Technical Report
3881

Exploration Permit for Minerals No 12886 'Ding Dong',
Partial Relinquishment Report
For the Period Ended 11 May 2013

XSTRATA COPPER EXPLORATION PTY LTD

TECHNICAL REPORT
No. 3881

TITLE:	EXPLORATION PERMIT FOR MINERALS No. 12886 'DING DONG', QUEENSLAND, PARTIAL RELINQUISHMENT REPORT FOR THE PERIOD ENDED 11 MAY 2013
HOLDER:	MOUNT ISA MINES LIMITED
OPERATOR:	XSTRATA COPPER EXPLORATION PTY LTD
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SUMMARY

Aim of Project
The tenements comprising the Isa West Area were primarily obtained to explore for metasomatic copper-gold mineralisation within the Sybella Granite Complex and within the sedimentary and volcanic rocks surrounding the complex.

From January 2008 to January 2013, Deep Yellow Limited (DYL) was in joint venture with Mount Isa Mines Limited (MIM) to explore for uranium deposits similar in nature to the albitite-hosted; Mesoproterozoic Valhalla Uranium Deposit located approximately 20km north of the Isa West Tenements.

Object of Report
To document the results of exploration activities carried out on the 10 sub-blocks relinquished from EPM 12886 'Ding Dong in 2013.

Location
EPM 12886 'Ding Dong' is centred approximately 10 kilometres southwest of the Mount Isa Mine and is bounded by latitudes 20°56' and 20°39' south and longitudes 139°24' and 139°28' east.

Tenure
EPM 12886 'Ding Dong' was granted to Mount Isa Mines Limited over an initial area of 80 sub-blocks for a period of five years from 12 May 2003. A total of 17 sub-blocks were relinquished in 2005 with 63 sub-blocks retained. On 29 March 2009 EPM 12886 was renewed in its entirety for a further five years to 11 May 2013. A request to retain all 63 sub-blocks until May 2011 was submitted to the department on 12 March 2010 and approved on 7 June 2010. On 11 May 2012 a reduction of 17 sub-blocks was made from EPM 12886. A further relinquishment of 10 sub-blocks was made in 2013.

Work Completed
Exploration completed over the relinquished sub-blocks has included airborne magnetics and radiometrics geophysics, conventional soil and XRF soil geochemical sampling, and a Dipole-Dipole IP geophysical survey

Conclusions and Recommendations
Soil geochemistry surveys were conducted over two areas. At Frida Prospect, some areas with outcropping copper mineralisation hosted by narrow pegmatitic shear zones were followed up with a conventional soil sampling grid, however failed to generate significant anomalies. An XRF soil program along the Sybella Shear similarly returned values of low copper tenor.

An IP survey was completed over the King Copper Prospect and workings. Some low to moderate strength chargeable anomalies were identified.

1 INTRODUCTION

Exploration Permit for Minerals (EPM) 12886 'Ding Dong' forms part of the Isa West Project and was initially granted to Mount Isa Mines Limited (MIM) on 12 May 2003. The tenement is located immediately west of the Mount Isa Mines and covers an area considered prospective for copper, gold, and uranium mineralisation.

In 2008 Deep Yellow Limited (DYL) entered into a joint venture with MIM to explore for uranium. MIM retained the other metal rights. DYL withdrew from the joint venture in January 2013 after conducting extensive airborne and ground exploration.

This report outlines exploration undertaken by Xstrata, formerly MIM Exploration Pty Ltd (MIMEX) and DYL within the relinquished blocks, for the life of the tenure.

2 LOCATION AND ACCESS

12886 'Ding Dong' is centred approximately 10 kilometres southwest of the Mount Isa Mine and is bounded by latitudes 20°56' and 20°39' south and longitudes 139°24' and 139°28' east. The location and status of sub-blocks is shown on Drawing No. 45802.

Access to the northern half of the Isa West permits is via May Downs Station dirt road off the Barkly Highway, west of Mount Isa. The southern half of the EPM is traversed by the single lane sealed Diamantina Development Road. Numerous station tracks provide vehicular access to the rest of the EPMs.

3 TENURE

EPM 12886 'Ding Dong' was granted to Mount Isa Mines Limited over an initial area of 80 sub-blocks for a period of five years from 12 May 2003. A total of 17 sub-blocks were relinquished in 2005 with 63 sub-blocks retained. On 29 March 2009 EPM 12886 was renewed in its entirety for a further five years to 11 May 2013. A request to retain all 63 sub-blocks until May 2011 was submitted to the department on 12 March 2010 and approved on 7 June 2010. On 11 May 2011, EPM 12886 was the subject of a16 sub-block relinquishment.

