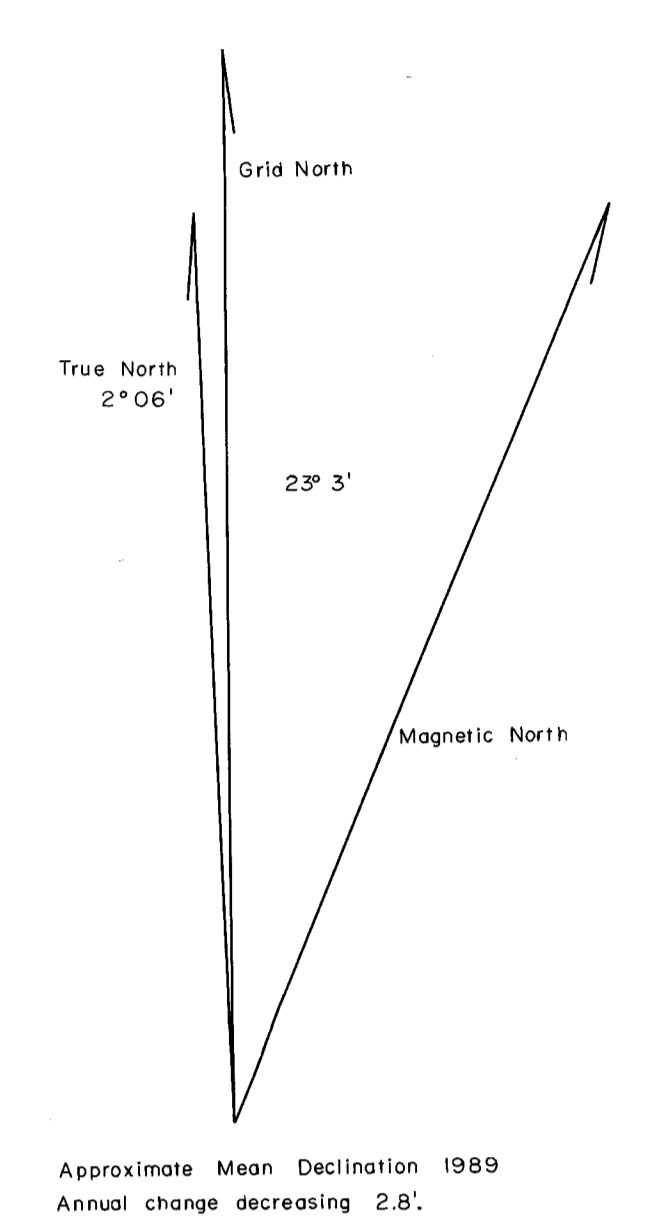




- LEGEND:
- Power
  - Roads
  - Other
  - Tail
  - Railways
  - Contours
  - Index
  - Intermediate
  - Depression
  - Spot Height
  - Building
  - Fence
  - Power Line
  - Creek
  - Ditch
  - Swamp
  - Sand Bar
  - Collieries
  - Timber Edge
  - Asphalt
  - Drill Hole
  - Well
  - Trench

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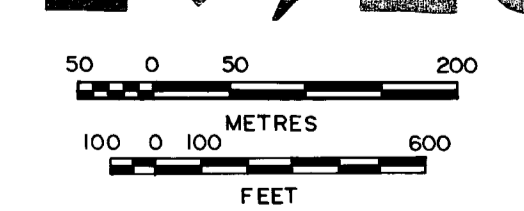
Project No. 89-058 Date: June 1989  
 Mapper: RC Designer: CR



SECURITY COVE

GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

**19,263**



**DOROMIN RESOURCES LTD.**

**CIMADORO PROPERTY**

SKEENA M.D.  
 MORESBY ISLAND  
 103 F 4

Scale: 1:5000 Date: June 1989 Figure: [ ]



