ERL 96

ANNUAL REPORT

TO 18th September 1992

Pine Creek Sheet SD 52.08 Burnside 14/2-II

Licence Holder: Northern Gold NL

Compiled for
Northern Gold NL
by Warren Cooper
September 1992

SUMMARY

Two surface anomalous zones, which appear to be a continuation of the mineralisation discovered in EL 6699, were defined by soil sampling in 1991. RAB drilling over the anomalous zones returned results up to 640 ppb Au with two significantly anomalous areas requiring follow-up explolartion. Further drilling of the two targets are recommended.

Expenditure for the year 1991 totalled $28,381.

CONTENTS

1 INTRODUCTION

1.1 Title

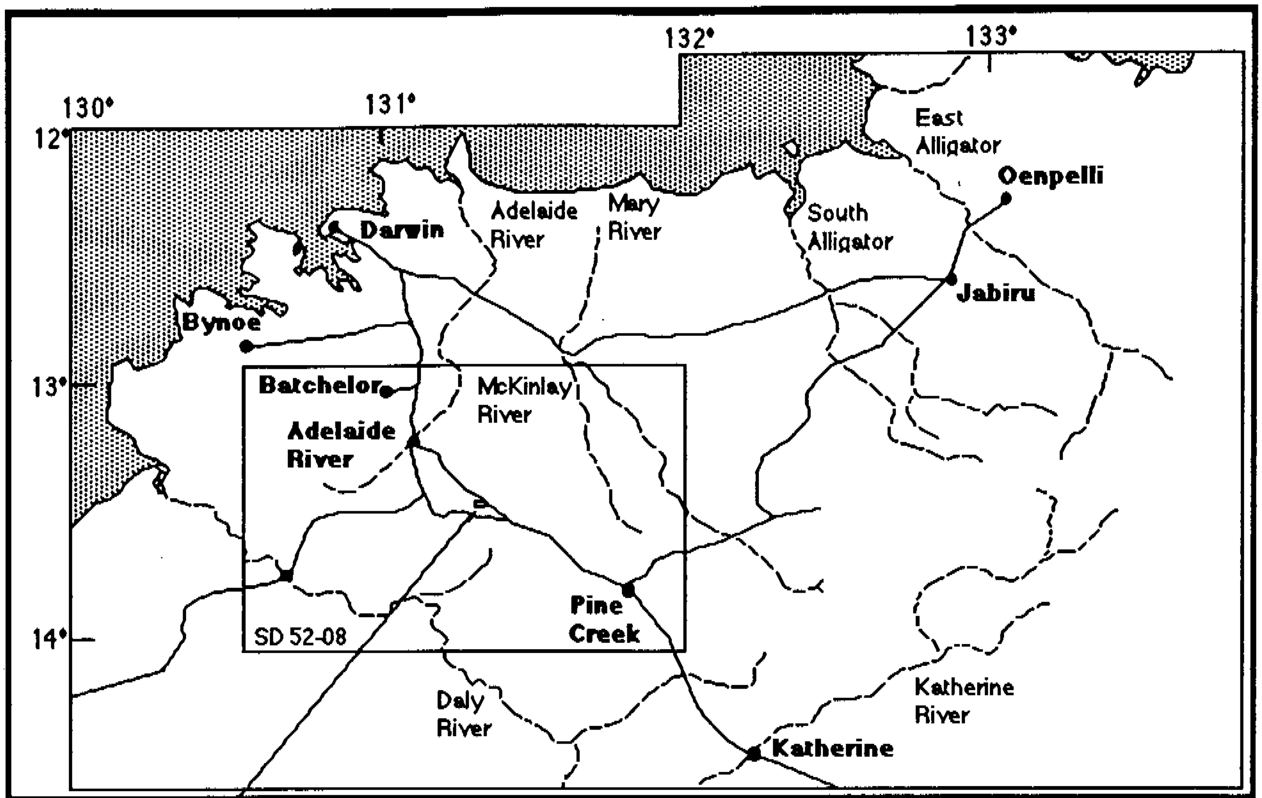
ERL 96 was granted on 19th September 1989 for a period of five years. The licence covers 650 hectares and was previously held by Northern Gold NL as part of EL 4737.

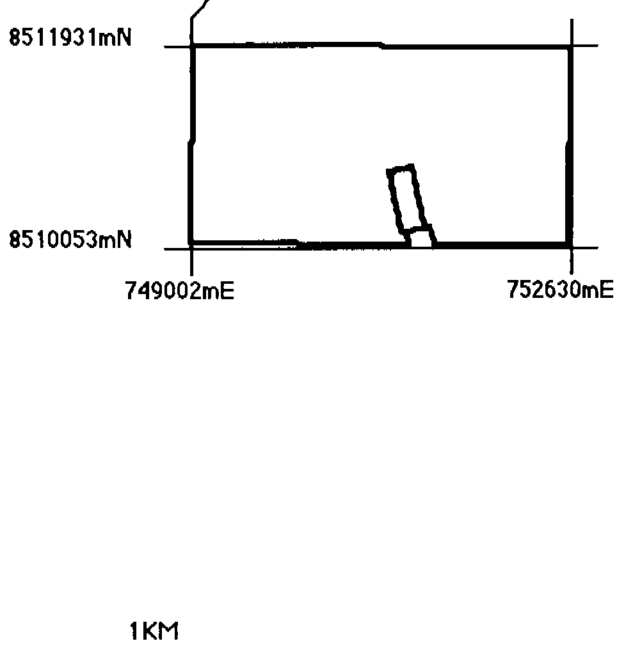
1.2 Location and access

ERL 96 is located about 32 km south east of Adelaide River (Figure 1) within the Cullen Mineral Field. Access is via the Stuart Highway, and the Metana Camp track. ERL 96 is within the Douglas pastoral lease (PL 903).

1.3 Previous Exploration

ERL 96 was previously held by Northern Gold NL as EL 4737 and several phases of exploration were completed. Comprehensive soil sampling, and mapping was carried out over the central licence area. These activities are fully documented in the annual reports for EL 4737. In 1990 Northern Gold completed a 1080 metre 18 hole percussion drilling program on the licence. Results of this program were documented in the 1990 annual report. In 1991 a soil sampling program was conducted in the western portion of the licence. Results of this program were documented in the 1991 annual report.





ERL 96

Date granted:- 19/9/1989

Expiry date:- 18/9/1994

Report date:- 18/10/1992

Reduction date:- N/A

Rent:-$6,490

Covenant:-92-$11,500

Size:- 649 Ha

Figure 1

2 GEOLOGY

2.1 Regional Geology

ERL 96 is situated within the Pine Creek Geosyncline, a tightly to isoclinally folded sequence of mainly pelitic and psammitic (continental to shallow water) Lower Proterozoic sediments with interlayered tuff units. All the lithologies in the area have been metamorphosed mostly to low and, in places, medium grade metamorphic assemblages. For the purposes of this report the prefix meta is implied but omitted from rock type descriptions. The sequence has been intruded by pre-orogenic dolerite sills and a number of late syn-orogenic to post-orogenic Proterozoic granitoids. Largely undeformed Middle and Late Proterozoic, Palaeozoic and Mesozoic strata, as well as Cainozoic sediments and laterite overlie the Pine Creek Geosyncline lithologies.

2.2 Local Geology

Outcrop in ERL 96 consists of early Proterozoic lithologies of the South Alligator Group and Finniss River Group. The sediments are tightly folded in the central part of the area and form part of the Howley Anticline, which in detail is a system of en-echelon, non cylindrical, asymmetric folds. The main lithologies are, from the oldest stratigraphic unit which is assumed to be the Gerowie Tuff, siltstone and chert with tuffaceous fragments. These crop out as bedded north-northwest trending units that dip 60-70^{o} to the west on the western limb of the Howley Anticline and 80-85^{o} to the east on the eastern limb. Cross bedding in the siltstone indicates that this formation faces west on the western limb of the Howley Anticline and faces east on the eastern limb.

