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092P/01

Mt. Armour 1986 Work Program

Summary Report

Corporation Falconbridge Copper
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I. D. Pirie
April/87

CORPORATION FALCONBRIDGE COPPER

MEMORANDUM

DATE: April 7, 1987
TO: A. J. Davidson
COPIES TO: G. W. Evans
DE FROM: L. D. Pirle
SUJET SUBJECT: 1986 Mt. Armour Diamond Drill Program

Introduction

Exploration on the Mount Armour property during 1986 consisted of drilling 5 holes for a total of 410.35m. These holes were chosen after careful consideration of geological mapping, geochemical sampling (rocks and soils), geophysical surveying (IP) and trenching carried out in 1984 and 1985.

Results

AR #1, AR #2 tested the down dip and down plunge extension of the main massive sulphides. These holes successfully intersected the sulphides which trend 270° and plunge approximately 30° to the west, in what appears to be the nose of an anticline. The more significant intersections are given in Table 1.

Table 1. Sulphide Intersections for AR1, AR2.

Depth	Interval	Cu	Zn	Pb	Ag	Au
AR #1 (80% py)						
18.86 - 20.03m	1.44m	.73%	.60%	--	1.7ppm	80ppb
AR #1 (80% py)						
21.10 - 22.14m	1.04m	.29%	4.10%	--	1.9ppm	60ppb
AR #2 (65-70% py)						
64.0 - 71.8m	7.80m	.13%	---	--	1.6ppm	98ppb

These holes prove that the sulphide body extends for at least 120m down plunge and appears to be thickening. While precious metal values were

lower than hoped for the base metal values were higher than on surface. Another interesting trend is that the gold values appear to be increasing with depth. The dominant rock types are cherts and argillites as indicated by surface mapping but there are also several small units of sericite altered mafic tuff very similar to the Rea Gold "Cherty Tuffs". These were intersected in AR1, AR2, AR3 and AR5 and indicate a substantial mafic volcanic component to a section previously believed to be strictly sediments.

AR#3 was drilled to test a strong L.P. conductor with coincident anomalous soil geochemistry. The strong L.P. conductor can be explained by pyrite stringers throughout the hole ranging from 5 to 25% of the rock. While the two main sulphide zones appear to be focussed around fault zones and mineralization appears to have some structural control, a feeder zone to the sulphides intersected in AR1 and AR2 is strongly suspected. Several geochemically anomalous zones were intersected with typical values of 200 - 600 ppm Cu, 2,000 - 6,000 ppm Zn and 1.0 - 4.2 ppm Ag. These are sufficient to explain the surface geochemical anomalies.

AR#4's purpose was to test down plunge of the southern massive sulphide zone. It intersected no significant mineralization and leaves the zone unexplained. Either the sulphides are a small pod like body or else a structure (fold or fault?) has displaced them.

AR#5 tested an L.P. anomaly with a Au soil anomaly at a facies change between chert and conglomerate. The hole intersected a series of cherts, argillites and mafic pyroclastics but no conglomerates. There is enough disseminated pyrite to explain the moderate L.P. effect but no Au values were found to explain the soil anomaly.

Conclusions and Recommendations

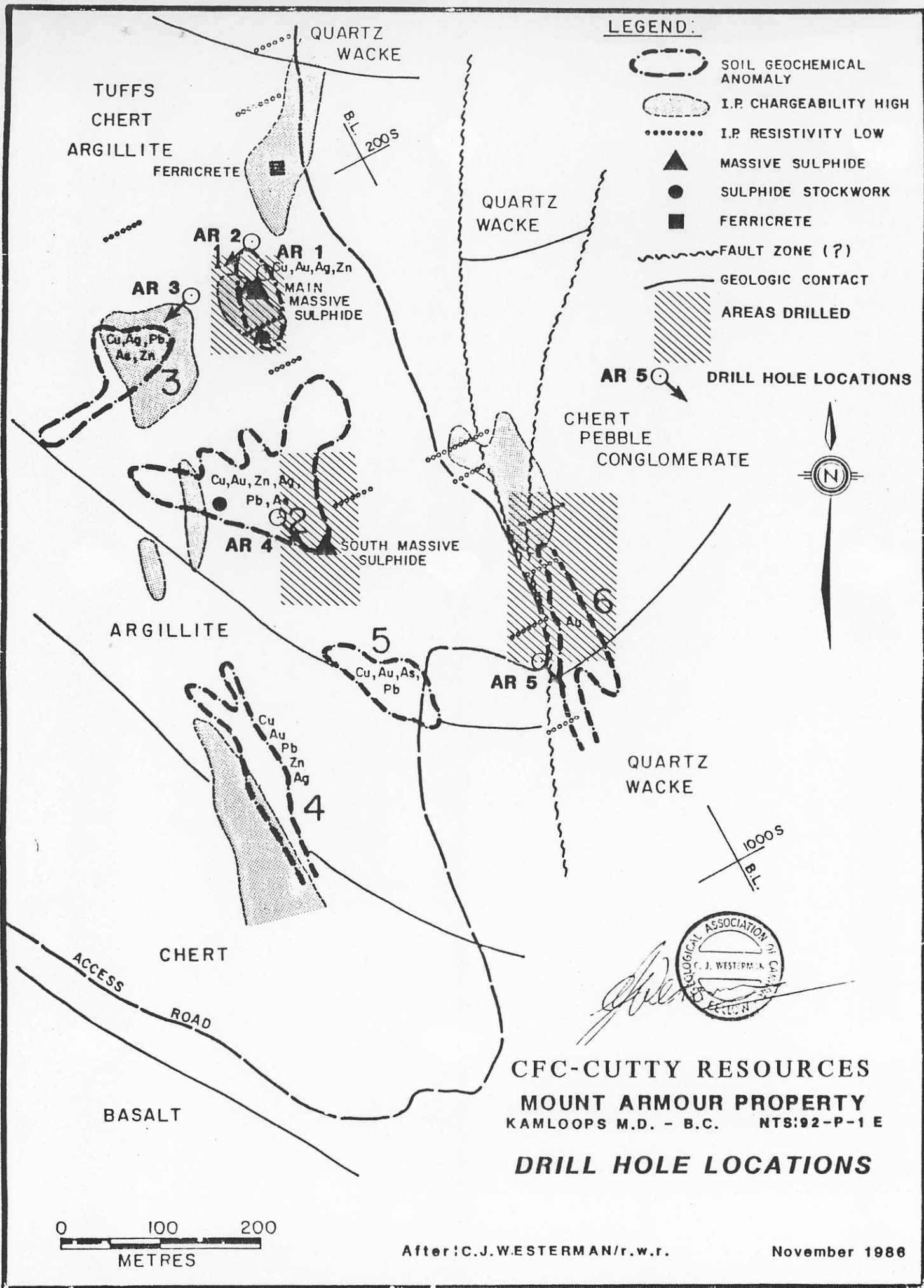
The main massive sulphide zone has been shown to have at least 120m of plunge extent. Although base and precious metal grades are disappointing, further drilling is warranted to test for improved grades at depth.

