ANNUAL EXPLORATION REPORT

EL 24966

'Tennant Creek West'

FOR PERIOD ENDING 17th SEPTEMBER 2009

TENNANT CREEK NT

Tennant Creek SE5314	**1:250,000**
Kelly 5658	**1:100,000**
Tennant Creek 5758	**1:100,000**

Titleholder: Territory Uranium Company Limited

Report No. 2009-019
Prepared for Territory Uranium Ltd
By A Chapman

October 2009

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1. SUMMARY

Exploration for year 3 included ground gravity (1,993 line kms) and magnetics (approx 30 line kms), and subsequent 3D modelling. Geophysical similarities to Olympic Dam and Tennant Creek Style of Iron Oxide Copper Gold (IOCG) mineralisation has enabled a 'Drilling Collaboration' to be sought from and awarded by the NT government for $100k and a joint venture to be signed with Panoramic Resources for $3M.

Exploration for year 4 will involve an initial phase of 3 diamond holes in 2009 for approximately $470,000 with further result based drilling in 2010.

2. LOCATION AND ACCESS

EL24966 is situated approximately 20km to the west of Tennant Creek, NT (Figure 1). The western boundary of the Licence runs approximately 20 kilometres west of the Stuart Highway. Access is west via dirt road 15 kilometres to the south of Tennant Creek. Another dirt road bisects the tenement giving good access to central areas.

Topography is basically flat Cainozoic sand cover with several outcrops of calcrete and alluvium to the south west. Storms over the summer period can make the region impassable.

The area has an arid, 'tropical' climate with long hot summers and short mild winters. Rainfall peaks over the summer period (December to February) with up to 100mm during January (mostly storm related). Temperatures can range from 10^{o}C during the winter into the high 30's for extended periods during summer.

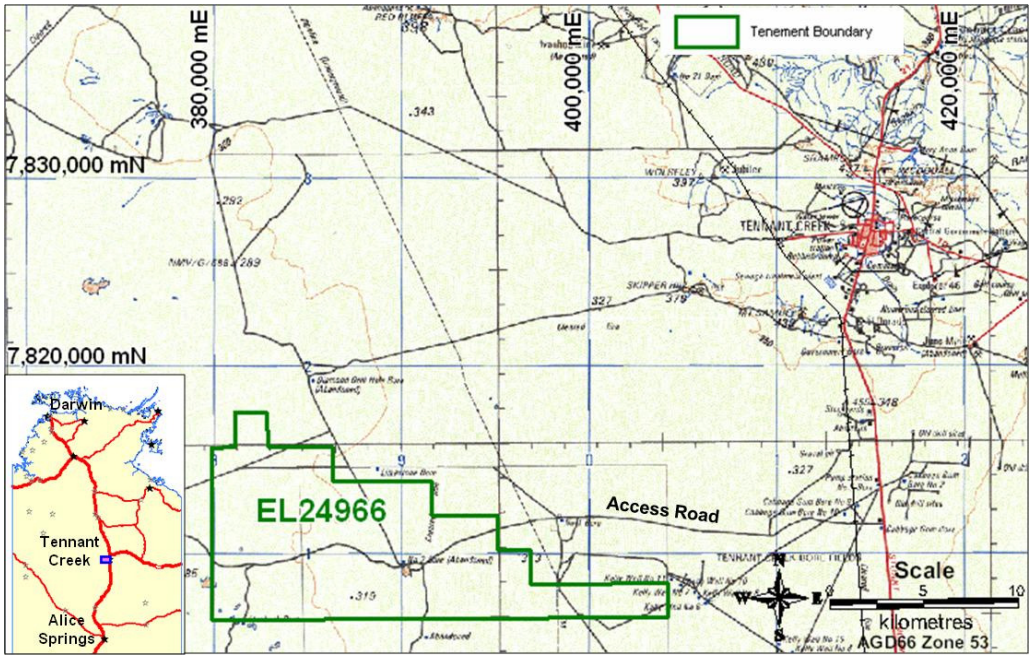

Figure 1 EL24966 Tenement Location

3. TENEMENT STATUS AND OWNERSHIP

EL 24966 was granted on 18th September 2006 and expires on 17th September 2012. The tenement comprises 91 graticular blocks (281 sq km) (Figure 3). There are no other current mining leases or mineral claims shown within the Licence boundaries.

Underlying cadastre is Perpetual Pastoral Lease, Landowner is as follows:

000 00494 Tennant Creek Perpetual Pastoral Lease 1142
Ford, Ken Gerard
Ford, Joanne Suzanne
Ford, Gregory Joseph
Ford, Gordon
Hughenden Station, Flinders Hwy, Hughenden, QLD 4821

Second year tenement reduction was completed with 45 blocks dropped (Figure 4, blocks within red polygon were surrendered) leaving 46 blocks.

A waiver from reduction was sought and approved for the end of year 3.

An AAPA certificate was granted in 2009 giving clearance to the main Bluebush target but restricting access to the SE targets (Figure 2). A variation to this certificate will be sought for the 2010 field season.

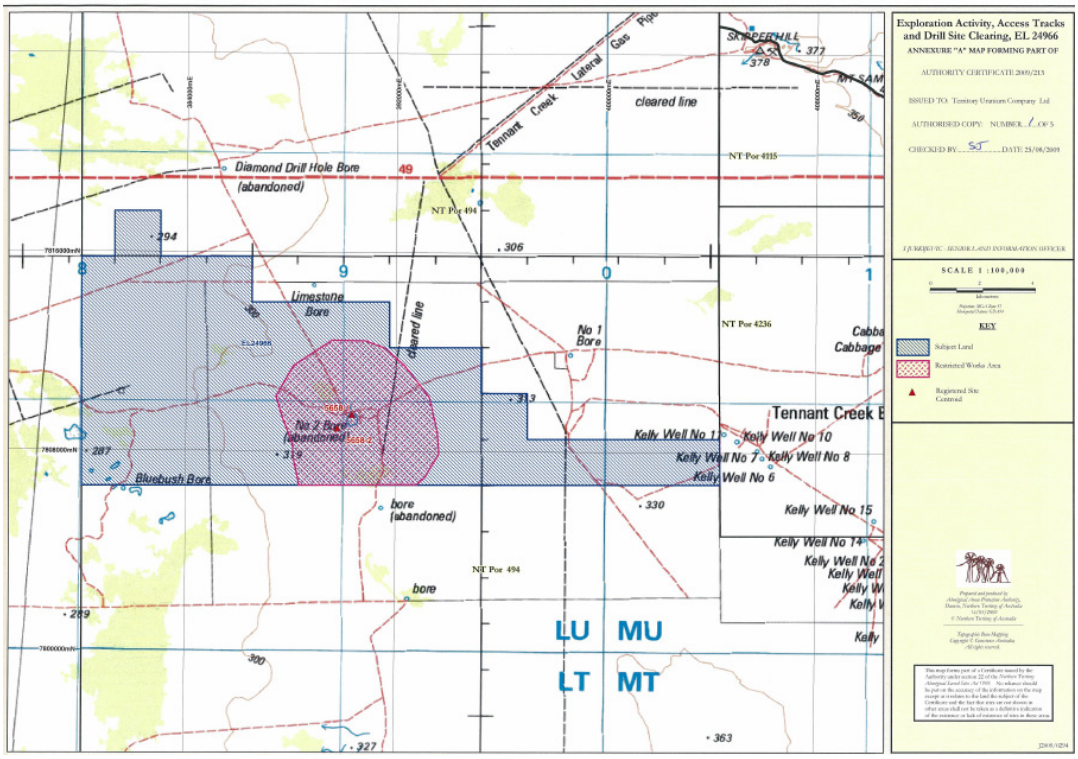

Figure 2 AAPA Authority Certificate showing restricted work area at Bluebush SE

4. GEOLOGYMap

EL24966 is situated within the 1:250,000 Tennant Creek map sheet SE 53-14.

EL24966 is extensively covered by Quarternary and Tertiary sediments. The Tennant Creek Interpretative sheet shows a large area of Proterozoic sediments and granites within the tenement. Sparse drilling has so far only intersected areas of granite or granodiorite. Magnetic sources interpreted to be from Proterozoic stratigraphy exist in most cases below this granite cover or as enclaves which occasionally window through this cover (Figure 3).

6.2. Stratigraphy

EL24966 sits within granites of the Tennant Creek Supersuite (1852 – 1837Ma) (Figure 3) which are mainly unfractionated I-type granites not directly associated with Au and Cu mineralisation (Wyborn 2002). Figure 3 shows the Yungkulungu Formation, a volcano-sedimentary unit. This unit appears to host most of the gravity and magnetic anomalies within the tenement. The true nature of these sediments remains uncertain as there are no recorded drill intersections in the adjacent field.

