1987 TRENCHING PROGRAMME RESULTS
IN THE
ANITA AREA
CHEMAINUS PROJECT #116

CHIP 1 CLAIM,
Victoria Mining Division
NTS 92B/13

48°54'N, 123°57'W
NTS 92B/13W

Falconbridge Limited
701 - 1281 West Georgia Street
Vancouver, B.C.

February, 1988

S. Enns

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SUMMARY

A short trenching programme was conducted during late fall in the Anita area on the CHIP 1 claim of the Chemainus Joint Venture. Overburden stripping succeeded in exposing about 560 m of nearly continuous bedrock in two trenches. The stripping discovered a small, polymetallic massive sulphide lens about 5 m long by 0.7 m wide with an average grade of 1.92% Cu, 0.38% Pb, 4.57% Zn, 130 g/t Ag, 3.43 g/t Au, 2.2% Ba over 0.66 m. Sampling elsewhere in the trenches identified two Ba-rich horizons, one associated with the mineralization in "active tuff" host rock, the other in dark cherty sediments believed to lie stratigraphically above the "active tuff"/mafic volcanics contact. Surface geology generally correlates with the lithology in drill sections and indicates the presence of folding.

CONCLUSIONS

The "active tuff" contains several polymetallic massive sulphide bands, which although small (discoveries to date) contain significant precious metals. This feature confirms that conditions of metal deposition prevailed during the "active tuff" formation and that the likelihood of finding several stratigraphic ore horizons is excellent.

Correlation of surface geology with drill hole data provides direct evidence for the presence of folding in the volcanic succession.

The four Ba-rich intervals intersected in holes CHEM 86-18 and CHEM 87-37 (which do not match well between the holes) with one exception, appear not to extend to surface (Figure 5). This one exception is the Ba-rich surface mineralization in the Line 28E trench which can be correlated with a Ba-rich interval in hole CHEM 87-37 at about 45. m.

RECOMMENDATIONS

1. The pulps of samples analysed for metals by Bondar-Clegg should be composited and analysed for major oxides to look for alteration patterns.

2. Shallow geophysical surveys (VLF and Schlumberger IP) should be conducted over the "active tuff" in the Anita area at 25 m line spacing to detect additional, shallow, massive sulphide lenses which could be exposed by trenching.

3. The excavator equipped with "power thumb" proved to be a very effective tool in stripping overburden; it should also be used in 1988 for road building and drill pad preparation because it minimizes adjacent timber damage and is more efficient on steeper slopes.

INTRODUCTION

A short trenching programme was conducted from November 26 to December 6, 1988 in the Anita area (Figure 1).

The purpose of the trenching was to obtain surface geology along two sections (Line 27+00E and Line 28+00E) along which important holes had been drilled. Surface geology was needed to resolve several important questions:

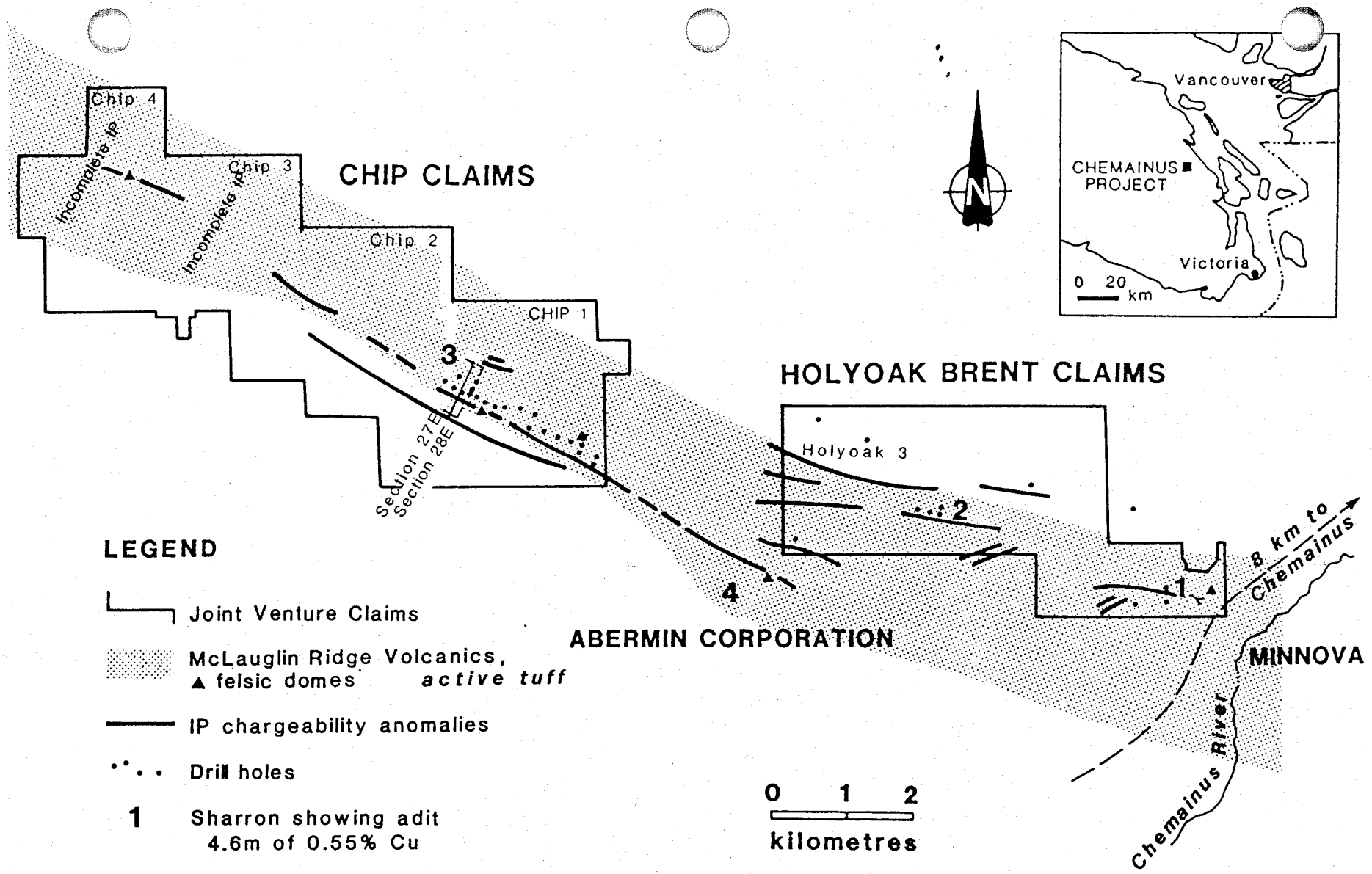
1. Are the mafic volcanics intersected in drilling also exposed at surface?

