Queensland Mining Corporation Ltd

Technical Report
1178

Exploration Permit for Minerals No. 17602
'Top Camp – Iron Ridge'

Annual Report
For the Period Ended 20th October 2014

QUEENSLAND MINING CORPORATION LTD

TECHNICAL REPORT
No. 1178

TITLE:	EXPLORATION PERMIT FOR MINERALS NO. 17602 'TOP CAMP-IRON RIDGE', ANNUAL REPORT FOR THE PERIOD ENDED 20TH OCTOBER 2014
HOLDER:	IRON RIDGE – TOP CAMP PTY LTD, ORION GOLD NL AND FINDEX PTY LTD.
OPERATOR:	QUEENSLAND MINING CORPORATION LTD
1:250,000 SHEET:	SF54-02 CLONCURRY
1:100,000 SHEET:	CLONCURRY (7056), MOUNT ANGELAY (7055), MARRABA (6956) AND MALBON (6955)
INVESTIGATIONS CONDUCTED BY:	QUEENSLAND MINING CORPORATION LTD
AUTHOR:	N. SIDDLE
SUBMITTED BY:	G. XU
DATE:	NOVEMBER 2014
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3. Queensland Department of Mines and Energy

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1. Summary

Exploration Permit for Minerals No. EPM 17602 was acquired to investigate for Cu ± Co ± Au deposits hosted within the Proterozoic meta-sedimentary rocks of the Eastern Fold belt.

Exploration activities conducted during the 2013-2014 reporting period were focused primarily on the Black Fort prospect, hosted within the Overhang Jaspilite. An open file study was also conducted on historical data including the RC holes drilled in the 2010 Black Fort Drilling , which was followed with a series of target definition studies conducted (soil geochemistry, rock chip sampling, and prospect scale geological mapping) followed up by a short diamond drilling program, designed to test the potential for primary copper mineralization at depth (BF14RCD01, which was abandoned, and supplemented with BF14RCD02). Whilst the Assays returned from the hole yielded lower Copper grades than anticipated, the hole was a 'technical success' as primary chalcopyrite hosted within quartz carbonate breccia was successfully targeted.

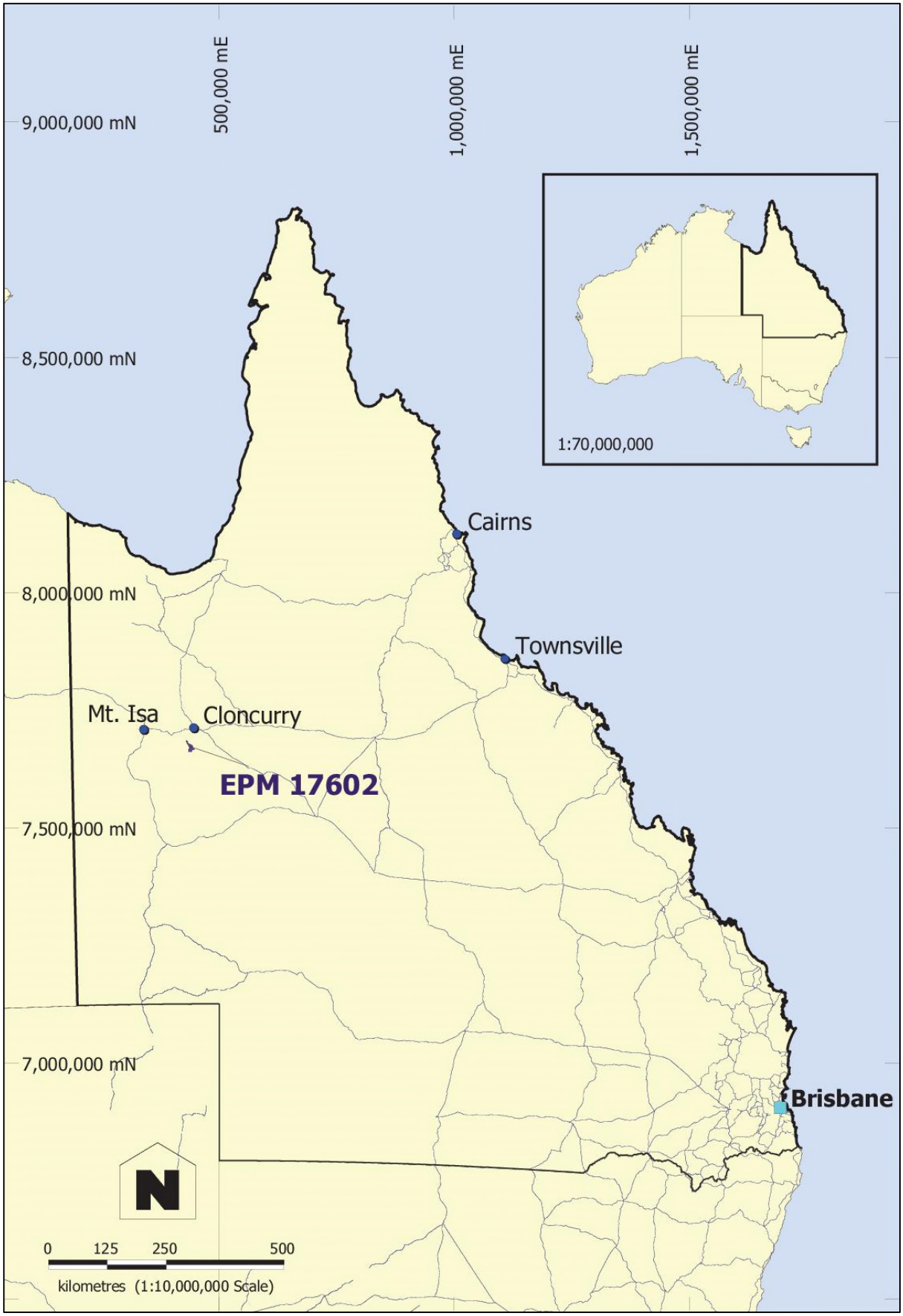

Figure 1 Regional location map of EPM 17602

2. Introduction

This report documents the exploration activities undertaken by Queensland Mining Corporation Ltd. (QMC) over the Exploration Permit for Minerals No. 17602, during the twelve month period ending 20th October 2014. EPM 17602 was granted to Iron-Ridge Black Fort Pty Ltd on the 21st of October 2010 for a five year term. The tenement was formed by the conditional surrender and amalgamation of EPM 13625 (Top Camp) & EPM 13922 (Iron Ridge). EPM 17602 was initially comprised of 78 sub-blocks and was reduced by 31 sub-blocks on the 11th of February 2014. The EPM currently comprises 47 sub-blocks and is due to expire on the 20th of October 2015.

The exploratory work carried out by the Queensland Mining Corporation Ltd. Within EPM 17602 was focussed solely on the Black Fort prospect, testing the potential for an IOCG style deposit, as well as the potential for Gold mineralization within the NNE trending dilatational breccias proximal to the Black Fort prospect.

3. Tenement Location and Access

EPM 17602 “Iron Ridge-Black Fort” located approximately 40km south-southwest of Cloncurry in North Western Queensland (Figures 1 &2). The EPM can be accessed from Cloncurry by travelling west on the Cloncurry to Mt Isa road for 10 kilometres, then south along the Cloncurry to Dajarra/ Kuridala road for 26 kilometres. From here, tenement can be reached by graded station tracks a distance of 18 kilometres south east or continue on the Kuridala road for distances of 4.7km or 10.5km past the Cloncurry River crossing for tracks heading northeast. The Cloncurry/Mt Isa and Cloncurry/Dajarra roads are sealed all weather roads.

