

87-57-15797

DIAMOND DRILL REPORT

ON THE

GREEN GROUP

Cariboo Mining Division

93 B/8W

(Latitude $52^{\circ} 21' 28.4''$, Longitude $122^{\circ} 17' 31''$)

OWNER AND OPERATOR

GIBRALTAR MINES LIMITED

FILMEL

McLEESE LAKE, B.C.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

15,797

Author: G. D. Bysouth

Submitted: February 25, 1987



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Drill Log: Hole 86-28

1 INTRODUCTION

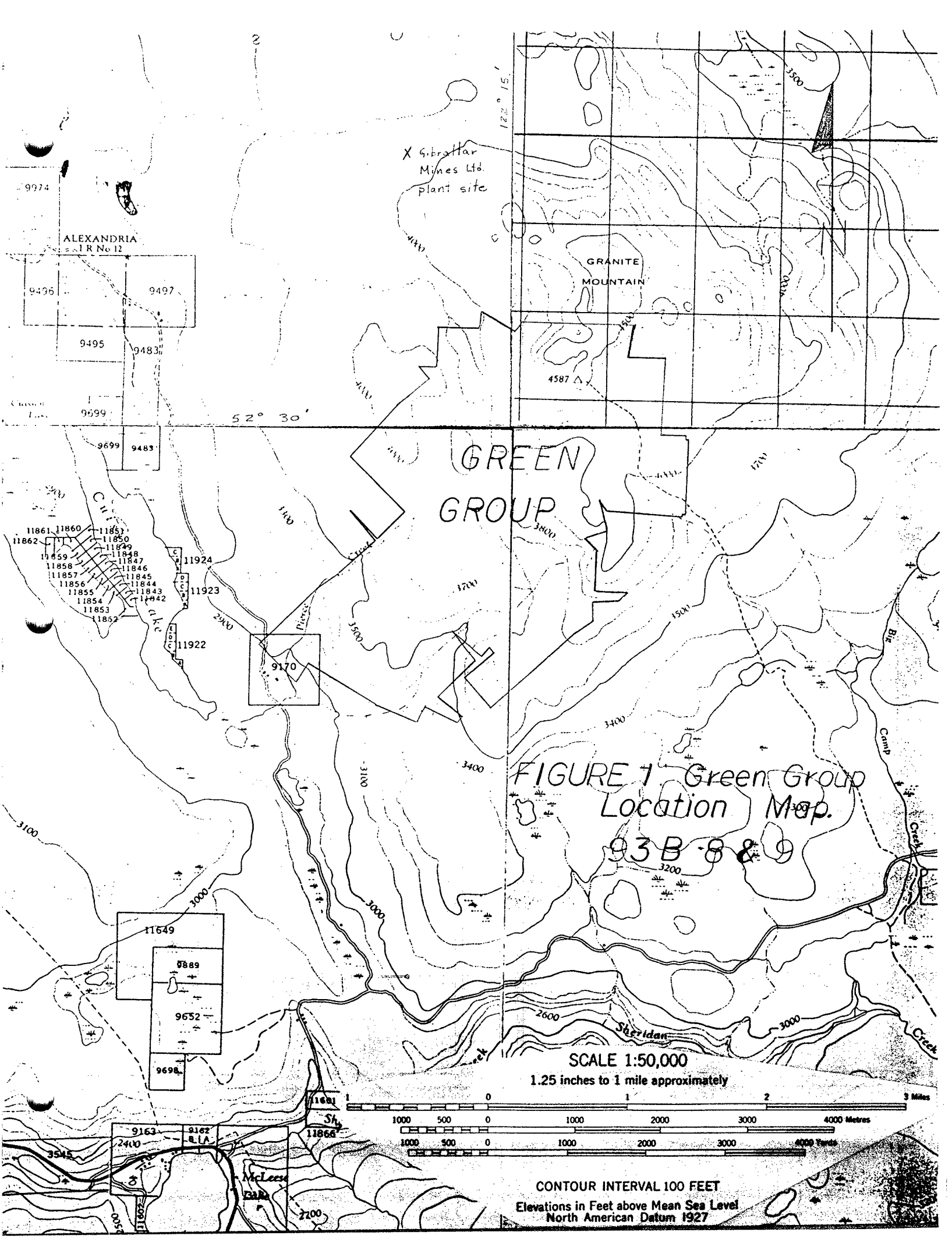
The Green Group of mineral claims is part of the Gibraltar Mines Limited permanent property. It is accessed along a mine haul road from the north and from the south via 4-wheel drive roads from the Sawmill Group. It lies approximately 1.75 miles (2.8 km.) from the plant site. The general location is shown in Figure 1.

Drilling on this group occurred in conjunction with a drill program on the Sawmill Group of mineral claims. One vertical N.Q. wireline diamond drill hole totalling 503' (153.31 m.) was completed within the Green Group. Drilling was carried out by J. T. Thomas Diamond Drilling Ltd. of Smithers, B.C. during the period August 24 to August 25, 1986. Some of the core was not assayed and is stored at Gibraltar Mines plant site. The remainder of the core was not split. The whole core was sent to the assay lab for analysis. The ground core is stored at the Gibraltar Mines plant site for a period of one year.

