Coolabah Group

First Annual Technical Report Broughton (EL30860) 10/2/2016 – 9/2/2017

Titleholder	Boab Resources Pty Ltd ACN 612 043 302 (100% owned subsidiary of Coolabah Group Pty Ltd)
Operator	Coolabah Group Pty Ltd ACN 166 770 896
Tenement Agent	AMETS
Title	EL30680
Project	Broughton
Report Title	First Annual Technical Report Broughton (EL30860) 10/2/2016-9/2/2017
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Target Commodity	Base Metals
Date of Report	April 2017
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250k Mapsheets	URAPUNGA SD5310
100k Mapsheets	Flying Fox, 5669
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1 SUMMARY

This first Annual Technical Report for EL30860 covers work carried out during the twelve months between 10/2/2016 and 9/2/2017. EL 30860 forms part of the Coolabah Groups Broughton Project which is targeting base metal deposits.

Exploration activities during the period have involved:

- Collecting, collating, extensive digitising and compiling of all previous historic data of all available open file reports and data.
- Historical data review.
- Conceptual model and targeting.
- Investigating of exploration techniques.

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2 INTRODUCTION

This report outlines the work conducted within EL30860 (Broughton) for the first year of tenure. The tenement covers the western portion of the Palaeo-Mesoproterozoic McArthur Basin in the Northern Territory near the southern margin of Arnhem Land approximately 150km east of Ketherine as the crow flies, Figure 1. Coolabah are exploring this area for large scale sedimentary-hosted base metal deposits in the Roper Group. While this conceptual target has not attracted the same attention as the Batten Trough (McArthur Group), we believe this area has the ingredients of a world class province.

The main attractions of the project area are:

- Situated in the Carpentaria Zinc Belt, a world class province with giant Cu, Zn, Pb deposits (Isa, HYC, Century)
- Roper Basin currently overlooked for this type of mineral system, although some significant conventional exploration during 1980-1995
- Significant interest in unconventional petroleum in this area now, and was once a conventional oil and gas "hotspot"
- Petroleum exploration hole Broughton #1 contains evidence of disseminated sulphides in stratigraphy regionally viewed as "barren"
- Review of historic exploration identifies numerous low-grade base metal prospects and broad anomalies, dominantly Zn-Pb
- We speculate that these are "smoke" of a base metal mineral system
- The Broughton #1 target is at shallow depth of <100 m
- Numerous other "lookalike" structures in the Arnhem region

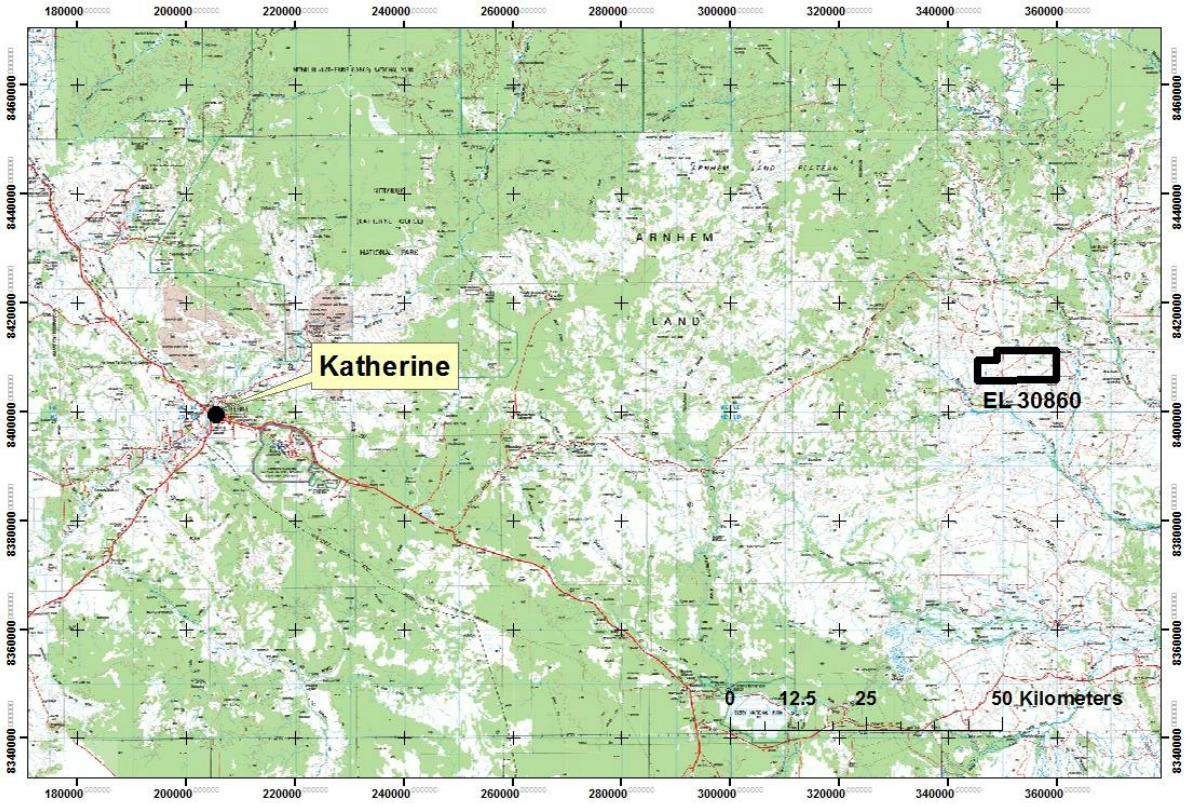

Figure 1 Location Map

3 TENEMENT

The tenement EL30860 cover 73 km^2 of pastoral land and is held by Boab Resources Pty Ltd, a 100% subsidiary of Coolabah Group.

EL Number	Number Blocks	Area (sq km)	Grant Date
30860	22	73	10/2/2016

Table 1: Tenement Schedule

4 LOCATION AND ACCESS

The Broughton Project is semi-remote, lying near the southern boundary of Arnhem Land, Northern Territory, 1. The large service centre of Katherine lies 200 km to the west by road and Darwin is 500 km to the northwest by road. The project lies within pastoral properties and is, subject to Native Title legislation. Access is via the all-weather gravel Central Arnhem Road that is used for cattle transport, and then well-maintained station tracks. Access otherwise within the tenement is via cross-country 4WD vehicle. The area is seasonally inaccessible due to rain and wet ground, with work possible between April and November in most years.

Much of the project area is flat to moderately hilly, and vegetated by open woodland and grasses, figure 2. The pastoral properties are well-maintained with good infrastructure, enabling relatively simple exploration operations. Geological exposures are moderate owing to the presence of broad Blacksoil plains associated with the Flying Fox/Maiwok Creek drainage that drains into the Roper Valley to the south.

