CRA EXPLORATION PTY. LIMITED

W.J. FISHER/RUNNING CREEK FARM-IN & JOINT VENTURE

MINERAL CLAIMS MCn's 2688, 2689, 2690 and 2691

FIFTH ANNUAL REPORT
For Period Ending 15 December, 1993.

OPEN FILE

Submitted By : D.C. PALMER

Accepted By : H.J. ROIKO

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Copies To
CRAE, Darwin
W.J. & E.E. Fisher Pty. Limited, Darwin
CRAE Research and Information Group, Canberra
N.T. Dept. of Mines and Energy

Map Reference: ROBINSON RIVER, SE53-04

Report No. 19500

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1. SUMMARY

During tenure year five, a vertical cored drillhole DD93RC35 was collared in the southwestern portion of Mineral Claim 2691 Running Creek No.1 in order to provide stratigraphic control of the Gold Creek Volcanics sequence in the vicinity of the Running Creek mine area.

Drillhole DD93RC35 attained a total depth of 105.00m and intersected a sequence of shallow dipping thin clastic sedimentary units interstratified with trachytic/trachy-basaltic flows and sills of the Gold Creek Volcanics.

The following elevated assay results were returned:

- 2.00m @ 0.13% Cu from 37.00m in chalcopyrite-veined trachy-basalt;
- 6.00m @ 517ppm Co from 72.00m, with 2m @ 0.34% Cu from 76.00m in disseminated chalcopyrite-bearing trachy-basalt; and
- 1.50m @ 0.19% Cu from 78.80m in lithic agglomerate.

No field work was undertaken within MCn 2688 Running Creek No.2, MCn 2689 Felix and MCn 2690 Saltlick during tenure year five.

A renewal of the four Mineral Claims was lodged with the N.T.D.M.E. on 1 September, 1993.

2. CONCLUSIONS/RECOMMENDATIONS

Stratigraphic drillhole DD93RC35 encountered minor basemetal sulphides within shallow dipping units of the Gold Creek Volcanics. The volcano-sedimentary sequence encountered by drillhole DD93RC35 is considered to display significant potential to host stratabound disseminated cobalt-copper mineralisation given a suitable physio-chemical loci.

The following work programmes are recommended:

(i) Detailed geological mapping should be undertaken within areas peripheral to the non-contiguous mineral claims in order to provide a comprehensive surface geological map of the general locality.

(ii) A single 100m diamond-cored drillhole collared at 9750E 10000N, is required to ascertain the source of a moderate-to-weak IP anomaly identified within the northwestern portion of MCn 2691 Running Creek No.1. Additionally, this drillhole will provide information on the applicability and value of electrical ground geophysics to locate disseminated sulphide accumulations within the Gold Creek Volcanics stratigraphic succession.

(iii) Additional drilling of the Gold Creek Volcanics should be undertaken within the non-contiguous mineral claims in conjunction with diamond-core grid drilling of areas peripheral to the MC's in order to determine the presence of stratabound disseminated cobalt-copper mineralisation .

3. INTRODUCTION

MCn's 2688, 2689, 2690 and 2691 lie within Exploration Licence Application No. 8413 Running Creek, located within the southeast portion of the Proterozoic McArthur Basin, 60km NNW of Wollogorang Station near the N.T./Qld. border (Plan NTd 5094).

Mineral Claim No.s 2688 - 2691 (inclusive) were pegged by W.J. Fisher on 24 August 1988 and subsequently granted on 15 December, 1988 for a period of five years. The tenements cover a non-contiguous area of seventy-six hectares, protecting exposures of cupriferous trachyte-sediment units within the Proterozoic Gold Creek Volcanics.

Mr W.J. Fisher offered the tenements for Farm-Out to CRA Exploration Pty. Limited. A Farm-In and Joint Venture between the above partners was registered with the N.T. Department of Mines and Energy on 17 October 1990, against MCn's 2688 - 2691 (inclusive) and additional tenement areas under registration No. D5357. CRAE, as managers of the Running Creek Farm-In and Joint Venture, assumed responsibility for title maintenance.

Renewals for the four non-contiguous Mineral Claims were lodged with the N.T.D.M.E. on 1 September 1993.

This report details all activities undertaken by CRA Exploration Pty. Limited within Mineral Claim No.s 2688 - 2691 (inclusive) during the fifth year of tenure.

4. PREVIOUS EXPLORATION ACTIVITIES

During tenure year one, gridding, geological mapping, rock-chip sampling and shallow auger sampling was completed over MCn's 2688, 2689, 2690 and 2691 by W. J. & E. E. Fisher Pty Limited. The investigations indicated the presence of cupriferous outcrops of trachyte and sandstone which were interpreted as surface expressions of 'Redbank-style' breccia pipes. A total of 36 shallow (<2m) auger holes were drilled to a cumulative 44 metres with resultant variably elevated copper assays to a maximum of 1.1% (average 300-2000ppm Cu). Tenure year one activities are presented as a comprehensive summary in Appendix 1 of CRAE Report No. 17167 (Palmer, 1991).

In the second year of tenure for MCn's 2688-2691 (inclusive) W. J. Fisher offered the tenements for Farm-Out to CRA Exploration Pty. Limited. A Farm-In and Joint Venture between the above parties was registered with the N.T. Department of Mines and Energy on 17 October, 1990 against MCn's 2688-2691 (inclusive) and additional tenement areas under registration No. D5357.

Further to a review of a technical data set covering the MCn's, CRAE (as managers of the Farm-In/JV) undertook a reconnaissance percussion/diamond drilling programme within the MCn's and surrounding EL 5468 Running Creek . Nine drillholes were completed within the MCn's culminating in 284.1 metres of open hole percussion and 71.9 metres of NQ core drilling.

Drill intersected lithologies were confined to variably thick units of trachytic volcanics, agglomerate/breccia, interbedded claystone, siltstone and quartz arenite (variably sulphidic), basalt and trachy-basalt. A total of 179 samples were collected and assayed for a multi-element geochemical suite.