2. What geology directly underlies the PEM survey "null couple position"?

3. Where does the black, cherty sedimentary unit known to lie stratigraphically south of the mafic volcanics begin on surface?

A contract excavator (JD 790 with power thumb) was hired from E. Ellison of Duncan, B.C.. The excavator was accompanied by a swamper (A.B. Cochrane of Chemainus), and supervised by a geologist (E. Grill) who mapped and sampled the geology. Seasonal rains cleaned the surface of the stripped bedrock and greatly aided in mapping.

A total of 66 samples was collected of which 56 were analysed for metals by Bondar-Clegg of North Vancouver, B.C. Ten mafic rocks were analysed by XRAL of Don Mills, Ontario.



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CHEMAINUS JOINT VENTURE

Figure 1

DATA PRESENTATION

Figure 1 shows the location of the two trenches on the Chip 1 claim. A map showing geology and sample locations is given on Figure 2. A summary description of the rock types in the trenches is given in the Appendix. Table 1 and Table 2 (Appendix), list the analytical results for the samples.

Figure 3 shows detail of geology and sample results of a small massive sulphide intersection discovered along Line 28E. Figures 4 and 5 show the two drill sections with the added surface geology. Preliminary geological interpretation is also given on these two sections but is considered at this stage to be tentative. For the geology and sample results of the immediate Anita shaft area, the reader is referred to Figure 6 (which has also been included in this report) in a report by Mallalieu, et al (1987) entitled 1986 Final Report of the Chemainus Project (Vol. 1).

RESULTS

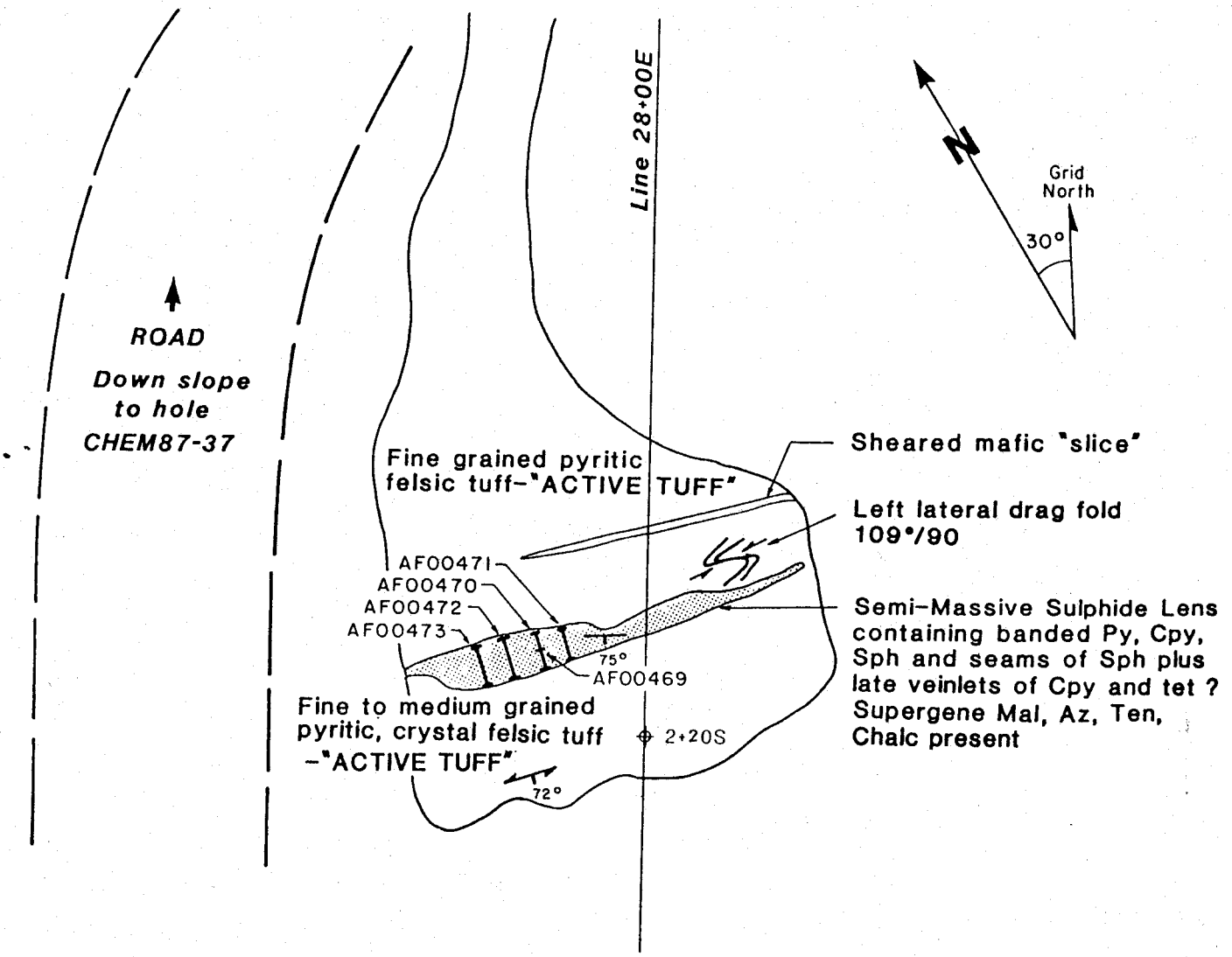
The most significant result of the trenching programme was the sulphide lens discovered at about 2+20S on Line 28+00E, south of the collar of hole CHEM87-37. As indicated on Figure 2, sulphides are comprised of pyrite, chalcopyrite, sphalerite and minor galena and tetrahedrite plus a variety of secondary copper-oxides. The exposed sulphides are a maximum of 0.7 m wide along a strike-length of about 5 m and have an opposite dip of -75° south

(compared with the sulphide zone in holes CHEM86-18 and CHEM87-37), Figure 5. The host rock is felsic "active tuff" with variable amounts of widespread fine to medium grained bedded (?) pyrite throughout. The lens is in a different stratigraphic position (30 m lower) than that intersected by holes CHEM86-18 and CHEM87-37. Results of four chip-sampled sections across the lens are shown in Figure 3 and give an average of 1.92% Cu, 0.38% Pb, 4.57% Zn, 130 g/t Ag, 3.43 g/t Au and 2.2% Ba. The Cu and Zn mineralization is accompanied by very anomalous levels of As. This zone correlates with an upper Zn-bearing interval in hole CHEM86-18 and a Ba-rich interval in hole CHEM87-37, at about 45 m and gives direct evidence of folding.