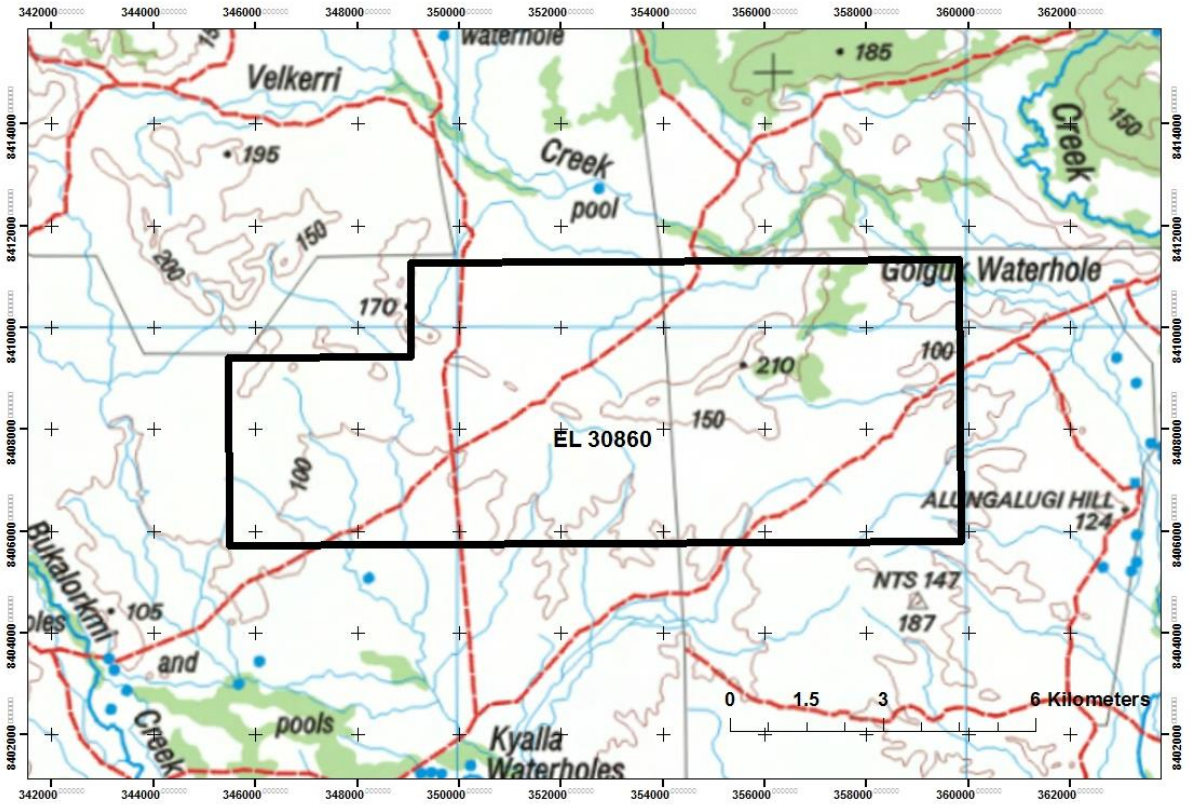

Figure 2 Topographic map showing the various features of the tenement area

5 GEOLOGICAL SETTING

The Broughton tenement EL30860 comprises the northwestern wedge of the exposed Roper Superbasin (Wilton package; NTGS) on the Arnhem Shelf - this is the uppermost stratigraphic component of the McArthur Basin (Figure 3). The Roper Group comprises interlayered sandstone, siltstone and TOC-rich shale deposited in a large epeiric seaway associated with a foreland basin connected to the south with an unknown orogen. It is underlain to the northwest by the dolostone-rich Mount Rig/Nathan Group (Favenc package), which is also expected to be the case under EL30860 based on seismic and petroleum well data. The Nathan Group may in turn be underlain by thin remnants of the older McArthur Group (Glyde package), but this is largely conjectural, as there is little outcrop or drilling to support this notion. Seismic and well data also predict the Katherine River Group (Redbank package) to be widespread under the

Roper cover on the Arnhem Shelf. The Roper Group is overlain by patchy remnants of the Neoproterozoic to Cambrian Georgina Basin and in turn by poorly-constrained patches of Permian-Jurassic and Cretaceous sediments of the Dunmarra Basin, and finally by Tertiary to recent alluvial sediments and soils. Blacksoil in particular is thickly developed over large areas of the Arnhem Shelf, including EL30860. In terms of igneous activity, the Roper Group is intruded by regional sills of the Derim Derim Dolerite, emplaced at the latter stages of Roper Group deposition.

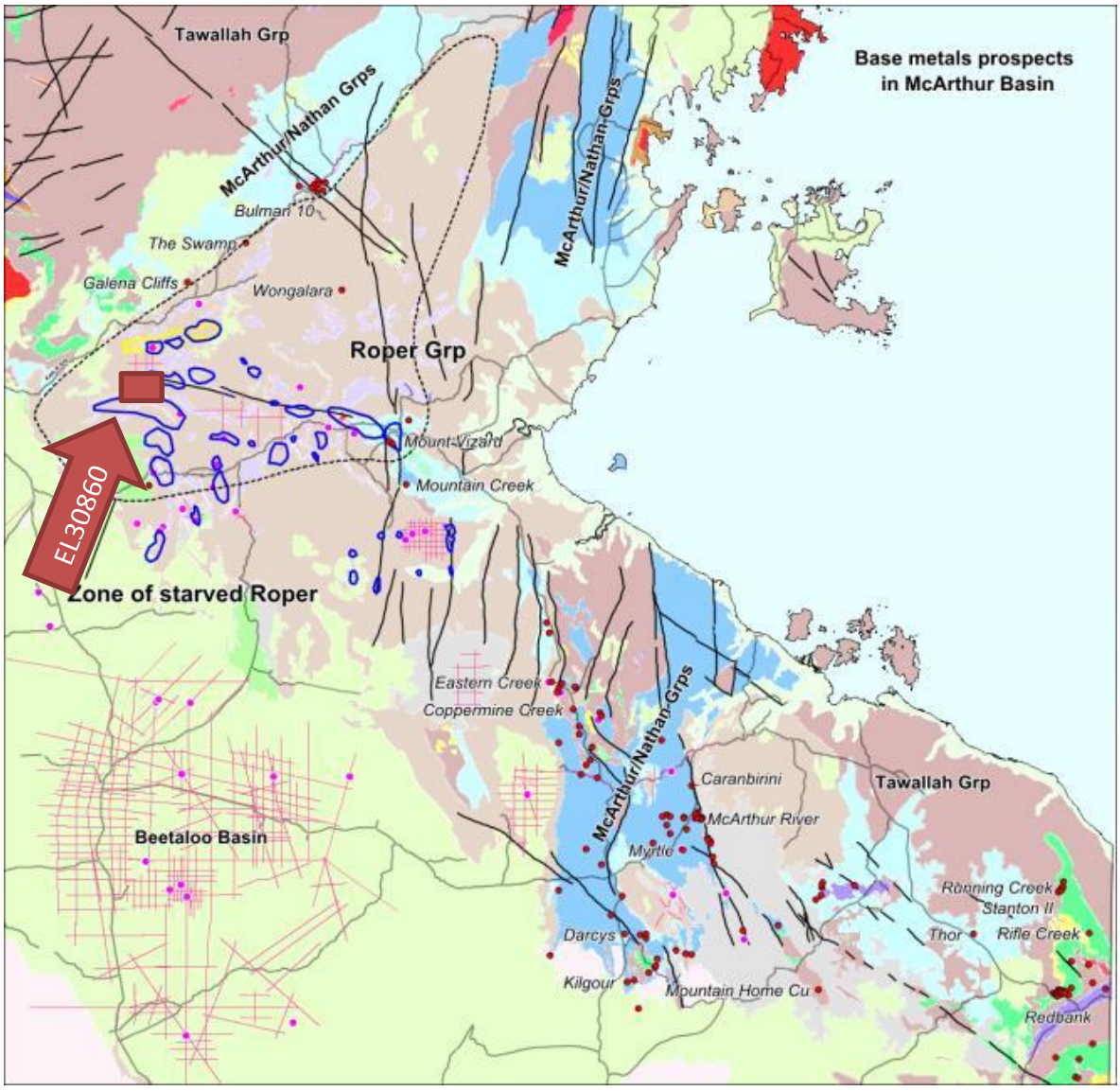

Figure 3 Regional geology map of the McArthur Basin showing the location of EL30860. Base metal prospects are red dots. Fold closures in Roper Group on Arnhem Shelf outlined in blue.

Regional prospectivity can be summarised as follows:

- Zinc-lead-silver-copper hosted by carbonates of the Nathan/Mt Rigg/Vizard Groups around Bulman (Pb, Zn), Mt Warrington (Pb, Ag), Walmudga (Cu, Pb, Zn), Mt Birch (15m at 0.18% Cu), and Mountain Ck (15m at 0.4% Zn). These are largely thought to be MVT-style deposits.
- Zinc-lead-silver-molybdenum hosted by sandstones/siltstones of the Roper Group in structural juxtapositions (eg Wongalara, Galena Cliffs, The Swamp) and anticlinal traps (Broughton 1). These have been likened to the Laisvall sandstone lead-zinc deposit, Sweden.
- Minor prospects in underlying Katherine River Group, inc Conways (Zn-Pb), McKay Hills.
- Unconventional shale oil/gas hosted in the Velkerri Formation, the current focus of petroleum exploration by Santos in the area.