# CIMADORO PROPERTY

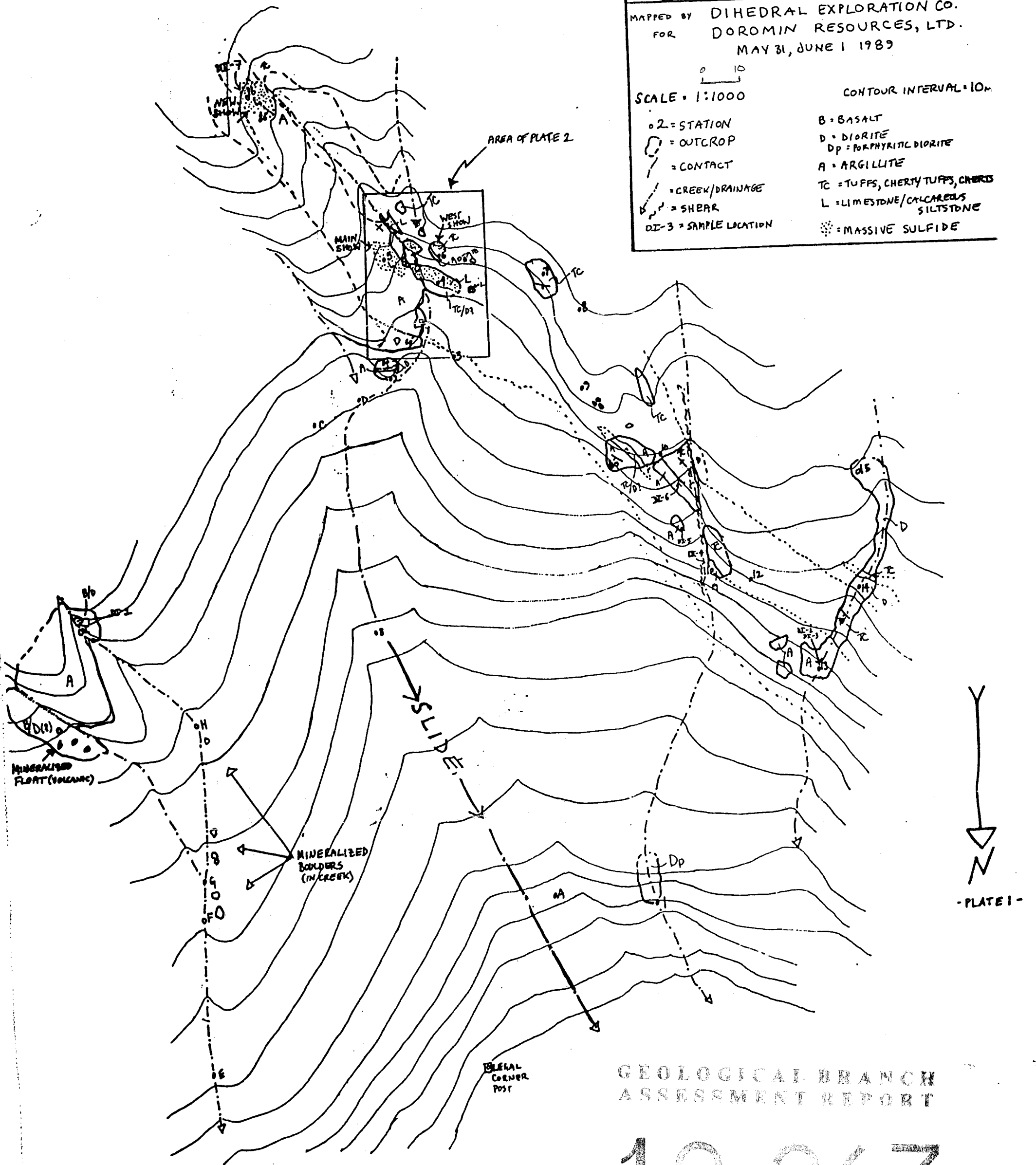
MAPPED BY DIHEDRAL EXPLORATION CO.  
FOR DOROMIN RESOURCES, LTD.  
MAY 31, JUNE 1 1989

SCALE = 1:1000

CONTOUR INTERVAL = 10M

- 2 = STATION
- = OUTCROP
- - - = CONTACT
- - - = CREEK/DRAINAGE
- - - = SHEAR
- 2-3 = SAMPLE LOCATION

- B = BASALT
- D = DIORITE
- Dp = PORPHYRYIC DIORITE
- A = ARGILLITE
- TC = TUFFS, CHERY TUFFS, CHERTS
- L = LIMESTONE/CALCAREOUS SILTSTONE
- = MASSIVE SULFIDE