2 MINERAL CLAIMS

The Green Claim Group has mineral leases grouped with mineral claims. Particulars of each claim are listed below. Some of the claims are owned by Cuisson Lake Mines Limited but Gibraltar Mines Limited has full administrative rights over all of these claims. Mineral claim locations are shown in Figure 2 (in pocket).

GREEN GROUP MINERAL CLAIMS						
=====						
NAME		RECORDED DDMMYY	RECORD NUMBER	UNITS	MINERAL LEASE	OPTIONED FROM
BUD	#7	140606	36362	1		
BUD	#3	140606	36363	1		
BUD	#1	230574	71511	1		
BUD	#2	230574	71591	1		
BUD	#3	230574	71509	1		
BUD	#4	230574	71503	1		
BUD	#5	170156	32104	1		
BUD	#0	170156	32105	1		
CAROL	#4 FR	120768	46106	1		CLM
CAROL	#6 FR	120768	46106	1		CLM
CAROL	#7 FR	120768	46107	1		CLM
mmmm	#1	230574	71594	1		
mmmm	#2	230574	71566	1		
mmmm	#3	230574	71508	1		
mmmm	#4	230574	71514	1		
FFF	#13	160566	35766	1		CLM
FFF	#14	160566	35767	1		CLM
FFF	#15	160566	35768	1		CLM
FFF	#16	160566	35769	1		CLM
FFF	#17	160566	35770	1		CLM
FFF	#19	160566	35772	1		CLM
FI	#2 FR	230574	71501	1		
FI	#4 FR	230574	71502	1		
FLO	#1 FR	230574	71503	1		
GIB	#15 FR	090971	64566	1		
GIB	#19 FR	151271	65177	1		
GIB	20 FR	210672	66732	1		
GJ	20 FR	080274	71323	1		CLM



X Gibraltar
Mines Ltd.
plant site

GRANITE
MOUNTAIN

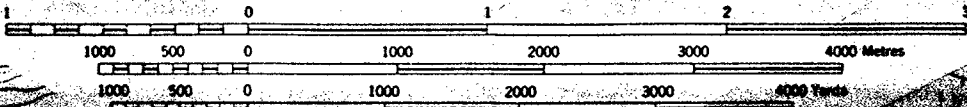
GREEN
GROUP

FIGURE 1 Green Group
Location Map.

93B-889

SCALE 1:50,000

1.25 inches to 1 mile approximately



CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927

ALEXANDRIA
= LR No 12

9496 9497

9495 9483

9699

52° 30'

122° 15'

11861, 11860, 11853, 11850, 11849, 11848, 11847, 11846, 11857, 11856, 11845, 11855, 11844, 11854, 11853, 11852

11924

11923

11922

9170

11649
9889
9652
9698

9163 9162

11861
11866

McLeese
Creek

2700

Big
Camp
Creek

Sheridan
Creek

Camp
Creek

GREEN GROUP GENERAL CLM 45

NAME	RECORDS SERIAL	RECORDS NUMBER	UNITS	GENERAL LINES	OPTIONED FROM
HA #1	161056	480019	1		CLM
HA #2	161056	480020	1		CLM
HA #3	161056	480021	1		CLM
HA #4	161056	480022	1		CLM
HA #5	230574	716004	1		
HA #6	230574	716005	1		
HAS 2	161056	480023	1		CLM
HAS 10	161056	480024	1		CLM
HAS 14	161056	480025	1		CLM
HAS 15	161056	480026	1		CLM
HAS 16	161056	480027	1		CLM
HAS 17	161056	480028	1		CLM
HAS 18	161056	480029	1		CLM
HAS 19	161056	480030	1		CLM
HAS 20	161056	480031	1		CLM
HD #5	051066	337784	1		CLM
HD #6	051066	337785	1		CLM
HD #7	051066	337786	1		CLM
HD #8	051066	337787	1		CLM
HD #20	051066	337797	1		CLM
SAP #2 FR	030971	64563	1		CLM
SAP #3 FR	030971	64564	1		CLM
SAP #5 FR	030971	64565	1		CLM
VAL #3	030974	716003	1		
VAL #4	030974	716007	1		
VAL #5	030974	716010	1		
VAL #20	030974	716025	1		
VAL NO19	180056	333367	1		
VAL NO20	180056	333368	1		
VAL NO21	180056	333369	1		
VAL NO22	180056	333370	1		
VAL NO27	180056	333375	1		
VEE 1	260045	306944	1		CLM
VEE 2	260045	306944	1		CLM
ZIP 1 FR	200276	90138	1		
EST NO3 FR	200571	62401	1	6604 M44	
LYNVE #3 FR	100756	66593	1	6604 M44	
RUM #30 FR	031270	39405	1	6604 M44	
VEE NO1	140266	34947	1	6604 M44	
VEE NO2	140266	34943	1	6604 M44	
VEE NO3	140266	34949	1	6604 M44	
VEE NO5	140266	34951	1	6604 M44	
VEE NO7	140266	34953	1	6604 M44	
VEE NO10	140266	34955	1	6604 M44	
VEE NO4	140266	34950	1	6604 M44	
VEE NO6	140266	34952	1	6604 M44	
VEE NO8	140266	34954	1	6604 M44	
HD #18 FR	051066	337795	1	4139 M58	CLM
HD #19	051066	337796	1	4139 M58	CLM
LINDA #1	211169	55049	1	4139 M58	CLM
LINDA #2	211169	55050	1	4139 M58	CLM
LINDA #3	211169	55051	1	4139 M58	CLM
LINDA #4	211169	55052	1	4139 M58	CLM
SAP #4 FR	030971	64570	1	4139 M58	CLM
VEE NO15	140266	34961	1	4142 M61	
VEE NO16	140266	34962	1	4142 M61	
VEE NO17	140266	34963	1	4142 M61	
VEE NO18	140266	34964	1	4142 M61	
VEE NO19	140266	34965	1	4142 M61	
VEE NO20	140266	34966	1	4142 M61	
HAS 4	161068	48028	1	4143 M59	CLM
HAS 6	161068	48029	1	4143 M59	CLM
SAP #1 FR	030971	64567	1	4146 M60	CLM