6 PREVIOUS EXPLORATION

The following is a summary of the historic exploration in the vicinity of EL30860:

- Mostly diamond exploration during 1970s to 2000 (Stockdale, CRAE/Rio, Ashton).
- Uranium exploration in 1970s to early 1980s.
- Brief period of base metals exploration in early 1980s (AAO, WMC) and early 1990s (BHP, Stockdale, Normandy/Poseidon).

Regional stream sediment and soil sampling during this period shows a generic anomalous trend of Pb, Zn and lesser Cu, particularly in lower part of Roper Group – Limmen Sst, Mainoru Fmn, Crawford Sst. Numerous Pb-Zn-(Mo-Ag) prospects were discovered in the lower Roper Group, including Wongalara, Galena Cliffs and The Swamp. A number of prospects were also discovered in the immediately underlying Nathan/Mt Rigg/Vizard Grps, including Bulman (Zn, Pb – this was really discovered in the early 1900s), Mt Warrington (Pb, Ag), Walmudga (Cu, Pb, Zn), Mt Birch (15m at 0.18% Cu) and Mountain Ck (15m at 0.4% Zn). Minor prospects were identified in underlying Kath River Group, including Conways (Zn-Pb) in the McKay Hills.

The Regional stream sediment surveys carried out historically could be described as extensive but not much is in digital form. The NTGS STRIKE data is shown in blue in Figure 4. There is substantially more data than this map depicts.

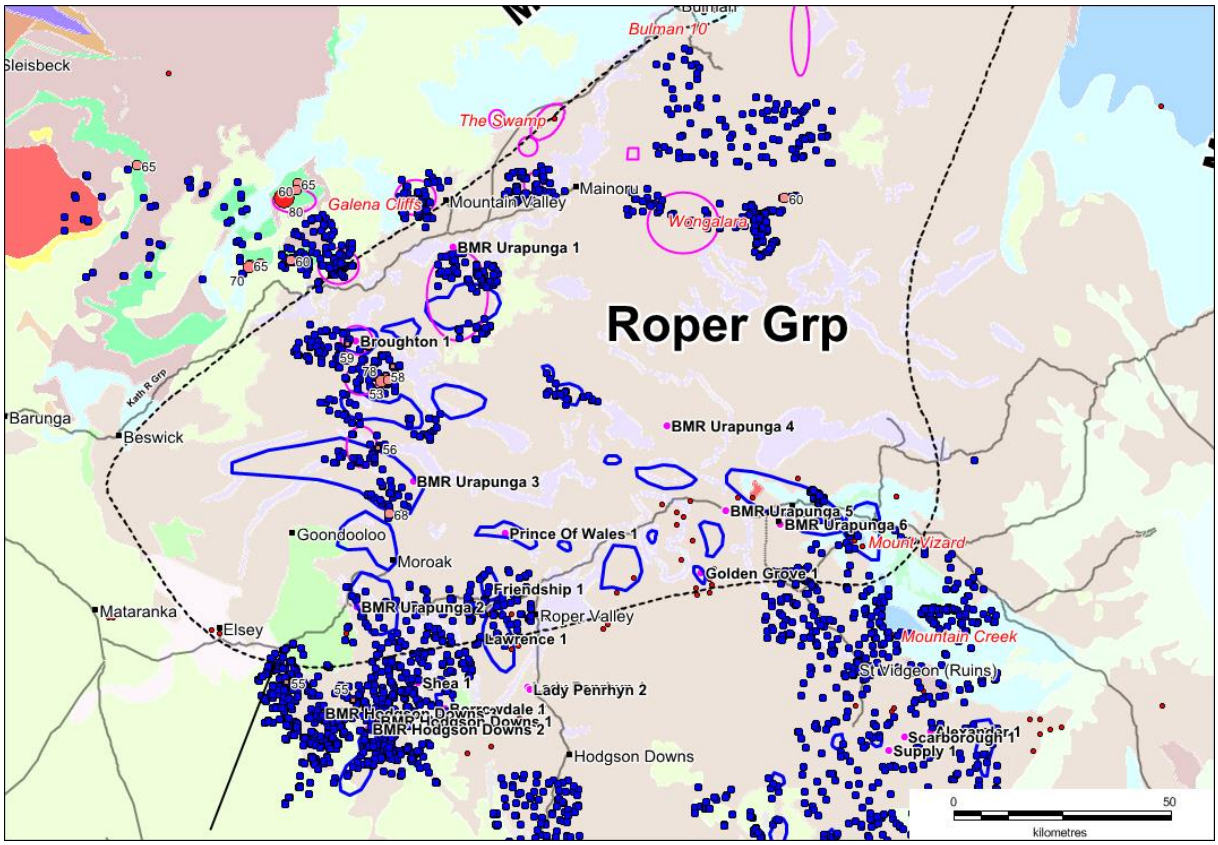

Figure 4 Regional stream sediment geochemistry of the Arnhem Shelf, as depicted by data digitised by NTGS and available through STRIKE (blue dots)

Normandy-Poseidon sediment hosted exploration

- Extensive regional stream sediment and soil sampling, followed by prospect scale rock chips and -80# soils. >2000 samples
- Element suite: Cu, Pb, Zn, Ag, +/- Ba, Bi, Fe, Mn, Cr, Sb, Mo
- None of the data is in NTGS STRIKE database
- Excellent quality work that led to the discovery of Galena Cliffs and The Swamp
- They utilised a sandstone-hosted Pb-Zn model derived from Laisvall, Sweden.
- Three year effort is the only significant piece of base metal exploration undertaken in the Broughton area
- Cu is locally 20 times background, but not of the same order of dynamic range as Pb and Zn. Common association with dolerite bedrock. Typically anomalous in Pb-Zn samples, but again an order of magnitude lower.
- Soil sample maxima:
    - Pb 3610 ppm
    - Zn 1.07% (partly surface enrichment)

- Cu 340 ppm

- Rockchip maxima
  - Pb 0.5% (galena dissem)
  - Zn 0.2%
  - Cu 310 ppm
  - Mo 900 ppm

Wongalara Pb-Zn Prospect (1982)

- Stream seds and soils identify a 2.5 km long Pb-Zn anomaly in mapped Crawford Fmn (Roper Grp; Figure 5). No Cu anomaly. Up to 2500 ppm Pb and 1800 ppm Zn.
- Rockchips 2.2% Pb and 2.3% Zn associated with Mn.
- Core drilling (WD1,2 and 3) results
  - 1.5m at 1.3% Pb, 1% Zn from 1.6m and
  - 2m at 0.6% Pb and 0.5% Zn from 15.6m.
- Host is light grey and brown fine grained micaceous sandstone with minor siltstone laminae.
- Ave 2-5% "feathery" Fe/Mn oxide after sulphides. Pyrite identified in petrology. No Ag in assays. Broad 22m zone >0.5% Pb+Zn.
- Flat lying mineralisation approx 10-20 m thick and strike 1.5 to 2.5 km NE-SW.
- Ground EM survey suggests two zones; one fault controlled (South) and the other shallow-dipping (or flat lying) stratiform style (North). Not notably conductive.
- IP survey shows weak chargeability anomaly (Figure).
- Rock samples Pb isotope results by CSIRO suggest North prospect is similar to HYC and Broken Hill.
- Recommended AEM survey to explore further afield for better grades (massive sulphides).
- Coincides with NE-trending magnetic linear in Govt dataset (Figure) – dyke related?

