

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

6707

NO. _____

CRAIGMONT MINES LIMITED

GEOLOGICAL REPORT

OF

DIAMOND DRILLING

ON THE

WILLY GROUP OF MINERAL CLAIMS

NICOLA MINING DIVISION

NTS SHEET 92 I/2

N 50⁰12' E 120⁰57'

OWNED AND OPERATED BY CRAIGMONT MINES LIMITED

REPORT PREPARED BY

GERALD R. SANFORD - CRAIGMONT MINE GEOLOGIST

9 MAY, 1978

GEOLOGICAL REPORT OF DIAMOND DRILLING ON THE WILLY GROUP OF

MINERAL CLAIMS

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Claim Boundaries - Craigmont Area 1:12000 DWG #GD 142-A	In Pocket
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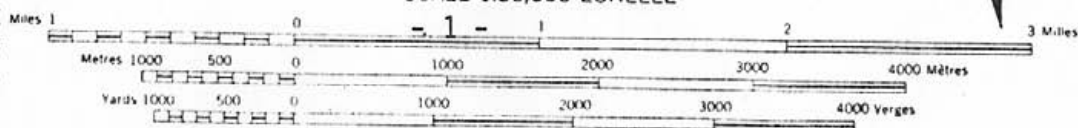


MERRITT BRITISH COLUMBIA

N.T.S. 92 - I/2

SCALE 1:50,000 ÉCHELLE

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GEOLOGICAL REPORT OF DIAMOND DRILLING ON THE
WILLY GROUP OF MINERAL CLAIMS

INTRODUCTION

Location and Access

The Willy group of mineral claims lies on the north and eastern flanks of Promontory Hill, some 16 kilometers northwest of Merritt, B.C. The Promontory forestry look-out is in the extreme south western corner of the group.

The relief is locally rugged, varying from 1734 meters at the summit of Promontory Hill to 1400 meters at the northwest end of the group near Shackelly Creek. Access is by poor gravel-dirt four-wheel drive road from either the forestry look-out road or from the Craigmont Mine site, 3 kilometers to the east.

Most of the area was burned some thirty years ago, and is densely forested with second growth jackpine and criss-crossed windfalls.

Property Description

The Willy Claims, owned and operated by Craigmont Mines Limited, were staked in 1960 to cover ground of potential interest 2 to 3 kilometers west along strike from the known Craigmont orebodies. The claim area has been under constant review since that time. Prior to 1970, ground magnetometer surveys, induced polarization surveys and several drill holes were used to probe the area. No mineralization of any significance was uncovered, but it was quickly realized that the area was geologically complex. Surface exposure is generally sparse except in the immediate area of Promontory Hill and in several locations mapping must be done using diamond drilling.

Property Description (cont'd)

Regrouping in 1978 has made the eastern claims in the Willy Group contiguous with Craigmonts mineral leases. All claims within the group have been surveyed by either a B.C. Land Surveyor or by Craigmonts survey crews using transit and chain to tie into the Land Surveyors grid.

Summary of Work Done

Drilling - Two NQ wire line diamond drill holes.
Total of 775.1 meters.

Both holes were collared on Willy 7, passed through Willy 1 Fraction and bottomed on the Willy 5 mineral claim. The drilling was done from 2 March 1978 to 28 March 1978.

List of Claims

<u>Claim Name</u>	<u>Record Number</u>	<u>Due Date</u>
Willy 1-8	11980-11987	12 May 1978
Willy 1FR, 2FR	12117, 12118	30 May 1978
Blue FR	20875	7 June 1978
Willy 3FR	12214	17 June 1978
Willy 5FR, 6FR	12216, 12217	17 June 1978
Hec 8, 10	4811, 4813	17 June 1978
Small FR	11971	19 April 1979
Little FR	12035	25 May 1979
Ned 1-5	8622-8626	4 June 1979
A1 2FR	5294	16 December 1979
Last Time 1-4	12618-12621	13 January 1981
TB1FR, TB4FR	8703, 8706	6 June 1981
Hec 7, 9	4810, 4812	17 June 1981
Paquet 1	4554	7 February 1991

DETAILED TECHNICAL DATA AND INTERPRETATION

Geological Setting

The Promontory Hill 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 incompletely 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.