TOTAL UNITS 92

3 DRILL PROGRAM

3.1 Objectives

The purpose of this drill program was to test the westerly extension of an ore system intersected in the Sawmill Zone.

3.2 Results

The drill hole location is shown in Figure 3. The location were not surveyed, but located by chain and compass. The drill log is included in the pocket of this report. All copper values reported here are for total copper. All molybdenum reported is MoS₂. *Analysis done in mine lab. by Standard AA Method.* T.K.

Hole 86-28 was collared at 2896', cased to 125', and drilled to 503'. A section of Cache Creek rocks, including a 70' zone of Limestone, was sandwiched between a fault zone at surface and one at 390'. This core appeared barren and so was not assayed. The lower fault zone extends from 390 to 468' with an ore zone starting within it at 440' where quartz diorite fragments begin. A fine to medium grained quartz diorite extends below the fault to the bottom of the hole. The ore zone extends from 440' to the bottom of the hole for 63' of 0.28% copper, 0.010% molybdenite. Chalcopyrite and minor bornite are responsible for the copper grade.

3.3 Interpretation and Conclusions

The ore zone intersected in the Sawmill Zone does extend westerly into the Green Group but, it is cut off here by a major fault system running in a northerly direction up the Cuisson Valley. All ore in this hole was present below the fault which is believed to dip about 40-degrees to the west. If more ore exists west of this fault it will have been transported some distance to the north along the fault zone. More drilling could be done to attempt to locate the off-set portion of the ore.

Note: 1 foot = 30.5 mm

4 STATEMENT OF EXPENDITURES

August, 1986 Diamond Drilling, Green Group.

(a) Drilling Costs

Direct Footage Charges:

86-28 503' @ \$13.25/foot = \$ 6,664.75

Cat Hours: 1 hr. @ \$40.00 = 40.00

1 NQ Bit @ \$508.00 = 508.00

Total Drilling Costs \$ 7,212.75

(b) Assay Costs

12 Cu - MoS₂ assays @ \$4.40/assay \$ 52.80

(c) Supplies

Core boxes: 19 boxes @ \$6.00/box \$ 114.00

(e) Personnel Costs

Core Logging, Sample Preparation

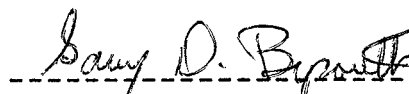
G. D. Bysouth

Dec 1 - 2 16 hrs. @ \$31.00/hr. \$ 496.00TOTAL COST \$ 7,875.55Submitted by: G. D. BysouthG. D. Bysouth
Senior Geologist

APPENDIX I. Statement of Qualifications

I, Garry D. Bysouth, of Gibraltar Mines Limited, McLeese Lake, British Columbia, do certify that:

1. I am a geologist.
2. I am a graduate of the University of British Columbia, with a B.Sc. degree in Geology in 1966.
3. From 1966 to the present I have been engaged in mining and exploration geology in British Columbia.
4. I personally logged the core and assessed the results of this drill program.



