

CR 92 / 005

**EL7061 "PLATEAU POINT EAST"
ANNUAL REPORT TO 10 OCTOBER 1991
YEAR ONE OF TENURE**

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EL7061

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1. **SUMMARY**

This report details the 1990/91 exploration activities completed in EL7061 during Year 1 of Tenure, ending 10 October 1991.

The licence, comprising one (1) block, was granted to Dominion Gold Operations Pty Ltd on 11 October 1990 for a period of three (3) years.

Exploration activities during Year 1 consisted of literature review, airborne geophysical interpretation of Government commissioned survey, aerial photography interpretation, stream sediment sampling and regional mapping at 1:25000 scale.

Airesearch Pty Ltd, under contract to Dominion Gold, completed an aerial photography programme (at 1:25000 scale) in April 1991 which covers this licence.

The Dominion exploration programme, now in progress, includes acquiring of previously flown (1987) Geotrex airborne data flown for Australian Coal and Gold, interpretation of this data, regional mapping at 1:25000 scale and follow up stream and soil geochemistry.

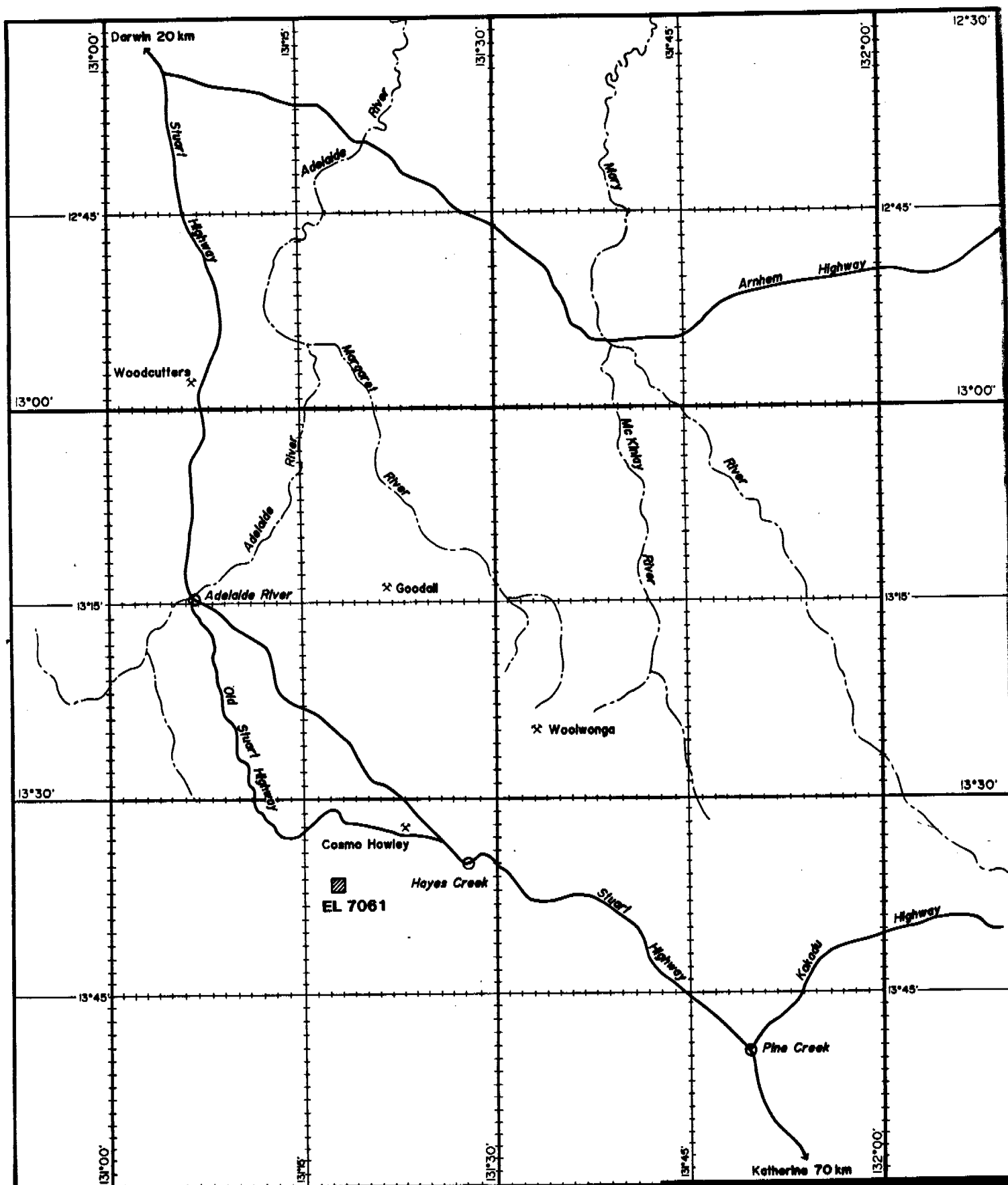
2. LOCATION AND TENURE