Purpose of Diamond Drilling

The aureole strip from the mine westerly for 2,000 meters is completely masked by the Kingsvale Group. The Willy claims cover some 1,200 meters of the first exposures of Nicola rocks to the west of this Kingsvale capping. The edge of the batholith lies some 1,500 meters north of Promontory Hill at this point. Hole S-107 was collared primarily for mapping purposes in a limy area 450 meters west and 200 meters

Purpose of Diamond Drilling (cont'd)

north of a small erratic intrusion. Unmineralized skarn was known to occur adjacent to this intrusion. It was hoped to intercept this intrusion at depth. The hole also undercut a broad 500 gamma magnetic anomaly.

Hole S-109 investigated an 800 gamma magnetic anomaly 100 meters south and east of hole S-107.

The limy bands in this area are not related to the mine limestone.

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 request. No payment was made for rods left in hole S-109. 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

Hole S-107 first cut 290 meters of clastic volcanogenic biotitic siltstones and greywackes with recognizable dacitic tuff or silt sections and some limestone/limy intervals with minor skarn development. Four small granitic-quartz monzonite dikes, the largest 10 meters wide, were cut in this interval.

The hole then cut 120 meters of predominately limestone/limy rock with sections of the previous biotitic silts and dacite tuffs. Minor skarn minerals were developed in sections. The hole then bottomed at 523 meters after cutting 110 meters of dacite tuffs.

The hole did not intersect the expected intrusion. The magnetic anomaly was not explained, but is probably background effects.

Hole S-109 cut 70 meters of limestones/limy rocks with sections of chlorite-epidote-garnet skarn on the north side of a 100 meter wide hornblende diorite intrusion (expected to be intersected in hole S-107). This is the same limestone intersected in hole S-107. It then cut 30 meters of biotitic greywacke and bottomed at 252 meters after cutting 30 meters of dacitic tuffs. The hornblende diorite adequately explained the magnetic anomaly.

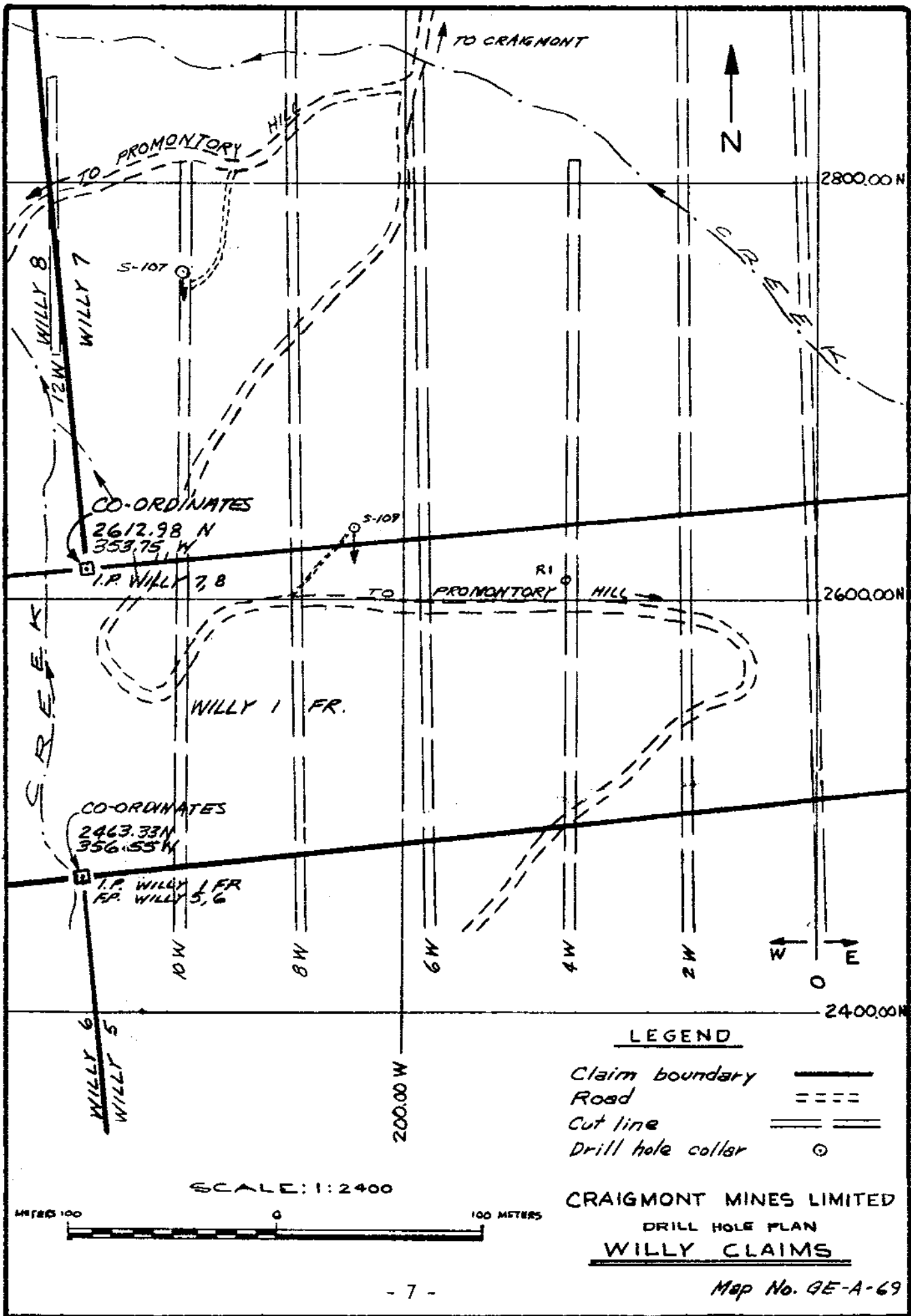
No significant copper mineralization was seen in either hole and no core was assayed.