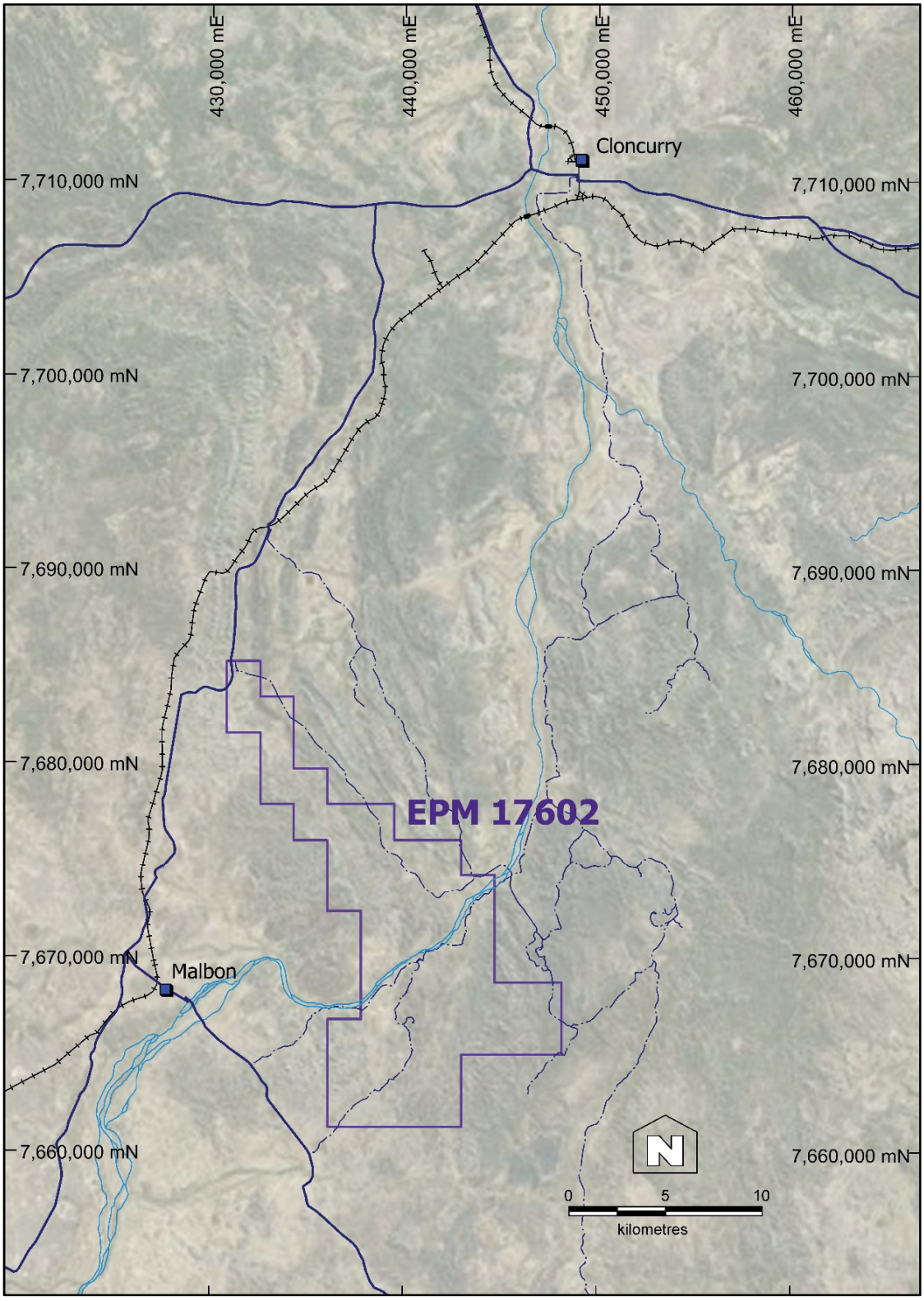

Figure 2 Location and access plan for EPM 17602, showing both covered and dirt road access (A4, 1:250,000 Scale, GDA94z54)

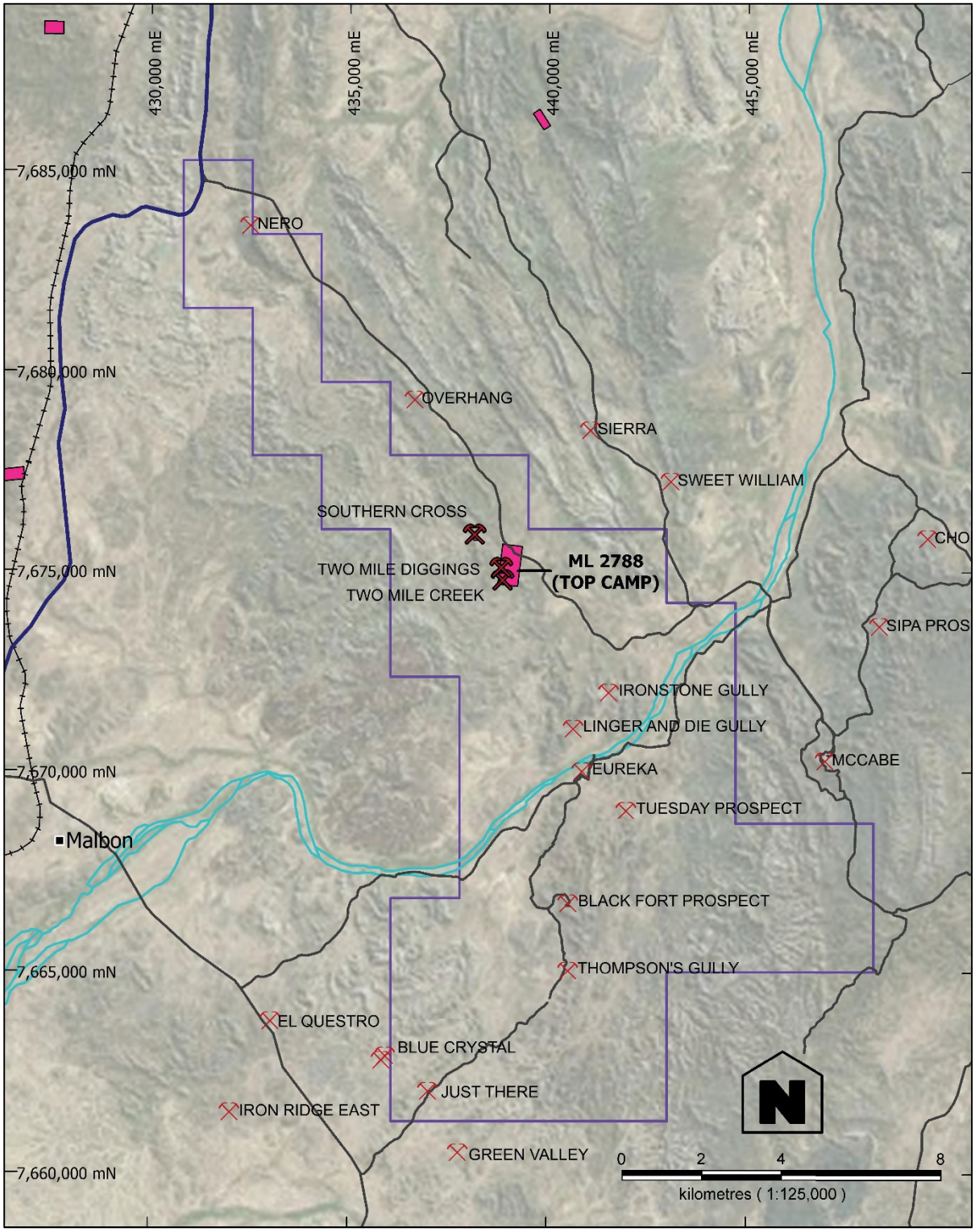

Figure 3 Key Prospect locations within EPM 17602, showing prospects, road access (covered and uncovered), and drainage (A4, 1:125,000 Scale, GDA94z54)