Garry D. Bysouth

APPENDIX II. List of Abbreviations

ank.....	ankerite
bo.....	bornite
cal.....	calcite
carb.....	carbonate
chl.....	chlorite
cp.....	chalcopyrite
dissem.....	disseminated
ep.....	epidote
foln.....	foliation
gg.....	gouge
grn.....	grained
lim.....	limonite
mal.....	malachite
mag.....	magnetite
py.....	pyrite
qtz.....	quartz
rx.....	rock
ser.....	sericite
str.....	strong
stkwk.....	stockwork
wk.....	weak
Wt. Q.D.....	White Quartz Diorite = Leucocratic Phase

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 2 of 8

ROCK TYPES & ALTERATION			L to Core Feilletas	GRAPHIC LOG		Vaino L to Core AIII	Width of Vain	Mineralisation	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Footage Block.	Estimated Core Recovery %	R O D	ASSAY RESULTS			
				Feilletas Alteration	Feilletas Footage						Feilletas Stratigraphy	LEACH CAP				LIM. ZONE	SILPERGENE	REMARKS	Sample Number
		; this unit is interpreted to be a metamorph. sequence of tuffs + volcanic sed. chiefly of andesitic comp.	80 str.	180		5'	broken & lost core	0	0			171	30	3					.01
		- This unit is heavily faulted and difficult to log (see R.P.D.) - it may be a series of fault wedges related to the West Boundary Fault zone - at 225 the rx. changes somewhat.	70 str.	190		3'	gg-bx	0	0			174	50	0					.01
		becomes more massive and in places contains clots of ep.	40-15 str.	200	5-80	2'-1'	chert-hem (spec)	0	0			177	45	0					.01
		- the chert-mag and chert spec. bands are of interest - could this be of exhalative origin?	10-15 str.	210	5-20	1'	chert-hem (spec)	0	<.5			180	40	3					.01
			45-60 str.	220		3'	chert (carb) (ep)	0	0			183	30	7					.01
			35-45 str.	230		4'	(gg)-bx-hem	0	0			187	50	0					.01
			?	240		5'	gg-bx-hem	0	0			194	20	0					.01
			?	250		30"	gg-bx	0	0			199	40	7					.01
			?	260		6'	gg-bx	0	0			206	50	0					.01
			?	270		6'	gg-bx	0	0			208	55	0					.01
			?	280		6'	gg-bx	0	0			215	60	0					.01
			?	290		6'	gg-bx	0	0			218	85	0					.01
			?	300		6'	gg-bx	0	0			220	60	7					.01
			?	310		6'	gg-bx	0	0			225	80	0					.01

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 36-28
SHEET No. 3 of 9

ROCK TYPES & ALTERATION			GRAPHIC LOG			Values ∠ to Core Axis	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS			
	∠ to Core Foliation	Alteration Alteration	Feet Feet	Size Size	Feet Feet						LIM. ZONE	LIM. ZONE	LIM. ZONE			REMARKS	Feet Feet	Sample Number	%
			239				4'	highly broken core + minor ss		0			231						
							5'	broken - hem stained zone		0			234	40			.01		
													240	80	3				
							6'	grey cherty zone		0			243	90					
							4'	qtz-carb-ser		0			245	80	0		.01		
							7'	qtz-carb-ser		0				90			.01		
							3'	qtz-carb-ser-chl		0			257		10				
							5'	qtz-carb-ser-chl		0				90					
							12"	qtz		< 0.5					3		.01		
							30"	chert-carb.-mg(py) band					267						
							4'	qtz-carb-chl											
							12"	qtz-carb (cp)						90					
							9'	qtz-chl-carb		0			277		10		.10		
							10'	qtz-chl-carb		0				75	0				

dk grey
chl - not
the usual
dk gr.
also white
carb not
brown
conspicuous

core is soft and friable

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-2B
SHEET No. 4 of 8

ROCK TYPES & ALTERATION		L to Core Foliation	GRAPHIC LOG	Veins L to Core Alt	Width of Vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Feeling Block	Estimated Core Recovery %	R O D	ASSAY RESULTS			
									LEACH CAP	LIM. ZONE				Sample Number	% Cu	% Mo	Estimated Grade
		70-80 sh	320	70-80	10'	qtz, chl-carb	0				297	85	0				.01
		60-70 str	310	60-70	10'	qtz, chl-carb	0				307	85	0				.01
		10-60 str	315	10-60			0				317	98	17				.01
		Nd	320														
		50-70 wk	330				20.5				327	95	50				.01
		70-80 wk	340				20.5				337	95	53				.01
		80 wk	350				20.5				347	95	17				.01

GREY LIMESTONE
UNIT (315-351')
a pale to med grey
fine grn rx with fine
micaceous parting- dk
color is due to a dk
grey "dust" scattered
throughout the rx and
in places defining a
weak foln - also present
is finely dissemin py.
-The rx fizzes readily
in wk HCl.
- this appears to be a
limestone not marble +
the mica parting prob.
represent bedding planes-
that is, attitudes in the
foln column may be
bedding angles.

core is soft +
friable

dk
grn
chl.
white
carb.