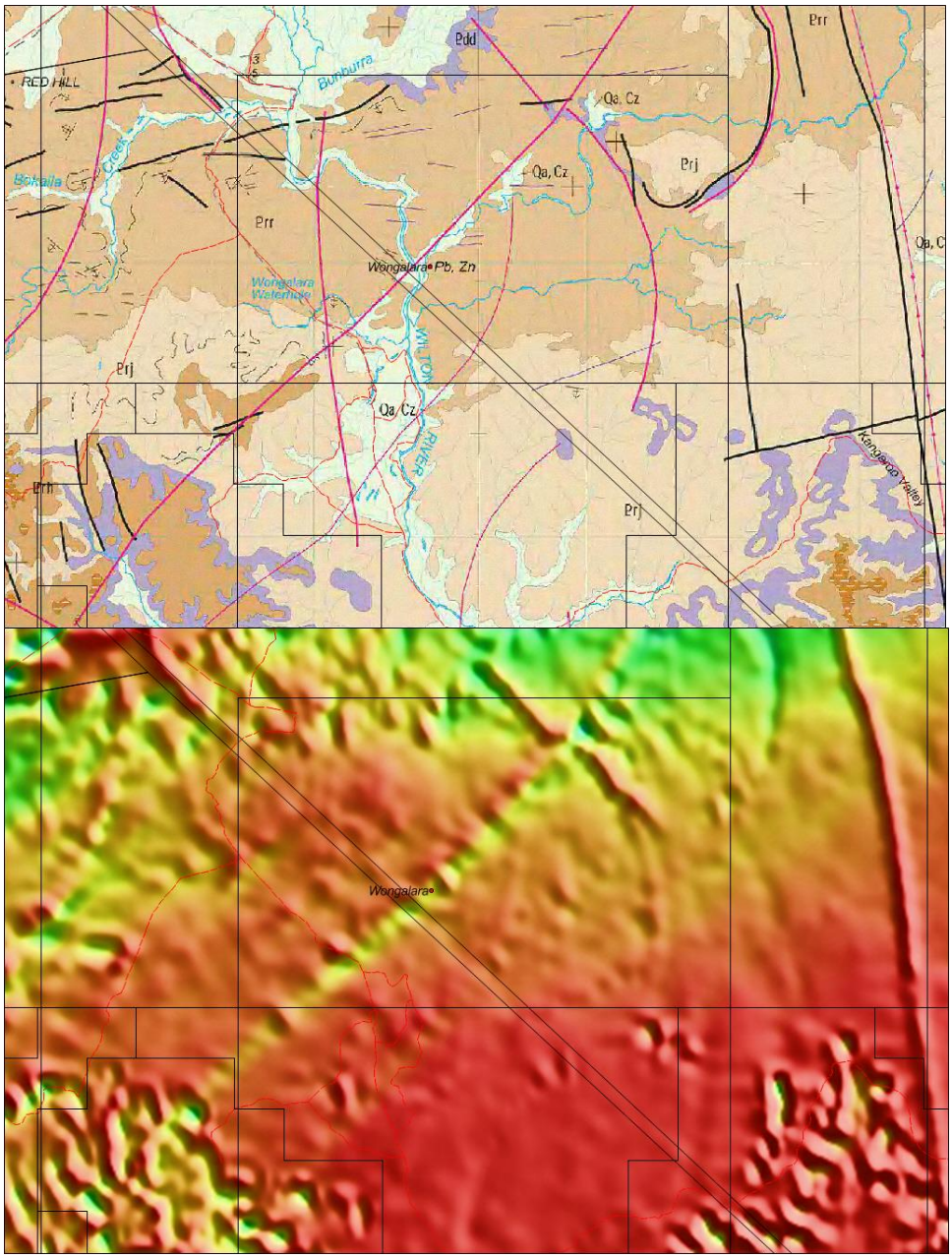

Figure 5 Geological map and TMI image showing the setting of Wongalara

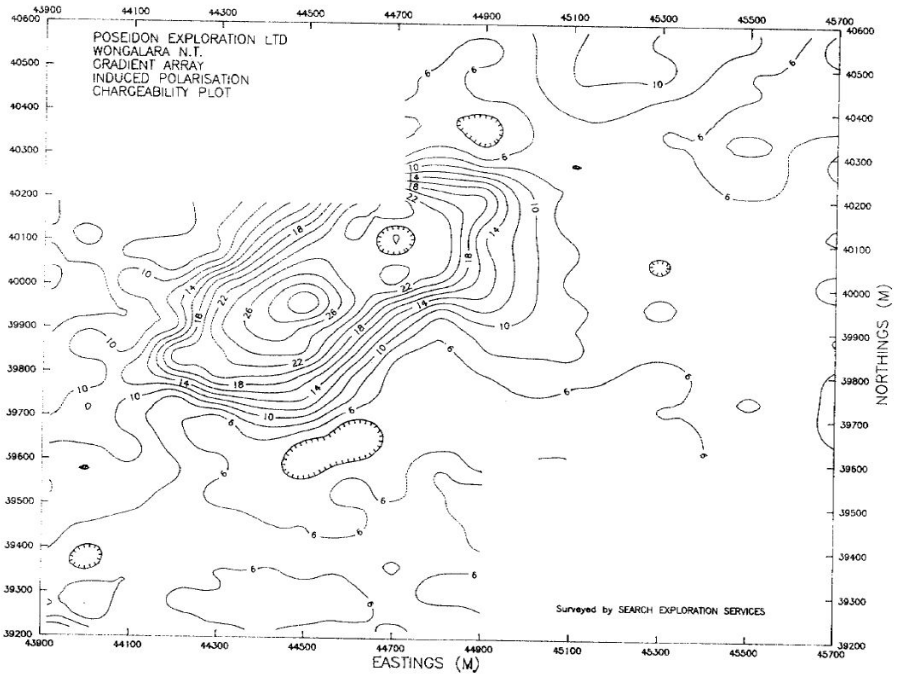

Figure 6 IP Chargeability for Wongalara

The Swamp Pb-Zn Prospect (1993)

- Soils up to 1.07% Zn! Also anomalous Pb, Mo, Ag and Cu.
- Basal Mainoru, Limmen and upper Mt Rigg Grp.
- RC drilling (14 holes) results
- Minor galena, sphalerite and pyrite
- Assays were all <0.6% for Pb and Zn, but over >20m width.
    - Cu max 340 ppm.
    - Zn may be partly surficial enrichment.
    - Bitumen vughs.
    - Minor dolerite encountered.
- In nearby stratigraphic DDH hole, Mt Rigg Grp contained narrow interval of disseminated sphal, gal, cpy and py. Max 2% Pb, 1% Zn, 7 ppm Ag, 130 ppm Cu.
- Ground IP showed low chargeability and high resistivity, which can be taken as background.
- NNE trending fault that has been intruded by dolerite may have acted as reductant.