A sequence of mudstone, mudstone with chert nodules and greywacke with occasional iron formation lie conformably above the Gerowie Tuff and form the southern part of the Howley Ridge on the licence area. These lithologies have been assigned to the Mt. Bonnie Formation. Lithologies believed to be part of the Burrell Creek Formation lie unconformably above the Mt. Bonnie Formation and occur on the flats to the east and west of the Howley Ridge. These lithologies consist of interbedded sandy siltstone, siltstone, phyllite, slate and greywacke. Both the Mt. Bonnie formation and Burrell Creek Formation have similar dips and strikes to the Gerowie Tuff. However facing directions in the Burrell Creek Formation to the East of the Howley Ridge are reversed suggesting the presence of a synclinal structure.

3 EXPLORATION COMPLETED

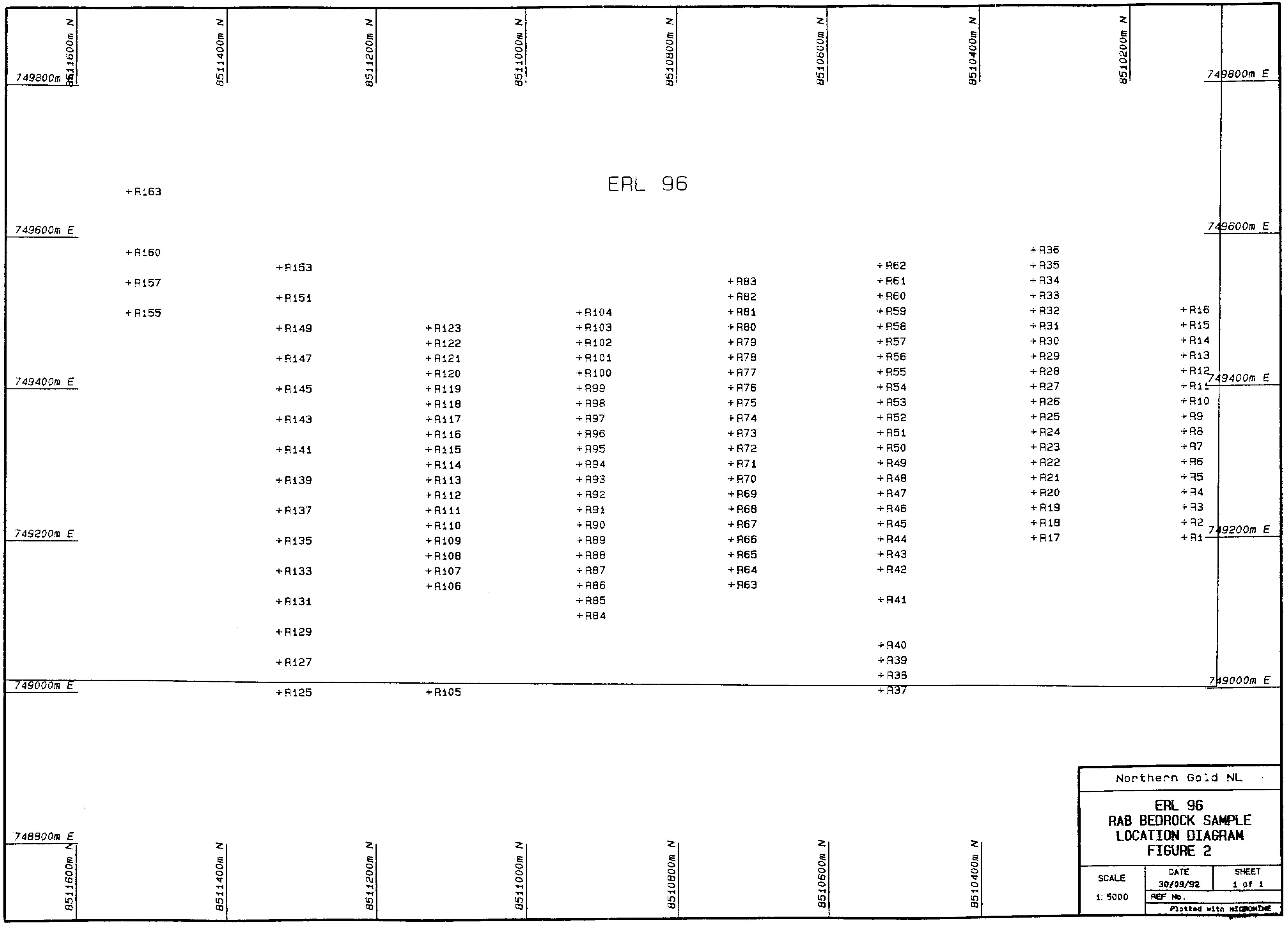
3.1 Introduction

Rab drilling was conducted on ERL 96 over the surface soil anomaly identified by the previous years work. The program was designed to test the C-soil horizon for the possible source of the soil anomaly. A total of 144 holes for 792 metres were drilled from which 163 samples were collected and sent to Assaycorp in Pine Creek for Au low level fire assay and As.

3.2 RAB Drilling

Gaden Drilling of Batchelor was contracted to do the drilling and used a 4x4 truck mounted Investigator Mark V drill rig using a standard drill string and four inch blade bit. Holes were drilled over the anomalous zone on a 200 meter line spacing with holes 20 or 40 metres apart. Drill hole locations are shown in Figure 2 All holes were drilled vertically to identifiable bedrock, or to depth of refusal, and were logged and sampled. Sampling of the bedrock/soil transition zone and in certain holes bedrock and eluvial/alluvial material was undertaken to identify any Au dispersion haloes and/or associated bedrock mineralisation. Drill logs and sample intervals are presented in Appendix 1 with sample results presented in Appendix 2.

The RAB drilling identified a north westerly striking low ridge of siliceous sediments with quartz veining between siltstone with minor mudstone and greywacke units to the east and west. The central unit is composed of vitric to recrystalised fine grained light grey/brown chert, with some laminations and layering reflecting bedding, striking approximately



ERL 96
749800m E
749600m E
749400m E
749200m E
749000m E
748800m E
8511600m N
8511400m N
8511200m N
8511000m N
8510800m N
8510600m N
8510400m N
8510200m N
+R163
+R160
+R157
+R155
+R153
+R151
+R149
+R147
+R145
+R143
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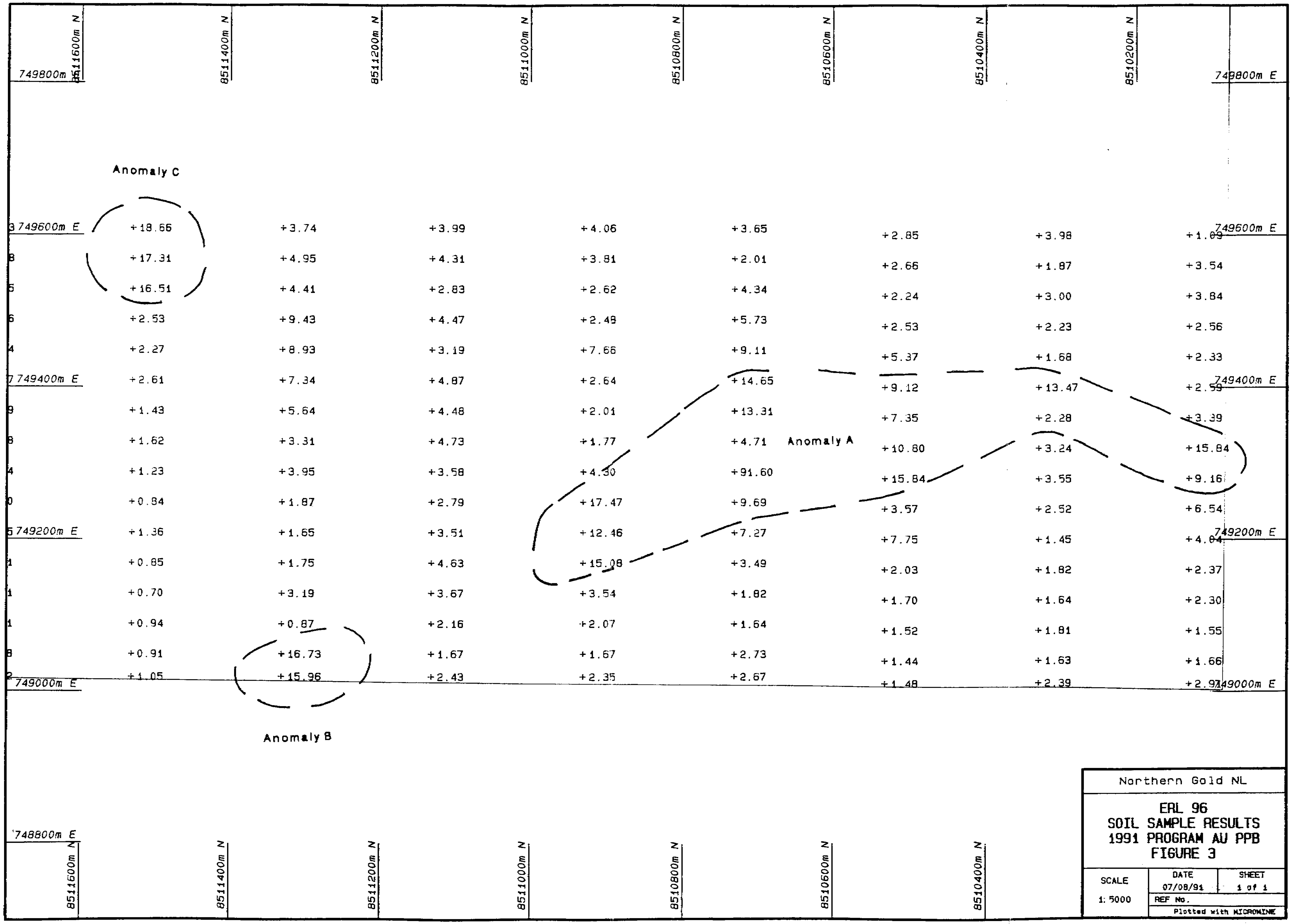
+R2
+R1
Northern Gold NL
ERL 96
RAB BEDROCK SAMPLE
LOCATION DIAGRAM
FIGURE 2
SCALE
1: 5000
DATE
30/09/92
SHEET
1 of 1
REF No.
Plotted with MICROMINE