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 5 of 8

ROCK TYPES & ALTERATION		GRAPHIC LOG		Value L to Core Alt	Width of Vain	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
		L to Core Foliation Alteration	Feather Alteration						LEACH CAP	LIM. ZONE			SUPERGENE	REMARKS	Feather Block.	Sample Number
351	MIXED CALCAREOUS UNIT (351'-370')	80		12"	6"	scarn - (py)(sphal)(cp) - fine dissem. in scarn.	0	0.5			95	20				.01
	a mixture of the overlying limestone and other impure calcareous sediments - pass cut by various qtz-carb vein systems - also includes some white marble - folz angles are clearly bedding angles	80-90 Mk	360	12"	2'	chl-scarn	10			357	95					
				12"	3'	ep-pied-chl scarn	20				95					
				12"	3'	brown carb-chl zone	30	2.05		362	90	20				.01
				12"	2'	brown-carb-qtz zone	40				90					
				12"	2'	brown-carb-qtz zone	50			367	90					
				12"	3'	broken zone	60	0			90					
				12"	3'	broken zone	70			375	90					.01
				12"	3'	broken zone	80				95					
				12"	7'	highly broken zone	90	0.5			95					
				12"	3'	hatched bx? (partly appears shattered upon shallow material)	0			383	20	20				.01
				12"	3'	hatched bx? (partly appears shattered upon shallow material)	10			387	20	20				.01
				12"	8'	solid gg	20	?			35					
				12"	8'	solid gg	30				35					
				12"	8'	solid gg	40				35					
				12"	8'	solid gg	50				35					
				12"	8'	solid gg	60				35					
				12"	8'	solid gg	70				35					
				12"	8'	solid gg	80				35					
				12"	8'	solid gg	90				35					
				12"	10'	gg-bx (dissem by in some frags)	0	2.0?			30					
				12"	10'	gg-bx (dissem by in some frags)	10				30					
				12"	10'	gg-bx (dissem by in some frags)	20				30					
				12"	10'	gg-bx (dissem by in some frags)	30				30					
				12"	10'	gg-bx (dissem by in some frags)	40				30					
				12"	10'	gg-bx (dissem by in some frags)	50				30					
				12"	10'	gg-bx (dissem by in some frags)	60				30					
				12"	10'	gg-bx (dissem by in some frags)	70				30					
				12"	10'	gg-bx (dissem by in some frags)	80				30					
				12"	10'	gg-bx (dissem by in some frags)	90				30					
				12"	10'	gg-bx (dissem by in some frags)	0			407	0	96532	.26	<0.02		?

GRID _____

GIBRALTAR MINES LTD.

HOLE No. B6-2B

SHEET No. 6 of 8

ROCK TYPES & ALTERATION		L to Core Feet/ft	GRAPHIC LOG		Value L to Core Alt	Width of Vail	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS			Estimated Core Recovery %	R O D	ASSAY RESULTS				
			Alteration Alteration	Feet/ft						Scale	LEACH CAP	LIM. ZONE			SUPERGENE	Feet/ft	Sample Number	% Cu	% Mo
	-The main dislocation appears to be at 447' with the abrupt change to med-grn. qtz-diorite frags. -this change could also have taken place	?			?	10'	gg-bx + ~4' of lost core	0 10 20 30 40 50 60 70 80 90	1.0?			413	60	0	96553	.01	4.002		.05?
	at 437' with the first appearance of qtz-porp. depending on whether the P.P. belongs to the Cache Crk rx's or to the qtz-diorite - assay values may resolve this	?				10'	bx (gg) - strong dissem P.P. in scarce frags	0 10 20 30 40 50 60 70 80 90	2.5?			418	65	0	96554	.01	4.002		.05
		?				10'	gg-bx	0 10 20 30 40 50 60 70 80 90	3.0?			423	60	0	96555	.05	0.02		.05
		?				10'	bx-gg - strong dissem P.P. in scarce frags	0 10 20 30 40 50 60 70 80 90	3.0?			431	80	0	96556	.20	.010		.08
		?				10'	bx-gg + 5' of lost core (first cp seen in frags)	0 10 20 30 40 50 60 70 80 90	2.0			437	40	3	96557	.28	.014		.18
		?				7'	bx-gg + ~3' lost core	0 10 20 30 40 50 60 70 80 90	1.0			447	50	0	96558	.39	.014		.25

GRID _____

GIBRALTAR MINES LTD.