On 11 May 2012, a reduction of 17 sub-blocks was made from EPM 12886. A further relinquishment of 10 sub-blocks was made in 2013. A listing of the relinquished sub-blocks is shown below. The location of the tenement and the relinquished and retained sub-blocks are shown in Drawing No. 45802.

BIM	**Block**	**Sub-Blocks**
CLON	665	t, y
CLON	738	h, n, s, w, x
CLON	810	b, c
Total		**10 relinquished**

4 EXPLORATION RATIONALE

The area has been targeted for metasomatic copper-gold for both volcanic-hosted and intrusion-hosted styles of mineralisation. The exploration methods used for the Isa West area provide adequate data to enable discovery of either style. More recently, reconnaissance has found further areas of significant copper-gold mineralisation in the Eastern Creek Volcanics (ECV). Stream sediment geochemistry has also suggested additional potential for shear/vein hosted gold mineralisation within the Haslingden Group on the eastern flank of the Ding Dong Permit.

In the eastern part of the Ding Dong tenement, structurally controlled copper-gold mineralisation has been explored within prospective sediments and volcanic rocks of the Eastern Creek Volcanics and May Downs Gneiss.

Although historic exploration in the Sybella Granite Complex has focussed on uranium mineralisation, in recent years MIM has explored for ironstone and skarn hosted copper-gold. This targeting rationale was originally developed on the large coincident magnetic-gravity anomaly occurring within the Sybella Granite immediately west of the Ding Dong Permit. This anomaly was interpreted to be similar to that of the Olympic Dam copper-gold-uranium-rare earth elements deposit in South Australia. In addition small-scale copper-gold mineralisation occurs at the King Prospect (Towsey 1982) and copper-gold mineralisation hosted in pegmatites within the May Downs Gneiss was recently identified at the Dali Prospect by MIMEX geologists (A-Izzeddin and Johnson, 2003). In addition, reconnaissance prospecting within the area has revealed the potential for shear hosted copper-gold mineralisation, possibly associated with the nearby Sybella and Kitty Plains Granite intrusions. Recent geochronological dating of pegmatites in the area has identified D_3 ages (syn-Isa copper mineralisation) for these intrusions. All this suggests there may be the presence of hidden Williams-Naraku style intrusions that may be associated with metasomatic ironstone copper-gold mineralisation like that currently being exploited in the Eastern Succession (e.g. Ernest Henry).

Recent geochronological dating of pegmatites in the area has identified D_3 ages (syn-Isa copper mineralisation) for these intrusions. These lines of evidence may support the presence of hidden Williams-Naraku style intrusions that may be associated with metasomatic ironstone copper-gold mineralisation like those currently being exploited in the Eastern Succession (e.g. Ernest Henry).

Uranium exploration conducted by DYL, has focussed on exploration for mineralisation similar to that displayed at the Valhalla prospect, which is located 20km to the North of the Isa West tenements. The Valhalla mineralisation is hosted within meta-basalts belonging to the Eastern Creek Volcanics intercalated with meta-sedimentary sequence of fine grained sandstones and course grained siltstones. The Valhalla "mine" sequence extends south into the Isa West tenement area and to date, these meta-basalts have been the main focus of uranium exploration within the eastern portion of the tenements. Within the Western portion of the tenements further areas of interest, displaying radiometric, magnetic and gravity anomalies have been identified from airborne radiometric survey data collected by UTS in 2006. These areas of interest lie within sedimentary deposits intruded by the

Sybella Granite complex, a geological setting historically identified as potential host to uranium mineralisation.

5 PREVIOUS EXPLORATION

The Isa West tenements have been explored sporadically since 1954 when uranium was first discovered, with a focus on a distinct line of shear-hosted uranium deposits within the northeastern part of the project area. Historic exploration involving minor shallow drilling, surface geochemistry and various geophysical surveys was carried out over the mineralised area.

A number of other prospects adjacent to the Sybella Granite have been historically worked for uranium, mica, tin, beryllium and silica. More recently, prospecting activity has been directed towards copper-gold mineralisation.

The project area has historically been covered by several ATPs and EPMs, and numerous small mining leases which were pegged over individual prospects. The majority of historical work was conducted by MIM, although a few other companies also conducted work (Table 1).