The hole collars were surveyed by transit and chain and tied into Craigmonts grid. The collar coordinates are:

Hole	S-107	S-109
Size	NQ	NQ
Latitude	2756.59	2635.59
Departure	306.02 W	223.86 W
Elevation	1492.49	1533.68
Azimuth	181° 31'	173° 43'
Dip	-47½°	-42½°
Length	523.3	251.8

For hole S-107, down the hole survey data is recorded on the drill logs. Some tropari tests were taken inside drill rods so no azimuth is recorded. Ten meters of collar casing were left in the hole.

No down the hole surveys were attempted on hole S-109 as the hole was lost when the driller burned the bit and belled the rods. Attempts to recover the hole were futile and 100 meters of NQ rods, with the bit and complete core barrel assembly were left in the hole. At most, the hole would have continued another 100 meters.



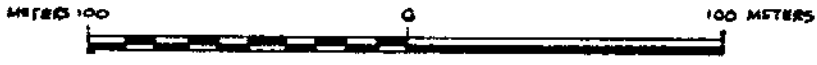
LEGEND

- Claim boundary
- Road
- Cut line
- Drill hole collar

CRAIGMONT MINES LIMITED
 DRILL HOLE PLAN
WILLY CLAIMS

Map No. GE-A-69

SCALE: 1:2400



For reference purposes, the geodetic brass plug at the summit of Promontory Hill has the geodetic position:

Latitude 50° 11' 42.3"
Longitude 120° 58' 17.6"
Elevation 5,688'

Craigmonts grid coordinates for this point are:

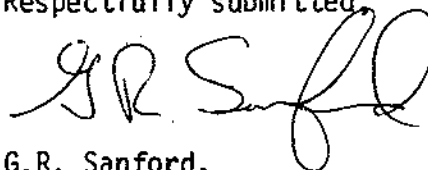
	<u>Feet</u>	<u>Meters</u>
Latitude	5531.00	1685.85
Longitude	2447.61 W	746.03 W
Elevation	5690.99	1734.61

Conclusions

The magnetic anomaly associated with hole S-109 was adequately explained by the hornblende diorite intrusion, but the anomaly over S-107, expected to be this diorite, is still not explained. It may be only background variations within the biotitic silt-greywacke unit. From other known intersections this diorite could pinch to the 10 meter wide dike in S-107 and swell to the west. Further investigations are planned. No significant skarn development with associated copper-magnetite mineralization was noted in either hole.

Drill core logs are attached in Appendices II and III. The core is currently stored at the Craigmont minesite.

Respectfully submitted,



G.R. Sanford,
Senior Geologist.