The geology at the "null-couple position" at 2+75S on Line 28E (determined on surface by a modified PEM survey) is not exposed. This point appears to be underlain by gabbro.

Two Ba-rich horizons are present along the trenched lines as indicated by Figure 2. The most important one is associated with "active tuff" mineralization at the discovered showing and at the Anita shaft (Figure 6) just south of the shaft. The second Ba-rich horizon is present in the black cherty argillite which lies stratigraphically above and south of the mafic volcanics. This second horizon may correlate along strike with Ba-rich dark gray to black cherty argillite discovered in 1985 in Bowman Creek, at 6+30S on Line 42E and at 4+00S on Line 35E. Fourteen of 24 samples collected in 1985 contain between 2,500 and 8300 ppm Ba.

SKETCH MAP OF SULPHIDE LENS



ASSAY RESULTS

SAMPLE	WIDTH	Cu %	Pb %	Zn %	Ag g/t	Au g/t	As ppm	Ba ppm
AF00469	0.4m	2.67	0.29	1.11	101	4.25	2,000	19,000
AF00470	0.3m	3.38	0.66	9.98	241	6.62	2,000	16,000
AF00471	0.5m	0.65	0.59	1.74	55	2.47	1,723	18,000
AF00472	0.75m	2.40	0.35	4.92	165	3.63	2,000	2.1 %
AF00473	0.7m	1.26	0.21	5.87	116	2.06	2,000	3.0 %
average	0.66m	1.92	0.38	4.57	130 3.79*	3.43 0.10*		2.2 %

* Note: these values given as oz/T

Chemainus J.V. Proj. 116
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FIGURE 3 Dec 8, 1987

Hole CHEM86-17 intersected an 8 m interval averaging 9400 ppm Ba. This interval also lies generally along strike with the Ba-rich sediments mentioned above.

The mafic volcanics have been identified on surface. As indicated by the sections (particularly in Figure 4), mafic volcanics appear to be widening with depth. The rock chemistry (Table 2) was diagnostic in distinguishing mafic volcanics from fine grained gabbro. Mafic volcanics have a lower (<1%) TiO_2 and higher (8 to 11%) MgO levels. Pulps of samples of "active tuff" should be analysed for major oxides to detect alteration chemistry. For economy, composite samples could be analysed.

The interpretations given in the sections imply post-gabbro folding. More drilling data will confirm this interpretation, or show that the geometric constraints are caused by more complex, shallow south-dipping, fault displacement.

APPENDICES

TABLE 1

Anita Area Trench Samples - Metals

TABLE 1 ANITA AREA TRENCHING SAMPLES - METALS

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	MN	FE	CUZN
AE00486	206.00	208.00	1600.0	45.0	24.0	<0.5	5.0	3.0	16.0	11.0	<5.0	<1.0	2.0	39.	1.	65.
AE00487	208.00	210.00	1700.0	46.0	26.0	<0.5	<5.0	4.0	4.0	13.0	<5.0	<1.0	1.0	39.	2.	64.
AE00488	210.00	212.00	1700.0	28.0	33.0	<0.5	10.0	3.0	2.0	17.0	<5.0	<1.0	1.0	61.	2.	46.
AE00489	212.00	214.20	2200.0	28.0	40.0	<0.5	55.0	6.0	4.0	19.0	5.0	<1.0	2.0	68.	2.	41.
AE00490	214.20	215.50	340.0	260.0	106.0	<0.5	40.0	28.0	15.0	<5.0	9.0	<1.0	<1.0	568.	6.	71.
AE00491	215.50	218.00	2300.0	32.0	42.0	<0.5	<5.0	3.0	3.0	35.0	9.0	<1.0	3.0	53.	1.	43.
AE00492	218.00	220.00	2300.0	47.0	50.0	<0.5	25.0	3.0	3.0	54.0	<5.0	<1.0	1.0	48.	2.	48.
AE00493	222.00	224.00	3600.0	32.0	38.0	<0.5	25.0	2.0	3.0	14.0	8.0	<1.0	2.0	45.	2.	46.
AE00494	224.00	226.00	1500.0	52.0	40.0	<0.5	5.0	3.0	3.0	7.0	7.0	<1.0	1.0	57.	2.	57.
AE00495	226.00	228.00	1300.0	22.0	32.0	<0.5	<5.0	3.0	3.0	5.0	<5.0	<1.0	4.0	60.	2.	41.
AE00496	228.00	230.00	1400.0	23.0	29.0	<0.5	<5.0	3.0	2.0	<5.0	<5.0	<1.0	3.0	50.	2.	44.
AE00497	230.00	232.00	1300.0	26.0	32.0	<0.5	<5.0	4.0	3.0	<5.0	<5.0	<1.0	2.0	49.	1.	45.
AE00498	232.00	233.40	1200.0	35.0	36.0	<0.5	15.0	2.0	4.0	24.0	9.0	<1.0	3.0	39.	2.	49.
AE00499	235.50	237.00	1400.0	24.0	29.0	<0.5	15.0	3.0	6.0	50.0	5.0	<1.0	<1.0	1.	0.	45.
AE00500	238.00	239.00	1200.0	42.0	12.0	<0.5	5.0	3.0	5.0	5.0	17.0	<1.0	4.0	37.	3.	78.
AE00401	255.50	258.00	1100.0	82.0	44.0	<0.5	<5.0	2.0	5.0	29.0	5.0	<1.0	3.0	64.	2.	65.
AE00402	258.00	260.50	900.0	115.0	42.0	0.5	15.0	2.0	11.0	22.0	<5.0	<1.0	6.0	85.	2.	73.
AE00403	260.50	262.00	1800.0	240.0	52.0	0.9	<5.0	5.0	6.0	51.0	<5.0	<1.0	4.0	65.	3.	82.
AE00409	327.00	329.00	4900.0	40.0	64.0	1.3	10.0	2.0	16.0	9.0	23.0	<1.0	7.0	154.	2.	38.
AE00410	329.00	332.00	4400.0	26.0	43.0	<0.5	<5.0	2.0	12.0	<5.0	<5.0	<1.0	<1.0	5.	0.	38.
AE00411	332.00	335.00	3100.0	40.0	30.0	0.5	<5.0	2.0	19.0	6.0	14.0	<1.0	6.0	230.	3.	57.
AE00412	336.00	336.10	4100.0	76.0	36.0	1.7	<5.0	4.0	27.0	9.0	11.0	<1.0	<1.0	95.	0.	68.
AE00413	336.10	339.00	1900.0	36.0	31.0	<0.5	<5.0	8.0	28.0	9.0	8.0	<1.0	<1.0	386.	3.	54.
AE00415	343.00	343.00	1900.0	70.0	90.0	1.4	20.0	6.0	21.0	<5.0	<5.0	<1.0	11.0	883.	6.	44.
AE00414	348.00	375.00	2100.0	13.0	61.0	<0.5	<5.0	2.0	4.0	5.0	<5.0	<1.0	<1.0	304.	2.	18.