Table 1: Summary of Exploration History over the Isa West Area

Year	Prospect	Company	Mineralisation
1964	Mount Guide	Mount Isa Mines Limited	Cu, Au
1969-1970	ATP618M, ATP619M, ATP620M	Eastern Copper Mines NL	U, Cu
1969	ATP467M	Queensland Mines Ltd	U
1970	ATP967M Spear Creek Project	Esso	U
1973	ATP1132M	Exoil NL	Be
1973	ATP1193M	Savage Exploration Pty Ltd	U
1979	ATP1551M	Mount Isa Mines/CEC	Sn, Cu-Ag-Bi
1980-1983	ATP2264 Sybella	Mount Isa Mines Limited	Cu, Sn
1987-1989	ATP5020	Mount Isa Mines Limited	Au, Cu
1991	ATP6001M Mount McArthur	Mount Isa Mines Limited	Cu, Ag-Pb-Zn, Au
1991	EPM 5974 Stone Axe	Mount Isa Mines Limited	Cu, Ag-Pb-Zn, Au
1994 - present	EPM 9585 Slaughter Yard	Mount Isa Mines Limited	Cu-Au
2007- present	EPM 9585, 12886, 13098, 11524	Deep Yellow Limited	U

(Compiled From Open File Reports)

Magnetic and radiometric surveys and broad spaced stream sediment sampling dominated early uranium exploration conducted by Eastern Copper Mines, Queensland Mines Ltd and Esso. Anomalies defined by these surveys were followed up by reconnaissance mapping and in some instances soil sampling and rock chip sampling. Some copper, lead and zinc anomalies were interpreted to be caused by proximity to the smelter.

Exoil NL explored for beryllium in pegmatites at Mica Creek area in 1973. They conducted detailed mapping on 11 defined areas (A-L) and took 233 rock chips on grid lines at 1000m spacings and also collected 6 stream sediment samples. Queensland Mines Ltd conducted detailed work on the Bambino Uranium Prospect, which included costeans and a single 150 feet RC drillhole.

Carpentaria Exploration defined a lead-bearing gossan at the Duchess Rd Prospect (located at approximately 338200E, 7687700N AMG) in 1979. The zone was rock chipped on 3 lines at 50m spacings then 'drill tested' by 3 shallow holes (PDH1, 2 and 3) with final depths of 21, 27 and 21m respectively. The maximum lead assay returned was 780ppm over 1.5m in hole 2.

MIM completed work on ATP 2264M 'Sybella' which covered the southern half of EPM 12886 between 1980 and 1982. The exploration work targeted copper and tin. The work completed included geological mapping, geophysical surveys, geochemical surveys and diamond drilling. The following is summarised from Towsey (1982).

Reconnaissance mapping was undertaken at 1:23,700 scale. Areas of interest were remapped at 1:5000 scale, however mineralisation was not defined. An airborne magnetics and radiometrics survey was flown in early 1981 at an altitude of 120m on line spacings of 400m. Readings were taken for potassium, uranium and thorium. Gravity measurements were taken as part of a general regional study. A stream sediment survey was conducted over the Sybella Granite and samples were analysed for tin, nickel and tantalum. Detailed rockchip studies followed up this streams survey and a new 2km by 400m zone of anomalous (>60ppm) tin was delineated south of the Mica Creek tin mine (over the Little Leslie tin deposit). The tin grades from this prospect were not considered to be economic.

The King Prospect was the prime focus of follow-up surveys. Detailed surveys included gravity measurements, a small-scale stream sediment survey (assays for copper, silver, lead and zinc) and a rockchip program over the prospect. The rockchips confirmed the copper anomaly over a strike length of 400m and a vegetation anomaly of 600m strike extension. Petrology was performed on several samples from the King Prospect. Six diamond drillholes totalling 900m were completed around the King in 1982. The holes were targeted on geological, geochemical and geophysical targets. Results were disappointing and the best bulked results from the King lode included 6.8m @ 0.41% Cu (including 1.4m @ 1.36% Cu and 0.63ppm Au) in drillhole PJ386ED1 and 6m @ 0.68% Cu including 1m @ 1.07% Cu, 1ppm Au and 6ppm Ag in PJ388V1. This was considered to be too small for the company and the ATP was allowed to lapse in January 1983.