4. Tenure

EPM 17602 was granted to Iron Ridge-Black Fort Pty Ltd on the 21st October 2010 for a five year term. The tenement was formed by the conditional surrender and amalgamation of EPM 13625 and EPM 13922, which were granted respectively on the 11th June 2002 for a five year term and on the 24th June 2003, for a five year term to Findex Pty Ltd.

On the 29th of November 2006 Matrix Metals Ltd entered into a Joint Venture Agreement with the tenement holders Goldstar Resources NL (now Orion Gold NL) and Findex Pty Ltd. Under the terms of the JV Matrix Metals Ltd was the operator for the JV and undertook comprehensive exploration programmes on the tenements.

On the 11th November 2008 Matrix went into Voluntary Administration, subsequent Liquidation in 2009. Queensland Mining Corporation Ltd (QMC) purchased Matrix's interest in the tenement from the Liquidator's on the 16th July, 2010, with the tenement ultimately held by QMC's subsidiary Iron Ridge-Black Fort Pty Ltd.

Under the terms of the JV Agreement with Orion Gold NL, QMC has spent the required expenditure to earn a 70% interest in the tenement.

EPM17602 was initially comprised of 78 sub-blocks and the first reduction of 31 sub-blocks was made on 11 February 2014. The EPM currently consists of 47 sub-blocks and due to expire on 20 October 2015.

Prior to the current reduction, EPM 17602 comprised 78 sub-blocks and covers a total area of approximately 250 km². The details of the retained 47 sub-blocks are shown in the table bellow:

BIM	Block	Sub Blocks
CLON	821	F,L,M,R,W,X
	893	C,D,E,J,K,O,P,U,Z
	894	F,G,L,M,N,Q,R,S,V,W,X
	965	E,J,K,O,P,T,U
	966	A,B,C,D,E,F,G,H,J,K,L,M,Q,R

5. Geological Framework

Figure 4 shows the general geology of EPM 17602 based on the 1:100,000 scale Geological Sheets for Marraba (6956), Cloncurry (7056), Malbon (6955) and Mt Angelay (7055), as supplied on the March 2007 DVD "Queensland Geological Mapping Data for Regional and 1:100,000 Sheet Areas".

The majority of the tenements overlie the eastern portion of the Malbon sheet. Figure 3A also contains a legend listing stratigraphic units and lithological descriptions.

EPMI 3625 and EPM 13922 are located on the Eastern Fold Belt of the Mt Isa Inlier, and contain stratigraphic units from Cover Sequence 2 and 3. A number of mafic and intermediate to felsic intrusive bodies also outcrop in the region.

Cover Sequence 2

The oldest lithologic units form part of Cover sequence 2 and include, in order of descending age, the Marraba Volcanics, the Mitakoodi Quartzite, Overhang Jaspilite and Corella Formation of the "Mary Kathleen Group", Ca. 1762-1 738 Ma. The Doherty formation, ca. 1750—1725 Ma, also occurs to the south east and is interpreted as a lateral facies equivalent of the Corella Formation (Foster & Austin).

The Marraba Volcanics ca. 1760-1755 Ma outcrop in the north western areas of EPM 13625 and western areas of EPM 13922, where variable weathering of the meta-basalts has produced plains of red sols. This unit contains intrusions of dolerite in the central south of EPM 13922 and comprises three members: Member I - the Cone Creek Meta-basalt (lower basal member PLnc) consists of massive to foliated dark green to black meta-basalt flows with amygdaloidal zones, agglomerate, and intercalations of feldspathic sandstone. Member 2 - the Mount Start Member (middle member PLns) comprises laminated calcareous sandstones, which commonly form hills where they have been leached of carbonate and silicified. Member 3 - the Timberoo Member (upper member PLnt) is composed of minor meta-basalt flows intercalated with labile feldspathic sandstone, quartzite, calcareous sandstone, slate, siltstone and limestone.

The Mitakoodi Quartzite ca. 1755-1750 Ma outcrops in the north western areas of EPM 13625 and central east of EPM 13922, and is generally variably folded. This unit contains intrusions of dolerite throughout the tenements and contains 3 members. Member I (the oldest member, PLnm/1) is composed of Quartzite, feldspathic arenite; minor siltstone, conglomerate, felsic porphyry. Member 2 (PLnm/2) contains metabasalt, arenite, sandstone

and minor siltstone. Member 3 (PLnm/3) is the youngest member and is in stratigraphic contact with the Overhang Jaspilite formation. Member 3 is composed of siltstone, slate, shale, phyllite, quartzite, feldspathic arenite and conglomerate.

The Overhang Jaspilite (PLkj) unit contains beds of limestone, calcareous and ferruginous siltstone, sandstone, thin bedded limestones, chert, and jaspilitic siltstone/jaspilite, phyllite, shale and marl, with rare quartzite. Jaspilite beds are grey to red and are generally grouped, particularly in the upper part of the unit. The sequence is considered to be indicating shallow water lagoonal/intertidal or platform environment. The lower boundary of the Overhang Jaspilite is marked as the first observation of grey red cherty interbeds.

The Corella Formation (PLkc), ca. 1750-1738 Ma consists of banded gneissic calc-silicate rocks, variably scapolitic, amphibolitic, siliceous, calcareous, or feldspathic; and minor massive to sheared metavolcanics, metasiltstone, quartzite, marble, mica schist, slate, phyllite and breccia. This formation is represented by only small areas on the northeast edge of EPM 13625.

The Doherty Formation (Plkd and Plkd/br), ca. 1725±7 Ma is regarded as being part of the Mary Kathleen Group. The Formation comprises banded to massive amphibolitic, siliceous and calc-silicate granofels, and minor calc-silicate breccia. The unit is represented in the lower southeast sub-blocks of EPM 13625.

Cover Sequence 3

The younger lithological units of Cover sequence 3, in order of descending age, include the Staveley Formation, Marimo Slate and Roxmere Quartzite of the “Young Australia Group”, ca. 1675-1610 Ma. These units outcrop in a narrow north-south trending belt (Marimo / Staveley Belt) starting just to the south of Cloncurry and extending to the south of the Gin Creek Granite and Double Crossing Metamorphics (Foster & Austin). The Young Australia Group comprises rock units formerly assigned to the Mary Kathleen Group, but which were subsequently found to be considerably younger (Foster & Austin), and are now assigned to Cover Sequence 3.

