Sipa Exploration NL



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Project Name: Tennant Creek **Combined Reporting Number: Tenement Numbers: EL 23764 Tenement Operator:** Sipa Exploration NL Tenement Holder: Image Resources NL **Report Type:** Annual Report Title: Annual Report for EL 23764 for the Period 25. November 2009 to 24. November 2010, Tennant Creek Project Report Period: 25. November 2009 to 24. November 2010 Author: P. Neumayr Date of Report: 24. January 2011 Datum/Zone: GDA94/Zone53 1:250 000 Map Sheet: Tennant Creek SE 53-14 1:100 000 Map Sheets: Short Range 5659 Target Commodity: Au, Cu, Bi Keywords: Project review and assessment List of Assays: Contact details: Peter Neumayr Sipa Exploration NL PO Box 1183 West Perth WA 6872 Phone: 08 9481 6259 Fax: 08 9322 3047 Email for further technical details: peter2@sipa.com.au **Email for expenditure:** tien@sipa.com.au **Distribution:** Department of Resources Minerals and Energy Image/Meteoric Resources NL

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SUMMARY

Exploration Licence 23764 is part of the Tennant Creek project of Sipa Exploration NL. The project originally consisted of Exploration Licences 22359, 23063, 23065, 23992 and 26822 and Exploration Licence Applications 26823 and 26824. These tenements are subject to a Joint Venture – Farm In agreement with Mr's Hosking, Le Brun and Allender. In November 2009, Sipa negotiated another Joint Venture – Farm In agreement with Image Resources and Meteoric Resources for Exploration Licences 23764 and 24138 and Exploration Licence Applications 24363, 24255 and 24257 which formally became part of the Tennant Creek project. Sipa Exploration NL targets Cu and Au ore bodies of the Tennant Creek style in the project.

Previous work and data review on the tenement revealed that soil sampling is not a reliable tool to detect geochemical anomalies. Isolated anomalous samples may indicate the presence of geochemically anomalous structures, but the absence of anomalous samples in the soil samples does not sterilize the ground. Vaccuum sampling seems to produce better results. Several Cu anomalies are located on the tenement. Importantly, these anomalies have not been drill tested as yet. Future work should involve further vaccuum drill sampling, possibly also over areas previously tested with soil sampling. The Cu anomalies warrant RAB drill testing.

Table 1 Exploration Summary

Tenement	Activity		
EL 23764	Project and data review		

INTRODUCTION

Exploration Licence 23764 is part of the Tennant Creek project of Sipa Exploration NL. The project originally consisted of Exploration Licences 22359, 23063, 23065, 23992 and 26822 and Exploration Licence Applications 26823 and 26824. These tenements are subject to a Joint Venture – Farm In agreement with Mr's Hosking, Le Brun and Allender. In November 2009, Sipa negotiated another Joint Venture – Farm In agreement with Image Resources and Meteoric Resources for Exploration Licences 23764 and 24138 and Exploration Licence Applications 24363, 24255 and 24257 which formally became part of the Tennant Creek project. Exploration Licence 23764 covers an area of some 74.53 km² and is located near Tennant Creek in the Northern Territory (Table 1). The Tennant Creek goldfield, which has past production of 4.7Mt of gold from 16.3Mt of ore, is renowned for the high grade of its ore bodies. The project tenement is located immediately north of the largest mine in the field, the Warrego Mine, which produced 1.3Moz of gold and 91,500t of copper. Warrego had overall recovered grades of approximately 8g/t gold and 2% copper and was characterised by hight grade gold zones averaging 20g/t (Chisholm).

Table 2

Tennant Creek – Tenement Summary

Project	Number	Grant Date	Area (km²)	Annual Expenditure Requirement
Tennant Creek	E23764	26 November 03	74.53	\$52,430

The Tennant Creek Project tenements are interpreted to cover the 11 km northern extension of the favourable stratigraphy, which hosts the Warrego Mine. The Last Hope Mine, where gold was first discovered in the Tennant Creek goldfield, is located near the project area. During the exploration year, Sipa concentrated its exploration effort on the tenement EL23992 to the southwest to confirm that favourable Warramunga stratigraphy does extend to the west of the Warrego granite.

