SEDIMENTARY HOLDINGS NL
in joint venture with
NORTHWEST BAY CO. LTD.

ANNUAL REPORT

for the

FORSTER PROJECT

SOUTHERN TASMANIA

RL 9803, EL's 3/94 & 33/96

For the Period ended September 1999

TG SUMMONS

Distribution : Melbourne Office
Mineral Resources Tasmania
Mrs HS Forster

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ABSTRACT - Forster Metallogenic District

Forster is a green-fields discovery of gold and base metal mineralisation in southern Tasmania. The Forster Au Zn Ni PGM metallogenic district is located at the junction of two major fault zones. The intrusion of granitoid bodies in to this fault junction introduced different styles of mineralisation according to the rock types and the hydrothermal fluids.

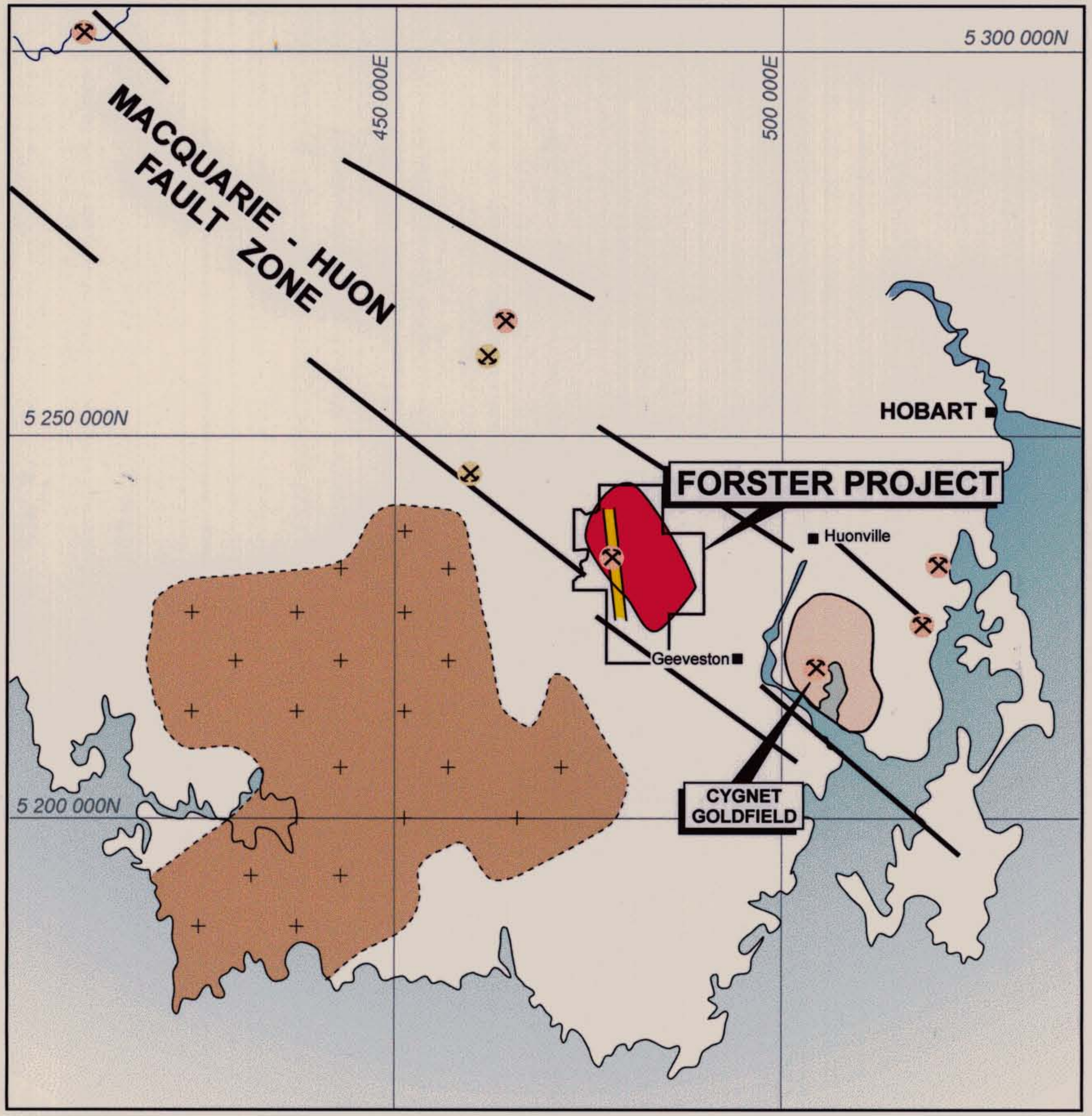
The early phase of mineralisation converted dolomitic basement rocks to a variety of skarns containing gold and zinc with minor copper and lead mineralisation. Greenstone basement rocks were also affected by these hydrothermal fluids with resultant nickel and cobalt mineralisation.

The later phase of epithermal style gold mineralisation overprinted the skarns and extended in to the younger cover sediments. A low grade gold resource has already been defined. Detrital platinoids have been shed from the greenstones.

The gold and base metal mineralisation styles identified to date at Forster have analogues with multi-million ounce gold deposits, currently being mined around the world, including the western USA. Accordingly, the model developed for Forster has the potential for a multi-million ounce gold resource.

SEDIMENTARY
HOLDINGS NL

Forster Project



Cretaceous
- Cygnet - Alkaline Complex
- Forster - Inferred Felsic Intrusion

Devonian
- Inferred Granitoid Intrusive
- Forster Corridor
- Major fault
- Alluvial gold
- Hard rock gold
- Tenement boundary

50km

5 cm

625004

Pg. 1.

1. INTRODUCTION

1.1. Exploration Rationale

Sedimentary Holdings NL is a public listed mineral resource company with its corporate mission to participate in large target, long life and low cost mineral resource projects.

Being a small company, Sedimentary has, on a number of occasions, at relatively low entry costs, worked with unusual, new or enigmatic sources of mineralisation to achieve its objective of generating value for stakeholders.

The Forster project is an example of such mineralisation, and represents a departure from the conventional wisdom regarding the historic wealth-generating areas of mineralisation in Tasmania.

1.2. Location, Land Status and Tenure

The Forster project is located 50 km west of Hobart and 22 km north west of Geeveston in southern Tasmania. The project area comprises a Retention Licence [RL 9803] and two Exploration Licences [3/94 & 33/96] totalling 247 sqr km. Land status is State Forest - Multiple Use Forest Land. Forestry Tasmania manage the land, and logging activities have been in progress in the district for some time. Details are shown in Figure 1.

2. GEOLOGICAL SETTING

The prospect is exposed in a Precambrian - Palaeozoic age inlier surrounded by Permian age cover sediments.

2.1. Lithologies

The oldest lithologies consist of a Precambrian conglomerate-orthoquartzite-dolomite sequence juxtaposed by thrust faulting with Palaeozoic mafic to ultramafic intrusives, volcanics and volcanogenic sediments. Generally flat lying Permian age mudstones and siltstones cover much of the area.

Intrusive rocks in the region include a ?Devonian age granitoid, Jurassic age dolerite sills and dykes, and an inferred acid/intermediate igneous body of Cretaceous age. The Cretaceous age is based on Pb isotope dating on galena in massive silica, and on alteration and quartz veining in dolerite. The youngest intrusive does not appear to have been un-roofed, and is inferred from an outcrop of aplite and the pronounced thermal metamorphism seen in the area.

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2.2. Regional Structure

Forster is situated in the MacQuarie - Huon fault zone, a major north west trending feature 30km wide and 230km long extending across the southern part of the state. It incorporates the Cygnet Goldfield to the east and sporadic occurrences of gold mineralisation to the west [see Figure 1].

The structural setting around Forster is complex, and involves the junction of the MacQuarie - Huon fault zone with a northerly trending fault zone. The shape of the intrusive body under Forster, inferred from airborne magnetic data, suggests a dilational jog structure was developed during a right handed phase of shearing along the MacQuarie - Huon fault zone.

The northerly trending Forster Corridor appears to be the result of either north south trending dextral shears within the jog structure or a reactivation of the northerly aligned fault. Continued right hand movement along the corridor margins would in turn generate north east and north north east fractures within the corridor. Gold mineralisation at Forster Central is interpreted to occur along both north south and north east trending faults.

2.3. Local Structure

The dominant structural fabric in and around the Forster Corridor is north south trending and represented by mapped faults, magnetic linears, and dolerite dykes. This fabric has been developed over an earlier west dipping package of Precambrian and Cambrian rocks which were juxtaposed by low angle faulting.
A strong probably complementary grain trends north east and is represented by mapped faults, magnetic linears and mobile ion geochemical trends. The north south and north east orientations are supported by interpretation on consecutive drill sections. Faults aligned north west appear late, although some evidence suggests they played a role in the epithermal veining.

3. EXPLORATION RESULTS

3.1. Rock Chip Sampling

A mixed group of chip samples from both outcrop and drill core were submitted for multi-element analyses. Raw sample values, analytical methods and detection limits are attached as Appendix 1.

The samples were split in to a dolomite + skarn group, and a silica + breccia group to allow recognition of geochemical characteristics of the different paragenetic trends.
Silicified ultramafic samples were collected from Nickel and Arsenic points in the Weld River, and have been included in the silica + breccia group.

FORSTER PROJECT - ROCK CHIP SAMPLES																	
Sample	Location	Easting	Northing	Description	Au	Ag	As	Sb	Cu	Mo	Pb	Zn	Co	Ni	Y	Sn
DOLOMITE + SKARN Group																
F99-1	Stromatolite Pt	477650	5234600	Dolomite, grey	0.01	0.02	1	0.05	9	0.4	1.5	11	1.4	9	0.5	1
F99-2	a/a	477650	5234600	Dolomite, grey/or/wh, intraclastic	0.03	0.02	1.5	0.7	82	0.4	12	23	1.1	8	0.25	4
F99-3	Sand Ridge	478200	5233800	Dolomite -early skarn alt in frac's	0.03	0.1	11.5	2	11	2.4	39	250	5	41	2.9	1
F99-4	Weld R, nr Eddy	477750	5235600	Diopside, wh, massive	0.005	0.02	0.2	0.05	4	0.05	0.5	2	0.9	8	0.2	1
F99-5	For B/L, nth of 10700N	478210	5234040	Skarnoid, khaki, triang skeletal fabric	0.04	0.02	270	8	3	2.2	30	61	3.5	16	9	6
F99-6	a/a	478210	5234040	a/a with < 20 % calcite	0.005	0.02	27	4.1	2	0.4	6	38.5	12.5	105	7	6
F99-7	BC-15 core, 80.1m	478190	5233530	? Dolomite/skarnoid	0.01	0.15	31.5	3.2	9.5	3.1	37	37	2	15	0.8	5
F99-8	BC-15 core, 74.0m	478190	5233530	Skarn, calcareous ? vesuv/talc	0.005	0.02	55	1.7	2	0.4	2	14	1.2	11	0.45	5
F99-9	BC-15 core, 71.1m	478190	5233530	Skarn, siliceous	0.005	0.02	15	1	3	0.7	9.5	30	1.9	15	0.45	5
F99-10	SW-2 HQ core	478110	5233540	Skarn, garnet-magnetite	0.66	1.9	650	6	165	26.5	160	9150	115	470	7.5	1
F99-11	SW-1, HQ core, 96.2m	478195	5233530	Skarnoid, wh, skeltal ["flattened s/w"]	0.01	0.05	11	0.9	3.5	0.8	2.5	23.5	1.3	13	0.9	1
F99-12	10600N, west of B/L	478150	5233865	Skarn, siliceous, green	0.15	0.1	28	4.6	10.5	4.1	8.5	310	4.3	21	0.7	11
F99-13	PGM Reward Lease	478085	5233665	Skarn, grey/grn, mullock ex shaft	0.01	0.25	3	2.2	5	3.1	10.5	12.5	1	9	0.9	6
SILICA + BRECCIA Group																
F99-14	Nickel Point	478140	5234385	Ultramafic, tectonised/altered/banded	0.005	0.02	420	7	15	1.7	3.5	21	67	850	4.6	1
F99-15	a/a	478140	5234385	Dolomite, decarb/silicif, 0.2mm qtz vns	0.005	0.02	4.5	0.4	22	3.7	3.5	44.5	3.7	25	1.65	1
F99-16	a/a	478140	5234385	sim to 15, core of gry/wh SiO2 ? vugh	0.005	0.02	4	0.3	13.5	3.5	2	31	3.2	22	1.3	1
F99-17	Adit, nth bank Weld R	478160	5234460	? Dolomite/igneous, var silic, chalc s/w	0.02	0.05	3.5	1	10	2.8	19.5	34.5	1	12	0.3	4
				minor hem/go ex ? sulp, minor 100% gry SiO2												
F99-18	Stromatolite Point	477650	5234600	a/a	0.005	0.05	2	0.5	20	4.7	19	34	5	15	1.25	1
F99-19	Galena Point	478185	5234345	SiO2, gry/blue, transl qtz s/w, tr OM/py s/w	0.02	0.6	11.5	1.7	29	7	370	19.5	1.9	14	0.3	1
F99-20	a/a	478185	5234345	SiO2, wh/gry/blue, skeletal, cut by 0.1-5mm	0.02	0.1	7	1	19	3.3	63	9.5	1.4	11	0.35	1
				transl qtz s/w [var band/crustiform], all cut by												
				Om/py/?SiO2 s/w [py latest]												
F99-21	Sand Ridge	478250	5233750	SiO2 bx, open, early dk gry ex silic dol, cut by	0.01	0.02	1	0.7	17	4.3	16	1.5	1.1	10	< 0.05	1
				qtz s/w. vughs filled w euh qtz												
F99-22	Sinter Point	478270	5234300	Chalcedony, med brn & gry, waxy	0.07	0.1	15.5	2.1	9.5	3.8	65	1400	4.4	28	6.5	8
F99-23	a/a	478270	5234300	Chalc, med/dk brn, complex banded, var ufs	0.04	0.05	42.5	2.3	7	1.8	16.5	88	7.5	64	4.7	1
				sugg sinter, cut by dk gry/blue veinlets +/- marc												
F99-24	Sink hole, west of	478200	5233820	Dolomite, decarb/silic, dk gry/transl qtz vns	0.005	0.02	9.5	0.7	18	3.4	2	62	14.5	17	4.4	6
	Sand Ridge			? early bx												
F99-25	Stromatolite Point	477640	5234605	SiO2, tan brn, gen vughy, irreg qtz veinlets	0.005	0.15	10.5	1.2	16.5	4.9	2	65	29.5	35	12.5	6
F99-26	a/a	477640	5234605	Bx, ferrug/silic, ang/rd clasts, SiO2 veins	0.005	0.02	6.5	1.2	9	2.3	2	26	8	14	1.9	1
F99-27	Arsenic Point	478290	5234290	Ultramafic, silic, spin 10%, py/po/pn 1%	0.15	0.6	650	54	67	36.5	300	370	170	1450	0.5	1
F99-28	Galena Point	478185	5234345	SiO2 vein with OM & pyrite	0.005	0.45	69	4.6	18.5	6.5	120	13	5.5	27	4	1
F99-29	Nth of adit, nth bank	478170	5234185	Bx, polymict, ang clasts gry [pale & dk] ex dol,	0.005	0.02	8.5	0.8	10	3	5.5	4.5	2	15	0.4	1
				red/jasp w spinel & wh/transl qtz. All 3 types cut by												
				transl qtz vn s/w. Matrix pale brn/yell, SiO2, Spin												
F99-30	a/a	478170	5234185	Jasper clast ex poly bx sampled in 29	0.005	0.02	4	0.8	15.5	7	5	4	2	25	0.15	6
F99-31	Eastof Hogsback	478300	5234900	Bx, weath/alt, poly, silic ? dol clasts, sim matrix 30	0.01	0.1	5	14.5	43	7	115	3.5	1	9	0.55	8
F99-32	Fletcher/Sth Weld rds	477450	5232850	Qtz vns ex s/w in dolerite	0.01	0.02	1.5	0.2	26.5	3.2	3.5	17.5	7.5	16	10.5	1

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The results are presented in the table and as selected XY plots as discussed hereunder :

Gold Relationships
Plots of Ag, As, Cu, Pb, Mo, Ni, Sb and Zn versus Au [figures 2-10] reveal varying degrees of correlation Interpretation of the plots is limited by the number of samples, and there is some distortion caused by a small number of elevated values.

The As-Au plot for the silica/breccia group may indicate more than one population of arsenic. The Pb-Au plots for the dolomite/skarn group appears to show an inverse relation, while a direct Pb-Au relation may exist in the silica/breccia group.

The Mo-Au plots for both groups also appear to show a positive correlation, and Sb may be correlated with Au in the silica/breccia group. The Zn-Au plots appear to show a direct relation with Au in both groups.

