MINERAL RESOURCES BRANCH ASSESSMENT REPORT

6707

CRAIGMONT MINES LIMITED

GEOLOGICAL REPORT

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DIAMOND DRILLING

ON THE

WILLY GROUP OF MINERAL CLAIMS

NICOLA MINING DIVISION

NTS SHEET 92 I/2

N 50°12' E 120°57'

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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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 Promomtory Hill and in several locations mapping must be done using diamond drilling.

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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>	Record Number	<u>Due Date</u>
Willy 1-8	11980-11987	12 May 1978
Willy IFR, 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 imcompletely 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	1810 31'	173 ⁰ 43'
Dip	-47 ¹ 2 ⁰	-42 ¹ ₂ 0
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.

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

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Latitude 50° 11' 42.3"
Longitude 120° 58' 17.6"
Elevation 5,688'
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Craigmonts grid coordinates for this point are:

	Feet	Meters
Latitude	5531.00	1685.85
Longi tu d e	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 coppermagnetite 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

<u>Hole S-107</u>

523.3 meters of NQ coring, 2 March 78 - 17 March 78	\$ 3	2 ,7 07 .10
Cat rental and usage		1,261.00
Total	3	3,968.10
Cost/meter	\$	64.91

<u>Hole S-109</u>

251.8 meters of NQ coring 18 March 78 - 28 March 78	\$ 14	4,791.64
Cat rental and usage		1,121.00
Total	1	5,912.64
Cost/meter	\$	63.20

Supervision

Total Cost	\$ 51,230.74
Report Preparation G.R. Sanford	\$ 550.00
Drill Core Logging G.R. Sanford	\$ 250.00
G.R. Sanford	· \$ 550.00

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STATEMENT OF QUALIFICATIONS

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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.

G.R. Sanford Senior Mine Geologist.

APPENDIX I

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CORE LOGGING STANDARDS

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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-107

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Started Completed	<u>2 March</u> 17 Ma	<u>, 1978</u>	Bearing 181 ⁰ 31	и М	Dips $-47\frac{0}{5}$ Surface Hole X	Lat. 2756 Dep. 306.1	. <u>59</u>)2W	Elevation Level	1492.49	Locatio	<u>¤ Willy</u> by G S	<u>1FR</u>
	<u> </u>	IQ	Casing		Underground Hole	Remarks	Survey	Data Last	Page		<u> </u>	1/7
FOOTA	GE	Core Re-		Do			Sample	Fastara	Width	A	.858.Y	Average
From	То	covered					No.	Tootage	Core			Values
0	3.4	~	Overburden. Cas	ing dr	iven NW.							
34	48.8	80	Fine to medium g	rained	, dark green-gre	y, massive,						
			weakly banded big	otitic	siltstone, grey	wacke and			1			
			grit.							_		
			3.4-17.7 - Broken	n, maiu	ly rubble, 30%	recovery.	······					
			Coarse grained	green	ish greywacke, fo	eldspar			11			1
			crystals 1-3mm	in ve	ry fine grained	dark						
			biotitic matri:	x, mino	or rock fragment	s of						
			dacite tuff at	17.7.								
		[17.7-19.2 - Main	ly grit	with rock frag	nents						
			minor feldspar	crysta	als.							
			019.2 - Veinlet e	epidote	e, calcium carbo	nate,						1
			quartz, pyrite.	•		·····		-				-
			19.2-30.5 - Media	um grai	ned greywacke,	sparse						
			feldspar crysta	als.								
			<u> 30.5-48.8 - Biot</u> i	<u>itic s</u>	lt - very fine	grained			╞╼╶┟			
			greywacke. Fel	ldspars	grade out. Ru	bble						
			29.0-36.6. Joi	ints to	5cm.			· · · · · · · · · · · · · · · · · · ·				
48.8	64.6		Dark green-charco	oal gre	ey biotitic daci	te						
			1	1	a aut lienu	hande			1			
			Taptin crystal	curr ar	ia gric. wisby i	Janus			1			1