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

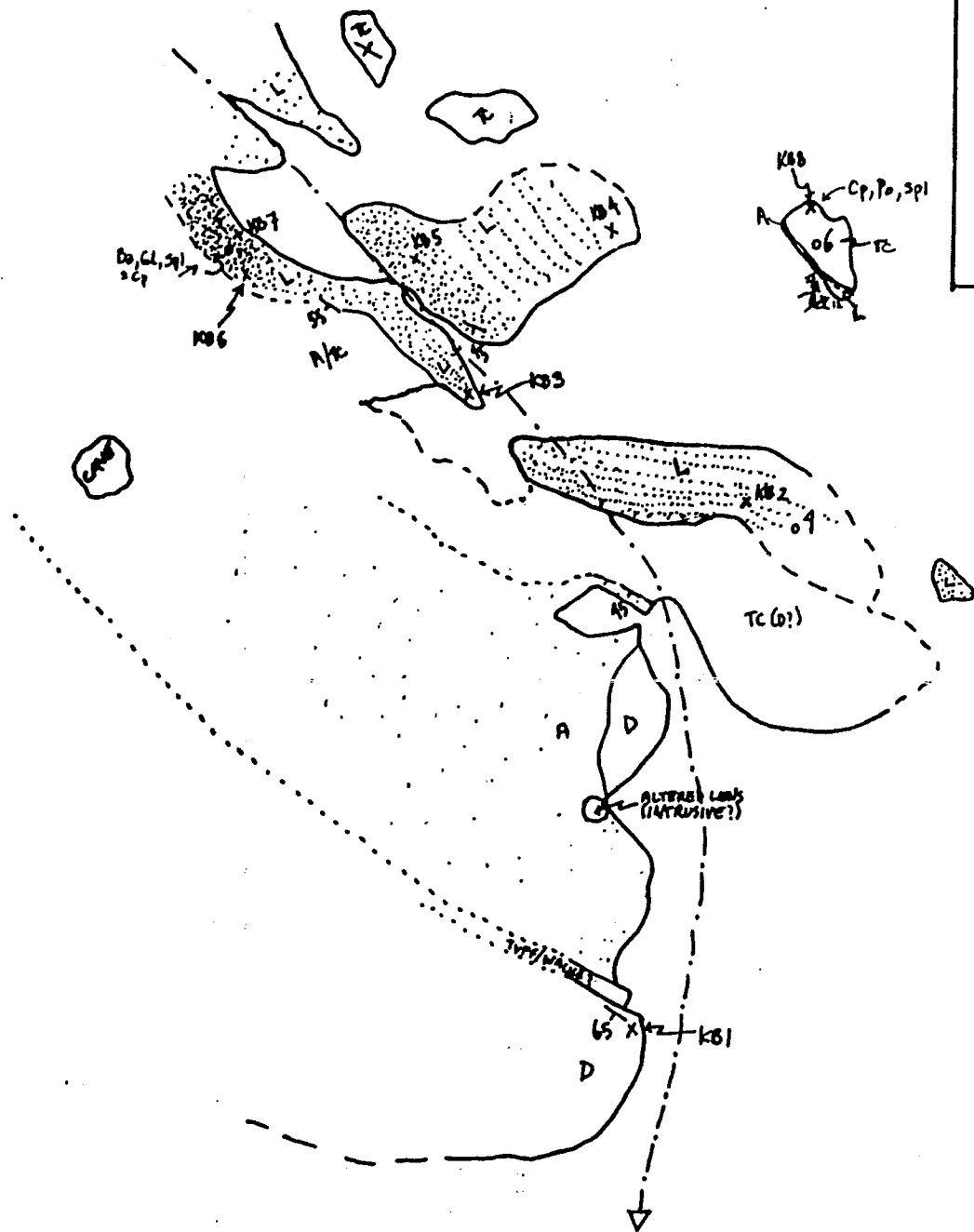
19,263

# CIMADORO PROPERTY

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MAY 31, JUNE 1 1989

SCALE 1:200

- o 2 = STATION
- = OUTCROP
- - - = CONTACT
- - - - - = CREEK/DRAINAGE
- D = DIORITE
- A = ARGILLITE (PYRITIC)
- TC = TUFFS, CHERTY TUFFS, CHERTS
- L = LIMESTONE/CALCAREOUS SILTSTONE
- = SEMI-MASSIVE TO MASSIVE PYRITE
- Ba = BARITE sp. = SPHALERITE
- Cp = CHALCOPYRITE, Po = PYRRHOTITE



- PLATE 2 -

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,263