Basé Metal Relationships
In other plots [figures 11-19], Cu and Zn appear unrelated, while Mo and Cu display good correlation in the silica/breccia group. The usefulness of the Sn values is limited by most being around the limit of detection. Ag and Pb appear positively correlated in both groups.

The Ni-Pb plot shows a correlation in the dolomite/skarn group, whilst the As-Ni plots are equivocal for both groups. Interestingly, the Ni-Co plots whilst showing an expected lithochemical positive correlation in the altered ultramafic samples, also show a similar relation in the dolomite/skarn samples.

The Ni-Zn plots are noteworthy; in the [modified] dolomite/skarn group the graph appears to show both positive and negative relations, suggestive of 2 or more sub populations. Ni and Zn are positively correlated in the [modified] silica/breccia group.

3.2. Alteration Studies

Several metamorphic events are recognised mainly in the dolomitic basement rocks, resulting in both prograde and retrograde skarns, accompanied by multi-phase hydrothermal alteration.

Similar alteration assemblages have formed from both ultramafic and siliceous dolomite precursors, and the terminology currently used is simplistic due to lack of data. Petrographic studies by Mineral Resources Tasmania [Bottrill & Woolley 1996] have been invaluable in the understanding of the alteration histories.

In general, the alteration assemblages can be loosely grouped as either mesothermal or epithermal in character as follows :

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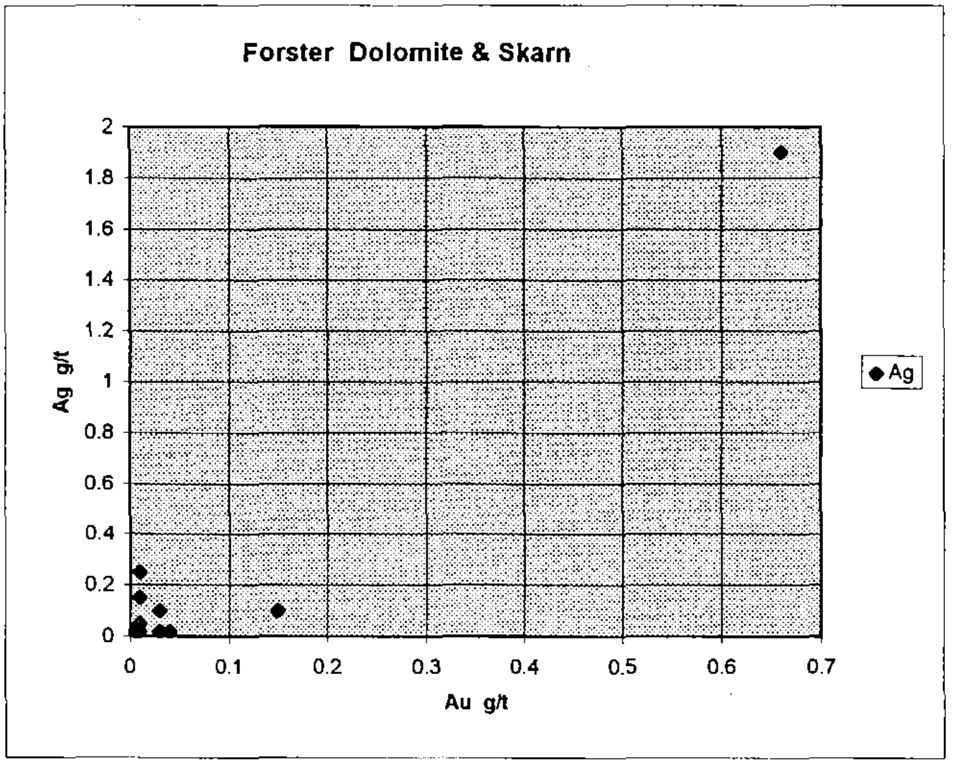
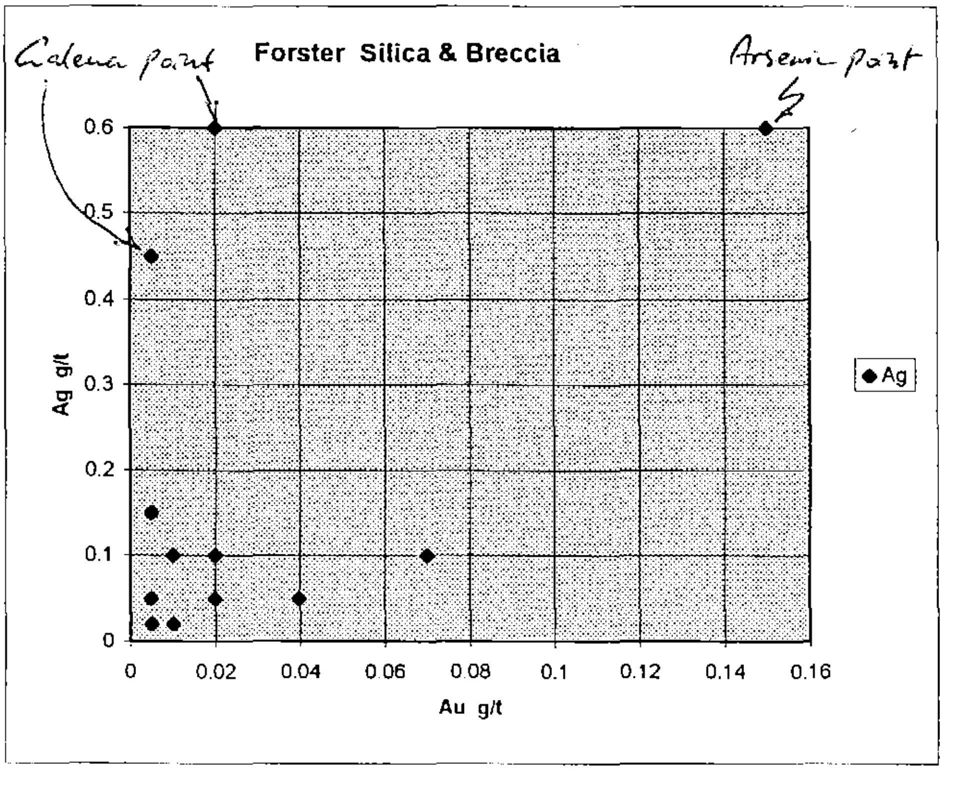
Fig. 2

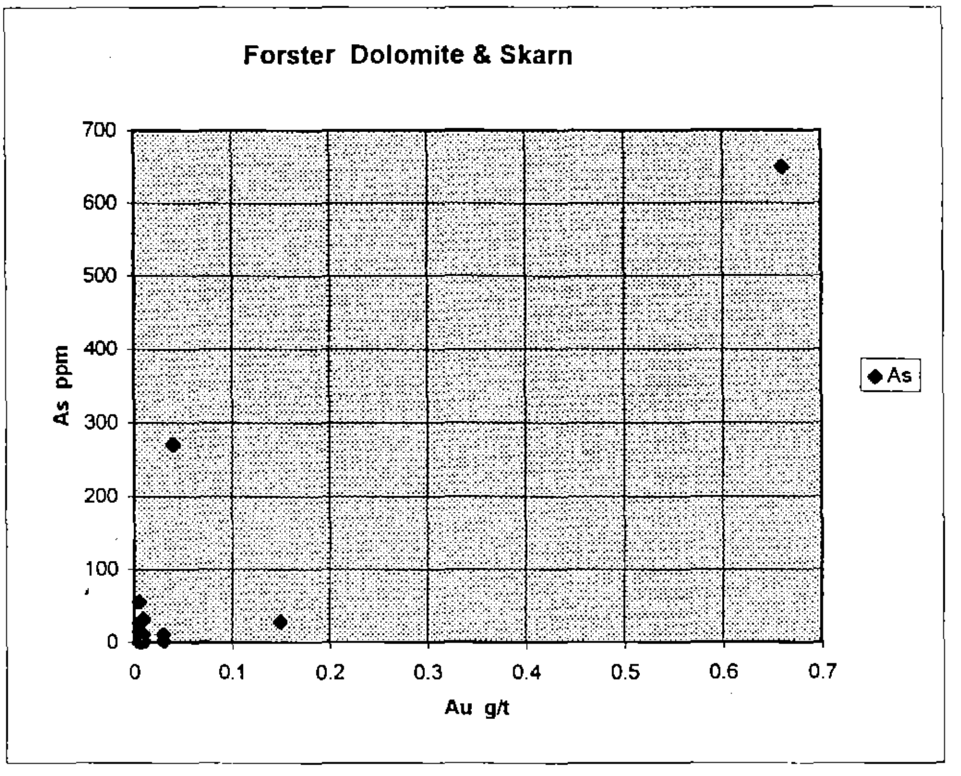


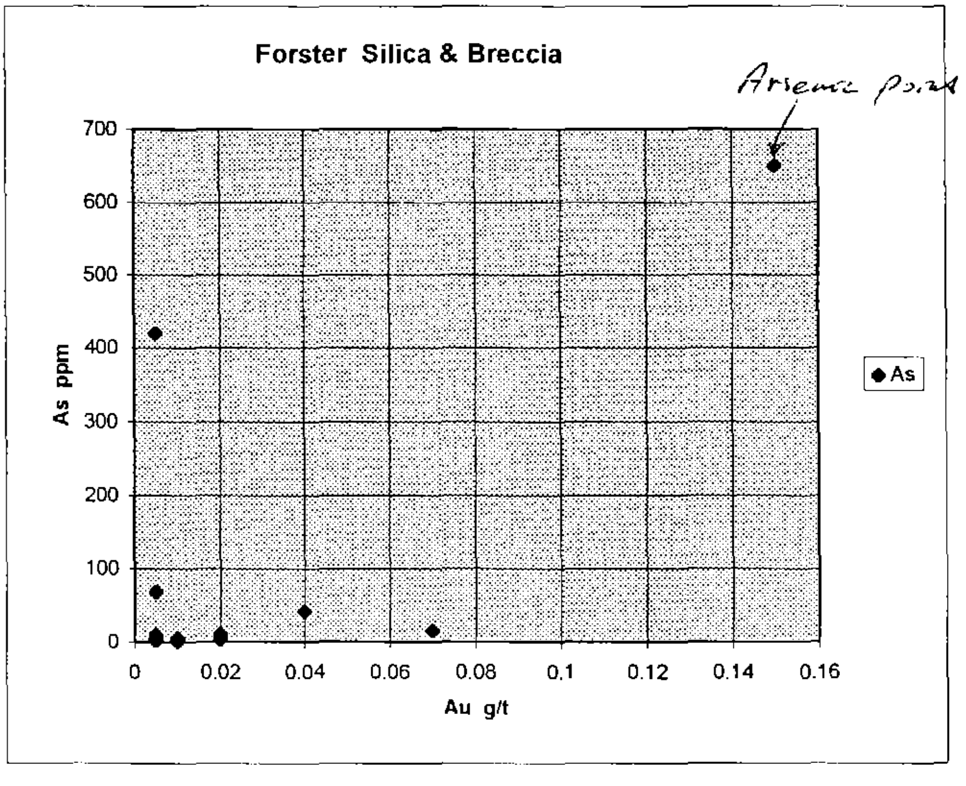
Forster Dolomite & Skarn
Ag g/t
Au g/t
Ag
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
0.1
0.3
0.5
0.7

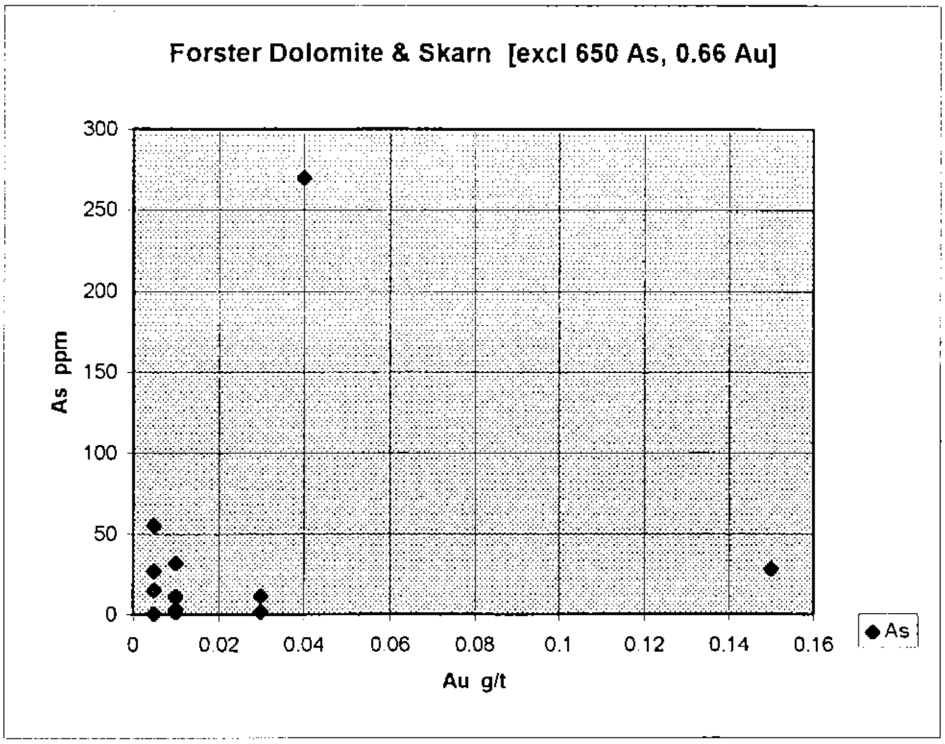


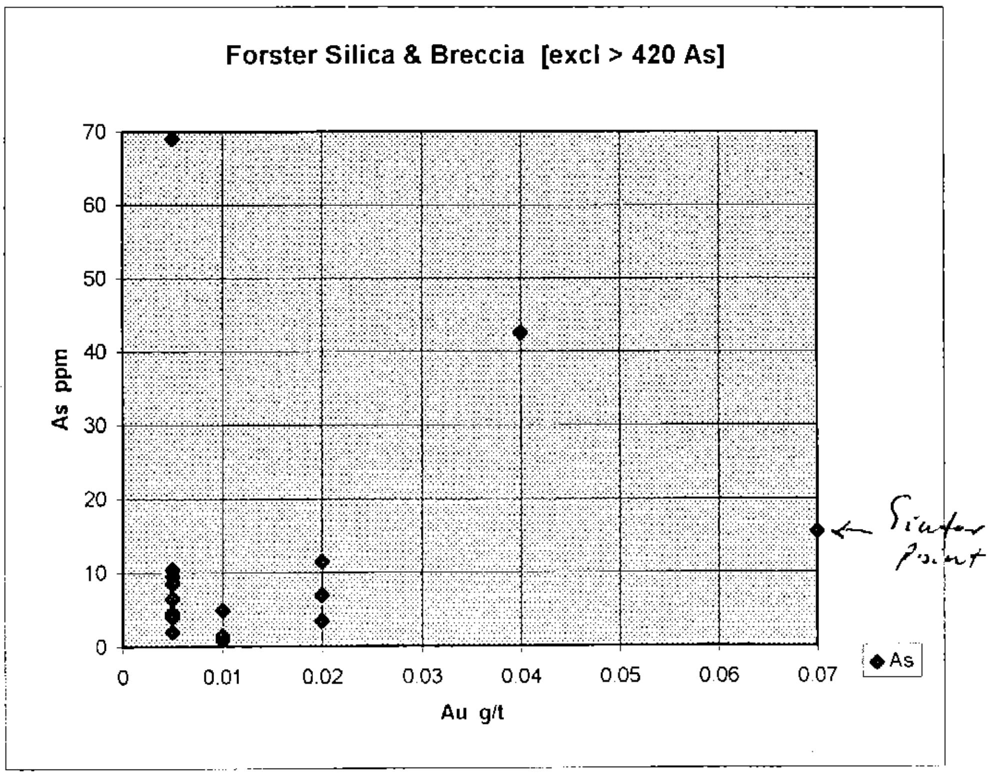
Forster Silica & Breccia
Galena part
Arsenic part
Ag g/t
Au g/t
Ag
0
0.1
0.2
0.3
0.4
0.5
0.6
0.02
0.04
0.06
0.08
0.12
0.14
0.16