Weak-to-moderate copper mineralisation was encountered in drillholes at Running Creek Prospect (MCn's 2688 and 2691) including 42m at 0.40% and Saltlick Prospect (MCn 2690) including 20m at 1.02%.

6.3 line kilometres of total field ground magnetics traversing was completed over selected areas of the Mineral Claims. Details of year two activities are contained CRAE Report No. 17167 (Palmer, 1991).

The reconnaissance drilling completed within the Mineral Claims suggested potential for stratabound mineralisation at relatively shallow depths. In consequence, during tenure year three follow-up dipole-dipole array IP investigations were conducted across MCn's 2688, 2691 and 2690 in order to ascertain the nature and lateral extent of any primary subsurface sulphide accumulations. A total of four line kilometres of 100 metre spaced and 600 metres of 50 metre spaced dipole-dipole IP surveying was completed.

Traverses undertaken at Running Creek Prospect (MCn's 2688 and 2691) provided resistivity and chargeability pseudo-section patterns attributable to minor sulphides adjacent to the Running Creek Mine pit, at an interpreted fault contact beneath cover thickening to the north.

One 100 metre dipole traverse completed at Saltlick Prospect (MCn 2690) resulted in a pseudo-section pattern consistent with a layer of low resistivity/low chargeability material at or near surface.

Tenure year three activities are detailed in CRAE Report No. 17879 (Palmer, 1992).

No field work specific to the Mineral Claims was undertaken during tenure year four with the exception of rehabilitation monitoring of harrowed drill pads and access tracks. Exploration targeted on adjacent prospects within enclosing EL 5468 during 1992 produced encouraging copper and cobalt values in soil samples and ensuing drill intercepts.

Further work on the mineral claims was put on hold until the nature and controls of the proximal mineralisation could be established so as to provide a new focus for exploration.

5. EXPLORATION ACTIVITIES - TENURE FIVE

5.1.1 Introduction

Field work during the fifth year of Mineral Claim tenure was restricted and delayed by heavy Wet Season and late unseasonal rains prohibiting access to vast areas of the Gulf Region. In late-1993, drill-testing of targets peripheral to the MC's confirmed the presence of potentially significant stratabound cobalt (nickel-copper) mineralised horizons within the Gold Creek Volcanics.

5.1.2 MCn 2691 Running Creek No.1

A vertical cored drillhole DD93RC35 was collared at 9650E, 9721N in the southwestern portion of the Mineral Claim in order to provide stratigraphic control of the Gold Creek Volcanics sequence in the vicinity of the Running Creek mine area (Plan NTd 5077). The drillhole attained a total depth of 105.00m and intersected a sequence of shallow dipping thin clastic sedimentary units interstratified with trachytic/trachy-basaltic flows and sills of the Gold Creek Volcanics.

Disseminated pyrite (0.5 - 1% av.) was recorded from claystone horizons/clasts over the intervals 18.40m - 20.26m, 59.30m - 61.30m and 80.30m - 82.20m. Fracture hosted

chalcopyrite (0.5 - 1%) was reported in trachyte over the 33.00m - 45.00m interval. Disseminated chalcopyrite was evident within calcareous arenite over the intervals 54.50m - 59.30m, 77.00m - 80.30m in trachyte and 80.30m - 86.20m within an arenite/hyaloclastitic agglomerate unit.
A total of 59 split NQ drillcore samples were submitted to Amdel Laboratories, Darwin, for assay by the AAS technique for Ag, As, Co, Cu, Cr, Fe, Mn, Ni, Pb and Zn and by FIRE/AAS technique for low level Au, Pt and Pd determinations.

The following elevated assay results were returned:

- 2.00m @ 0.13% Cu from 37.00m in chalcopyrite-veined trachy-basalt;
- 6.00m @ 517ppm Co from 72.00m, with 2m @ 0.34% Cu from 76.00m in disseminated chalcopyrite-bearing trachy-basalt; and
- 1.50m @ 0.19% Cu from 78.80m in lithic agglomerate.

No significant precious metal assays were reported.

Detailed geological drill logs and assay results appear in Appendix I.

Reassessment of the 100m dipole-dipole IP data collected within MCn 2691 Running Creek No. 1 show constrasting chargeability features of low to moderate magnitude that warrant further investigation. The chargeability pseudosection for line 9750E shows a weak "pants-leg" type anomaly centred at 10000N that to date remains in part untested (Plan NTd 5235).

Minor clearing of vegetation and surface disturbance was conducted to provide vehicular and drill-rig access to the proposed drillsite . Upon completion of the drilling programme all drill-sampling equipment and materials were removed from the site, the drillhole capped and the drillsite rehabilitated by scarifying to promote vegetation regrowth.

5.1.3 MCn 2688 Running Creek No.2
MCn 2689 Felix
MCn 2690 Saltlick

No field work was undertaken within MCn 2688 Running Creek No.2, MCn 2689 Felix and MCn 2690 Saltlick during tenure year five.

6. EXPENDITURE

Grouped expenditure by CRA Exploration Pty. Limited on the four tenements to 31 December, 1993 (nearest accounting period) totalled $40,217

Drilling	$12,000
Payroll	$ 6,289
Contractors	$ 3,970
Laboratory	$ 1,329
Field and Transport	$ 2,253
District Administration	$10,724
Regional Overheads	$ 2,792
Tenement	$ 860
TOTAL	**$40,217**

7. KEYWORDS

Cobalt; Copper; Diamond Drilling; Drill-Assays; Farm-in; IP Survey; Gold Creek Volcanics; Proterozoic-Mid; Stratabound; McArthur Basin; Tawallah Group

8. LOCATION

Robinson River	SE53-04	1:250 000 mapsheet
Selby 6464		1:100 000 mapsheet

9. REFERENCES

Palmer, D.C. (1991) — W.J. Fisher/Running Creek Farm-In and Joint Venture. MCn's 2688, 2689, 2690 and 2691. Second Annual Report for Period Ending 15 December, 1990. (CRAE Report #17167)