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Grid No	D	<u></u>	F	roperty			Sectio	n No		Hole N	10. <u></u>	107
Started			Bearing	Dipa	Lat.		Elevation		Locatio	n		
Complete	d		Length	Surface Hole	Dep.		Level		Logged	by		
Standpipe	•		Casing	Underground Hole	Remarks							2/7
FOO	TAGE	Core Re-		Description		Sample No.	Footage	Width -	A			Average
			Scattered felds	par crystals and some	dacite rock							
<u> </u>			fragments.									
			Banded 40 ⁰ to c	ore axis (TCA) at 57.9).							
			64.3-64.6 - Wel	lbanded biotitic silt	50 ⁰ TCA.							
			Joints to 5	cm.								
64.6	65.8		Breccia of limy	silt fragments with 2	2-3mm garnet							
			crystals and da	rk brown silt in a cal	cium							
			carbonate-epido	te matrix. Alteration	i as a							
			percentage of t	he rock internal:garne	et 10%,							
			epidote 2%.									
			Joints +10cm.									
65.8	107.0	95	Fine grained da	rk brown to green band	led							
			biotitic siltst	one, greywacke and bio	otitic		-					
			dacite fragment	als with 20% local lim	iy to							
			limestone secti	ons, partly converted	to garnet-							
			epidote skarn.	Some local actinolite	-epidote		 _					
			<u>+</u> magnetite ska	rn developed in bleach	ed limy							
	_		silt adjacent to	D limestone sections.	Local							<u></u>
			breccia with ca	lcium carbonate matrix	and			ļ				
			veinlets. Band	ings 50-55 ⁰ TCA. Garne	t 10%,		• • • • • • • • •					
			actinolite 5%, e	epidote 3%, magnetite,	pyrite 1%		· •					

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Grid No._____ Property ______ Section No._____ Hole No.____

S-107

Started			Bearing	Dips	Lat.	·	Elevation		Location	1	
Completed			Length	Surface Hole	Dep.		Level		Logged	Jy	
Standpipe			Casing	Underground Hole	Remarks						3/7
FOOT	AGE	Core Re-		Description		Sampla	Footage	Width _	A	say	Average
From	То	covered				NO.		Core		+	Vaiues
107.0	117.7	95	Light grey-buff, medi	um grained leucoc	ratic						
			granitic-quartz monzo	onite dyke. 3-4%	biotite,						
	······································	····	quartz rich. Fairly	sharp contacts.	Weakly						
			foliate over upper 10	lcm. Broken, mino	or gouge		<u></u>				
			112.8-113.4, badly br	oken 116.4-117.7.	Joints						
			to 5cm.			-				<u> </u>	
117.7	160.9	98	Silicified grey aphar	itic dacite tuff	or fine						
t			grained dacite silt w	ith local concent	rations						
			of biotite and felds	ar <u>+</u> quartz cryst	als.			11			
			20% biotitic greywack	e. Banded 50-55 ⁰	TCA				-		
			throughout. Joints t	:o 5cm.							
160.9	189.3	98	Brown, coarse grained	l biotitic greywac	ke with						
			fragments of dark bro	wn biotitic silt	or clay		-				
			to 12mm and feldspar	crystals 1-3mm.	Variable		·				
			10-80% silty matrix.l	ocal silty bands	30 ⁰ TCA						
			181.7-189.3. Joints	to 5cm.							
189.3	264.9	98	Fine grained banded d	ark purple-green	biotitic						
			siltstone and VFG gre	ywacke. Locally	skarnified						
			towards end of interv	al, especially in	silty						
			bands. Bandings 40-4	5 ⁰ TCA throughout	•						
				<u></u>			·				

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Grid No._____ Section No._____ Hole No._____

Started			Bearing	Dips	Lat.	·	Elevation		Location	<u> </u>	
Completed	1	- <u>.</u>	Length	Surface Hole	Dep.		Level		Logged	by	
Standpipe			Casing	Underground Hole	Remarks		· - · · · · · · · · · · · · · · · · · ·			. <u> </u>	4/7
FOOT	AGE	Core Re-		Description		Sample	Footage	Width _	A	588.Y	Average
	10	covered						Core			
		ĺ	234.7-247.8 - Epic	lote-actinolite skarn	patches			┃ .		<u> </u>	
			to 30cm. 247.8-48	3.7, 251.5-52.1, 253.	9-55.4						
			medium grained gro	ey biotite granite-qu	artz						
			monzonite dikes.	Epidote 2%, garnet 2	%,						
			actinolite 1%. Jo	oints to 5cm.							
264.9	293.5	98	Moderately skarni	fied greenish siltsto	ne-						
	biotitic greywacke intimately banded with 35%			ith 35%							
			white limestone.	Bandings 45-50° TCA.	Blob						
			specularite in lin	mestone @271.3. 279.	8-						
			281.9 - 30% magne	etite in actinolite s	karn.						
			Actinolite 25%, ep	vidote 15%, garnet 10	%,						
			magnetite 2%, pyri	te 1%. Joints to 10	Cit).						
293.5	356.9	98	80% fine to medium	grained, massive to	weakly		_				
			banded, white to g	rey crystalline lime	stone with						
			20% very fine grai	ned to aphanitic gree	enish				1		
			yellow silt-tuff b	ands and patches.							
			303.6-303.8 gouge.	Bandings 45-55 ⁰ TC	A 304-335.						
			. Joints +	10cm.							
356.9	374.9	98	Fine grained purpl	e-brown-green tuff -	silt						
			with 10% patches 1	imy tuff-silt and mee	tium						
			to fine grained cr	ystalline limestone.							