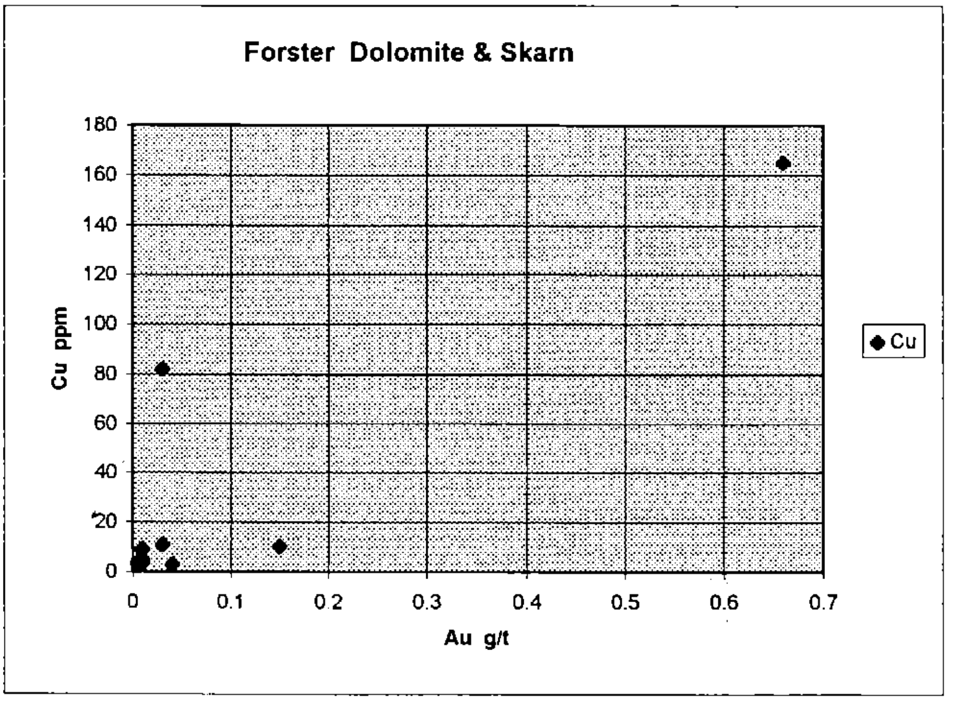
Fig 3

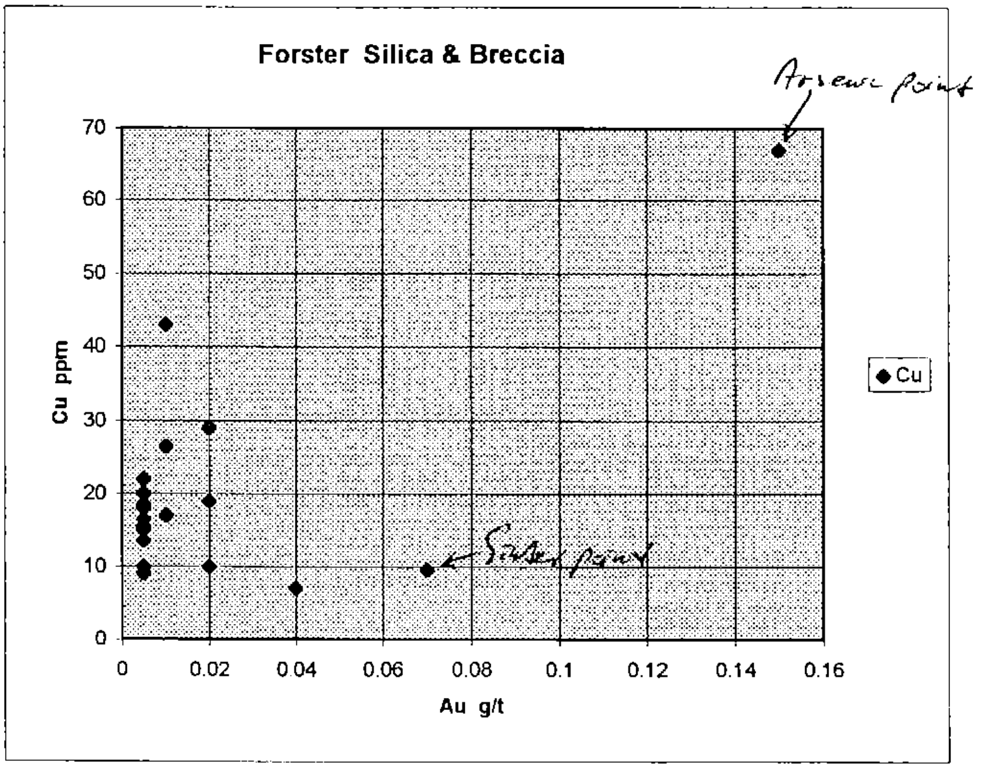

Forster Dolomite & Skarn
700
600
500
400
300
200
100
0
As ppm
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
As

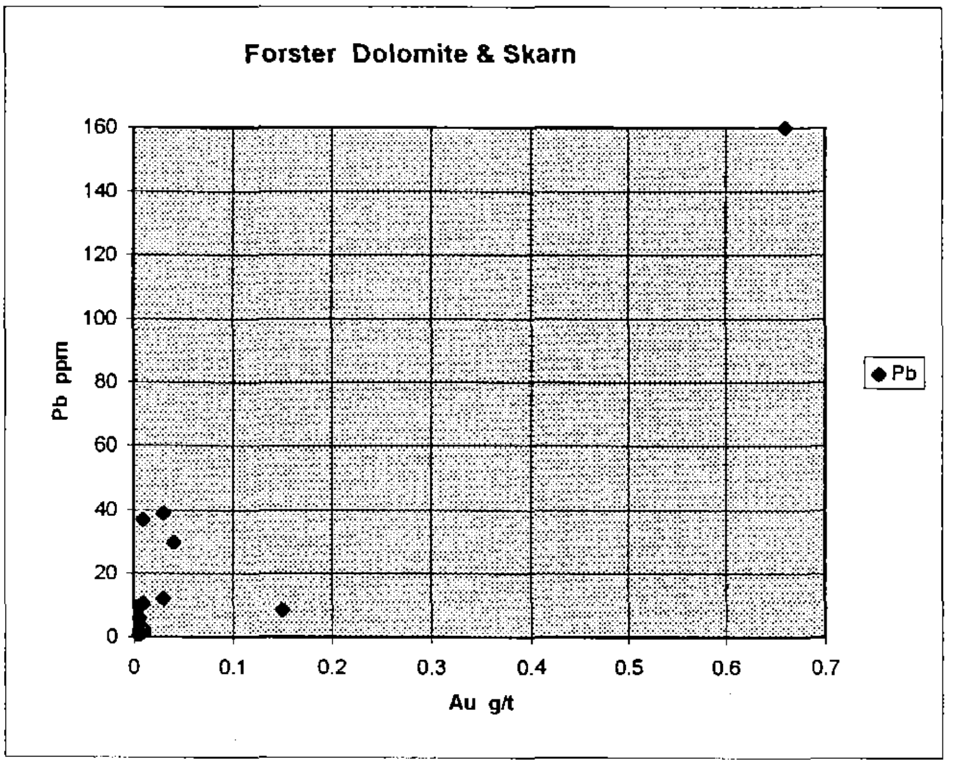

Forster Silica & Breccia
Arsenic point
700
600
500
400
300
200
100
0
As ppm
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
As


Forster Dolomite & Skarn [excl 650 As, 0.66 Au]
As ppm
300
250
200
150
100
50
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
As


Forster Silica & Breccia [excl > 420 As]
As ppm
70
60
50
40
30
20
10
0
0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
Au g/t
As


Forster Dolomite & Skarn
Cu ppm
180
160
140
120
100
80
60
40
20
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Cu


Forster Silica & Breccia
Arsenic point
Sinter point
Cu ppm
70
60
50
40
30
20
10
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Cu


Forster Dolomite & Skarn
Pb ppm
0
20
40
60
80
100
120
140
160
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Pb

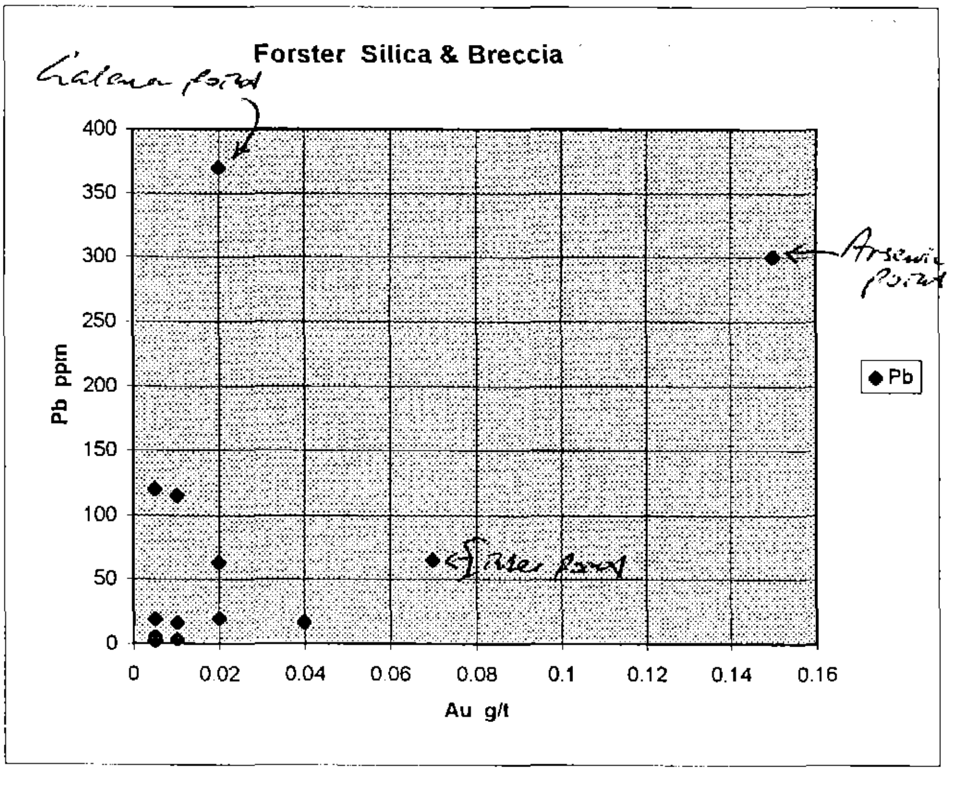
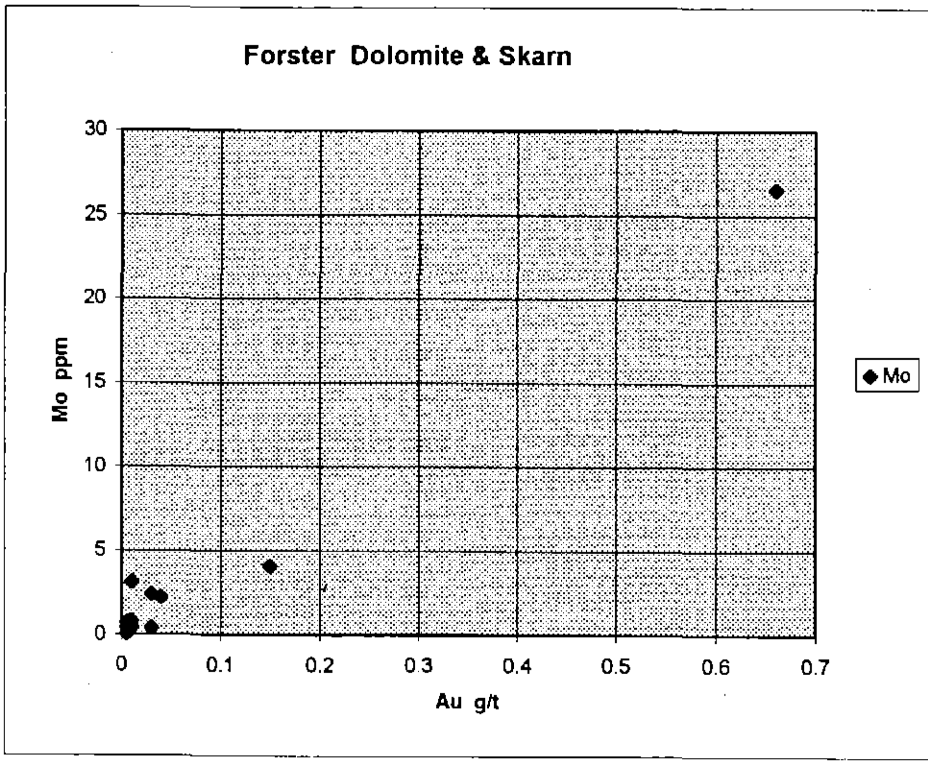
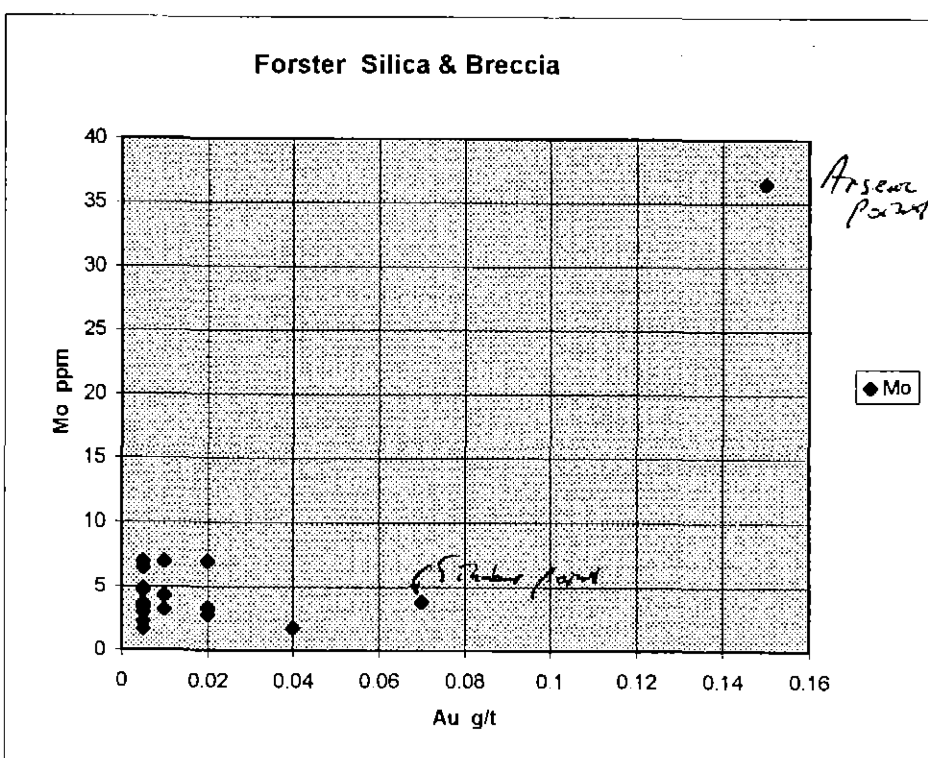
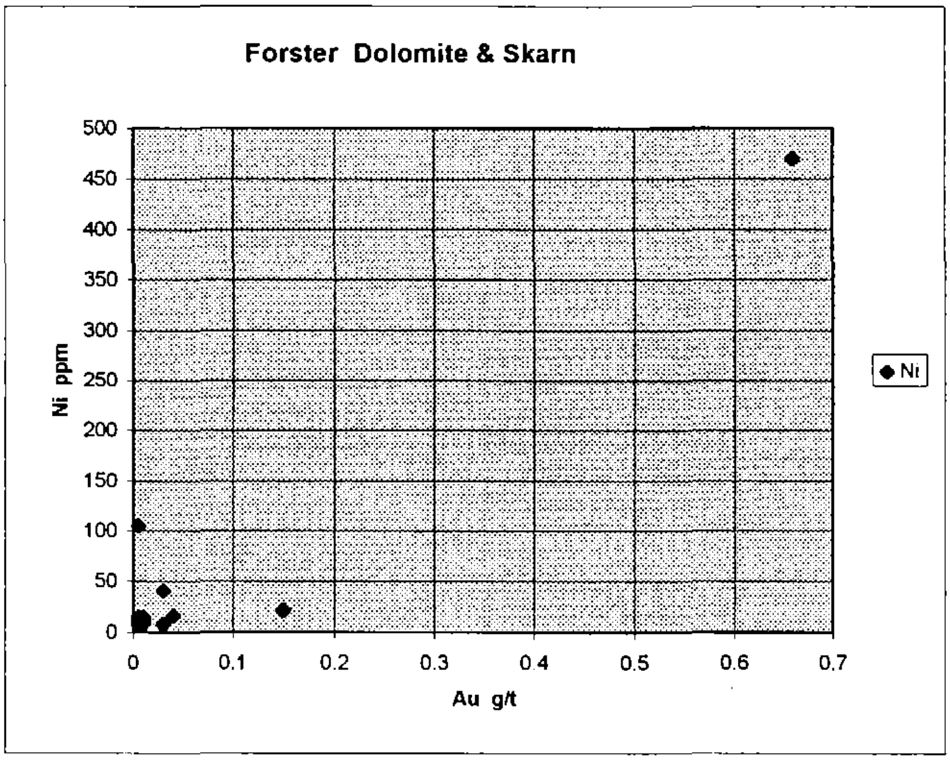
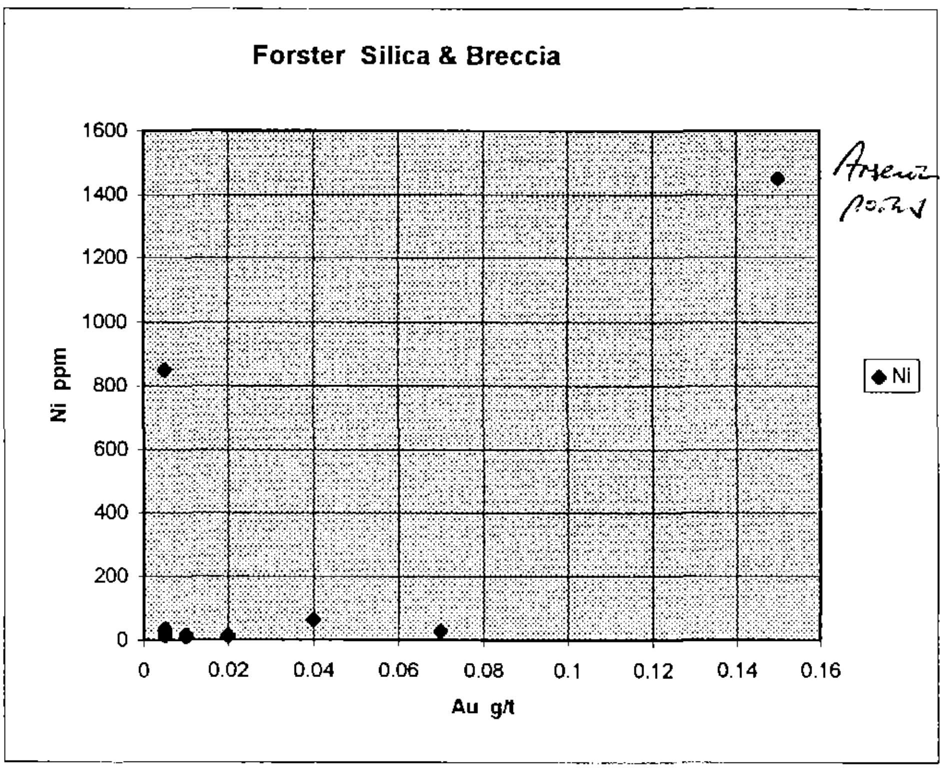

