CRAIGMONT MINES LIMITED

Geological Report Of Diamond Drilling

On The Orange And Blue Groups Of Mineral Claims

Nicola Mining Division

NTS Sheet 92 I/2

N 50°12' E 120° 53'

Owned And Operated By

CRAIGMONT MINES LIMITED

Report Prepared By:

G. R. Sanford

Craigmont Mine Geologist

17 May 1978

GEOLOGICAL REPORT OF DIAMOND DRILLING ON THE ORANGE AND BLUE GROUPS OF MINERAL CLAIMS

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MERRITT

BRITISH COLUMBIA

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SCALE 1:50,000 ÉCHELLE

Miles 1 0 1 2 3 Miles

Metres 1000 500 0 1000 2000 3000 4000 Mètres

Yards 1000 500 0 1000 2000 3000 4000 Verges

GEOLOGICAL REPORT OF DIAMOND DRILLING ON THE ORANGE AND BLUE GROUPS OF MINERAL CLAIMS

INTRODUCTION

Location and Access

The two claim groups surround the mill and office site of Craigmont Mines Limited. Stumbles Creek runs through the centre of both claim groups. Birkett Creek, a small tributary of Stumbles Creek, flows south-easterly across portions of both groups.

Aberdeen Road from Lower Nicola provides paved access to the Craigmont mill site, from where a well maintained gravel road leading to Craigmonts open pit switches back and forth across both groups. The gravel road leading to Chataway Lakes cuts through the Orange group which abuts against Indian Reserve No.1. Numerous four-wheel drive trails criss-cross both groups, providing easy access.

Topography

Both claim groups lie on a south-easterly facing slope with an elevation of 1200 meters in the north to 800 meters in the south. The eastern part of the Orange group is mostly a flat gravel terrace with Stumbles Creel cutting a locally rugged channel to a depth of 50 meters into the terrace at the base of the slope. The southern portions of both groups occuly the broad flat basin along Stumbles Creek into which the Craigmont tailings are pumped.

The entire claim group, except for creek bottoms, is the typical park-like open pine forest to grasslands of the dry interior.

Property Description

The claims in both groups are owned and operated by Craigmont Mines Limited. The western claims in the Blue group are contiguous with mineral leases containing the known Craigmont orebodies. The bulk of the claims have been held by Craigmont or Noranda Exploration Company for the last twenty years. The Noranda claims were optioned from Noranda in 1978, and the SSP group from George Cressy of Merritt in 1977.

The claim area is of interest to Craigmont as it is on strike, some 750 to 3,500 meters easterly of the Craigmont orebodies. Ground and airborne magnetics and previous diamond drilling had shown zones of petential economic significance worthy of additional follow-up.

Most of the claims have been surveyed by a B.C. Land Surveyor or Craigmont survey crews. A few claims are chain and brunton surveyed.

Summary Of Work Done

Blue Group

Three diamond drill holes, S-101, S-103, 106, either HQ or NQ size, totalling 810.8 meters.

Orange Group

One diamond drill hole, S-98, NQ size, totalling 696.5 meters.

Total diamond drilling both groups - 1,507.3 meters.

List Of Claims

Hole S-98 was collared on Quartzite 4, passed through Quartzite fraction and bottomed on Quartzite 5.

Hole S-101 was collared and completed on Quartzite 3.

Hole S-103 was collared on Quartzite 3 and bottomed on the Price 2 fraction.

Hole S-106 was collared on Etta 1 and bottomed on Quartzite 6 mineral claim.

The individual claims, record numbers and dates due for assessment work within each group are as follows:

Orange Group

Claim	Record	Due Date
Pond 0-6	59780-86	28 February 1982
Pond 7	59787	28 February 1981
Rolf 1,2,3 Fr, 4 Fr	59776-779	28 February 1981
B 19,20	4670,71	5 March 1981
B 2 Fr	4674	5 March 1981
Rolf 5	59879	7 March 1981
Rolf 6 Fr	59880	7 March 1982
Quartzite Fr	13372	24 March 1981
SSP 2	100	17 May 1978
Quartzite 4,5,6	4235-37	29 August 1981
SSP 1	40	6 October 1981
Chip 8	5180	18 November 1981
Sandy 3,4	5131,32	14 November 1981
Hazel 2,4,5,6	5864,9866-68	15 December 1981

Blue Group

Claim	Record	Due Date
Etta 3	12617	4 January 1982
Paquet 8	4561	7 February 1991
Retan 1-8	4562-69	7 February 1981
Etta 1,2, 4-8	4796,97,4799-4803	12 June 1981
Ner 3 Fr	9135	30 July 1981
Price 1 Fr, 2Fr	4907,08	1 August 1981
Price 3-8	4909-14	1 August 1981
Quartzite 1,2,3	4232-34	29 August 1981
OK 5 Fr, 6 Fr	9250,51	12 September 1981
OK 3,4,7	5151,52,5155	18 November 1991
Bob 9,10	9869,70	15 December 1981

DETAILED TECHNICAL DATA AND INTERPRETATION

Geological Setting

The Promontory Hill Craigmont mine area is a complex north westerly trending, steeply dipping volcanogenic pile of Triassic Nicola Group rocks, bounded to the west and south by the Nicola River, east by the Guichon Creek Valley and north by the Jurassic Guichon Batholith. This area of some 7,000 hectares containing sequences of andesites, dacites and volcanogenic greywackes, all with interbedded limy/limestone horizons is intruded by the multistage Guichon Batholith and several small, complex intrusions. One of the limestone bands, in proximity to a small intrusion and well within the contact aureole of the Guichon Batholith becomes the host rock for the Craigmont skarn deposit.

Nearly 20% of the Promontory Hill area is covered by a veneer of Cretaceous Kingsvale Group agglomerate and flow rocks up to 200 meters thick. These volcanic rocks cover the eastern portions of the area and masked portions of the Craigmont orebody.

The geology and origin of the Craigmont deposit is very complex, is still incompletly understood, and is open to considerable discussion. However, the main exploration technique has been to investigate the mine limestone and other limestones in areas which appear favorable, especially those within the contact aureole of the Batholith (±800 meters south), and near the small intrusive plugs. These plugs may be fingers from the batholith or synvolcanic feeders to the Nicola Group.

The Blue and Orange Groups cover the intruded Nicola rocks along the southern edge of the Guichon batholith for a length of some 3,500 meters, starting 750 meters east of the known Craigmont orebodies. The batholith contact trends east-west and begins to curve northward just east of the Eric Shaft, a 6-meter shaft driven in the late 1930's.

Outcrops of batholith rocks, mostly Border Phase, are common on the upper side of the main road leading to Craigmonts open pit (See drawing GD-142B). Only one area of outcrop of Nicola rocks is known, all within a 30-meter radius of the Eric Shaft. The rest of the area is buried under extensive gravel overburden. Hole S-92, drilled in 1974, showed 90 meters (vertical) of overburden, 300 meters southwest of the Eric Shaft. Vertical holes drilled in 1962 by Bralorne Pioneer (BP1,2,3) failed to hit bedrock at depths of 152m, 70m, 128m respectively (See GD-142B).

Kingsvale volcanics outcrop along the scarp at the western edge of Craigmonts tailings pond and in the vicinity of Craigmonts 2400 Main Portal. Birkett Creek appears to mark the northern extent of the Kingsvale Group. A Noranda drillhole NW-14, ($-48^{o}/N34^{o}40'W$) collared immediately adjacent to Craigmonts assay lab, encountered 55m of overburden, 25m of Coldwater rocks (Miocene), 102m of Kingsvale? agglomerates and bottomed at 230m after cutting 47m of Kingsvale basalts.

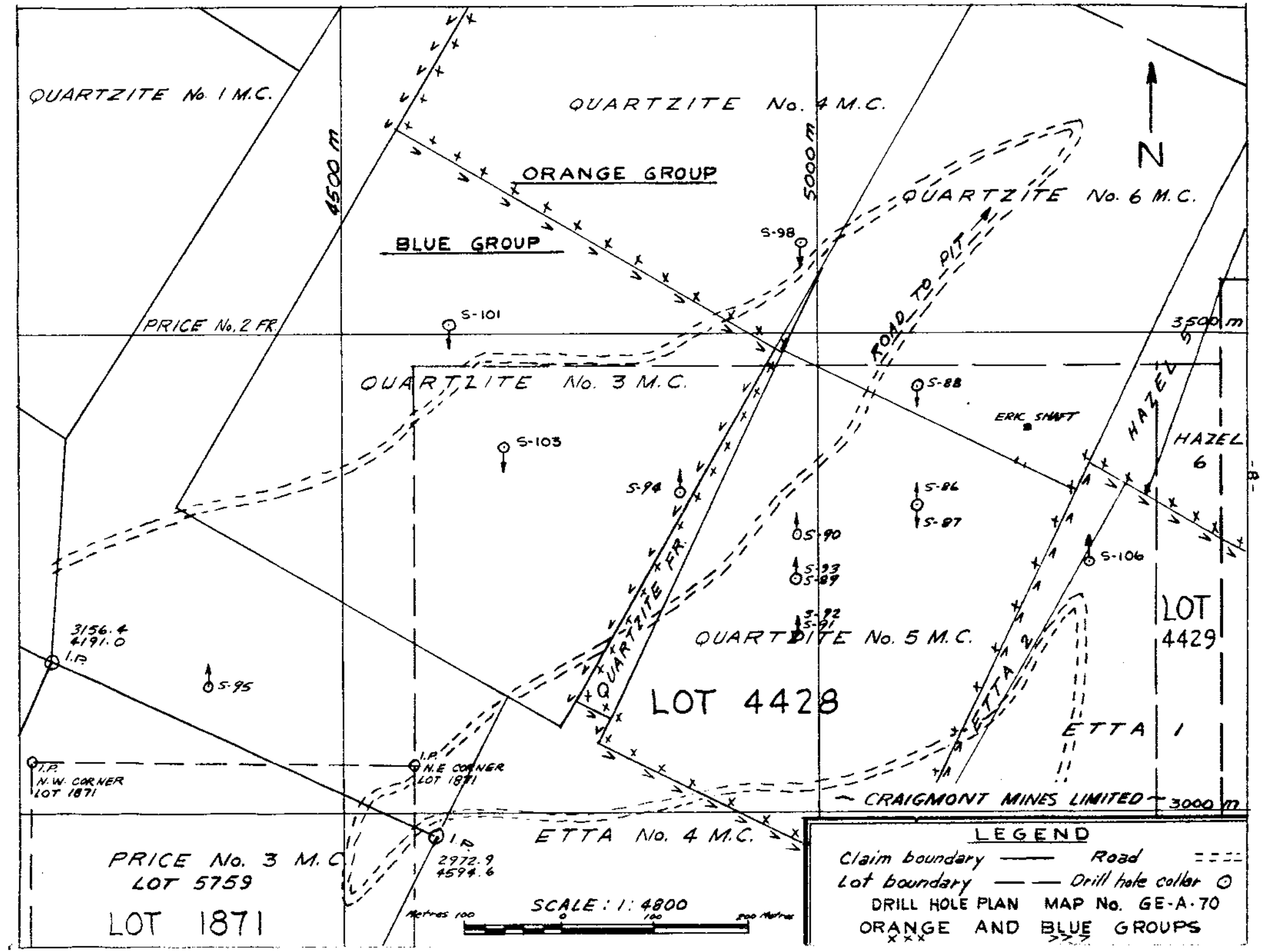
Purpose of Diamond Drilling

Exploration in this area has generally been hampered by the extensive overburden and lack of outcrop information as well as ground acquisition. The current drilling program investigated known anomalous areas and also provided structural cross sections of the intruded rocks.