The Roxmere Quartzite (PLpr) contains feldspathic arenite and quartzite, calcareous sandstone, quartzofeldspathic sandstone; minor siltstone and conglomerate. This unit is represented on the east edge of EPM 13625 towards the south.
The Staveley Formation (PLks) contains poorly sorted, variably calcareous, ferruginous, feldspathic and siliceous arenite, siltstone and phyllite; calcareous granofels; minor breccia, limestone, banded ironstone and chert. A mudstone member (PLks/t) contains siltstone,

shale, phyllite and minor feldspathic arenite. These units are represented in the eastern and southern half of EPM 13625.

The Marimo Slate (PLkm) contains variably carbonaceous siltstone and slate, limestone, calcareous sandstone; minor marl, arenite, phyllite, chert and siliceous to calcareous breccia. The Marimo slate is represented to the east of the northeast areas of EPM 13625. A number of small outcrops of the Wimberu Granite (PLgim) occur in the south western areas of EPM 13922. These have been classified as porphyritic and nonporphyritic, biotite, hornblende, and hornblende-biotite granite and granodiorite; minor leucogranite, pyroxene-bearing granite, microgranite, aplite and pegmatite.

The tenements are broadly covered by Cainozoic Cover (Cz), including soil, sand, silt and gravel due to the extensive drainage channels present in the area; namely the Cloncurry river and its tributaries in the central areas of the EPMs. Tertiary deposits include colluvial and alluvial sand, silt, gravel, and clay (Czs). Note: The map datum used for Figure 4 is GDA94, map grid MGA94, zone 54.

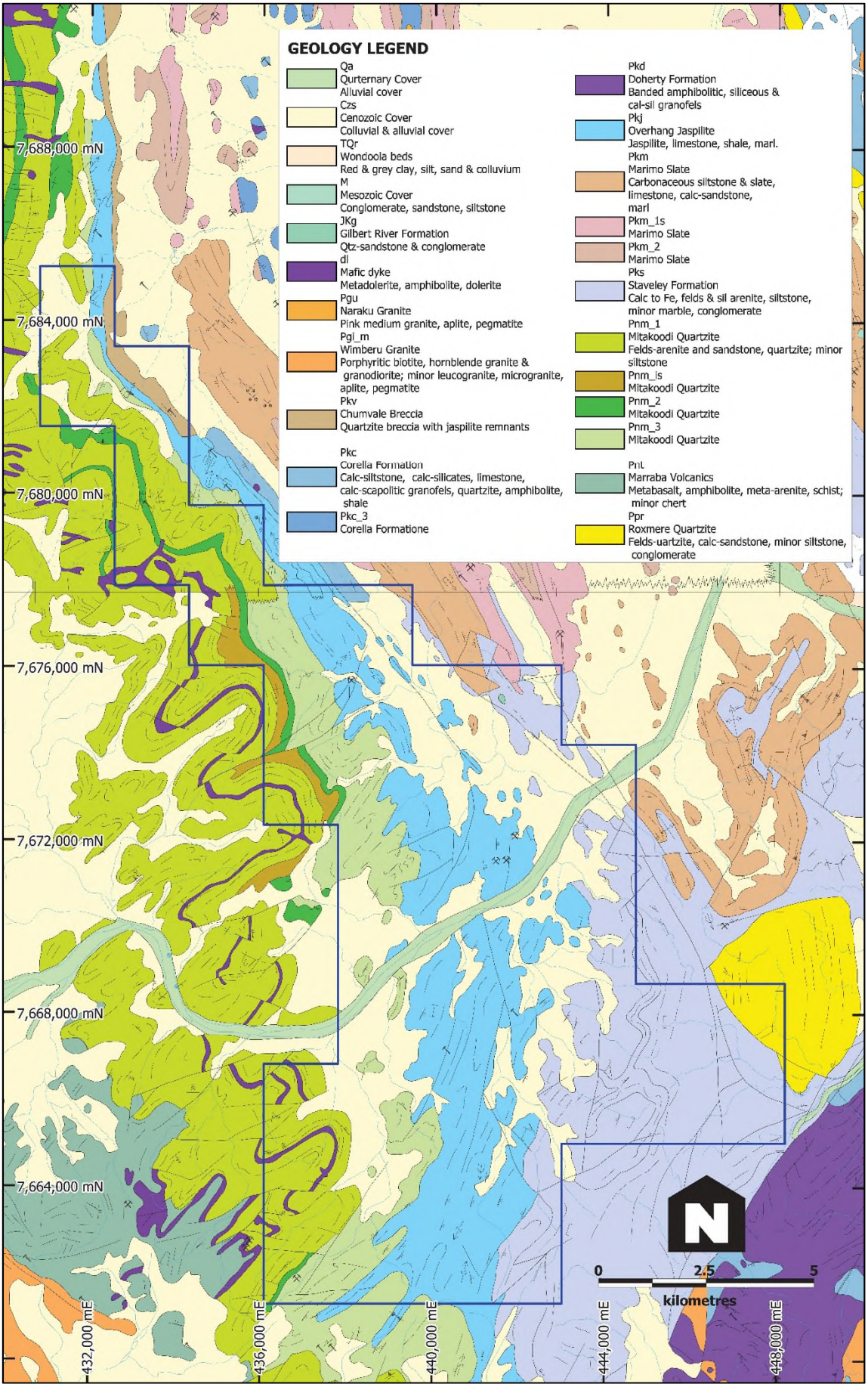

Figure 4 EPM 17602 boundary with 1:100,000 scale geology underlay (GSQ CLONCURRY (7056), MOUNT ANGELAY (7055), MARRABA (6956), and MALBON (6955) sheets).

6. Previous Work

The sub-blocks which comprise EPM 17602 have seen numerous exploration attempts over the years, starting with the initial discovery of Alluvial gold in 1867, which lead to a major gold rush in 1872. Alluvial mining continued at top camp until 1875. Reports covering this period are scarce, and at times questionable, but overall, they suggest that gold was recovered from several sites both south, and west of Top Camp itself (such workings were identified by Cypress Gold of Australia during their tenure of the region). It is estimated that around 25,000 ounces of alluvial gold were removed from Top Camp during the 1800's.

In more recent times, gougers and freelance miners have worked and reworked several prospects within the tenement, removing several hundreds of tons of selected 'high grade ore'. Such prospects include; Green Valley, Blue Crystal, El Questro and numerous others located around the Duck Creek and Marraba area).

The area has seen numerous attempts by companies since the 1950's, however, detailed and systematic exploration of the Overhang Jaspilite and prospect within the area were not conducted until the mid 1980's

6.1 Australia Anglo American (A.A.A) (1984 – 1987)

A total of 49 sub-blocks were granted to Australian Anglo American on the 17th of December 1984, after an internal company study of the region, with the goal of delineating an apparent source for the alluvial gold at 2 Mile and Top Camp. Work carried out during this period consisted of geological mapping of the overhang jaspilite (With detailed mapping at prospects and locations of interest), and rock chip sampling. This led to the identification of several localities deemed suitable for drill testing. 14 RC percussion holes were drilled in 1986, however only two yielded any intercepts of significance (PDH3 – 38-40m @ 3.58 g/t, drilled around Top Camp, and PDH7 – 74-76m @ 8.74 g/t, drilled at Eureka, or 'Area One').