Other targets also exist on the property. These include the southern massive sulphide zone, which AR4 attempted, but failed, to intersect and the strong ferricrete zone about 100m north of the main massive sulphides. These cannot be left untested.

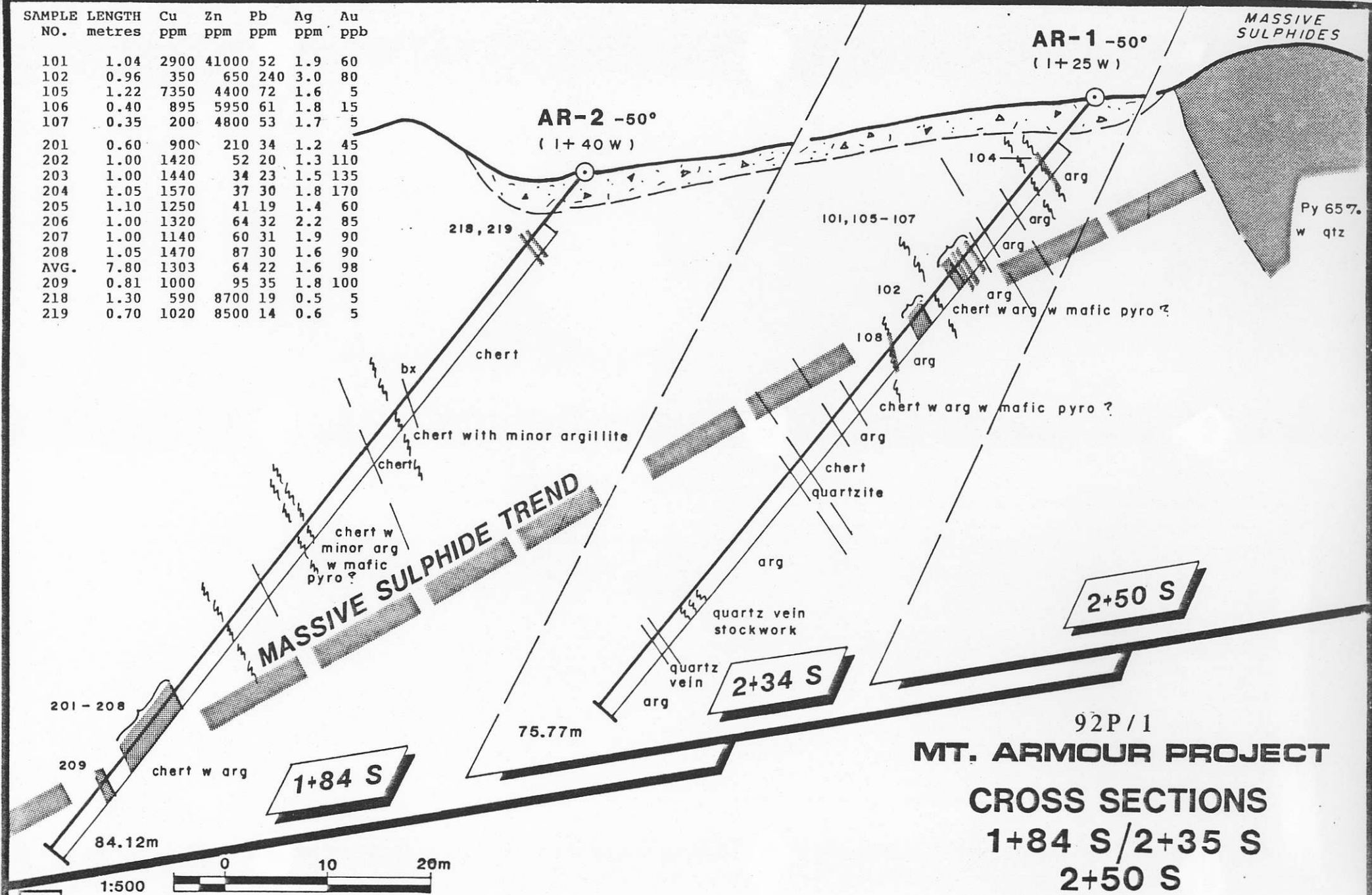
Finally, the strong Au soil anomaly which AR5 attempted to explain requires further examination in giving particular attention to possible displacement from source.

Consequently, it is recommended that the following work be carried out as and when funds become available.

1) Drill 3 more holes to test the main sulphide zone 500m @ \$120/m	\$60,000
2) Drill one more hole to test the southern massive sulphide zone 100m @ \$120/m	\$12,000
3) Blast, trench and sample ferricrete zone north of main sulphide zone	\$ 2,500
4) Conduct additional soil sampling, including soil profiles, and detailed rock chip sampling around Au anomaly	<u>\$ 2,500</u>
TOTAL	\$77,000



SAMPLE NO.	LENGTH metres	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb
101	1.04	2900	41000	52	1.9	60
102	0.96	350	650	240	3.0	80
105	1.22	7350	4400	72	1.6	5
106	0.40	895	5950	61	1.8	15
107	0.35	200	4800	53	1.7	5
201	0.60	900	210	34	1.2	45
202	1.00	1420	52	20	1.3	110
203	1.00	1440	34	23	1.5	135
204	1.05	1570	37	30	1.8	170
205	1.10	1250	41	19	1.4	60
206	1.00	1320	64	32	2.2	85
207	1.00	1140	60	31	1.9	90
208	1.05	1470	87	30	1.6	90
AVG.	7.80	1303	64	22	1.6	98
209	0.81	1000	95	35	1.8	100
218	1.30	590	8700	19	0.5	5
219	0.70	1020	8500	14	0.6	5

