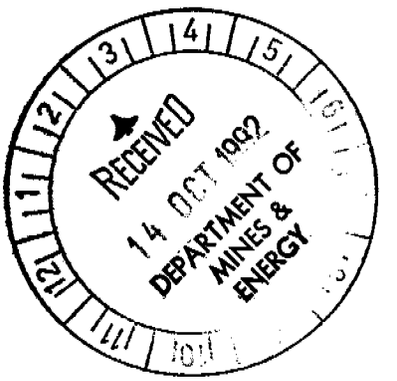

EL7456 "HAYES CREEK"

ANNUAL REPORT TO 3 SEPTEMBER 1992

YEAR ONE OF TENURE

Distribution:

NTDME, Darwin

Dominion Mining Ltd, Darwin

Dominion Mining Ltd, Perth

NR Burn

September 1992

AD52/08/570/170

NB-EL7456

CONTENTS

FIGURES

Figure No.	Title	Scale	Drawing No.
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APPENDIX

1. STREAM SEDIMENT ASSAY RESULTS

1. SUMMARY

This report details the 1991/92 exploration activities completed on EL7456 in Year 1 of tenure, ending 3 September 1992.

The licence, comprising six (6) blocks was granted to Dominion Gold Operations Pty Ltd (Dominion) on 4 September, 1991 for a period of four (4) years with a first year covenant of $10,000.

Exploration activities during Year 1 consisted of literature review, interpretation of Government airborne geophysical survey, aerial photography interpretation, stream sediment sampling and reconnaissance mapping at 1:25,000 scale.