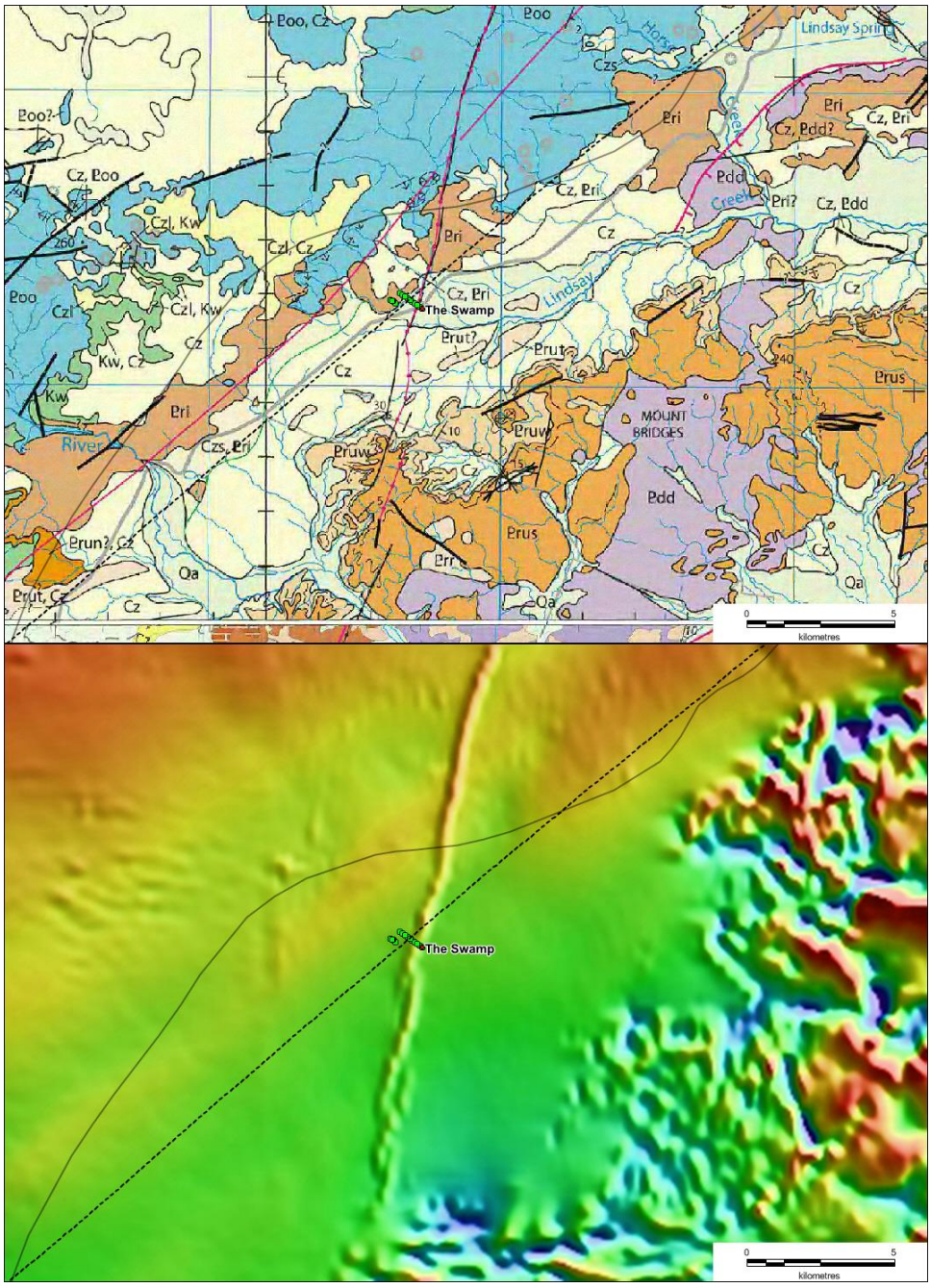

Figure 7 Geological map and TMI image showing the setting of The Swamp

Galena Cliffs Pb-Zn-Mo Prospect (1993)

- Stream seds and soils identify a 6x1 km Pb-Zn-Mo anomaly in Limmen Sst (Roper Grp).
    - Up to 3610 ppm Pb, 1210 ppm Zn, 0.4 ppm Ag and 14 ppm Mo.
    - Zn may be scavenging in swampy clays.
- Rockchips: 0.5% Pb, 26 ppm Sb and 900 ppm Mo; visible galena in clean white sst.
- No coherent geochem or geophysical anomaly could be defined.
- Ground IP showed no elevated chargeability or conductivity.

- Coincides with edge of NW-trending fault– dyke related?

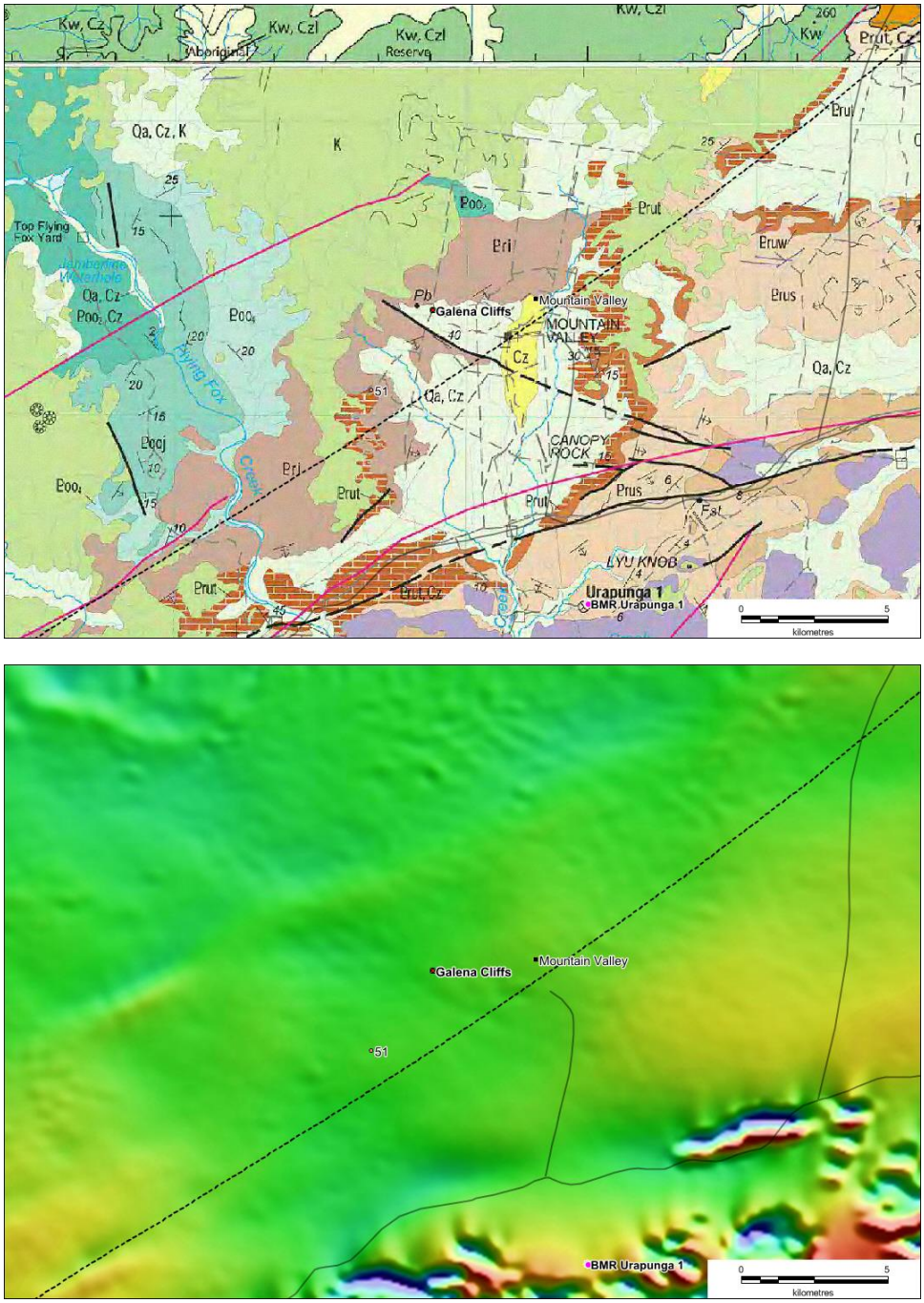

Figure 8 Geological map and TMI image showing the setting of Galena Cliffs

Normandy-Poseidon sediment hosted exploration - Petrological snap-shot

In all of these samples, galena is the dominant sulphide phase. It may be accompanied by lesser sphalerite, and trace amounts of chalcopyrite and pyrite. In places, galena and sphalerite are intimately intergrown, a feature that confirms their contemporaneous deposition. Chalcopyrite may occur as angular grains within these intergrowths, indicating that it also was deposited at this time.

The sulphides occur in interparticle pore spaces in the sandstone in close association with quartz of different types. This close physical association points to a close genetic association between the quartz and the sulphides.

Chalcopyrite occurs as very small disseminated ragged grains, and also as larger anhedral grains within coarser-grained dolomite. Most grains have suffered partial or complete replacement by very fine-grained covellite and associated goethite.

The host rock is a well-sorted, compositionally mature quartzose sandstone. Rounded quartz particles were abundant, with lesser feldspar and tourmaline, a detrital assemblage that infers a felsic crystalline source terrain. There is no evidence that the primary interparticle pores were filled by any matrix materials at the time of deposition. It may be inferred, therefore, that the primary sandstone was highly porous.

The most likely origin for the mineralisation is that it was introduced from an external source by hydrothermal fluids. Dominance of Pb over Fe and Cu suggests that the fluids were of relatively low temperature, an inference that is supported by the presence of fine-grained chalcedonic silica in some interstitial pores. It is possible that the hydrothermal fluids were related to a low-grade regional metamorphic event (as distinct from a localised igneous-related hydrothermal event), but there is no direct evidence for this in the mineralised rocks.