350^{o}, with minor intercalated fine grained siltstone and tuffaceous-looking siltstone. The dip of the bedding could not be determined, but is thought to be sub-vertical. Away from the central ridge, the bedrock is covered by up to six metres of recent sands and gravels that in turn are overlain by up to six metres of loamy silty soils deposited by Bridge Creek and its tributaries. The gravels are composed of moderately rounded pebble to cobble sized quartz and chert clasts in a loamy clay/sand matrix. The targeted surface low level soil anomaly on some of the drill lines was found to overly this alluvial profile in the northern section of the area drilled.

The main surface Au anomaly (A), as defined by the 1991 soil sampling program centered on 8510600N, 749280E (Figure 3), returned dissapointing results (Figure 4), which were from below detection to 11 ppb compared to the soil sampling results of up to 91 ppb. Results for As were more encouraging with results of up to 384 ppm over a 600 x 300 meter area having a strong spatial association with the Au soil anomaly (Figure 5).

The soil surface Au anomaly B, centered on 8511350N,749050E, to the north of anomaly A has both an As and Au C-horizon response from the RAB drilling with results up to 640 ppb Au and 173 ppm As. This anomaly (of approximately 160 metres in width) was drilled on a 40 meter spacing due to the greater depth required to intersect bedrock. This C-horizon anomaly, which extends from the higher level bull's-eye target to the south-east, is 800 metres long and up to 160 metres wide (Figure 4). This zone lies below recent alluvial deposits that returned generally low Au and As responses (see Appendix 1 and 2).


Anomaly C
Anomaly A
Anomaly B
8511600m N
8511400m N
8511200m N
8511000m N
8510800m N
8510600m N
8510400m N
8510200m N
749800m E
749600m E
749400m E
749200m E
749000m E
748800m E
Northern Gold NL
ERL 96
SOIL SAMPLE RESULTS
1991 PROGRAM AU PPB
FIGURE 3
SCALE
1: 5000
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SHEET
1 of 1
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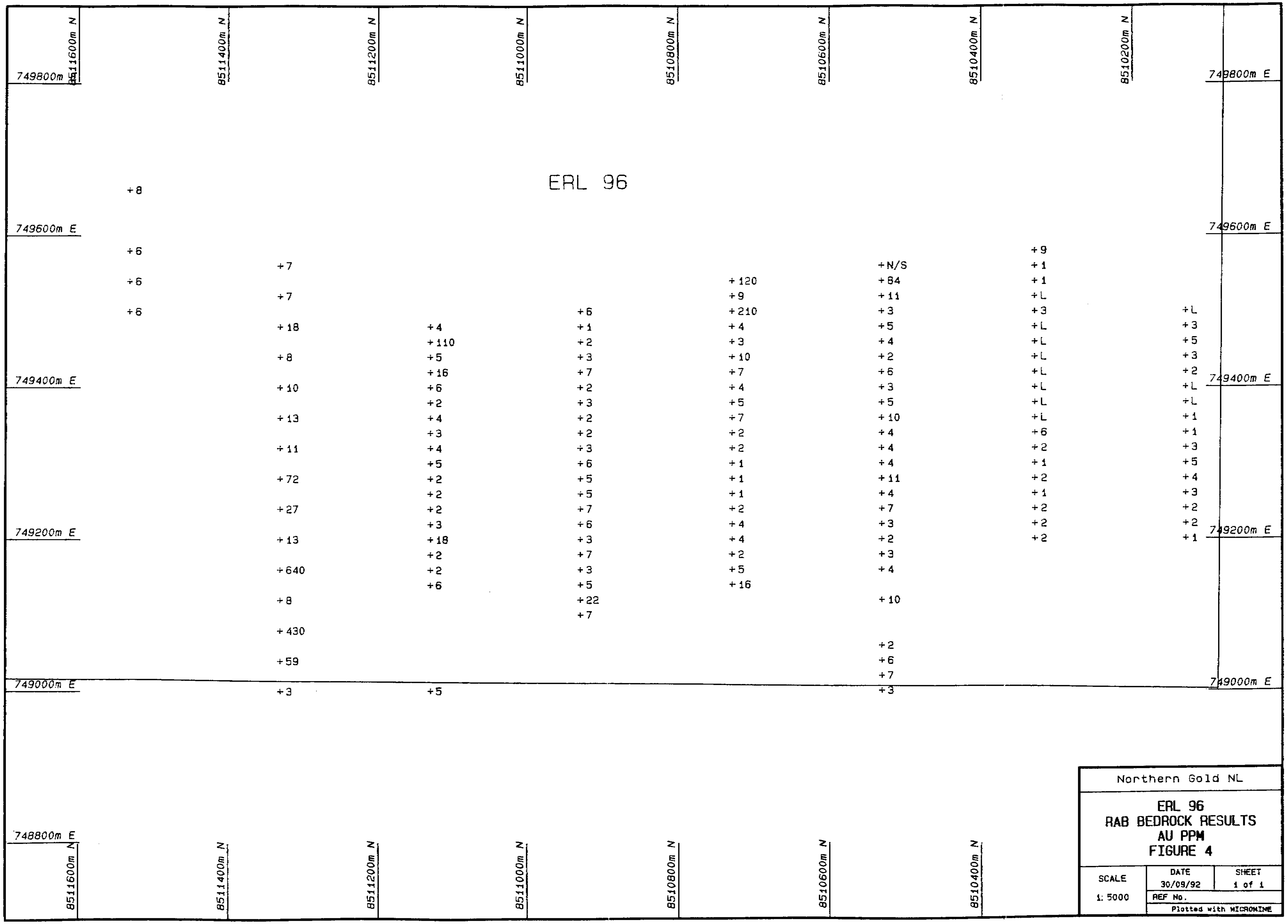
Plotted with MICROMINE