Copper – gold ore bodies in the Tennant Creek goldfield are commonly associated with magnetite – rich ironstones within the Warramunga Formation, a sequence of greywacke, siltstone, shale and felsic volcanic rocks of Proterozoic age. There is evidence that the mineral deposits are structurally controlled and occur within more ferruginous horizons of the Warramunga Formation. Significantly, there is more recent evidence that copper – gold mineralisation is also associated with less magnetic, haematite-rich ironstones such as at Nobles Nob and Chariot copper – gold deposits. At Chariot, the deposit is coincident with a strong and shallow gravity response, which is separate from the Chariot magnetic response.

Sipa recognised that while the use of magnetics have in the past been the primary exploration tool used by explorers its use in conjunction with the use of gravimetric surveying is becoming increasingly important in identifying new exploration targets. Joint Venture partner Image/Meteoric has carried out extensive gravity and ground magnetic surveys over target areas, as identified from review and reinterpretation of the exploration database of previous explorers

(Meteoric Prospectus).

Structural controls of mineralisation are considered to be important in the Tennant Creek area and it is noted in the Tennant Creek project area that pronounced structural corridors interpreted from aeromagnetics are evident trending N - S through the Warrego Mine and NW - SE through the Gecko Mine. These features together with others evident from the aeromagnetics identify a number of prospective corridors, which include several of the targets identified by Sipa.

Previous exploration within the project area included shallow geochemical vacuum drilling which identified numerous copper gold geochemical anomalies. Deeper drilling in these areas appears to be quite limited in extent, however the reported occurrences of haematite and magnetite alteration provided encouragement for further exploration, particularly when combined with the results of the Meteoric gravity and magnetic surveys on the adjoining tenement some of which was conducted on the southern portion of EL23764 along with clearing of access tracks.

Airborn magnetics and gravity were reprocessed along with a complete review of geochemical sampling carried out by previous explorers to generate exploration targets for drilling.

During 2010 Sipa carried out an extensive programme of reverse circulation and diamond drilling, and white ant mound sampling on the proximal EL23992 and EL26822 and it continues to be a very active explorer in the immediate area.

GEOLOGY

The project area is located in the Tennant Creek Inlier, an area of Proterozoic rocks consisting of three distinct geological provinces; the Davenport Province to the southeast, the central Tennant Creek Block and the Tompkinson Creek Province to the northwest. The Inlier is comprised of a gneissic basement overlain by Proterozoic sediments of the Warramunga Formation, Hatches Creek Group and the Tompkinson Creek Beds. The sequence of Proterozoic sediments was intruded by younger Proterozoic granitoids around 1858 Ma to 1845 Ma during the Barramundi Orogeny. The Proterozoic rocks were subsequently overlain by Cambrian sediments of the Georgina Basin. The Tennant Creek goldfield is located within the central block where the oldest rocks are the metasedimentary rocks of the Warramunga Formation, which are the host to the ironstone – gold – copper – bismuth mineralisation of the Tennant Creek goldfield.

The Warramunga Formation is comprised of a sequence of argillaceous sedimentary rocks that includes greywacke, siltstone, shale and units of haematitic – magnetite shale. Cross – cutting and conformable quartz – feldspar porphyries occur within the sedimentary sequence.

Following deformation and uplift of the basement, the volcanics and volcaniclastics of the Flynn Sub – Group were erupted (1845 Ma to 1827 Ma), with intrusion of porphyries and minor granitoids into the Warramunga Formation. The Warramunga Formation has been subjected to three phases of deformation, the first of which formed tight to isoclinal folds with an east west axis. The two later phases formed west – northwest trending faults and shear zones, and finally northwest trending faults. The project cover an area of poor outcrop comprised of Cenozoic and Quaternary Aeolian and alluvial sand cover.