Interpreted to the south east is the Junalki Formation, a lithic / volcanoclastic arenite with interbedded laminated siltstone, and some argillaceous banded iron formation and rhyodacitic lava. Johnstone (2001) noted that the Junalki Formation had age dating similar to the Warramunga Formation which hosts the majority of mineralisation at the Tennant Creek Goldfield. This unit could be a sub basinal analogy to the Warramunga Formation and therefore is thought by TUC to improve the propsectivity of the tenement.

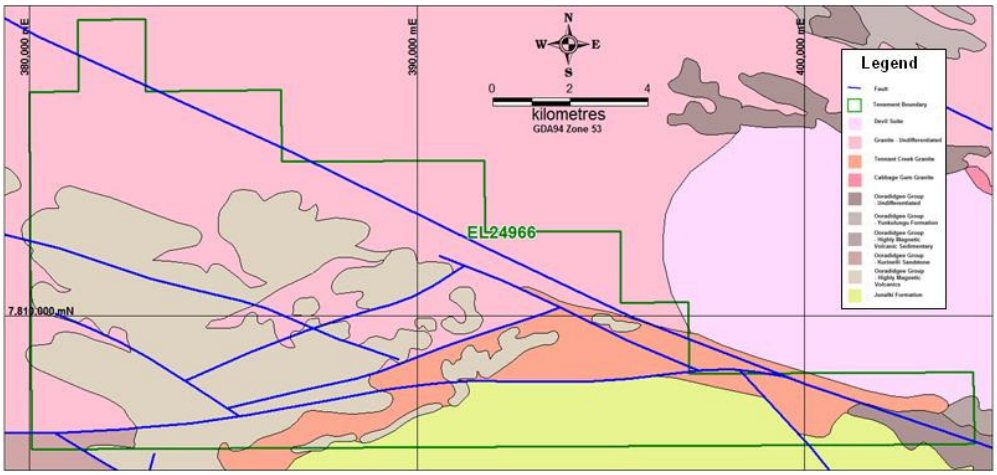

Figure 3 Geology Map

6.3. Structure

TUC's Bluebush project sits at the intersection of two major NNW/WNW trending lineaments likely to be associated with the trend of regional thrusts discussed by (Large 1991). Numerous structures (Figure 3) cut the project between these two lineaments identifiable from magnetic disruptions in aeromagnetic data. These major lineaments match the orientation of those characteristic of the Tennant Creek Gold Field to the northeast of Bluebush and the Rover field to the southwest.

A strong S shaped shear on the south eastern side of the tenement appears to contain slices of a magnetic/sedimentary unit possibly sourced from immediately to the south of the tenement in the Junalki Formation. A single hole within the tenement proximal to this shear intersected heavily sheared and veined rocks logged as granitic mylonite.

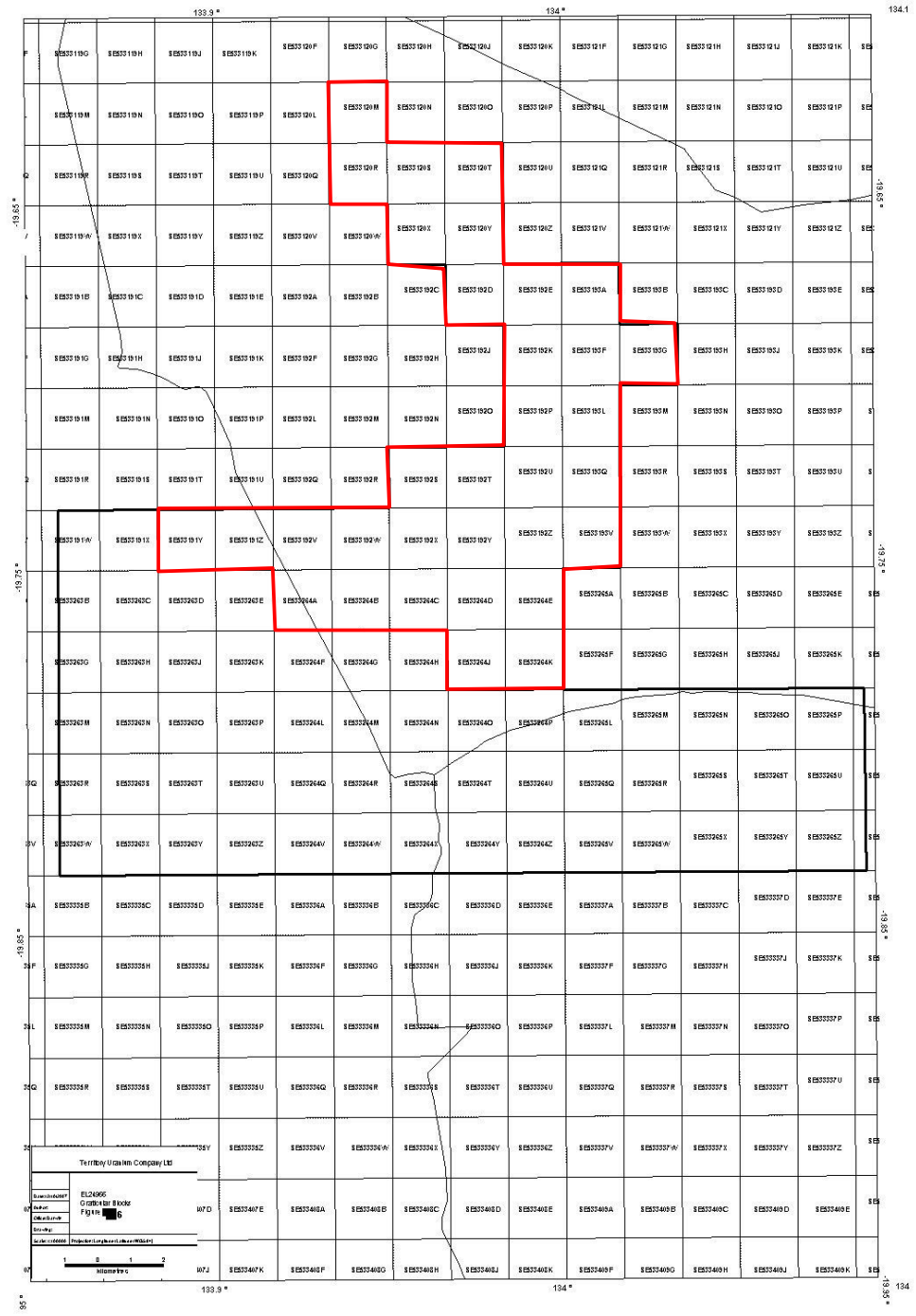

Figure 4 EL24966 Graticular blocks, year 2 reduction shown in red.

Part of the work done on EL24966 for the first year includes a literature review and data compilation and the results are in the section below. Figure 4 shows the graticular block numbers within EL 24966, and Appendix 1 contains the list of previous tenure, and significant reports from previous tenure and a summary of previous exploration. Use Figure 4 and blocks in Appendix 1 to see the extent of previous tenure within EL 24966.

Exploration on EL24966 for year 2 focused on the Bluebush analogy with Olympic Dam and possible Tennant Creek style IOCG models. Results from ground gravity and magnetic surveys helped to define drillable geophysical targets.

6.1. Ground gravity survey

A detailed ground gravity survey (1,993 stations on 500m line by 100m station spacing) was completed. Equipment used is summarised in Appendix 2. Ground gravity is considered one of the best tools for targeting this style of deposit in this region.

6.2. Geophysical modelling

Three dimensional modeling of the ground gravity data has further defined the Bluebush anomaly identifying a relatively shallow gravity defined target (possible iron rich breccia and copper gold host rock) sitting on top of a deeper magnetic and gravity defined anomaly (possible heat engine and source for mineralising fluids). Figure 5 provides a schematic of the new geophysical data and subsequent modeling. The black ellipse defines the drill target at a reasonable depth of 375m from surface. This deeper drill target is considered viable given the ~1km diameter of the response and the higher gold grades typical of the adjacent Tennant Creek and Rover Fields (+9g/t Au historic head grade, Ahmad *et al.* 2001).