Airesearch Pty Ltd, under contract to Dominion Gold, flew aerial photography (at 1:25,000 scale) in April 1991 which covers this licence.

Results from the stream sediment sampling included best results of 12 ppb Au (silt), 18ppm Cu (silt), 13ppm Pb (silt) and 94 ppm Zn (silt) with no pan concentrate Au anomalies.

The Dominion 1992 exploration programme, now in progress, includes reconnaissance mapping at 1:25,000 and geochemistry (rock chip, soil) of the low order Au stream anomalies.

2. LOCATION AND TENURE

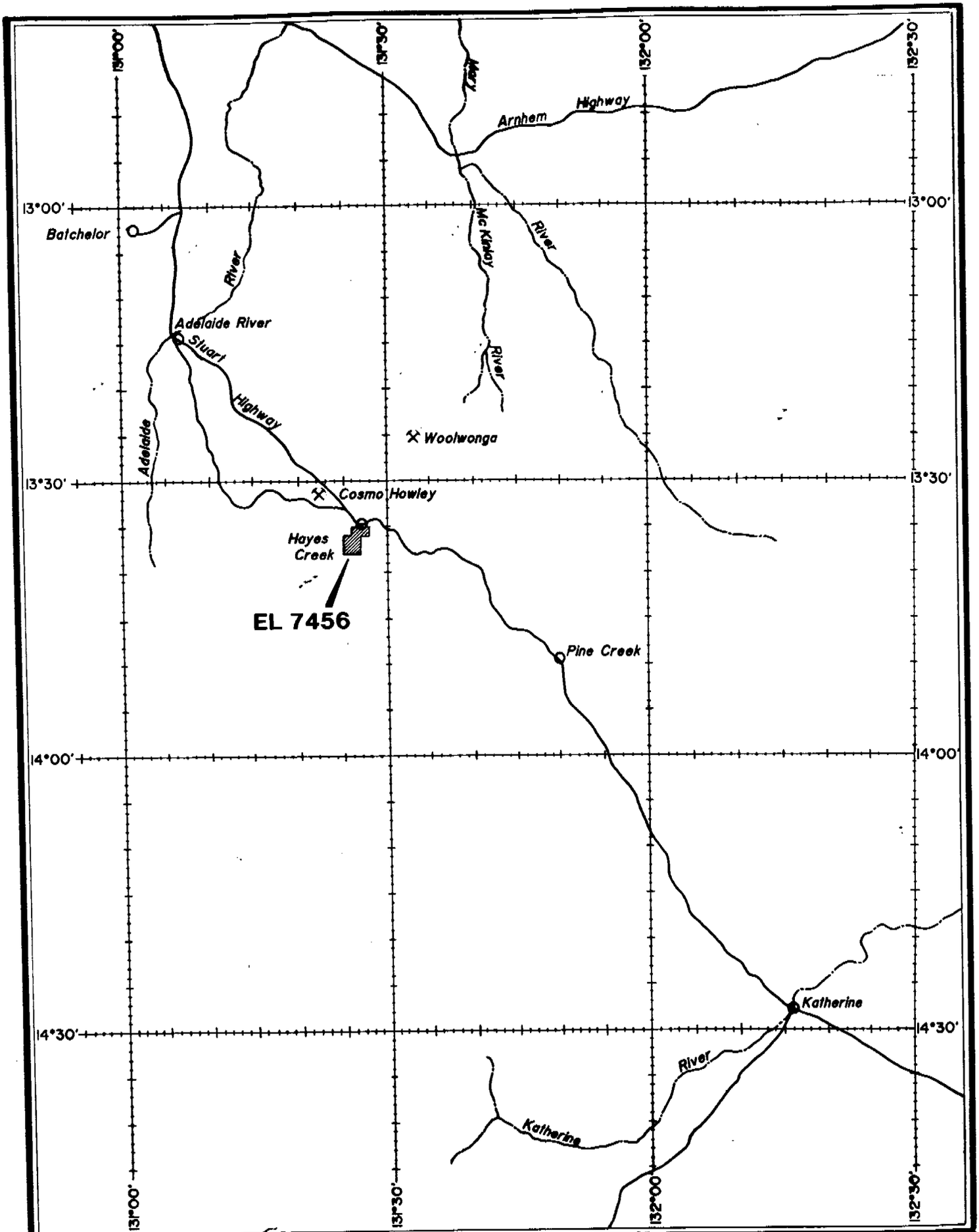
EL7456 is located 170km south of Darwin, approx. 10km southeast of the Cosmo Howley Mine and is located on the Fenton 1:50,000 (14/5-1) sheet. The tenement lies between latitudes 13°35'S and 13°38'S and longitudes 131°25'E and 131°28'E. See Fig. 1. Access is via the Stuart Highway, Oolloo road and Douglas Station tracks.