The Craigmont orebodies lie within a limestone/limy horizon along a southern dacite-northern clastic sediment (greywacke) contact. In the longer holes it was hoped to intersect this contact.

No major limestone units are recognized to the east of the mine, although a 50m-wide actinolite skarn zone (Hole S-90) to garnet skarn (S-86,87) is known south and west of the Eric shaft. This skarn is within the clastic unit, but required investigation at depth and along strike.

All drilling was done under contract by Connors Drilling Limited. The total price paid to Connors included all aspects of drilling - set-up, footage fee, water supply, down-the-hole supplies lost or consumed, field cost for mixing mud, testing, etc., core boxes, supplies left in the hole at Craigmonts


QUARTZITE No. 1 M.C.
QUARTZITE No. 4 M.C.
4500 m
5000 m
ORANGE GROUP
BLUE GROUP
N
QUARTZITE No. 6 M.C.
S-98
ROAD TO PIT
PRICE No. 2 FR.
S-101
3500 m
QUARTZITE No. 3 M.C.
S-88
ERIC SHAFT
HAZEL
HAZEL 6
S-103
S-94
S-86
S-87
S-90
S-93
S-89
S-92
S-91
S-106
QUARTZITE FR.
QUARTZITE No. 5 M.C.
LOT 4429
3156.4
4191.0
I.P.
S-95
LOT 4428
ETTA
ETTA 1
I.P. N.W. CORNER LOT 1871
I.P. N.E. CORNER LOT 1871
CRAIGMONT MINES LIMITED
3000 m
ETTA No. 4 M.C.
I.P.
2972.9
4594.6
PRICE No. 3 M.C.
LOT 5759
LOT 1871
SCALE : 1: 4800
Metres 100 0 100 200 Metres
LEGEND
Claim boundary
Road
Lot boundary
Drill hole collar
DRILL HOLE PLAN MAP No. GE-A-70
ORANGE AND BLUE GROUPS

request. Connors also supplied a D-6 cat for road construction and maintenance, site preparation and reclamation, plowing snow and moving drills. Payment was based on a monthly rental plus an hourly use charge.

Results and Interpretations

Orange Group

S-98 (Section 16320)

Hole S-98, on Section 16320 (true N-S) was collared to test several features:

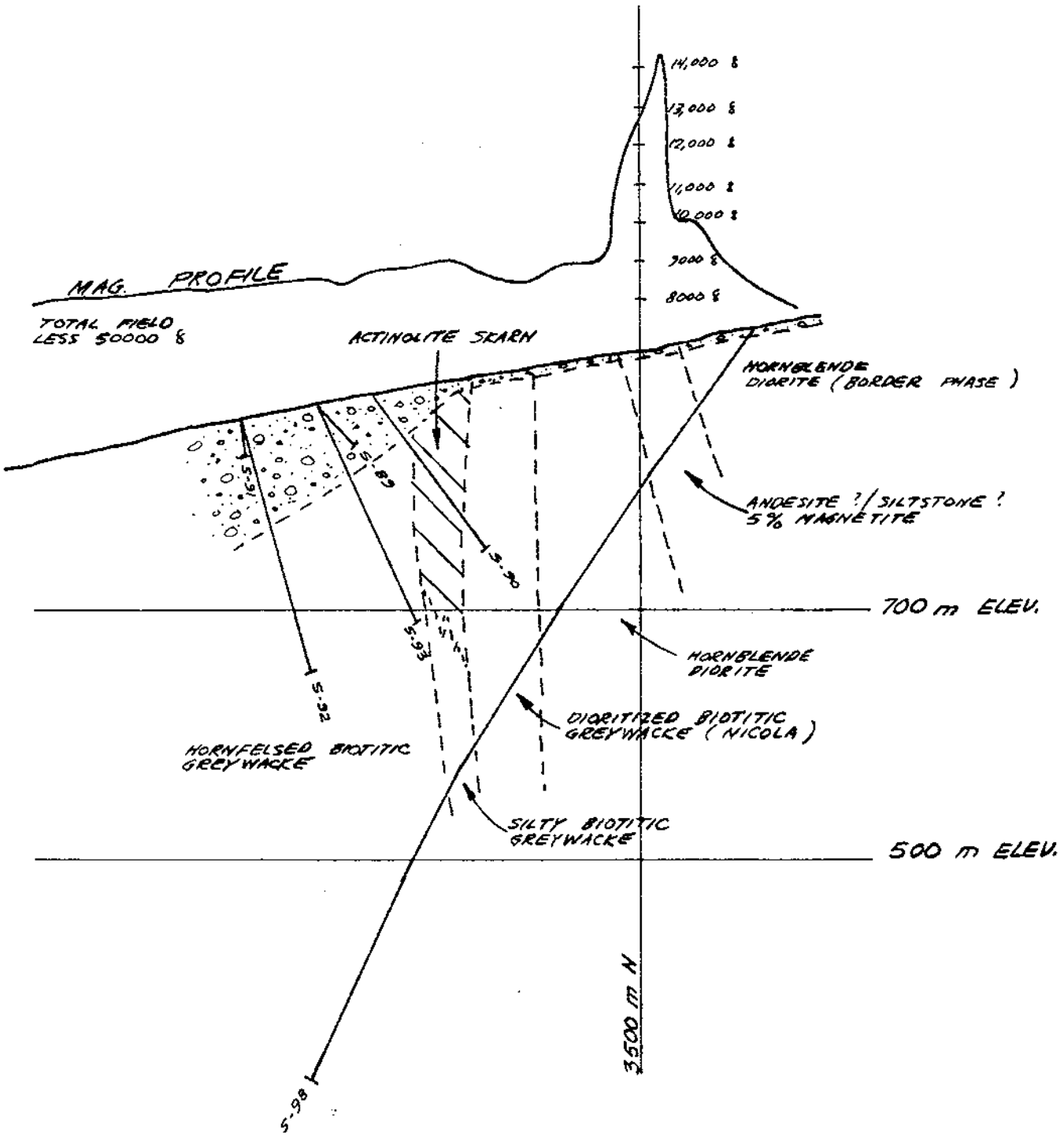
1. A sharp 4000 gamma magnetic anomaly.
2. To undercut a known small skarn zone, 50 meters wide.
3. To cross cut the intruded Nicola rocks at the south end of the Guichon batholith.

The hole cut border phase batholith rocks to 300 meters then hornfelsed and dioritized Nicola greywackes and siltstones to bottom at 696.5m.

The sharp magnetic anomaly was explained by a pendant 60 meters wide of magnetite rich siltstone (3-5% magnetite, virtually outcropping) within the border phase diotites.

In hand specimen this siltstone is very similar to the magnetic siltstone in Hole S-106, and thin sections are being examined to resolve the similarities.

The skarn zone indicated by previous drilling was not intersected. It appears that the skarn graded into a fine grained greywacke/siltstone, which is part of a sequence of



SECTION 16,320 (True N-S)

SCALE: 1:4800

Metres 100 0 100 200 300 400 500 Metres

MAP No. GE-A-70A

steeply north dipping, partly dioritized Nicola sediments with abrupt down dip and lateral gradations.

No dacitic rocks were encountered. Rocks at the hole bottom were still hornfeldic, indicating a substantial thermal aureole. No sections were assayed.

Due to ground conditions, 87 meters of rock were reamed to place casing. 97.5m of NW casing could not be recovered, even after several blasting attempts, and was left in the hole.

An attempt was made to survey Hole S-98 using a "Light Log" survey instrument, manufactured by Gyro-Log Limited, Toronto. A beam of light is diverted by the curvature of the hole over successive 3 meter intervals (10 feet). A picture is taken at these intervals of a target which registers the position of the light beam. The film record is studied by projection onto a screen and the deflections accumulated for both azimuth and dip.

This survey method was found unsatisfactory in that the results could not be accurately (to our satisfaction) interpolated. It appeared that the scale of deflection was of the same magnitude as the estimation error in reading of one projected image. Also the machine was severly damaged when water and drilling mud

flooded the instrument through an improperly sealed switch. The data obtained is not presented as Craigmont generally ignored it.

Blue Group

S-106 (Section 17320)

Hole S-106 was collared on Craigmont section 17320, (true N-S) to undercut, from the south, the most favourable segment of a northeast trending magnetic anomaly (Scintrex-Proton magnetometer survey - 1974).

The magnetic anomaly was explained by 3-5% disseminated magnetite within hornfelsed biotitic siltstone to fine grained greywacke.