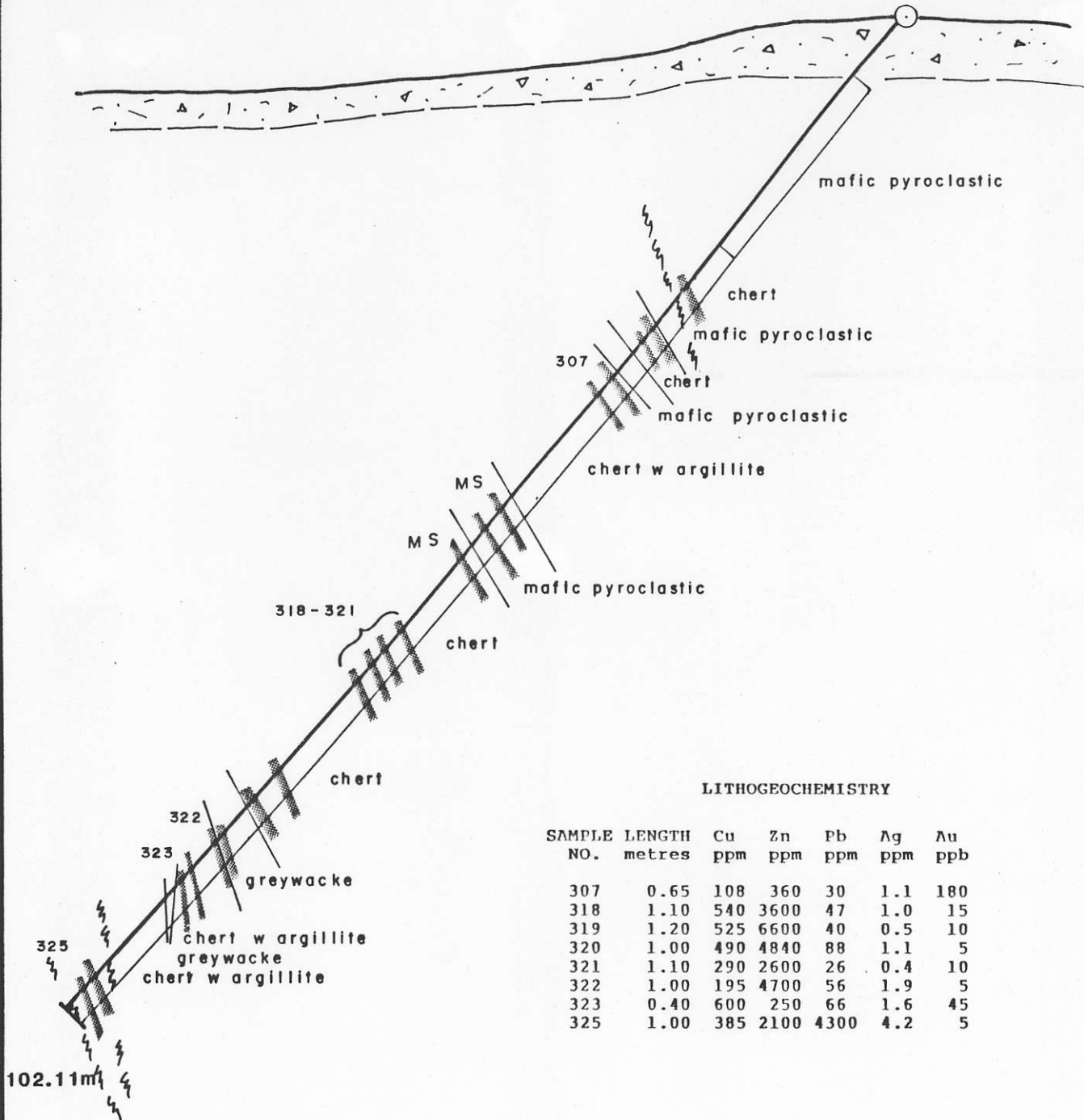


92P/1
MT. ARMOUR PROJECT
CROSS SECTIONS
1+84 S/2+35 S
2+50 S
LOOKING NORTHWEST



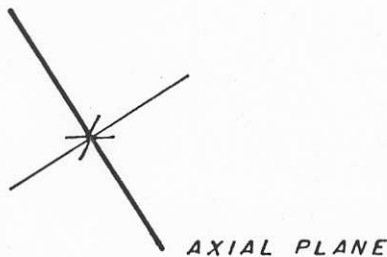
AR-3 -50°

(2+30 W)



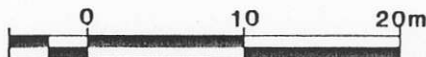
LITHOGEOCHEMISTRY

SAMPLE NO.	LENGTH metres	Cu ppm	Zn ppm	Pb ppm	Ag ppm	Au ppb
307	0.65	108	360	30	1.1	180
318	1.10	540	3600	47	1.0	15
319	1.20	525	6600	40	0.5	10
320	1.00	490	4840	88	1.1	5
321	1.10	290	2600	26	0.4	10
322	1.00	195	4700	56	1.9	5
323	0.40	600	250	66	1.6	45
325	1.00	385	2100	4300	4.2	5