GRS/bw

ITEMIZED COST STATEMENT

Hole S-107

523.3 meters of NQ coring, 2 March 78 - 17 March 78	\$ 32,707.10
Cat rental and usage	1,261.00
Total	33,968.10
Cost/meter	\$ 64.91

Hole S-109

251.8 meters of NQ coring 18 March 78 - 28 March 78	\$ 14,791.64
Cat rental and usage	1,121.00
Total	15,912.64
Cost/meter	\$ 63.20

Supervision

G.R. Sanford	\$ 550.00
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Drill Core Logging

G.R. Sanford	\$ 250.00
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Report Preparation

G.R. Sanford	\$ 550.00
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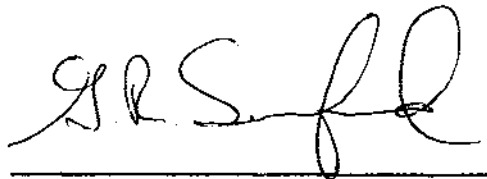
Total Cost

\$ 51,230.74

STATEMENT OF QUALIFICATIONS

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

1. I graduated from the University 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.

A handwritten signature in cursive script, appearing to read 'G.R. Sanford', written over a horizontal line.

G.R. Sanford
Senior Mine Geologist.

APPENDIX I

CORE LOGGING STANDARDS

APPENDIX ICORE 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 pyroclastic 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-107

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-107

Started		Bearing	Dip	Lat.	Elevation	Location					
Completed		Length	Surface Hole	Dep.	Level	Logged by					
Standpipe		Casing	Underground Hole	Remarks							
FOOTAGE		Core Re- covered	Description	Sample No.	Footage	Width Core	Assay				Average Values
From	To										
107.0	117.7	95	Light grey-buff, medium grained leucocratic granitic-quartz monzonite dyke. 3-4% biotite, quartz rich. Fairly sharp contacts. Weakly foliate over upper 10cm. Broken, minor gouge 112.8-113.4, badly broken 116.4-117.7. Joints to 5cm.								
117.7	160.9	98	Silicified grey aphanitic dacite tuff or fine grained dacite silt with local concentrations of biotite and feldspar + quartz crystals. 20% biotitic greywacke. Banded 50-55° TCA throughout. Joints to 5cm.								
160.9	189.3	98	Brown, coarse grained biotitic greywacke with fragments of dark brown biotitic silt or clay to 12mm and feldspar crystals 1-3mm. Variable 10-80% silty matrix. local silty bands 30° TCA 181.7-189.3. Joints to 5cm.								
189.3	264.9	98	Fine grained banded dark purple-green biotitic siltstone and VFG greywacke. Locally skarnified towards end of interval, especially in silty bands. Bandings 40-45° TCA throughout.								

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-107

Started	Bearing	Dips	Lat.	Elevation	Location
Completed	Length	Surface Hole	Dep.	Level	Logged by
Standpipe	Casing	Underground Hole	Remarks	5/7	

FOOTAGE		Core Re-covered	Description	Sample No.	Footage	Width Core	Assay			Average Values
From	To									
			Epidote 2%, Garnet 1%. Joints to 5cm.							
374.9	380.4	98	Fine grained green-brown-buff limy silt-tuff to very fine grained greywacke. 10% lime, 10% garnet, 2% epidote. Joints +10cm.							
380.4	385.3	98	Greenish-grey limy tuff with local epidote bands 35° TCA. 5% lime, 5% epidote, 5% garnet. Minor quartz. Joints +10cm.							
385.3	410.3	98	Massive fine grained light green-buff tuffaceous limestone. 20-60% fine-medium grained dacite debris tuff and fragments, disseminated in limy matrix. 398.7-410.3 scattered dacite lapilli to 5mm. 5% pyrite, 5% epidote. Joints +10cm.							
410.3	419.7	98	Patches of fine grained actinolite-epidote + garnet skarn in dacitic silt mixed with tuffaceous limestone (50:50). Actinolite 20%, epidote 10%, garnet 5%, pyrite 2%. Joints +10cm.							
419.7	467.3	98	Very fine grained-aphanitic buff-grey dacite tuff with 2% feldspar and rare quartz crystals. Generally massive. 421.5-437.4 Badly broken, minor gouge. 1% Epidote veinlets, 1% fracture related pyrite. Gouge 455.1-55.7. Joint spacing to 5cm.							