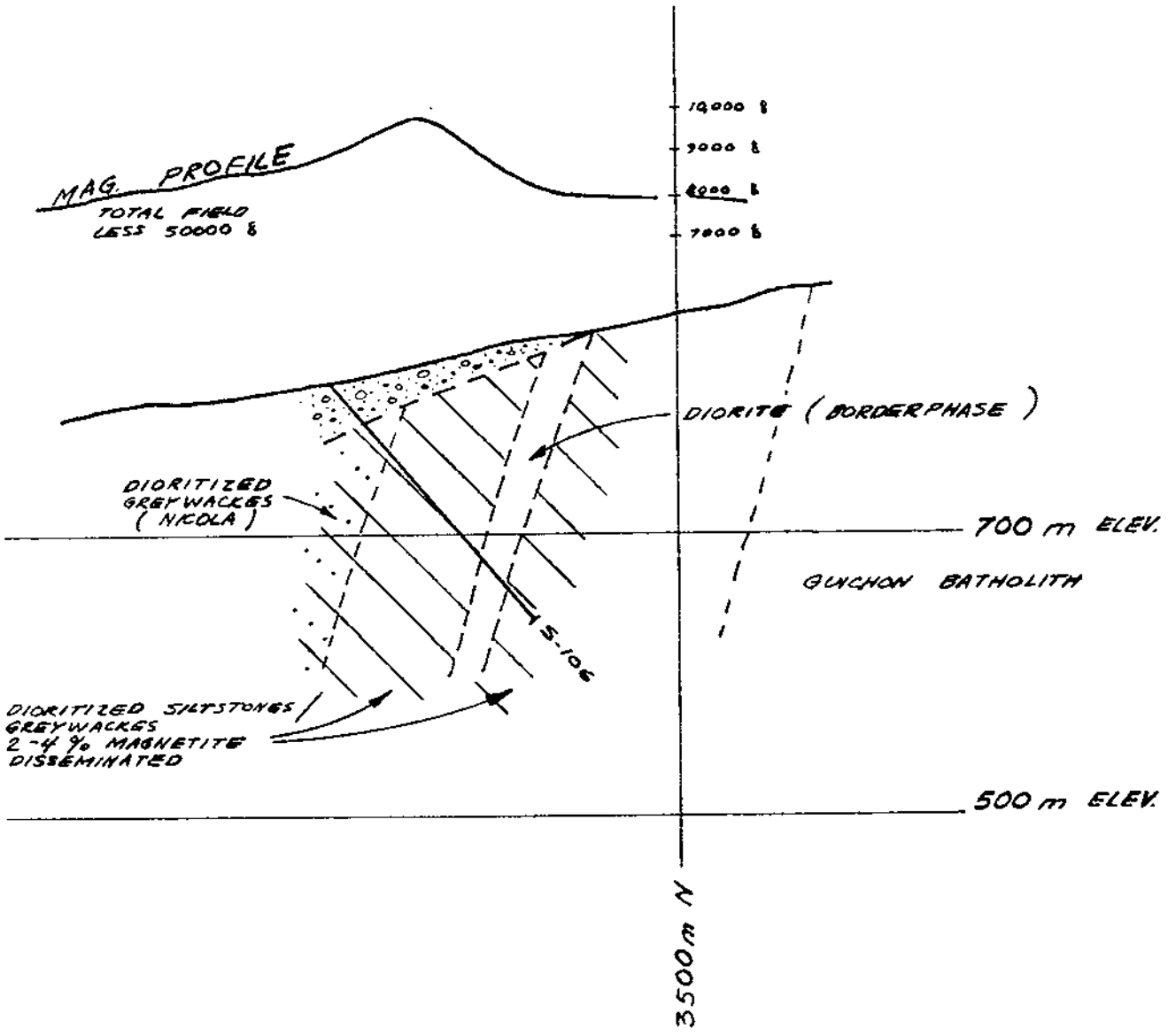
The entire hole cut hornfelsed and dioritized Nicola greywackes-siltstones with one border phase diorite finger and numerous granitic veinings and dikes. No economic or noteworthy copper mineralization was noted. No sections were assayed.

S-101 (Section 15120)

Hole S-101, was collared on bedrock on Section 15120 (true N-S) to probe at depth the western extent of skarn indicated on Section 16320.

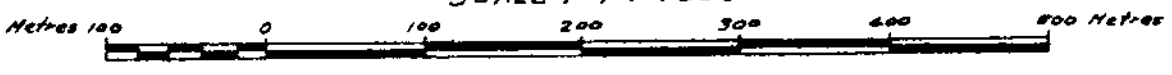
The hole cut 125m of biotite diorite (strongly altered greywackes) and was lost at 190m after cutting 65m of dioritized Nicola greywackes/siltstones.

An abrupt magnetic anomaly at the hole collar was explained by magnetite rich biotite diorite.

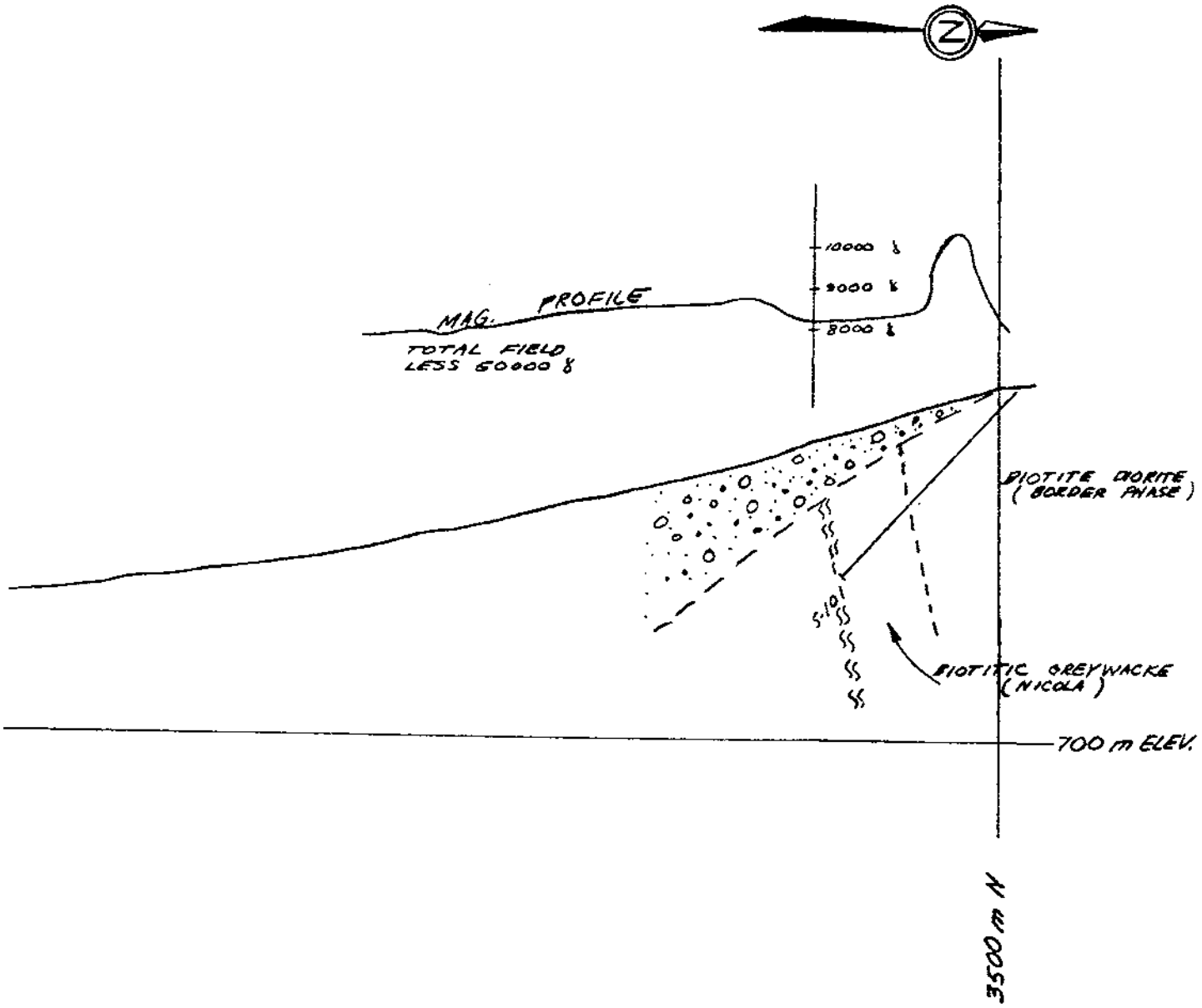


SECTION 17,320 (True N-S)

SCALE: 1 : 4800



MAP No. GE-A-70B

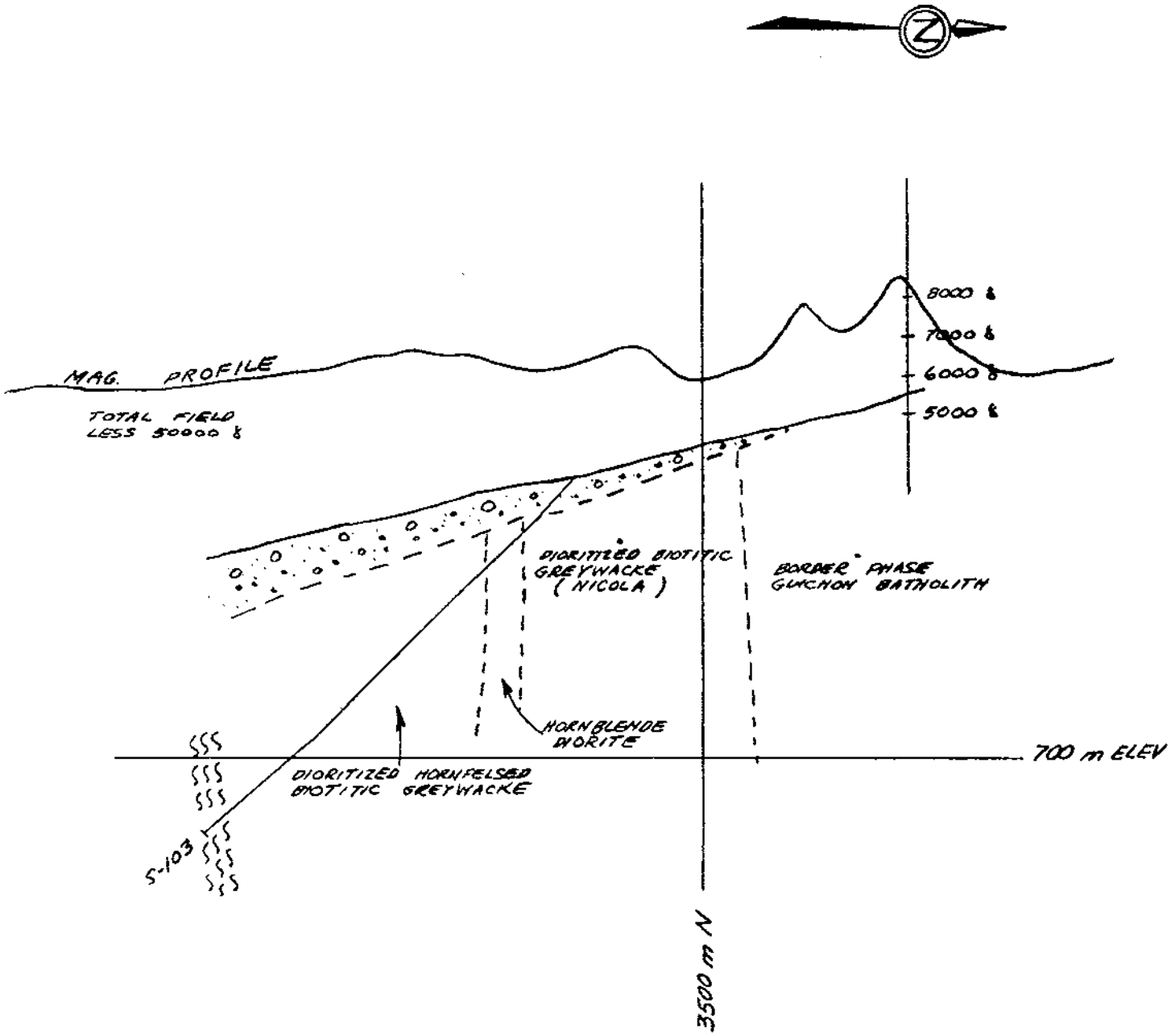


SECTION 15,120 (True N-S)