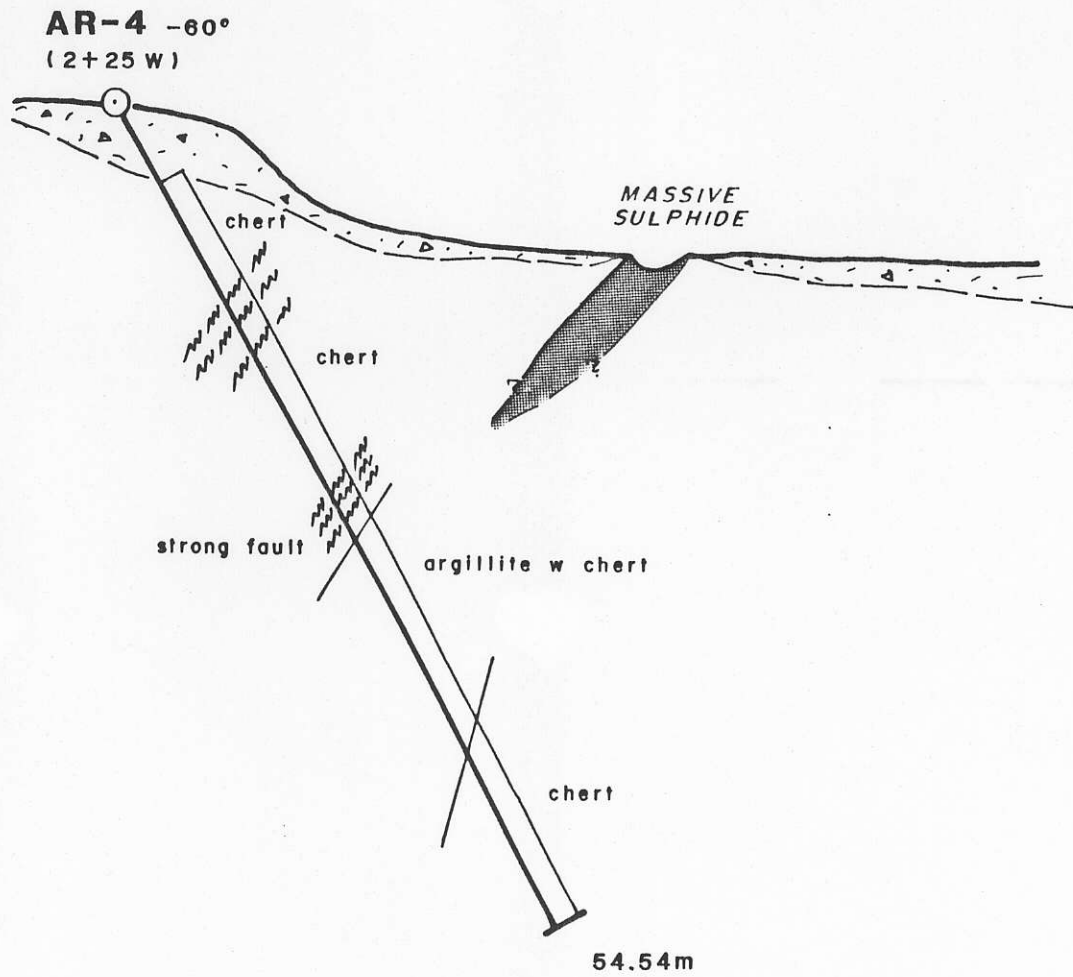
92P/1
MT. ARMOUR PROJECT
CROSS SECTION
2+30 S
LOOKING NORTHWEST

1:500



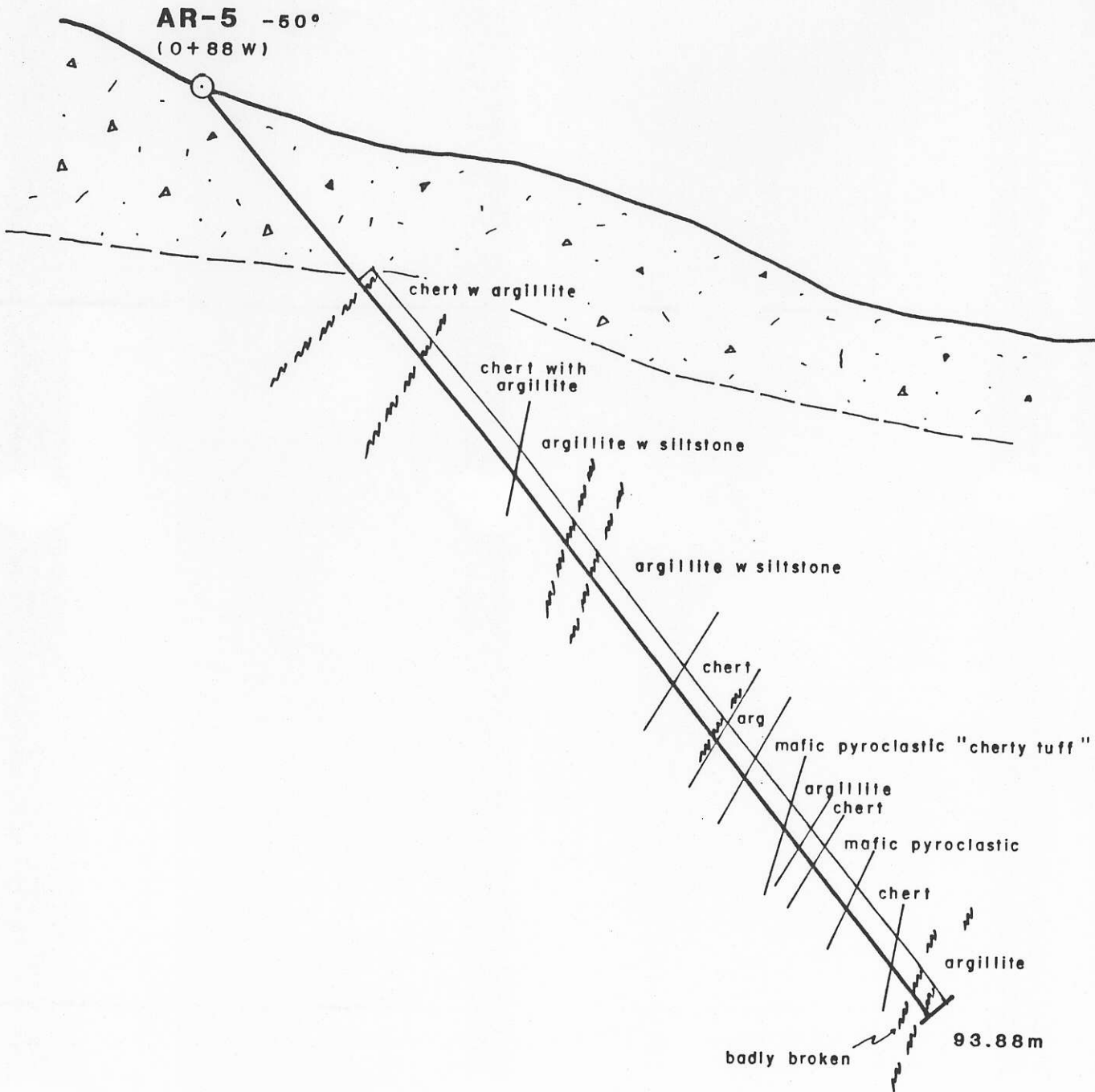
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MARCH 1987

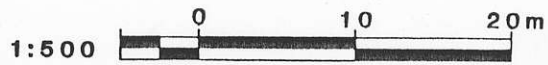


92P/1
MT. ARMOUR PROJECT
CROSS SECTION
4+90 S
 LOOKING NORTHEAST
 (050°)





92P/1
MT. ARMOUR PROJECT
CROSS SECTION
7+37 S
LOOKING NORTHEAST
(030°)



<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
0 to 6.10	CASING					
6.10 to 13.02	SILTSTONE with ARGILLITE	Colour - lt. grey to black Grain size - fine Argillite + siltstone beds flooded by qtz+/-carb veins	bedding 70	Siltstone altered on fractures to sericite 6.10-8.92m: 40% qtz veins +/- carb	Strong hematite gossan around fault at 7.72-7.97m Gossan from 7.29-8.70m 50% py 7.92-7.98m 8.13-8.21m	Fault with clay + hematite gouge 7.72-7.97m and at 9.76-10.11m
13.02 to 17.42	ARGILLITE	Colour - black Grain size - fine Finely laminated argillite with occasional breccia zone flooded with qtz-carb veins	bedding 65	40% qtz-carb veins	0.5-1.0% fine gr. diss py	Argillite non conductive
17.52 to 18.76	FELDSPAR PORPHYRY FELSIC TUFF?	Colour - lt. grey Grain size - fine Grey altered clay-sericite matrix with 1mm yellow feldspar phenos + rare qtz phenos? (is this a felsic tuff or sediment?)	fol'n 70	Matrix, clay + sericite alteration pervasive	Tr py	
18.76 to 22.14	ARGILLITE	Colour - black Grain size - fine Finely laminated argillite flooded with qtz+/-carb veins 30-40%	bedding 55	Qtz-carb veins flooded Strong hematite stain 20.20-21.00m	80% py bands at 18.86-18.91m 19.81-19.84m 20.25-20.30m 70-85% py at 21.10-22.14m (104cm) coarse to fine gr. py with minor sphal. crudely banded at 55	N.B. qtz veins mineralized while qtz-carb veins not.