Palmer, D.C. (1992) — W.J. Fisher/Running Creek Farm-In and Joint Venture. MCn's 2688, 2689, 2690 and 2691. Third Annual Report for Period Ending 15 December, 1991. (CRAE Report #17879)

10. LIST OF PLANS

Plan No.	Title	Scale
NTd 5094	Running Creek Farm-In & J/V MCn's 2688, 2689, 2690 and 2691 Location Plan	1:100 000
NTd 5077	Running Creek Farm-In & J/V MCn 2688 and MCn 2691 Running Creek Mine Area Geology and Drillhole Location Plan.	1:100 000
NTd 5235	Running Creek Farm-In & J/V Induced Polarisation Survey Line 9750E	1:10,000

APPENDIX I

RUNNING CREEK MCn 2691

DD93RC35 Drillhole Logs and Assay Results

CRA EXPLORATION PTY LIMITED

DRILL HOLE LOG **DD93RC35** ***PROJECT*** **MCN 2691 RUNNING CREEK**

CO-ORDINATES 9650E 9725N 795252E 8148497N DRILLERS THOMPSON DRILLING COMMENCED 19/10/93 TOTAL DEPTH 150M DPO NOS 71145,71148

RL COLLAR INCLINATION -90° DRILL TYPE W80 COMPLETED 22/10/93 CASING LEFT STEEL TO

Depth (m) From	Depth (m) To	Hole Size	Log	Geology	Sample Number	Depth (m) From	Depth (m) To	
0	4.75	NQ		Quartz-cemented lithic quartz ARENITE. White to speckled red brown, medium grained, well sorted quartz cemented lithic quartz arenite. Rounded quartz grains, lesser lithic ? volcanic fragments, rare mud clasts. Weathered silicified with variably oxidised pore space fillings (?ex-sulphide), minor iron oxide defining trough and planar cross stratification. Unit coarsens upwards, gradational lower contact. Bedding 75° LCA (av.). Core loss 0-0.40m.	3747482 3747483	0.40 2.50	2.50 4.75	
4.75	18.40			Red brown laminated SILTSTONE with minor ARENITE and CLAYSTONE. Orange brown to red brown interbedded sequence of laminated siltstone and fine grained micaceous quartz arenite and silty arenite. Unit weathered and bleached throughout with unit displaying yellow-brown discolouration to approx. 11m, thereafter predominantly bedded red brown siltstone with thin white grey brown fine grained arenaceous bands displaying flaser, and trough cross lamination. Numerous sand dykes, load casts and erosional scouring displayed throughout unit. Minor limonite replaced laminations and rare limonitic replacement of fine ? sulphide in upper bleached zone. Rare thin limonite veinlets. Minor slump brecciation 17.40m-18.40m. Bedding 70-75°LCA.	3747484 3747485 3747486 3747487 3747488 3747489 3747490	4.75 6.00 8.00 10.00 12.00 14.00 16.00	6.00 8.00 10.00 12.00 14.00 16.00 18.40	
18.40	20.26			Grey CLAYSTONE with minor ARENITE (Weakly Sulphidic) Grey claystone with fine grained lithic arenite bands. Unit interbedded to weakly brecciated with common sand dykes, minor erosional scours and micro-faulting. Trace to 1% very fine disseminated pyrite sporadically distributed over interval. Basal graded bedded arenaceous lag 20.05-20.26m with erosional contact.	3747491	18.40	20.26	
20.26	24.10			Amygdaloidal TRACHYBASALT Orange to red brown, amygdaloidal and porphyritic, flow banded to brecciated trachybasalt with hyaloclastic basal contact. Upper and lower K-metasomatosed margins. Vesicules vary 1-8mm in diameter filled by celadonite, quartz and calcite, with trace chalcopyrite in vesicules at upper and lower altered contacts. Minor quartz filled irregular vesicules 23.3m-23.4m. Lower irregular contact 25°LCA	3747492 3747493	20.26 22.10	22.10 24.10	
24.10	25.40			Lithic Agglomerate with lithic quartz ARENITE/CHLORITIC MUD MATRIX. Multicoloured, poorly sorted lithic agglomerate with fine grained lithic quartz arenite bands. Agglomerate comprises irregular to angular fragments of vesicular trachyte and claystone, ranging from 1cm to 8cm, set in a matrix of either well sorted quartz cemented lithic arenite with minor green chloritic mud, or matrix dominated by green chloritic mud with subordinate quartz granules and fine lithic fragments. Trace euhedral coarse aggregates and fine disseminated chalcopyrite. Upper and lower irregular ? erosional contacts. Lower contact 30° LCA.	3747494	24.10	25.40	