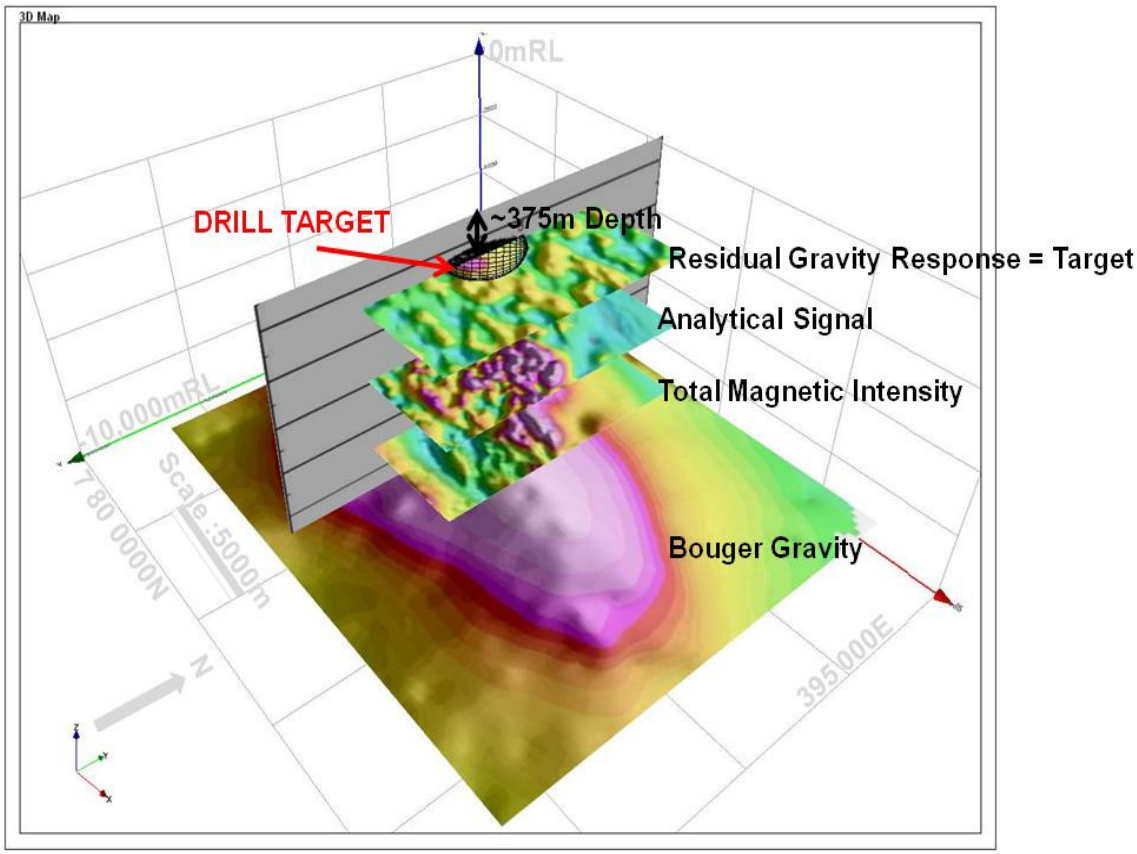

Figure 5 3D modeling of gravity and magnetic based drill target at the Bluebush

Detailed ground gravity work also defined a number of Tennant Creek style gold copper targets in the southeastern corner of the lease. Figure 6 and Figure 7 shows these targets, interpreted to be iron oxide rocks caught up in an 'S' shaped shear zone. Depth to targets is approximately 200m.

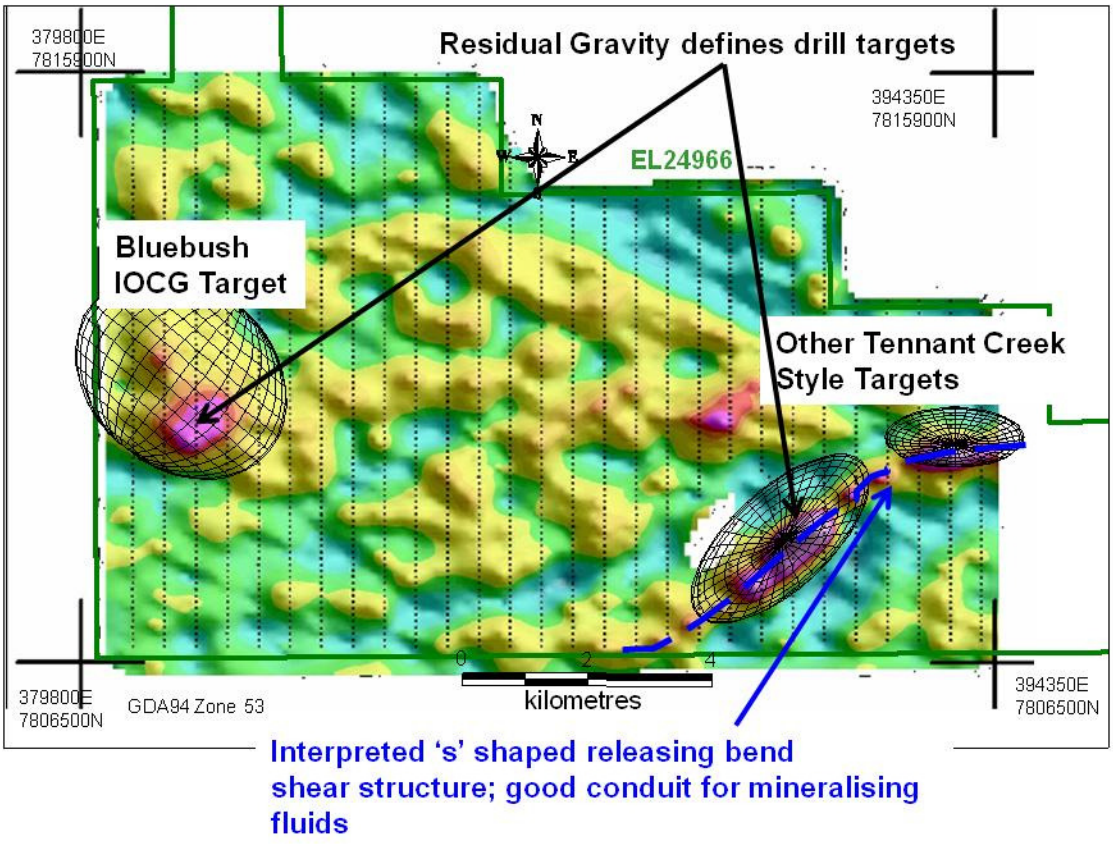

Figure 6 Residual gravity data (peak response ~2mgals), models and interpretation

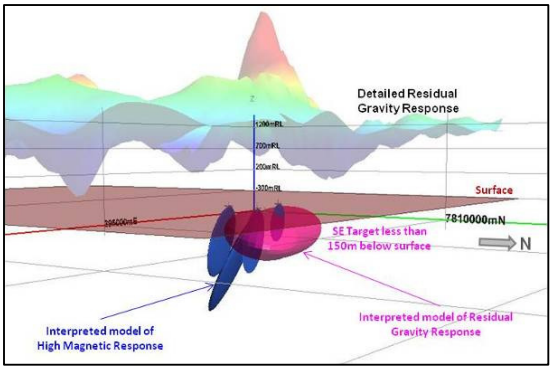

Figure 7 3D Model of Residual Gravity (possible heamatite mineralisation) and Magnetics (possible magnetite alteration) from SE targets - gridded surface shows residual response.

6.3. NT Government Collaborations

$100,000 has been awarded to Territory Uranium through the Northern Territory Government's 'bringing forward discovery' initiative and 'Drilling Collaborations' program for planned drilling at Bluebush. The collaboration has been awarded for an initial program of seven angle RC/Diamond tail drill holes that are planned for 4,050m (average hole depth 580m) to test the two geophysically and geologically defined IOCG style targets defined by the modeling discussed above.

6.4. Panoramic Joint Venture

A joint venture (JV) has been signed with Panoramic Resources Limited (ASX: PAN) granting PAN the right to earn equity in the Bluebush Copper-Gold Project by funding drilling based exploration targeting the models defined above. PAN can earn up to 51% by spending $3M on direct exploration costs within three years with a minimum direct exploration expenditure commitment of $0.5M within one year. PAN can earn up to 80% within seven years by spending up to $9M or by completion of a pre-feasibility study. TUC has the right to elect to participate after PAN has earned 60% with $6M and at 80%.

6.5. Ground Magnetics

A magnetic survey was completed in the area shown in Figure 8 (tenement boundary in green). The image shows the residual gravity highs. This survey was completed to assist in more accurately defining magnetic targets prior to drilling (a memo regarding survey details is included in appendix 3).

The main ground mag survey was completed at 100m line spacing (light blue polygon) and covers the main drill targets. A smaller area was completed at 200m line spacing (purple polygon). The western side of the survey area was restricted to ensure protection of aboriginal sites.