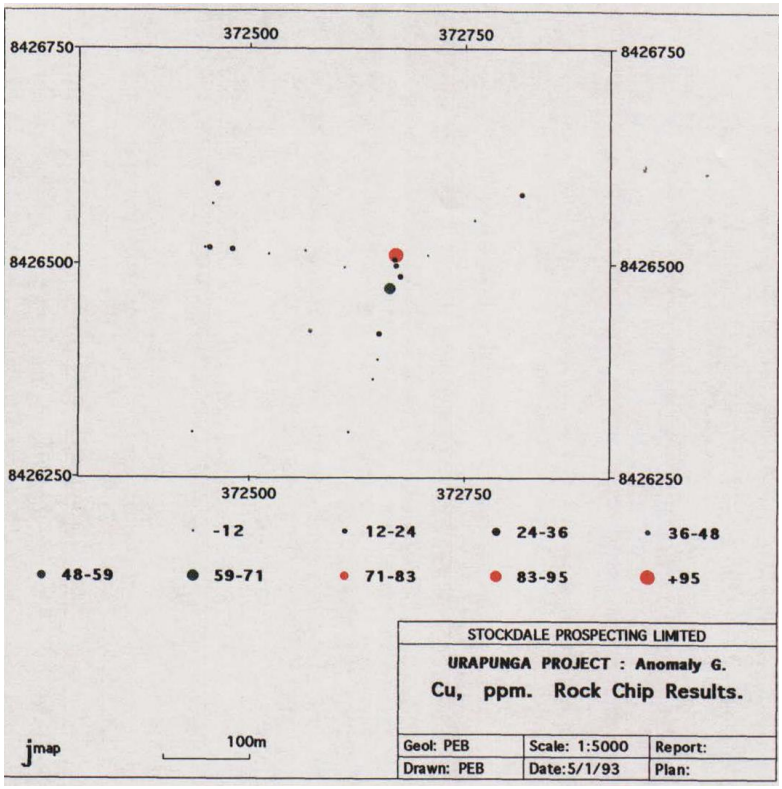

Figure 9 Normandy prospect-scale rockchip example - Cu

SAMPLE PREFIX			REPORT No.			REPORT DATE	CLIENT ORDER No.		PAGE	
			113500.10.92874			24/07/92	M 11626 Cont		3 OF 12	
TUBE No.	SAMPLE No.	Mn	Fe	Cu	Zn	Ag	Ba	Pb	Pb	Bi
[redacted]	GH 3188	28	6.26	46	46	<5	335	194	-	<10
[redacted]	GH 3189	47	2.53	43	89	<5	413	192	-	<10
3	GH 3190	157	4.69	68	268	<5	169	2050	-	<10
[redacted]	GH 3191	99	3.20	36	218	<5	385	631	-	<10
5	GH 3192	46	4.86	48	162	<5	267	391	-	<10
[redacted]	GH 3193	43	2.03	49	22	<5	332	<50	-	<10
[redacted]	GH 3194	52	3.39	63	24	<5	269	<50	-	<10
8	GH 3195	27	4.09	35	124	<5	535	672	-	<10
[redacted]	GH 3196	46	3.16	24	65	<5	352	342	-	<10
10	GH 3197	35	3.05	24	42	<5	400	221	-	<10
[redacted]	GH 3198	48	3.21	18	83	<5	400	54	-	<10
[redacted]	GH 3199	35	2.48	67	30	<5	198	<50	-	<10
13	GH 3200	35	2.32	39	27	<5	305	<50	-	<10
[redacted]	GH 3312	55	2.77	24	59	<5	49	133	-	<10
15	GH 3313	309	0.62	19	75	<5	93	119	-	<10
[redacted]	GH 3314	21500	8.45	192	1990	<5	2570	764	-	<10
[redacted]	GH 3315	280	0.72	7	28	<5	80	77	-	<10
18	GH 3316	252	0.81	8	565	<5	44	<50	-	<10
[redacted]										

Figure 10 Normandy soil assay example

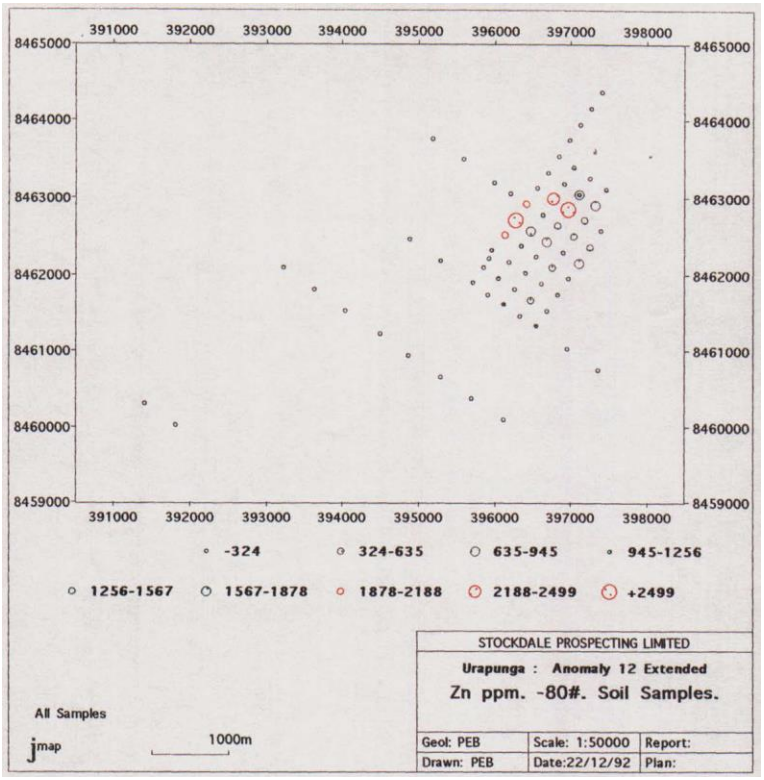

Figure 11 Normandy soil assay example - Zn

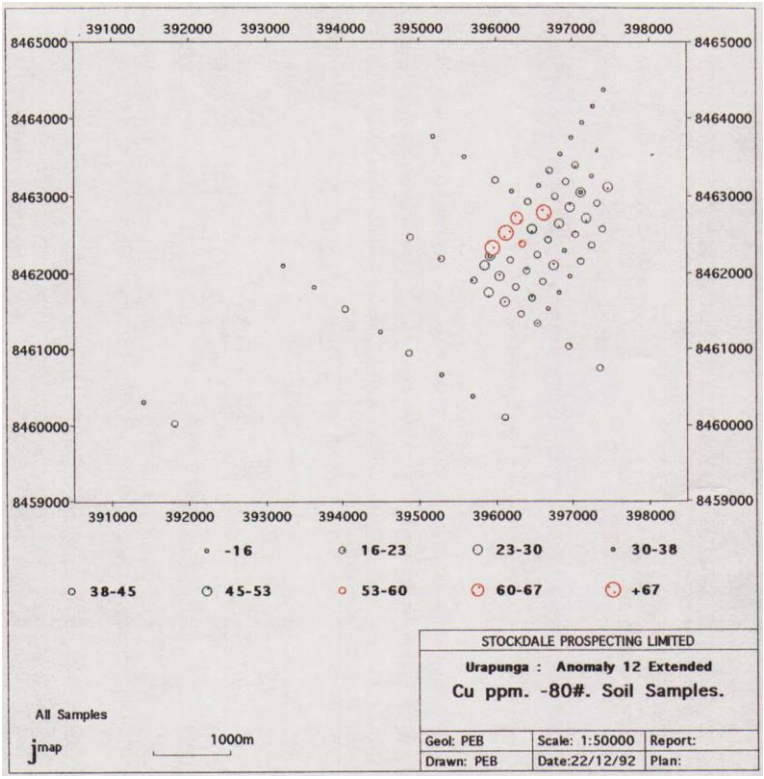

Figure 12 Normandy soil assay example – Cu

Conways Zn-Pb Prospect (1994, 2012)

- Normandy held this area and drilled two DDHs to test soil anomalies, intersecting weak disseminated sphalerite and galena mineralisation in the McCaw Formation (max 430 ppm Zn).
- In 2012, Merlin Diamonds identify further anomalous base metal anomaly from historic and new stream sediment/rockchip data but did not follow up.
- Area of 1x1.5 km anomalous geochemistry (Figure).
- Rockchips: 0.2% Zn, 500 ppm Pb; visible galena and pyrite in dolomitic siltstone of McCaw Formation (Katherine River Group; Figure).
- Bitumen and live oil in calcite-lined vughs over 5 km strike (Figure).