Forster Silica & Breccia
Galena point
Arsenic point
Pb ppm
0
50
100
150
200
250
300
350
400
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Pb

Fig 7.


Forster Dolomite & Skarn
Mo ppm
0
5
10
15
20
25
30
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Mo


Forster Silica & Breccia
Mo ppm
0
5
10
15
20
25
30
35
40
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Mo


Forster Dolomite & Skarn
Ni ppm
500
450
400
350
300
250
200
150
100
50
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Ni


Forster Silica & Breccia
Ni ppm
1600
1400
1200
1000
800
600
400
200
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Ni

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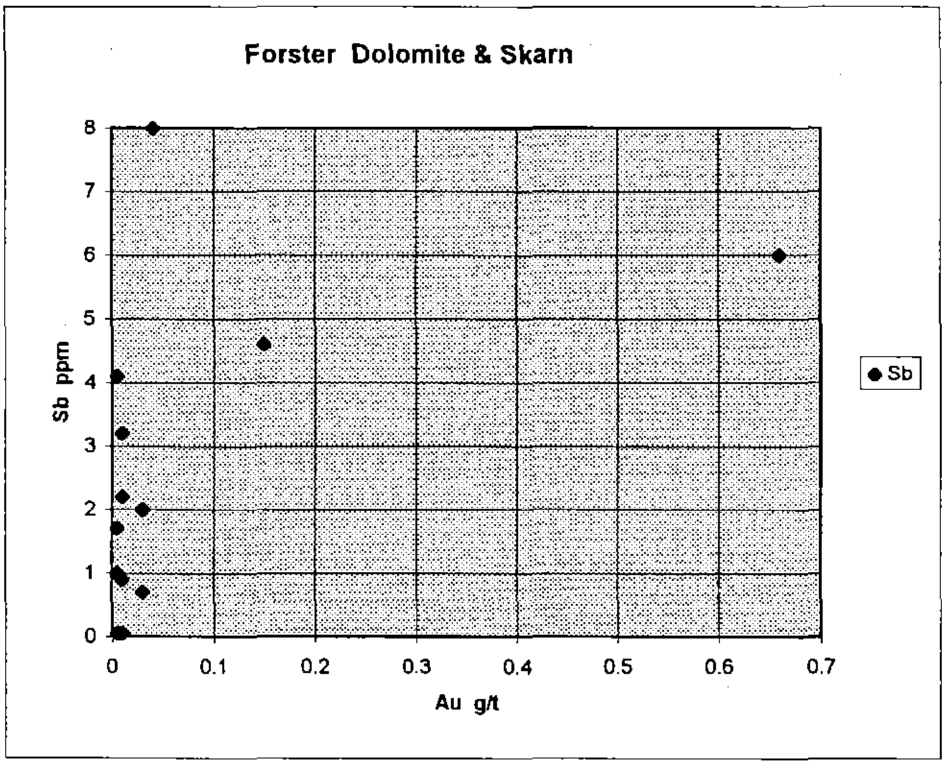
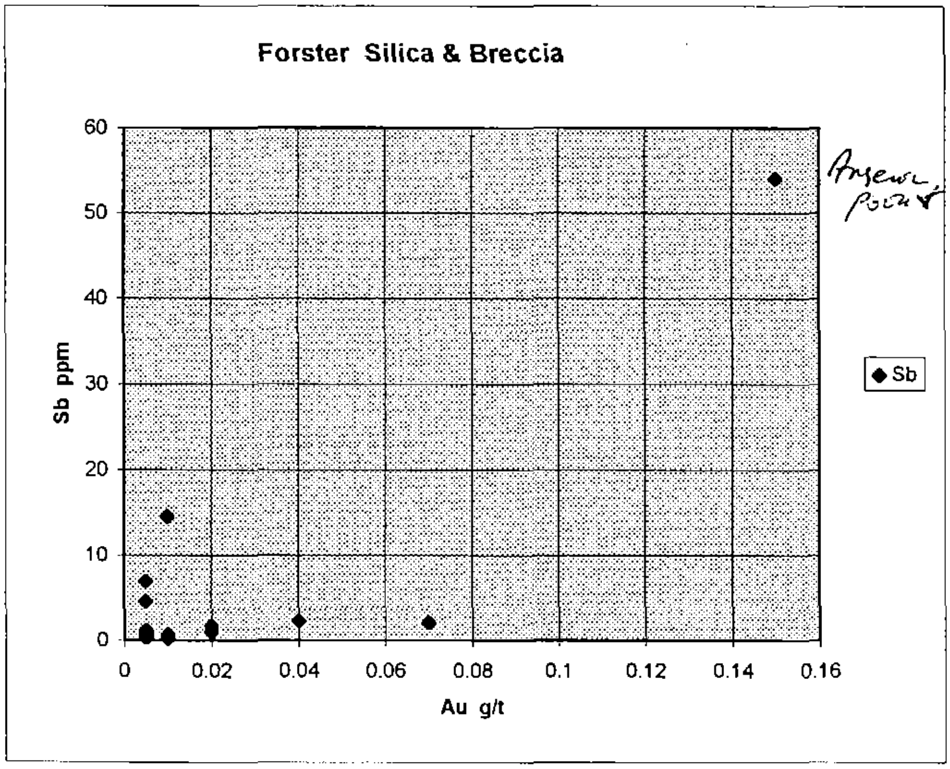
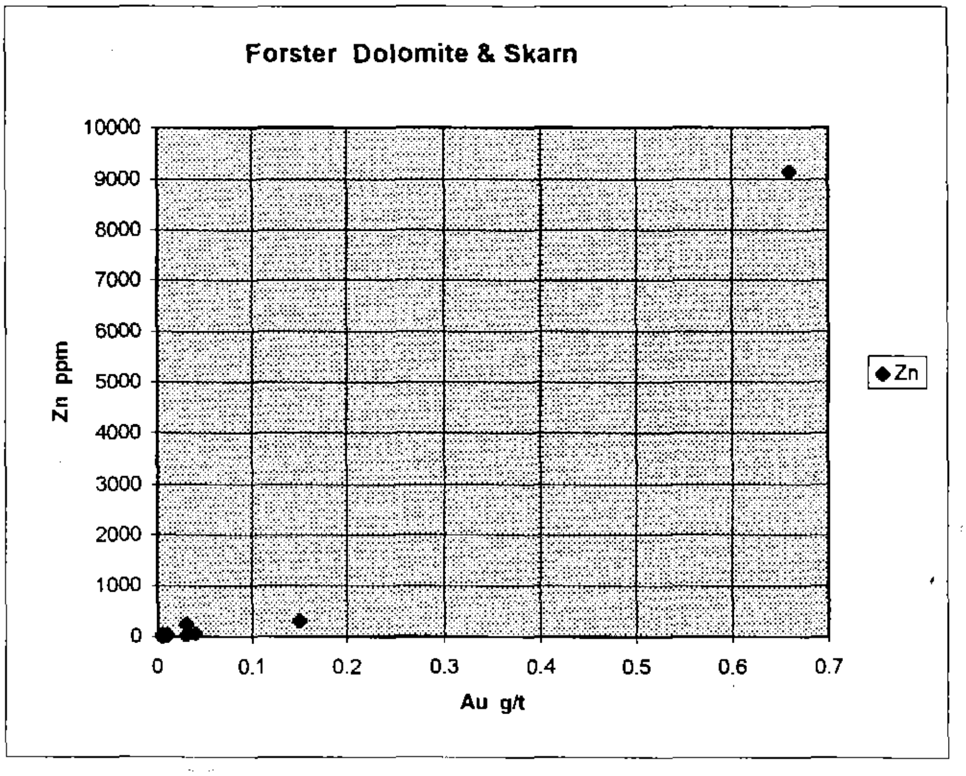
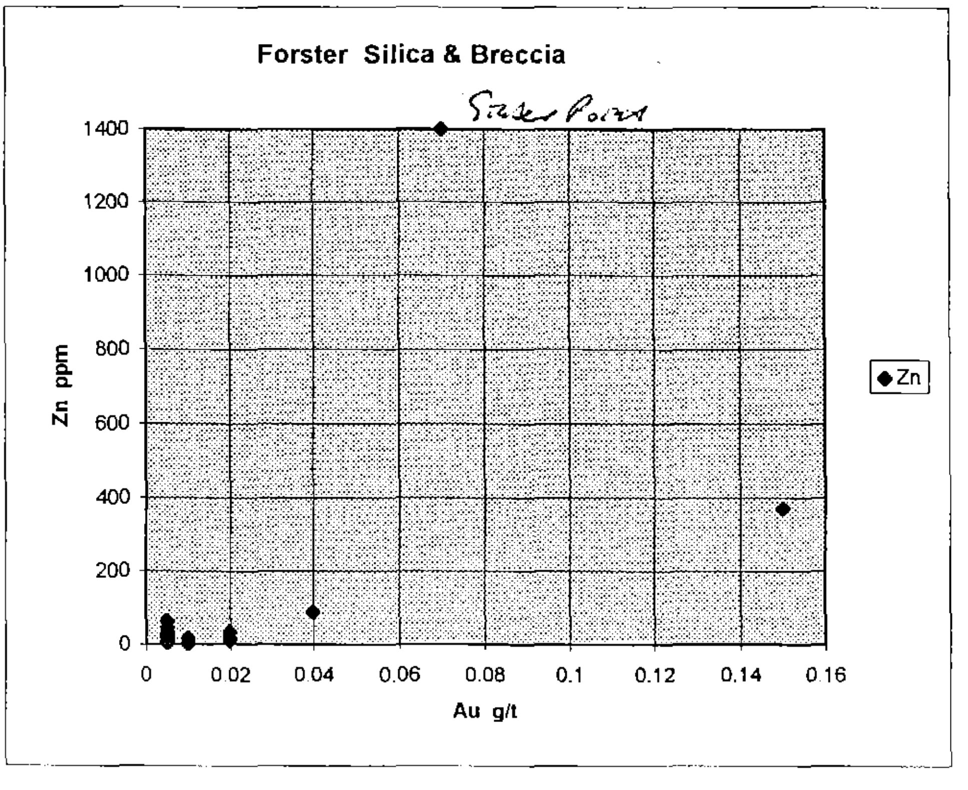


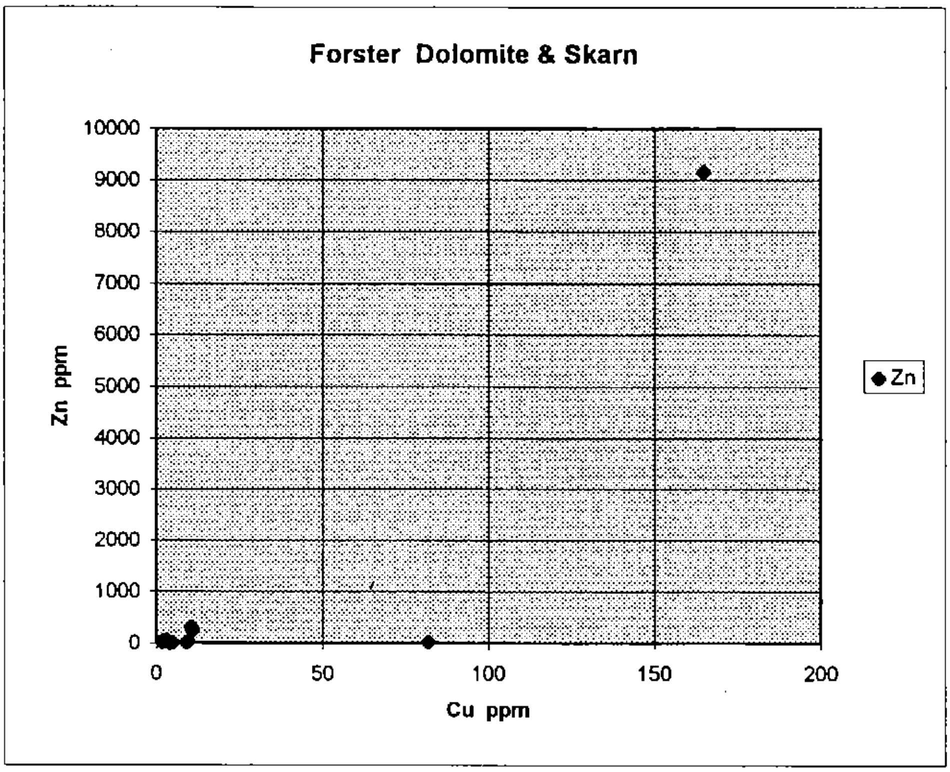
Forster Dolomite & Skarn
Sb ppm
0
1
2
3
4
5
6
7
8
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Sb



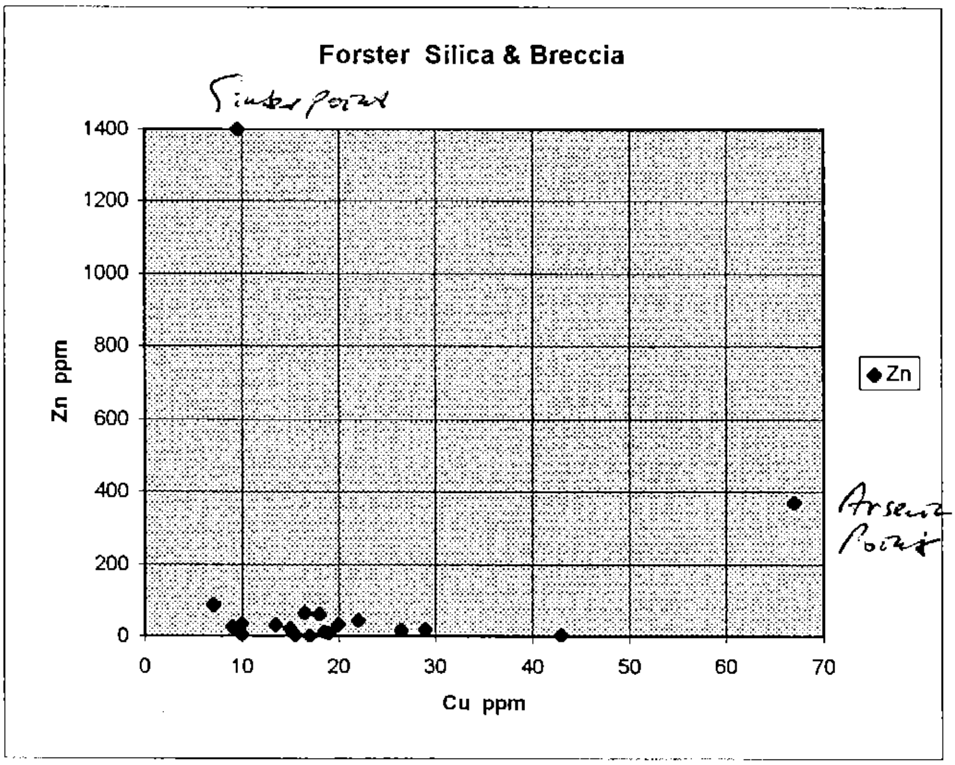
Forster Silica & Breccia
Sb ppm
0
10
20
30
40
50
60
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Sb
Arsenic point