HISTORICAL EXPLORATION

Previous explorers of the Tennant Creek Project area have included a number of companies since the 1970's who have explored the area for gold copper and uranium mineralisation. Earlier exploration in the 1960's was conducted by Peko Mines NL and Australian Development NL, it is understood that very little data was reported for this period.

Geopeko Limited explored the area during the 1970's to early 1980's period. Their exploration effort used the data from aeromagnetic surveys flown by the Bureau of Mineral Resources to define targets for ground follow up using ground magnetics. Numerous magnetic and geochemical anomalies were identified with only the most obvious magnetic features and highest geochemical values followed up. Included in the work were three diamond drill holes into three anomalies (Explorer 27, 36 and 59). A limonitic gossan containing up to 1500ppm Cu and 800ppm Mo was tested by Hole Number 1 at Explorer 27 prospect. Dispersed chalcopyrite was intersected in the hole from 124 metres to the EOH at 183metres but reports indicate that no core was assayed. A single diamond hole at Explorer 36 intersected alternating diorite and feldspar porphyry containing disseminated magnetite and copper-iron sulphides with best intersections of 1.2m at 0.4g/t Au from 173m and 1.2m at 0.22% Cu from 270m. A diamond hole at the Explorer 59 prospect intersected fresh weakly magnetic diorite.

Uranerz also explored the area for uranium during the 1970's period.

CRA Exploration Pty Ltd and Central Electricity Generating Board Exploration (Australia) Pty Ltd carried out exploration during the 1980's separately exploring for gold and uranium.

Posgold Ltd (Australian Development Ltd) explored the area during the late 1980's and early to mid 1990's. Their work included processing of aeromagnetic surveys flown over the area in 1984 by Aerodata and 1989 by Austirex. In addition to the use of the aeromagnetics they carried out photo geological interpretation drainage geochemical sampling and vacuum drilling with follow up ground magnetics. Ground based gravity surveys were also carried out over selected prospects. Posgold carried out follow up RAB and RC drilling over the better geochemical and geophysical anomalies.

Giants Reef Mining Ltd held parts of the area from the late 1990's and completed detailed aeromagnetics and colour air photography.

Meteoric and Image Resources have carried out literature and data searches of historical exploration carried out by others in their Warrego North Project area. The data has been tabulated and used to produce a series of historical data sets and maps. The data is comprised of original survey and geochemical log sheets and updated excel and word files. That data has been used by Meteoric to produce plans showing the vacuum drilling.

Meteoric have acquired data from previous aeromagnetic surveys over the Warrego North Project area. The data was used as a primary tool to identify areas of interest where Meteoric then conducted ground based magnetic and gravity surveys to define drilling targets. Image conducted then soil sampling and vaccuum drilling campaigns to identify drill targets.

SIPA EXPLORATION NL EXPLORATION

Sipa only recently farmed into the tenement and has since conducted a review of previous work on the tenement and a priority assessment within the project area. This assessment is used to plan and execute exploration activities on the ground. The review of the previous work indicates that soil geochemistry is of limited use in the area, but vacuum drill sampling appears to produce more consistent results (Fig. 1). Most samples returned Au values below detection limit. Copper seems to define areas of interest and a structural trend. Bismuth is generally very low. However, Cu defines some geochemical anomalies on the tenement. Importantly, these geochemical anomalies have not been drill tested. Also an on the ground reconnaissance was conducted.

CONCLUSIONS

Previous work and data review on the tenement revealed that soil sampling is not a reliable tool to detect geochemical anomalies. Isolated anomalous samples may indicate the presence of geochemically anomalous structures, but the absence of anomalous samples in the soil samples does not sterilize the ground. Vaccuum sampling seems to produce better results. Several Cu anomalies are located on the tenement. Importantly, these anomalies have not been drill tested as yet. Future work should involve further vaccuum drill sampling, possibly also over areas previously tested with soil sampling. The Cu anomalies warrant RAB drill testing.