6.2 Lake Gregory Pty Ltd in JV with A.A.A (1987 – 1989)

Lake Gregory Pty Ltd Entered into a JV with Australian Anglo American for an area of 18 sub-blocks, with Top Camp forming the primary focus of exploration conducted during the 2 year period. Work conducted in this time consisted of rock chip sampling of fault zones as well as an assessment of the feasibility of alluvial gold mining at Top Camp. Rock chip samples were collected from several areas of interest (The Black Fort and 2 Mile Fault zones, Mary Douglass Hill, Eureka prospect, Southern Cross, Skooby Doo, Top Camp, and Ironstone Gully). A zone of 1.7Km in strike length was identified within the Black Fort fault zone (on the northern side of the Cloncurry river) containing scattered anomalous gold values, however the hits were too widely spread to define any economically significant shoots. Bulk Cyanide Leaching of stream sediments samples from selected major

drainages was conducted to test for the presence of previously undiscovered gold bearing alluvium, however the results were inconclusive. No further anomalies were identified by Lake Gregory during its tenure of the 18 sub-blocks. It was proposed, based on the exploration findings thus far, that the source of alluvial gold at Top Camp consisted of a series of fault and splay controlled quartz vein and stock-work zones bearing low grade gold values. By 1989, the tenement consisted of only 5 sub-blocks, and was dropped in the December of 1989.

6.3 Battle Mountain (Australia) Inc. (1990)

Battle Mountain (Australia) Inc. (A subsidiary of Battle Mountain Gold) was granted EPM 6956, consisting of 56 sub-blocks on the 23rd of February 1990. Work carried out during the 6 month period that Battle Mountain held the tenement consisted of a comprehensive regional stream sediment sampling and prospecting program, which was followed by soil sampling, the results of which were not considered significant enough to warrant further expenditure on the tenement. As a result, it was surrendered in full on the 14th of September 1990

6.4 Cypress Gold of Australia (1991 – 1994)

Cypress Gold of Australia entered into a joint venture with Queensland Octane (85%:15% respectively, with 100% of Manganese rights going to Sipos-Queensland Octane – Poverty Gold) as part of a regional scale 'Top Camp' project, covering EPM 7942, EPM 7996, and EPM 5703, as well as several contained mining leases. Work carried out during this period was extensive, consisting of tenement wide stream BLEG sampling, gridding, soil geochemistry sampling, rock chip sampling, detailed geological mapping, Geophysical surveys at selected locations (Airborne Mag, Ground Mag, SIROTEM, and an IP Gradient Dipole-Dipole array survey) and aerial photography. A series of costeans (11) were also excavated at several prospects (Terquoise Creek and Top Camp in particular). A total of 20 RC and Diamond holes were drilled within the tenements as a follow up to test the potential of copper and gold mineralisation at several localities, from which petrological studies were also conducted. Downhole EM surveys were carried out to test for potential ore bodies proximal to the holes drilled. A total of 87 RAB holes were drilled over top camp to follow up and soil sampling and the ground magnetics survey conducted there, however only narrow zones of anomalous geochemistry were identified, with the mag anomalies proving to be geochemically sterile.

6.5 Cypress Gold in JV with "Cloncurry Joint Venture" (1994 – 1996)

In 1994 Cypress Gold of Australia entered into a joint venture agreement with the "Cloncurry Joint Venture" which consisted of Mount Isa Mines (MIM) Ltd. and Hunter Resources Limited, with the

Cloncurry Joint Venture earning 60% interest. Work carried out during this period consisted of; An open file data review, Heli-borne Mag, Moving and fixed loop EM (TEM), follow up downhole EM, a grid based soil and rock chip geochemistry program, which was followed up by the drilling of 4 holes (3 RC and one Diamond tail), and downhole EM (which was unable to read bellow 75m due to hole collapse). At the conclusion of this exploration period MIM handed their interest over to Hunter Resources Ltd, conducting no further exploration at the site, recommending that the tenements be dropped.

6.6 Eagle Mining in JV with Cypress Gold (1996 – 2000)

Hunter Resources was taken over by Eagle Mining, and was now in a Joint Venture with Cypress Gold of Australia (with interest at 60:40 respectively) for a total of 51 sub-blocks. Work carried out during this period consisted of historical data compilation and review, interpretation of satellite data, follow up BLEG, -80 stream sediment sampling, prospecting, rock chip geochemistry and soil geochemistry surveys (Covering Eureka and Southern Top Camp). Geological mapping was carried out at the Jessica prospect. In 2000, Eagle Mining relinquished the tenement.

6.7 Goldstar Resources and Findex Joint Venture (2002– 2006)

EPM 13625 (Top Camp) and EPM 13922 (Iron Ridge) were granted to Goldstar Resources, who entered into a JV with Findex (85:15 interest held respectively) in 2001. Work conducted consisted of a Review of the tenements, with field reconnaissance of each prospect with in the tenements being carried out within the first year. A gravity survey was conducted in the 2004 – 2005 reporting period, however no work was carried out the following year.

6.8 Matrix Metals Ltd in JV with Goldstar and Findex (2006 – 2009)

Matrix Metals Ltd entered into a JV with Goldstar and Findex in 2006 (51:34:15). Work carried out during Matrix Metals' Tenure of the EPMs consisted of an initial data review, followed by soil sampling at South BFS, Middle of No Where, and Just There. Rock chip sampling was carried out at South BFS, Just There, Murphy's Prospect, Blue Crystal, Miss Julie, Iron Ridge East and Lysander prospects. A MMI soil geochemistry survey was conducted at Black Fort prospect, as well as SAM geophysical surveys at South BFS, Just There and Murphey's. In 2009, limited work was carried out due to financial difficulties, with limited soil and lag sampling, and geological mapping being carried out. The geophysical data obtained in the previous year was modelled and used to plan an RC drilling program. In 2009, Matrix Metals entered into voluntary administration, with the Queensland Mining Corporation purchasing Matrix Metals' interest in July 2010.

6.9 Queensland Mining Corporation Ltd. (2009 – 2013)

The Queensland Mining Corporation (QMC) Ltd entered into a Joint Venture agreement with Goldstar and Findex, with QMC earning 51% interest of EPMs 13625 and 13922 (Goldstar and Findex earning 34% and 15% interest respectively). During this period, an extensive data review was conducted, as well as prospect reconnaissance, track repairs and the clearance of drill pads at Just There and Black Fort. In 2010, EPM 13625 and EPM 13922 were consolidated to form EPM 17602 (comprising 78 sub-blocks). 15 RC holes were drilled in 2010, with 5 being drilled at Black Fort, and 10 being drilled at Just There. Assay results for rock chip samples collected by Matrix Metals were also collected during this time.

No further work was carried out on the EPM until 2014, with the EPM being reduced to 47 Sub-blocks in

7. Current Work

Work conducted during the reporting period, ending on the 20th of October 2014 consisted of an open file data review of previous exploration at the Black Fort prospect, which was followed by an XRF based soil geochemistry program, a selective small called rock chip sampling program, and a prospect scale geological mapping campaign. Upon the completion of these field campaigns, a single RC pre-collared diamond drill hole was planned to test the potential of primary copper sulphide mineralization at the black fort prospect.

7.1 Geological Mapping

A short, prospect scaled geological mapping campaign was carried out during the XRF based soil geochemistry program in order to further increase the geological understanding of the area, and to aid in the definition of new drilling targets. The 600m by 800m area was mapped at a scale of 1:2,500 using a high resolution quickbird satellite imagery as a base map. A Garmin GPSmap 62s was used to record location data with an accuracy of ± 6m.