APPENDIX III

DIAMOND DRILL HOLE LOGS

S-109

--- DIAMOND DRILL LOG.

Grid No. Willy Claims Property Craigmont Mines Limited Section No. 700W Hole No. S-109

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Started <u>18 March, 1978</u>	Bearing <u>173° 43</u>	Dips <u>42½°</u>	Lat. <u>2635.59</u>	Elevation <u>1533.68</u>	Location <u>Willy Claims</u>
Completed <u>28 March, 1978</u>	Length <u>251.8m</u>	Surface Hole <u>X</u>	Dep. <u>223.86W</u>	Level	Logged by <u>G.R. Sanford</u>
Standpipe <u>NQ</u>	Casing	Underground Hole	Remarks		

FOOTAGE		Core Re- covered	Description	Sample No.	Footage	Width Core	Assay				Average Values
From	To										
0	15.2	0	Overburden - Triconed 3 7/8"								
15.2	28.0	98	Medium grained white crystalline limestone. Limonite staining to 24m, stylolitic. Patches of epidoteactinolite (chlorite) + garnet skarn, mostly related to zones rich in impurities. Overall alteration as a percentage of the total interval: epidote 20%, actinolite 12%, garnet 6%, pyrite 1%. Joint spacing to 10cm.								
28.0	39.9	98	Coarse to medium grained massive red-brown garnet-actinolite-epidote skarn. 323-329 very coarse grained K-spar-epidote-plagioclase- tourmaline dike. Garnet 40%, actinolite 30%, carbonate 15%, epidote 10%, pyrite 2%. Joints to 10cm.								
39.9	40.5	98	Coarse grained hornblende diorite dike. Equigranular, unaltered. Pyrite 5%. Joints to 5cm.								

--- DIAMOND DRILL LOG.

Grid No. _____ Property _____ Section No. _____ Hole No. S-109

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

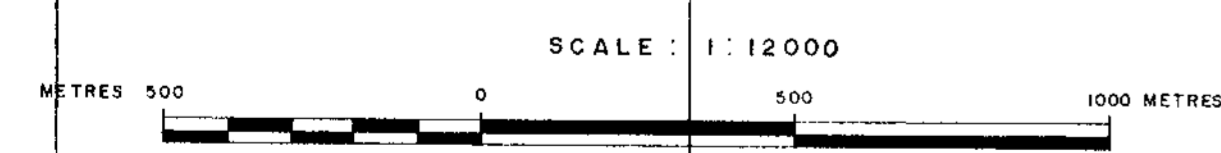
FOOTAGE		Core Re- covered	Description	Sample No.	Footage	Width Core	Assay			Average Values
From	To									
163.4	168.9	95	Gouge and broken pieces of above diorite. Joints to 5cm.							
168.9	187.5	98	Coarse grained inhomogeneous patchy texture diorite. 40% mafics, (biotite \approx hornblende). Anhedral interstitial feldspars. 20% of interval is skarnified diorite. Actinolite 15%, epidote 3%, pyrite 4%. Joints + 10cm.							
187.5	214.3	95	Fine to medium grained, grey-greenish-buff limy dacitic tuff/silt with 40% banded and patchy skarn. Garnet 15%, actinolite 15%, epidote 10%. 4% magnetite in skarn. Some veinlet epidote. At 207.3 bandings at 30° to core axis. Host rock where highly skarnified is very limy tuff. Where no skarn, lime poor tuff. Generally massive where lime poor. Joints + 10cm, 2% pyrite.							
214.3	245.4	98	Alternating limy dacitic tuffs and tuffaceous dacitic limestones. Very minor skarnification							

--- DIAMOND DRILL LOG.