During the mid- 1990s as part the evaluation of magnetic anomalies within the Sybella Granite, MIM conducted a stream sediment sampling program over the area. They also completed a 1km by 1km spaced gravity survey and took soil samples at each station on EPM 9585 Slaughter Yard. In the same year SIROTEM electromagnetic (EM) soundings were recorded using a 500m loop by Solo Geophysics. Further work during the 1990s by MIM continued to focus on the coincident magnetic-gravity high on the Slaughter Yard EPM.

6 REGIONAL GEOLOGY

The tenement is located on the 'Mount Isa' 1:100 000 Geological Sheet (6756) which was jointly mapped by the Australian Geological Survey Organisation (AGSO) and the Queensland Geological Survey (GSQ). In recent years, this work has been supplemented by geology students and researchers from various Australian universities.

The project area covers part of the Western Fold Belt of the Mount Isa Inlier. A large part is underlain by the Sybella Granite, which intrudes rocks of the Haslingden Group, which is part of Cover Sequence 2 and is thought to have been deposited during a rift-sag fill cycle of events. This group comprises the Mount Guide Quartzite, including the May Downs Gneiss Member, unconformably overlain by the Eastern Creek Volcanics which are in turn unconformably overlain by the Myally Subgroup. A Cambrian capping overlies the Sybella Granite in the northwestern part of the area while elsewhere, particularly in the north and northwest, there is a cover of Cainozoic and Quaternary alluvium.

The Sybella Batholith forms a large north-south elongate zone and covers an area of over 1600km^2. It is interpreted as an A-type composite granitoid complex, divisible into several phases, intruded during an extensional phase during the development of the Mount Isa Basin. The western contact of the batholith is fault bounded by the May Downs Fault against the McNamara Group (Mount Isa Group equivalents). The eastern and northern contacts with the country rocks are of the normal intrusive type and are generally sub parallel to stratigraphy.

At least two generations of pegmatites have been identified in the area. Both phases are younger than the Sybella Batholith.

West of the Mount Isa Fault the Eastern Creek Volcanics are subdivided into quartzites and metabasalts/amphibolites, and metasediments (predominantly schists and quartzites).

Rocks in the area have been metamorphosed and metasomatised. Metamorphic grades reached upper amphibolite facies with metamorphic grade increasing westwards from the Mount Isa Fault towards the Sybella Granite.

The area is also marked by major fault zones. Several periods of faulting are interpreted as associated with mineralisation. Major trend directions in the project area are the main north-south (Mount Isa Fault), a northwest and a northeast trend.

There is some debate over the deformation history of the local area; the main issue being over the existence of a pre Sybella age fabric which has resulted in different classifications of the deformation events (Connors and Page (1995), Page and Bell (1986) and Connors et al., (1992)). Connors et al (1992) conducted the most detailed study over the southern part of the Permit area where they defined multiple deformational phases that occurred during metamorphism during the Isa Orogeny (1610-1480 Ma). The deformation phases are:

D_1 folds and cleavages which are rare in the country rocks and do not occur within the granite. S_1 is in places parallel to S_0.

D_2 folding on all scales and a penetrative S_2 cleavage, which is the dominant fabric across the entire Mount Isa Block.

D_3 comprised of initial D_{3a} shearing followed by mesoscopic to megascopic D_{3b} folding which is observed in large scale folds in the southern portion of the batholith.

D_4 and D_5 recognised only in the country rocks and not in the batholith.

The effects of D_1 through to D_4 have been previously mapped by MIM geologists in the King Prospect area in the southern part of the permit.

7 WORK COMPLETED DURING THE TERM OF TENURE

Exploration completed over the relinquished sub-blocks has included airborne magnetics and radiometrics geophysics, conventional soil and XRF soil geochemical, and a Dipole-Dipole IP geophysical survey.

7.1 Soil Sampling

A total of 235 minus 80 mesh (-80#) soil samples were collected over the Frida South Prospect area (Figure 1). The samples were collected by removing about ten centimetres of top soil and then digging and seiving out a sample of approximately 150 grams weight. These were sent for analysis at ALS-Chemex in Townsville for Au, Ag, As, Co, Cu, Fe, Mn, Mo, Pb, S, U, and Zn. The method of analysis was ME ICP41 and Au AA21 for gold. Only one batch, NQW05DAI009 (TV05054767) was analysed for uranium.