SCALE: 1:4800

Metres 100 0 100 200 Metres

MAP No. GE-A-70 C



SECTION 15320 (True N-S)

SCALE: 1:4800

Metres 100 0 100 200 Metres

MAP No. GE-A-70 D

The hole was lost in a large fault. The hole was drilled to 190m and was reamed from 110 to 186 with a tricone bit to install NW casing when the rods snapped and could not be picked up. 40 HQ rods and the tricone bit were lift in the hole.

S-103 (Section 17320)

Hole S-103 was collared on Section 17320 (true N-S) after S-101 was abandoned. The collar of this hole was south of the fault.

The hole cut 35m overburden, then diorized Nicola greywackes/siltstones to bottom at 403m. A patchy finger of border phase diorite was cut from 60-100m. This hole was also lost in another large fault, and the limy/skarn horizon was not cut, nor was the dacite unit encountered.

Six NQ rods and complete core barrel assembly, 17 HQ rods used as casing, 4 HW casing rods were left in the hole.

Drill Hole Co-Ordinates

Down the hole survey data (if available) is recorded on the drill logs. The collar co-ordinates of the holes were surveyed by transit and chain and tied into Craigmonts grid.

The collar co-ordinates are:

Hole	S-98	S-101	S-103	S-106
Size	NQ	HQ, NQ	HQ, NQ	HQ, NQ
Latitude	3596.19	3507.84	3379.96	3257.46
Departure	4975.61	4608.17	4664.17	5278.62
Elevation	922.73	963.9	918.66	806.13
Azimuth	181°32'	183°22'	180°04'	02°22'
Dip	-53°	-49°	-48½°	-51°
Length	696.5	189.3	402.9	216.7

The drill core is currently stored at the Craigmont Mine site.

CONCLUSIONS

The magnetic anomalies known from previous work were satisfactorily explained. The known unmineralized skarn zone appears to be of limited lateral and vertical extent. The dacite-greywacke contact lies further south than was anticipated and was not intersected. No significant amounts of chalcopyrite were seen and no core was assayed.

The Craigmont Mine area is noted for broken, faulty ground. The drilling budget for these four holes allowed for this and holes were drilled HQ size once bedrock was reached.

However, even knowing these conditions, Craigmont was unprepared to lose two of the holes prior to completion. Equipment lost down the hole and reaming to install casing accounted for 20% of the actual drilling costs.

Respectfully submitted,

G.R. Sanford,
Senior Mine Geologist.

ITEMIZED COST STATEMENT

All contract drilling by Connors Drilling Limited.

Orange Group

Hole S-98

696.5 meters of NQ core 1 Nov. 1977 - 12 Dec. 1978	$ 51,183.96
Cat rental and usage (prorated)	$ 1,564.00
Light log rental 2½ mos. @ $925/mo.	$ 2,268.43
Damage repair	$ 1,250.00
Total	$ 56,266.39
Cost/Meter	$ 80.78
Supervision, drill core logging, report preparation by G.R. Sanford	$ 733.61
Total Cost Orange Group	$ 57,000.00

Blue Group

Hole S-101

189.3 meters of HQ,NQ core 5 Jan. 1978 - 21 Jan. 1978	$ 23,875.39
Cat rental and usage (prorated)	$ 1,777.00
Total	$ 25,652.39
Cost/Meter	$ 135.51

ITEMIZED COST STATEMENT (Cont'd)

Blue Group (cont'd)

Hole S-103

402.9 meters of HQ,NQ core 24 Jan. 1978 - 17 Feb. 1978	$ 34,130.65
Cat rental and usage (prorated)	$ 1,079.00
Total	$ 35,209.65
Cost/Meter	$ 87.39

Hole S-106

216.7 meters of HQ core 17 Feb. 1978 - 27 Feb. 1978	$ 13,955.23
Cat rental and usage (prorated)	$ 1,319.00
Total	$ 15,274.23
Cost/Meter	$ 70.49
Supervision, drill core logging, report preparation by G.R. Sanford	$ 863.73
Total Cost of Blue Group	$ 77,000.00

Total footage Blue Group - 808.9m.

STATEMENT OF QUALIFICATIONS

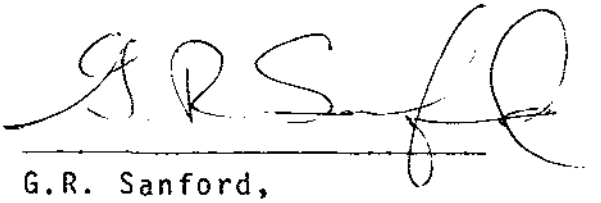
I, Gerald R. Sanford, of 1901 Parker Drive, Merritt, B.C. state that:

1. I graduated from the Univeristy of British Columbia in 1969, obtaining a Bachelor of Applied Science Degree in Geological Engineering.

2. I am registered as an Engineer in Training with the Association of Professional Engineers of British Columbia.

3. I have been continuously employed in the mining industry since graduation from University.

4. I am currently employed by Craigmont Mines Limited as the Senior Mine Geologist at the Merritt mine site.



G.R. Sanford,
Senior Mine Geologist.

APPENDIX I

CORE LOGGING STANDARDS

APPENDIX I

CORE LOGGING STANDARDS

As far as possible, terminology in these logs conforms to accepted Geological Standards, i.e. No mine terms are used.

Particle Sizes

Clastic Sediments

Clay	< 1/256 mm
Silt	1/256 - 1/16 mm
Sand	1/16 - 2 mm
Grit	2 - 4 mm
Pebble	4 - 16 mm

Pyroclastics

Tuffs (Fine ash)	< 1/4 mm
Lithic Tuff (Coarse ash)	1/4 - 4 mm
Lapilli Tuff	4 - 32 mm

Igneous Rocks

Fine Grained	< 1 mm
Medium Grained	1 - 5 mm
Coarse Grained	5 - 30 mm

ROCK TYPE

Limestone: Carbonate rocks containing < 10% impurities.

Impure limestone: 10 - 50% impurities.
Limy Rock: 50 - 90% impurities.

Clastic Sediment: Sediments consisting of rock and crystal fragments in a clastic matrix subdivided according to grain size.

Biotitic Unit: Clastic and limy rocks containing > 10% chocolate brown, generally fine grained biotite matrix. Subdivided according to composition of host, i.e. dacite lapilli in biotitic matrix.

Greywacke: Clastic rocks of predominately sand sized fragments in a dark silty matrix.

Dacite: Light colored pyroclastic and flow rocks commonly containing quartz phenocrysts.

Andesite: Dark colored pyrocastic and flow rocks commonly containing pyroxene phenocrysts.

Skarn: Any rock containing > 30% skarn minerals.

Skarnified Rock: Any rock containing 10 - 30% skarn minerals.

Dioritization: Dioritic texture in clastic rocks as a result of recrystallization.

APPENDIX II

DIAMOND DRILL LOGS

HOLE
S-98

--- DIAMOND DRILL LOG.