Forster Dolomite & Skarn
Zn ppm
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
Au g/t
Zn


Forster Silica & Breccia
Zn ppm
1400
1200
1000
800
600
400
200
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
Au g/t
Zn



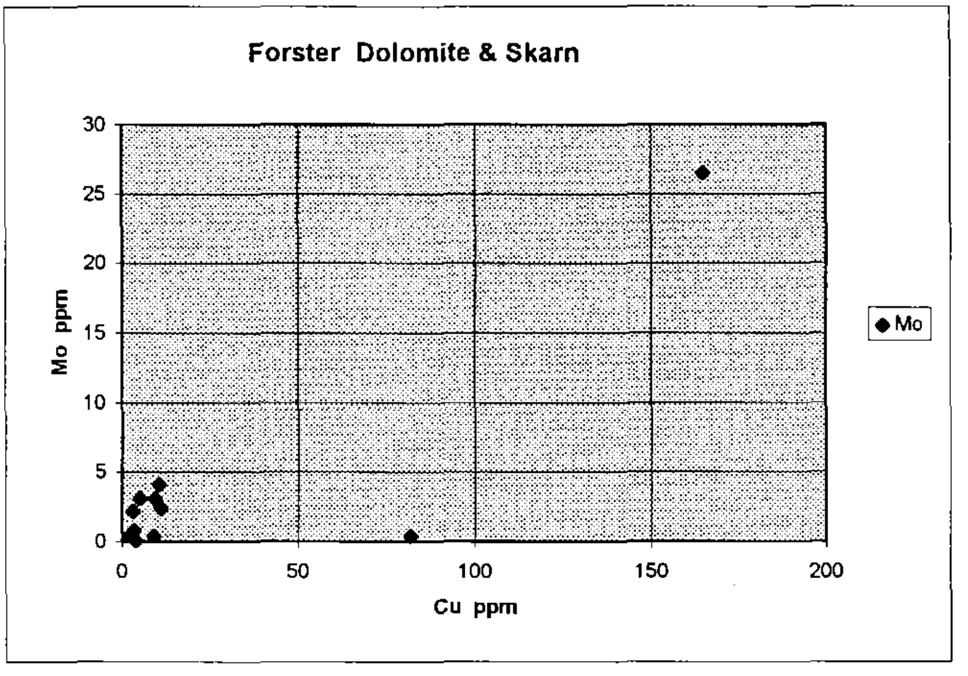
Forster Dolomite & Skarn
Zn ppm
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
0
50
100
150
200
Cu ppm
Zn

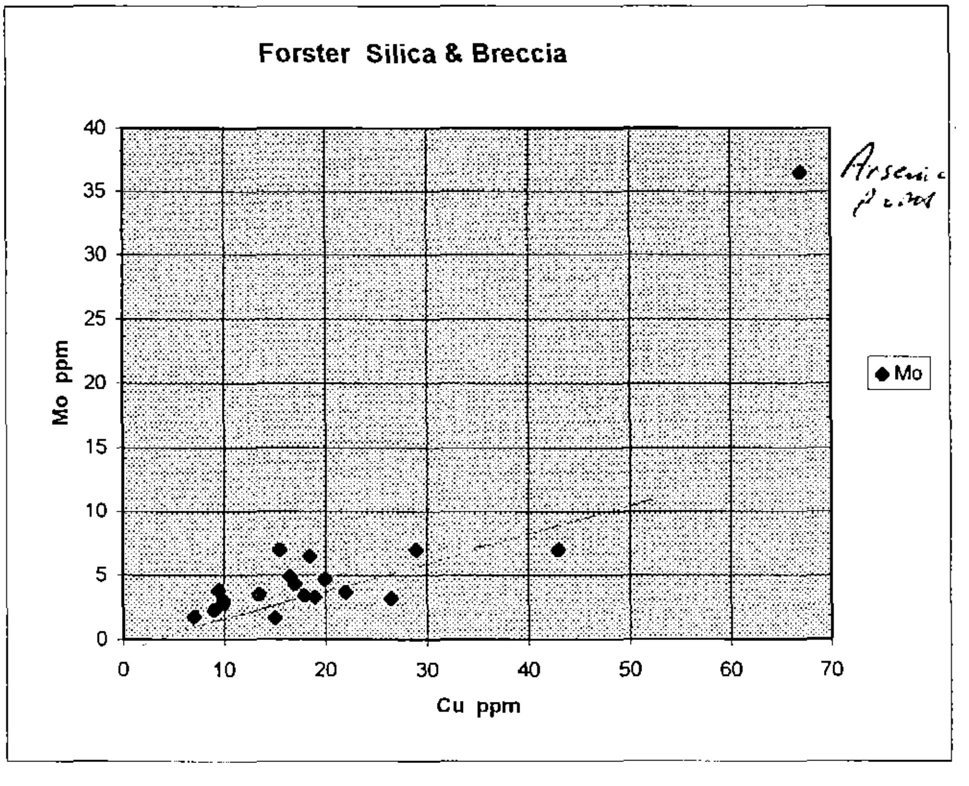


Forster Silica & Breccia
Timber Point
Arsenic Point
Zn ppm
1400
1200
1000
800
600
400
200
0
0
10
20
30
40
50
60
70
Cu ppm
Zn