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Grid No._____ Property _____ Section No._____ Hole No._____

Started			Bearing	Dips	Lat.		Elevation		Locatio	b	
Completed	I		Length	Surface Hole	Dep.		Level		Logged	by	
Standpipe			Casing	Underground Hole	Remarks						5/7
FOOT	AGE	Core Re-		Description		Sample	Footage	Width _	A	взау	Average
From	To	covered	· · · · · · · · · · · · · · · · · · ·			NO.		Core			Values
			Epidote 2%, Garnet	1%. Joints to 5cm.			! 	<u> </u>			
374.9	380.4	98	Fine grained green	-brown-buff limy sil	t-tuff_to						
			very fine grained	greywacke. 10% lime	, 10%						
			garnet, 2% epidote	. Joints +10cm.						$\uparrow \uparrow$	
380.4	385.3	98	Greenish-grey limy	tuff with local epi	dote bands						
			35 ⁰ TCA. 5% lime,	5% epidote, 5% garn	et. Minor	-					
			quartz. Joints +1	Ocm.							
385.3	410.3	9 8	Massive fine grain	ed light green-buff	tuffaceous						
			limestone. 20-60%	fine-medium grained	dacite						
			debris tuff and fr	agments, disseminate	<u>d in limy</u>						
			matrix. 398.7-410	.3 scattered dacite	lapilli						
			to 5mm. 5% pyrite	, 5% epidote. Joint	s +10cm.						
410.3	419.7	98	Patches of fine gr	ained actinolite-epi	dote <u>+</u>						
			garnet skarn in da	citic silt mixed wit	h						
			tuffaceous limesto	ne (50:50). Actinol	ite 20%,						
			epidote 10%, garne	t 5%, pyrite 2%. Jo	ints +10cm.						
419.7	467.3	98	Very fine grained-	aphanitic buff-grey	dacite						
			tuff with 2% felds	par and rare quartz	crystals.						
			Generally massive.	421.5-437.4 Badly	broken,		! _				
			minor goug e. 1% Epi	dote veinlets, 1% fr	acture						
			related pyrite. G	ouge 455.1-55.7. Jo	int spacing		•				
		******	to 5cm.				•				•

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Grid No.______ Property ______ Section No._____ Hole No._____

Started			Bearing	Dips	Lat.		Elevation		Locatio	D	
Completed	1		Length	Surface Hole	Dep.		Level		Logged	by	
Standpipe	····		Casing	Underground Hole	Remarks						6/7
FOOT	AGE	Core Re-		Description		Sample	Footage	Width _	A	884 Y	Average
From	То	covered				NO.	ļ	Core			 VALUES
467.3	475.5	98	Medium grained epidot	dium grained epidote-garnet skarn with							
			K-Feldspar and limest	then							
			medium grained li	cke with							
			epidote-K-Spar garnet	idote-K-Spar garnet alteration. Epidote 30%, rnet 10%, Actinolite 3%, Feldspar 3%.							
			Garnet 10%, Actinolit								
		Joints +10cm.									
475.5	479.1	98	Medium to fine graine	dium to fine grained massive brown-grey biotiti reywacke. Very well sorted. Grades into							
			greywacke. Very well								
			next interval. Joint	s to 10cm.			·				
479.1	523.3	98	Fine grained buff-gre	y dacite crystal t	uff.						-
			Minor biotite, minor	lapilli. 5-10% fe	ldspar						
			crystals, locally ver	y sparse, Euhedral	• •						
			Subhedral, 1-2mm long	, in very fine grai	ned -		-				
			aphanitic dacite matr	rix. Minor quartz	crystals.						
			Rare pyrite on fractu	ires. No visible m	afics.						
			Joints to 10cm.								
	·				· ·						
		l	End at 523.3m.				<u> </u>				
			12m NW casing and ca	singshoe left in	hole.			ļļ.		Ĭ	
			Hole making water - 4 liters/minute. No				_• ·				
			intervals assayed.				-	L			