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
22.13 to 26.41	CHERT with MUDSTONE	Colour - lt. grey Grain size - very fine to aphanitic Finely laminated chert with mudstone, units grade into each other; rare argillite lamination	bedding 60	Mudstone is sericite altered Occasional qtz vein (Volc. Tuff added sericite?)	1% diss py + occasional py veinlet	Faults at 24.65m and 24.90m with clay gouge
26.41 to 31.89	ARGILLITE with SILTSTONE	Colour - black to med. grey Grain size - fine Argillite with some siltstone beds occasionally breccia zone of siltstone in Argillite (siltstone qtz rich)	bedding 45	Qtz vein flooding with limoite in siltstone	26.44-28.36m: (1.92m) 50-65% py; f.gr to coarse gr. py with 20-30% qtz veins py x-cutting features (late stage) 30.57-30.71m: 60% py Avg. 1-4% py as stringers + diss	Fault at 30.71m with 20cm clay gouge
31.89 to 37.60	CHERT with MUDSTONE	Colour - lt. grey Grain size - aphanitic to very fine Grey massive chert with sericite altered mudstone beds (volc. tuff source?)	bedding 70	Mudstone pervasive sericite alteration Minor qtz veins	1-2% py as stringers 37.13-37.60m: zone in chert with 20% py as stringers	
37.60 to 40.60	SILTSTONE with ARGILLITE	Colour - lt. grey to black Grain size - fine 30-40cm beds of grey siltstone with beds of argillite +/- chert (finely laminated)	bedding 60 to 70	occas. qtz veinlets	1-2% diss py Occasional py veinlet	

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
40.60 to 45.39	CHERT	Colour - lt. grey Grain size - aphanitic Grey laminated chert with occasional 5mm-10mm argillite band	bedding 70	Occasional qtz vein Mudstone pervas. sericite alteration	2-5% py in chert as veinlets 42.02-42.61m: 20% py as stringers 42.91-43.13: 25% py as stringers	
45.39 to 47.33	SILTSTONE	Colour - lt. grey Grain size - fine Qtz rich siltstone (Quartzite)	bedding 50	Occasional qtz vein Weak sericite	1% diss py + stringers	
47.33 to 75.77 EOH	CHERT with ARGILLITE	Colour - lt. grey to black Grain size - aphanitic to fine 60% fine laminated chert with 40% argillite bands 61.00-65.00m: Occasional breccia zone	bedding 48m-70 56m-70 75m-60	Occasional qtz vein with sericite alteration on fractures 62-68.2m: Qtz veins 50% in several directions	Generally 1-2% diss + stringer py 51.00-51.50m: argillite rich zone with 15% py as stringers large qtz vein 66.92-67.94m with 1-2cm py selvages + veins (5-7% total py) with tr cpy	Some argillite weakly conductive

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm T Ag	gm T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
AR-101	21.10	22.14			1.04											2900	41,000	52	1.9	60			
102	26.44	27.40			0.96											350	650	240	3.0	80			
103	27.40	28.36			0.96											840	2630	59	2.3	50			
104	7.72	8.32			0.60											1085	310	40	1.5	5			
105	18.04	19.26			1.22											7350	4400	72	1.6	5			
106	19.71	20.11			0.40											895	5950	61	1.8	15			
107	20.11	20.46			0.35											200	4800	53	1.7	5			
108	30.90	31.20			0.30											81	118	40	0.9	20			
109	37.36	37.76			0.40											200	68	62	0.9	5			
110	42.15	42.75			0.60											400	148	30	0.6	10			
111	42.90	43.14			0.24											210	74	52	1.0	5			
112	44.98	45.53			0.55											95	157	23	0.5	5			
113	59.87	60.27			0.40											138	3000	24	0.4	5			
114	62.77	63.43			0.66											61	89	22	0.6	10			
115	66.87	68.27			1.40											54	95	21	0.4	10			
116	20.46	21.16			0.70											580	188	34	1.1	5			
117	22.10	23.30			1.20											148	120	16	0.4	5			

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
0 to 6.10	CASING					
6.10 to 26.85	CHERT	Colour - lt. grey Grain size - aphanitic Massive grey chert with occasional argillite laminations at 26.00m becomes a chert breccia with wisps of sericite in matrix	bedding 60	5-10% qtz veins with strong hematite +/- Mn on fractures to 13.10m then decreases Rare chl on fractures 17.80-20.52m: hematite zone around sulphides	Avg. 3-5% py as veinlets + (0.5% sphal?) Occasional py veinlets with 80% py at 7.96m (4cm) 8.50m (10cm) 9.27m (2cm) 17.85-18.25m: 15-20% py stringers 24.00-24.63m: 10% py as stringers	
26.85 to 28.50	MUDSTONE	Colour - lt. green Grain size - very fine Finely laminated mudstone pervasive alteration to sericite (an ash?)	Fol'n 70	Pervasive sericite alteration (Volc. Tuff?)	0.5% diss py	Fault zone at 28.50m with 5cm clay gouge
28.50 to 33.63	CHERT	Colour - lt. grey Grain size - aphanitic Massive grey chert with occasional chert breccia zones and rare band of Argillite and sericite (Mudstone)	bedding 70	Some fracture sericite alteration + occasional Mn alteration	Generally 0.5% diss py with occasional py veinlet	Argillaceous on contact near mudstone Strong Fault contact 33.63-35.36m with clay gouge and 40% recovery

<u>From</u> <u>To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to</u> <u>Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
33.63 to 50.05	MUDSTONE	Colour - lt. green Grain size - very fine Fault Contact; fine gr. pervasive sericite alteration. Sometimes grades into a chert	bedding 65	Pervasive sericite alteration (Volc. Tuff?)	0.5% diss py with occasional py veinlet	Faults with clay gouge at 42.88m (for 10cm) 43.58m (for 20cm) with 40% recovery
50.05 to 84.12 EOH	CHERT with ARGILLITE	Colour - lt. grey with black Grain size - aphanitic to fine 60 % chert with 40% finely laminated argillite Argillite sometimes a phyllite, chert is massive Occasional chert breccia	bedding 51m-60 75m-70 84m-40	Occasional sericite laminations In mineralized areas 5-20% qtz veins	Generally 5-10% py in veinlets 57.30-59.34m: 15-20% py as stringers 63.02-63.30m: 15% py as stringers 64.02-71.82m: (7.80m) 50-90% py; Avg 65-70% F.gr + coarse gr. banded py at 60 to axis with 5-20% qtz veins (occasional tr cpy, sphal.) Chert + argillite matrix 71.00-71.69m: 20-25% py as stringers 74.45-75.16m: (71cm) 50-60% py in argillite finely laminated at 70 to axis (f.gr + coarse gr.)	55.83m: 20cm of fault gouge Some argillite weakly conductive