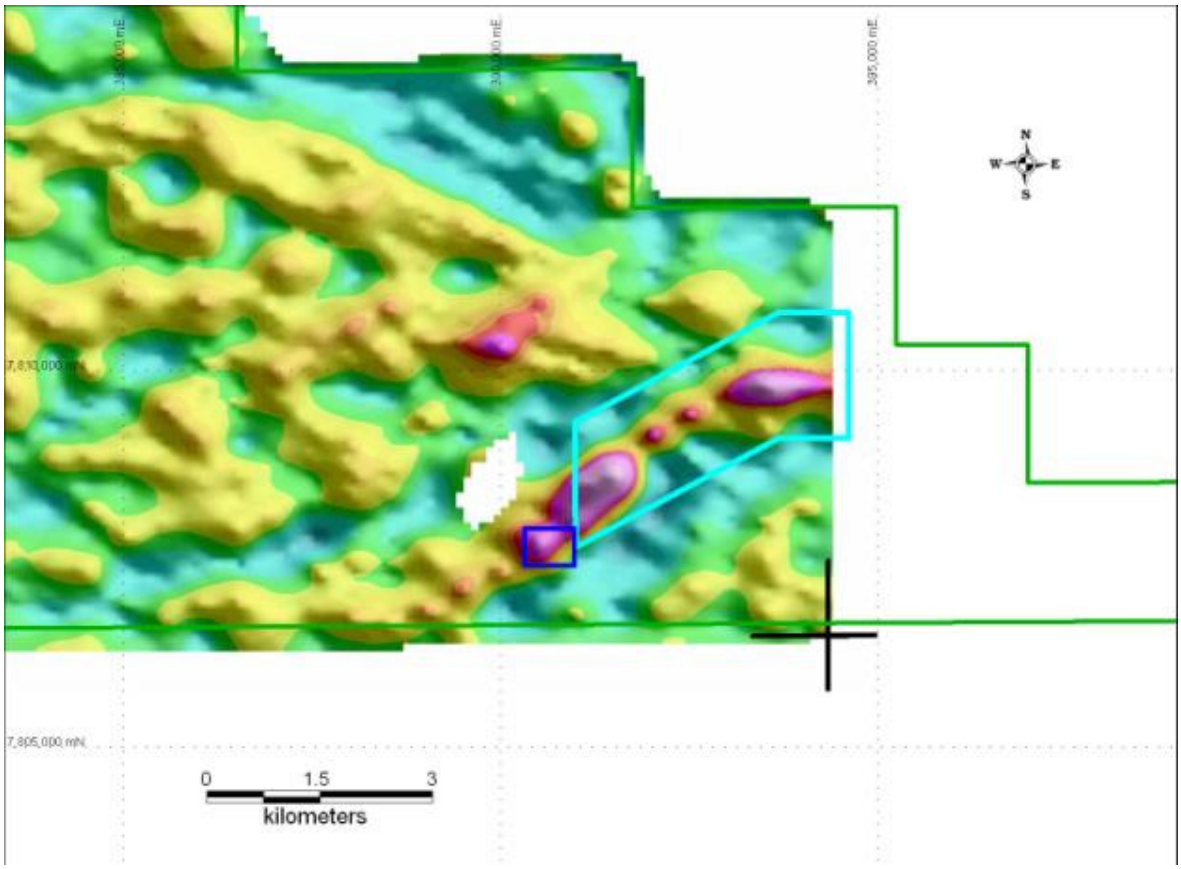

Figure 8 Survey areas over residual gravity image, Light Blue 100m line spacing, Dark Blue 200m line spacing

The ground magnetic survey was undertaken using a GEMSYS GSM-19W Overhauser walking magnetometer. The GSM-19W has an onboard GPS receiver and automatically logs magnetic readings together with their GPS location and GPS synchronised time stamp every 2 seconds throughout the survey. This allows great accuracy in both the time and positions of all readings. All locations are collected as UTM coordinates in reference to the GDA94 datum, and for this survey they are in the MGA Zone 53 projection.

A magnetic base station was established using two GEOMETRICS G856 Proton Precession magnetometers that were set to record the total magnetic field every 30 seconds. The base station data allows for the correction of the diurnal variation of the Earth's magnetic field caused by variable effects related to such factors as fluctuating solar radiation. The base station was established in an area away from any obvious magnetic interference, e.g. buildings, power lines, roads, etc and where there was little magnetic gradient.

While undertaking the survey, surveyors were free of any material that would cause any magnetic interference. Also the magnetometer was turned off when within 15m of man-made magnetic items such as fences, old metal drums, etc.

6.6. Newexco Geophysical model.

As part of due diligence of the Panoramic JV, Newexco reviewed the Geophysical data and created an independent set of models. Brett Adams used the ground magnetics and ground gravity carried out by Territory Uranium as well as pre-existing government aeromagnetics to create models of the Bluebush prospects. This work modelled 3 easterly targets (Bluebush 1, 2, and 3 – Figure 9) as well as a westerly target (Bluebush 4 Figure 16).

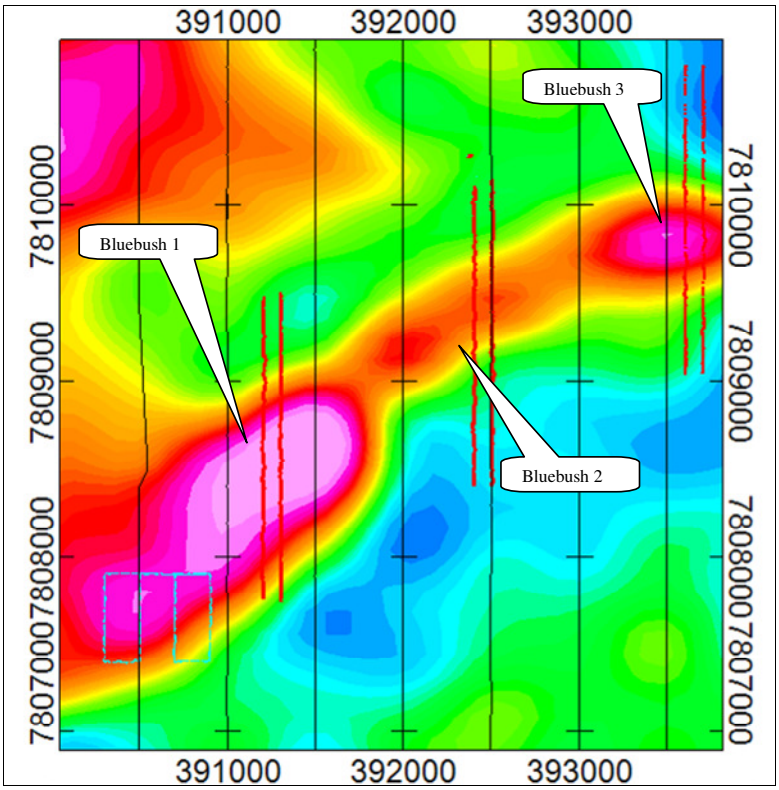

Figure 9 Bluebush Gravity 1VD image showing the location of the ground magnetic traverses

The work by Newexco Brett Adams is summarised below (Report included in appendix 4 and 5):

6.6.1. Bluebush 1

Bluebush 1 is gravity high detected over 3 lines (Figure 10) suggesting a strike length of over 1,000m. The higher amplitude seen at the northern end is interpreted to indicate a slightly shallower source.

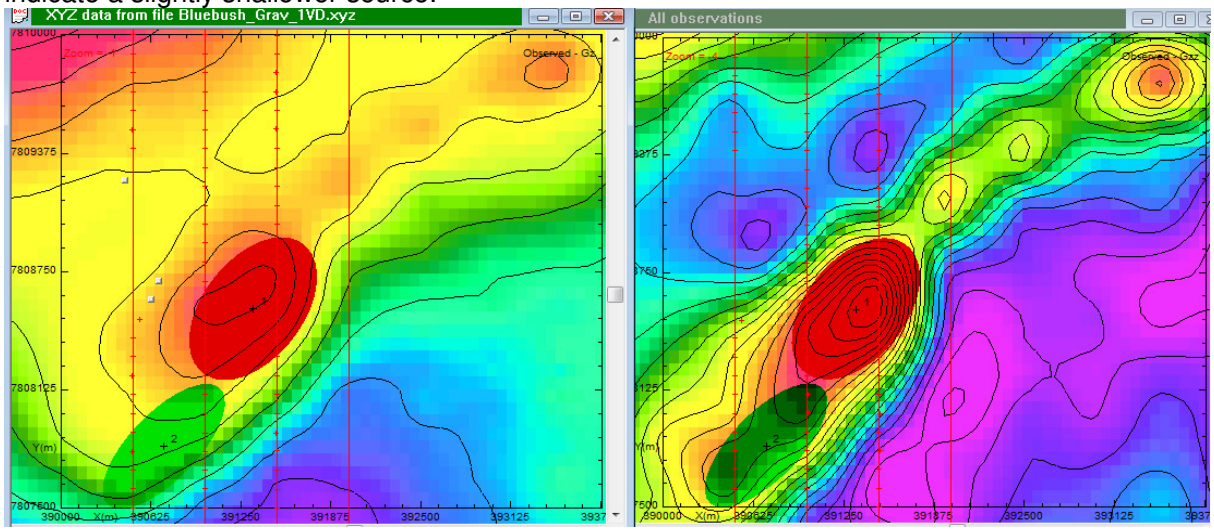

Figure 10Modelling of gravity data over Bluebush 1

6.6.2. Bluebush 2

Bluebush 2 is gravity high detected over 2 lines suggesting a strike length of approximately 1,000m.