Hole No. TRENCH 27

TABLE 1 ANITA AREA TRENCHING SAMPLES - METALS (continued)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	MN	FE	CUZN
AE00485	196.00	193.50	1300.0	32.0	44.0	<0.5	15.0	4.0	4.0	12.0	6.0	<1.0	2.0	83.	3.	42.
AE00484	198.00	196.00	1600.0	40.0	65.0	<0.5	<5.0	2.0	3.0	11.0	<5.0	<1.0	4.0	46.	2.	38.
AE00483	200.00	198.00	1500.0	148.0	59.0	<0.5	20.0	4.0	2.0	23.0	11.0	<1.0	3.0	82.	2.	72.
AE00482	202.00	200.00	1700.0	40.0	42.0	<0.5	10.0	1.0	3.0	7.0	11.0	<1.0	2.0	49.	1.	49.
AE00481	204.00	202.00	1800.0	28.0	44.0	<0.5	<5.0	1.0	2.0	9.0	<5.0	<1.0	<1.0	36.	1.	39.
AE00480	206.00	204.00	1700.0	35.0	58.0	<0.5	10.0	4.0	2.0	11.0	<5.0	<1.0	1.0	90.	1.	38.
AE00479	208.00	206.00	2100.0	40.0	46.0	<0.5	15.0	2.0	2.0	11.0	8.0	<1.0	1.0	29.	2.	47.
AE00478	210.00	208.00	1900.0	108.0	58.0	<0.5	30.0	3.0	4.0	63.0	10.0	<1.0	3.0	36.	2.	65.
AE00477	212.00	210.00	1800.0	86.0	75.0	<0.5	30.0	2.0	2.0	84.0	<5.0	<1.0	<1.0	55.	2.	53.
AE00476	214.40	212.00	2700.0	75.0	58.0	0.6	20.0	2.0	3.0	90.0	11.0	<1.0	2.0	41.	2.	56.
AE00475	216.40	214.40	4000.0	110.0	265.0	1.0	40.0	3.0	3.0	91.0	13.0	1.0	2.0	40.	3.	29.
AE00474	217.40	216.40	7200.0	1000.0	155.0	6.4	90.0	3.0	9.0	360.0	20.0	<1.0	3.0	27.	4.	87.
AE00470	217.80	217.40	16000.0	33800.0	99800.0	241.0	6617.0	10.0	15.0	6600.0	3000.0	419.0	24.0	97.	9.	25.
AE00473	218.20	217.40	30000.0	12600.0	58700.0	115.5	3057.1	7.0	14.0	2100.0	2000.0	288.0	23.0	53.	7.	18.
AE00468	218.20	217.40	7200.0	30.0	23.0	<0.5	130.0	3.0	4.0	12.0	<5.0	<1.0	3.0	33.	3.	57.
AE00469	218.20	217.80	19000.0	26700.0	11100.0	101.5	4251.3	12.0	14.0	3900.0	2000.0	63.0	16.0	16.	8.	71.
AE00471	218.20	217.40	18000.0	6500.0	17400.0	55.2	2468.5	19.0	14.0	5900.0	1723.0	91.0	26.0	44.	9.	27.
AE00472	218.20	217.40	21000.0	24000.0	49200.0	164.9	3634.2	15.0	18.0	3500.0	2000.0	225.0	37.0	57.	10.	33.
AE00467	230.00	228.00	780.0	94.0	28.0	<0.5	<5.0	3.0	4.0	<5.0	<5.0	<1.0	9.0	86.	3.	77.
AE00466	232.00	230.00	720.0	46.0	32.0	<0.5	<5.0	2.0	2.0	7.0	<5.0	<1.0	2.0	69.	2.	59.
AE00465	234.00	232.00	600.0	64.0	33.0	<0.5	<5.0	3.0	3.0	22.0	<5.0	<1.0	8.0	74.	3.	66.
AE00456	295.50	295.50	2900.0	30.0	44.0	<0.5	<5.0	4.0	15.0	7.0	<5.0	<1.0	<1.0	170.	2.	41.
AE00464	298.00	294.00	4300.0	35.0	40.0	<0.5	<5.0	3.0	12.0	7.0	<5.0	<1.0	<1.0	236.	3.	47.
AE00463	301.00	298.00	2500.0	90.0	104.0	<0.5	<5.0	17.0	34.0	9.0	6.0	<1.0	<1.0	689.	4.	46.