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm. T Ag	gm. T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
AR-201	64.02	64.62			0.60											900	210	34	1.2	45			
202	64.62	65.62			1.00											1420	52	20	1.3	110			
203	65.62	66.62			1.00											1440	34	23	1.5	135			
204	66.62	67.67			1.05											1570	37	30	1.8	170			
205	67.67	68.77			1.10											1250	41	19	1.4	60			
206	68.77	69.77			1.00											1320	64	32	2.2	85			
207	69.77	70.77			1.00											1140	60	31	1.9	90			
208	70.77	71.82			1.05											1470	87	30	1.6	90			
209	74.45	75.16			0.81											1000	95	35	1.8	100			
210	52.23	52.98			0.75											220	196	20	0.5	15			
211	53.14	54.14			1.00											84	43	14	0.3	10			
212	57.30	58.20			1.10											330	1100	30	0.7	40			
213	58.20	59.40			1.20											188	4000	60	1.0	5			
214	62.90	63.20			0.30											195	4200	132	2.0	5			
215	71.00	71.70			0.70											190	86	23	0.7	25			
216	6.95	7.52			0.57											169	4230	8	0.2	5			
217	7.92	8.62			0.70											250	1900	4	0.1	5			
218	9.27	10.57			1.30											590	8700	19	0.5	5			
219	10.77	11.47			0.70											1020	8500	14	0.6	5			
220	16.00	16.90			0.90											340	960	8	0.3	10			

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm T Ag	gm T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au				
			Cu	Zn																				
AR-221	17.75	18.15			0.40											640	1260	14	0.7	5				
222	19.00	20.30			1.30											470	133	12	0.4	5				
223	23.40	24.00			0.60											360	38	12	0.3	5				
224	50.50	50.90			0.40											155	65	26	0.6	15				

CORPORATION FALCONBRIDGE COPPER

DRILL HOLE RECORD

METRIC UNITS
IMPERIAL UNITS

HOLE NUMBER AR #3	GRID Mt. Armour	FIELD COORDS	LAT. 2+30S	DEP. 2+30W	ELEV.	COLLAR BRNG. 215°	COLLAR DIP -50°	HOLE SIZE NQ	FINAL DEPTH 102.11
PROJECT 218	CLAIM # FC	SURVEY COORDS.				DATE STARTED: Nov 11/86 DATE COMPLETED: Nov 13/86	CONTRACTOR: J. T. Thomas CORE STORAGE: _____ CASING: _____		
PURPOSE A strong I.P. anomaly with noisy geochemistry								RQD LOG COLLAR SURVEY	PULSE EM SURVEY MULTISHOT SURVEY
ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH (m)	CORRECTED ANGLE	DEPTH ()	CORRECTED ANGLE	DEPTH ()	AZIMUTH	DIP	DEPTH ()	AZIMUTH	DIP
0	-50°								
45.7	-50°								
96.3	-47°								

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
0 to 6.10	CASING					
6.10 to 23.30	MUDSTONE or MAFIC PYRO-CLASTIC	Colour - lt. green Grain size - very fine Finely laminated mudstone (sericite alteration) with 10% chert and minor argillite Bedding very wavy with soft sediment features	bedding 7m-30° 22m-40°	Mudstone sericite alteration Also occasional weak carb. altered zones Qtz veins at 16.65m increase till 5-10% to 23.30m vein breccias +/-py%		Equivalent to sericitic cherty tuff at Rea (IDP) Occasional lapilli of varying sericitic alteration of flattened (mafic phenos flattened) mafic pyroclastic
23.30 to 28.33	CHERT	Colour - Lt grey to white Grain size - aphanitic Massive grey + white chert flooded by qtz veins	bedding 26.5m-40°	20% qtz veins very irregular with occasional vein breccia 1-3cm qtz veins	Generally 3-5% py as stringers 27.40-27.50m: py vein with 50% py, 50% qtz	
28.33 to 30.25	MUDSTONE or MAFIC PYRO-CLASTIC	Colour - lt. green Grain size - very fine Finely laminated mudstone with 30% argillite	bedding 55°	Mudstone sericite alteration with occasional pale green zone (fucshite?) No carbonate	Avg. 2-3% py as stringers	Some argillite mod. conductive Fault at 28.33m with 10cm of fault gouge Equivalent to sericite cherty tuff of Rea
30.25 to 33.75	CHERT	Colour - lt. grey, white Grain Size - aphanitic - Mass. chert with 10% argillite and occasional beds of mudstone - strongly fractured with black veinlets.	31.5m Bedding @ 70° to axis	5% quartz veins	Averages 5-7% py as stringers 30.25 - 30.78 20% py as stringers 32.85 - 33.75 10% py stringers and .5% sp?	

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
33.75 to 35.64	MUDSTONE OR MAFIC PYRO-CLASTIC	Colour - Lt. Green Grain Size - very fine grained - Seric. alteration - finely laminated mudstone with 10% argillite and some chert - some flattened mafic lapilli	Bedding @ 70° to axis	Seric. alteration pervas.	Avg. 5-8% dissem. + stringer py.	Equivalent to seric. cherty - tuff at Rea
35.64 to 49.05	CHERT WITH ARGILLITE	Colour - light grey - black Grain Size - aphanitic - very fine grained 60-70% Chert with 20% Argillite and is intensely fractured with black veinlets. - some argillite rich zones.	Bedding @ 60° to axis @ 36m @ 46m 70° to axis	- occas. QV - some fract. have propyl. alteration	Avg 3-5% py as stringers +/- sp? 35.64 - 36.54 15-20% py as veinlets with 1% sp? 37.78 - 38.30 20% py as stringers	- Some argillite weakly conductive
49.05 to 54.05	MUDSTONE OR MAFIC PYRO-CLASTIC	Colour - light brown Grain Size - very fine grained Finely laminated mudstone seric.? alternation with flattened lapilli with remnant mafic phenos + varying seric. alteration but normally finely laminated.	Bedding @ 70° to axis	- Pervas. seric. alteration	Avg. 3-5% py in bands parallel with bedding 50.21 - 50.73 10% py in bands 52.49 - 53.89 10+% py f.gr. in bands	
54.05 to 81.66	CHERT	Colour - light grey Grain Size - aphanitic - White - grey mass. chert with 10+% quartz veins - zones with up to 10% argillite - Chert breccia zone 69.06 - 69.31m	@ 72m Bedding @ 65° to axis @ 80m Bedding @ 70° to axis	- quartz veins very irregular - Up to 20% quartz veins near mineralization	54.05 - 57.06 20% py stringers with 1.5% sp? and tr cpy - occas. lt. blue oxide 64.62 - 69.06m 20-25% py veinlets with areas with 1-2% sp? - 78.55m a 5cm, 80% py vein with sp? 1% - 81.56 a 5cm 90% py vein with 1-2% sp?	