Ground magnetic data has not covered the best part of the magnetic anomaly as defined by the airborne data. Ground data is also very noisy despite filtering making identification of anomalies difficult. The airborne data has also been modelled (Figure 11) and this is thought to represent a more realistic set of models.

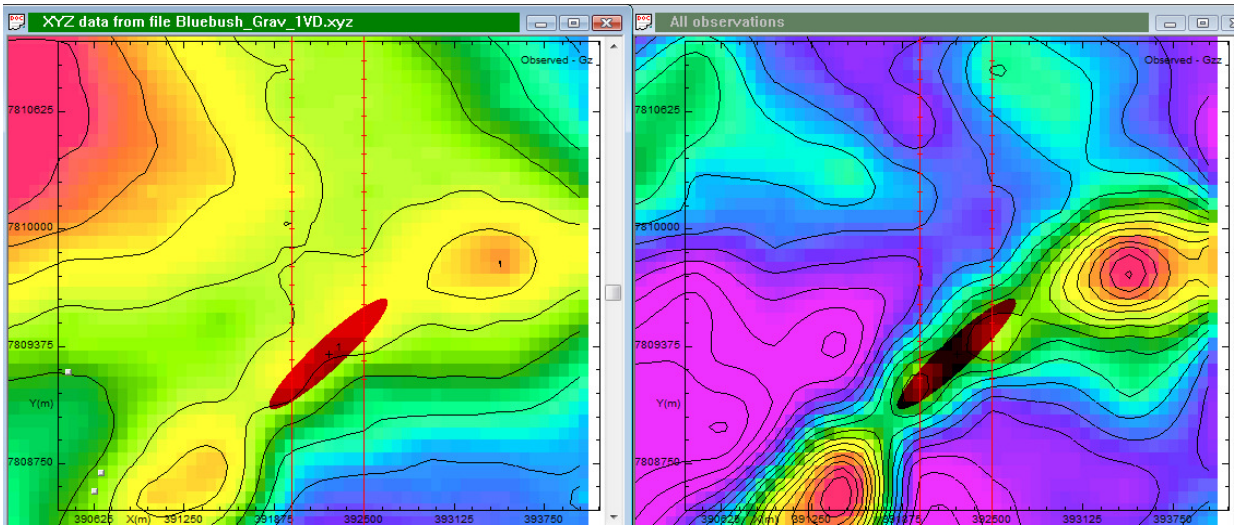

Figure 11Modelling of gravity data over Bluebush 2

6.6.3. Bluebush 3

Bluebush 3 is gravity high detected over 3 lines (Figure 12) suggesting a strike length of over 1,000m. The anomaly implies a smaller source located above a larger, deeper source.

The lack of magnetic support over this anomaly does not comply with the traditional model associated with Tennant Creek making this target more in line with the haematite rich target that companies such as Emmerson Resources are targeting.

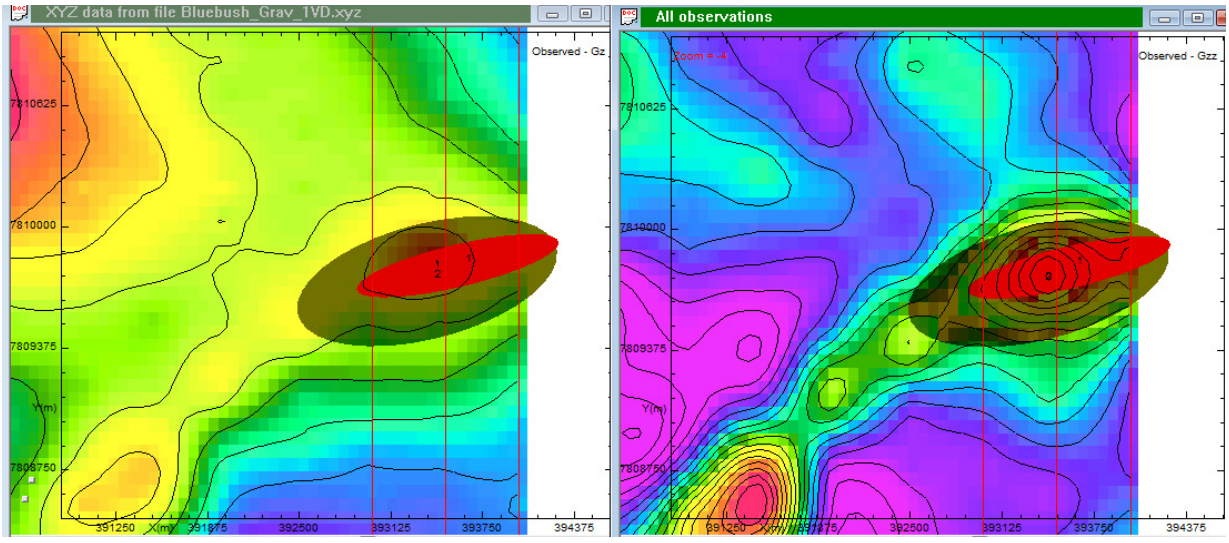

Figure 12Modelling of gravity data over Bluebush 3.

6.6.4. Bluebush 4

Gravity data indicates a large regional high on the western side of the Bluebush prospect. The source of this anomaly has been simulated with a very large (10km X 2.5km) and deep (approx 3.5km) body. This does not represent the primary gravity target.

Application of the first vertical derivative (1VD) to the gravity data highlights an anomaly at 382000E / 7810700N (see Figure 13). This anomaly has been modelled and may potentially represent ironstone. Numerous smaller anomalies were also identified (Figure 13).

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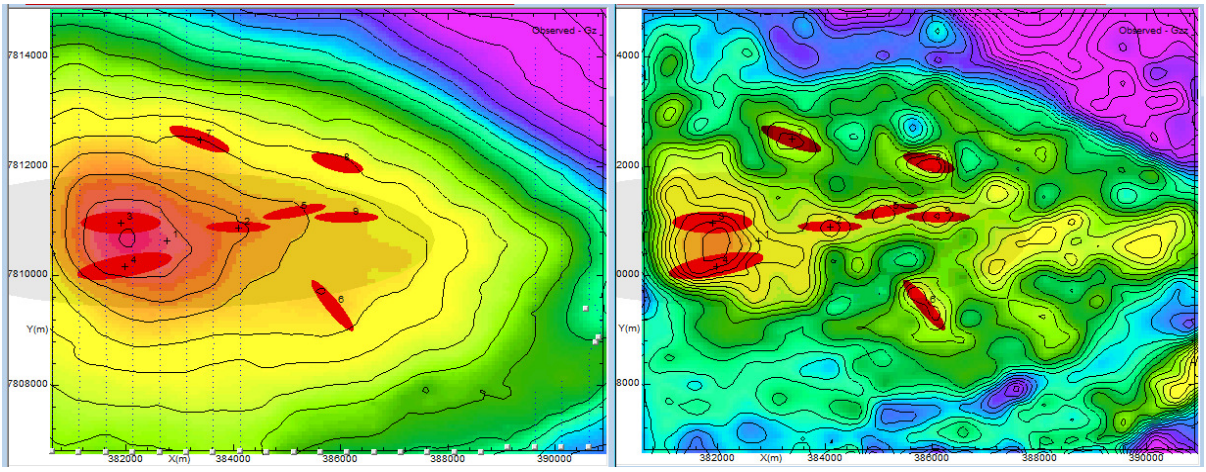

Figure 13Bluebush 4 Gravity modelling

7. PLANNED EXPLORATION FOR YEAR 4

Exploration for year 4 will be completed as part of the Panoramic JV, where a minimum commitment of $500,000 has been made for the first year. An initial phase of 3 diamond holes are planned for 2009. One at Bluebush main and two at Bluebush SE (Newexco model 3). Drilling of Newexco models 1-3 will be completed in 2010 after a variation to the 2009 AAPA certificate is attained to allow drilling within the restricted work area.