ERL 96
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749600m E
749400m E
749200m E
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748800m E
8511600m N
8511400m N
8511200m N
8511000m N
8510800m N
8510600m N
8510400m N
8510200m N
+8
+6
+6
+6
+7
+7
+18
+8
+10
+13
+11
+72
+27
+13
+640
+8
+430
+59
+3
+4
+110
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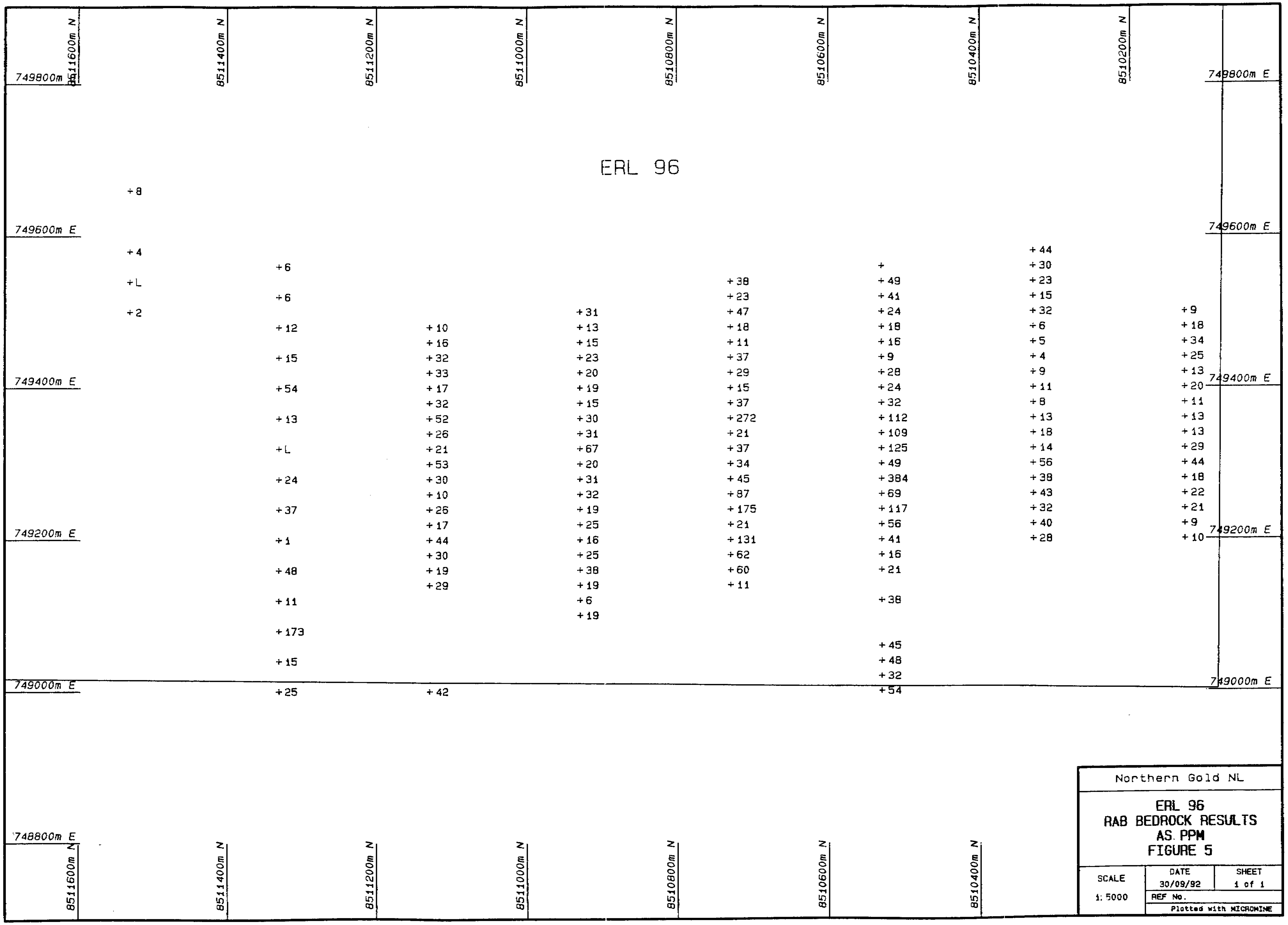
Northern Gold NL
ERL 96
RAB BEDROCK RESULTS
AU PPM
FIGURE 4
SCALE
1: 5000
DATE
30/09/92
SHEET
1 of 1
REF No.
Plotted with MICROMINE



8511600m N
8511400m N
8511200m N
8511000m N
8510800m N
8510600m N
8510400m N
8510200m N
749800m E
749600m E
749400m E
749200m E
749000m E
748800m E
ERL 96
+8 +4 +L +2
+6 +6 +12 +15 +54 +13 +L +24 +37 +1 +48 +11 +173 +15 +25
+10 +16 +32 +33 +17 +32 +52 +26 +21 +53 +30 +10 +26 +17 +44 +30 +19 +29 +42
+31 +13 +15 +23 +20 +19 +15 +30 +31 +67 +20 +31 +32 +19 +25 +16 +25 +38 +19 +6 +19
+38 +23 +47 +18 +11 +37 +29 +15 +37 +272 +21 +37 +34 +45 +87 +175 +21 +131 +62 +60 +11
+ +49 +41 +24 +18 +16 +9 +28 +24 +32 +112 +109 +125 +49 +384 +69 +117 +56 +41 +16 +21 +38 +45 +48 +32 +54
+44 +30 +23 +15 +32 +6 +5 +4 +9 +11 +8 +13 +18 +14 +56 +38 +43 +32 +40 +28
+9 +18 +34 +25 +13 +20 +11 +13 +13 +29 +44 +18 +22 +21 +9 +10
Northern Gold NL
ERL 96
RAB BEDROCK RESULTS
AS. PPM
FIGURE 5
SCALE
1: 5000
DATE
30/09/92
SHEET
1 of 1
REF No.
Plotted with MICROMINE

The surface Au soil anomaly C, in the far north-eastern corner of the soil sampled area, returned low bedrock results for both Au and As.

4 CONCLUSIONS

Two surface anomalous zones, which appear to be a continuation of the mineralisation discovered in EL 6699, were defined by soil sampling in 1991. RAB drilling of these anomalies further defined two C-horizon targets, up to 640 ppb Au, that require further testing. The targets defined by the RAB drilling are offset from the original surface soil anomaly.

5 EXPENDITURE 1991/92

Expenditure on ERL 96 during the year totalled $28,381. Details of this expenditure are listed below as Table 1.

Drilling costs	$7,128
Assays	$2,010
Field Expenses	$53
Access & Site Preparation	$612
Report & Plan Preparation	$300
Motor Vehicle Costs	$1,103
Wages and Salaries	$5,000
Mines Dept Fees	$6,500
SUBTOTAL	$22,706
10% N.T. Administration	$2,270
15% Head Office Administration	$3,405
TOTAL	$28,381

Table 1.

6 PROPOSED PROGRAM

Drilling of 400 metres of close spaced RAB to better define the bedrock anomaly for RC drilling and to test for extensions. 320 metres of RC drilling composed of two lines with four holes per line to maximum 40 metres depth targeting the defined anomaly

Costs

Rab drilling 400 metres x $8.00 p/m	$3,200
RC drilling 320 metres x $20.00 p/m	$6,400
Consumables $1.00 p/m	$320
Assays	$4,000
Extras	$600
TOTAL	$14,520

APPENDIX 1

Drill Hole Logs

and

Sample Intervals

(1)

