ANNUAL REPORT

FOR EXPLORATION LICENCE 8775

FOR THE PERIOD 21/2/95 TO 20/2/96

TENNANT CREEK DISTRICT, NORTHERN TERRITORY

SMOKO PROSPECT

TENNANT CREEK 1:250,000 SHEET SE 53-14

VOLUME 1 OF 1

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EXPLORATION GEOLOGIST

DATE: MARCH 1996

AUTHORISED BY:

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COMMODITIES: Gold, Copper
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1 SUMMARY

This report details work completed on EL 8775 (Smoko) during the first year of exploration. The Exploration Licence comprises of two blocks covering an area of 6km² and is located approximately 45kms north of Tennant Creek.

PosGold explored the licence for Tennant Creek style Au-Cu-Bi mineralisation. Work completed during year one of tenure includes general field reconnaissance and gravity survey.

2 INTRODUCTION

2.1 Location and Access

Exploration Licence 8775 (Smoko) is located approximately 45kms north of Tennant Creek township (refer Figure 1). Access from Tennant Creek is via the Stuart Highway and a station track along the Phillip Creek. Access difficulties can be expected during period of heavy seasonal rainfall.
2.2 Climate and Physiography

The climate of the Tennant Creek district is mild to warm and dry throughout autumn, winter and spring, with cool to cold winds in winter. High temperatures (in excess of 35°C) occur in summer with associated seasonal rainfall which can impede field work programmes.

The relief is moderate with the EW trending Short Range to the north, the physiography of Exploration Licence 8775 consists mainly of flat aeolian sand plains, sparsely vegetated and flood plains associated with discharge of the Phillip Creek.

2.3 Tenure

Exploration Licence was granted to PosGold Limited on 21 February 1995 for a period of three years. The Exploration Licence consists of two blocks covering an area of 6km².

2.4 Previous Exploration

Exploration Licence 8775 was explored by Western Mining Corporation Ltd (WMC) under SEL 7716 from 1992 to 1994. WMC conducted a regional airborne magnetic survey and a regional gravity survey across the licence area (Ward, 1994).

3 REGIONAL GEOLOGY

The Tennant Creek Inlier comprises gneissic basement successively overlain by unconformable Proterozoic sediments of the Warramunga Group, Hatches Creek Group and Tomkinson Creek Beds. These sediments have been intruded by Proterozoic aged granites, and subsequently overlain by Cambrian sediments (Le Messurier et al., 1990). The Warramunga Group contains all of the economically viable mineral deposits in the Tennant Creek region.

The Warramunga Group is overlain by the Flynn Sub-Group. The Warramunga Group comprises a sequence of argillaceous sedimentary rocks including siliceous greywacke, siltstone, shale and haematite shale with zones of disseminated haematite-magnetite being common throughout. Quartz-feldspar porphyry lenses occur as both cross-cutting and conformable units within the sedimentary sequences. The Flynn Sub-Group comprises a sequence of argillaceous to quartz-rich arenaceous sedimentary rocks, coarser up sequence, with abundant quartz veining. All of the mineralised ironstones are contained in the Warramunga Group.

The Warramunga Group exhibits three deformational phases and is metamorphosed to greenschist facies. The first deformational episode results in tight to isoclinal, upright folds with east-west axes. Two later episodes of faulting consist of WNW trending faults and shear zones with south-side-up movement, and NW trending faults often filled with quartz, showing sinistral movement.
4 LOCAL GEOLOGY

Exploration Licence 8775 covers an area where aeolian/alluvial sand cover dominates. Interpretations suggest that Cenozoic and recent sediments conceal a combination of, from north to south, Tomkinson Creek Fm, Flynn Sub-Group and Warramunga Group sediments.

5 EXPLORATION COMPLETED DURING YEAR ONE OF TENURE ON EXPLORATION LICENCE 8775

Work completed by PosGold over Exploration Licence included field reconnaissance and a geophysical survey (gravity).

5.1 Regional Gravity Survey

A regional gravity survey incorporating the area covered by Exploration Licence 8775 was undertaken by PosGold in the Tennant Creek region from 1991 to 1993 with several thousand readings collected throughout the field.

Figure 2 presents a single Bouguer gravity contour plan of Exploration Licence 8775 at 1:50,000.

6 CONCLUSIONS

Work undertaken during year 1 of tenure revealed a gravity anomaly worthy of follow-up work such as vacuum drilling to fully explore the potential of this exploration licence and to test Au/Cu/Bi ironbodies.

7 EXPENDITURE INCURRED DURING THE PERIOD

During year one of tenure, Exploration Licence 8775 incurred an expenditure of $2,719.00 (Covenant $8,000.00). This is due to the fact that a planned vacuum programme did not start during the first year of tenure.

A breakdown of this expenditure is shown below:

<table>
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<tr>
<th>EXPENSE</th>
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<tr>
<td>Employee Costs</td>
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<tr>
<td>Overheads</td>
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<tr>
<td>Covenant</td>
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8 FUTURE WORK PROGRAMME
SURVEY LOCATION

The survey is located in the vicinity of Tennant Creek in the Northern Territory.

DATA COLLECTION

Gravity Meters: L&R G215, G505
Elevations: Barometric
   Accuracy .5 meters

BMR Base: Tennant Creek Airport.

Surveys:
   Flynn-Vivid (50 m and 500 m)
   Northstar (50 meters)
   West Fields (200 meters)
   Navigator 6 (50 meters)
   Tiger (25 meters)
   Cougar (25 meters)
   SR-601 (25 meters)
   1991 Regional (500 & 1000 meters)
   Gecko West (50 meters)

DATA PROCESSING

Meter to Mgals:
   G215 2100, 2207.56, 1.05257
   G505 2200, 2252.56, 1.02377

BMR Grav. Base: Tennant Creek Airport
   978526.94 mgals

Subtract DC: 970,000 mgals from Obs.Grav.

Newmont Data: subtract 1.14 mgals from Obs. Grav.

Reduction: Simple Bouguer.

Gridding: 200 meter
8.1 Proposed Exploration from 21/2/96 to 20/2/97 on Exploration Licence 8775 During Year Two

Vacuum drilling to test the mineralisation potential based on gravity survey and a review of the past work.

8.2 Proposed Expenditure from 21/2/96 to 20/2/97

<table>
<thead>
<tr>
<th>EXPENSE</th>
<th>COST</th>
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<tbody>
<tr>
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<tr>
<td><strong>TOTAL</strong></td>
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9 REFERENCES


APPENDIX ONE

BIBLIOGRAPHIC DATA SHEET
**BIBLIOGRAPHIC DATA SHEET**

**REPORT NUMBER**  
20261

**REPORT NAME**  
ANNUAL REPORT FOR EXPLORATION LICENCE 8775 FOR THE PERIOD 21/2/95 TO 20/2/96 TENNANT CREEK DISTRICT, NORTHERN TERRITORY, SMOKO PROSPECT

**PROSPECT NAME(S)**  
EL 8775  
SMOKO PROSPECT

**OWNER/JV PARTNERS**  
POSGOLD LIMITED

**KEYWORDS**  
PHILLIP CREEK  
TENNANT CREEK INLIER  
GRAVITY SURVEY

**COMMODITIES**  
GOLD, COPPER

**TECTONIC UNIT**  
TENNANT CREEK INLIER

**1:250,000 MAP SHEET**  
TENNANT CREEK SE 53-14 (52)

**1:100,000 MAP SHEET**