The licence was granted to Dominion Gold Operations Pty Ltd on 4 September 1991 for four (4) years.

3. PHYSIOGRAPHY AND CLIMATE

Climatically, EL7456 experiences a wet season (November to April) and a dry season (May to October). Average annual rainfall is 1249mm and the mean temperature is approximately 28°C.

Local relief consists of low, undulating hills with the Hayes Creek fault escarpment along the eastern boundary ranging in elevation from 70 to 200m above sea level and with Hayes Creek running diagonally NE-SW through the licence.



0 10 20 30 60 km

Dominion Mining Limited

EL 7456
TENEMENT LOCATION

PROJECT	N.T. REGIONAL			STATE	N.T.
ORIGINATOR	S.L.	Date 9/92	DRAWN R.L.	Date	9/92
SCALE	1:1000000	FIGURE No:		PLAN No:	2A-T80

4. GEOLOGY

4.1 Regional Geology

The geology of the Pine Creek Basin has been well documented by the BMR [Wallace et al 1985, Needham et al 1980].

The Early Proterozoic sequence was deposited by alternating shallow marine and continental environments in an intracratonic basin setting. Following intrusion by conformable sills, a major period of deformation and regional metamorphism, related to granite intrusion, produced a series of tight, upright folds.

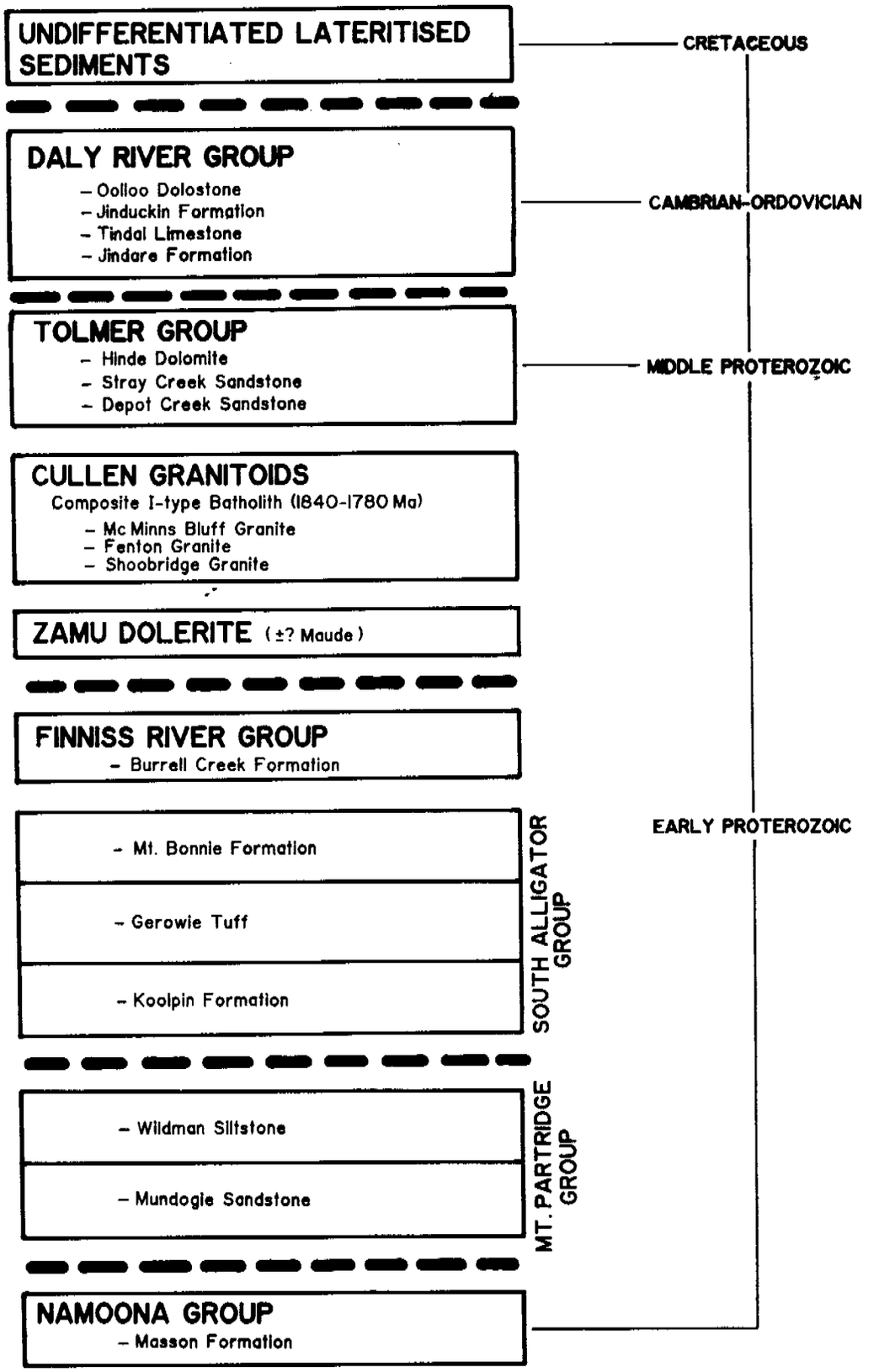
Early Proterozoic stratigraphy of the Pine Creek/Adelaide River area is listed in Table 1.

4.2 Local Geology

Geology of EL7456 consists of Early Proterozoic South Alligator Group and Burrell Creek Formation sediments intruded by the Fenton Granite. See Fig. 2 for fact geology.

A major NE-SW trending structure, the Hayes Creek Fault, post-dates granite intrusion and displaces Early Proterozoic to Cambrian sediments. Within EL7456 this fault zone is defined by an escarpment of upfaulted Late Proterozoic Depot Creek Sandstone near Hayes Creek and a series of discontinuous quartz reefs in the Early Proterozoic sediments and granite.