RAB DRILL LOG
Tenement ERL 96 Location LAB

Line 1

Hole No.	From	To	Sample No	Description	
R1 5	0	1		Br Sal + Qtz Psl frag	
	1	3	R1(2-3)	Wt/Gry Cla + Qtz chert Psl frag	
	3	5		Pc/sl interbedded	
R2 3	0	1		Br Sal + Qtz chert Psl	
	2	3	R2(1-2)	Wt Lt Br clay after Pc/sl	Qtz/chert r. dge.
R3 2	0	1		Br Sal + chert / Qtz	
	1	2	R3(1-2)	1.4 chert	
R4 2	0	1	R4(1-2)	Br Sal .9 chert	
	1	2		Br Gry chert	
R5 2	0	1		Br sal + .4 hard chert + Qtz (	[illegible] Py in Qtz)
	1	2		Br Gry chert	
R6 2	0	1	R6(0-1)	Br Sal + Chert/Psl .6 hard	
	1	2		Br Gry fg Psl	
R7 2	0	1	R7(0-1)	Br Sal + Pc .8 chert	
	1	2		Gry Br Pc	
R8 2	0	1	R8(0-1)	Br Sal + .7 then Gry Br Pc	edge of Ridge.
	1	2		Gry Br Pc	
R9 3	0	1		Br Sal + chert Qtz frag	
	1	2	R9(1-2)	Br Gry clay + Pc.sl frag thr Qtz	
	2	3		Br Gry Pc/sl	
R10 3	0	1	R10(0-2)	Rd/Br Sal/Clay Psl + Qtz frag	
	1	3		Br/Rd Br clay [illegible] after Psl	
R11 6	0	1		Blk Sal then Br clay	Edge of B/Soil Crk Flats.
	1	4	R11(3-4)	Lt Rd Br Gr clay Qtz @ 3-4	
	4	6		Br Gry Psl → ~~[illegible]~~	
R12 5	0	3		Rd/Gr Br Sol/Clay	
	3	4	R12(3-4)	Qtz zone 40cm ~~on~~ Gry Blk Psl	Qtz 5%
	4	5		Gry Br Blk fg Psl micaceous	
R13 6	0	3		Rd Gr Sol	
	3	5	R13(3-5)	Br cla/sol with Pc Qtz 2% frag	
	5	6		Pale Gry Br Psl & Pc	
R14 9	0	6.5		Rd Sol Cla	
	6.5	8	R14(6.5-8)	Zone W Qtz Psl/Pc frag in Rd Sol	Qtz 5%
	8	9		Blk Gry Psl	
R15 10	0	5.5		Rd Sol	
	5.5	9.2		Coarse River Sand from Crk.	
	9.2	10	R15 9.2-10	Wt clay/Psl frag + thr Qtz	

62m

RAB DRILL LOG
Tenement ERL 96 Location

	Hole No.	From	To	Sample No	Description
Line 1	R16 12	0	5		Rd Sol / clay
		5	6		Wt clay Psl frag J Qtz
		6	10		Sand, Br clay Gravel, Qtz chert.
		10	12	R16 10-12	Psl / Chert Gry/Br some (contamination from gravel above)
	*	Rest	of line	not drilled	creek + contamination (above)
Line 2	R17 5	0	3		Br/Rd Sol / clay
		3	4.5		Qtz/chert Qtz 5%
		4.5	5	R17(4-5)	Wt Gry chert Bedrock
	R18 4	0	2.5		Br/Rd Sol / clay
		2.5	3	R18(2-3.5)	cherty Psl Zone. J Qtz
		3	3.5		Chert (hard)
	R19 3	0	2.8		Rd/Br Sol / clay
		2.8	3	R19(2-3)	Chert hard, Gry Br
	R20 2	0	1.8		Br Clay / Sol
		1.8	2	R20 1-2	hard chert.
	R21 2	0	.8		Br Soil; clay
		.8	2	R21 1-2)	Hard chert J Qtz
	R22 2	0	.5		Br Sol
		.5	2	R22(1-2)	Hard chert J Psl + Qtz 1%
	R23 3	0	1.8		Br Gry clay/sol.
		1.8	3	R23(2-3)	Cherty Psl chert; hard
	R24 3	0	2.5		Br, Gry Br Sol / clay
		2.5	3	R24 2-3	Gry Br/Wt Psl + tr vein Qtz
	R25 3	0	1		chert + Br clay
		1	2		Psl / Chert / Qtz + Br clay
		2	3	R25(2-3)	Blk Br Psl + Qtz 2%
	R26 2	0	1.2		Gry/Br chert + J Br Sol.
		1.2	2	R26(1-2)	hard Blue Gry chert
	R27 2	0	.9		Br Rd Sol + cherty Psl
		.9	2	R27(1-2)	cherty Psl chert + tr Qtz
	R28 2	0	1		Br Sol + chert
		1	2	R29 1-2	Hard Gry Br Pc / Psl
	R29 3	0	1.8		Br Cla Soil +
		1.8	3	R29 2-3	Gry Blk Br Psl
	R30 3	0	2.2		Br Sol + Psl frag
		2.2	3	R30 2-3	Br Gry Psl

51m

RAB DRILL LOG
Tenement ERL16 Location

3

Hole No.	From	To	Sample No	Description
R31 4	0	3.1		Lt Rd Br Soil/clay
	3.1	4	3-4 R31	Blk Psl
R32 6	0	4.2		Lt Rd/Br Soil/clay
	4.2	6	R32 4-5	Br Gry Powder alter Psl
R33 6	0	4		Lt Rd Gr Soil/clay
	4	6	R33 4-5	Gry Gr Br Psl Qtz at 4.2-4.4
R34 6	0	4.5		Lt Rd/Br Soil/clay
	4.5	6	(4-5)	Br Gry Psl
R35 4	0	3.5		Lt Rd Br [illegible] soil.
	3.5	4	(3-4)	Gry Br Psl
R36 6	0	1		Blk Soil [illegible] Gry Br
	1	3		Lt Br/Rd Clay/Soil
	3	4		Sand Br clay
	4	6	N/S	Br Gry clay Loamy Sand.
* R37 7	0	5.5		Lt Rd Br Clay
	5.5	7	(6-7)	Rd/Br Clay + Qtz chert Blk [illegible] Psl [illegible]
* R38 7	0	6.2		Br Gry/Rd clay
	6.2	7	(6-7)	Chert + 2% Qtz in Rd Sol lumps
* R39 8	0	4.6		Lt Rd/Br [illegible] Gry Soil/clay
	4.6	6		Br with Rd clay + tr Qtz
	6	7	(6-7)	Br clay + chert frag 1% Qtz
	7	8		Br clay + 50% chert tr Qtz
R40 13	0	5.8		Rd Br clay/soil
*	5.8	11	R36 (8-9)	Alluvial [illegible] Chert/Qtz gravel
*	11	12		Br clay + Gravell
	12	13	R40 (12-13)	Br/[illegible]/Gry clay after Psl?
* Skip 2 holes				
R41 10	0	4		Lt Rd/Br Clay/Soil
	4	7.5		Rd/Br clay + Qtz/Chert gravel fill
	7.5	8.2	(7-8)	Br clay chert Qtz gravel
	8.2	10		Br clay + Psl frag (bedrock)
Skip 1 hole.				

on creek flat.

Line 2

32.

Line 3

Alluvial channel fill

Seems like Bedrock stopped in hard chert.

Could be alluvial channel [illegible] of cherts.

32 + 45

RAB DRILL LOG
Tenement ELL ½ Location

(4)

Hole No.	From	To	Sample No	Description
R42 8	0	6		Lt Br Rd clay/Sol
	6	7		Br clay (Psl Pot frag)
	7	8	6-8	wt clay with Pc frag (Clar fr?)
R43 8	0	6.5		Lt Rd Br clay
	6.5	7.5	6-8	wt clay with tr Qtz frag
	7.5	8		wt Salt clay c chert Pot frag?
R44 2	0	1		Br Sol Chert + tr Qtz frag
	1	1.6	1-1.6	Chert Blue/Black/wt hard
R45 2	0	1		BR Sol + Chert tr Qtz frag
	1	1.6	1-1.6	Blue grey Br chert hard.
R46 1	0	.9	0-1	Br Sol + Chert frag hard at .9
R47 2	0	1		Br Sol + chert + tr Qtz frag
	1	2	1-2	Sol + chert, hard at 1.7 (chert/Pot
R48 2	0	1		Br Sol + chert + tr Qtz frag
	1	1.5	1-2	Br Sol chert Qtz hard 1.5 chert
R49 2	0	1		Br sol + chert tr Qtz frag
	1	1.8		tr Qtz chert + tr Pot/sl 1.8 hard
R50 1	0	1	0-1	Chert c Laminated Br Sol hard 1
R51 2	0	1		Br Sol + Chert tr Qtz frag
	1	2	1-2	wt powder + Qtz/chert hard 1.8
R52 3	0	1.5		Br Sol + Qtz chert frag
	1.5	2.6	1-2	Br Grey chert + c Psl
R53 2	0	1.5		Br Sol + chert tr Qtz frag
	1.5	1.6	1-2	1.5 hard chert
R54 2	1	1.5		Br Sol + Chert tr Qtz frag
	1.5	1.5	1-1.5	Hard chert
R55 7	0	1		Br Sol + Chert tr Qtz frag
	1	2.5		Rd/Br Sol + chert tr Qtz
	2.5	6.2	2-3	Pgm frag (sandy clay c frag
	6.2	7		Blk Psm/sl
R56 4	0	1		Lt Br Sol
	1	2		Rd/Br Clay/Sand
	2	3		wt/Br Chert + Qtz 10% zone.
	3	4	3-4	Qtz/chert + to 3.5 then Pmg
R57 4	0	3		Br Sol
	3	4	2-3	Chert Psl (Blk fg)