SUMMARY

LOGGED BY DCP DATE 23/20/93

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CRA EXPLORATION PTY LIMITED

DRILL HOLE LOG DD93RC35 *PROJECT* MCN 2691 RUNNING CREEK

Depth (m) From	Depth (m) To	Hole Size	Log	Geology	Sample Number	Depth (m) From	Depth (m) To	
25.40	54.50	NQ		Potassic altered TRACHYBASALT with chloritic-mud/chalcopyrite/quartz filled fractures.	3747495	25.40	27.00	
				Salmon pink orange to brown, fine crystalline to porphyritic variably potassic altered basalt/trachybasalt	3747496	27.00	29.00	
				with chlorite altered feldspar porphyroblasts. Variously fractured and veined. Vein and fracture matrix	3747497	29.00	31.00	
				comprising green to dark grey green/black chloritic mud, minor quartz and trace coarse chalcopyrite, rare	3747498	31.00	33.00	
				fine angular trachyte and mud clasts.	3747499	33.00	35.00	
				25.40m-33.00m. Upper portion of unit, weakly vesicular with 'stockwork' quartz ± chloritic mud filled	3747500	35.00	37.00	
				fractures.	3747501	37.00	39.00	
				33.00m-45.00m. Central portion of unit, variably altered. Chloritic mud and coarse chalcopyrite	3747502	39.00	41.00	
				aggregate filled fractures (e..g. 36.95m, 38.00m, 39.20m, 40.80m, 41.70m) av.. chalcopyrite 0.5%.	3747503	41.00	43.00	
				45.00m-54.50m. Lower strongly potassic altered portion of unit, characterised by abundant flow base	3747504	43.00	45.00	
				brecciation, open cavity voids, volume loss, angular clasts with negligible matrix. Trace pyrite, very rare	3747505	45.00	47.00	
				chalcopyrite. Broken fractured core 51.00m-53.00m.	3747506	47.00	49.00	
				53.00m-54.50m. Strongly bleached, vuggy potassic altered, brecciated flow base. Minor cavity infill with	3747507	49.00	51.00	
				chloritic mud, euhedral quartz.	3747508	51.00	53.00	
				Irregular/hyaloclastic contact.	3747509	53.00	54.50	
54.50	59.30			Dolomite altered quartz lithic ARENITE.				
				Red brown to white, carbonate (dolomite) altered medium to coarse grained lithic quartz arenite with				
				disseminated chalcopyrite. Unit characterised by massive bedded medium grained, moderately sorted	3747510	54.50	55.30	
				arenite comprising sub angular to rounded trachytic fragments, sub rounded quartz grains and irregular	3747511	55.30	56.30	
				mud clasts within a sparry dolomite altered mudstone/clay matrix. Red/brown hematitic staining of	3747512	56.30	57.30	
				cement and quartz clasts. Fine to coarse (up to 3mm) chalcopyrite disseminations associated with sparry	3747513	57.30	58.30	
				dolomite. Av 1%.	3747514	58.30	59.30	
				Numerous erosional scours. Variable bedding 55-80° LCA.				
				Upper portion of unit 54.50m-55.30m, containing common irregular grey-brown mud clasts within a				
				medium grained arenite unit with green chloritic mud matrix.				
				(Debris flow ?). Bedding 90° LCA.				
				Lower gradational contact.				
59.30	61.30			Interlaminated to weakly brecciated sulphidic CLAYSTONE and dolomite altered quartz lithic ARENITE.				
				Interlaminated to slump brecciated, green sulphidic claystone and fine grained red brown dolomite altered				
				quartz lithic arenite (as per 54.50m-59.30m) with hematitic cement. Unit contains very fine ubiquitous	3747515	59.30	60.30	
				disseminated pyrite with sporadic bands of up to 5cm containing 8%. Sulphide overall <2%. Sulphide	3747516	60.30	61.30	
				appears within both claystone and arenite although appears more prevalent within claystone clasts and				
				slickensided claystone bands. Possible remobilised sulphide veinlets and sulphide defining laminae at				
				60.30m. Minor calcite/hematite veinlets 60.8m-61.20m.				
				Bedding 60-75° LCA.				

SUMMARY

LOGGED BY DCP DATE 23/10/93

SHEET 2 OF 3

CRA EXPLORATION PTY LIMITED

DRILL HOLE LOG **DD93RC35** ***PROJECT*** **MCN 2691 RUNNING CREEK**

Depth (m) From	Depth (m) To	Hole Size	Log	Geology	Sample Number	Depth (m) From	Depth (m) To	
61.30	80.30			BASALT/TRACHY-BASALT with disseminated and fracture filled sulphide. Salmon pink/orange to grey brown, variably potassic altered trachyte/trachy-basalt unit as per 25.40m-54.50m. Broken and fractured core between 72.90m-77m. 61.30m-64.60m. Upper vesicular flow top with potassic alteration to approx. 64.60m. Common celadonite/chlorite/calcite lined amygdules. 64.60m-78.80m. Central, grey, massive to brecciated portion of flow with common chloritic mud/pyrite lined fracture network and chlorite altered, bleached groundmass. Fine disseminated chalcopyrite present from 77.00m-78.80m av. 2%. 78.80m-80.30m. Potassic altered hyaloclastic brecciated base with common pyrite/chalcopyrite quartz/chlorite veining and matrix infill. Trace to 1% disseminated fine chalcopyrite. Lower contact brecciated.	3747517 3747518 3747519 3747520 3747521 3747522 3747523 3747524 3747525 3747526 3747527	61.30 62.60 64.60 66.00 68.00 70.00 72.00 74.00 76.00 78.00 78.80	62.60 64.60 66.00 68.00 70.00 72.00 74.00 76.00 78.00 78.80 80.30	
80.30	82.20			Lithic ARENITE/AGGLOMERATE (Sulphidic). Poorly sorted to massive bedded and flow imbricate, red brown, fine to medium grained lithic arenite/agglomerate. Unit comprising fine to medium grained lithic quartz arenite, with variable chloritic mud and hematite matrix. Frequent imbricate irregular mud clasts and angular vesicular trachyte clasts forming locally conglomeratic/agglomerate bands. Numerous erosional scours. Trace to 1% disseminated chalcopyrite within arenite bands and arenaceous matrix of agglomerate. Very fine disseminated pyrite within mud flakes/clasts. Bedding 75° LCA. Erosional lower contact.	3747528	80.30	82.20	
82.20	86.20			TRACHYTIC-TRACHYANDESITE AGGLOMERATE with chloritic mud matrix. Clast and matrix supported trachyte-trachyandesite hyaloclastic agglomerate. Pink to grey brown vesicular to massive trachyandesite irregular to angular clasts up to 50cm, with trace to 2% disseminated chalcopyrite in crystalline groundmass and vesicule infill. Matrix comprising grey green chloritic mud with negligible sulphide. Basal 20cm containing hematite and calcite within silty matrix.	3747529 3747530 3747531 3747532 3747533 3747534	82.20 84.20 86.20 88.00 90.00 92.00	84.20 86.20 88.00 90.00 92.00 94.00	
86.20	102.00			Calcite-veined TRACHYANDESITE. Grey green to brown, calcite-veined, vesicular and flow banded to massive, fine crystalline to aphanitic trachyandesite. Upper hyaloclastic flow top (82.20-86.20) with vesicular textures to 90m. Chlorite altered ground mass. Localised hematite altered chlorite/calcite-veined bands 89.50m, 94m-94.50m, 96.70-96.90m, 97.70m-97.85m, 100.20m-100.50m,104-105m. Common in-veined brecciation and rare pyrite.	3747535 3747536 3747537 3747538 3747539 3747540	94.00 96.00 98.00 100.00 102.00 104.00	96.00 98.00 100.00 102.00 104.00 105.00	
				TD 105m				