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
81.66 to 85.21	SILTSTONE	Colour - light grey Grain Size - fine grained Massive grey siltstone 82.28 - 82.96m chert + argillite. Siltstone Quartz, Feldspar.	Bedding @ 60° to axis	Occas. quartz veins	Avg. 10% py as dissem. + veinlets.	
85.21 to 89.04	CHERT WITH ARGILLITE	Colour - light grey - black Grain Size - aphanitic - very fine grained Mainly (60%) grey laminated chert beds with 40% argillite beds + minor mudstone.	Bedding @ 40° to axis	Occas. quartz veinlet 2-3%	Avg. py 2-3% as stringers 87.71 - 88.10 30% py as veins +/- tr sp? 88.94 - 89.04 20% py as veins	
89.04 to 90.67	SILTSTONE	Colour - light grey Grain Size - fine grained Massive grey laminated siltstone with occas. bed of chert with argillite.	Bedding @ 45° to axis	Occas. quartz veins	Avg. 5% py dissem. 89.35 - 89.55 30% py as veins	
90.67 to 102.11 E.O.H.	CHERT WITH ARGILLITE	Colour - lt. grey - black Grain Size - aphanitic - very fine grained Finely laminated chert with argillite	Bedding @ 50° to axis	Occas. quartz vein	2-3% Avg. py as dissem. + veinlets 98.45 - 99.25 40% py around a quartz vein	From 91.90m fract. increasing 98.40 - 102.11 Major Fault Zone with clay gouge in 50% recovery.

ASSAY SHEET

Sample Number	From (M)	To (M)	Estimate		Length (M)	% Cu	% Zn	% Pb	gm. T Ag	gm T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
AR-301	17.06	17.66			0.60											160	100	32	1.2	5			
302	21.41	21.64			0.23											75	405	32	1.0	5			
303	21.84	22.64			0.80											99	185	26	0.9	5			
304	27.00	27.46			0.46											580	175	36	1.5	15			
305	30.00	30.55			0.55											445	143	62	1.2	25			
306	32.85	33.75			0.90											225	59	21	0.7	5			
307	34.75	35.40			0.65											108	360	30	1.1	180			
308	35.65	36.55			0.90											395	94	16	0.5	40			
309	37.90	38.40			0.50											825	92	20	0.7	20			
310	48.67	49.52			0.85											186	695	20	0.7	10			
311	49.52	50.37			0.85											53	164	28	0.8	5			
312	50.37	51.22			0.95											116	107	32	0.9	5			
313	52.50	53.23			0.73											142	105	34	1.0	10			
314	53.23	53.96			0.73											117	114	38	1.3	5			
315	54.04	55.34			1.30											530	52	29	1.1	20			
316	55.40	56.25			0.85											193	425	21	0.8	5			
317	56.25	64.60			0.85											355	190	32	0.9	10			
318	64.60	65.70			1.10											540	3600	47	1.0	15			
319	65.70	66.90			1.20											525	6600	40	0.5	10			
320	67.00	68.00			1.00											490	4840	88	1.1	5			

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm T Ag	gm T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au					
			Cu	Zn																					
AR-321	68.00	69.10			1.10											290	2600	26	0.4	10					
322	83.00	84.00			1.00											195	4700	56	1.9	5					
323	87.66	88.06			0.40											600	250	66	1.6	45					
324	89.31	89.51			0.20											295	225	42	1.2	5					
325	98.40	99.40			1.00											385	2100	4300	4.2	5					

CORPORATION FALCONBRIDGE COPPER

DRILL HOLE RECORD

x METRIC UNITS
IMPERIAL UNITS

HOLE NUMBER AR #4	GRID Mt. Armour	FIELD COORDS	LAT. 4+90S	DEP. 2+25W	ELEV.	COLLAR BRNG. 140°	COLLAR DIP -60°	HOLE SIZE NQ	FINAL DEPTH 54.54m
PROJECT 218	CLAIM # FC	SURVEY COORDS.				DATE STARTED: Nov 13/86 DATE COMPLETED: Nov 13/86	CONTRACTOR: J. T. Thomas CORE STORAGE: CASING.		

PURPOSE
To test S. Massive Sulphide Showing with Coincident Au geochem anomaly

RQD LOG COLLAR SURVEY PULSE EM SURVEY MULTISHOT SURVEY

ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH (m)	CORRECTED ANGLE	DEPTH ()	CORRECTED ANGLE	DEPTH ()	AZIMUTH	DIP	DEPTH ()	AZIMUTH	DIP
0	-60°								
30.5	-62°								

FROM TO	ROCK TYPE	COLOUR	GRAIN SIZE	TEXTURE AND STRUCTURE	ANGLE TO CORE AXIS	ALTERATION	SULPHIDES	REMARKS
Casing to 6.10m 6.10 to 32.79	Chert	Grey - Black	Aphan.	Generally massive Grey - Black chert with some argillaceous zones and occasional laminations	Bedding @ 16m. is 65° to axis	- Generally 5-10% Quartz veinlets - Large QV 10.82-11.63m with 1-2% hematite + minor sericite on selvages - Sericite on many fractures.	- Hematite gossan 9.00-10.50m (1-2% Hem) - Generally 1-2% py. disseminations + occasional cube Pb (i.e. (12.09) - 18.90-20.77 4-6% py as blebs + veinlets - 26.62 tr Pb (Galena) in QV	Strong fault with clay gouge for 5cm @ 14.52m also @ 16.46m and 18.70m - Strong Fault 28.96 - 32.31 with only 30% recovery.
32.79 to 47.38	Argillite with chert	Dk grey - black	v.f.g. to aphan.	Well laminated argillite beds (60%) with chert beds (40%)	Bedding @ 37m is 60° to axis	- Some argillite very graphitic on fracture - Fractured areas contain a flood of Qtz veinlets with hematite - QV @ 39.70 - 40.10m has vein breccia + 2% py	- Generally 1% dissem.py - Occasional py veinlet - 41.10 - 42.75 zone with 5-8% py disseminated + veinlets	- Strongly fractured 32.00 - 36.00m - some argillite, moderately, conductive - 39.00 - 44.60m another strongly fractured zone with 15% QV's
47.38 to 54.54 E.O.H.	Chert	Lt.Grey	Aphan.	Massive grey chert	@ 53.90 bedding 30° to axis	- Occasional QV - Some sericite on fractures	Avg. .5 - 1.0% dissem.py. Zone 51.85 - 52.50 3-5% py as blebs	

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm T Ag	gm T Au	% SiO ₂	% TiO ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
AR-401	9.00	9.80			0.80											76	275	39	1.2	5			
402	9.80	10.60			0.80											79	285	46	1.3	5			
403	10.77	11.47			0.70											84	3700	48	0.4	5			
404	12.10	12.40			0.30											138	425	180	1.1	10			
405	13.62	14.24			0.62											106	325	58	1.0	5			
406	19.10	19.80			0.70											45	79	16	0.5	5			
406	19.80	20.60			0.80											26	75	14	0.6	5			
407	34.70	35.50			0.80											104	128	205	0.5	45			
408	38.50	39.60			1.10											430	215	34	1.3	30			
409	41.80	42.60			0.80											105	135	16	0.6	30			
410	42.60	43.40			0.80											122	335	8	1.1	55			
411	52.30	53.00			0.70											50	83	14	0.4	10			