Grid No	·		F	roperty				Sectio	n No		Hole No	<u>S-107</u>
Started			Bearing	Dips		Lat.		Elevation	······	Locatio	n	
Complete	d		Length	Surfa	ce Hole	Dep.		Level		Logged	by	
Standpipe	.		Casing	Under	ground Hole	Remarks						7/7
FOOT	TAGE	Core Re-		Descripti	оп		Sample	Footage	Width _	A	588.Y	Average
From	10				·		140.		Core		╄── ┟──	Values
	ļ		Survey Data					 _			<u> </u>	
	<u> </u>			Dip	Azim	Method						
			Collar	-47½	181 ⁰ 31'	Transit						
			76.2	-46	-	Tropari						
			152.4	-45	-	Tropari						
			228.6	-42	-	Acid	-					
			308.2	-43	177 ⁰	Tropari			1 1			
			381.0	-42	-	Acid		-				
			458.7	-44	177 ⁰	Tropari						
			521.2	-44	-	Acid						
			_									
			· · · · · · · · · · · · · · · · · · ·		<u></u>	·		<u> </u>				
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APPENDIX III

DIAMOND DRILL HOLE LOGS

S-109

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terted completed	<u> 18 Mar</u> 28 Mar	ch, 197 ch, 197	Bearing 173 [°] 43 '8 Length 251.8m	Dipe 42 ¹ 2 ⁰ Surface Hole X	Lat. 2635. Dep. 223	59 .86W	Elevation 1 Level	533.68	Location Logged 1	Willy C y G.R.	laims Sanford
tandpipe	NQ		Casing	Underground Hole	Remarks						
FOOT From	AGE To	Core Re- covered		Description		Sample No.	Footage	Width	As	158 y	Averag Valuer
0	15.2	- -	Overburden - Tricone	d 3 7/8"							
15,2	28.0	98	Medium grained white	crystalline limes	tone.						
			Limonite staining to	24m, stylolitic.	Patches of						
			epidot <u>e actinolite (c</u>	<u>hlorite) - garnet_s</u>	karn,						
			mostly related to zo	<u>nes rich in impuri</u>	ties.						
			Overall alteration a	s a percentage of t	the total						
			interval: epidote 20%	, actinolite 12%, ;	garnet 6%,						
			pyrite 1%. Joint sp	acing to 10cm.							
28.0	39.9	98	Coarse to medium gra	ined massive red-b	rown						
			garnet-actinolite-ep	idote skarn, 323-1	329 very						
			coarse grained K-spa	<u>r-epidote-plagiocl</u>	ase						
			tourmaline dike. Ga	rnet 40%, actinolit	te 30%,						
			carbonate 15%, epido	te 10%, pyrite 2%.	Joints						
			to 10cm.								
59.9	40.5	98	Coarse grained homb	lende diorite dike.				 			
			Equigranular, unalte	red. Pyrite 5%. J	oints to	- - -					┨

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Grid No	»			operty			Sectio	n No	H	ole No.	<u>S-109</u> 2/
Started			Bearing	Dipe	Lat.		Elevation		Location		
Completed	1		Length	Surface Hole	Dep.		Level		Logged by		
Standpipe	PAGE	Come Re	l Casing	Underground Hole) Remarks	Gample			Ass	aV	Avena
From	То	covered		Description		No.	Footage	Core			Values
40.5	54.3	60	Fine grained chl	orite-garnet-epidote	<u>skarn with</u>						
			remnant fine ara	ined stylolitized lim	estone						
			Tenuidite Time gra	<u>Incu stylulltizea 14</u>				1			
			<u>46.9-47.9.</u> Goug	<u>e zone 48.2-53,6, onl</u>	<u>y 10cm</u>		 				
			<u>_core_recovered.</u>	Chlorite 50%, garne	t 10%,		ļ				
			epidote 10%, pyr	ite 1%. Joints to lo	m gougy.						
54.3	65.8	95	Very coarse grai	ned hornblende diorit	e. <u>Massive</u>						
			equigranular, 40	% mafics. Minor K-sp	ar alter-						
			ation, epidote-c	arbonate veins. Join	ts + 10cm.						
65.8	86.3	95	As 40.5-54.3. B	roken, gougy througho	ut. 20%	·		+			
			remnant limeston	e, some relict fine-m	edium						
			grained greenish	greywacke throughout	. Interval						
			faintly dioritiz	ed. Some 6-10mm chalco	pyrite						
			grains associate	d with coarse carbona	te grains						
			chlorite 60%, ep	idote 10%, garnet 5%,	pyrite 1%.						
			Joints to 5cm.								
								 			