SUMMARY _____ LOGGED BY DCP DATE 23/10/93

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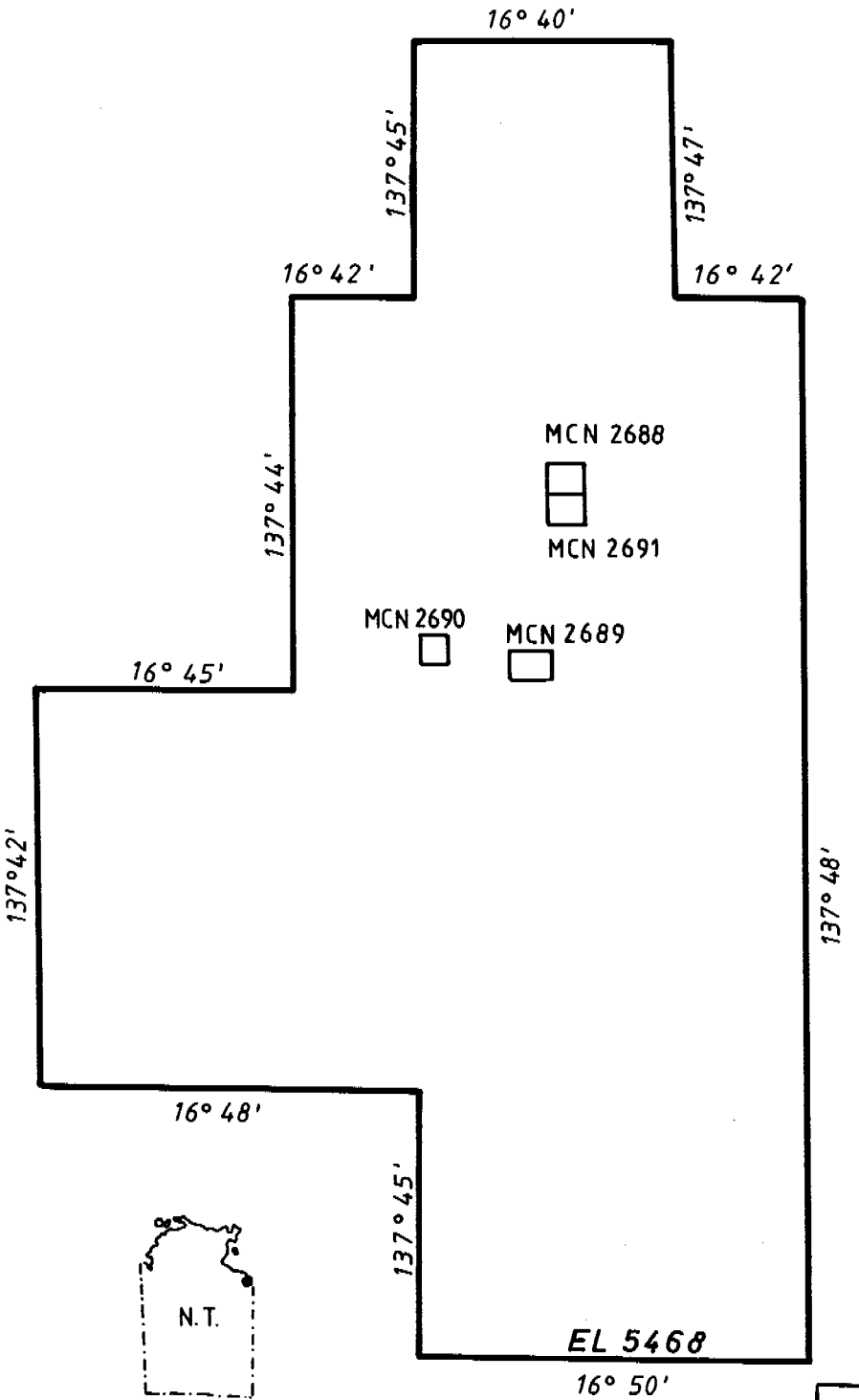
TENEMENT : MCn 2691 Running Creek No.2
DRILLHOLE: DD93RC35 Geochemistry Dat DPO: 71145, 71148