HOLE No. 86-28
SHEET No. 7 of 8

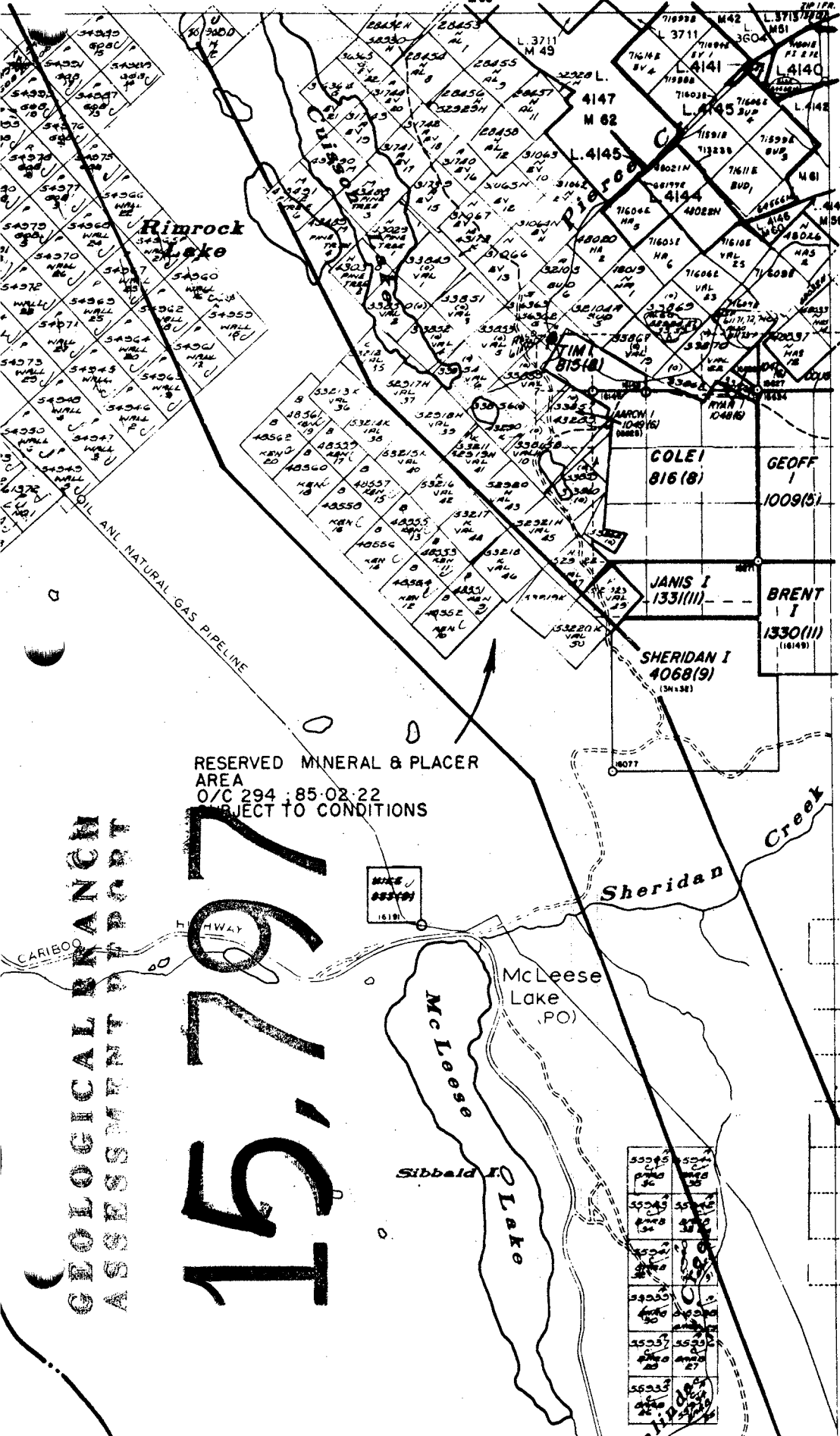
ROCK TYPES & ALTERATION	GRAPHIC LOG	Foliation Alteration	Y-axis	Width of vein	Mineralization	FRACTURE ANGLE TO CORE AXIS -FREQUENCY-	ESTIMATED % PYRITE	BOTTOM DEPTHS		Estimated Core Recovery %	R O D	ASSAY RESULTS			
								LEACH CAP	LIM. ZONE			SLPERGENE	Feet/Block	Sample Number	% Cu
FINE-MED GRN. QUARTZ DIORITE (468-503) typical Q.D. as intersected in nearby holes (ie 84-23) but sl. finer grnd.	60-70 WK	480	60	1/2"	qtz	0	<0.5	~ 1/4" solid cp	473	80	0	96559	.39	.014	.25
			70	1/2"	qtz-chl-cp	10				30					
			80	12"	gg-bx	20				40					
			90	1 1/4"	qtz-mag(cp) qtz-chl-cp	50				60					
~ 25% chl ~ 20% chl ~ 40% plg (w/ sauc) ~ 15% ep; as clots + stringers this rx is within or close to the gyp-qtz-mag-bx-cp zone as intersected in 80-23.	60-70 WK	490	70	7'	gg-bx	0	<0.5		483	20	0	96560	.33	.010	.15?
			80	2"	qtz-mag(cp)	10				20					
			90	1/4"	qtz(cp)	30				40					
			100	1/2"	gg-bx	50				60					
FOH 503	70 WK	500	70	1/2"	qtz + qtz-mag	0	<0.5	~ 1/4" solid cp.	493	80	20	96561	.21	.004	.25
			80	1/2"	gg	10				20					
			90	1/2"	qtz (cp)	30				40					
			100	1/2"	gyp	50				60					
B.O.B.	70 WK	500	70	1/2"	qtz-mag(cp)	0	<0.5		498	80	20	96561	.21	.004	.30
			90	1/2"	qtz-mag(cp)	10				20					
			100	1/2"	gyp-hmz	30				40					
			110	1/2"	qtz-chl-cp	50				60					