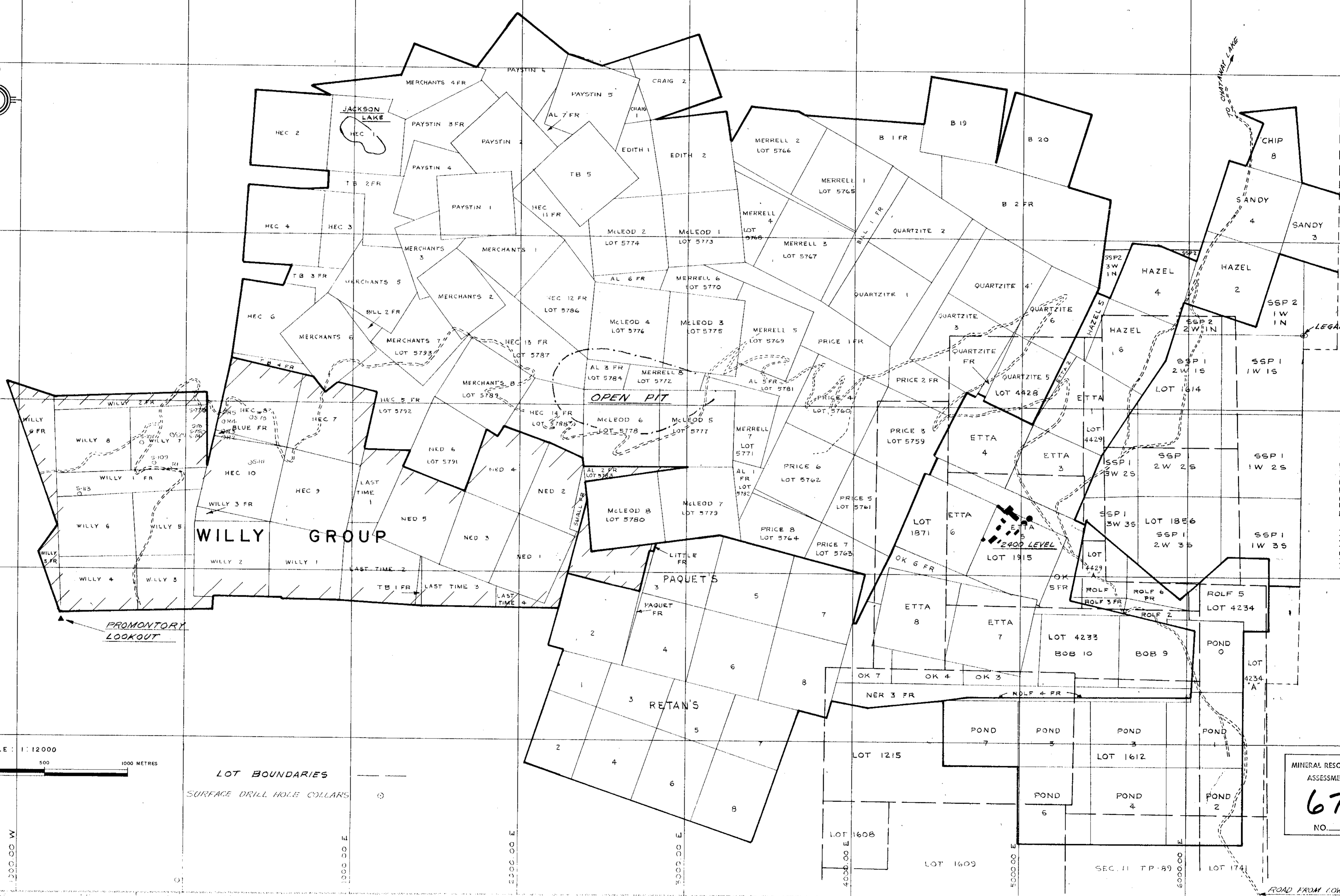
Grid No. _____ Property _____ Section No. _____ Hole No. S-109 5/5

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

FOOTAGE		Core Re- covered	Description	Sample No.	Footage	Width Core	Assay				Average Values
From	To										
214.3	245.4	98	locally. Generally grey-green to buff, fine to medium grained. Badly broken 221.3-224.3, broken to 230.4. Joints otherwise + 10cm.								
245.4	251.8	90	Fine grained, dark grey biotitic greywacke. 10% patches of lime and breccias with a limy matrix containing 2% epidote. Biotite altering to chlorite gives dark colour. Last 5cm has limy interbands at 30° to core axis. Joints to 5cm.								
			Hole lost at 251.8, due to driller error. Left 100m rods in hole.								
			No survey data other than collar co-ordinates.								
			No intervals assayed.								



LOT BOUNDARIES
SURFACE DRILL HOLE COLLARS



5000.00 N
4000.00 N
3000.00 N
2000.00 N
1000.00 N
INDIAN RESERVE NO. 1
ROAD FROM LOWER NICOLA

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