Line 3

Started ridge

wt Hematite spotted

top of ridge

52m

RAB DRILL LOG
Tenement ERL 76 Location

(5)

Hole No.	From	To	Sample No	Description
R58 4	0	2.8		Rd Br Soil/clay
	2.8	4	2-3	3lk Br Psl / Pm
R59 5	0	4.5		Lt Rd/Br Soil/clay
	4.5	5	4-5	Sh/chert float on top + Psl (Br ...) powder
R60 5	0	3.2		Rd Br Soil/clay
	3.2	5	3-4	Sh/chert float on Br/Blk Psl
R61 5	0	4.1		Lt Rd Br clay (sandy) Soil
	4.1	5	4-5	Qtz chert Zone on Br Psl 4.9
R62 9	0	4.8		Rd/Br Soil
	4.8	4.9		chert band
	4.9	9	4/5	Br Rd Soil + clay (Sandy loam)
			END	of Line 3 Sandy loam from
				creek encountered. No Samples
R63 3	0	2.4		Rd Br Soil/clay
	2.4	3	2-3	hard chert light Br Grey
R64 3	0	1.8		Rd Br Soil/clay
	1.8	2.2	1-2	Br Ox + Chert + Qtz frag
	2.2	3		wt Pc Grey/Br hard at 3m
R65 1	0	1	0-1	.8 hard Pc + tr Qtz in Br Soil
R66 1	0	1	0-1	.7 hard Pc + Jtr Qtz in Br Soil
R67 1	0	1	0-1	1m hard Pc + 1 tr Qtz in Br Soil
R68 1	0	1	0-1	1m " Pc + 5% Qtz " "
R69 2	0	.9	0-1	Br Soil + Qtz (2%) + chert
	.9	2		Hard 1.7 (chert) chert + Psl
R70 1	0	1	0-1	Mod hard Sugary Pc
R71 1	0	.5		Br Soil + chert
	.5	1	0-1	chert (Sugary wt)
R72 1	0	1	0-1	.4 Pc + Br Soil
R73 2	0	1.4		Br Soil + chert frag
	1.4	1.7	1-1.7	hard 1.4 chert
R74 2	0	1.4		Br Soil + chert
	1.4	1.8	1-1.8	hard 1.4 chert
R75 3	0	1.8		Rd Br Soil + tr Qtz frag
	1.6	3	1-2	wt Powder yellow Pc
R76 3	0	1.4		Br Soil/clay
	1.4	2.6		Qtz Chert Zone
	2.6	3	2-3	wt Br Psl + tr Qtz

Line 3

Line 4

Start of Ridge

EDGE of Ridge.

(6)

RAB DRILL LOG
Tenement ERL 96 Location

45 63
52
53
4
15 4m

37
77
40+1

Line 4

Hole No.	From	To	Sample No	Description
R77 4	0	2.8		Rd Sal
	2.8	3.3		Chert + Qtz lens
	3.3	3.9	3-4	Br clay/Sal + chert frag 3.9 hard
R78 6	0	4.5		Rd Br Sal
	4.5	5.2		chert + Qtz in Br clay
	5.2	6	5-6	Chert getting hard
R79 9	0	5		Rd Br Sal
	5	6		Br clay
	6	9	7-9	Gry Br clay + Qtz + Chert frag
R80 9	0	6		Rd/Br Sal/clay
	6	8.5		Br clay + Qtz chert Psl frag
	8.5	9	8-9	Br Psl
R81 5	0	3.5		Rd/Br Sal.
	3.5	4.5		Chert + Qtz frag in clay
	4.5	5	4-5	chert/Psl Basement.
R82 8	0	5		Rd/Br Sal
	5	6.7		Chert + Qtz frag
	6.7	8	6-7	Gry/Br Psl
R83 7	0	5		Rd/Br Sal/clay
	5	6.3		Chert + Qtz frag in Br Sal.
	6.3	7	6-7	Gry Br Psl
R84 8	0	6		Rd/or Sal.
	6	8	7-8	Br Gry wt clay + Qtz/chert frag
R85 7	0	5.6		Rd/or/Br Sal/clay
	5.6	6.2		chert + Qtz frag in Br/wt Sal
	6.2	7	6-7	Chert + Qtz (bedrock) wt suggesting Blue chert.
R86 6	0	3.5		Rd Br Sal
	3.5	6	3-4	chert wt Gry to Blue
R87 3	1	3	2-3	Qtz in Rd Sal adjacent to Qtz Ridge.
R88 6	1	3		Rd Br Sal with Qtz Chert frag
	3	6	34	Gry Br Gn clay after?
R89 2	0	1		Rd Sal + Chert + Qtz
	1	2	1-2.	Hard 1.2 chert.
R90 3	0	2.9		Rd Sal + Chert
	2.9	3	2-3	Hard chert

Line 5

4+ 79

RAB DRILL LOG
Tenement ERL 96 Location

(7)

Line 5

Hole No.	From	To	Sample No	Description
R91 3	0	2.8		Br Sol + chert + tr Qtz
	2.8	3	2-3	chert getting hard
R92 3	0	2.2		Br Gry Sol + chert
	2.2	3	2-3	hard chert Gry
R93 3	0	2.2		Light Br clay + chert
	2.2	3	2-3	wt Gry chert (3 dk gry)
R94 3	0	1		Br/Rd Sol + chert
	2	3	1-2	Gry wt chert sugary
R95 5	0	4.5		Gry Br clay/Sol & chert frag
	4.5	6.5	4-4.5	Hard Chert + Qtz Bedrock?
R96 4	0	2.2		Rd sol + chert frag
	2.2	3.4	3-4	chert hard at 3.4
R97 2	0	1		Rd Sol.
	1	2	1-2	Chert Gry hard 2m
R98 2	0	1.5	1-2	Rd Gry Soil/clay + chert frag Hard chert 1.5
R99 2	0	1.6		Rd Gry Sol + chert frag
	1.6	2		Hard chert
R100 3	0	1.5		Rd Sol + chert frag
	1.5	3	1-2.	Psl/chert Blue Br Gry + tr Qtz
R101 4	1	1.6		Rd Br Sol + chert Psl
	1.6	4	1-2	Br Gry Blk Psl/chert, Pm
102 5	0	3.3		Lt Br → Or/Br → Br Sol/cl
	3.3	5	3-4	Br Gry Blk Psl
103 6	0	4		Rd/Br Sol + tr Qtz/chert at contacts
	4	6	4-5	Lt Br clay alter wt micaPsl?
104 9	0	4		Rd Br Sandy clay
	4	9	4-5	Br Sandy mica fg clay alter Psl?
105 1	0	5.7		Lt Br/Or clay sol
	5.7	10.2	9-10	Alluvial Channel Qtz chert
	10.2	11		Br clay / Soil.
106 7		4		Lt Rd Or clay/sand
	4	6.6		Qtz chert frag in Br Clay/sol
	6.6	7	6-7	wt Grey clay/chert Bedrock?