Total estimated cost for the first phase is approximately $470,000.

8. REFERENCES

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Large, R. R., 1975. Zonation of Hydrothermal Minerals at the Juno Mine, TennantCreek goldfield, Central Australia. Economic Geology Vol. 70, pp 1387-1413.

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Bamborough, I., Chapman A., Page T., Wood S., 2009. Tennant Creek Bluebush 'Iron Oxide Copper Gold Exploration in Covered Terrain' (EL 24966) Diamond Drilling Proposal. Territory Uranium Company.

Appendix 1

Summary of Exploration History

List of Company Reports from Previous Tenure

EL9309 covers the northern portion of EL24966. Giants Reef Mining conducted general vehicle reconnaissance. The region was covered by a detailed aeromagnetic survey. Gold and copper ore bodies were targeted.

EL 8883 (still current) covered the SW portion of EL24966. This area has a coincident magnetic / gravity anomaly named 'Bluebush'. Giants Reef Mining drilled a series of holes just south of EL24966; with the deepest hole (BBRD002) intersecting a series of mafic rocks with volcanoclastics and graphitic sediments with elevated but uneconomic Au. The exploration was funded via a strategic alliance with Billiton and after the results of the drillhole (which was not typical of a Fe oxide Cu-Au target) Billiton withdrew from the JV.

SEL8339 covered one block of EL24966. Roebuck Resources and North Flinders Mines explored the region in the mid 1990s. 37 drill collars have been noted in the Explorer 3 database from within EL24966. Two of these are inclined RAB holes (NCIB0001 and NCIB0002) which were samples for Au, Cu and Bi and returned no significant results, these holes were drilled to test 'anomalous mercury vapour zones'. The other 35 are Vacuum holes from the Chinese Shrike prospect (NAV0189, 0190, 0538-0560, 0563-0571). The maximum result was from NAV553 at 6ppb gold.

Chinese target 93-3 covers the EL24966 region.

Scintillometer and magnetic susceptibility readings were taken at the bottom of drill holes. The scintillometer was used to measure gamma radiation corresponding to Uranium, Thorium, Potassium and Total Counts per second. Images were prepared on a prospect scale but are difficult to georeference because of the local grid used.

Large (1975) documented an association between uranium and gold, copper and bismuth mineralisation. Muscovite/sericite alteration is spatially and genetically associated to mineralisation that is high potassium.

Several ground magnetometer surveys where undertaken over the lease and are difficult to georeference because of the local grid used.

EL7691 covers the central portion of EL24966. Several drilling programmes covered EL7691 and were taken by Poseidon Gold in search of Tennant Creek style Au-Cu-Bi deposits. Of these 34 vacuum drilling holes were located within EL24966 and were part of the Moscow prospect where no significant mineralisation was intersected. Airborne and ground magnetics identified several prospective structures. EL7691

was known to have outcropping ironstones and BIFs. Two magnetic highs were selected for regionally spaced vacuum drilling.

Westcow had disappointing results and was relinquished. Some 156 vacuum drillholes (MWV1001 to 1156) were drilled for 954m. The grid conceals granite in the west and sediment (siltstones) in the east intruded by granite apophyses. Anomalism in the sediments occurs best closest to the granite sediment contact with highs in copper (286 ppm) and zinc (124 ppm).

Eastcow had five areas selected for infill vacuum drilling (MW1, MW2, MW3, N20, N33). The region includes old prospects N19, N20 and N33 (ADL). Appraisal of the bedrock drilling suggests that the region conceals granites with quartz porphyry lenses and rafts of Warramunga Group sediments (schistose siltstones and sandstones) with a higher grade than those to the north. Also in the south of the grid a BIF (5 to 10 metres) exists surrounded by quartz feldspar porphyry. This is anomalous in copper and bismuth. Copper, zinc and Molybdenum anomalies correspond with palaeodrainages draining northwest and north east of N20 magnetic anomaly (which is a small outcrop of ironstone that is enveloped by hematitc +/- talc alteration to the east. CR19940468 describes extensively the work done on these regions during the second year of tenure.

During the third year of tenure (CR1995-0431) a further vacuum drilling programme of 81 holes (513m) was undertaken to infill targets in the Eastcow grid. MW2 showed a copper anomaly and 34ppb Au, MW3 showed copper anomalism with 10ppb Au and 3760ppm Manganese. N20 (north) peak anomalism is 48 ppm copper and 7 ppm bismuth and associated with interfingered quartz feldspar porphyries. N20 (west) shows spot highs of 37ppm Cu and 36ppm Bi close to sediment porphyry contact.
A RAB drilling programme of three holes at three anomalies (MW2 [3m @ 0.09ppm Au and 15m @ 221ppm Cu], MW3 [no geochem or alteration], and N20 (west) [altered sediment corresponds with 18m @ 144ppm Cu and 6m @63ppm Bi]) was undertaken. All drill holes intersected sericite rich schist indicative of *higher metamorphic* grade Warramunga Group. No significant mineralisation was intersected.

Other work completed included rockchip sampling and historic core reassessment of N33 – a BIF and its surrounding chloritic altered sediments. Some 43 rockchip samples were taken around the N33 anomaly with discouraging results. DDH 367 and DDH 373 drilled by ADL in 1970 were reassayed, 88 samples were taken with disappointing results.

The 'Navigator fault' was tested with 131 vacuum drillholes holes for 890m. Predominantly granite and minor porphyry was intersected and minor Warramunga Group. This group of samples included uranium the suite of element assayed. A maximum of 5.1ppm U was found.

During the fourth and final year of tenure Poseidon Gold carried out a five Rab drillhole programme (MWRB010-014) for 375m. This programme encountered saprolitic Warramunga Group. Gold, copper and bismuth were below detection limit. The highest assay were Iron 3.85%, Co 38ppm and Mn 734ppm.

A vacuum drilling programme was abandoned after 15 holes because of difficult drilling conditions (water, silcrete and caprock). The programme was replaced by a shallow RAB drilling programme. 31 holes were completed for 383m. No alteration was encountered in the mainly siltstones and mica schists that were overlain by silcretes. Maximum results included Fe 12.18%, Au 0.02ppm, 24ppm Cu and Bismuth was below detection.

EL7536 is part of SEL8339 previously commented upon. Orientation survey undertaken using a inhouse method which is apparently successful.

EL5255 covers six graticular sub blocks on the western most edge of EL24966. Previous work by Aquitaine in 1973 recognised radiometric anomalies near inferred granitic margins. Magnetic data was acquired from the BMR and Geopeko. Scintillometer readings were made on traverses across the lease using available tracks. From this survey it was determined that background radioactivity over inferred granite was low at 40 - 60 cps. Inferred sediments / metasediments were found to be 50 – 60 cps and outcropping metasediments gave variable readings up to 100cps. Pisolitic laterites exposed on the slopes of low quartz ridges were found to be slightly anomalous at 90 – 130 cps and mostly due to thorium. Areas highlighted to target were radioactive laterite zones that corresponded with magnetic dipoles and inferred granite margins.

The prospects (Windgap prospect, Black Rock and White Ridge) mentioned in the IRMS data base are located some 35 kilometres to the north within EL4895. Ground water samples taken from the Warrego granite included TC 21 (Windgap) and White Ridge (TC 22) with 1800ppb U and 640 ppb U respectively.

During the second and final year of tenure a groundwater survey and rock chip sampling programme were undertaken. The report covers sampling from surrounding tenements as well. CEGBEA sampled groundwater across the region taking 33 two litre samples from exploration holes, station bores and mine shafts.

Four ground water samples were taken within EL24966 but only the data for one sample (TC8) was available. TC8 was collected near an abandoned water bore on a sandplain near hematite-quartzite outcrop.

Groundwater sample results for TC8 -

pH	8.1
conductivity	4.0mg/l
temperature	29.6 °C
dissolved oxygen	1.9mS/cm
ferrous iron	<1.0mg/L
uranium*	6mg/l

*(determined by CSIRO Harvey Mann analyser)

Six rockchip samples were taken just to the north east of EL24966.

9746, 9747, 9750 – slightly radioactive pisolitic laterite
9748, 9749 – partially opaline, white calcrete
9742 – weathered porphyry (taken from old RAB hole)

See CR19890418_EL5255_SECT01_results.tif for results,
CR19890418_EL5255_SECT01_rockchipsamploc.tif for rockchip sample locations
and CR19890418_EL5255_SECT01_groundwatersamploc.tif.
Note sample location could be up to two kilometres out due distortions on the georeferenced images.

Work was undertaken by the Central Electricity generating Board Exploration (Australia) during 1988 and 1989.