STRATIGRAPHIC COLUMN



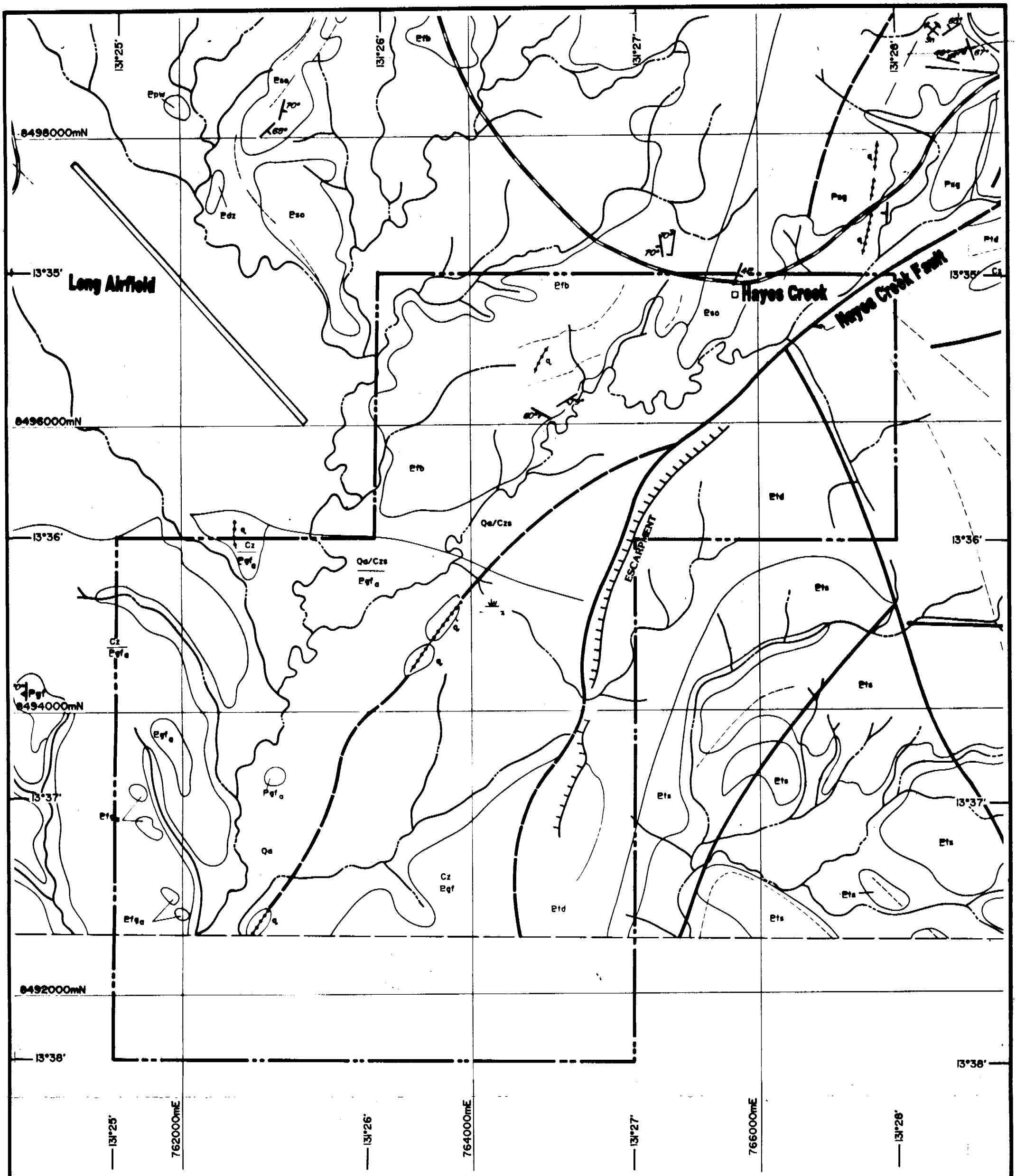
CULLEN MINERAL FIELD
STRATIGRAPHIC RELATIONS

PROJECT STATE N.T.

ORIGINATOR F.F. Date 5/91 DRAWN R.L. Date 5/91

SCALE PLAN NO: 2A - G100

Dominion Mining Limited



LEGEND

Qa	Quarternary
Cz	Lithosols
Pts	Stray Creek Sandstone
Ptd	Depot Creek Sandstone
Pgf	Fenton Granite
Pdz	Zamu Dolerite
Pfb	Burrell Creek Formation
Pso	Mt. Bonnie Formation
Psg	Gerowie Tuff

Dominion Mining Limited

PROJECT: SHOOBRIDGE

PROSPECT: NORTH FENTON — N.T.

EL 7456
FACT GEOLOGY

0 250 500 1000 1500 2000 m

ORIGINATOR: N.B.
Date: 10/92

SCALE: 1:25000
DRAWN: R.L.

PLATE Nº:

PLAN Nº: 40A–Ga22

5. 1990/1991 WORK PROGRAM

5.1 Aerial Photography

During April 1991, Airesearch Mapping Pty Ltd of Darwin flew the Shoobridge-Fenton tenements held by Dominion and produced sets of 1:25,000 scale air photos. The relevant air photo runs are AM529, Runs 7 (053-54) and 8 (087-88) at 1:25,000 scale.

5.2 Geophysics

Interpretation of magnetic and radiometric data for EL7456 shown on the Tipperary (5170) 1:100,000 geological sheet indicates a relatively quiet area with low magnetic variability related to the Fenton Granite and Tolmer Group sediments while minor sharply variable magnetic values reflect South Alligator Group sediments.

5.3 Geochemistry

A regional stream sediment sampling programme was conducted over the Shoobridge-Fenton tenements held by Dominion.