The results failed to clearly define anomalies. Areas of highly anomalous copper in outcrop defined by rock chip sampling were not confirmed by the soil sampling. Best copper result was 257ppm, with a number of other samples above 150ppm. In general, the samples show less contamination than those around Goya. There is a general improvement in the quality of the results the further south the samples were collected. All the results are included in Appendix 1.

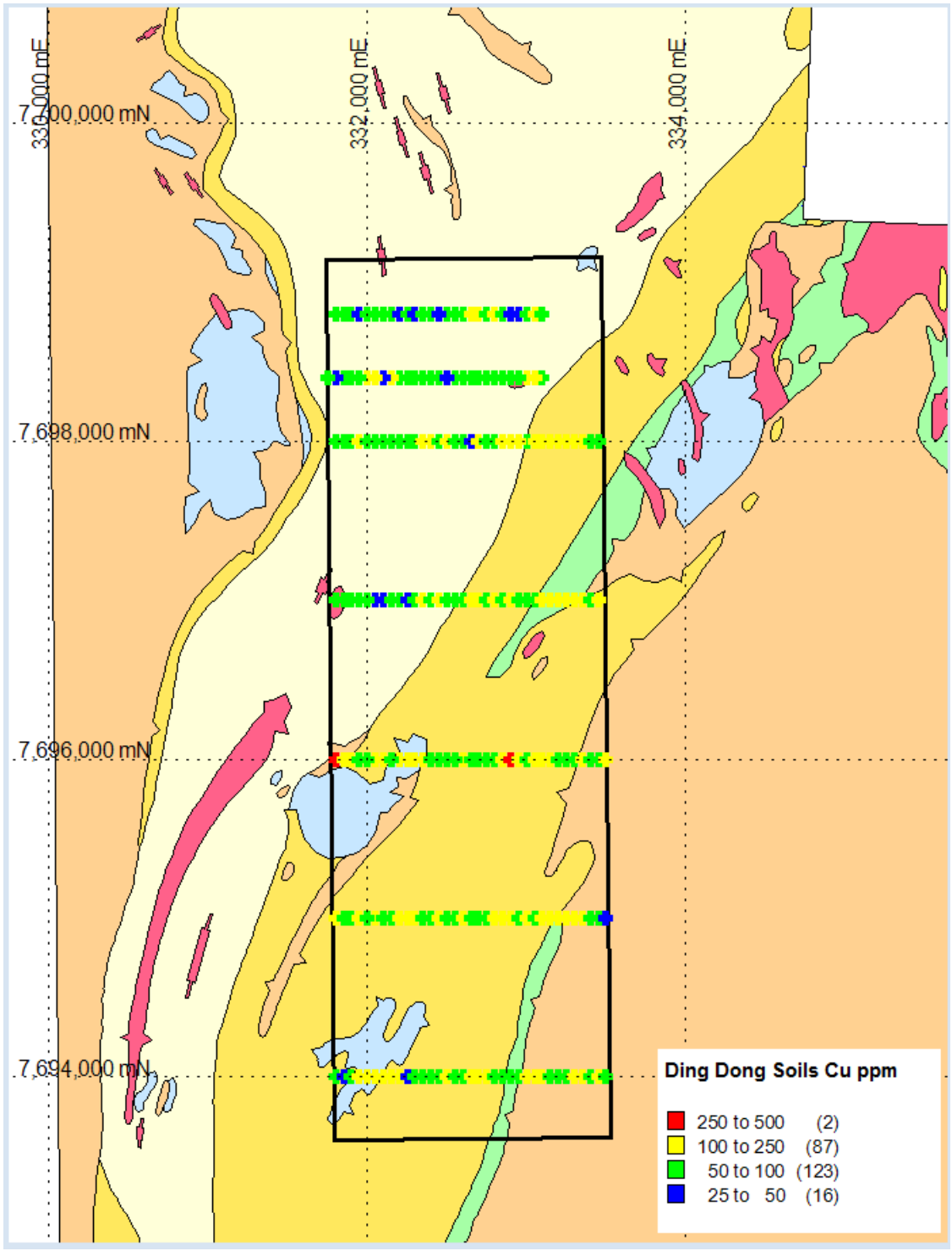

Figure 1: Frida Prospect South Area Soil Copper Geochemistry on Regional Geology.