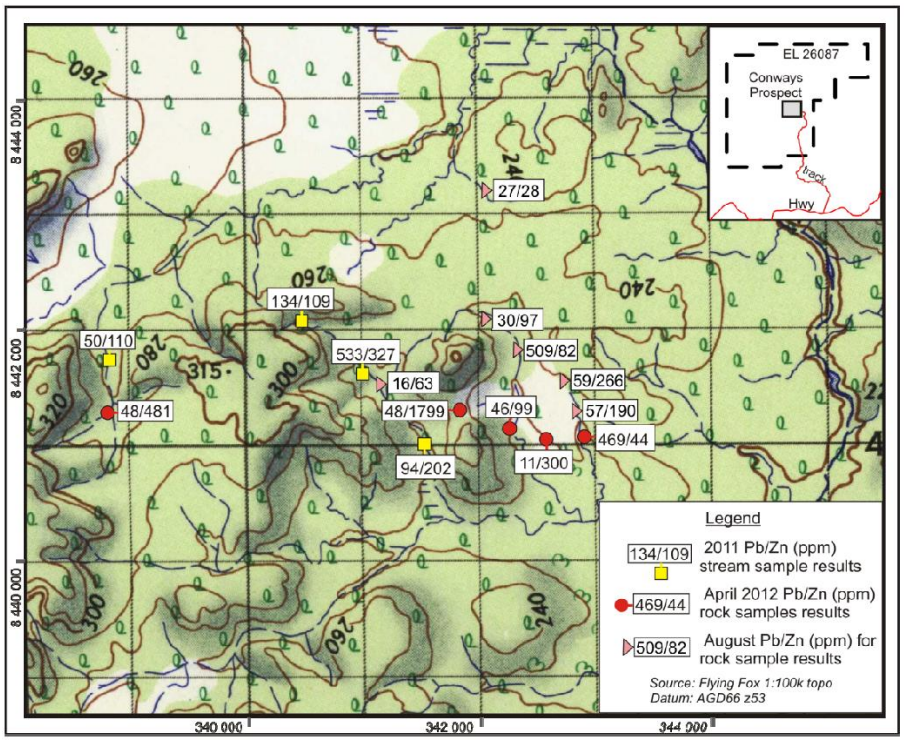

Figure 13 Merlin stream sediment geochem results

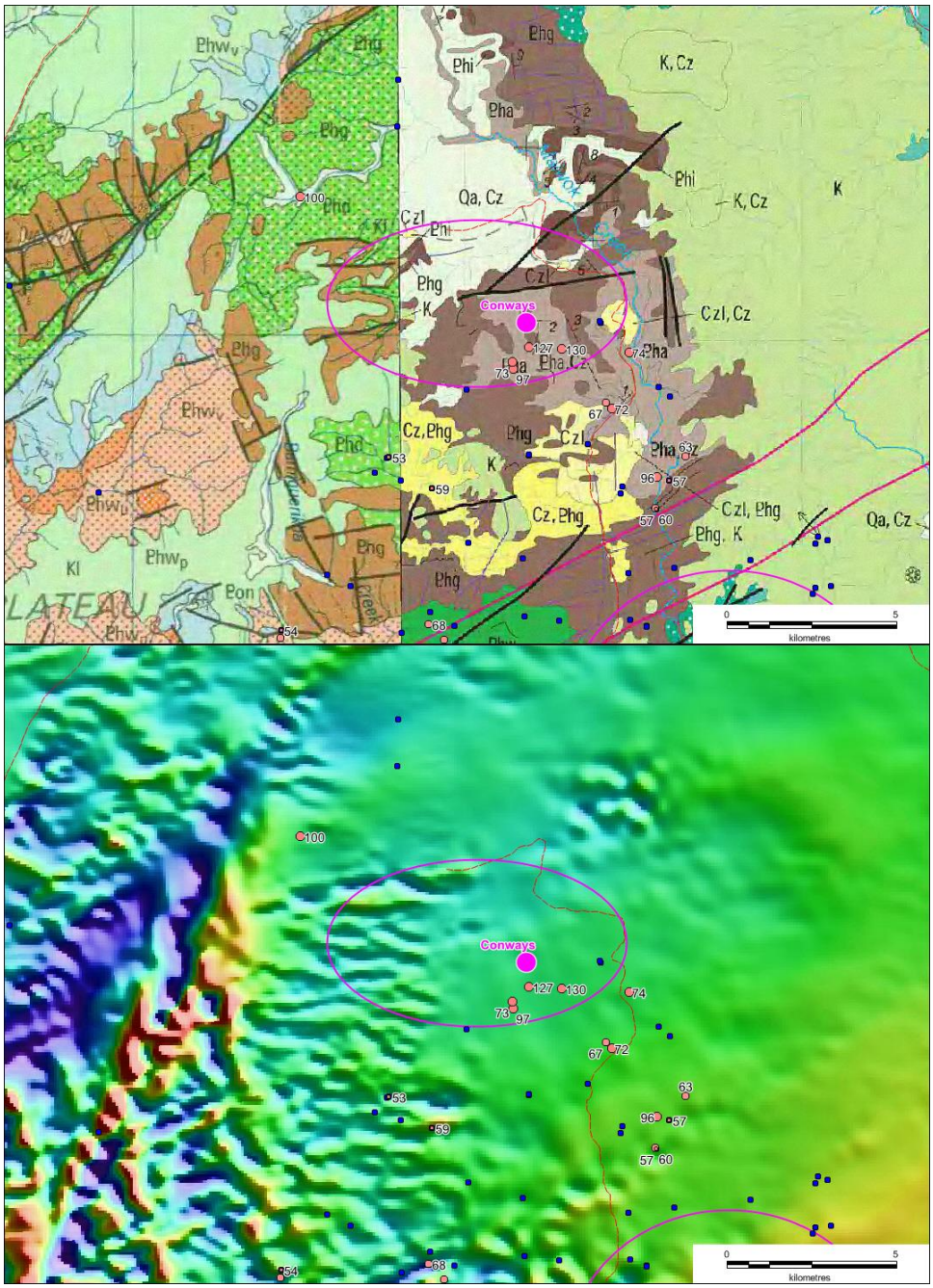

Figure 14 Geological map and TMI image showing the setting of Conways

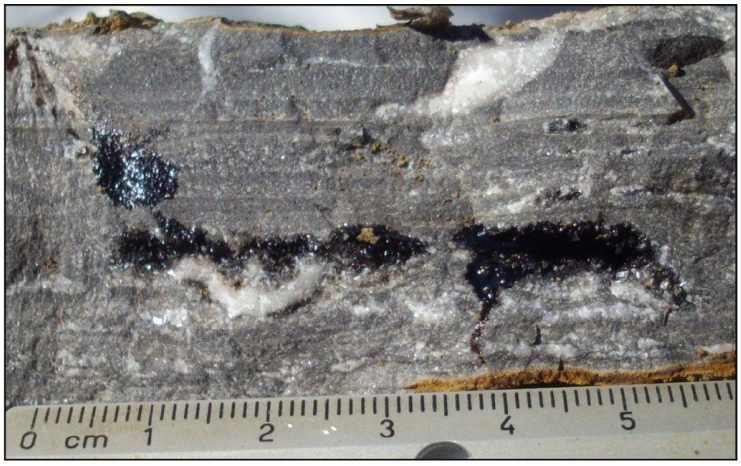

Figure 15 Bitumen bleeding from vugs in McCaw Formation, Conways Prospect

7 EXPLORATION MODEL

The stream sediment geochemistry and small prospects define a broad geochemical halo ("smoke") consistent with a basin-scale hydrothermal system. There appears to be a vertical zonation in the basal fining-upwards cycle of the Roper Grp from Pb thru to Zn rich upwards.