EL7061 is located 170km south of Darwin, approx. 8km southwest of the Cosmo Howley Mine and is located on the Fenton 1:50,000 (14/5-1) sheet. The tenement lies between latitudes 13°36'S and 13°37'S and longitudes 131°17'E and 131°18'E. See Figs. 1 and 2.

Access is via the Stuart Highway, sealed Dorat and Ooloo roads and Douglas Station tracks. Climatically Plateau Point East 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 is generally moderate, ranging from 90 to 110m above sea level, with Plateau Point (256m) approximately 1km to the west.

The licence was granted to Dominion Gold Operations Pty Ltd on 22 October 1990 for three (3) years.



DARWIN (8)			
Hampham	Porter's Dam		
Noonamah S/S	Mary River S/S		
Warren Dam	Maridie	Maridie Dam	Arnhem
Barraba	Margaret River	Woolwonga	Stuart Creek
Barraba M/S	McKintley River M/S		
Warren Dam	Stuart	Stuart Dam	Stuart River
PINE CREEK (14)			
Pine	Barraba	Woolwonga	
Topography M/S	Pine Creek M/S		
	Flaming	Pine Creek	

Legend

- 1:250 000 sheet boundary
- 1:100 000 sheet boundary
- 1:50 000 sheet boundary
- x operating mine

Dominion Mining Limited

PROJECT: SHOOBRIDGE

PROSPECT: EL 7061

N.T.

REGIONAL TENEMENT LOCATION

0 5 10 20 30 40 km

ORIGINATOR: F.F.

SCALE:

Date:

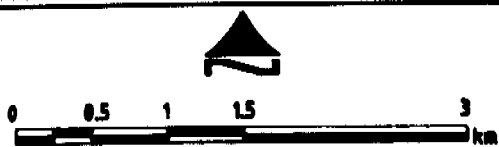
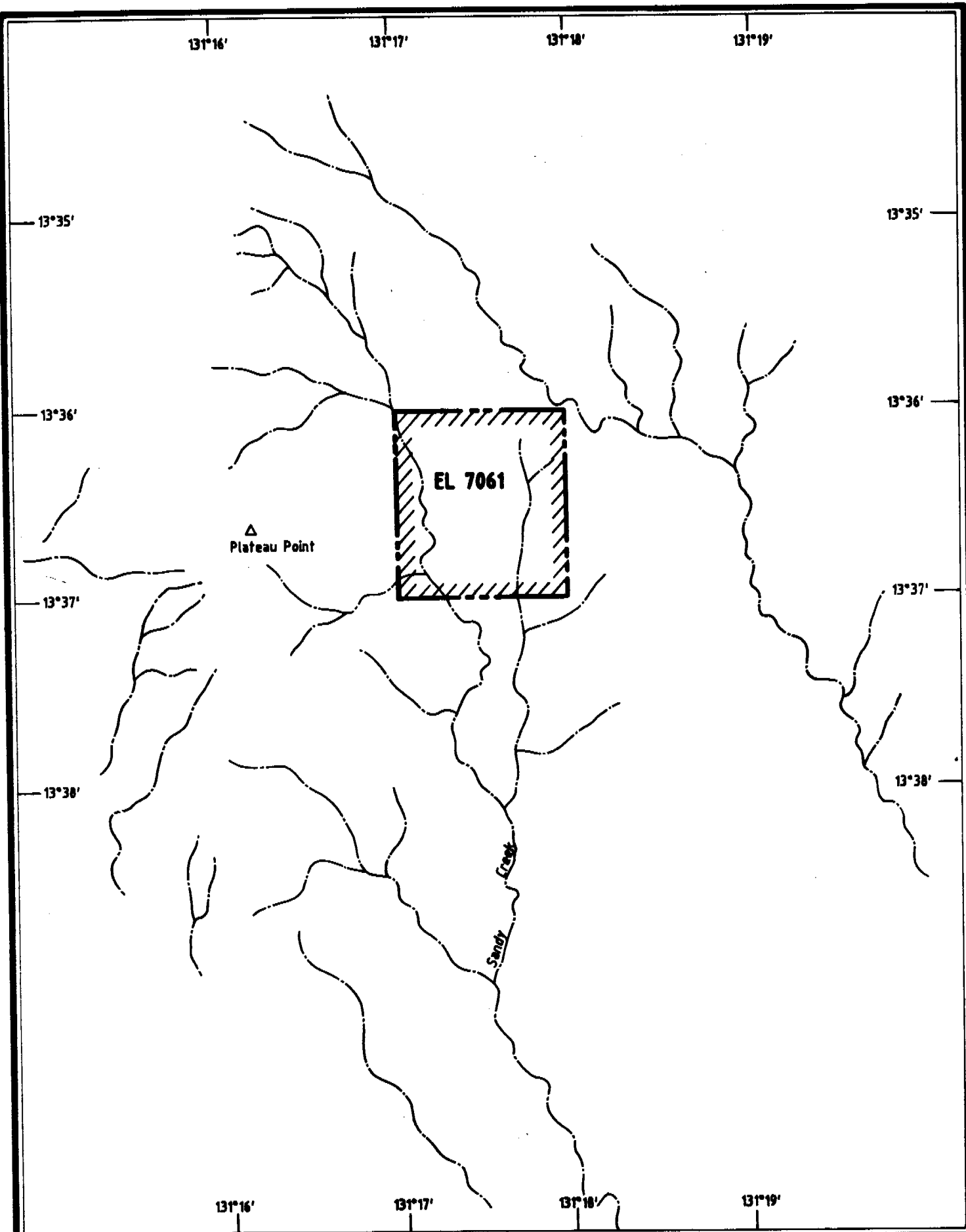
DRAWN: R.L.