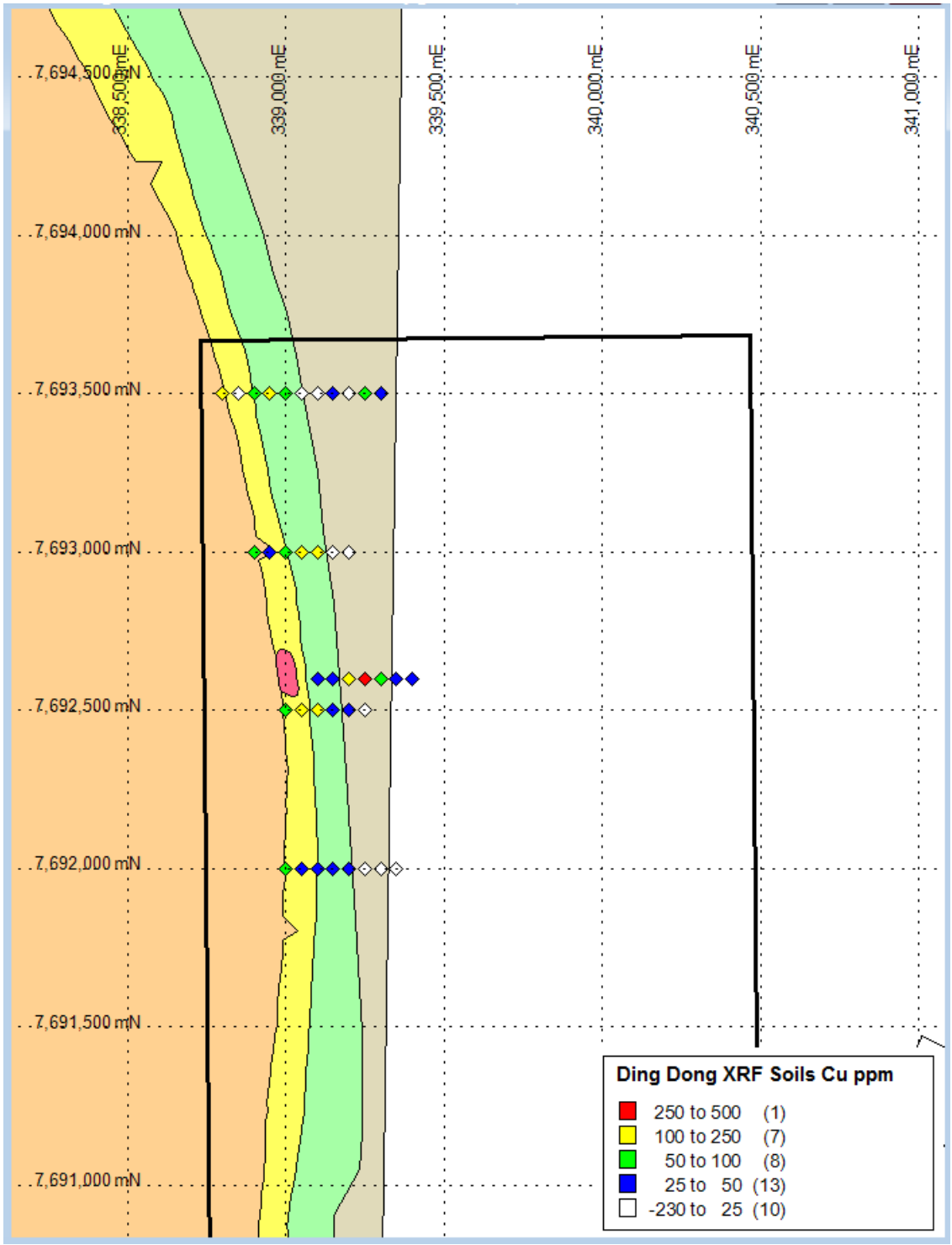

Figure 2: EPM12886 Ding Dong XRF Soil Copper Geochemistry on Regional Geology

7.2 XRF Soil Sampling

Xstrata Copper Exploration completed soil sampling along the sheared eastern contact of the Sybella Granite (Figure 2). Samples (39) were dug from 15cm depth, and assayed on site with a Niton portable XRF instrument for 34 elements. The copper values are plotted on Figure 2 with tenement outlines on regional geology. One of the samples reported above 250ppm copper within Judenan Beds. However the overall tenor of the assays is lower than considered significant. Little correlation exists between the base metals, although nickel is moderately elevated (90ppm) in association with moderate copper (230ppm) and cobalt (500ppm) anomalism. Uranium levels were mostly below detection, although some samples reported in the 20 – 30ppm range. The data is attached in Appendix 2.