86.3	100.0	95	Hornblende diori	<u>te as previous, Fair</u>	ly broken,		 	<u> </u>			_
		ļ	especially from	91.4 on. Feldspars e	pidotized		ļ	ļļ			
			86.3-90.8. Epid	ote 10%. Joints to 5	cm.						

•		Pr	operty			Sectio	n No	ł	lole No.	<u>S-109</u>
		Bearing Length	Dips Surface Hole	Lat. Dep.				Location Logged I	y .	
		Casing	Underground Hole	Remarks						
AGE To	Core Re- covered		Description		Sample No.	Footage	Width Core	A	eay	Average Values
106.7	98	Chloritic skarn patchy chloritic	and skarnified limesto gouge throughout Esse	one with entially						
		limestone and im chlorite, graphi	pure lime silt recryst	allized to very						
		coarse grained c	halcopyrite with very	coarse						
		65%, carbonate 1	103.6, 104.9-105.2. (5%, epidote 2%, garnet	hlorite						
		pyrite 1%. Join	ts to 2cm.							
120.7	98	Very coarse grain	ned hornblende diorite	as						
		previous. 30% maf.	ics. 10% epidote alte	ration,						
	·	+ 10cm.	clase replacement. Jo	<u>ints</u>						
144.8	98	Medium grained, o	lark grey hornblende d	iorite					· · · · · ·	
		with 5-8mm hornb	lende phenocrysts. Sp	arse						
		Total epidotizat.	ion - 53, Jours - It	يندن <u>الب</u>						-
163.4	98	Coarse grained ed 2% epidote. Join	uigranular hornblende nts + 10cm.	diorite.						
	AGE To 106.7 120.7 120.7 144.8 163.4	AGE Core Re- To Covered 106.7 98 106.7 98 106.7 98 120.7 98 120.7 98 144.8 98 144.8 98	Bearing Length Core Recovered To Core Recovered 106.7 98 Chloritic skarn patchy chloritic 1 imestone and im patchy chloritic, graphi coarse grained cl coarse grained cl carbonate 103.0- 65%, carbonate 11 pyrite 1%. Joint 120.7 98 Very coarse grain previous, 30% maf mostly as plagiod 120.7 98 Medium grained, c with 5-8mm hornbi local epidotizat: 163.4 98 Coarse grained ed 2% epidote. Joint	Bearing Dips Length Surface Hole Casing Underground Hole MGE Core Recovered Description 106.7 98 Chloritic skarn and skarnified limestor patchy chloritic gouge throughout. Essent inneston and impure lime silt recryst chlorite, graphite, and calcite. Some coarse grained chalcopyrite with very carbonate 103.0-103.6, 104.9-105.2. 65%, carbonate 15%, epidote 2%, garnet pyrite 1%. Joints to 2cm. 120.7 98 Very coarse grained hornblende diorite previous, 30% mafics. 10% epidote alte mostly as plagioclase replacement. Journal with 5-8mm hornblende phenocrysts. Spilocal epidotization - 5%. Joints + 10 144.8 98 Medium grained, dark grey hornblende diverse. Spilocal epidotization - 5%. Joints + 10 163.4 98 Coarse grained equigranular hornblende complemente 2% epidote. Joints + 10cm.	Bearing Dips Lat. Length Surface Hole Dep. Casing Underground Hole Remarks MCE Core Re- covered Description Remarks 106.7 98 Chloritic skarn and skarnified limestone with patchy chloritic gouge throughout Essentially Iimestone and impure lime silt recrystallized to chlorite, graphite, and calcite. Some very coarse grained chalcopyrite with very coarse carbonate 103.0-103.6, 104.9-105.2. Chlorite 65%, carbonate 15%, epidote 2%, garnet 1%, pyrite 1%. Joints to 2cm. previous, 30% mafics. 10% epidote alteration, mostly as plagioclase replacement. Joints 120.7 98 Very coarse grained hornblende diorite as previous, 30% mafics. 10% epidote alteration, mostly as plagioclase replacement. Joints 144.8 98 Medium grained, dark grey hornblende diorite with 5-8mm hornblende phenocrysts. Sparse 163.4 98 Coarse grained equigranular hornblende diorite. 2% epidoteJoints + 10cm.	Bearing Dips Lat. Length Surface Hole Dep. Casing Underground Hole Remarks OGE Core Re- To Covered Description Sample No. 106.7 98 Chloritic skarn and skarnified limestone with patchy chloritic gouge throughout Essentially Image: Sample state	Bearing Dips Lat. Elevation Length Surface Hole Dep. Level Casing Underground Hole Remarks MOE Covered Description Sample To Covered Description Sample Footage 106.7 98 Chloritic skarn and skarnified limestone with patchy chloritic gouge throughout Essentially Imestone and impure lime silt recrystallized to Imestone and impure lime silt recrystallized to 106.7 98 Chlorite, graphite, and calcite. Some very Coarse grained chalcopyrite with very coarse Imestone and impure lime silt recrystallized to Imestone and impure lime silt recrystallized to Imestone and impure lime silt recrystallized to Imestone and calcite. Some very Imestone and calcite. Somesone and calcite. Some very Imestone a	Bearing Dips Lat. Elevation Length Surface Hole Dep. Level Casing Underground Hole Remarks GE Core Re- covered Description Sample No. Footage Width Core 106.7 98 Chloritic skarn and skarnified limestone with patchy chloritic gouge throughout Essentially	Bearing Dips Lat. Elevation Location Largth Surface Hole Dep. Level Logged Hole Casing Underground Hole Remarks Midth Action NGE Core Re- covered Description Sample Footage Width Action 106.7 98 Chloritic skarn and skarnified limestone with	Bearing Dips Lat. Elevation Location Length Surface Hole Dep. Level Loggedby Casing Underground Hole Remarks Level Loggedby MGE Core Re 0 Remarks Core Re Core Re To Core Re Description Sample Protage With Core Amery 106.7 98 Chloritic skarn and skarnified limestone with patchy chloritic gouge throughout Essentially