Much of the outcropping lithology at the prospect consists of the Overhang Jaspilite, which typically consists of strongly foliated shales, siltstones, occasional phyllites (observed near the old shaft in the south western part of the prospect) and isoclinally folded BIF and jaspilites. Minor lenses of limestone were also present (typically found in the lower part of the Overhang Jaspilite sequence), while weathering at the surface has leached much of the carbonate from the outcrops, calcrete is present in several localities within the mapping area. Carbonaceous shales have been identified in diamond drill core, and in outcrops at the eastern contact of the Overhang Jaspilite during the XRF based soil geochemistry survey.

The Upper Mitakoodi Formation (which conformably underlies the Overhang Jaspilite) outcrops to the west of the Overhang Jaspilite, and consists of siliceous finely bedded siltstones and sahles, with sandstone beds up to 1 – 2m in thickness observed further away from the contact.

The prospect is structurally complex, with the Overhang Jaspilite exhibiting strong S2 foliation, striking ~NNE, and steeply dipping at ~75°-85°. Jaspilite Outcrops exhibit outcrop scale, strong, non-cylindrical isoclinal folding (Plunging both NNE and SSW), with fold limbs generally parallel go S2 foliation (with jasper bands providing excellent deformation markers). The Overhang Jaspilite has experienced significant structural thickening at this location, and is intensely folded. To the west of the prospect lies a large scaled antiform within the Mtakoodi Quartzite, with the western limb of the fold dipping beneath the Overhang jaspilite at ~60, 115.

A series of NNE striking Quartz-Oxide (Mn and Fe) dilatational breccias, and quartz mylonites were mapped within the Overhang Jaspilite, all of which were exposed as areas of high topographic relief (silicified ridges of continuous strike). Whilst hydrothermal quartz veining and gossans with stock-work texture were identified, many of the ridges proved to be geochemically barren (as supported by the soil geochemistry and rock chip surveys in part 7.2 and 7.3 of this report).

The only instance of visible copper mineralization encountered within the field area was in the mullock surrounding the historical workings in the south of the prospect (Near BF10RC01), with chloritic phylllite containing malachite in blebs and on foliation plains. A sample collected from the mullock which appeared to be a weathered hydrothermal breccia with malachite staining, quartz veining and traces of chalcocite.

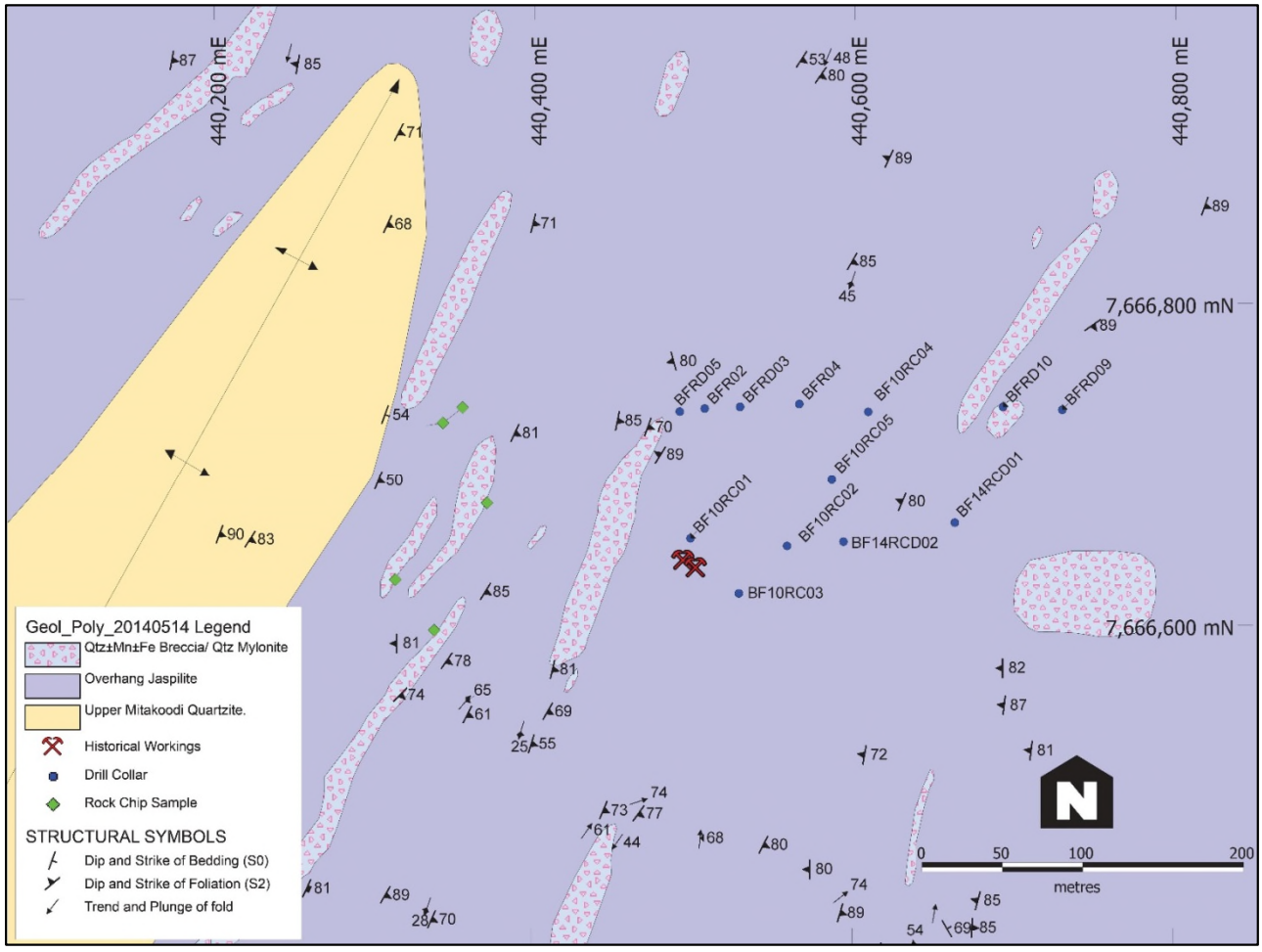

Figure 5 Black Fort Prospect Geological map, showing drill hole collar locations and historical workings.

7.2 Soil Geochemistry Survey

A soil geochemistry survey was planned and conducted In order to both infill the -80 mesh soil geochemistry survey conducted by Cyprus Gold, and to further aid in the definition of new drilling targets by identifying new potentially geochemically anomalous zones separate from those previously identified or tested by historical drilling. A 580 point survey was carried out at a line spacing of 100m, with samples collected every 25m covering an area of 800m (E –W) by 1600m (N – S), using the MGA94z54 Grid. A Handheld XRF unit was used (InnoveX Delta) to measure the concentration of copper and arsenic within the soil at each sample location, while a Garmin GPSmap 62s was used to navigate to each sample site. A small shallow pit was excavated at each sampling location using a rock pick to a depth of ~6 to 12 inches, ensuring the sample was taken bellow any transported material, with the soil at the bottom of the pit packed flat prior to measurements being recorded. 3 readings were taken at each site for both copper and arsenic, being averaged in order to minimise sampling error (See Appendix 1 for the results in full). The survey identified a major anomalous zone within the main watershed of the Black Fort prospect, with the anomaly most likely the result of copper leaching from the mineralized Qtz-MnOx breccia (drill tested by Cypress in the 1990s, by QMC in 2010, and again during this reporting period), and the historical workings in the south of the valley

Several other narrow north-south striking anomalous copper zones were identified, however they were deemed unsuitable as potential drilling targets. The Overhang jaspilite itself contains elevated copper content, with a background reading of ~200 – 300 ppm Cu on average, whilst the siltstones and sandstones of the Upper Mitakoodi Quartzite are geochemically barren, forming a stark geochemical contrast between the two lithologies.