FIG. No:

1

PLAN No:

2A-B4



EL 7061 TENEMENT LOCATION

PROJECT SHOOBRIDGE

STATE N.T.

ORIGINATOR N.B.

Date 11/91

DRAWN R.L.

Date 11/91

⊗ Dominion Mining Limited

SCALE 1:50000

FIGURE NO: 2

PLAN NO 40A-Tb11

3. GEOLOGY

3.1 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.

3.2 Local Geology

Review of previous exploration/mapping programmes by the NTGS show the Fenton Granite intruding the Early Proterozoic South Alligator Group sediments i.e. Koolpin Formation and Wildman Siltstone, with hornfelsed Wildman siltstone roof pendants along major NNW trending shear zones. These shear zones, sub-parallel to the Mt. Shooobridge Fault and associated en echelon faults, are characterised by phyllites, quartz blows and contorted pegmatites. See Fig. 3.

Foliation within the sedimentary rafts and granite trend sub-parallel to the regional NW foliation.

A wedge of Cambrian Daly River Group sediments, including sandstones and limestone scree, has been mapped in the northern part of the licence.

STRATIGRAPHIC COLUMN

**UNDIFFERENTIATED LATERITISED
SEDIMENTS**

CRETACEOUS

DALY RIVER GROUP

- Ooloo Dolostone
- Jinduckin Formation
- Tindal Limestone
- Jindare Formation

CAMBRIAN-ORDOVICIAN

TOLMER GROUP

- Hinde Dolomite
- Stray Creek Sandstone
- Depot Creek Sandstone

MIDDLE PROTEROZOIC

CULLEN GRANITOIDS

Composite I-type Batholith (1640-1780 Ma)

- Mc Minns Bluff Granite
- Fenton Granite
- Shoobridge Granite

ZAMU DOLERITE (±? Maude)

FINNISS RIVER GROUP

- Burrell Creek Formation

- Mt. Bonnie Formation

- Gerowie Tuff

- Koolpin Formation

SOUTH ALLIGATOR
GROUP

EARLY PROTEROZOIC

- Wildman Siltstone

- Mundogle Sandstone

MT. PARTRIDGE
GROUP

NAMOONA GROUP

- Masson Formation

CULLEN MINERAL FIELD STRATIGRAPHIC RELATIONS

PROJECT **BROCKS CREEK**

STATE **N.T.**

ORIGINATOR **F.F.**

Date **5/91**

DRAWN **R.L.**

Date **5/91**

SCALE

TABLE No: **1**

PLAN No: **2A - GIOO**

PLAN N°: 40A-Ga9

4. 1990/1991 WORK PROGRAM

4.1 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 (062-64) and 8 (078-80) at 1:25,000 scale.