Fig 12

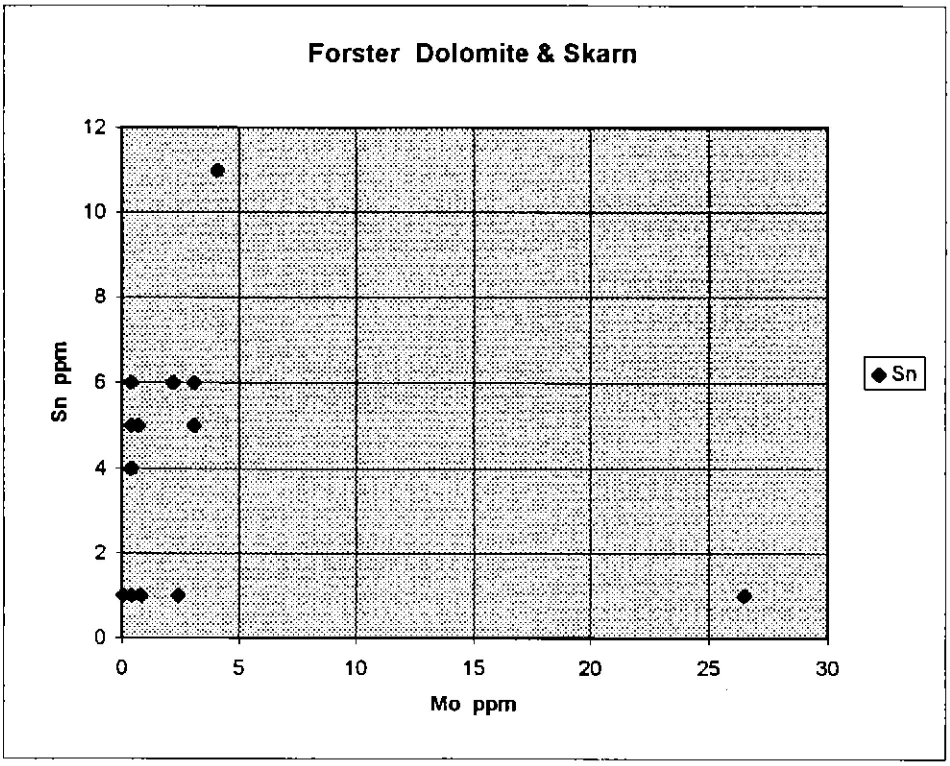
625019

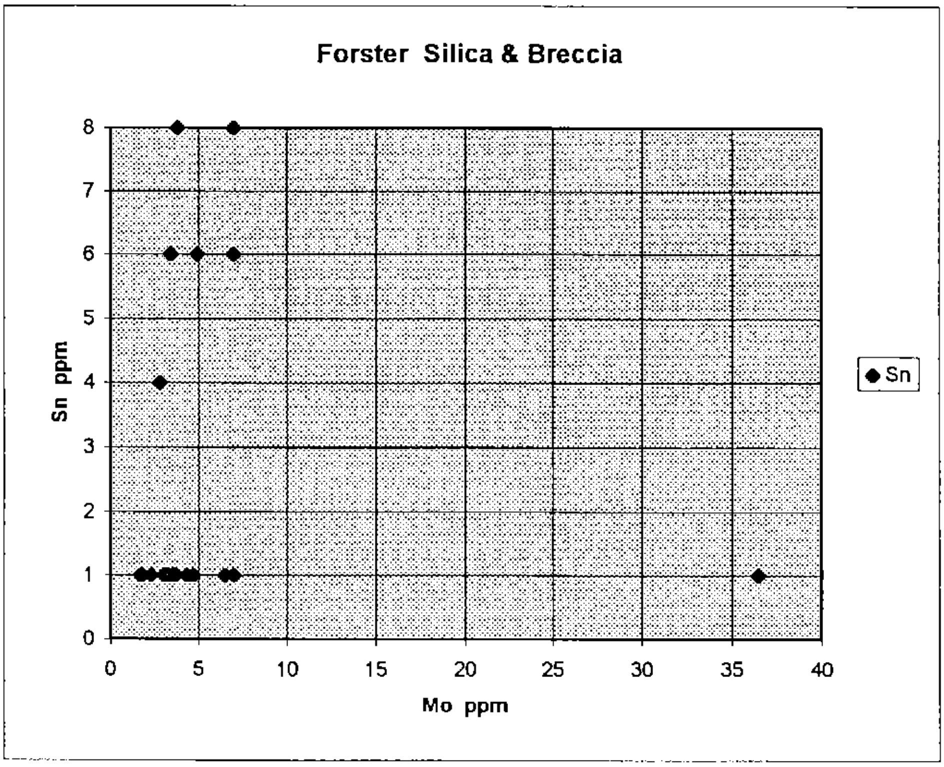




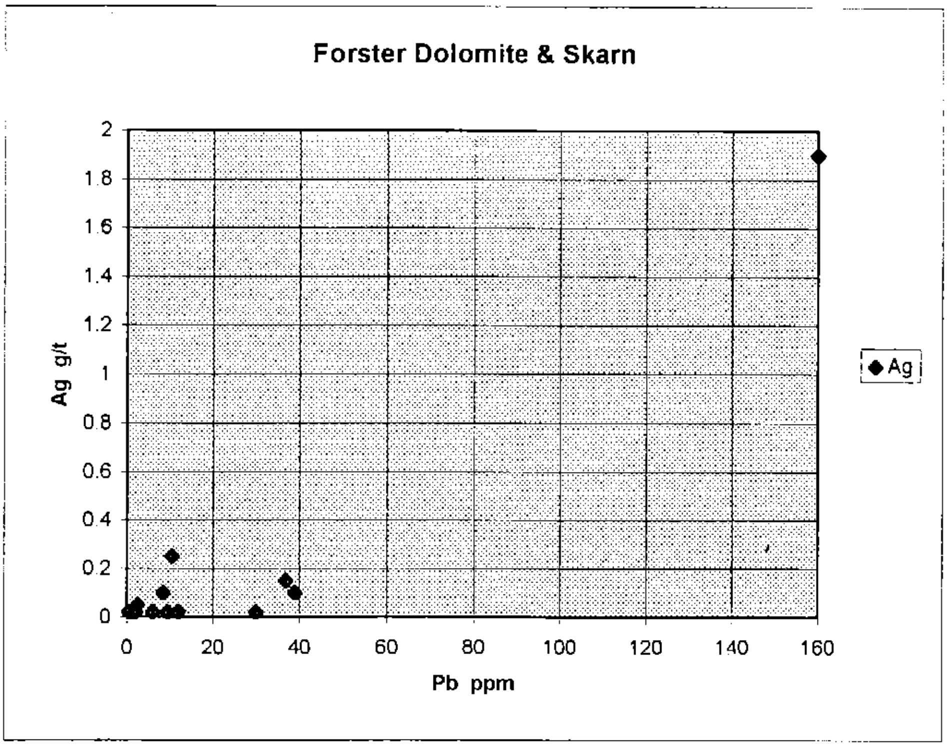
625020

Fig 13

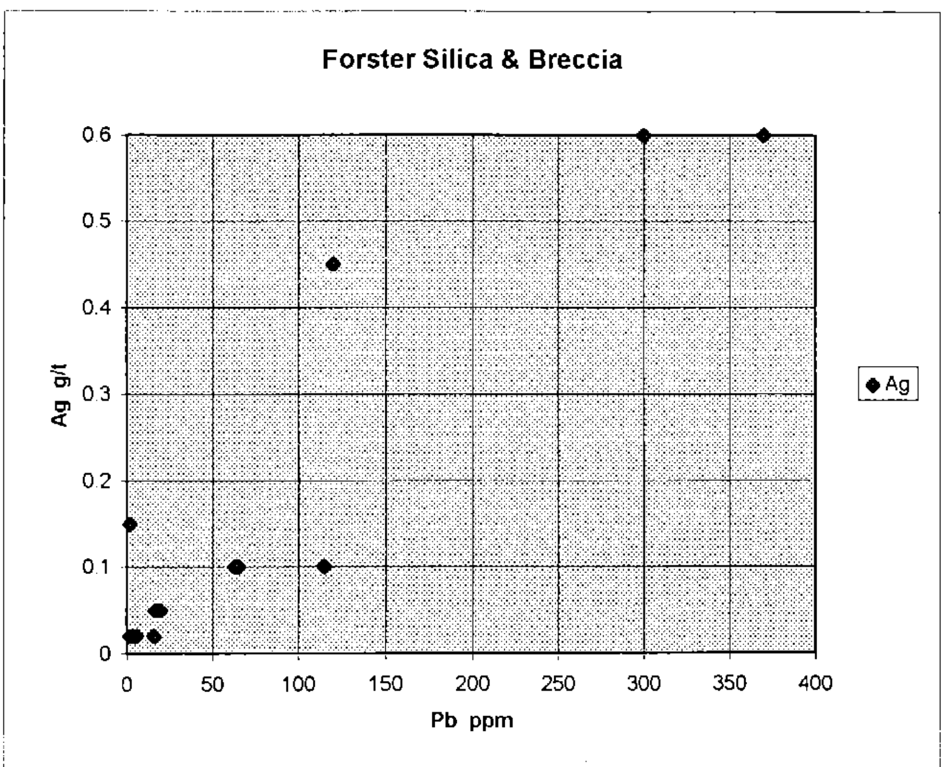




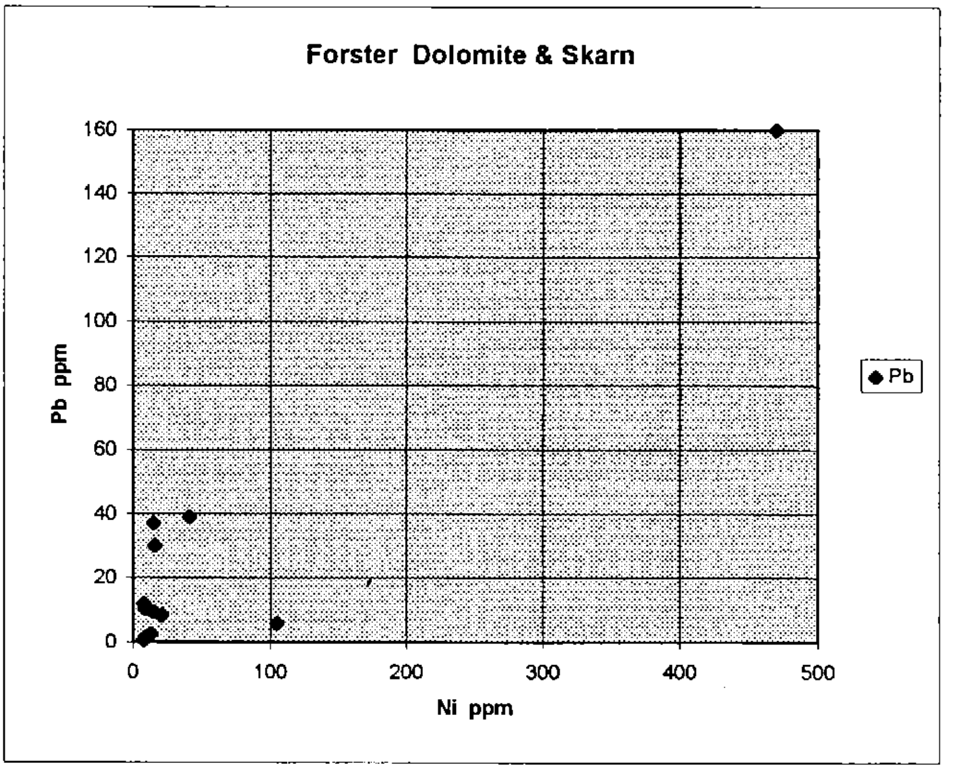
625021 Pg 14

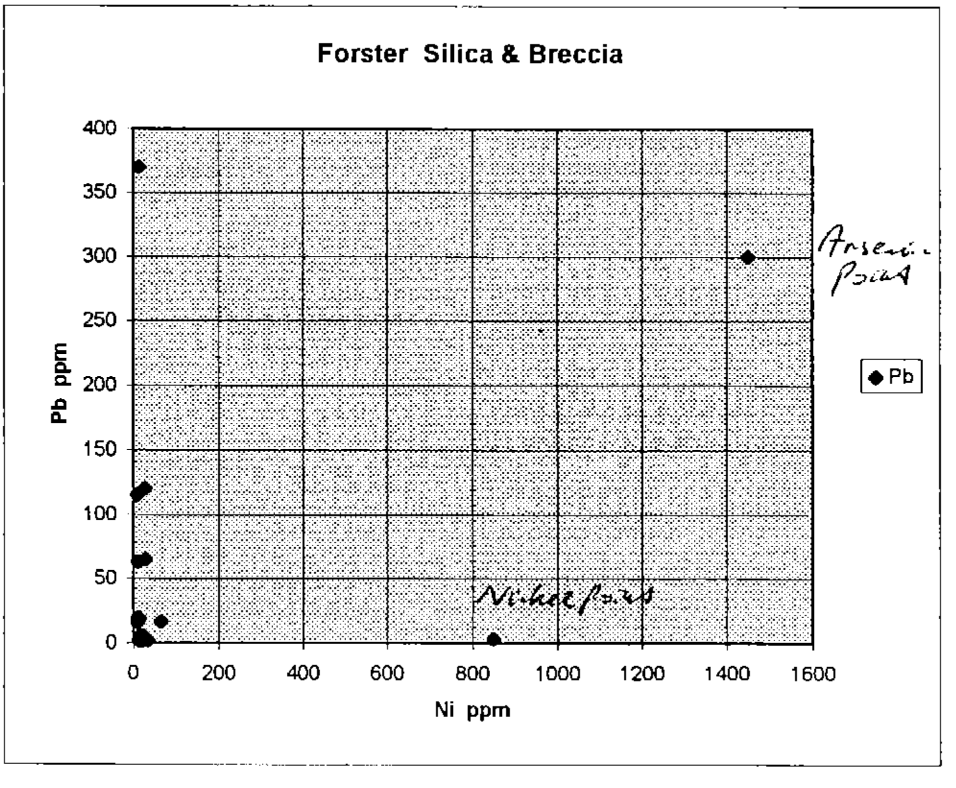


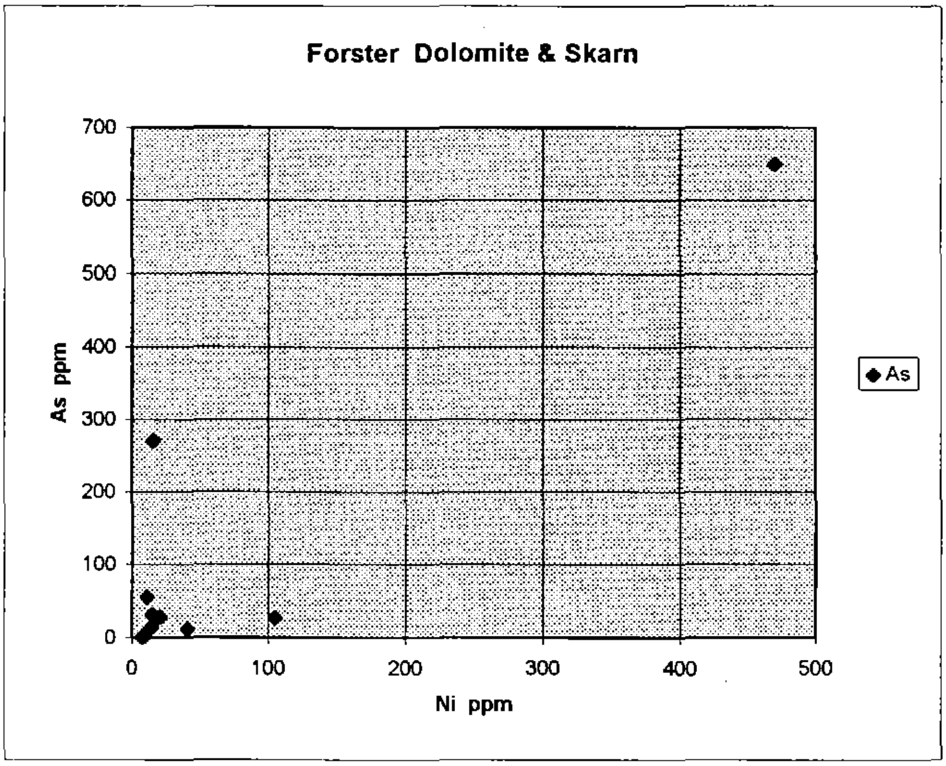
Forster Dolomite & Skarn
Ag g/t
Pb ppm
Ag
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0 20 40 60 80 100 120 140 160

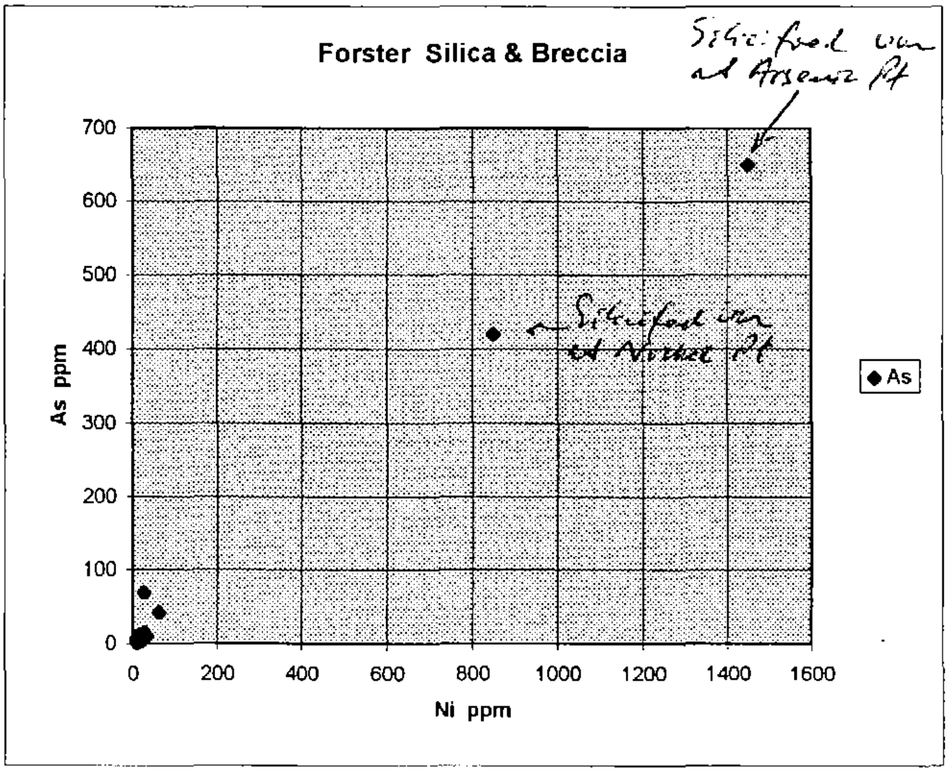


Forster Silica & Breccia
Ag g/t
Pb ppm
Ag
0.6
0.5
0.4
0.3
0.2
0.1
0
0 50 100 150 200 250 300 350 400


Forster Dolomite & Skarn
Pb ppm
Ni ppm
Pb
0
20
40
60
80
100
120
140
160
0
100
200
300
400
500

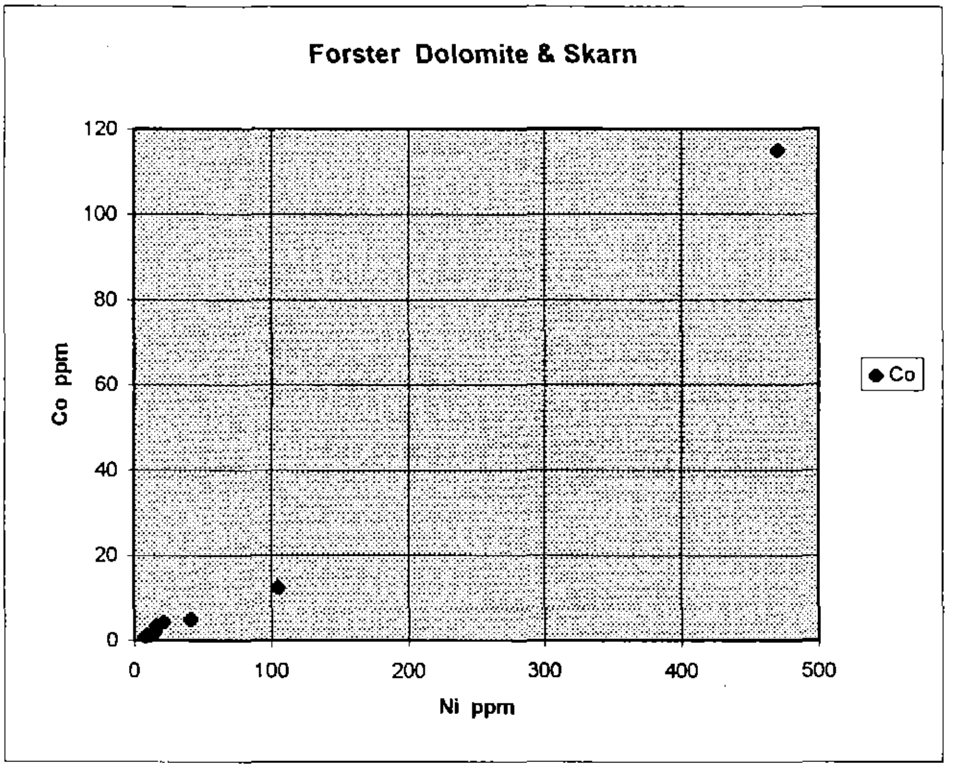

Forster Silica & Breccia
Pb ppm
Ni ppm
Pb
0
50
100
150
200
250
300
350
400
0
200
400
600
800
1000
1200
1400
1600


Forster Dolomite & Skarn
As ppm
700
600
500
400
300
200
100
0
0
100
200
300
400
500
Ni ppm
As

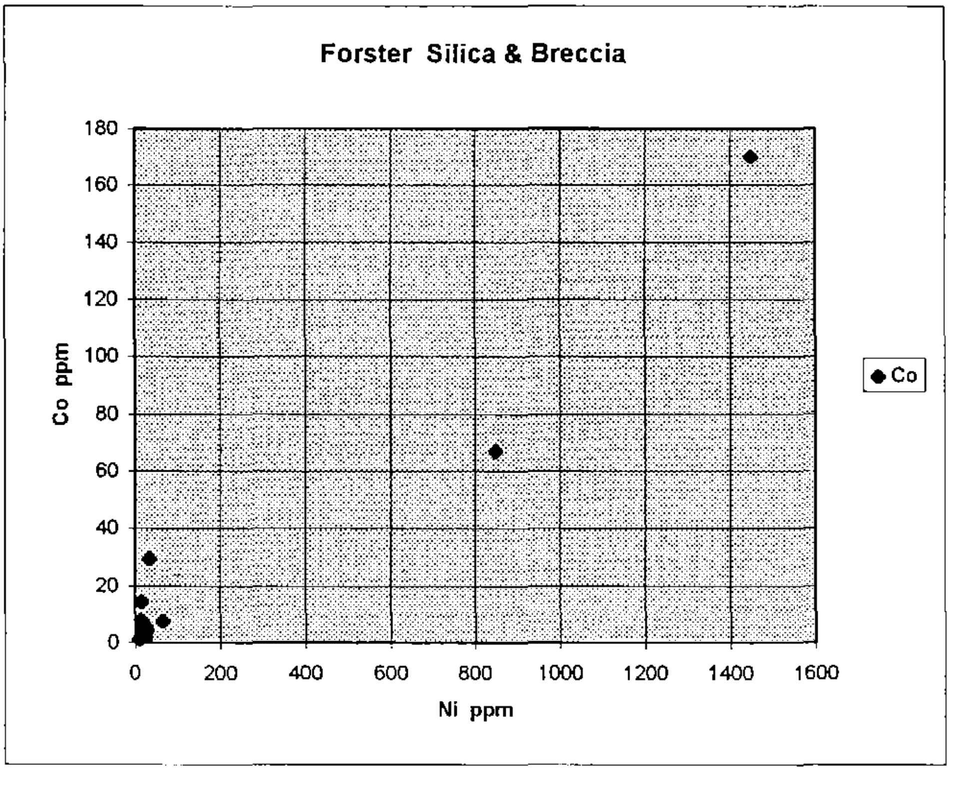

Forster Silica & Breccia
Silicified vein at Arsenic Pt
Silicified vein at Nickel Pt
As ppm
700
600
500
400
300
200
100
0
0
200
400
600
800
1000
1200
1400
1600
Ni ppm
As

Pg 17

625024

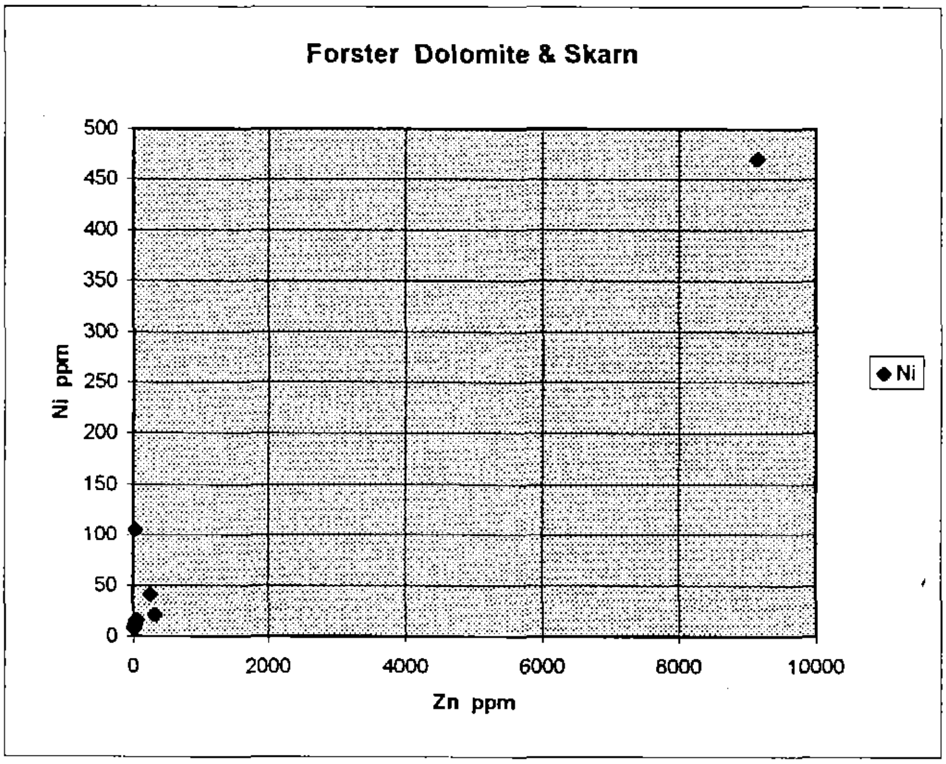


Forster Dolomite & Skarn
120
100
80
60
40
20
0
Co ppm
0
100
200
300
400
500
Ni ppm
Co