C

D

122° 14'

52° 30'



6

N
4

SCALE
1:50,000

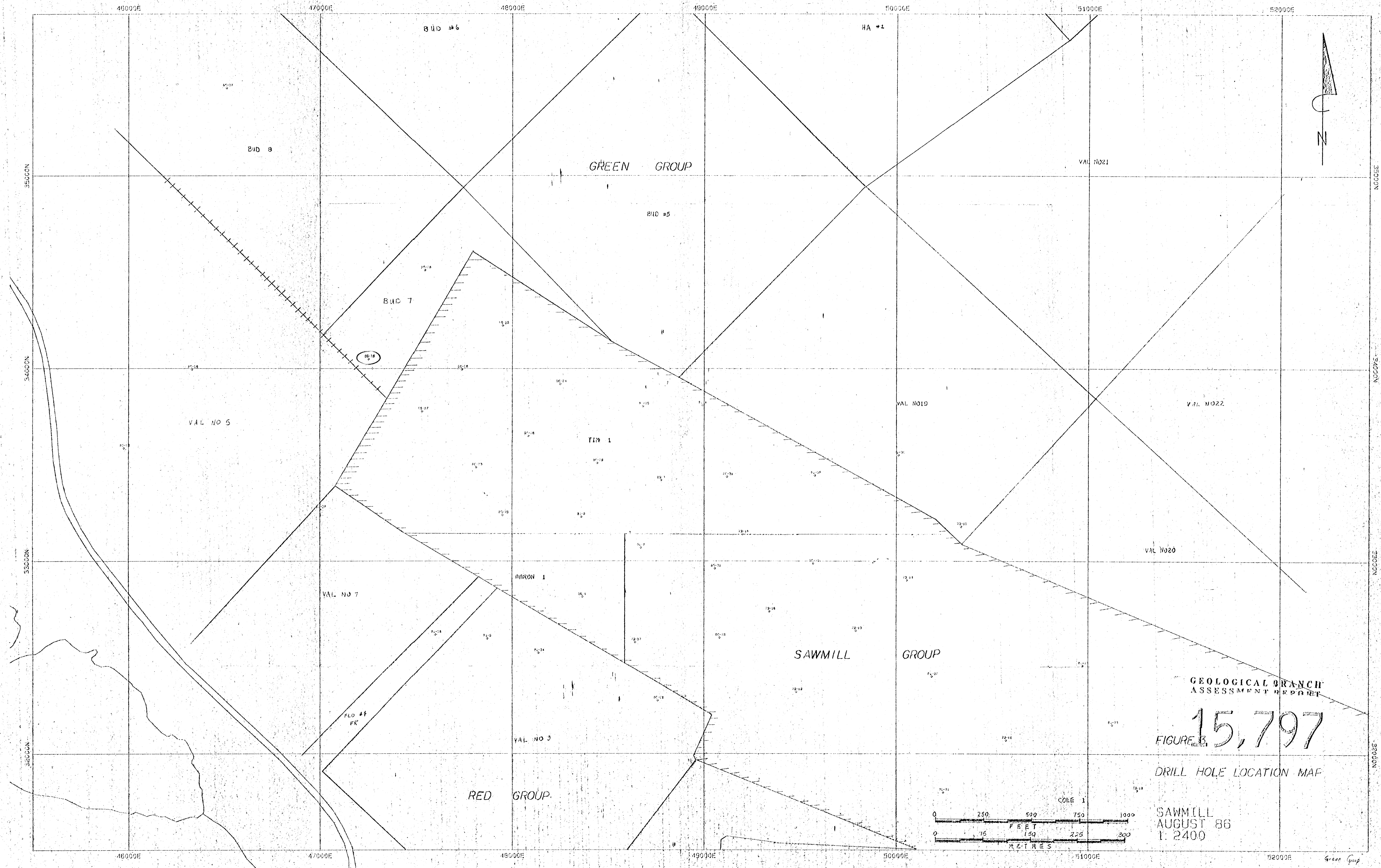
0 500 metres

N.T.S. 93B/8W

GEOLOGICAL BRANCH
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4

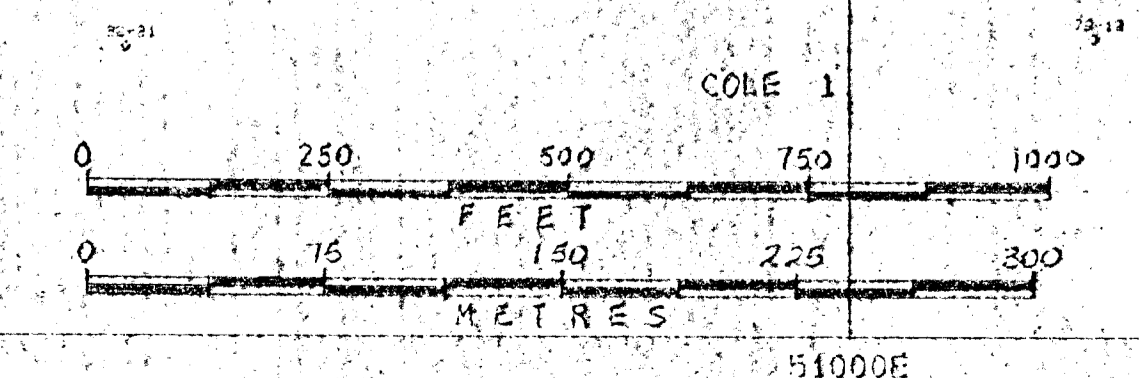


GEOLOGICAL BRANCH
ASSESSMENT REPORT