Grid No. ERIC Property CRAIGMONT MINES LIMITED Section No. 16320 Hole No. S - 98

Started 1 NOV. , 1977	Bearing 181° 32'	Dips -53	Lat. 3596.19	Elevation 922.73	Location Quartzite 4
Completed 12 Dec. 1977	Length 696.5 m.	Surface Hole X	Dep. 4975.61E	Level	Logged by G. Sanford
Standpipe Left	Casing NW	Underground Hole	Remarks		1/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
0	12.2	%	Overburden. Triconed.		
			0- 3.4 6" Tricone - cased HW		
			3.4 - 12.2 4 7/8" Tricone - Cased NW		
			May have been bedrock from 5 m.		
12.2	17.4	98	Medium grained, medium to dark inhomogeneous hornblende (hbd) diorite with clots biotite to 1 cm. 10% Patchy clots of hornblende. Scattered light veinlets to 5 cm of quartz - plagioclase. Minor chalcopyrite (cpy) as blebs, veinlets. 3% Epidote as veinlets and vein margins. Joints + 10 cm. (Alteration percentages are as a percent of the rock interval.)		
17.4	21.0	98	Light to mid-grey green hornblende plagioclase porphyry dike. Upper contact at 40° to core axis (TCA), lower indistinct. 2% Epidote. Joints + 10 cm.		
21.0	46.9	95	Much same as 12.2 - 17.4. Sections biotitic. Coarser grained in sections. 33.2 - 37.5 partially dioritized engulfed fragment or altered dike. Minor patches cpy through-out.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property CRAIGMONT MINES LIMITED Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		2/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			At 24.9 - 30 cm epidote-actinolite alteration. 3% Epidote.		
			Joints + 10 cm.		
46.9	49.4	90	As Above. Bleached and gougy interval. 48.2 - 49.4. Mostly gouge.		
			Joints + 10 cm.		
49.4	79.3	98	Dark hbd diorite as previous intervals, 5% Epidote as patches. Blebs, patches of cpy, some pyrite on fractures. 3 - 5% Magnetite.		
			Joints + 10 cm.		
79.3	95.0	98	Dark, fine grained, almost andesitic rock. Probably a strongly hornfelsed biotitic siltstone or greywacke. Faint purple hue due to biotite. Faint suggestions of banding 40° TCA. 5% Scattered dioritized sections and quartz-plagioclase veins. Gradational change over 3 meters 76.2 - 79.3. 5% Magnetite. Joints + 10 cm.		
95.0	100.0	80	Fault Zone - Mostly mud and gravel of above and next interval. 95.1 - - 96.6 mud. Joints < 1 cm.		
			Tried to cement. Reamed hole to 98.5, placed NW casing.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		3/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
100.0	102.7	98	Dark, finegrained, slightly mottled feldspar porphyry. Feldspars to 5 mm, 5 % Magnetite, 2% Epidote. Joints to 10cm.		
102.7	110.6	95	Mid green, finegrained augite hornblende feldspar porphyry 105.8 - 107.3 feldspar porphyry as above. Abrupt contact at 102.7 - 30° TCA with chilled margin. Lower contact bleached, fewer feldspars. Sparse augite porphyry from 110.0 - 110.6. 3% Epidote. Joints + 10cm.		
110.6	142.0	95	Dark finegrained feldspar porphyry. 10% patchy dioritic sections to 121 then 30% 134 - 142. 116 - 116.4 30% calcite. Feldspars to 5 mm, generally 2 - 3 mm. 1% Pyrite in veinlets, flecks cpy. 2% Epidote. Almost gabbroic texture in places. Joints + 10 cm.		
142.0	144.5	98	As above, but generally broken. Slightly bleached, siliceous 142.0 - 142.3. 144.2 - 144.5 Felsic Dike. Joints to 10 cm.		
144.5	204.5	98	Medium grained inhomogeneous dark hornblende biotite diorite.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		4/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			Some finegrained andesitic patches, occassional patch epidote.		
			149.5 - 151 Andesitic patch with bleached contacts. 190.2 - 190.5 gouge.		
			Scattered Py, Cpy < 1 %. Joints + 10 c.m.		
204.5	210.6	98	Dark, finegrained strongly hornfelsed biotitic greywacke. Almost		
			andesitic in appearance. Locally brecciated with diorite. Plagioclase-		
			-Quartz veinlets with minor K-spar cut breccia. 5% Magnetite, Minor		
			Cpy. Joints + 10 cm.		
210.6	224.9	98	Dark, fine to medium grained, hornblende biotite diorite. Plagioclase		
			-Quartz veinings, Same plagioclase ironstained, resembles K-spar. Patches		
			of above interval. At 223.4, 30 cm altered with 20 % Epidote-Actinolite		
			2% Epidote. Joints + 10 cm.		
224.9	227.1	95	Crushed, broken, gougy zone of dark finegrained greywacke as 204.5-210.6		
			2% K-spar. Joints 5 - 10 cm.		
227.1	271.0	98	Dark, fine to medium grained inhomogeneous diorite. 40% Mafics. Vague		
			brecciated appearance due to felsic veinings. Flecks cpy. Scattered crushed		
			broken zones to 1.5 m. wide. 241.6-242.0 chloritic with Cpy-Magnetite,		
			estimate grade 1.0% cu. At 236.2 - 2 cm. specularite-cpy vein		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		5/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			Joints + 10 cm.		
271.0	288.0	98	60% Finegrained almost graphic granite (60% K-spar) with pegmatitic patches.		
			40% fine grained dark hornblende diorite, (276.5 - 277.4, 280.1 - 285.0).		
			At 277.4, 10 cm mush. 285.0 - 288.0 broken, somewhat crushed. Scattered		
			rusty pyritegrains. Joints + 10 cm.		
288.0	301.5	95	Fine to medium grained dark hornblende diorite. At 291.5 - 297.0, 30 cm		
			broken, gougy. Minor K-spar and stained plagioclase. Joints + 10 cm.		
301.5	319.7	98	Very finegrained to fine grained dark, foliate, hornfelsed, biotitic		
			biotitic siltsone to greywacke. Foliate ≈ 30° TCA. 305.4 - 306.0		
			broken, 307.2 - 308.5 Mushy. Calcite fracture filling. 1% Pyrite,		
	.		epidote. Joints + 10 cm.		
319.7	325.2	90	As above, crushed, broken zone. Some gouge 319.7 - 321.6. Minor		
			carbonate breccia matrix. Joints 2 - 5 cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		6/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
325.2	337.4	95	As 301.5 - 319.7. Few Dioritic patches. Minor garnet, epidote at 334.1. Some epidote along foliations. Foliade 30° TCA @ 328, 80° @ 331. Joints + 10 cm.		
337.4	347.8	95	As previous interval, only more dioritized. 10% Scattered K-spar - -Quartz veinings to 60 cm. Broken 339.2 - 342.9. Joints 5 - 10 cm.		
347.8	401.1	90	60% dark grey foliate, biotitic rich, fine to medium grained dioritized greywacke alternating with 40% medium to coarse dark grey biotite, plagioclase dioritized greywacke grit. Greywacke grit contains recognizable rock fragments at 378 (argillite, green rhyolitic rock, feldspar crystals) Sporadic K-spar-Quartz-Plagioclase to 30 cm. Foliation 40° - 30° down interval. Lithologies mixed and patchy. Fine grained biotitic greywacke more abundant from 396 on. Joints + 10 cm.		
401.1	431.9	98	Arbitrary contact change to predominately (+80%) medium to fine grained biotitic greywacke. Hornfelsed, weakly foliate. Slight local dioritization. Foliation generally 30° TCA, Variable. Fracture related green alteration 407.8 - 410.6. Generally appears to be sequential units; silt- fine silt- medium silt - coarse silt-		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		7/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			- greywacke grit over 2 - 4 m. with sharp boundaries from grit to next		
			lower unit. 2% disseminated epidote. Joints + 10 cm.		
431.9	432.8	98	Light green, aphanitic feldspar porphyry dike with Epidote- Magnetite blebs		
			to 2 mm. Possible minor galena? 5 mm. of K-spar - Epidote - Calcium		
			carbonate + chlorite at base. 20 cm. chill at sheared upper contact.		
			Lower contact 30° TCA. Joints + 10 cm.		
			' Cont'd '		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		8/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
432.8	441.4	98	Silt to fine greywacke grade dark purple grey biotitic hornfelsed greywacke. Generally massive. Local dioritization. Some foliations - 30° TCA. Scattered K-spar, quartz. granophyre veinings. 433.1 - 433.4 light green due to silicification related to dike. Joints + 10 cm.		
441.4	464.8	85	Generally massive, medium grained, grey green, biotitic feldspathic, hornfelsed greywacke. Locally coarse and fine grained, slightly dioritized. Foliation 30° TCA at 464 2. Numerous broken zones 1 - 2 meters wide. Hematite -epidote-calcium carbonate shear at 4523. 455.7 - - 456.0 granophyric K-spar-quartz-tourmaline (?). At 457.2, 30 cm Epidote-K-spar-Quartz vein. Patchy diorite from 458.4 460.2- 462.7 Patchy, fine grained green siliceous material. Joints to 5 cm.		
464.8	477.0	90	Massive, medium to coarse grained, grey feldspathic biotitic greywacke with 30% patchy dioritization. Local fracture related epidote 474.6 - 477.0. Diorite patches cut by granophyre veinings of K-spar- -Quartz -plagioclase. Joints + 10 cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		9/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
477.0	485.2	98	Fine to medium grained grey-green-purple greywacke. Local K-spar flooding from 482 on. Weakly dioritized. Weakly foliate 30° TCA, 482-485. 483.5 - 485.2 40 - 50 % K-spar flooding in bands parallel to foliation. Joints + 10 cm.		
485.2	508.1	98	Coarse grained, foliate, dark biotitic greywacke with a strong dioritic texture. 20 -25% mainly biotitic mafics. 487 - 491 K-spar-Epidote flooding. 496 - 498 K-spar flooding. 493.7 496.2 Cpy stringers in foliations, also 506.3 - 508.1 cpy not related to K-spar floodings or epidote -chlorite veinlets. Foliations 30° TCA, wavy. Some patchy chloritization. Joints + 10 cm.		
508.1	519.7	98	As above. Patchy chloritization, saussuritation, K-spar flooding. 40% biotite mafics + hbd. Foliations 30° TCA, variable. Minor cpy. Joints + 10 cm.		
519.7	523.0	98	Fine to medium grained dark hornfelsed greywacke with a dioritic texture. Well foliate, wavy, subparallel TCA. 40 - 50% mafics. Joints + 10 cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		10/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
523.0	524.3	98	Coarse to medium grained dark hornfelsed greywacke-grits. Dioritic texture, weakly foliate. Joints + 10 cm.		
524.3	524.6	50	Gouge. Joints < 1 cm.		
524.6	559.6	98	Medium grained, middle to dark gray, hornfelsed biotitic greywacke with a dioritic texture. Locally fine grained. Weak, but highly variable foliations; 0 - 30° TCA. Some pervasive chloritization of biotite. Very minor alteration. Joints + 10 cm.		
559.6	565.7	98	Coarse to medium grained dark greywacke- grit. Biotite rich (+60%) patches. Dioritized through-out. 2% epidote. Joints + 10 cm.		
565.7	605.6	98	Medium to coarse grained, midgray, biotitic greywacke. Dioritic texture through-out. Pervasive chlorite 566 - 579. Local blue quartz grains. Streaky, wavy foliations sub-parallel TCA. 589 - 606 rough bands 3 -4.5 m thick of alternating coarse grained feldspathic grit with 15 - 20% mafics and medium to fine grained biotitic greywacke with 20 - 40% mafics.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S - 98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		11/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			Epidote patches more common in feldspathic bands. Local greenish feldspar crystals to 4 mm. 2% Epidote, trace cpy, specularite. Joints + 10 cm.		
605.6	610.8	98	Fine to medium grained granitic dike. K-spar-Quartz with graphic texture Minor tourmaline? Sharp contacts, upper 60°TCA, lower 80°TCA. Joints + 10 cm.		
610.8	619.1	98	As 565.7 - 605.6. Foliations wavy 30° - 40° TCA. Joints + 10 cm.		
619.1	620.6	90	Breccia of dioritized greywacke. Matrix of epidote (10%) - K-spar (5%) - Quartz (2%) Calcium Carbonate (1%) . Minor actinolite, Hematitie, Cpy (1 - 2% each). Joints < 5 cm.		
620.6	635.2	98	Medium grained dark gray dioritized greywacke. Biotitic, feldspathic, + 40% mafics. Foliate 40° TCA @ 621, 60° @ 631. Rare cpy veinlets sub-parallel to foliation. Joints + 10 cm.		
635.2	647.7	98	Fine grained to silty, dark gray geeen hornfelsed greywacke. Well foliate 25° TCA. Weakly banded biotite-chlorite/feldspar-epidote.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S -98

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		12/12

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			Some coarse recrystallized biotite.. Joints + 10 cm.		
647.7	656.7	98	Medium to coarse grained mid-gray to greenish gritty greywacke. Hornfelsed, well banded 40° TCA. Sporadic feldspar crystals . Joints + 10 cm.		
656.2	696.5	98	Fine to medium grained, mid to dark grey biotitic greywacke. Well banded 30° - 40° TCA, hornfelsed. Uniform 30% biotite. Minor specularite, quartz in fractures (< 2%). Scattered clots biotite. Local patches of argillite fragments, altering to clots biotite.		
			END AT 696.5		
			NO INTERVALS ASSAYED		
			NO SURVEY DATA		
			NW SHOE, 97.5 meters NW casing left in hole.		
			Virtually all rocks contain 2 - 3 % magnetite. Silty sections slightly more.		