7.3 Airborne Geophysical Survey

Work carried out on the relinquished sub-bocks comprises a portion of an extensive, detailed airborne magnetic and radiometric survey flown between March 7 and March 19 2006.

Magnetic and radiometric data were collected on east-west flight lines with a line spacing of 75m and a nominal ground clearance of 30m. Magnetic readings were taken approximately every 5m; radiometric readings were summed over approximately every 55m. Additional survey specifications are available in Table 2.

Magnetic and radiometric data acquired over the relinquished sub-blocks are included in Appendix 3. Total survey extent over the relinquished sub-blocks was 200 line kilometres, plus 20 kilometres of tie lines. Survey coverage is shown on Drawing No. 61131.

Specification	
Contractor	UTS Geophysics
Aircraft	Fletcher FU-24 (registration number VH-CYU)
Line Spacing	75m
Line Direction	East-West
Tie Line Spacing	750m
Tie Line Direction	North-South
Clearance	Nominally 30m above ground
Sample Interval : magnetics	Effectively 5m
Sample Interval : radiometrics	Effectively 55m
Magnetometer	Caesium Vapour
Spectrometer	Exploranium GR820 (32 litres)
Datum	AGD84
Projection	AMG54

Table 2: Airborne Magnetic and Radiometric Survey Specifications

7.4 King Prospect Dipole-Dipole IP Geophysical Survey

13.1 line kilometres of 80m Dipole-Dipole Induced Polarisation (IP) data were collected along seven traverses over the King prospect by Fugro Ground Geophysics. The data and subsequent modelling has identified some features with electrical continuity most likely representing lithological characteristics (western side of prospect area). However it has also identified some interesting chargeable bodies that require some follow up, these are:

Traverse	Station	Comments	Priority
14000n	9600e	Strike limited moderately chargeable body at depth. Coincident with the historic King workings. However not a strong anomaly in the observed data	2
13500n	10050e	Strike limited strong chargeable body. Supported by a complex chargeability anomaly in the observed data.	2
13100n	9800e	Deep broad broad moderately chargeable anomaly, not well supported in the observed data	3
14500n	9600e	Low to moderately chargeable body on the two most northern traverses. Supported by a coherent anomaly in the observed data.	3

Table 3: Summary of Chargeable Anomalies from IP Survey

Data Collection

In September 2004 a conventional 80m Dipole-Dipole Induced Polarisation (IP) survey was undertaken over the King Prospect located about 25km south of Mount Isa. The program comprised of seven east-west traverses with 250m or 400m intervals between lines. A plan of the traverses is displayed in drawing number 45869. The survey traverses were established using a hand held GPS and Table 4 lists the start and end co-ordinates for each line.

The following equipment and specifications were used to undertake the survey:

Configuration:	Tx – Dipole and Rx – Dipole
Receiver (Rx) Dipole Spacing:	80m
Transmitter (Tx) Station Interval:	80m
Receiver – Transmitter offset:	40m
Number of Rx Dipoles:	8
Line Direction:	East/West MIM local Grid (AGD84 Zn54)
Base frequency:	0.125 Hertz
Duty Cycle:	50%
Receiver:	IPR 12
Chargeability Integration:	590 msec to 1450 msec
Transmitter:	TQIP 4
Crew Chief:	Colin Chatley of Fugro Ground Geophysics
Data Co-ordinate Datum:	Mount Isa Local Grid (AGD84 Zone 54).

Line Number	Western Local Grid Co-ordinate (MIM AGD84 ZN54)	Western AMG Co-Ordinate (AGD 84 Zone 54)	Eastern Local Grid Co-ordinate (MIM AGD84 ZN54)	Eastern AMG Co-Ordinate (AGD 84 Zone 54)	Line Length
13100n	8700e 13100n	337347e 7684562n	10780e 13100n	339425e 7684480n	2080m
13500n	8650e 13500n	337313e 7684964n	10650e 13500n	339311e 7684884n	2000m
13750n	8680e 13750n	337353e 7685213n	10400e 13750n	339071e 7685144n	1720m
14000n	8700e 14000n	337383e 7685462n	10600e 14000n	339281e 7685386n	1900m
14250n	8680e 14250n	337372e 7685712n	10400e 14250n	339091e 7685644n	1720m
14500n	8800e 14500n	337502e 7685957n	10640e 14500n	339341e 7685884n	1840m
14900n	8800e 14900n	337518e 7686357n	10640e 14900n	339357e 7686284n	1840m

Table 4: King Prospect IP Traverse Locations

For each station a minimum of two readings (of multiple stacks) was recorded. If these repeated well no further repeats were taken, however if there was variation of greater than 10%, a third and occasionally a forth repeat was recorded. Drawings 45861 to 45867 display pseudosections of the chargeability and resistivity data at a scale of 1:6000. The colour stretches for the apparent resistivity and chargeability pseudosections images is the same for all the traverses and this dynamic range is selected to best reflect the project area, as opposed to each individual traverse. The Digital data is presented in Appendix 4.