SAMPNO	FROM (m)	TO (m)	Ag ppm	As ppm	Au ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe ppm	Mn ppm	Ni ppm	Pb ppm	Pd ppb	Pt ppb	Zn ppm
3747482	0.4	2.5	0.5	25	0.005	0.5	4	115	145	10400	32	2	2	0.5	2.5	2
3747483	2.5	4.75	0.5	25	0.005	0.5	18	12	250	17500	96	7	2	0.5	2.5	4
3747484	4.75	6	0.5	25	0.005	0.5	145	21	1990	30400	68	78	2	7	2.5	135
3747485	6	8	0.5	25	0.005	0.5	510	18	1090	21400	33	135	2	2	2.5	13
3747486	8	10	0.5	25	0.005	0.5	800	18	115	27800	68	88	2	2	2.5	10
3747487	10	12	0.5	25	0.005	0.5	620	30	24	30600	28	53	2	3	2.5	11
3747488	12	14	0.5	25	0.005	0.5	340	30	8	26800	26	26	2	3	2.5	10
3747489	14	16	0.5	25	0.005	0.5	230	30	1	29800	50	19	2	1	2.5	12
3747490	16	18.4	0.5	25	0.005	0.5	210	32	145	32200	300	20	2	2	2.5	15
3747491	18.4	20.26	0.5	25	0.005	0.5	96	31	120	41800	530	16	7	1	2.5	26
3747492	20.26	22.1	0.5	25	0.005	0.5	49	20	135	18400	30	10	2	0.5	2.5	48
3747493	22.1	24.1	0.5	70	0.005	0.5	130	25	30	36800	36	32	12	0.5	2.5	26
3747494	24.1	25.4	0.5	50	0.005	0.5	110	66	75	50000	32	46	2	0.5	2.5	31
3747495	25.4	27	0.5	25	0.005	0.5	59	26	15	28400	27	20	11	0.5	2.5	26
3747496	27	29	0.5	50	0.005	0.5	57	25	12	42800	25	22	18	0.5	2.5	23
3747497	29	31	0.5	25	0.005	0.5	83	30	14	17900	15	21	21	0.5	2.5	11
3747498	31	33	0.5	25	0.005	0.5	120	26	350	19200	2	32	30	0.5	2.5	32
3747499	33	35	0.5	25	0.005	0.5	105	23	195	23800	2	27	22	0.5	2.5	18
3747500	35	37	0.5	25	0.005	0.5	110	14	420	38000	7	27	9	0.5	2.5	32
3747501	37	39	0.5	25	0.005	0.5	65	17	1290	36400	14	20	7	0.5	2.5	27
3747502	39	41	0.5	25	0.005	0.5	135	18	250	49800	45	37	8	0.5	2.5	51
3747503	41	43	0.5	25	0.005	0.5	70	18	230	37800	8	33	7	0.5	2.5	34
3747504	43	45	0.5	25	0.005	0.5	59	20	9	28600	25	31	6	0.5	2.5	36
3747505	45	47	0.5	25	0.005	0.5	45	15	2	17000	5	15	5	0.5	2.5	10
3747511	55.3	56.3	0.5	25	0.005	1	29	7	150	22400	4040	7	14	0.5	2.5	9
3747512	56.3	57.3	0.5	25	0.005	1	21	2	420	28400	5400	6	20	0.5	2.5	19
3747513	57.3	58.3	0.5	25	0.005	1	17	2	78	23200	4850	7	26	0.5	2.5	13
3747514	58.3	59.3	0.5	25	0.005	1	22	10	100	18000	3500	9	28	0.5	2.5	17
3747515	59.3	60.3	0.5	80	0.005	0.5	51	16	11	27800	1840	14	30	2	2.5	39
METHOD			AAS	AAS	FIRE/AAS	AAS	AAS	AAS	AAS	AAS	AAS	AAS	AAS	FIRE/AAS	FIRE/AAS	AAS
DET. LIMIT			1 ppm	50 ppm	10 ppb	1 ppm	4 ppm	4 ppm	2 ppm	5 ppm	4 ppm	4 ppm	4 ppm	1 ppb	5 ppb	2ppm

CRA EXPLORATION PTY. LIMITED

TENEMENT : MCn 2691 Running Creek No.2
DRILLHOLE: DD93RC35 Geochemistry Dat DPO: 71145, 71148

SAMPNO	FROM (m)	TO (m)	Ag ppm	As ppm	Au ppm	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe ppm	Mn ppm	Ni ppm	Pb ppm	Pd ppb	Pt ppb	Zn ppm
3747511	55.3	56.3	0.5	25	0.005	1	29	7	150	22400	4040	7	14	0.5	2.5	9
3747512	56.3	57.3	0.5	25	0.005	1	21	2	420	28400	5400	6	20	0.5	2.5	19
3747513	57.3	58.3	0.5	25	0.005	1	17	2	78	23200	4850	7	26	0.5	2.5	13
3747514	58.3	59.3	0.5	25	0.005	1	22	10	100	18000	3500	9	28	0.5	2.5	17
3747515	59.3	60.3	0.5	80	0.005	0.5	51	16	11	27800	1840	14	30	2	2.5	39
3747516	60.3	61.3	0.5	60	0.005	0.5	64	19	2	36400	2300	23	6	2	2.5	17
3747517	61.3	62.6	0.5	25	0.005	0.5	54	10	7	19400	155	19	7	0.5	2.5	21
3747518	62.6	64.6	0.5	25	0.005	0.5	47	4	85	21200	38	14	5	0.5	2.5	17
3747519	64.6	66	0.5	25	0.005	0.5	71	2	165	69600	61	25	10	0.5	2.5	60
3747520	66	68	0.5	25	0.005	0.5	195	2	12	76200	67	39	15	0.5	2.5	63
3747521	68	70	0.5	25	0.005	0.5	270	2	18	67400	77	24	115	0.5	2.5	470
3747522	70	72	0.5	25	0.005	0.5	310	2	15	67800	70	26	53	0.5	2.5	105
3747523	72	74	0.5	25	0.005	0.5	550	2	10	66600	73	26	15	0.5	2.5	55
3747524	74	76	0.5	25	0.005	0.5	500	2	7	76000	130	39	77	0.5	2.5	64
3747525	76	78	0.5	25	0.005	0.5	500	2	3350	76600	350	26	60	1	2.5	270
3747526	78	78.8	0.5	25	0.005	0.5	130	2	91	74400	115	27	14	23	2.5	51
3747527	78.8	80.3	0.5	25	0.005	0.5	145	4	1910	44400	175	37	20	3	2.5	63
3747528	80.3	82.2	0.5	25	0.005	0.5	100	26	440	37600	37	27	2	5	2.5	66
3747529	82.2	84.2	0.5	25	0.005	0.5	105	17	660	56600	110	22	11	0.5	2.5	34
3747530	84.2	86.2	0.5	25	0.005	0.5	250	7	330	74400	250	18	14	0.5	2.5	45
3747531	86.2	88	0.5	25	0.005	0.5	83	4	10	104000	195	23	19	1	2.5	71
3747532	88	90	0.5	25	0.005	1	69	2	10	97000	1720	14	19	0.5	2.5	49
3747533	90	92	0.5	90	0.005	0.5	230	4	8	93000	125	82	30	0.5	2.5	63
3747534	92	94	0.5	25	0.005	0.5	54	2	5	86200	380	18	19	0.5	2.5	50
3747535	94	96	0.5	25	0.005	0.5	39	5	15	66200	1490	16	13	0.5	2.5	35
3747536	96	98	0.5	25	0.005	0.5	49	4	18	75400	1540	14	16	0.5	2.5	38
3747537	98	100	0.5	25	0.005	0.5	49	2	7	91200	1050	14	16	0.5	2.5	44
3747538	100	102	0.5	25	0.005	0.5	44	2	4	78600	850	15	14	0.5	2.5	78
3747539	102	104	0.5	25	0.005	0.5	53	4	3	81600	590	16	16	0.5	2.5	87
3747540	104	105	0.5	25	0.005	0.5	21	2	9	51800	2750	9	13	0.5	2.5	26
METHOD			AAS	AAS	FIRE/AAS	AAS	AAS	AAS	AAS	AAS	AAS	AAS	AAS	FIRE/AAS	FIRE/AAS	AAS
DET. LIMIT			1 ppm	50 ppm	10 ppb	1 ppm	4 ppm	4 ppm	2 ppm	5 ppm	4 ppm	4 ppm	4 ppm	1 ppb	5 ppb	2ppm



CRA EXPLORATION PTY. LTD.