APPENDIX III

DIAMOND DRILL LOGS

HOLE
S-101

--- DIAMOND DRILL LOG.

Grid No. Eric Property Craigmont Mines Limited Section No. 15120 Hole No. S-101

Started 7 Jan. 1978	Bearing 183°22'	Dips -48°47'	Lat. 3507.84	Elevation 963.9	Location Quartzite 3
Completed 21 Jan. 1978	Length 189.3m	Surface Hole X	Dep. 4608.17E	Level	Logged by G. Sanford
Standpipe	Casing	Underground Hole	Remarks Acid test @ 76.2 = -47°		1/5

FOOTAGE From	FOOTAGE To	Core Recovered %	Description	Assay	Average Values
0	19.2	80	Medium to coarse grained inhomogeneous middle grey biotite diorite. Local patches and veinlets of hornblende diorite to 10cm. 25% biotite, <5% hornblende, 1-5% variable magnetite. Typical biotite diorite has very ragged anhedral and saussuritized feldspars, usually 1-3m. Texture and biotite content suggest recrystallized greywacke rather than intrusive diorite. Minor epidote, quartz-plagioclase veinings. Zones to 10cm of pale green epidote-chlorite ±calcium carbonate alteration (greenitization). 2% epidote. Joints to 10cm. Sections broken, limonite stained.		
19.2	26.8	95	Medium to fine grained inhomogeneous light to middle grey biotite diorite as above, but with 10% patches of finer grained material. Minor pink feldspar, but hematized plagioclase rather than K-spar. Greenitization as above to 30cm. 1% epidote in fractures and alterations. Joints +10cm.		
26.8	33.5	95	Medium to coarse grained patchy inhomogeneous middle gray biotite ±hornblende diorite as above. Patchy greenization. 1% epidote in fractures. Joints to 10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-101

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		2/5

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
33.5	50.0	95	Medium to coarse grained in homogeneous middle grey biotite ± hornblende diorite with 10% patches of coarse to very coarse grained hornblende diorite to 10cm wide with feldspar rich centres surrounded by epidote-hornblende. Patches of hematite, epidote-chlorite, and aplite veins to 5cm Epidote 2%. Minor grains chalcopyrite, patchy greenitization. Joints +10cm.		
50.0	77.4	95	Medium grained biotite diotite with 15% inclusions of fine grained biotite diorite. 20% mafics. Patchy texture. Minor coarse to very coarse grained hornblende diorite patches, 10% medium grained hornblende diorite. At 59.7, 30cm epidote, minor actinolite skarn. Blobs cpy. Relativley uniform from 6300. Joints +10cm.		
77.4	78.9	98	Fine grained grey green feldspar hornblende porphyritic andesitic dike. Sharp irregular contacts. Upper 60° to core axis (TCA), lower 75°(TCA). No chill zone in dioritic rocks. Joints to 10cm.		
78.9	97.2	98	Medium to fine grained light to middle grey biotite diorite 10-15% mafics. Pervasive grey green alteration. Patchy chlorite and hematite on fractures. Some fracture epidote with K-spar rims to 2 cm wide. 79.2-.9 zeolite (?) veinings. Joints to 10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-101

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		3/5

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
97.2	102.4	95	Medium grained light to middle grey massive equigranular biotite hornblende quartz diorite. 20-25% mafics. Local pervasive K-spar alteration (20%) associated with quartz-chlorite-calcium carbonate-hornblende-pyrite veinlets. Minor granophyre. Joints to 10cm.		
102.4	103.5	90	Fine grained K-spar (40%)-quartz (30%)-epidote (5%) vein. Minor calcite Joints to 5cm. Slightly gougy.		
103.5	110.3	85	Medium grained light grey biotite hornblende quartz diorite. 25% mafics, pervasively chloritized. Generally broken, especially to 105.1-2% epidote, K-spar patches. Joints to 5cm. Reduce to NQ.		
110.3	126.2	85	Medium grained midgrey biotite hornblende quartz diorite. 15-20% mafics. Patchy alteration, mainly vein related – Epidote, K-spar, Chlorite. Pervasive chloritization, and hematitie in plagioclase 120-125. Scattered 30cm brecciated sections with earthy limonite. Joints to 10cm.		
126.2	131.7	90	Coarse grained middle grey feldspar grit. Dioritic textures. Large feldspar crystals to 6mm in a fine grained chloritic matrix. Crystals 60-70% of rock. No visible hornblende. 10% biotite. Joints to 10cm, broken, gougy sections, limonite stained.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-101

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		4/5

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
131.7	133.8	90	60% medium grained middle biotite rich feldspathic greywacke. Dioritic texture from recrystallization. 40% medium to coarse grained dark hornblende diorite, mafic rich (60%), 5% K-spar alteration in matrix. 1% veinlet epidote. calcium carbonate. Joints to 10cm.		
133.8	143.2	90	Fine to medium grained middle grey green mottled greywacke. Dioritic texture. Mafic poor, 10-15% biotite. Locally coarse grained and more mafic. Weakly banded 50° to core axis (TCA) 142.6-143.2. Joints +10cm.		
143.2	150.3	50	Mainly rubble and gouge. Locally recognizable fragments of very fine grained white to pinkish stained siliceous rock (aplite?) in chloritic matrix from 143.2-147.8. From 147.8 breccia fragments as next interval. 10% chlorite. Joints tO 5cm. Ream to HQ and place NW casing to 146.3		
150.3	154.3	98	Medium grey middle grey to greenish greywacke. Dioritic texture, 10% mafics. 30cm chlorite-K-spar (?) alteration adjacent to next interval. Joints +10cm.		
154.3	155.8	90	Coarse grained hornblende diorite. Hornblende 20%, biotite 5%. Some chloritization and saussuritization. 2cm aplite dike at 155.1. Sharp upper contact at 45° TCA. Joints to +10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-101

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		5/5

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
155.8	159.1	80	As 150.3-154.2. Gouged and broken zone. Joints to 5cm.		
159.1	176.2	75	Medium grained mid to dark grey biotitic greywacke. Dioritic texture, 15-20% biotite. Badly broken or gouge throughout. Joints to 5cm.		
176.2	189.3	40	Gouge. Unrecognizable rock. Some fragments with dioritic texture. Joints to < 1cm.		
			Reamed HQ and placed NW casing to 184.7.		
			Hole lost at 189.3 in fault.		
			Left 40 HQ rods, NW casing shoe in hole.		
			No survey data other than collar and acid test at 76.2.		
			All rocks contain 1-3% magnetite.		

APPENDIX IV

DIAMOND DRILL LOGS

HOLE
S-103

--- DIAMOND DRILL LOG.

Grid No. Eric Area Property Craigmont Mine Limited Section No. 15320 Hole No. S-103

Started 27 January 1978	Bearing 180°04'	Dips -48½°	Lat. 3379.96	Elevation 918.66	Location Quartzite 3
Completed 13 February 1978	Length 402.9m	Surface Hole -	Dep. 4664.17	Level	Logged by G.R. Sanford
Standpipe	Casing	Underground Hole	Remarks Survey data last page.		1/8