A DGPS based DEM model was also produced during this time in order to provide a suitable topographic profile for use in the drilling database.

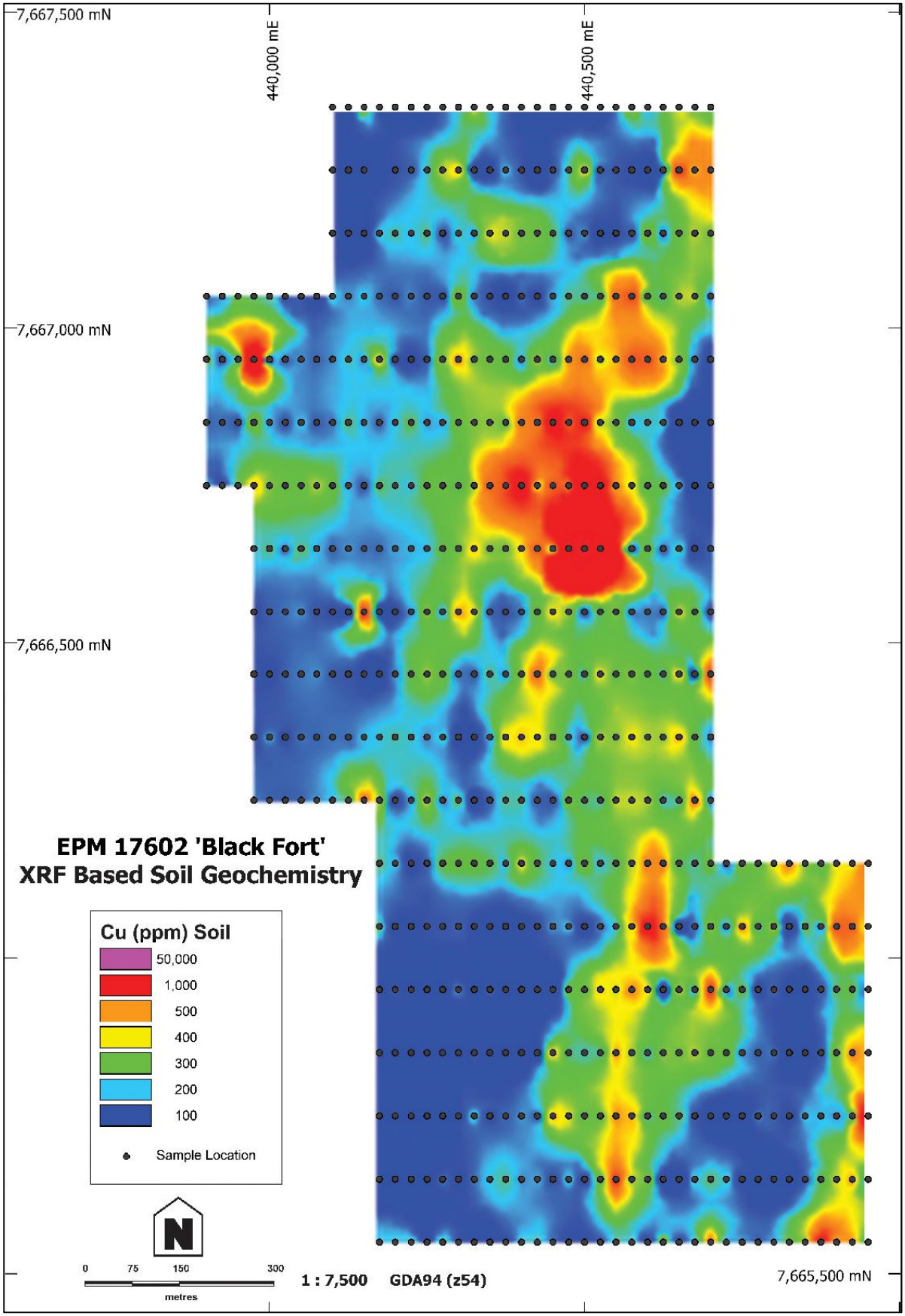

Figure 6 Black Fort prospect XRF soil geochemistry contour (Cu ppm) and sampling locations.

7.3 Rock Chip Geochemistry

Rock Chip sampling was conducted at several locations within the Black Fort prospect, with continuous rock chip sampling conducted at the site of a drill pad previously cleared by QMC in 2010, which exposes a leached quartz mylonite/breccia, as well as selected rock chip sampling conducted at several other locations within the prospect. A total of 17 rock chip samples were collected and submitted to ALS Townsville for analysis (each sample underwent a 36 element suite analysis using ME – ICP61 and Au-AA25). The results were unfavourable, with 40ppb Au being the highest result obtained (with copper values being equally unexciting). As a result, drill testing at the previously cleared pad was deemed unnecessary. Sample locations and descriptions, and laboratory assay results can be found in Appendices 2 and 3 respectively.

7.4 Drilling

After a review of the data collected during the field season, in addition to a reinterpretation work carried out on historical drilling data. A hole was proposed to test the potential for primary copper mineralization at the black fort prospect. After the initially planned hole was abandoned due to severe deviation from its proposed trajectory, a backup hole was planned and drilled to completion, successfully intercepting primary copper sulphide mineralisation. The details of these two holes can be found in Table 2 bellow. The holes were drilled using a dual purpose Longyear GK850, with the holes being pre-collared with RC, and tailed in diamond (HQ triple tube and NQ). Surveys were reorded using a Camteq Dual Shot Pro survey tool, with core orientation being done with the use of a Cortell Ori tool. It is worth nothing that due to inconsistent and inaccurate orientation marks found on the drill core, the orientation data collected has been deemed questionable at best. The RC portion of BF10RCD01 was analysed using a handheld XRF (InnoveX Delta), whilst the RC portion of BF14RCD02 was sampled in 3 metre composites and submitted to ALS Townsville where it was analysed for a 36 element suite analysis using ME – ICP61 and Au-AA25. The diamond portion of the hole was sampled in 2 meter composites, with 1 meter samples being taken at zones containing visible copper mineralization. The HQ portion was sampled as Quarter core, whilst the NQ portion was sampled as half core. Assay results, Survey data and Geological Logging data can be found in Appendices 4, 4B, 5 and 6 respectively).

Hole_ID	Northing	Easting	RL	Grid_ID	Grid_Az	Mag_Az	Dip	Depth	Date_Start	Date_End
BF14RCD01	7666663	440663.2	284.9	MGA94z54	258	252	-64.5	112	18/05/2014	20/05/2014
BF14RCD02	7666651	440593.9	290.5	MGA94z54	256	250	-65	394.4	21/05/2014	2/6/2014

Figure 7 Drill Hole Metadata.

The mineralized zones intercepted by BF14RCD02 are as follows:

272 – 286m @ 0.11% Cu (14m)

313 – 321m @ 0.78% Cu (8m)

337 – 340m @ 0.68% Cu (3m)

Whilst the broad anomaly identified by the XRF Soil Geochemistry program proved somewhat unhelpful in delineating any new anomalous zones outside of those already drilled, and the continuous Rock Chip sampling of one of the easternmost dilatational breccias indicated limited potential for hydrothermal gold mineralization, a review of the historical drilling done by Cypress in the early 1990s, and QMC in 2010 indicated that the most suitable location to test for primary sulphide potential was to step back behind BF10RC01 and BF10RC02 on the 7,666,650N Section line.