RUNNING CREEK FARM-IN & JOINT VENTURE

NTd 5094

REPORT No. *19500*

9500 E 9550 E 9600 E 9650 E 9700 E 9750 E 9800 E 9850 E 9900 E 9950 E 10,000 E

Corner Post — M.C. Boundary — Corner Post — 10400 N

10350 N — 10300 N — 10250 N — 10200 N — 10150 N — 10100 N — 10050 N — 10000 N — 9950 N — 9900 N — 9850 N — 9800 N — 9750 N — 9700 N — 9650 N — 9600 N

M.C. Boundary

Trachyte float

sand and laterite gravel

low sst outcrop

low outcrop of pale yellow brown trachyte

H22 09878 0·9m 250 ppm Cu

Ferr. sst

Breccia in sst

Hole abandoned

low sst outcrop

hematitic float

brown sst

H15 09871 1·5m 46ppm Cu

Ferr. volcanic?

Hematic and amygdaloidal volcanic float

scattered low sst outcrops

low sst outcrops

sst

laterite

low sst outcrop

H16 09872 1·1m 240ppm Cu

quartzitic sst

minor brecciation

BILLY

laterite outrop

H17 09873 1·7m 1460ppm Cu

BILLY brecciated s/s

low kaolinised pale brown trachyte outcrop

PD90RC4

Cu

Trachyte float

laterite

scattered float boulders of ferr. breccia

float boulder of ferr. volcanic malachite in ferr. breccia

Several holes drilled - laterite each time very hard.

small float boulder of ferr. sst

ferr. breccia

poorly outcropping ferr. trachyte mostly brecciated

laterite

H18 09874 1·1m 750ppm Cu

H19 09875 1·5m 960ppm Cu

H21 09877 1·1m 485ppm Cu

Cu in sst

Hole abandoned

minor brecciation

PD90RC3

Cu

H20 09876 1·5m 395ppm Cu

very red sand

Hole abandoned 0·150m in s/s

trachyte float

PD90RC17

breccia

Cu

H23 09879 1·1m 300ppm Cu

trachyte float

sst float

H24 09880 1·1m 1300ppm Cu

sst float

shallow pit in laterite

old grid peg

DD90RC2

Cu in trachyte breccia

water trailer

Open Cut

DD90RC1

Ore Dump

H14 09870 1·1m 400ppm Cu

banded malachite in sst

Access Track

Corner Post

laterite

H13 14950 1·0m 660ppm Cu

Three holes abandoned in s/s

2688

2691

H12 14949 3·3m 375ppm Cu

shallow hole abandoned

brecciation in brown sst

low rubbly sst outcrop

old grid peg

low ferr. sst outcrop

quartzitic sst float

Gold ck volcanics

H25 09881 1·5m 125ppm Cu

H26 09882 1·1m (laterite) 290 ppm Cu

rubbly sst outcrop

H10 14947 1·2m 710 ppm Cu

H9 14946 1·2m 1180ppm Cu

H11 14948 1·3m 930ppm Cu

H8 14945 0·6m 180ppm Cu

H7 14944 0·7m 520ppm Cu

H6 14943 0·7m 270ppm Cu

breccia in sst

radioactive small pit

low rubbly outcrop of siliceous brecciated sst

trachyte and trachyte breccia under scree?

trachyte - sst breccia with Cu

sst breccia

old grid peg

Brecciated

breccia with Cu

Pit in Cu

Cu in sst

PD90RC5

DD93RC35

H2 19200 1·5m 1620ppm 14916 3000ppm Cu 1·5 - 2·0m 14917 2·0 - 2·5m 4000ppm

abandoned in s/stone

H33 09889 0·9m 1240ppm Cu

H34 09890 0·85m 125ppm Cu

Cu in breccia 14918 H3 1·0m 970ppm Cu 14919 1·0 - 1·5m 1500ppm Cu

19199 11/7/89 1480ppm Cu

H1 14915 1·0m 275ppm Cu

abandoned

sand

laterite

quartzitic sst

Corner Post

sand

laterite

laterite

M.C. Boundary

Corner Post

LEGEND

- Trachyte
- Trachyte breccia
- Sandstone
- Sandstone breccia
- Cu — Occurrence of secondary copper mineralisation, usually malachite, minor azurite and crysocolla, possibly turquoise.
- 20 — Strike and dip of strata
- \+ — 50m x 50m grid peg
- ⊙ — Drillhole location (all -90°) AMG Coordinates:-

DD90RC1 8148800mN 795350mE
DD90RC2 8148814mN 795337mE
PD90RC3 8148897mN 795187mE
PD90RC4 8148935mN 795400mE
PD90RC5 8148490mN 795275mE
PD90RC17 8148839mN 795262mE
DD93RC35 8148480mN 795225mE