4.2 Geophysics

Interpretation of magnetic and radiometric data for the Tipperary (5170) 1:10,000 Geological Sheet indicates a strong magnetic high feature trending NW, representative of steeply dipping Proterozoic sediments. EL7061 lies on the edge of this feature with the broad magnetic low to SE representing the Fenton Granite.

Acquisition of airborne magnetic and radiometric data previously flown by Geoterrex for Australian Coal and Gold will be used to assist in further interpretation and field exploration programmes. This data is yet to be located as, following relinquishment by Australian Coal and Gold of nearby tenements, the digital data was never submitted to the NTDME.

4.3 Field Work

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

Stream sediment samples were collected from selected sites within drainages averaging 4km². Two sample sizes were collected;

- i) -20# silt fraction, 2-3kg, sieved to -200 # in the laboratory.*
- ii) pan concentrate, approx. 100g.*

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

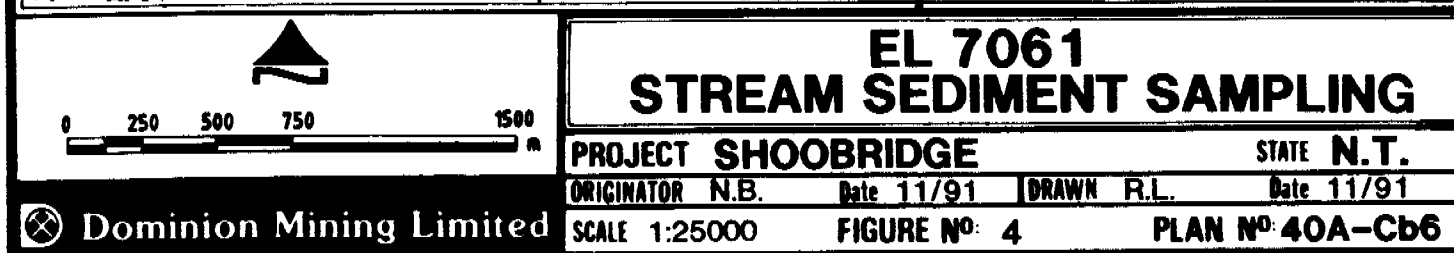
Au: solvent extraction, graphite furnace AAS

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. 4.

Regional mapping of the Shoobridge-Fenton tenements at 1:25000 scale is in progress with preliminary data concurring with previous NTGS/BMR mapping.



5. **CONCLUSIONS AND RECOMMENDATIONS**

During 1990/91, review of literature and government geophysical data has indicated the presence of complex magnetic signature and above background Au anomalies. Follow up field exploration of these features is required to determine the source of these anomalies.

The Dominion exploration programme, now in progress, includes acquisition and interpretation of Geotrex flown geophysical data, regional mapping at 1:25,000 scale and stream and soil geochemistry.

Initial stream sediment results indicate minor anomalous Au and base metal values which require follow up work with a Year 2 expenditure proposed to be a minimum of \$5,000.

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6. **EXPENDITURE**

Expenditure covenant for Year 1 was \$10,000.

Expenditure for EL7061, recorded for the 12 months ending 31 October 1991 as given below is \$11,348. Note that as the exploration program is in progress, some recent expenditure items have not been included in these figures (e.g. assays). These will be included with Year 2 expenditure.

EL7061 Expenditure Year 1 to 31 October 1991.

<i>Aerial Photography</i>	<i>628</i>
<i>Geophysics</i>	<i>1275</i>
<i>Aircraft Support</i>	<i>193</i>
<i>Field Supplies and Equipment</i>	<i>1257</i>
<i>Data Acquisition</i>	<i>13</i>
<i>Salaries and Wages</i>	<i>3380</i>
<i>Travel and Accommodation</i>	<i>1207</i>
<i>Consultants</i>	<i>132</i>
<i>Vehicles</i>	<i>68</i>
<i>Computing and Drafting</i>	<i>94</i>
<i>Office</i>	<i>184</i>
<i>Freight</i>	<i>32</i>
<i>Administration</i>	<i>2885</i>
TOTAL	11348

7. REFERENCES

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