Edge of chert Laminated Ridge

Laminated fg Psl

Base peg → line 6

Line 6

Tenement E(L)96 Location

(8)

Hole No.	From	To	Sample No	Description
107 12	5	5.6		Rd Br Soil clay
	5.6	6.6	5-7	Br clay + tr Qtz frag alt Psl
	6.6	12		Br/Gry/wt Sandy clay alter Pst/Psl
109 8	0	6.5		Rd Soil/clay
	6.5	8	6-7	Br Gry clay alt Psl Qtz chert frag 6.3-6.5
109 11	0	4		Rd Br Gry loamy Soil
	4	7.5	7-8	Sand Gravel Rd/Br
	7.5	-11		Gry Br Pc/Sl? interbedded + Sandy clay in Creek Zone
R110 6	0	5.1		Rd/Br clay/Soil
	5.1	6	5-6	Gry Chert + Psl Sandy clay
R111 3	0	1.5		Rd Br Soil/clay + chert
	1.5	3	1-2,	Gry chert + Br Psl Getting hard
R112 2	0	1		Rd Soil/clay + chert
	1	2	1-2,	LtBr Gry chert Getting hard
R113 2	0	1.2		Rd Br Soil
	1.2	2	1-2	Gry LtBr Chert hard 2m
R114 2	0	1.8		Rd Br Soil + chert
	1.8	2	1-2,	Gry Br chert hard 2m
R115 3	0	2.2		Rd/Br Soil
	2.2	3	2-3	Gry Br frag Psl
R116 5	0	4.2		Rd/Br Soil/clay
	4.2	5	4.5	Grn/Brn clay (Redrock) alter?
R117 5	0	4.4		Rd/Br Soil clay
	4.4	4.5	4-5	Hard chert
R118 5	0	3.8		Rd Br clay/Soil
	3.8	5	3-4	wt Gry Br Pst/Pc
R119 4	0	3.4		Rd Br clay Soil
	3.4	4	3-4	Gry Br chert hard 4m
R120 6	0	5.4		Rd Br Soil/clay
	5.4	6	5-6	Lt Br Gry wt clay alter Pst/Sl + tr Qtz
R121 9	0	6.5		Rd Br clay/Soil tr Qtz chert frag at 6-6.5
	6.5	9	6-7	Br Clay alter Pg/Psl? Possibly loamy sand?
R122 10	0	4.9		Rd Br Soil/clay
	4.9	6		Gry Br Rd Soil + chert & Qtz frag
	6	9		Br Sandy loam
	9	10	9-10	hard at 10 Chert & Qtz Zone
				Possible Alluvial channel on wt Pst/clay

Line 6

98

Tenement ERL 96 Location

line 6

Line 7

Hole No.	From	To	Sample No	Description	
12315	0	3		Rd Clay/Soil	
	3	10		Rd Br loamy Soil/cla	
	10	15	10-11	Lt Br/or Gry wth clay/or Psl/Pg	?
R124 11	0.	6.5		Rd/or Soil cla. (1st 3m N/S)	
	6.5	9.5	8-9 R124	Sand/loam Gravel V Qtz/Chert.	124 Alluvial
	9.6	11	R125 10-11	Br Blk Gry Clay + Psl frag	125 Bedrock
	Skip	one hole			
R126 12	0	5.8		Rd Br/or Soil clay	
	5.8	9.5	9-10 126	V Qtz chert loamy Br sand Alluvial fill	+60%
	9.5	10		Lt Gry/Brl wth clay	
	11	12	11-12 127	highly weathered Bedded Pc/Psl ?	Br Gry
		Skip 1 hole.			
R128 14	0	4.5		Rd Br/or clay/soil, (N/S 1st 3m)	
	4.5	12.5	128 10-11	Br/Rd/or loamy Sand + V Qtz chert frag	to 60% All/Elluvial fill
	12.5	14	129 13-14	Dk Br clay + Qtz wt Blk clay	
	Skip	one	hole	2 dr + not recognisable Bedrock ?	
R130 12	0	3		Rd Br/or loam (N/S 1st 3m)	
	3	10.9	9-10 (130)	Rd Br loam Sand + ... fill	Qtz chert frag
	10.9	12	11-12 (131)	Br Psl/Pm	
	Skip 1 hole.				
R132 11	0	3		Rd/Br loam	
	3	10.4	9-10 (132)	Rd Br Gry loamy Sand Qtz chert frag	
	10.4	11	10-11 (133)	Dk Gry Br clay w/or Psl ?	
		Skip 1 hole			
R134 13	0	4		Rd Br/or loam	
	4	11.2		Br Rd/or loamy Sand Qtz chert frag	
	11.2	12.4	10-11 (134)	Br/Gry clay + chert	
	12.4	12.8	(135) 12-13	Hard Blue Gry Br chert	
	Skip 1 hole.				

Note given driller wrong number of holes - too many accrued holes, lost holes due to skipping some holes. Meters OK.

R67 included.

52 + 36

128
78

52
93
72
79
296

51 holes 296

Line 7

Hole No.	From	To	Sample No	Description
R136 8	0	5.6		Rd Br Br loamy Sand
	5.6	6.5	R136 5-6	Alluvial chert/Qtz Br clay
	6.5	8	R137 7-8	Chert hard at 7.9
		Skip	1 hole	
R138 9	0	4.5		Rd Br/gr loamy Soil
	4.5	7.8	138 6-7	chert frag - Br clay
	7.8	9	139 8-9	hard chert
		Skip	1 hole	
R140 9	0	5		Rd/Br loamy Soil,
	5	7.8	6-7 140	Br loamy clay Qtz/chert frag
	7.8	9	8-9 141	Br/Gn clay
		Skip	1 hole	
R142 9	0	6		Rd Br loamy Soil
	6	7.2	6-7 142	Br clay Qtz, chert frag
	7.2	9	8-9 143	[illegible] Psl
		Skip	1 hole	
R144 13	0	6.2		Rd Br loamy Soil
	6.2	11.8	8-9 144	Qtz chert frag in loamy clay/soil
	11.8	13	145 12-13	Br Gry clay + Psl frag + Qtz frag
			Skip 1 hole	
R146 13	0	6.4		Rd Br loamy soil
	6.4	10.5	9-10 (146)	Qtz/chert in loamy Sand
	10.5	13	11-12 (147)	wt clay + chert frag ("bedrock")
		Skip 1	hole	
R148 11	0	8.5		Rd Br loamy Soil
	8.5	10.5	9-10 (148)	Qtz/chert loamy sand
	10.5	11	10-11 (149)	Br clay + chert frag
		Skip 1	hole	
R150 12	0	7.5		Rd Br loamy Sand
	7.5	9.4	8-9 150	Br clay + Qtz chert frag
	9.4	12	11-12 (151)	wt clay/ltBr powder + Psl/chert frag
		Skip	1 hole	

83m

Tenement EL96 Location (11)

Hole No.	From	To	Sample No	Description
R152 14	0	6		Br/Rd Loamy Sand (1-3 N/S)
	6	11.5	9-10 152	All/Ell-uvial Qtz Clast + Br loam Sand
	11.5	13		Br loam
	13	14	R153	Br clay + Br Psl
R154 13	0	8.4		loamy Br/Rd Sand/clay (1-3 N/S)
	8.4	11.5	10-11(154)	Ell/Alluvial Qtz/clast Psl - Br clay Sandy loam
	11.5	13	12-13(155)	Br Gry clay (mica) + Psl Br clast. Bedrock
	Skip	1 hole		
R156 12	0	7.5		Rd Br loamy clay Soil (1-3 N/S)
	7.5	10.2	156(9-10)	Qtz clast Wash - Sandy loam
	10.2	12	157(11-12)	Br Gry clay alter Clasty Psl
		Skip 1	hole	
R158 8	0	8		Br Rd loamy clay Soil (1-3 NS)
	8	8.2	158(8-8.2)	Br loam + Qtz Frag
	*	hole stopped on hard Qtz - moved 1m & redrilled		
R159 12	0	7.2		Br/Rd loamy Clay Soil (1-3 NS)
	7.2	9.4	8-9(159)	Qtz/Clast Ell-uvial loam/Sand
	9.4	12	11-12(160)	Br Gry clay/powdery alter Psl
		Skip	1 hole	
R161 9	0	5		Br Rd loamy soil (1-3 N-S)
	5	9	6-9(161)	Sand - alluvial creek deposit
			Skip 1	holes.
R162 12	0	6.5		Rd/Br loamy Sand.
	6.5	10.5	9-10(162)	Sand/Gravel & loamy clay
	10.5	12	11-12(163)	Br Gry Rd clay loamy alter Psl ?
		END OF DRILLING		