Stream sediment samples (286940-48) were collected from selected sites within drainages averaging 4km^2. Two sample sizes were collected;

i) -20# fraction, 2-3kg, sieved to -200# in the laboratory.

ii) pan concentrate, approx. 100g.

Samples were despatched to Classics Laboratories Darwin where they were analysed by the following methods;

Au:	solvent extraction, graphite furnace AAS
Cu,Pb,Zn,As,Ag,Ni,Mn,Fe:	low detection flame AAS
U,Th:	ICP-MS

Sample location and assay results are shown in Fig. 3

131°25'
131°26'
131°27'
131°28'
13°35'
13°36'
13°37'
13°38'
762000mE
764000mE
766000mE
8496000mN
8494000mN
8492000mN

Long Airfield

Hayes Creek

Hayes Creek Fault

Escarpment

286944
286945
(2)<5/330/1.61/9/6/16 /1.0/7.3
1)<5/52/2.70/6/4/2/1.2/4.4
7/7/450/2.26/7/7/ 1 /1.3/4.8
14/39/120/9.00/20/19/42/3.6/1

286947
5/7/93/1.50/11/13/ 1 /1.1/3.7
<1/49/32/10.3/22/7/6/3.0/7.9

286943
4/8/450/2.66/9/8/ 94 /1.6/6.0
<1/<5/29/0.77/2/3/7/0.4/2.7

286946
5/<5/59/0.32/4/4/ 5 /0.3/1.4
<1/<5/<5/0.15/<2/<2/<2/<0.1/ 0.9

286941
<1/<5/300/1.52/8/8/ 26 /2.3/9.0
<1/7/93/2.34/7/9/9/1.9/6.1

286942
5/6/260/1.44/9/5/ 24 /1.0/3.5
<1/<5/28/0.43/2/<2/10/0.6/8.1

286940
12/<5/1070/2.10/18/12/ 15 /1.7/6.3
<1/7/66/1.64/8/6/9/0.8/6.1

Qa/Czs
Cz
Pgf
Pgf'a
Qa
Ptd
Pts
Ptb
Pw

286903
Silt 12/<5/1070/2.0/18/12/ 34 /1.7/6.3
Pancon 14/<5/1030/2.5/16/14/156 /1.5/6.1

Au/As/Mn /Fe/Cu/Pb/Zn /U /Th
ppb ppm % ppm

Dominion Mining Limited

PROJECT: SHOOBRIDGE

PROSPECT: NORTH FENTON | N.T.

EL 7456
STREAM SEDIMENT SAMPLING

0 250 500 1000 1500 2000 m

ORIGINATOR: N.B.
Date: 10/92

SCALE: 1:25000
DRAWN: R.L.

PLATE Nº:

PLAN Nº: 40A-Cb23

6. CONCLUSIONS AND RECOMMENDATIONS

Exploration activities conducted during 1991/92 within EL7456 include contracted aerial photography, re-interpretation of NTGS airborne geophysical data, reconnaissance mapping at 1:25,000 scale, and stream sediment sampling. Results from the stream sediment sampling included best results of 12ppb Au (silt) from Hayes Creek located in the SW corner of tenement.

Exploration activities proposed for Year 2 of Tenure include mapping and geochemical evaluation (rock chip,soil) of stream sediment assay results and if warranted, possible drill testing of geochemical/geophysical anomalies. Proposed Year 2 expenditure of $5,000 is envisaged.

7. EXPENDITURE

Expenditure covenant for Year 1 was $10,000.

Expenditure for EL7456 recorded for the 12 months ending 30 August 1992 as given below, is $11,100.

EL7456 EXPENDITURE YEAR 1 TO 30 AUGUST 1992

Assays	236
Aerial Photography	178
Equipment	340
Data Acquisition	107
Salaries and Wages	5432
Travel and Accommodation	1276
Vehicles	918
Drafting and Computing	643
Camp/Field Provision	12
Office	523
Administration	1435
TOTAL	**$11,100**

8. REFERENCES

KRUSE, O.D.,. WHITEHEAD, B.R. and MULDER, C.A., 1990

Tipperary 5170. 1:100,000 Geological Map Series Explanatory Notes. Northern Territory Geological Survey

NEEDHAM, R.S., CRICK, J.A. & STUART-SMITH, P.G. 1980

Regional Geology of the Pine Creek Geosyncline. In Proceedings of the International Uranium Symposium. International Atomic Energy Agency, Vienna p1-22.