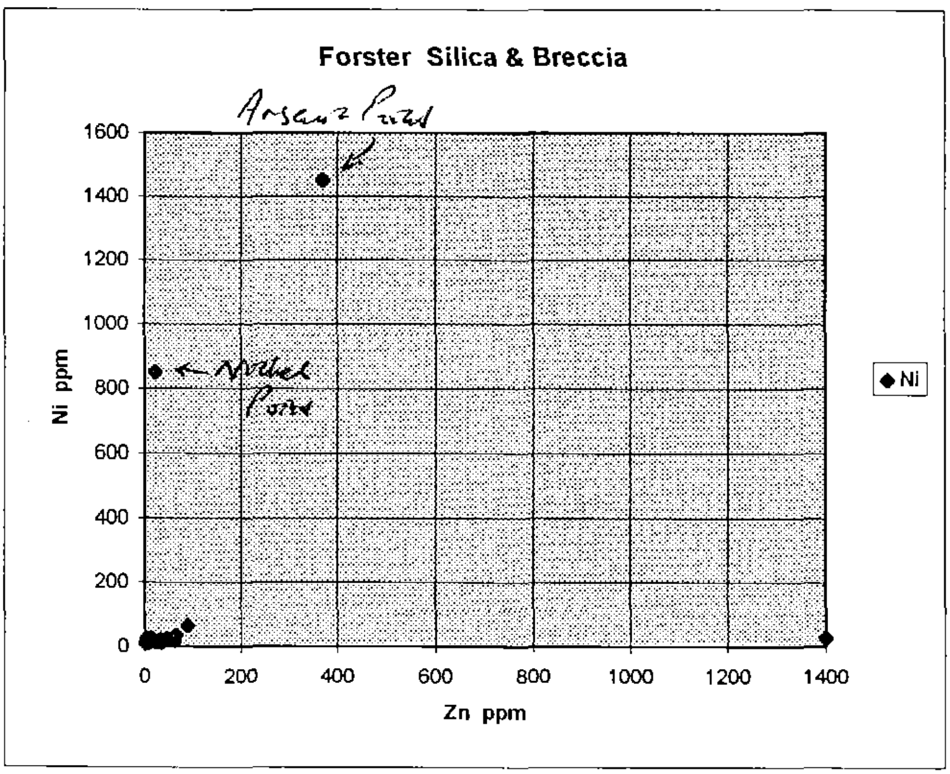


Forster Silica & Breccia
180
160
140
120
100
80
60
40
20
0
Co ppm
0
200
400
600
800
1000
1200
1400
1600
Ni ppm
Co

Fig 18

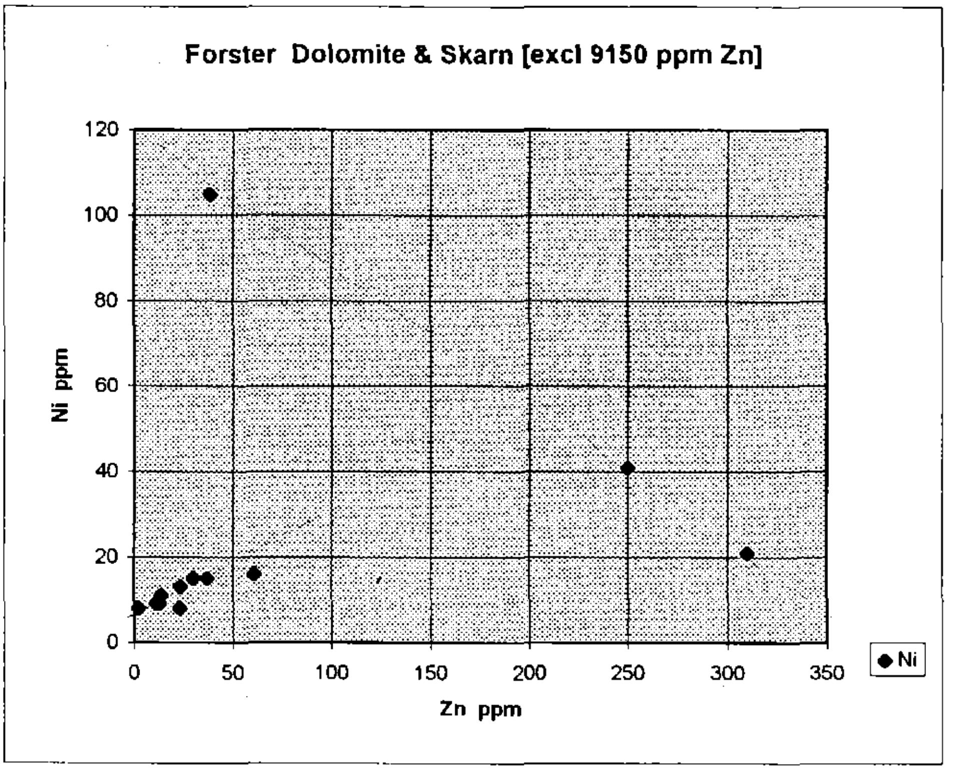


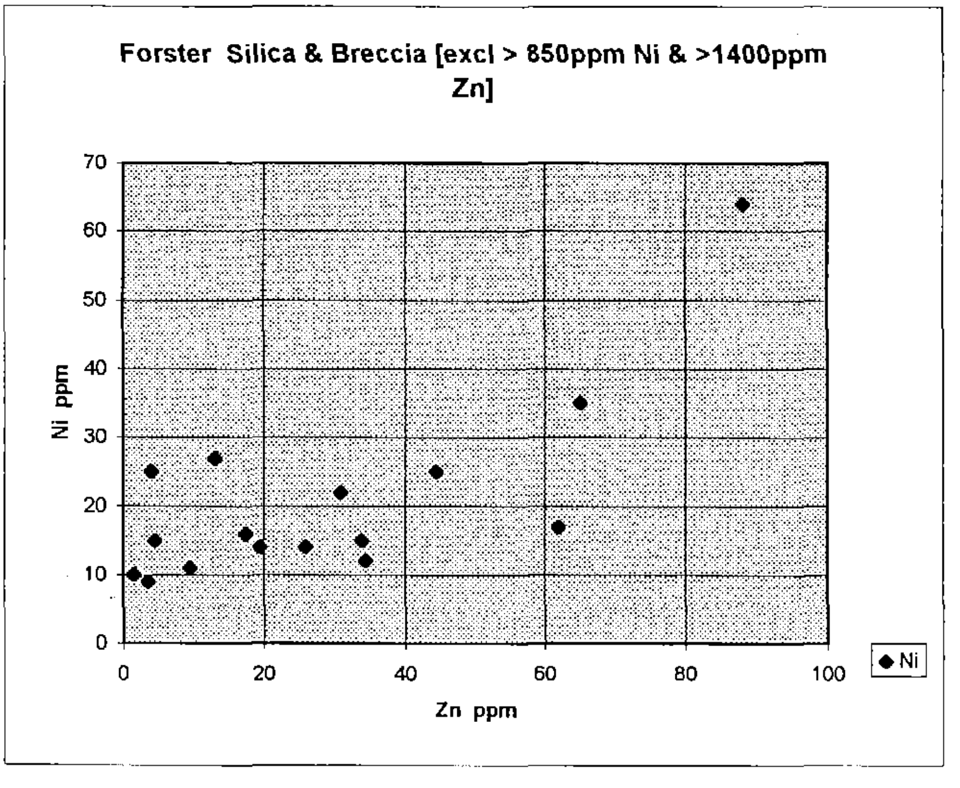
Forster Dolomite & Skarn
Ni ppm
Zn ppm
Ni
0
50
100
150
200
250
300
350
400
450
500
2000
4000
6000
8000
10000



Forster Silica & Breccia
Arsenic Pod
Nickel Pod
Ni ppm
Zn ppm
Ni
0
200
400
600
800
1000
1200
1400
1600

625026 Fig 19





3.2.1 Mesothermal

Diopside skarn: diopside-quartz [+/- serpentine, brucite, calcite]. Originally included forsterite, periclase and garnet.
Calcareous skarn: serpentine-brucite-calcite-sulphide [+/- talc, andradite]
Siliceous skarn: quartz-xonotlite-scawtite-wollastonite-sulphide

3.2.2. Epithermal

Silica-Clay : quartz-kaolinite-smectite-prehnite-laumontite
Hot Spring : chalcedony-opal-carbonaceous matter

The alteration possibilities arising from proximity to intrusive heat sources, multiple types of precursor lithologies and differences in geotechnical properties has resulted in complex assemblages.

3.2.3. Alteration Paragenesis

The interpreted paragenesis of events is as follows :

Event A1 - formation of prograde skarns [incl Diopside Skarn]

Event A2 - silicification, with grey/blue silica replacing decarbonated dolomite, and both grey silica and jasper replacing dunitic ultramafic;

Event A3 - formation of early retrograde skarn [Calcareous Skarn phase], jigsaw breccias with development of quartz stockwork veining in both grey/blue and red siliceous phases.

Event A4 - formation of late retrograde skarn [Siliceous Skarn phase], development of monomict main breccia in silicified dolomite accompanied by silica flooding and sulphidation which also replaced tectonised ultramafic.

Event A5 - formation of early epithermal silicification and argillisation [Silica-Clay phase]; quartz filling of vughs in main breccia, chalcedony veining in grey/blue silica; clay alteration of both basement and cover rocks. XRD shows kaolinite, halloysite, illite and celadonite. Associated development of polymict breccia containing quartz sericite and quartz-stockworked fragments of blue/grey silica and jasperoidal silica. The matrix of the polymict breccia is sericitic with relict spinels testifying to an earlier ultramafic parentage.

Event A6 - formation of late epithermal silicification [Hot Spring]; pyritic and siliceous/carbonaceous stockwork veining in grey/blue silica; quartz/chalcedony veins with weak Au Cu mineralisation in dolerite; siliceous sinter and travertine deposits.

The plan titled Forster Paragenesis [Figure 20] depicts alteration events A1 to A6, and has the following abbreviations :

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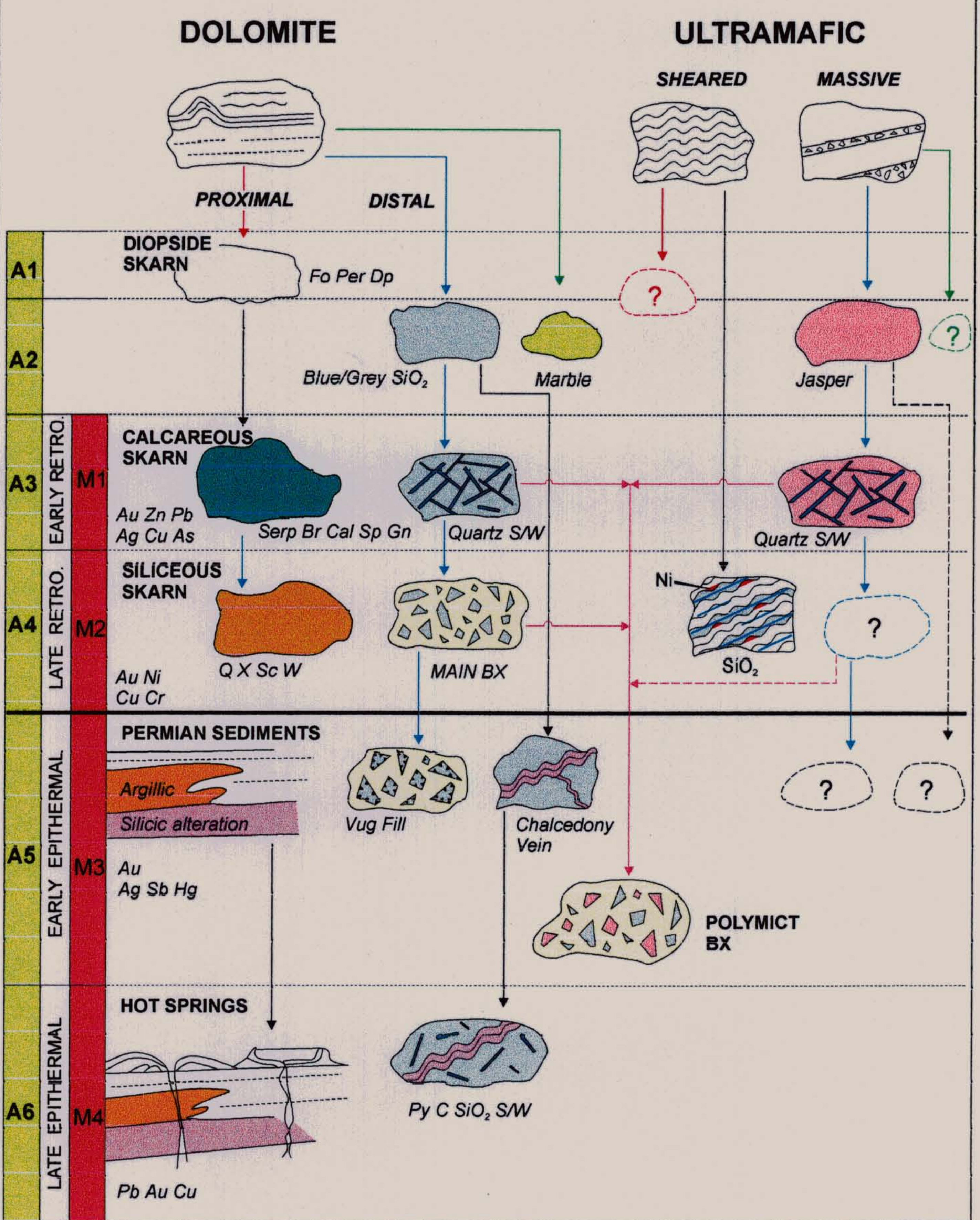
SEDIMENTARY HOLDINGS NL

Forster Paragenesis

May 1999



SED122.CDR

Fo = forsterite, per = periclase, dp = diopside, SiO_2 = silica, serp = serpentine, br = brucite, cal = calcite, sp = sphalerite, gn = galena, s/w = stockwork, q = quartz, x = xonotlite, sc = scawtite, w = wollastonite, bx = breccia, py = pyrite, and c = carbon [organic matter] .

3.2.4 Isotopes

Taheri [1990] showed calcite and quartz to have δ O18 values of +9.9 to +10.5 per mil, suggestive of a meteoric influence on the hydrothermal fluids.
Boyd [1996] studied the Pb isotopes in galena from massive grey/blue silica, and derived a model age of Jurassic/Cretaceous.
Dell [1997] showed that pyrite in deformed basement sediments to have δ S34 values of -4.7 to +1.6 per mil indicative of magmatic fluids. Pyrite in a vein within skarn returned δ S34 values of -12.9 to + 3 per mil indicative of mixed magmatic and biogenic sulphur.

3.3. Mineralisation Studies

3.3.1. Gold and Base Metal

The various metamorphic and hydrothermal events have introduced and mobilised a range of metals during multi-event mineralisation. Drilling to date has encountered broad zones of gold mineralisation, with individual one metre drill samples returning gold grades ranging up to 10 g/t, zinc grades exceeding 1%, nickel grades ranging up to 1% and lead grades up to several percent.

3.3.2. Gold and Base Metal Paragenesis

The interpreted paragenesis of mineralising events is shown in Figure 20, and is :

Event M1- *gold-base metal [Au Zn Pb Ag Cu As]* mineralisation accompanied the formation of the early retrograde A3 alteration *[Calcareous Skarn].* Sulphides recognised include pyrite, sphalerite, chalcopyrite, galena, tetrahedrite, pyrrhotite and loellingite.

Event M2 - *gold-nickel [Au Ni Cu Cr]* mineralisation accompanied the formation of the late retrograde A4 alteration *[Siliceous Skarn].* Sulphides include millerite, polydimite, niccolite, cobaltite and gersdorffite.

Event M 3 - *gold [Au Ag Sb Hg]* mineralisation accompanied the early epithermal A5 alteration involving silicification and argillisation events.

Event M 4 - *pyrite-lead [Pb Au Cu]* mineralisation accompanied the late epithermal A6 alteration involving silicification. The recent rock chip sampling also indicates the presence of elevated Zn [< 1400 ppm] in siliceous sinter.

3.3.3 Platinoids and Chromium

Chromium mineralisation occurs as chromian spinel grains in deformed ultramafics, with values < 1.5 % Cr in channel samples. Electron microprobe analyses of the spinels shows they are chromites, with average platinoid metal values of 0.10% Pd, 0.07% Os & 0.01% Pt, and thus are the likely source of the platinoids recorded in the district.

4. MINERALISATION MODELS

4.1. Local

A recent study of the Cygnet Goldfield in southern Tasmania by Taheri & Bottrill [1999] contains some interesting material providing further evidence for a Cretaceous age of the youngest gold mineralisation at Forster.
At Cygnet, porphyry-hosted gold mineralisation is flanked by sediment-hosted gold-base metal mineralisation in mudstones and siltstones similar to those forming the cover sequence at Forster.