TABLE 1 ANITA AREA TRENCHING SAMPLES - METALS (continued)

SAMPLE NUMBER	FROM	TO	BA (ppm)	CU (ppm)	ZN (ppm)	AG (ppm)	AU (ppb)	CO (ppm)	NI (ppm)	PB (ppm)	AS (ppm)	CD (ppm)	MO (ppm)	MN	FE	CUZN
AE00462	306.00	306.00	7000.0	56.0	80.0	0.5	<5.0	3.0	24.0	6.0	7.0	<1.0	<1.0	293.	2.	41.
AE00461	311.00	308.00	5000.0	30.0	48.0	<0.5	<5.0	4.0	12.0	<5.0	<5.0	<1.0	<1.0	387.	3.	38.
AE00460	314.00	311.00	4800.0	17.0	36.0	<0.5	<5.0	1.0	8.0	6.0	<5.0	<1.0	<1.0	197.	2.	32.
AE00455	314.50	314.50	5400.0	37.0	70.0	0.5	<5.0	1.0	21.0	5.0	<5.0	<1.0	4.0	217.	2.	35.
AE00454	331.00	331.00	510.0	24.0	52.0	<0.5	<5.0	4.0	18.0	<5.0	<5.0	<1.0	<1.0	431.	0.	32.
AE00452	346.00	346.00	1500.0	2.0	28.0	<0.5	<5.0	1.0	1.0	5.0	<5.0	<1.0	<1.0	161.	1.	7.
AE00451	355.00	355.00	3000.0	6.0	24.0	<0.5	<5.0	3.0	3.0	<5.0	<5.0	<1.0	<1.0	314.	2.	20.

TABLE 2

Anita Area Trench Samples - Major Oxides

TABLE 2 ANITA AREA TRENCHING SAMPLES MAJOR OXIDES

	SAMPLE NUMBER	FROM	TO	%SIO2	%AL203	%CAO	%MGO	%NA20	%K20	%FE203	%TIO2	%P205	%MNO	%LOI	SUM	BA	AI	CUZN
X	AE00416	215.00	215.00	48.20	18.30	9.10	4.42	0.58	0.72	10.60	2.65	0.50	0.13	4.31	99.51	823.	35.	66.
X	AE00404	272.00	272.00	47.70	14.40	8.22	6.23	2.25	0.42	13.20	1.73	0.17	0.19	3.85	98.36	637.	39.	43.
	AE00405	280.00	280.00	50.80	14.70	8.63	8.17	3.55	0.13	9.96	0.59	0.14	0.14	2.54	99.35	120.	41.	22.
	AE00406	294.00	294.00	47.40	16.30	8.59	8.02	2.96	0.42	11.70	0.80	0.17	0.22	2.47	99.05	457.	42.	52.
X	AE00407	319.00	319.00	49.00	13.10	10.10	7.01	1.86	0.12	14.10	1.89	0.17	0.20	2.08	99.63	78.	37.	39.
X	AE00408	321.00	321.00	48.50	13.60	10.30	6.36	1.69	0.12	14.10	1.91	0.17	0.20	2.39	99.34	149.	35.	58.
	AE00459	253.00	253.00	50.30	14.30	10.40	8.74	3.10	0.22	9.88	0.57	0.13	0.15	2.08	99.87	115.	40.	44.
	AE00458	259.00	259.00	51.70	12.00	8.32	11.30	2.93	0.60	9.49	0.52	0.11	0.17	2.23	99.37	450.	51.	30.
	AE00457	266.00	266.00	48.30	13.90	10.70	9.80	2.32	0.19	11.30	0.70	0.19	0.20	2.31	99.91	149.	43.	50.
X	AE00453	328.00	328.00	47.20	16.70	9.71	5.28	2.78	1.07	10.60	1.79	0.47	0.19	2.23	98.02	2610.	34.	28.

X gabbro

DESCRIPTIVE SUMMARY OF ROCK TYPES

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UNIT 1b. Mafic Volcanics.

-Thickness of up to 28m is exposed in trenches.
-In contact with both gabbro intrusive and felsic volcanics.
-Characterized by the presence of subhedral elongate hornblende phenocrysts (1.0 to 3.0mm, average 2.0mm), set in a dark green chloritic aphanitic matrix
-Phenocrysts oriented subparallel to shear planes; which have a strike of about 109 degrees
-Outcrops have a massive appearance with the exception of a few dark cherty (sedimentary?) interbeds.
-a few minor shear zones were observed, (less than 1.0m wide), with a strike of about 100 degrees
-Chloritization and epidotization of primary mafic minerals is ubiquitous.
-Epidote-rich spots (0.5 to 2.0cm), were observed locally (altered fragments?).
-Limonite stain common on fracture surfaces,as well as lesser Mn-stain.
-Mineralization not normally present in this unit, with the possible exception of a 1.0m wide mafic bed? or early mafic sill sandwiched between alteredfelsic volcanics at 2+15S, L28+00E, which contains several percent of stringer and disseminated pyrite.

UNIT 3b. Felsic Volcanics.

-Exposed at the northern end of both trenches for over 60 metres.
-Intruded in several places by gabbro.
-Also known as "active tuff", it contains the bulk of mineralization including two small massive sulfide lenses, is strongly sheared and highly sericitized, with a finely banded to sub-banded to mottled appearance (disrupted by shearing), and a colour range of milky white to pale green, grey, or buff.
-Shear surfaces have a strike of approximately 109 degrees and dip 70 to 75 degrees S in the vicinity of the sulphides and remain fairly consistent elsewhere throughout the unit, with the exception of a few local variations.
-Local kink banding and drag folding (left-lateral), were observed.
-Pyrite is present throughout the entire "active tuff" exposure, occurring as very fine-grained disseminations throughout, as well as concentrated within discontinuous pyrite-rich horizons 0.1cm-1.0cm wide consisting of up to 30% pyrite, but with a total pyrite content of only 3 to 5 percent over a given interval.
-Mariposite spots are present locally
-"Active tuff" expresses moderate to locally intense limonite weathering along fracture and parting surfaces.

(Sulfide lens)

-Located between 2+17.4S and 2+18.2S on Line 28+00E.
-Approximately 0.7m wide over 2.0m strike length, with attitude 109/ 70 to 75 S, then pinching out to the east and west over 1 to 2 metres.
-Several fairly continuous sulfide-rich horizons of up to 5.0 cm wide occur within the lens.
-Sulfides present include banded pyrite, chalcopyrite, sphalerite, seams of sphalerite and minor galena, plus late veinlets of chalcopyrite and tetrahedrite-tenanite, as well as supergene chalcocite, malachite and azurite.
-Total sulfide content is probably between 25 and 60 percent.