Line 7

Line 8

36
83
80
199

APPENDIX 2

Sample Assay Results Au and As

ASSAYCORP PTY LTD
A.C.N. 052 982 911
174 Ward Street, Pine Creek, N.T. 0847
P.O. Box 41, Pine Creek, N.T. 0847
Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03969

Northern Gold NL

Distribution
Warren Cooper

R1 - R35
F120 - F125

Client Reference: N 01320
Project :
Cost Code:

Date Received: 05/09/1992
Number of Samples: 41

Sample Preparation

Analysis	Analytical Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
As	AAS/MA-3	Prec. ± 10%	2	ppm

Authorisation: Ray Wooldridge
Report Dated: 10/09/1992

ASSAYCORP PTY LTD
A.C.N. 052 982 911
174 Ward Street, Pine Creek, N.T. 0847
P.O. Box 41, Pine Creek, N.T. 0847
Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03969

Sample	Au (ppb)	Au(R) (ppb)	As (ppm)
R 1	1		10
R 2	2		9
R 3	2		21
R 4	3		22
R 5	4	3	18
R 6	5		44
R 7	3		29
R 8	1		13
R 9	1		13
R 10	<1		11
R 11	<1		20
R 12	2		13
R 13	3		25
R 14	5		34
R 15	3		18
R 16	<1		9
R 17	2		28
R 18	2	1	40
R 19	2		32
R 20	1		43
R 21	2		38
R 22	1	1	56
R 23	2		14
R 24	6		18
R 25	<1		13

ASSAYCORP PTY LTD
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Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03969

Sample	Au (ppb)	Au(R) (ppb)	As (ppm)
R 26	<1		8
R 27	<1		11
R 28	<1		9
R 29	<1		4
R 30	<1		5
R 31	<1		6
R 32	3	1	32
R 33	<1		15
R 34	1		23
R 35	1	1	30

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ASSAY CODE: AC 03973

Northern Gold NL

Distribution
Warren Cooper

R 36 - R 77

Client Reference: N 01321
Project :
Cost Code:

Date Received: 06/09/1992
Number of Samples: 41

Sample Preparation

Analysis	Analytical Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
As	AAS/MA-3	Prec. ± 10%	2	ppm

Authorisation: Ray Wooldridge
Report Dated: 10/09/1992

ASSAYCORP PTY LTD
A.C.N. 052 982 911
174 Ward Street, Pine Creek, N.T. 0847
P.O. Box 41, Pine Creek, N.T. 0847
Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03973

Sample	Au (ppb)	Au(R) (ppb)	As (ppm)
R 36	9	7	44
R 37	3		54
R 38	7		32
R 39	6	5	48
R 40	2		45
R 41	10		38
R 42	4		21
R 43	3		16
R 44	2		41
R 45	3		56
R 46	7	6	117
R 47	4		69
R 48	11	9	384
R 49	4		49
R 50	4		125
R 51	4		109
R 52	10		112
R 53	5		32
R 54	3		24
R 55	6		28
R 56	2		9
R 57	4		16
R 58	5		18
R 59	3	4	24
R 60	11		41

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Facsimile (089) 76 1310

ASSAY CODE: AC 03973

Sample	Au (ppb)	Au(R) (ppb)	As (ppm)
R 61	84	75	49
R 63	16	14	11
R 64	5		60
R 65	2		62
R 66	4		131
R 67	<< Sample not received >>		
R 68	2	2	175
R 69	1		87
R 70	1		45
R 71	1		34
R 72	2		37
R 73	2		21
R 74	7		272
R 75	5		37
R 76	4		15
R 77	7	7	29

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P.O. Box 41, Pine Creek, N.T. 0847
Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03985

Northern Gold NL

R67
R78 - R129

Distribution
Warren Cooper

Client Reference: N01322
Project :
Cost Code:

Date Received: 07/09/1992
Number of Samples: 53

Sample Preparation

Analysis	Analytical Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
As	AAS/MA-3	Prec. ± 10%	2	ppm

Authorisation: Ray Wooldridge
Report Dated: 12/09/1992

ASSAYCORP PTY LTD
A.C.N. 052 982 911
174 Ward Street, Pine Creek, N.T. 0847
P.O. Box 41, Pine Creek, N.T. 0847
Telephone (089) 76 1262
Facsimile (089) 76 1310

ASSAY CODE: AC 03985

Sample	Au (ppb)	Au(R) (ppb)	Au(R) (ppb)	Au(R) (ppb)	As (ppm)
R 78	10	9			37
R 79	3				11
R 80	4				18
R 81	210	470	125	225	47
R 82	9	12			23
R 83	120	160	74	74	38
R 84	7				19
R 85	22	32	27		6
R 86	5				19
R 87	3				38
R 88	7				25
R 89	3				16
R 90	6				25
R 91	7				19
R 92	5				32
R 93	5				31
R 94	6				20
R 95	3				67
R 96	2				31
R 97	2	4			30
R 98	3				15
R 99	2				19
R 100	7	3			20
R 101	3				23
R 102	2				15

ASSAYCORP PTY LTD
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174 Ward Street, Pine Creek, N.T. 0847
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Facsimile (089) 76 1310

ASSAY CODE: AC 03985

Sample	Au (ppb)	Au(R) (ppb)	Au(R) (ppb)	Au(R) (ppb)	As (ppm)
R 103	1				13
R 104	6				31
R 105	5	6			42
R 106	6				29
R 107	2				19
R 108	2				30
R 109	18	48	24		44
R 110	3				17
R 111	2				26
R 112	2				10
R 113	2				30
R 114	5	5			53
R 115	4				21
R 116	3				26
R 117	4				52
R 118	2				32
R 119	6	9			17
R 120	16				33
R 121	5				32
R 122	110	308	280	180	16
R 123	4	4			10
R 124	14				42
R 125	3				25
R 126	8				45
R 127	59	110	120	44	15

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Facsimile (089) 76 1310

ASSAY CODE: AC 03985

Sample	Au (ppb)	Au(R) (ppb)	Au(R) (ppb)	Au(R) (ppb)	As (ppm)
R 128	23	24			45
R 67	4				21
Extra R 129	430	440			173

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Facsimile (089) 76 1310

ASSAY CODE: AC 03995

Northern Gold NL

Distribution

R130 - R163.

Michelle Stokes

Client Reference: N 01323
Project :
Cost Code:

Date Received: 08/09/1992
Number of Samples: 35

Sample Preparation

Analysis	Analytical Technique	Precision & Accuracy	Detection Limit	Data Units
Au	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
Au(R)	FA50	Acc. ± 15%	1	ppb
As	AAS/MA-3	Prec. ± 10%	2	ppm

Authorisation: Ray Wooldridge
Report Dated: 12/09/1992

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ASSAY CODE: AC 03995

Sample		Au (ppb)	Au(R) (ppb)	Au(R) (ppb)	Au(R) (ppb)	As (ppm)
R	129	<< Sample not received >>				
R	130	16	14			42
R	131	8				11
R	132	10				25
R	133	640	200			48
R	134	35	27			25
R	135	13	13			16
R	136	10				18
R	137	27	27			37
R	138	10				34
R	139	72	43			24
R	140	10	12			20
R	141	11				<2
R	142	7				6
R	143	13				13
R	144	340	118	45	63	31
R	145	10	9	8		54
R	146	66	18			56
R	147	8	7			15
R	148	65	130			22
R	149	18	15			12
R	150	7				20
R	151	7				6
R	152	23				21
R	153	7				6

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ASSAY CODE: AC 03995

Sample		Au (ppb)	Au(R) (ppb)	Au(R) (ppb)	Au(R) (ppb)	As (ppm)
R	154	44	18			46
R	155	6	6			2
R	156	46	41			24
R	157	6	5			<2
R	158	81	32	110		16
R	159	21	18			23
R	160	6				4
R	161	9				27
R	162	10	9			22
Extra R	163	8				8