NOTE: Additional information by W.J.F. Dec. 1989

20 0 20 40 60 80 METRES

W.J. FISHER

RUNNING CREEK FARM-IN AND J/V

MCn 2688 RUNNING CREEK No. 2
MCn 2691 RUNNING CREEK No. 1

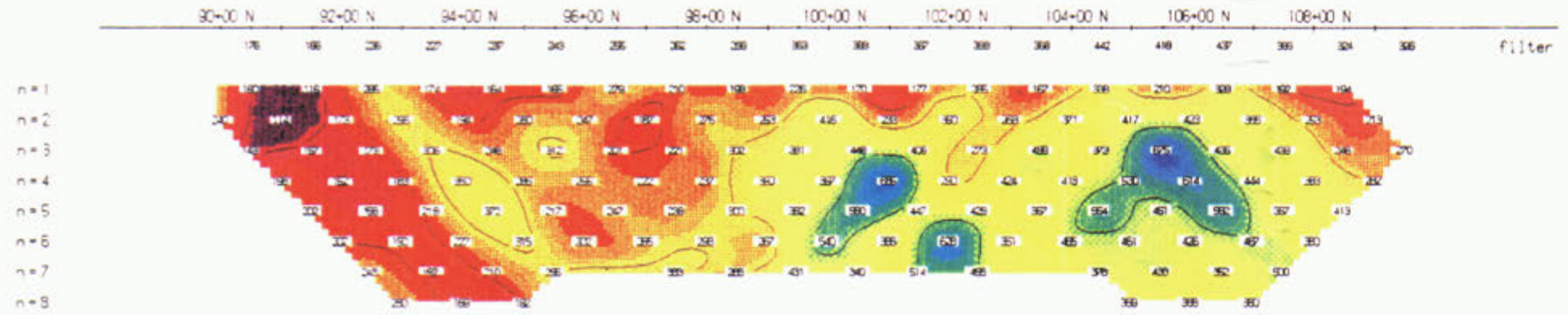
GEOLOGY & DRILLHOLE LOCATION PLAN

Compiled: G.W.P.	Scale: 1:1000	Date: Aug. '88
Drawn: L.C.	Map: Selby 6464	Plan No: NTd 5077

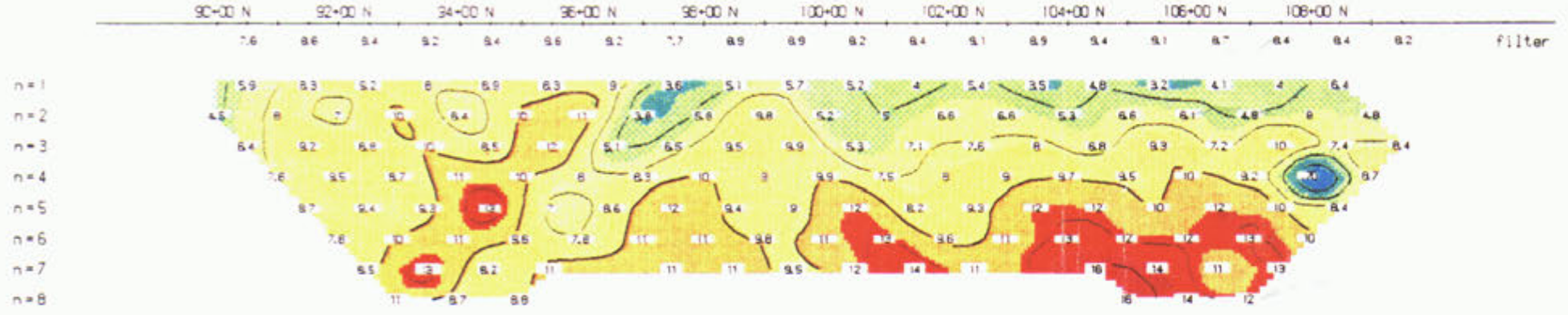
Amended by D.C. PALMER (CRAE) November 1990
January 1994

REPORT No. 19500

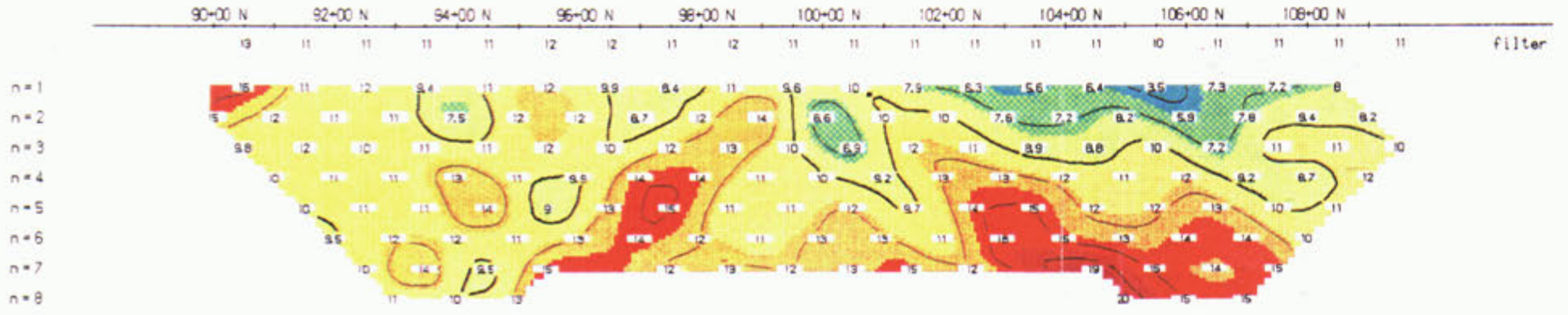
CR 94/159



RESISTIVITY
(ohm-m)



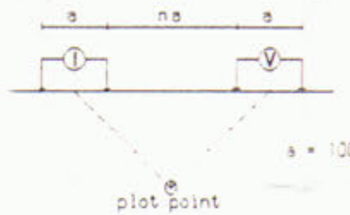
1/8 HERTZ PHASE
(mrad)



3-PT DC PHASE
(mrad)

Line 9750E

Dipole-Dipole Array



Logarithmic Contours 1, 1.5, 2, 3, 5, 7.5, 10,...

Scale 1:10000

100 0 100 200 300 400
(metres)

CRA Exploration

Running Creek, NT
Induced Polarization Survey

Date: 91/08/14

By Zonge Engineering

JOB 069 NTd 5235

CR94/159