UNIT 4b. Cherty Black Argillite.

-Exposed for up to 100m in both trenches between 3+00S and 4+00S.
-Intercalated with mafic volcanics and intruded by gabbro.
-Siliceous "cherty" tuffs are commonly cherty in appearance,with distinctive colour banding due to variations in mafic content, but may be weakly to moderately sericitized, with local small scale kink-banding, especially near contacts with the gabbro.
-Some of the "cherty" tuffs display primary bedding; 125/70N, 132/70N.
-Mineralization within the "cherty" tuffs is spotty and poor, with only a few of the darker chlorite-rich beds exceeding more than a trace of disseminated pyrite, and in such cases no more than a few percent over a couple of centimetres.
-A few local (less than 20cm wide) weakly pyritic rusty weathering black argillaceous interbeds have been identified.

UNIT 5a. Gabbro Intrusive.

-Exposures of up to 130m in the southern half of the trenches.
-Contacts with both felsic and mafic volcanics are commonly sheared, and may be associated with minor quartz veining. Small shear zones are also seen within the gabbro unit. Shearing is probably related to emplacement of the gabbro.
-Gabbro is most commonly feldspar porphyritic with a finer grained chloritic matrix. Feldspar crystals range 0.5 to 4.0mm, average 2.0 mm, commonly have an ophitic texture, and are weakly epidotized. Gabbro proximal to contacts tends to be finer grained and more difficult to identify; it may easily be mistaken for a mafic volcanic.

UNIT 6c. Conglomerate.

-This unit is a fine to coarse polymictic basal conglomerate, unconformably overlying gabbro intrusive in both trenches.
-Clast lithology and modes are;
  -Felsic volcanics: less than 1.0cm to greater than 30.0cm,

averaging 8.0cm, highly angular.
Composition cherty, felsic to moderately sericitized, with a few possible "active tuff" clasts identified.
-Gabbro: 10 to 40%, 5 to 25cm, and averaging 8cm, subrounded to well rounded. Most abundant at contact with gabbro intrusive.
-Quartz Fragments: 1.0 to 5.0%, 4.0 to 10.0cm, averages 5.0cm, angular. White bull quartz, likely associated with the gabbro.
-Other: less than 5%. 1.0 to 5.0cm, angular to subrounded. Minor chert, black argillite, jasper scattered throughout.
-Matrix: 20.0 to 40.0% Gritty to silty dark green chloritic matrix, often with abundant fine, felsic volcanic fragments (less than 1.0cm).

Eric Grill

L 27+00E

L 28+00E

1+00S

2+00S

3+00S

4+00S

5+00S

6+00S

030°

N

Filled in shaft

Anita showing

2500 - 3300 Ba
(1986 data)

5a

Massive sulphide lens

3b

70

3b Sheared sericitized, py

5a

3b

3b

3b

Sheared sericitized, py limonite alt.

AF00486
AF00487
AF00488
AF00489
AF00490
AF00491
AF00492
AF00493
AF00494
AF00495
AF00496
AF00497
AF00498
AF00499
AF00500

AF00416

5a

1m shear zone

AF00401
AF00402
AF00403

3b Sheared, sericitized, py limonite alt.

5a

AF00404

1m shear zone + quartz veins

AF00405

1b

80 84

80

1m shear zone

AF00406

4b

5a

AF00407
AF00408

4900 AF00409
4400 AF00410
3100 AF00411
4100 AF00412
AF00413

4b py (black arg)

70 125

4b Trace py

4b py

AF00415

5a

AF00414

4b

Not trenched

4b

5a

5a

5a

5a

5a

DDH-37

"Mafic slice"

Massive sulphide lens

3b

Sheared, sericitized py

Sheared contact

80 100

3b siliceous

5a

3b

1b

5a

Cherty interbeds

1b

1b

5a

4b

70 132

4b

74

5a

5a?

5a

4b

4b

ob

5a

5a

5a

5a

5a

6a

ob

6a

6a

AF00485
AF00484
AF00483
AF00482
AF00481
AF00480
AF00479
AF00478
AF00477
AF00476
AF00475 4000
AF00474 7200
AF00469-00473 I 16000-30000
AF00468 7200

AF00467
AF00466
AF00465

AF00459
AF00458
AF00457

AF00456 2900
AF00464 4300
AF00463 2500
AF00462 7000
AF00461 5000
AF00460 4800
AF00455 5400

AF00453
AF00454

AF00452
AF00451

Felsic Volcanics

Mafic Volcanics

Sediments

Ba-rich black argillite

Gabbro

Nanaimo Conglomerate

5a Hematite on fractures

130 26

SYMBOLS

	Contact: observed, approximate
30	Bedding
70	Foliation
130	Fracture
4900	Anomalous Ba (ppm)
AF00406 •	Grab sample at a point
AF00410 I	Chip sample across an interval

LITHOLOGY

ob	Overburden
6a	Nanaimo conglomerate
5a	Gabbro intrusive
4b	Cherty black argillite
3b	Felsic volcanics
1b	Mafic volcanics

FALCONBRIDGE LIMITED

CHEMAINUS JOINT VENTURE

ANITA AREA TRENCHING MAP

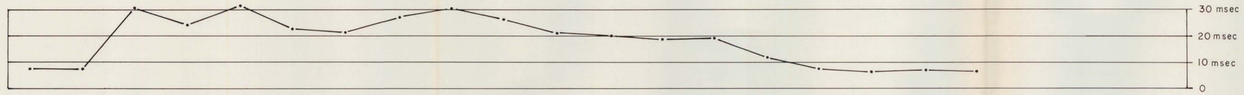
PROJ. 116

WORK BY	DRAWN BY	DATE
SGE	VJG	Feb 1988

10 0 10 20 30 40

SCALE IN METRES 1 : 1000

Figure: 2



shallow Schlumberger Array I.P.

deep Gradient Array I.P.