EL5200 covers the bottom half of EL24966. PNC Exploration Australia explored the region in the late 1980's for (unconformity) uranium and Tennant Creek Au-Au+\-U mineralisation. Exploration during the first year consisted of an airborne magnetic and radiometric survey, a reconnaissance gravity survey and a drilling programme of 19 percussion holes (for 1165m). Drilling was difficult with ground water and tertiary sediments causing the most problems. The holes were gamma logged with an anomaly of 450cps identified in KL9 but was thought to be due to cherts overlying weathered granites. It was concluded that the northern part of the EL was underlain by granitoids and the potential for mineralisation was poor.

During the second year of tenure the aeromagnetic data was reassessed and seven anomalies were selected. A radon survey was undertaken on two of the anomalies

but all significant results were discounted. A further percussion drilling programme was planned but only eight of the holes (for 449m) were completed due to difficult drilling conditions (groundwater and tertiary gravels). The two anomalies covered displayed no indication of a magnetic anomaly and were in shales, greywackes and sandstones of the Warramunga group. Nine petrographic samples were collected as well as assays.

Of interest and noted on the location maps provided by PNC is the Kelly Astrobleme – a Pre Cambrian meteorite crater exists within EL5200.

Note was made in the summary that the work Uranerz completed in the region in the 1970s concentrating on the Proterozoic unconformity was flawed, subsequent reinterpretation by the BMR placed the unconformity at a lower stratigraphic position (at the then base of PW4). This comment was made in 1988.

EL5135 and EL5074 were explored by the Tennant Creek Joint Venture (Newmont Australia, ADL) and Poseidon Gold. EL5135 covers the northern portion of EL24966 and EL5074 covers one graticular block of the northern portion of EL24966 and was known as the 'Pipeline" project. Airborne geophysics, geological mapping (CR1989-0197), stream sediment samples, soil BCLs, RAB, RC and Diamond drilling and landsat interpretation were carried out. Several anomalies were identified. The Pipeline project is described as having extensive soil cover with minor outcrops of laterised greywacke. To the south west of the region a gravity low exists and is attributable to granites. A set of north west trending pegmatitic quartz veins outcrop intermittently throughout the tenement and quartz feldspar porphyries intrude throughout. Some 96 orientation geochemistry samples were taken over the Tennant Creek district with background values determined to be 0.2ppb Au and anomalous values range up to 22.3ppb Au (these samples were taken adjacent to known mineralised zones).

Aeromagnetics and radiometrics were analysed with the following points being made

- Outcropping granites and acid porphyries correspond with the potassium channel anomalies.
- Subtle potassium channel anomalies are associated with acid intrusive subcrop and shallow residual cover.
- Mid order potassium channel associated with outcropping major sericitic shear zones
- Thorium channel shows restricted zones of response with semicontinous zones around the Warrego Granite.
- Thorium channel also highlights channels and drainage.

- The Uranium channel shows even more restricted zone, a strong result was obtained from the tailings dam at the Warrego and Peko concentrators which reflected the uranunite content of the ironstone copper ore. Other zones of anomalous Uranium response are associated with larger outcrop of ironstone bodies (eg Nobles Nob).
- Radiometric data shows a low response from the major regional quartz veins that are associated with the later phase of faulting.
- Geophysics has determined that the granite contacts dip shallowly beneath the Proterozoic sediments.

Drilling over the C27 anomaly and Explorer 72 confirmed cover up 20 metres over granitic bedrock. Mapping was undertaken and geological interpretation was produced (CR19900216_EL5135_sect02_Appendix2 Interp.tif).

Several RC/diamond holes were drilled by Geopeko sampling around the Explorer 54 & 43 anomalies. Most magnetic anomalies were attributable to magnetite bearing sediments. Fourteen samples from Explorer 54 were resampled from the Geopeko core store. Chloritic shales with minor quartz veining returned weak gold anomalies up to 0.12ppm Au.

Explorer 43 was drilled by Geopeko but not to target, samples around chloritic shales ran 1.4m @ 0.15ppm Au and 600ppm Cu. RC/DDH hole drilled to 432m, (Hole no. E43P-1-DT) retargeted magnetic anomaly. The maximum result was 0.03ppm Au. Anomaly was folded magnetic sediments. No data found on hole.

Prospect/programme	Location	N° of samples	Comment	Relevant georeferencing
P7, P8, P9, C26, Explorer 54 CR1989-0197 CR1990-0464			Aeromag anomaly, (P7-min outcrop of quartz veins and metasediment on contact between granite).	CR19900464_EL5135_SECT01GC_maganomalies.tif
Nail CR1990-0464			Roof pendant surrounded by granite	
Rockchip CR1990-0464		3 rockchips	Ironstone quartz stringer outcrops 400948-1 foliated Fe-rich sediment 210ppm Cu	CR19900464_EL5135_SECT01GC_rocksamples.tif
Orientation geochem survey CR1988-0040		96 soils	Taken from district, background of 0.2ppb Au, anomalous values up to 23.5ppb Au adjacent known mineralised zones.	CR19880040_EL5135_SECT02GC_results.tif Cant find locations
Pipeline soils C25, 26, 27 CR1989-0197 CR1990-0464		552 soils (500m centres) 218 soils follow up	Lab batch errors encountered anomaly C27 located at 0.95 ppb Au, resampled at 250m centres for 1.78ppb Au, C26 resampling did not improve tenor, C25 4.87PPb Au.	CR19900464_EL5135_SECT01GC_results.tif CR19900464_EL5135_SECT01GC_geochemanomalies.tif CR19890197_EL5135_SECT02_prospect descriptions.tif CR19890197_EL5135_SECT03GC_blegresults.tif CR19900216_EL5135_sect02_Appendix2 BLEG.tif
C25 RAB Drilling CR1989-0197		8 holes	Test Bleg anomaly. Single N-S traverse drilled to 30m with approx 10m cover over seds. No anomalous results.	CR19890197_EL5135_SECT04_C25_26_27_expl72RABlogs.tif CR19890197_EL5135_SECT05C252627_RABsections.tif
C26 (Explorer 72) RAB Drilling CR1989-0197		10 holes	Test mag anomaly. Yellow – brown clays and granite intersected. No anomalous results.	CR19890197_EL5135_SECT04_C25_26_27_expl72RABlogs.tif CR19890197_EL5135_SECT05C252627_RABsections.tif
C27 RAB Drilling CR1989-0197 CR1990-0464		17 holes	Drilled on a single N-S traverse Max result 0.05ppm au corresponds with Bleg anomaly, related to metasediment/granite boundary.	CR19900464_EL5135_SECT02GC_rabsection.tif CR19900464_EL5135_SECT01GC_C27RABlogs.tif CR19890197_EL5135_SECT04_C25_26_27_expl72RABlogs.tif CR19890197_EL5135_SECT05C252627_RABsections.tif

Explorer 43 CR1990-0216 CR1991-0388		Ground magnetics RC/DDH	Original hole drilled by Geopeko but not to target, samples around chloritic shales 1.4m @ 0.15ppm Au and 600ppm Cu RC/DDH hole drilled to 432m, Hole no. E43P-1-DT, max result 0.03ppm Au. Anomaly die to folded magnetic sediments. No data found on hole.	CR19900216_EL5135_SECT01_explorer 43 maganomaly.tif
Explorer 54 CR1990-0216		Ground magnetics Diamond drillhole	Mag anomaly thought to be mag sediments. Geopeko hole resampled (14), chloritc shales with min qtz veins sampled up to 0.12ppm Au (Explorer54 DDH1)	CR19900216_EL5135_sect02_Appendix2 maganomaly 54.tif CR19900216_EL5135_sect02_Appendix2 DDH.tif
P9 CR1990-0216		Ground magnetics	Mag anomaly to small for drill testing	CR19900216_EL5135_SECT01_P9 maganomaly.tif
Rockchip sampling CR1990-0216			All values below 0.001ppm Au	CR19900216_EL5135_sect02_Appendix1 RChip.tif
P23 CR1991-0388		Ground magnetics	Anomaly result of folded magnetic sediments.	

Table 1: EL5135/EL5074 prospect information

EL3575 covers the top half of EL24966. Geopeko (Peko Wallsend Operations) explored for Tennant Creek gold copper ironstone bodies in ground proven to host mineralisation. During 1984 low level airborne magnetic and radiometric survey was flown over the licence delineating several unrecognised anomalies. The magnetic survey cover the top half of EL24966. No radiometric data presented.

Nine magnetic anomalies were assessed, three were determined to be due to ironstones, the Jubilee Mine, Explorer 106 (BMR anomaly C8) and Explorer 104 (BMR anomaly C6). ?BMR hole DDH5 had been previously drilled at Explorer 104 and recovered 7g/t Au at 103m. Explorer 104 was described as an outcropping hematitic shale and BIF that maybe genetically related to an ironstone.