CORPORATION FALCONBRIDGE COPPER

DRILL HOLE RECORD

METRIC UNITS
IMPERIAL UNITS

HOLE NUMBER AR #5	GRID Mt. Armour	FIELD COORDS	LAT. 7+37S	DEP. 0+88W	ELEV.	COLLAR BRNG. 120 ⁰	COLLAR DIP -50 ⁰	HOLE SIZE NQ	FINAL DEPTH 93.88
PROJECT 218	CLAIM # FC	SURVEY COORDS				DATE STARTED: Nov. 14/86 DATE COMPLETED: Nov 15/86	CONTRACTOR: J.T. CORE STORAGE: CASING:		

PURPOSE To test an I.P. anomaly with Au soil geochem anomaly

RQD LOG COLLAR SURVEY PULSE EM SURVEY MULTISHOT SURVEY

ACID TESTS				TROPARI TESTS			MULTISHOT DATA		
DEPTH (m)	CORRECTED ANGLE	DEPTH ()	CORRECTED ANGLE	DEPTH ()	AZIMUTH	DIP	DEPTH ()	AZIMUTH	DIP
0 m	-50 ⁰								
45.1	-52 ⁰								
93.88	-52 ⁰								

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
0 to 19.61	CASING					
19.61 to 40.42	CHERT with ARGILLITE	Colour - lt. grey to black Grain size - aphanitic to very fine Massive grey Chert (60-70%) with finely laminated Argillite (30-40%) 39.60 - 40.42: a Chert Breccia with white angular chert frags 1-2cm diameter.	bedding at 23m: 40 32m: 45	Lots of Qtz veinlets in fractures From 34m: 20% qtz veins	Avg. 1-2% py diss. 31.00 - 31.30: Avg. 5% py around a qtz vein	Very badly broken up with faults at 20.76: (10cm clay gouge) 28.30m: (zone 50cm long, badly fractured)
40.42 to 53.13	ARGILLITE with SILTSTONE	Colour - dark grey to black Grain size - fine Dark grey Siltstone in finely laminated Argillite -Zones of Breccia with rounded frags of siltstone 1-3cm in an argillite matrix (slump breccia?)	bedding at 48m: 50	Argillite very graphitic on fractures.	Avg. 2-3% diss. py	-Graphitic Argillite mod. conductive -Fault with graphitic clay gouge at 46.80-47.09m 50.10-50.50m
53.13 to 60.91	CHERT	Colour - lt. grey Grain size - aphanitic Massive grey Chert with fine laminations gently folded with small (volc. tuff?) component. Sericite alteration. -Occasional Argillite bed with gently folded laminations.	bedding 55m: 55 60m: 70	-Weak sericite alteration pervasive (tr. volc. tuff?) -Occasional qtz vein.	Tr. py diss. (more py 1-2% diss. in Argillites)	
60.91 to 67.16	ARGILLITE	Colour - dark grey to black Grain size - very fine Finely laminated argillite with occasional 10cm bed of chert + siltstone	bedding 67m: 70	Occasional qtz vein +/- a green mica (fuschite?) 64.62 - 64.72 e.g.	1-2% diss. py	-Argillite weakly conductive -Fault zone with graphite gouge 66.76 - 67.16m
67.16 to 69.97	MUDSTONE or "CHERTY TUFF"	Colour - lt. green Grain size - aphanitic to very fine A cherty matrix with finely laminated sericite (tuff?)	bedding at 65	-Sericite on fractures -Occasional Qtz veinlets	Tr py	

<u>From To</u>	<u>Rock Type</u>	<u>Texture and Structure</u>	<u>Angle to Core Axis</u>	<u>Alteration</u>	<u>Sulphides</u>	<u>Remarks</u>
69.97 to 75.43	ARGILLITE	Colour - black Grain size - fine Finely laminated black argillite flooded by qtz-carb veins.	bedding at 72m: 55	Flooded by 0.5-3cm Qtz-carb veins: 69.97-73.07m: 60%, to 20% 73.07-75.43m	1-2% diss. py	-Argillite weakly conductive
75.43 to 76.94	"CHERTY TUFF" or MUDSTONE	Colour - lt. green Grain size - very fine A cherty matrix with finely laminated sericite (tuff) Also 1-2mm altered feldspar phenos (or alteration product?)	bedding at 70	Pervasive sericite alteration	1% diss. py	
76.94 to 79.00	CHERT	Colour - Lt. grey Grain size - aphanitic Finely laminated	bedding at 70	-some sericite on fractures -occasional qtz vein	Tr py	
79.00 to 83.63	"CHERTY TUFF" or MUDSTONE	Colour - lt. green Grain size - very fine Cherty matrix with pervasive sericite (mafic tuff?) very finely laminated -fine feldspar phenos of alteration throughout 0.5-1mm	bedding at 60	-Pervasive sericite -Occasional qtz vein	1-2% diss. py	
83.63 to 89.87	CHERT	Colour - lt. grey Grain size - aphanitic Massive - laminated Chert	88m: bedding at 50	Sericite on fractures	Tr py	-Rock is mod. fractured.
89.87 to 93.88 E.O.H.	ARGILLITE	Colour - black Grain size - fine Intensely fractured argillite with some chert mixed in END HOLE IN STRONG FAULT!!		-Sericite on some fractures while graphite on others.	Diss. py 3-5%	-Rock intensely fract. with Fault zone with graphitic gouge for 10cm at 91.30m -Argillite weakly conductive -Only 50% recovery for last 2m.

ASSAY SHEET

Sample Number	From (m)	To (m)	Estimate		Length (m)	% Cu	% Zn	% Pb	gm T Ag	gm T Au	% S ₁ O ₂	% T ₁ O ₂	% Na ₂ O	% MgO	% Fe	PPM Cu	PPM Zn	PPM Pb	PPM Ag	PPB Au			
			Cu	Zn																			
AR-501	30.90	31.22			0.32											68	355	205	0.8	5			
502	32.35	33.05			0.70											31	99	34	0.4	10			
503	36.05	37.05			1.00											10	38	16	0.3	5			
504	40.43	41.05			0.62											13	12	8	0.3	5			
505	49.20	50.20			1.00											49	80	36	0.9	5			
506	52.81	53.06			0.25											44	65	20	0.6	5			
507	54.67	55.12			0.45											14	45	8	0.3	5			
508	57.52	58.27			0.75											28	74	20	0.5	5			
509	61.28	61.70			0.42											54	85	21	0.5	5			
510	64.62	64.73			0.11											55	110	36	1.2	5			
511	67.20	68.00			0.80											82	150	14	0.7	5			
512	70.53	71.53			1.00											23	35	56	1.6	10			
513	74.60	75.20			0.60											50	174	49	1.0	30			
514	75.54	76.14			0.55											30	70	10	0.5	5			
515	80.67	81.67			1.00											37	54	12	0.7	20			
516	90.20	90.75			0.55											16	34	40	0.7	10			
517	93.28	93.88			0.60											55	67	24	0.9	5			