Initially, BF10RCD01 was proposed 100m behind BF10RC02, drilling at a dip of -65, with the azimuth set 12 south of grid west to account for northward swing, however, after significant deviation was encountered, the hole was abandoned at 112m depth, ending within the Overhang Jaspilite.

A backup hole was then proposed, approximately 35m behind BF10RC02. The start azimuth was this time set to 14 degrees left of grid west, however considerable drift in azimuth was still encountered. BF14RCD02 was drilled to completion, successfully intercepting primary copper sulphide (Chalcopyrite) within Silica Carbonate breccia (See figure 7) as a fracture full between angular clasts of largely unaltered wall rock (with some bleaching and localized potassic, pink alteration). The hole ended within the barren siltstones of the upper Mitakoodi Quartzite. Numerous stringers and veins of pink carbonate (rhodochorsite?), which contained small blebs and trace amounts of chalcopyrite were encountered in the hole, mostly within the overhang Jaspilite, with rare occurrences of crystalline galena (likely containing Argentite, which would support some of the silver assays from BF10RCD02). Some of the veins were vuggy, with vugs containing crystalline grains of chalcopyrite.

The overhang jaspilite consisted of magnetite bearing calcareous shales and phyllites (which exhibited local chlorite alteration), which were siliceous and strongly foliated. Banded iron formations, with beds of chert and jasper were encountered throughout much of the hole (Jaspilite), these were strongly magnetic, and typically isoclinally folded. Trace bands of syn-genetic pyrite were present throughout the Overhang Jaspilite, almost always parallel to bedding, or within close proximity to jaspilite bands. Several zones of carbonaceous shales were also encountered, with one highly graphitic due to shearing. The upper mitakoodi quartzite was encountered within the last 30 meters of the hole, present as barren grey siliceous siltstones and shales (largely geochemically barren).

The presence of primary sulphide within the BF14RCD02 indicates that the higher grades encountered within the previously drilled BF10RC01 and BF10RC02 are a result of the supergene enrichment of copper after the weathering if primary copper sulphide within the hydrothermal breccia, which dips steeply westward. Based upon previous drilling, potential for mineralization to extend northward along strike seems limited, with poor grades intercepted by the QMC and Cypress holes up section. The mineralized zone is still open down strike towards the south-southwest, as the pseudo vertical (planned vertical) BF10RC03 which lies south of the 7,666,650N line was drilled away from the mineralized breccia, however, based results of the soil survey, it is possible that the ore body is a pipe like feature, with little or no along-strike extension.

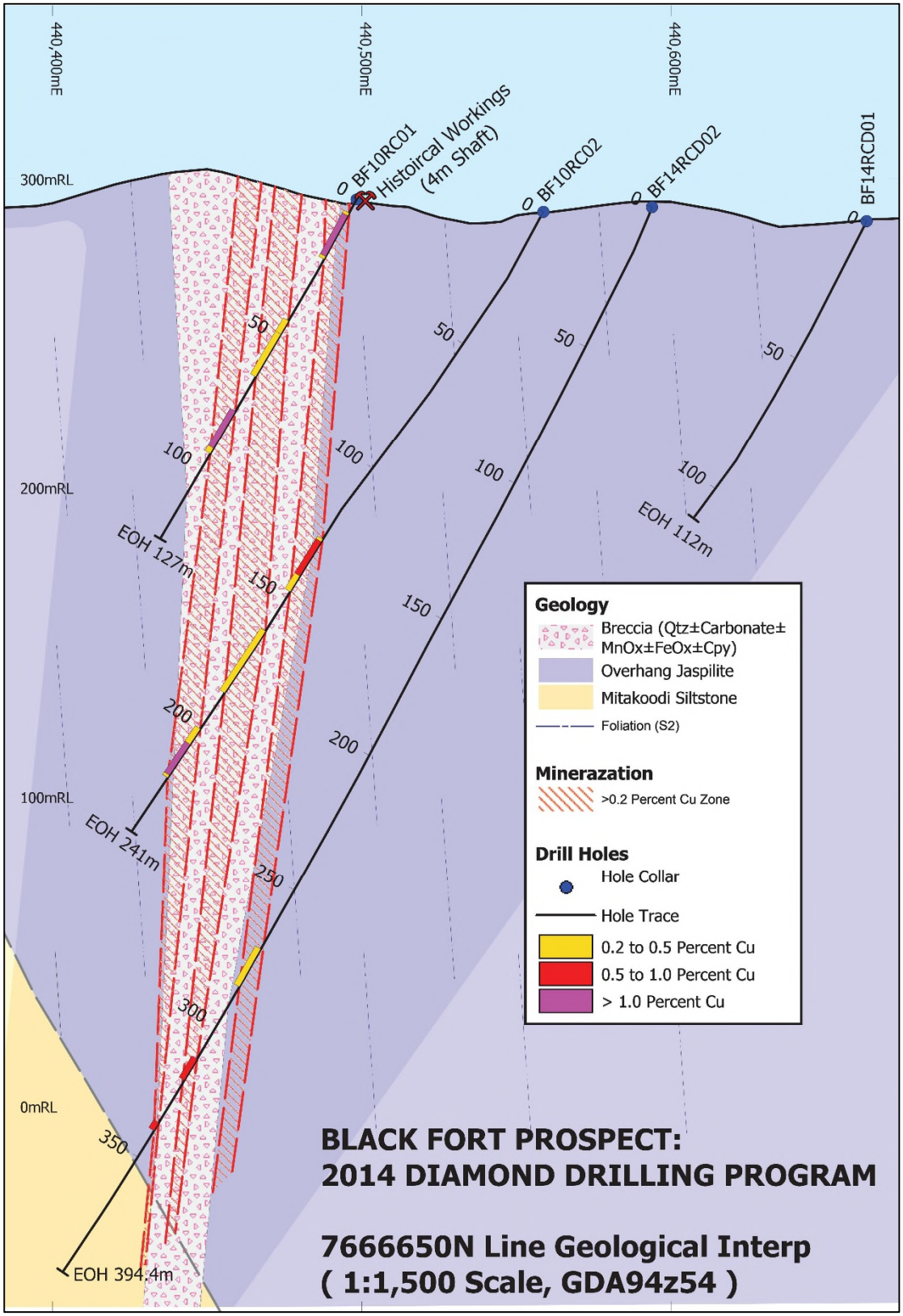

Figure 8 Drill hole cross section of the 7666650N Line showing geological interp and drill hole intercepts.

8. Conclusions and Recommendations

The results of the exploration conducted at the Black Fort prospect within the 2013-2014 field season was generally positive, with BF14RCD02 intercepting primary copper sulphide mineralization. Whilst the grades intercepted were below what was anticipated, they serve as an encouraging find, indicating the potential for other similar mineral occurrences along the Overhang Jaspilite (Which is known to host rocklands style mineralization) within EPM 17602. Follow up drilling to test the strike width of the mineralize zone hit by BF14RCD02 is warranted, as well as a detailed review and reconnaissance of the Overhang Jaspilite in other parts of the Tenement.

9. References

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