Common alteration styles in the Permian age sedimentary country rocks surrounding the intrusive complex at Cygnet are *potassic* [adularia-quartz-biotite-pyrite-magnetite], *silicic* [quartz-chalcedony-opal] and *argillic* [Zn smectite-limonite-pyrite-kaolinite-sericite-plumbogummite]. The porphyries show propylitic [epidote-quartz-pyrite], silicic and sericitic alteration.

Mineralisation occurs as two types :

Porphyry-hosted Au [Cu Mo] Mineralisation
This occurs as disseminations in altered porphyries, in siliceous and pyritic breccias, in quartz veins, and in pyritic veins associated with minor breccias.

Sediment-hosted Au Mineralisation
This is present as disseminations replacing calcareous fossils and matrix, in pyritic veins within breccias, and in quartz veins in altered sediments.

There is appreciable coincidence of alteration styles and assemblages between Forster and Cygnet, particularly the silicic and argillic styles in the Permian sedimentary rocks; the presence of quartz-chalcedony-opal at Cygnet is very similar to that seen at Forster.

4.2. Global

Much of the understanding of the geology and mineralisation at Forster has come from studies completed at the Special Research Centre for Ore Deposit and Exploration Studies [CODES SRC] centre at the University of Tasmania. In particular, Sedimentary Holdings has worked closely with Dr G Davidson who has supervised several BSc Honours projects around Forster, and has also been commissioned to conduct research in to the origin of Forster.

This research demonstrated that the type of bedrock, its geometry and the styles of alteration and mineralisation seen at Forster are consistent with world-class examples of both skarn-hosted and sediment-hosted [or Carlin-style] gold mineralisation.
Some examples of such mineralisation include *Bau, Pinson, Fortitude, Gold Acres, Alsar, Mesel, Getchell, Jerritt Canyon, Maoling and Ruby Hill/Archimedes.*

Specific criteria supporting this conclusion include replacement of the skarn by silica, the dominance of siliceous and argillic alteration, the Au-As association, ultra-fine grain size, and a general stratabound character parallel to the unconformity at the base of the Permian sediments. The study also found that the silica replacement of skarn, as seen at Forster, is also seen in numerous sediment-hosted gold deposits in the western USA.

The current model in use for Forster occurs as a close analogue in the Battle Mountain-Eureka trend in Nevada. The Ruby Hill deposits in this trend produced 1.65M oz of gold and 39M oz of silver from 1.8M tonnes of ore. The recently discovered Archimedes gold deposit, occurs in the same trend, and comprises both skarn-hosted and sediment-hosted gold [- base metal] mineralisation remarkably similar to Forster.

The oxide resources at Archimedes contain in excess of one million ounces of gold. Archimedes exemplifies the increasingly recognised continuum between skarn-hosted gold mineralisation and sediment-hosted gold mineralisation.

5. EXPENDITURE

Expenditure on the Forster Project for the annual period from 30th Sep 1998 to 30th Sep 1999 was as follows :

Geology & geochemistry		$56,615
Travel/accommodation/administration		$6,067
	Total	$62,682

REFERENCES

Bottrill, RS & Woolley, RN, 1996 : Mineralogy and petrography of some rocks from Glovers Bluff/Weld River area; *Geol Surv Tas Rec 1996/15*

Boyd, D. 1996 : The origins of Silica and Skarn alteration in the Weld River; *Unpub BSc Hons Thesis, Univ of Tasmania.*

Davidson, G 1996 : A brief literature review of skarns and related alteration as applied to the Au-As Forster prospect, Weld River; *Unpub Rep CODES.*

Davidson, G 1997 : Structural and stratigraphic controls on the distribution of jasperoid, general alteration, and mineralisation in Carlin-style gold deposits as applied to the Au-As Forster Prospect, Weld River; *Unpub Rep CODES.*

Dell, C 1997 : Mineralogy and Trace Element geochemistry of Skarn Skarnoid and Silica alteration at the Forster Gold Prospect, Weld River, southern Tasmania; *Unpub BSc Hons Thesis, Univ of Tasmania.*

Taheri, J 1990 : Petrographic, oxygen isotope, fluid inclusion studies and clay mineralogy of core samples from DDH BC15 and sample BCF8, Weld River area. *Mineral Resources Tasmania Rep 90-3166.*

Taheri, J & Bottrill, R 1999 : Porphyry and Sedimentary-hosted Gold Deposits near Cygnet: New Styles of gold Mineralisation in Tasmania. *[Mineral Resources Tasmania - in press]*

APPENDIX 1

625034

amdel

MINERAL CHEMISTRY

Amdel Laboratories Ltd
PO Box 338
Torrensville Plaza SA 5031
ACN 009 076 555

Telephone (08) 8416 5300
Facsimile (08) 8234 0321

Mr Tim Summons
Sedimentary Holdings NL
40 Dudley Street
WEST MELBOURNE VIC 3003

FORITER

FINAL ANALYSIS REPORT

Your Order No:

Our Job Number : 9AD0853

Sample rec'd : 13/04/99

Results reported : 23/04/99

No. of samples : 32

Report comprises a cover sheet and pages 1 to 5

This final analysis report replaces the preliminary reports sent on 19/4/99.

Approved Signature:

for
Alan Ciplys
Manager - Mineral Chemistry

Report Codes:
N.A. - Not Available.
L.N.R. - Listed But Not Received.
I.S. - Insufficient Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

amdel

625035

Job: 9AD0853
O/N:

Final

ANALYTICAL REPORT

SAMPLE	Ag	As	Bi	Cd	Co	Cs	Cu
F99-01	<0.05	1.0	0.2	<0.1	1.4	<0.1	9.0
F99-02	<0.05	1.5	0.2	0.4	1.1	<0.1	82
F99-03	0.10	11.5	<0.1	2.4	5.0	<0.1	11.0
F99-04	<0.05	<0.5	<0.1	<0.1	0.9	<0.1	4.0
F99-05	<0.05	270	<0.1	0.5	3.5	<0.1	3.0
F99-06	<0.05	27.0	<0.1	0.5	12.5	0.1	2.0
F99-07	0.15	31.5	<0.1	1.2	2.0	1.3	9.5
F99-08	<0.05	55	<0.1	0.6	1.2	<0.1	2.0
F99-09	<0.05	15.0	<0.1	0.2	1.9	0.1	3.0
F99-10	1.90	650	0.6	21.5	115	<0.1	165
F99-11	0.05	11.0	<0.1	0.1	1.3	<0.1	3.5
F99-12	0.10	28.0	0.1	0.7	4.3	0.1	10.5
F99-13	0.25	3.0	<0.1	<0.1	1.0	0.7	5.0
F99-14	<0.05	420	<0.1	<0.1	67	4.5	15.0
F99-15	<0.05	4.5	<0.1	0.3	3.7	<0.1	22.0
F99-16	<0.05	4.0	<0.1	0.2	3.2	<0.1	13.5
F99-17	0.05	3.5	<0.1	0.3	1.0	<0.1	10.0
F99-18	0.05	2.0	<0.1	0.2	5.0	<0.1	20.0
F99-19	0.60	11.5	0.2	0.4	1.9	<0.1	29.0
F99-20	0.10	7.0	<0.1	<0.1	1.4	<0.1	19.0
F99-21	<0.05	1.0	<0.1	<0.1	1.1	<0.1	17.0
F99-22	0.10	15.5	<0.1	15.5	4.4	<0.1	9.5
F99-23	0.05	42.5	<0.1	0.5	7.5	<0.1	7.0
F99-24	<0.05	9.5	<0.1	0.6	14.5	<0.1	18.0
F99-25	0.15	10.5	0.2	0.3	29.5	0.1	16.5
F99-26	<0.05	6.5	<0.1	0.1	8.0	<0.1	9.0
F99-27	0.60	650	0.8	1.2	170	<0.1	67
F99-28	0.45	69	0.2	0.3	5.5	<0.1	18.5
F99-29	<0.05	8.5	<0.1	<0.1	2.0	<0.1	10.0
F99-30	<0.05	4.0	<0.1	<0.1	2.0	<0.1	15.5
F99-31	0.10	5.0	0.2	<0.1	1.0	<0.1	43.0
F99-32	<0.05	1.5	<0.1	<0.1	7.5	0.3	26.5
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	0.05	0.5	0.1	0.1	0.2	0.1	0.5
SCHEME	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M
UPPER SCHEME		IC2E					

amdel

625036

Job: 9AD0853
O/N:

Final

ANALYTICAL REPORT

SAMPLE	Ga	In	Mo	Ni	Pb	Rb	Sb
F99-01	0.2	<0.05	0.4	9	1.5	0.9	<0.1
F99-02	<0.1	<0.05	0.4	8	12.0	0.3	0.7
F99-03	1.3	<0.05	2.4	41	39.0	0.4	2.0
F99-04	<0.1	<0.05	<0.1	8	0.5	<0.1	<0.1
F99-05	1.3	<0.05	2.2	16	30.0	0.3	8.0
F99-06	0.3	<0.05	0.4	105	6.0	0.3	4.1
F99-07	0.3	<0.05	3.1	15	37.0	2.2	3.2
F99-08	0.5	<0.05	0.4	11	2.0	0.1	1.7
F99-09	0.1	<0.05	0.7	15	9.5	0.3	1.0
F99-10	6.0	<0.05	26.5	470	160	0.1	6.0
F99-11	<0.1	<0.05	0.8	13	2.5	0.2	0.9
F99-12	2.0	<0.05	4.1	21	8.5	6.5	4.6
F99-13	4.0	<0.05	3.1	9	19.5	18.5	2.2
F99-14	1.3	<0.05	1.7	850	3.5	17.0	7.0
F99-15	0.4	<0.05	3.7	25	3.5	1.4	0.4
F99-16	0.2	<0.05	3.5	22	2.0	0.6	0.3
F99-17	0.2	<0.05	2.8	12	19.5	0.2	1.0
F99-18	0.3	<0.05	4.7	15	19.0	0.1	0.5
F99-19	0.3	<0.05	7.0	14	370	0.4	1.7
F99-20	0.3	<0.05	3.3	11	63	0.5	1.0
F99-21	0.2	<0.05	4.3	10	16.0	<0.1	0.7
F99-22	0.3	<0.05	3.8	28	65	0.2	2.1
F99-23	0.3	<0.05	1.8	64	16.5	0.2	2.3
F99-24	0.3	<0.05	3.4	17	2.0	0.4	0.7
F99-25	0.5	<0.05	4.9	35	3.0	1.1	1.2
F99-26	0.3	<0.05	2.3	14	2.0	0.5	1.2
F99-27	4.6	<0.05	36.5	1450	300	0.2	54
F99-28	0.4	<0.05	6.5	27	120	0.3	4.6
F99-29	0.3	<0.05	3.0	15	5.5	<0.1	0.8
F99-30	0.3	<0.05	7.0	25	5.0	<0.1	0.8
F99-31	0.3	<0.05	7.0	9	115	<0.1	14.5
F99-32	27.5	<0.05	3.2	19	3.5	0.6	0.2
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	0.1	0.05	0.1	1	0.5	0.1	0.1
SCHEME	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M
UPPER SCHEME				IC2E			

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SAMPLE	Se	Te	Th	Tl	U	Y	Zn
F99-01	<0.5	<0.2	0.22	<0.1	0.79	0.50	11.0
F99-02	<0.5	<0.2	1.25	<0.1	0.70	0.25	23.0
F99-03	<0.5	<0.2	1.55	<0.1	5.5	2.9	250
F99-04	<0.5	<0.2	0.14	<0.1	0.35	0.20	2.0
F99-05	<0.5	<0.2	0.98	<0.1	3.6	9.0	61
F99-06	<0.5	<0.2	0.25	0.1	6.5	7.0	38.5
F99-07	<0.5	<0.2	0.33	<0.1	9.5	0.80	37.0
F99-08	<0.5	<0.2	0.05	<0.1	10.5	0.45	14.0
F99-09	<0.5	<0.2	0.22	<0.1	4.4	0.45	30.0
F99-10	1.5	<0.2	5.5	0.7	17.0	7.5	9150
F99-11	<0.5	<0.2	0.19	<0.1	2.1	0.90	23.5
F99-12	<0.5	<0.2	0.81	0.5	1.15	0.70	310
F99-13	<0.5	<0.2	0.75	0.5	1.05	0.90	12.5
F99-14	<0.5	<0.2	1.55	0.3	0.85	4.6	21.0
F99-15	<0.5	<0.2	0.28	<0.1	0.38	1.65	44.5
F99-16	<0.5	<0.2	0.07	<0.1	0.24	1.30	31.0
F99-17	<0.5	<0.2	<0.02	<0.1	0.19	0.30	34.5
F99-18	<0.5	<0.2	0.02	<0.1	0.24	1.25	34.0
F99-19	0.5	<0.2	0.04	<0.1	0.52	0.30	19.5
F99-20	<0.5	<0.2	0.04	<0.1	0.20	0.35	9.5
F99-21	<0.5	<0.2	<0.02	<0.1	0.48	<0.05	1.5
F99-22	<0.5	<0.2	0.12	<0.1	1.25	6.5	1400
F99-23	<0.5	<0.2	0.26	<0.1	1.45	4.7	88
F99-24	<0.5	<0.2	0.08	<0.1	0.70	4.4	62
F99-25	<0.5	<0.2	0.21	0.1	0.53	12.5	65
F99-26	<0.5	<0.2	0.05	<0.1	0.42	1.90	26.0
F99-27	3.0	<0.2	0.07	2.0	1.65	0.50	370
F99-28	<0.5	<0.2	0.07	0.1	0.28	4.0	13.0
F99-29	<0.5	<0.2	0.05	<0.1	0.08	0.40	4.5
F99-30	<0.5	<0.2	<0.02	<0.1	0.03	0.15	4.0
F99-31	4.5	<0.2	0.32	<0.1	0.84	0.55	3.5
F99-32	<0.5	<0.2	1.15	<0.1	0.29	10.5	17.5
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	0.5	0.2	0.02	0.1	0.02	0.05	0.5
SCHEME	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M	IC2M
UPPER SCHEME							IC2E

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SAMPLE	Au	Au Rpt	Cr	Fe	Mn	P	V
F99-01	0.01	<0.01	36	2800	30	50	6
F99-02	0.03	--	6	2250	80	95	4
F99-03	0.03	--	10	9100	170	90	54
F99-04	<0.01	--	4	1350	20	<5	3
F99-05	0.04	--	19	12.8%	2550	85	22
F99-06	<0.01	<0.01	6	2.49%	200	30	11
F99-07	0.01	--	75	1.18%	200	15	6
F99-08	<0.01	--	6	1750	35	15	43
F99-09	<0.01	--	12	2600	40	25	33
F99-10	0.66	--	48	4.80%	340	1550	145
F99-11	0.01	--	5	5150	105	15	28
F99-12	0.15	--	280	3850	25	50	18
F99-13	0.01	--	340	4850	25	<5	26
F99-14	<0.01	--	250	6750	60	310	32
F99-15	<0.01	--	290	1.99%	340	10	7
F99-16	<0.01	--	230	6850	110	<5	3
F99-17	0.02	--	250	7300	130	<5	4
F99-18	<0.01	--	410	2.10%	850	<5	6
F99-19	0.02	--	500	1.04%	70	<5	4
F99-20	0.02	--	290	6100	45	<5	4
F99-21	0.01	0.01	410	6250	40	<5	3
F99-22	0.07	--	88	5.74%	1150	55	12
F99-23	0.04	--	89	2.07%	290	5	17
F99-24	<0.01	<0.01	240	7.57%	1550	130	12
F99-25	<0.01	--	430	3.49%	200	175	33
F99-26	<0.01	--	185	6.68%	1600	105	9
F99-27	0.15	--	380	2.86%	50	<5	12
F99-28	<0.01	--	470	1.91%	150	<5	9
F99-29	<0.01	--	320	5700	40	<5	3
F99-30	<0.01	--	460	9750	55	<5	5
F99-31	0.01	--	270	5650	85	<5	6
F99-32	0.01	--	67	2.15%	270	135	41
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	0.01	0.01	2	100	5	5	1
SCHEME	FA1	FA1	IC2E	IC2E	IC2E	IC2E	IC2E

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SAMPLE	Sn
F99-01	<4
F99-02	4
F99-03	<4
F99-04	<4
F99-05	6
F99-06	6
F99-07	5
F99-08	5
F99-09	5
F99-10	<4
F99-11	<4
F99-12	11
F99-13	6
F99-14	<4
F99-15	<4
F99-16	<4
F99-17	4
F99-18	<4
F99-19	<4
F99-20	<4
F99-21	<4
F99-22	8
F99-23	<4
F99-24	6
F99-25	6
F99-26	<4
F99-27	<4
F99-28	<4
F99-29	<4
F99-30	6
F99-31	8
F99-32	<4
UNITS	ppm
DET.LIM	4
SCHEME	XRF1