4+00S 3+00S 2+00S 1+00S BASELINE 1+00N

VLF

3100 - 4900 ppm Ba

ANITA SHOWING SHAFT

2500 - 3300 ppm Ba

lens of po, cpy

CHEM87-28

Fulford Fault

ANITA GABBRO

1356 ppm Cu / 0.7 m (gab)

2391 ppm Cu / 1.0 m (gab)

0.28% Cu, 220 ppb Au / 80% py - 23 cm

2084 ppm Cu / 1.0m

4500 ppm Ba / 1.0m

~2% py

10% py, tr cpy

E.O.H. 382.8m

500

400

300

200

400 m elevation

LEGEND

NANAIMO GROUP

- 6c Argillite
- 6b Greywacke
- 6a Conglomerate

INTRUSIVE ROCK

- 5c Peridotite
- 5b Mafic sill
- 5a Gabbro

SICKER GROUP

- 4b Cherty black argillite and siltstone with minor greywacke
- 4a Brown greywacke
- 3b Felsic tuff
- 3a Felsic flow
- 2b Intermediate tuff
- 2a Intermediate flow
- 1c Mixed mafic tuffaceous sediments
- 1b Mafic tuff
- 1a Mafic flow

SYMBOLS

py pyrite	po pyrrhotite
cpy chalcopyrite	sp sphalerite
ga galena	qe quartz eyes
hb hornblende	ep epidote

- bedding
- foliation
- fault
- younging direction
- *ABI9951,65 whole rock sample, Ishikawa index >60
- geochemical/assay sample
- K rocks with komatiitic compositions
- u unconformity
- geological contact (inferred)
- active tuff
- significant sulphides (>2%, >10% total)
- (gab) gabbro quartz vein mineralization

0 20 40 60 80 m

SCALE: 1:1,000

FALCONBRIDGE LTD.

CHEMAINUS JOINT VENTURE

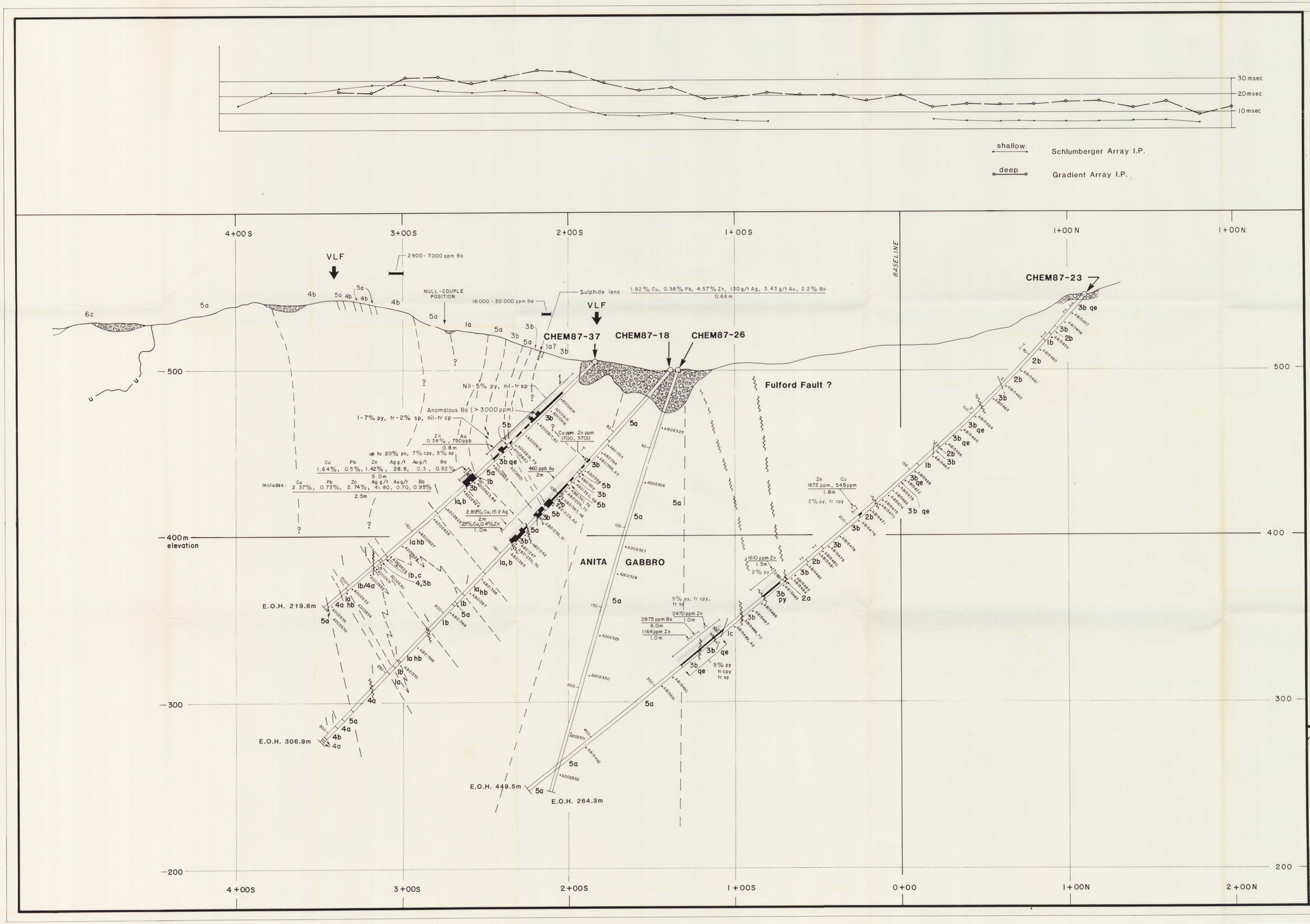
Vancouver Island, British Columbia

SECTION 27 + 00E

(looking west)

DDH CHEM87-28

WORK BY: DPM		
DATE OF WORK: Dec 1987	PROJECT NO: 116	FIG. NO.: 4
DRAWN BY: VJG		
DATE: [illegible] 1988	N.T.S. NO.: 92B/13	



LEGEND

NANAIMO GROUP

- 6c Argillite
- 6b Greywacke
- 6a Conglomerate

INTRUSIVE ROCK

- 5c Peridotite
- 5b Mafic sill
- 5a Gabbro

SICKER GROUP

- 4b Cherty black argillite and siltstone with minor greywacke
- 4a Brown greywacke
- 3b Felsic tuff
- 3a Felsic flow
- 2b Intermediate tuff
- 2a Intermediate flow
- 1c Mixed mafic tuffaceous sediments
- 1b Mafic tuff
- 1a Mafic flow

SYMBOLS

py pyrite	po pyrrhotite
cpy chalcopyrite	sp sphalerite
ga galena	qe quartz eyes
hb hornblende	ep epidote

- bedding
- foliation
- fault
- younging direction
- •AB19951,65 whole rock sample, Ishikawa index >60
- geochemical/assay sample
- K rocks with komatiitic compositions
- u unconformity
- geological contact (inferred)
- active tuff
- significant sulphides (>2%, >10% total)
- (qab) gabbro quartz vein mineralization

0 20 40 60 80 m

SCALE: 1:1,000

FALCONBRIDGE LTD.