Data Interpretation

There are a number of chargeable and conductive features defined on the various traverses. A number of these were strike continuous throughout the project area and are interpreted as stratigraphical units.

On traverse 13100n there is a complex chargeable zone on the western end of the line. Most of the sources of this anomaly would appear to be shallow, but there is an interesting deep high leg at 9280e. The centre of the traverse displays data indicating a chargeable source at 9680e and the western end of the traverse also has some moderately chargeable anomalies that are potentially sourced by shallowly bodies. The resistivity data has a moderate low resistivity feature centred on 9440e indicating an increase in the cover.

Traverse 13500n is not too dissimilar to the previous traverse. However the deep sourced anomaly at 9280e is of lower amplitude. On the eastern end of the traverse there is a complex pattern recorded in the chargeability data indicating multiple chargeable sources. The resistivity data is also similar to the previous traverse, but has a moderate low resistivity anomaly recorded centre on 9840e.

Traverse 13750n is similar to the previous two traverses. Of interest is the moderate amplitude deep chargeable anomaly at 9360e. Traverse 14000n is over the historic King prospect workings. It too has a moderate chargeability anomaly at deep centred on 9440e. For this traverse the anomaly is a-symmetrical (reflecting dip?) but a little more coherent then on the previous traverse. The resistivity data indicates that there may be a slight increase in the cover above the chargeability anomaly. There is also an interesting moderate low resistivity anomaly centred on 9760e with the data indicating it has depth extent.

On traverse 14250n there is little expression of the deep chargeable anomaly as on the previous lines. However there is quite a marked change in the resistivity pseudosections. The observed data indicates that the conductance (conductivity x thickness) of the cover has increased on this traverse in comparison to the traverses to the south. Traverse 14500n is very similar to the previous traverse. There is a deep subtle chargeability anomaly centred on 9680e that correlates well with a strong low resistivity anomaly. On traverse 14900n the deep chargeability anomaly has migrated to 9600e and is possibly slightly more coherent. However the coincident low resistivity anomaly is not as intense.

Data Inversion

All the traverses were modelled using the Zonge smooth model inversion. This is a robust way of converting the observed pseudo-section data into resistivity and chargeability models reflecting the source anomalies' geometries and locations. Prior to inversion every decay curve for every reading was inspected to ascertain noise levels and repeatability. In general all the data was of outstanding quality with high repeatability, approximately 2 percent of the readings were rejected.

The models highlight a number of interesting areas with the principle area of interest being the moderate chargeable body on traverse 14000n at 9600e. It appears to be strike limited with a subtle expression on the traverse to the south (13750n) and no expression to the north. Interestingly the observed data doesn't display an anomaly that fully supports the generation of such a strong anomaly.

Another chargeable source of interest is the deep broad chargeable source on 13100n at 9800e. It appears to have a subtle expression on the traverse to the north (13500n). Adjacent to the subtle source on 13500n is a very strong chargeable body at 10050e. This body should be followed up with some ground proofing. On the two northern traverses there is also a chargeable body around 9600e that presents some interest.

8 CONCLUSIONS

Soil geochemistry surveys were conducted over two areas. At Frida Prospect, some areas with outcropping copper mineralisation hosted by narrow pegmatitic shear zones were followed up with a conventional soil sampling grid, however failed to generate significant anomalies. An XRF soil program along the Sybella Shear similarly returned values of low copper tenor.

An IP survey was completed over the King Copper Prospect and workings. Some low to moderate strength chargeable anomalies were identified.

9 REFERENCES

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DRAWINGS

APPENDICES

(Digital Data)

Appendix 1	**Soil Geochemistry Data**
Appendix 2	**XRF Soil Sampling Data**
Appendix 3	**Airborne Geophysical Survey Data**
Appendix 4	**King Prospect Dipole-Dipole IP Survey Data**