Other anomalies included

- Explorer 212 (anomaly21) which was drilled with PDH1 – 2. The anomaly is adjacent the Caroline Mine. PDH1 intersected alteration associated with ironstone bodies. PDH2 intersected 10m of chloritic magnetite with no significant anomalism.
- Explorer 217 (anomaly22) (410100E 7832000N) was west of the Caroline Mine. Two drill holes were drilled for 276m. DH:2 encountered a sequence of magnetic sediments which accounted for the magnetic anomaly.
- Explorer 219 was a mag anomaly drilled by PDH 1-3, an ironstone was drilled but subeconomic analytical results were returned.
- Explorer 220 (408400E, 7831400N) was drilled but the anomaly was not located.
- The Extension (Tennant Creek IV/Anomaly 25) is an outcropping ironstone. Mining has occurred on the outcrop. Also Anomalies 26 and 29.

BHP explored **EL2903** in the early 1980's for diamonds with a subsidiary interest in base metals and sampled for Pb, Zn, Cu, Ni, Ag and Sn. No significant results were results were delineated and the licence was relinquished.

EL2535 only covers a small portion (one graticular block) of the south east corner of EL24966. The region was explored by Peko Wallsend Operations for distinct magnetic 'bullseye' target type ironstones that hold the Tennant Creek style Au–Cu-Bi Mineralisation. No discoveries were made in the region of EL24966.

EL1668 covers the top half of EL24966. The licence was held by Uranerz and Marathon Petroleum. Exploration was undertaken for uranium using the Alligator River model for mineralisation and targeting veinlike type uranium deposits. The model was tested for where mineralisation is located near the ?Carpentarian

unconformity. This sampling was not successful and any readings were a result of lithology.

During year one geological mapping, footbourne scintillometeric survey, magnetometric survey and minor geochem was undertaken. The footbourne scintillometeric survey encountered several anomalies which mostly attributable to thorium and can be divided into

1. basal grit heavy mineral accumulations –dirty cross bedded sandstones with heavy mineral bands. These bands can reach up to 500cps.
2. lateritic cover, some iron enriched laterites can be up to 250cps. Thorium is thought to be the source. This is also the case around purple brown arkosic sandstones which can read up to 125cps.
3. ironstones can read 100 – 120 cps.
4. dolerite sills around Last hope mine read around 250-300cps compared to others in the region (70-80cps). Small mica lamprophyric sills read up to 150cps.

Eighteen samples were taken and assayed for U, Th, Cu, Bi, Se, Zn, Pb
During 1980 Pb, Zn, Cu, Co, Bi, Fe, As and U sampling was undertaken. CR1982-0068 makes a reference to an Olympic Dam analogy.

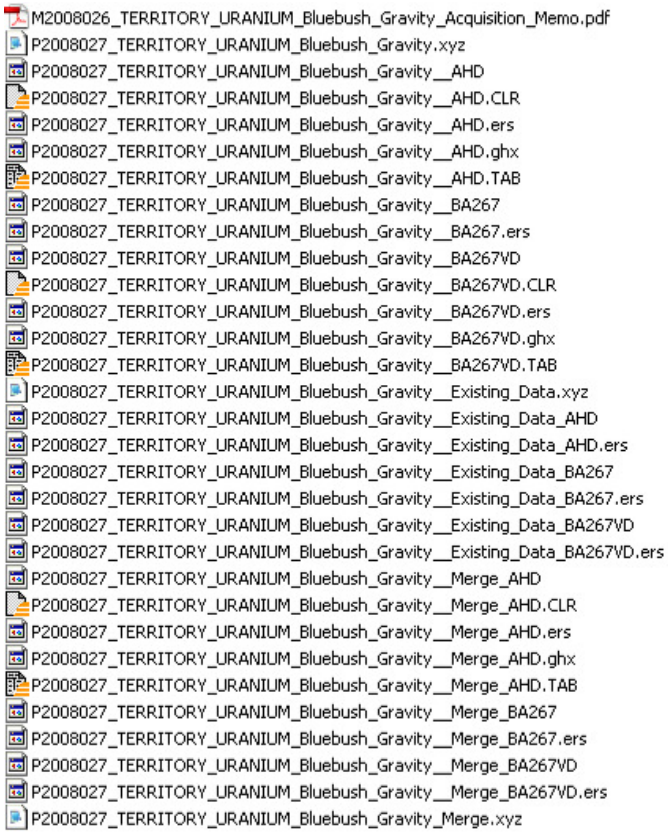
EL1128 covers the bottom half of EL24966. Peko Wallsend undertook, in 1976 a low level airborne geophysical survey and found little to interest them and the ground was relinquished.

EL676 and EL143 were explored in the mid 70's by Australian Development Ltd for Nobelex. They targeted magnetic anomalies and drilled. No gold significant results were recorded.

Also during the first year of EL24966 a consultant geophysicist (Frank Lindeman) produced introductory images of analytic signal and TMI aeromagnetics. The data was obtained from the aeromagnetic survey flown over the Tennant Creek sheet by AGSO in 1998 using 200m spaced north-south flight lines at a height of 60m. This is excellent quality data, which can be used for accurate modelling and general interpretation. See Appendix 4 of the year 1 annual report for Frank Lindemans summary notes on the Bluebush anomaly where the anomaly is compared with the Olympic Dam deposit setting.

Appendix 2
Ground Gravity Data
GDF Data

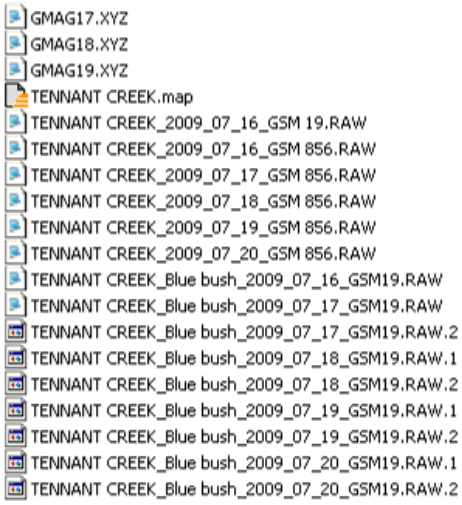
List of Files



GDF data

Appendix 3
Ground Magnetics Data
(GDF Data to be sent separately)

List of Files



Appendix 4
Gravity Models
Frank Lindeman Models

List of Files

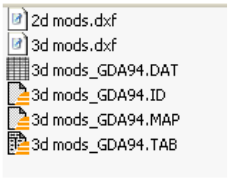
3d grv models agd 84.DAT
3d grv models agd 84.dxf
3d grv models agd 84.ID
3d grv models agd 84.MAP
3d grv models agd 84.TAB
3d mag models agd 842.dxf
Bluebush SE Area line 391100E.emf
Bluebush SE Area line 393600E.emf
Bluebush SE Area Plan BG and Stations.emf
Bluebush SE Area Plan Residual.emf
Bluebush SE Area Plan.emf
Bluebush SE Models.dxf
Bluebush SE models.xyz
FL_3d_gravmods_se_Apr09_GDA94.DAT
FL_3d_gravmods_se_Apr09_GDA94.ID
FL_3d_gravmods_se_Apr09_GDA94.MAP
FL_3d_gravmods_se_Apr09_GDA94.TAB
mags in 3d.DAT
mags in 3d.dxf
mags in 3d.ID
mags in 3d.MAP
mags in 3d.TAB
SE Bluebush 392200E TMI models.emf
SE Bluebush TMI Plan and models.emf
se grv in 3d.DAT
se grv in 3d.dxf
se grv in 3d.ID
se grv in 3d.MAP
se grv in 3d.TAB
Bluebush deep and shallow bodies.DAT
Bluebush deep and shallow bodies.dxf
Bluebush deep and shallow bodies.ID
Bluebush deep and shallow bodies.MAP
Bluebush deep and shallow bodies.TAB
Bluebush deep and shallow bodiesagd66.DAT
Bluebush deep and shallow bodiesagd66.dxf
Bluebush deep and shallow bodiesagd66.ID
Bluebush deep and shallow bodiesagd66.MAP
Bluebush deep and shallow bodiesagd66.TAB
Bluebush Gravity Plan.emf
Bluebush Line 381500E with only deep body.emf
Bluebush Line 381500E.emf
Bluebush models.xyz
Bluebush shallow body only.DAT
Bluebush shallow body only.dxf
Bluebush shallow body only.ID
Bluebush shallow body only.MAP
Bluebush shallow body only.TAB

Newexco Models

List of Files

Appendix 5
Magnetics Models

Frank Lindeman Models



Newexco Models