WALLACE, D.A., STUART-SMITH, P.G., NEEDHAM, R.S. and ROARTY, M.J., 1985

The Geology of the McKinlay River Area, Northern Territory, Australia. Bureau of Mineral Resources. 1:100,000 Geological Sheet 5271.

APPENDIX 1

STREAM SEDIMENT ASSAY RESULTS

CLASSIC LABORATORIES LTD

Job: 1DN0668A
O/N: 005088

Final

ANALYTICAL REPORT

SAMPLE	Au	Cu	Pb	Ag	Mn	Fe	Mo
286940A -200mesh	12	18	12	<0.1	1070	2.10%	<1
286941A -200mesh	<1	8	11	<0.1	300	1.52%	<1
286942A -200mesh	5	9	5	<0.1	260	1.44%	<1
286943A -200mesh	4	9	8	<0.1	450	2.66%	<1
286944A -200mesh	2	9	6	<0.1	330	1.81%	<1
286945A -200mesh	7	7	7	<0.1	450	2.26%	<1
286946A -200mesh	5	4	4	<0.1	59	3180	<1
286947A -200mesh	5	11	13	<0.1	93	1.50%	<1
286948A -200mesh	19	27	8	<0.1	460	3.74%	<1
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	1	2	2	0.1	5	5	1
SCHEME	AAS9	AAS9	AAS9	AAS9	AAS9	AAS9	AAS9

ANALYTICAL REPORT

SAMPLE	Ni	As	U	Th
286940A -200mesh	18	<5	1.7	6.3
286941A -200mesh	14	<5	4.9	9.0
286942A -200mesh	6	6	1.0	3.5
286943A -200mesh	13	8	2.5	6.0
286944A -200mesh	7	<5	1.0	7.3
286945A -200mesh	15	7	3.6	4.8
286946A -200mesh	6	<5	0.3	1.4
286947A -200mesh	3	7	1.1	3.7
286948A -200mesh	13	30	4.1	6.5
UNITS	ppm	ppm	ppm	ppm
DET.LIM	2	5	0.1	0.1
SCHEME	AAS9	AAS9	ICPMS	ICPMS

CLASSIC LABORATORIES LTD

Job: 1DN0668B
O/N: 005088

Final

ANALYTICAL REPORT

SAMPLE	Au	Cu	Pb	Zn	Ag	Mn	Fe
286940B	<1	8	6	9	<0.1	88	1.64%
286941B	<1	7	9	9	<0.1	93	2.34%
286942B	<1	2	<2	10	<0.1	28	4250
286943B	<1	2	3	7	<0.1	29	7700
286944B	1	6	4	2	<0.1	52	2.70%
286945B	14	20	19	42	<0.1	120	9.00%
286946B	<1	<2	<2	<2	<0.1	<5	1500
286947B	<1	22	7	5	<0.1	32	10.3%
286948B	5	18	6	6	<0.1	61	5.86%
UNITS	ppb	ppm	ppm	ppm	ppm	ppm	ppm
DET.LIM	1	2	2	2	0.1	5	5
SCHEME	AAS9	AAS9	AAS9	AAS9	AAS9	AAS9	AAS9

CLASSIC LABORATORIES LTD

Final

Job: 1DN0668B
O/N: 005088

ANALYTICAL REPORT

SAMPLE	Mo	Ni	As	U	Th
286940B	<1	9	7	0.8	6.1
286941B	<1	5	7	1.9	6.1
286942B	<1	3	<5	0.6	8.1
286943B	<1	3	<5	0.4	2.7
286944B	<1	4	<5	1.2	4.4
286945B	<1	12	39	3.6	11
286946B	<1	2	<5	<0.1	0.9
286947B	<1	6	49	3.0	7.9
286948B	<1	7	37	2.2	6.7
UNITS	ppm	ppm	ppm	ppm	ppm
DET.LIM	1	2	5	0.1	0.1
SCHEME	AAS9	AAS9	AAS9	ICPMS	ICPMS

CLASSIC LABORATORIES LTD

Job: 1DN0668C
O/N: 005088

Final

ANALYTICAL REPORT

SAMPLE	Zn
286940A -80 mesh	15
286941A -80 mesh	26
286942A -80 mesh	24
286943A -80 mesh	94
286944A -80 mesh	16
286945A -80 mesh	11
286946A -80 mesh	5
286947A -80 mesh	11
286948A -80 mesh	22
UNITS	ppm
DET.LIM	2
SCHEME	AAS2