FOOTAGE From	FOOTAGE To	Core Recovered %	Description	Assay	Average Values
0	34.1		Overburden triconed		
			0 - 7.3 6¼"		
			7.3 - 34.1 4-7/8"		
			Start HQ		
34.1	43.3	90	Medium to coarse grained recrystallized (hornfelsed) middle grey green biotite greywacke. Biotite 15%, Hornblende <5%. Dioritic texture throughout. Massive but fracture veined and saussuritized. Fractures filled with Chlorite, K-Spar, epidote as pervasive alteration. Limonite fractures. Joints to 10cm, somewhat broken.		
43.3	53.0	75	Fine grained to aphanatic dark grey magnetic (5%) tuff-silt. Whispy bands plagioclase feldspar throughout give foliation 40° to core axis (TCA), originally crystal fragments (?). Some saussuritization. Local disseminated chalcopyrite, especially near fractures. Fracture related K-spar 48.5-53.0 (5%). Broken zones limonitic. 50.6-52.4 brecciated with K-spar-Plagioclase filling. Joints +10cm.		
53.0	53.3	98	Medium to coarse grained middle grey dioritized greywacke. 5% K-spar. Joints +10cm		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		2/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
53.3	55.2	90	Fine grained pinkish buff aplite dike. 10% feldspar crystals to 1mm. Minor hornblende. Seems to be pervasive K-spar altered. Joints to 5cm, broken, limonite stained.		
55.2	61.3	90	Fine grained to aphanitic dark grey hornfelsed tuff/sitt, as 433-530. Brecciated texture of silt fragments in a K-spar-quartz matrix. 10% L-spar, 5% magnetite. Minor epidote, chalcopyrite. Joints +10cm.		
61.3	70.7	95	40% fragments and patches of light to middle grey hornfelsed tuff/silt in medium grained matrix of darker hornblende diorite (60%). Diorite locally aplitic and feldspathic. Mafic rich 64.0-70.7. Patchy epidote-K-spar 65.8-66.4. 2% magnetite, 5% K-spar, 1% Epidote. Joints +10cm.		
70.7	73.5	95	Fine grained middle grey patchy dioritized silt with a light greenish zone from 71.6-72.8 rich in feldspar crystals and hornblende needles; could be dike with gradational margins. 2% magnetite. Joints +10cm. Limonite stained.		
73.5	77.4	70	As 61.3-70.7. 70% dark grey to greenish coarse grained diorite matrix, 30% silt breccia fragments. 2% magnetite Gouge 75.3-76.8 (joints to 5cm, limonite stained). Joints +10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		3/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
77.4	89.0	95	Coarse grained middle grey biotite (15) hornblende (25) diorite. Patchy texture, Massive. Minor epidote veining (1%). 1% magnetite. Some pink stained plagioclase. Joints +10cm.		
89.0	90.5	98	Fine grained partly epidotised (2%), greenish grey dioritized siltstone inclusion in diorite. 3% magnetite. Joints to 10cm.		
90.5	94.8	98	Coarse grained, inhomogeneous patchy textured biotite (5%) hornblende (25-30%) diorite. Greenish grey. K-spar and epidote-quartz-calcium carbonate veinings. 3% epidote, 3% F-spar, 2% carbonate. 5-10% pink stained plagioclase. 94.5-94.8 gouge. Joints +10cm.		
94.8	106.7	90	Fine grained dark grey greenish hornfelsed and dioritized silt. Mostly massive, but local sporadic plagioclase feldspar rich bands. Patchy K-spar-epidote, saussuritization. Whispy bandings 30-50% TCA, 5% magnetite, K-spar 2%, Epidote 1%. Joints +10cm.		
106.7	116.7	95	Mixed medium to fine grained dark to light grey dioritized greywackes and silts. Biotitic ilts weakly banded 30-50° TCA with whispy feldspar bands. Patchy recrystallization in greywacke. 113.7-114.0 gouge. 4% epidote, 2% K-spar, 1% magnetite. Joints +10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		4/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
116-7	129.8	95	Fine grained dark grey-purple biotite rich siltstone. Partly hornfelsed. Massive. Local concentrations of feldspar crystals (greywacke). 5cm magnetite vein at 116.7. Scattered veinlets granophyre (K-spar, quartz, hornblende). 1% epidote, 2% magnetite. Broken 127.7-129.8. Joints +10cm.		
129.8	132.9	90	Coarse grained grey green feldspar porphyry dike. 30% feldspar crystals to 3mm, average 2mm. Joints +10cm.		
132.9	144.5	85	Fine grained dark greenish grey to purple biotitic siltstone. Badly broken throughout. Hornfelsed,2-3% magnetite, minor alterations. Joints to 5cm, patches gouge to 30cm.		
144.5	163.1	95	Medium grained massive purple grey hornfelsed greywacke. Partly biotitic matrix. 10% whispy plagioclase bands. 3% magnetite. Minor granophyre. Broken, some gouge 154.8-156.2, 161.5-162.2. Joints to 10cm.		
163.1	205.1	98	Fine to medium grained dark grey-purple hornsfelsed biotitic siltstone. 10% epidote alteration 174.7-177.1. Sections have dioritec texture. Badly broken 198.7-200.3. Banded 30° TCA @ 173.7. 3% magnetite. Joints +10cm. Reduce to NQ at 165.8.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		5/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
205.1	209.7	80	As above, badly broken, gougy interval. Joints to 2cm. Ream HQ 165.8-207.3 Continue HQ.		
209.7	224.3	98	Medium to fine grained mixed grey greywackes and siltstones. Partly recrystallized to patchy dioritic texture. Weak local bading 55° TCA. Predominated dioritized 219.5-224.3. Joints +10cm.		
224.3	226.2	98	Fine grained brecciated dark siltstone with a matrix of very fine grained chlorite. 2% magnetite. Joints +10cm.		
226.2	251.2	85	Broken fine to medium grained middle grey silty greywacke. Massive, weakly banded 25° TCA @ 226.8, 30° @ 235.3, 55° @ 247.5. (Whispy plagioclase bands). Minor chlorite and epidote - calcium carbonate veining. 247.2-251.2 banded silt. 243.5-247.2 badly broken. Joints +10cm. Reduce to NQ at 247.8.		
251.2	299.3	98	Fine to medium grained grey, sometimes greenish greywacke. Generally banded - either silt or feldspar bands 40° TCA. Weakly hornfelsed. Minor quartz-K-spar veinings. <1% magnetite. Joints +10cm.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		6/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
299.3	330.1	98	Fine grained middle grey greenish biotic siltstone with minor greywacke. Weakly banded 30° TCA. 10% local patches to 5cm of epidote-actinolite skarn with minor magnetite, calcium carbonate ±chalcopyrite. Skarn seems to preferentially replace certain bands. 313.6-318.5 sporadic quartz-chalcopyrite veins and epidote-quartz-chalcopyrite fracture fillings with minor pyrite. Estimate 0.2% Cu 317.0-320.0 very well banded. From 323.0 on, minor K-spar. Minor granophyre. 5% epidote, 2% actinolite, 2% feldspar, 1-2% magnetite. Joints to +10% cm.		
330.1	336.5	98	Medium grained middle grey weakly banded biotitic greywacke .30° TCA. Minor granophyre. Joints to 10cm.		
336.5	341.4	98	Fine to very fine grained middle grey biotitic siltstone. Locally broken. Locally altered green. Minor blobs chalcopyrite, Tourmaline veinings. Some K-spar, hematite veining. 5% K-spar. Joints to 5cm.		
341.4	354.8	70	Fine grained greenish grey greywacke to siltstone. Badly broken, 30% gouge. Minor local epidote-actinolite skarn (1% of each). 341.4-344.4, 20 cm core recovered. Joints to 5cm, mushy.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		7/8

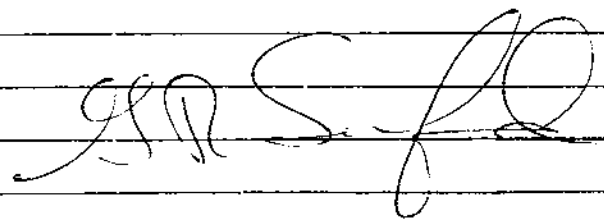
FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
354.8	370.6	95	Medium grained greenish grey chlotitic greywacke. Fairly broken, 354.8-		
			359.7, 367.3-370.6. Weakly banded 45° TCA. Minor chalcopyrite along bandings.		
			Joints +10cm.		
370-6	379.5	80	Gouge zone with minor remnants of very altered light green siltstone.		
			Brecciated throughout. Joints +10cm but 80% mud.		
379.5	383.3	80	Sheared, gouged and badly broken zone. Fine to medium grained greenish		
			grey siltstone and greywacke. Some remnants fine grained purple greywacke.		
			387.4-388.3 epidote-quartz-magnetite skarn. Joints to 5cm, 10% gouge.		
388.3	402.9	90	Gouge zone. Minor remnants of purple-green ine grained greywacke and silt		
			as above. Mostly brecciated mud. Joints to 5cm.		
			Hole ends at 402.9		
			No intervals assayed.		
			Rods broke, left core barrel, inner tube, 60 NQ rods in hole.		
			17 HQ rods and casing shoe left in hole after blasting.		
			5 HW casing and casing shoe left in hole after blasting.		

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-103

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		8/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Assay	Average Values
			Survey data:		
			Depth — Azimuth — Dip — Method		
			Collar — 184° — -43½° — Transit		
			76.2 — --- — -44° — Acid		
			152.4 — --- — -45° — Acid		
			228.6 — --- — -45° — Acid		
			313.3 — ? — -47° — Tropari		
			356.6 — --- — -40°? — Acid		



APPENDIX V

DIAMOND DRILL LOGS

HOLE
S-106

--- DIAMOND DRILL LOG.

Grid No. ERIC - NORANDA Property Craigmont Mines Limited Section No. 17320 Hole No. S-106