CHEMAINUS JOINT VENTURE

Vancouver Island, British Columbia

SECTION 28 + 00E

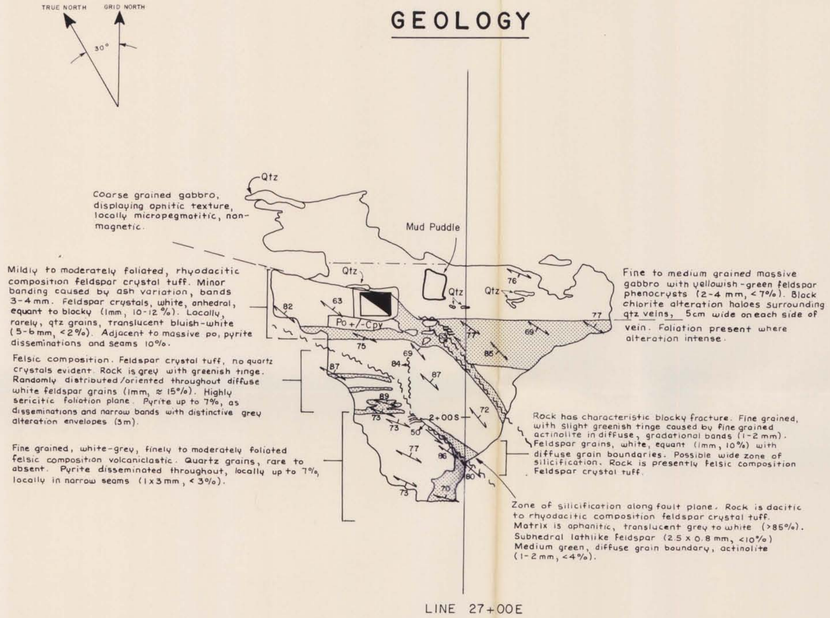
(looking west)

DDHs CHEM87-23, 26, 37 and CHEM86-18

WORK BY: JMP, SGE, DPM		
DATE OF WORK: July, 1987	PROJECT NO: 116	FIG. NO.: 5
DRAWN BY: ER		
DATE: Feb 1988	N.T.S. NO.: 92B/13	

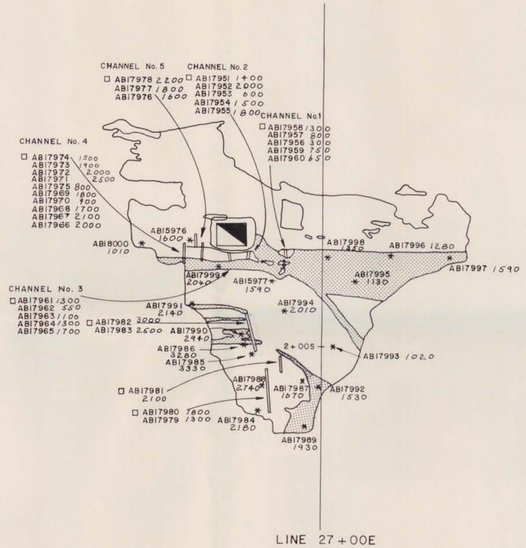
ANITA SHOWING EXCAVATION

GEOLOGY



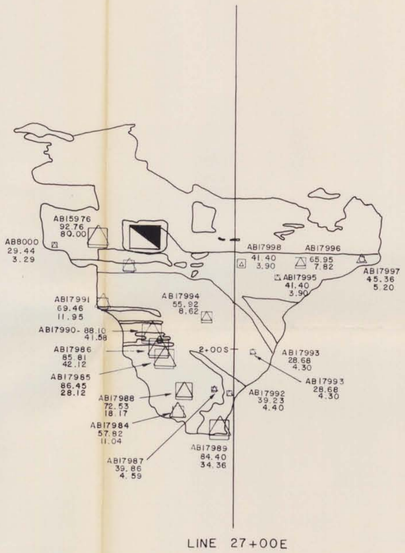
LINE 27+00E

SAMPLE LOCATIONS



LINE 27+00E

ALTERATION



LINE 27+00E

L E G E N D

- Channel Sample
- * Whole Rock Geochemical Analysis
- Base and Precious Metal Analysis
- Zone of Limonite Staining
- Fault (defined, approximate)
- Fault - inclined
- Geological Boundary (defined, approximate gradational)
- Foliation - inclined
- Po Pyrrhotite
- Cpy Chalcopyrite
- Qtz Quartz vein
- Drag Structures
- AB18010 550 Sample # Ba (PPM)

AI

- 80.00 - 99.00
- 70.00 - 80.00
- 60.00 - 70.00
- 50.00 - 60.00
- 0.00 - 50.00

SD

- 20.00 - 500.00
- 15.00 - 20.00
- 10.00 - 15.00
- 5.00 - 10.00
- 0.00 - 5.00

$$AI = \frac{MgO + k_2O}{Na_2O + k_2O + CaO + MgO}$$

$$SD = \frac{Al_2O_3}{Na_2O}$$

FALCONBRIDGE LTD.

CHEMAINUS J.V.

ANITA SHOWING EXCAVATION

PROJ. 116

WORK BY	DRAWN BY	DATE: FEBRUARY 25, 1987
D.M.	ER	

5 0 5

SCALE IN METRES 1:250

Figure: 6