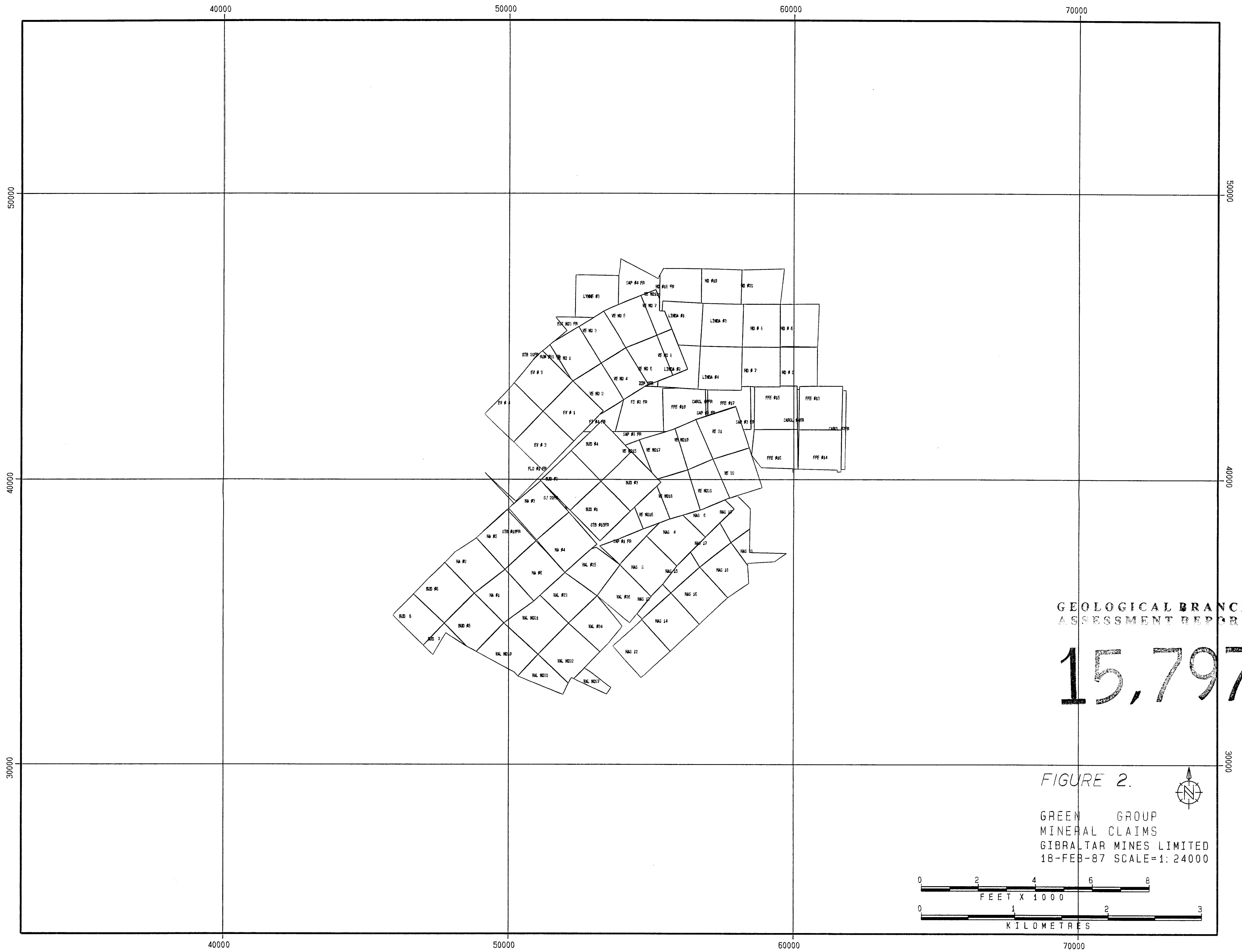
FIGURE 3 **15,797**

DRILL HOLE LOCATION MAP

SAWMILL
AUGUST 86
1:2400



Green Group



GEOLOGICAL BRANCH
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FIGURE 2.
GREEN GROUP
MINERAL CLAIMS
GIBALTAR MINES LIMITED
18-FEB-87 SCALE=1: 24000