Started 19 Feb. 1978	Bearing 02°22'	Dips -51°	Lat. 3257.46	Elevation 806.13	Location ETTA 1,2
Completed 24 Feb. 1978	Length 216.71	Surface Hole X	Dep. 5278.62	Level	Logged by G. Sanford
Standpipe HQ	Casing	Underground Hole	Remarks Survey data last page		1/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
0	35.9	%	Overburden - Triconed 6-1/4" to 7.9 cased PW					
			4-7/8" to 35.9 cased HW					
35.9	47.5	95	Massive medium grained middle grey biotitic					
			greywacke with a strong dioritic texture. Fuzzy					
			feldspar crystals to 2mm with interstitial					
			biotite/chlorite, minor hornblende, magnetite,					
			chalcopyrite. Scattered broken sections to					
			2m wide with earthy hematite along fractures.					
			Rare epidote in fractures. Joints to 10cm.					
47.5	57.3	95	Medium and fine grained light grey greywacke,					
			flooded by 40% medium and fine grained pink-					
			buff K-Feldspar and quartz. Generally broken.					
			K-Spar mainly related to fractures with 2%					
			epidote but gives pink colour to existing					
			feldspars. Dioritic texture preserved, but					
			locally completely flooded. Pervasive flooding					
			to 51.8, then sporadic vein related K-Spar.					
			Locally fractured, oxidized. Joints to 5cm.					
57.3	65.5	98	Medium grained weakly banded grey-green patchy					
			textured dioritized greywacke. Patches to 1cm					
			of dark green amphibole within uniform					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
			dioritized greywacke. Veinlet related epidote-					
			quartz-K-Spar alteration (2% each). Locally					
			resembles hornblende diorite due to concentration					
			of smaller amphibole patches. Joints +10cm.					
65.5	88.4	95	Mixture of finegrained dark greenish grey					
			biotitic feldspathic greywackes and siltstones.					
			Variable magnetite: generally 1-2% in finegrained					
			greywacke, 3-4% in siltstone - but patchy.					
			Veining of hornblende diorite, quartz, carbonate,					
			epidote-pyrite-chalcopyrite, all generally less					
			than 5cm wide. Two 30cm granitic dikes 85.3 -					
			87.5. At 82.3cm banded 60^{0} to core axis (TCA)					
			Joints +10cm.					
88.4	91.7	95	Medium grained pink-white leucocratic granite					
			dike, badly gouged. Joints $<$5cm.					
91.7	94.8	90	Massive dark grey-green siltstone and finegrained					
			greywacke. Hornfelsed with cross cutting					
			granite-quartz monzonite dikes ($<$10% of interval).					
			Minor patches of epidote-magnetite-actinolite $\pm$					
			calcium carbonate skarn.					
			2% magnetite , epidote .					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		3/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
			1% Quartz, Carbonate, Actinolite					
			Joints to 10cm.					
94.8	96.9	90	Leucocratic dike as above. Badly gouged.					
			Joints < 5cm.					
96.9	97.8	90	Medium grained dioritized greywacke, 15%					
			skarnified with epidote-actinolite magnetite.					
			Brecciated and gougy. 10% epidote,					
			3% actinolite, 2% magnetite, 1% carbonate.					
			Joints to 1cm.					
97.8	108.5	98	Medium grained pink greywacke. 40% K-Feldspar.					
			No evidence of flooding as 47.5-57.3. Dioritic					
			texture, hornfelsed. Minor calcium carbonate					
			veinlets; otherwise massive, homogeneous.					
			Few % biotite, looks chloritized. Joints +10cm.					
108.5	109.4	98	Massive medgrained green biotite hornblende					
			diorite with a 15cm quartz-plag vein. Joints					
			+10cm.					
109.4	131.1	95	Dark grey-green-purple, massive but weakly					
			banded siltstone to very finegrained greywacke.					
			Patchy epidote-quartz-calcium carbonate,					
			K-feldspar alteration and veinings.					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		4/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
			5% epidote, 2% each for rest. 10% of rock is					
			hornblende diorite as streaky patches. Variable					
			magnetite 1-5%, highest adjacent to epidote					
			patches. At 114.3 banded 65° TCA. Joints +10cm.					
131.1	133.8	98	Medium grained pink granite dike. Sections as					
			97.8-108.5. 60% K-Spar. Trace of veinlet					
			epidote. Sharp contacts @ 40° TCA. 2mm					
			wide chill zones. Joints +10cm.					
133.8	154.2	98	Inhomogeneous fine to medium grained hornfelsed					
			and dioritized greywacke with patches and veins					
			of hornblende diorite (35% of rock type) and					
			veins of granophyre, epidote-quartz and					
			carbonate (< 2% each of alterations).					
			Occassional bleb chalcopyrite. Very fine					
			grained remnants have 3-4% magnetite. 60cm					
			gouge at 139.3. More homogeneous from 144.8-					
			151.8, mediumgrained mafic rich (40-50%)					
			recrystallized greywacke with veins but few					
			patches, 1-2% magnetite. 30cm coarse grained					
			granophyre dike @ 151.8. Joints +10cm.					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		5/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
154.2	155.8	98	Dark grey hornblende diorite-recrystallized					
			greywacke flooded by pink (K-Spar) granophyre					
			dyke. Medium coarsegrained patch of					
			actinolite-epidote-chalcopyrite @ 155.4. 40%					
			K-Spar. Joints +10cm.					
155.8	157.9	98	Medium grained black hornblende rich					
			recrystallized greywacke with 20% dioritic					
			patches. Epidote 2%. Joints +10cm.					
157.9	161.5	98	Medium-coarse granophyre to granite dike.					
			Sections probably flooded greywacke. 60% K-Spar.					
			Joints to +10cm.					
161.5	186.2	98	80% mafic rich (30-40%) diorite with patches					
			and veins of very coarse grained hornblende					
			diorite and patches of K-Spar-quartz-					
			hornblende granophyre up to 30cm wide.					
			20% dark green mediumgrained dioritized					
			greywacke. 10% K-Spar. Joints +10cm.					
186.2	196.0	98	70% finegrained light green rock, banded at					
			10^{0} TCA @ 195.1, 30% mediumgrained in-					
			homogeneous green-pink granitic rock. K-Spar					
			variable throughout both rock types. Looks					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		6/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
			like flooding. Banded rock looks like bleached					
			version of siltstone-greywacke of next section,					
			but contains plagioclase feldspars. 40% K-Spar.					
			Joints +10cm.					
196.0	200.3	98	80% dark grey-green hornfelsed siltstone and					
			20% finegrained greywacke. 4-5% magnetite in					
			very fine grained portions. Veinlets of					
			epidote, minor garnet, calcium carbonate					
			(<2% altn.). Joints +10cm.					
200.3	200.9	95	Breccia vein with fragments of siltstone (70%)					
			in quartz- plagioclase-calcite-chalcopyrite					
			matrix (30%). Cpy blebs to 8mm, rounded.					
			Estimated grade 1% Cu, 2% magnetite. Joints					
			+10cm.					
200.9	202.1	90	Gouge zone in siltstone. Joints < ½ cm.					
202.1	203.9	98	Dark grey massive finegrained siltstone-very					
			finegrained greywacke. Minor diorite and					
			calcium carbonate veins, 2% magnetite.					
			Joints +10cm.					
203.9	204.5	98	Medium grained grey hornblende diorite dike					
			20% hornblende. Joints +10cm.					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		7/8

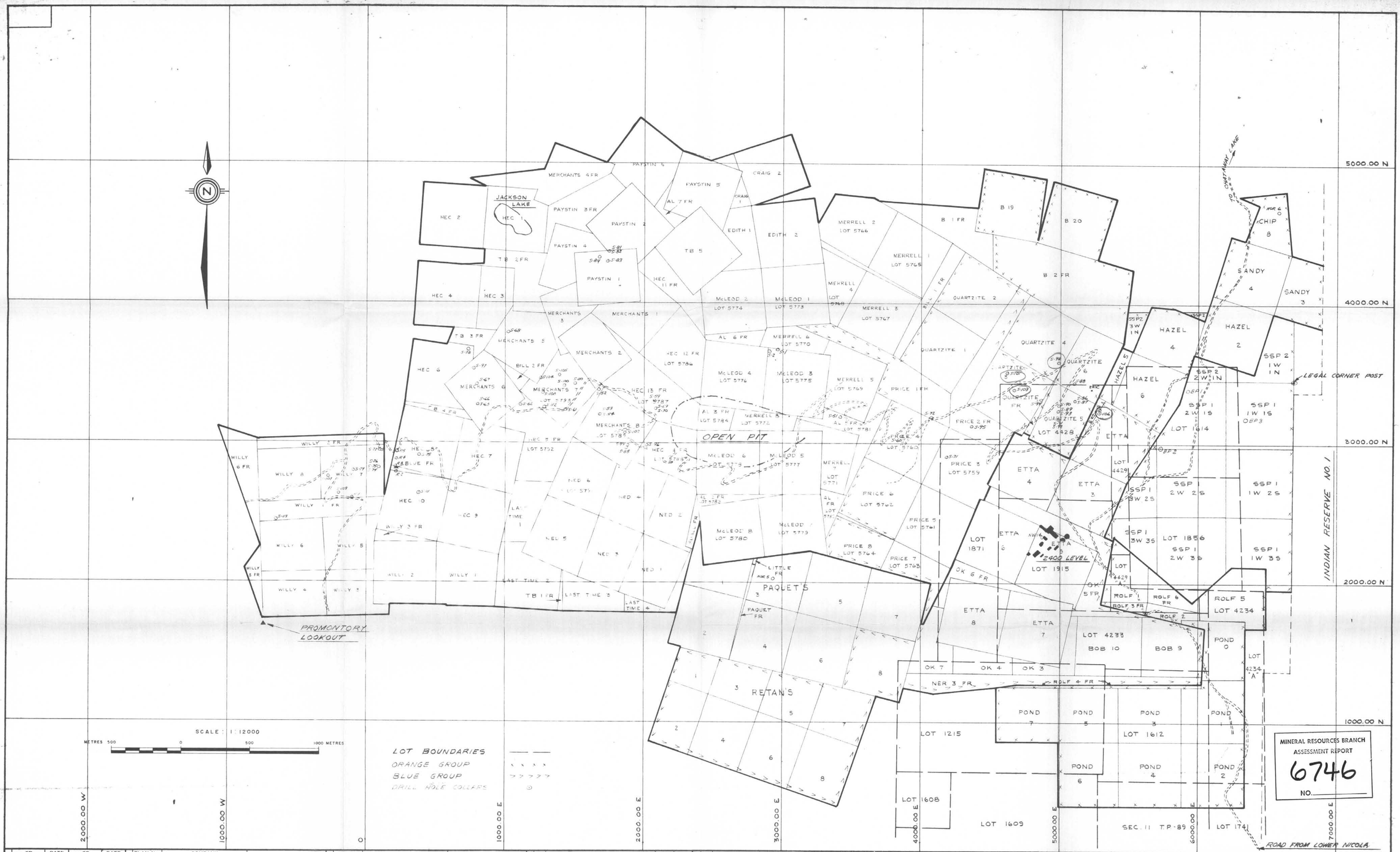
FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
204.5	206.0	98	As 202.1 - 203.9.					
206.0	207.6	98	As 200.3 - 200.9 but 70% quartz-calcite-					
			chalcopyrite matrix. 1% hematite, 2% actinolite.					
			Estimate grade 0.7% cu. Joints +10cm.					
207.6	216.4	95	Mainly dark green fine grained siltstone - very					
			fine grained greywacke with local quartz-					
			calcite-chalcopyrite breccia and epidote-					
			actinolite-quartz patches. Siltstone is					
			magnetite rich (2-4%). Minor diorite veining					
			< 3% alteration. Joints +10cm.					
216.4	216.7	98	Medium grained leucogranite dike. 60% K-Spar.					
			Joints to 5cm.					
			End at 216.7. No intervals assayed.					

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-106

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks		8/8

FOOTAGE From	FOOTAGE To	Core Recovered	Description	Sample No.	Footage	Width Core	Assay	Average Values
			Blast HW casing, left, 14.0M and casing shoe in					
			hole. Left PW shoe, .6M PW casing in hole.					
			Survey Data Dip Azim					
			Collar -51° 002°					
			76.2 -49° --- Acid Test					
			152.4 -49° 000 Tropari					
			216.7 -49° --- Acid Test					



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
6746
NO.

ISSUED TO	DATE	TO	DATE

REFERENCE PLAN No.	COMPANY	TITLE

REFERENCE PLAN No.	COMPANY	TITLE

REVISIONS No.	DESCRIPTION	MADE BY	DATE

REVISIONS No.	DESCRIPTION	MADE BY	DATE

DRAWN BY	
TRACED BY A. MOSLEY	16-4-1978
CHECKED BY	
APPROVED	

CRAIGMONT MINES LIMITED
MERRITT, B.C.

CLAIM BOUNDARIES - CRAIGMONT AREA
By B.C.L.S. or Craigmont Surveyors
ORANGE and BLUE GROUP

SCALE: 1:12000 JOB No.

GD-142B