Grid NoProperty							Sectio	n No	Hole No4/F				
Started Completed	1		Bearing Length	Bearing Dips Lat. Length Surface Hole Dep. Casing Underground Hole Remarka			Elevation Level			Location Logged by			
FOO	FAGE	Coro Po	i counig			Semple		1 112: 443	A	588.Y	Average		
From	To Covered		Description			No.	Footage	Core			Values		
163,4	168.9	95	Gouge and broken Joints to 5cm.	n pieces of above diori	te								
168.9	187.5	98	Coarse grained inhomogeneous patchy texture										
			diorite. 40% mafics, (biotite 🕿 hornblende).					ļ					
			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					İ l					
			massive where 1	ime poor. Joints + 10c	m <u>, 2%</u>								
			pyrite.										
214.3	245.4	98	Alternating lim	v dacitic tuffs and tuf	faceous								
			dacitic limestor	nes. Very minor skarni	fication		•		ļ	1	I		

Started			Bearing	Dips	Lat.		Elevation		Location		
Completed			Length	Surface Hole	Dep.		Level		Logged		
Standpipe			Casing	Underground Hole	Remarks						
FOOTAGE Core Re-		Description			Sample No.	Footage	Width _	Аляау		Average Values	
214.3	245.4	98	locally. Generally grey-green to buff, fine to				<u> </u>	$\left\{ \begin{array}{c} \\ \end{array} \right\}$		+	
			medium grained. Badly broken 221.3-224.3,					╞──┝			
			broken to 230,4, Joints otherwise + 10cm.								
245 4	251 8	00	Fine grained dark grey biotitic greywacke 10%								
27317	0	50	notches of lime and braceias with a limy matrix							+	
			parches of time and breccias with a timy matrix					1 1			
			Containing 2% epidole. Biotite altering to								
		}	chiorite gives dark colour. Last 5cm has limy					+			
			interbands at <u>30</u>	to core axis. Joint	ts to 5cm.	-		╉───┤			
				<u> </u>							···
			Hole lost at 251.8, due to driller								
			error, Le	eft 100m rods in hole.							
			No survey data other than collar							-	
			co-ordinates.								
			Vo intervals assayed.								
								 			
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							1	1 [1		