Unit	Element Predominance
Mainoru Formation	Pb/Zn
Mountain Valley Limestone	Zn
Limmen Sandstone/Dook Creek Formation	Pb

We advocate that the evidence compiled herein is consistent with a typical sedex mineral system, capable of forming a world class deposit, in mould of Century in Queensland. There are several components necessary to form a mineral deposit and these are examined below.

- Metal source
- Brine factory
- Reductant (petroleum) source
- Migration paths for each
- Trap and mixing zone

Broughton Project – Genetic model – metal source and transport

- The broad (200km strike) geochemical halo recognised in historic stream seds and soils is "smoke" from a basin-scale hydrothermal system, active post Roper Group.
- This, and the vertical zonation, implies a metal carrying saline fluid derived from below that becomes gradually reduced as it moves upwards and outwards across pressure/temp gradients and redox boundaries in the lower Roper Grp.

- Metalliferous fluids likely to be derived from upper Katherine River Group sediments, mainly felsic volcanic provenance, but with volumetrically important, pervasively altered, mafic volcanics (Figure 2). These volcanics are intercalated with lithic evaporitic porous Gundi Sandstone. Evaporites are now known to be abundant in Mainoru Fmn, as supratidal gypsum and anhydrite pseudomorphs. This is a perfect "Engine Room" for a hypersaline base metal-rich "superbrine".
- This sequence underlies the Project area, as indicated by 500 m of Gundi Sandstone in Broughton #1.
- Transport of this fluid upwards along faults and then laterally along regional aquifers, including the Roper unconformity.
- Geochem halo is Zn-Pb dominated, suggesting the fluid also is, but Cu may be absent from the halo due to ineffective reduction mechanism at this level of the stratigraphy.
- Cu may be undersaturated until it meets an effective reductant.
- Brine was generated in this Engine Room during peak burial

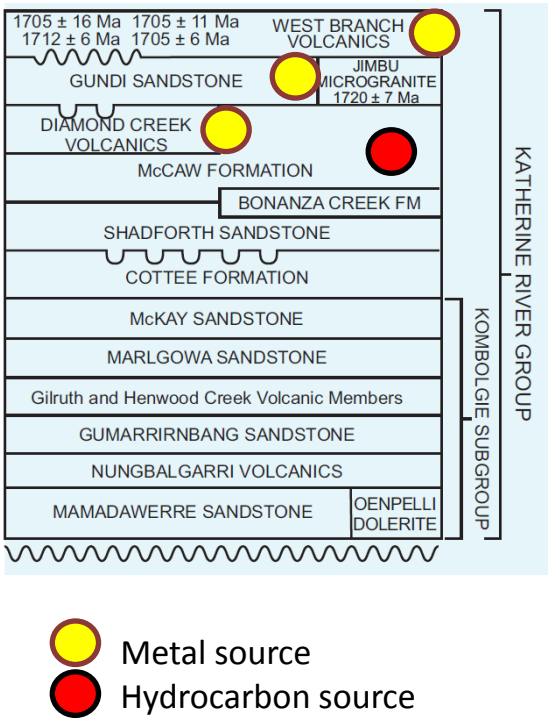

Figure 2 Hydrocarbon and metal sources in the Katherine River Group

Broughton Project – Genetic model – reductant source

- Principal established TOCs on Arnhem Shelf in Velkerri and Kyalla (Roper Grp; Figure 3)
- TOCs also present in Mainoru Fmn, Corcoran Fmn (Roper Grp), Dook Ck Fmn (Mt Rigg Grp) and McCaw Fmn (Kath River Grp; Figure 2). Some of these may be migrated.
- Broughton #1 shows this evidence.

- Maturation during Roper inversion at ~1200 Ma, when burial was at maxima
- Transport primarily local, up-dip along permeable zones, from source rocks in Katherine River and Nathan Grps
- Migration likely also occurred distally from basin centred source rocks (Beetaloo), down-stratigraphy along pressure gradients.
- Regardless, maturation and migration have demonstrably occurred throughout the basin.

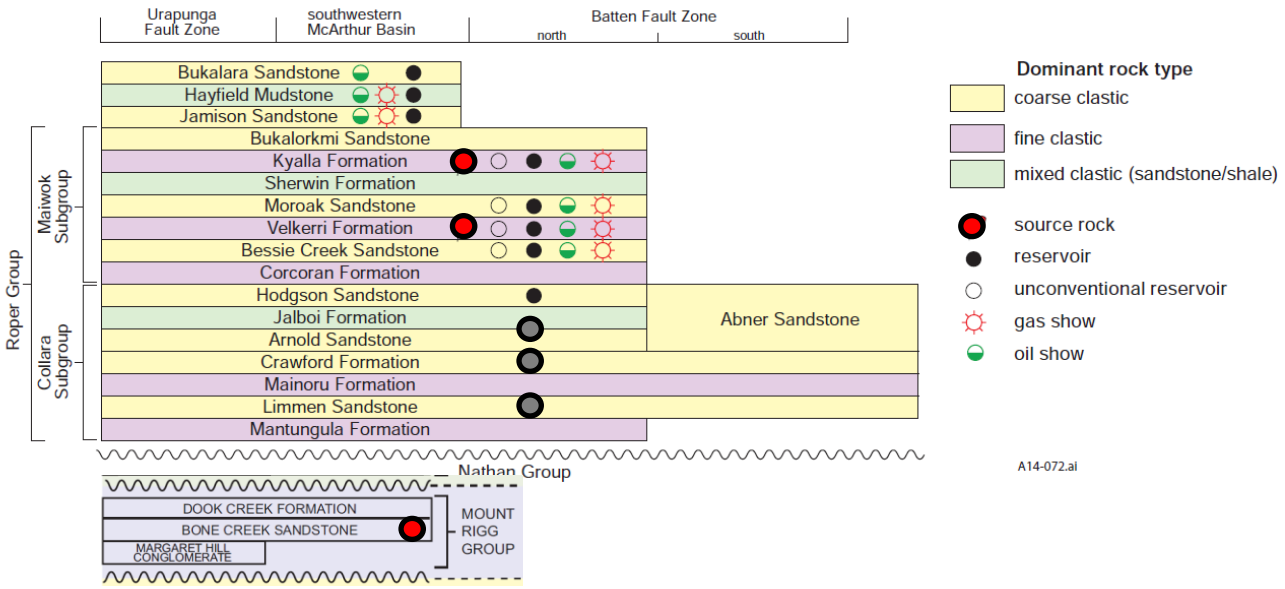

Figure 3 Hydrocarbon sources and seals of the Nathan and Roper Groups

Broughton Project – Genetic model – traps

- Principal established Reservoirs on Arnhem Shelf in Hodgson, Bessie and Moroak Ssts (Roper Grp; Figure 3)
- However, permeable facies also in Limmen Sst, Crawford Fmn, Arnold Sst, Munyi Mbr (at the boundary of Hodgson Sandstone and Corcoran Fmn in Roper Grp; Figure 3)
- Demonstrated hydrocarbon (reductant) migration – palaeo-oil columns in almost all Roper closures drilled by POG, inc Broughton #1 (now degraded or migrated leaving behind residual bitumens and relict oil staining in permeable sediments).
- Oxic metalliferous fluid interacts with reductants at the margins of fold closures where oil/gas is accumulating and breaching (Figure 4). This is analogous with the Century model of Broadbent et al.
- Redox phenomena are present in the Katherine River and Roper Groups indicative of inter-mixing of oxidised and reduced fluids (abundant in Broughton 1).

- Evidence of sulphides in the fluid mixing zone (Broughton 1 has observed galena, sphalerite and chalcopyrite in several zones, one in the deeper Nathan Group carbonates, and also in at least two zones of the lower Roper Group – Limmen Sandstone and Corcoran Fmn/Munyi Mbr).
- The most obvious sulphide zone in the Corcoran Fmn. This is mostly limonite now, but was likely to be pyrite and mixed base metal sulphides according to the original log of Broughton 1 (these have subsequently oxidised).
- Fold closure and lateral tear faults are essential to fluid mixing (Figure). Salt movement is likely to have generated the folds.
- May require permeability gradient to preserve mineralisation (ie siltstone may be a better target than typical sst reservoir rock).

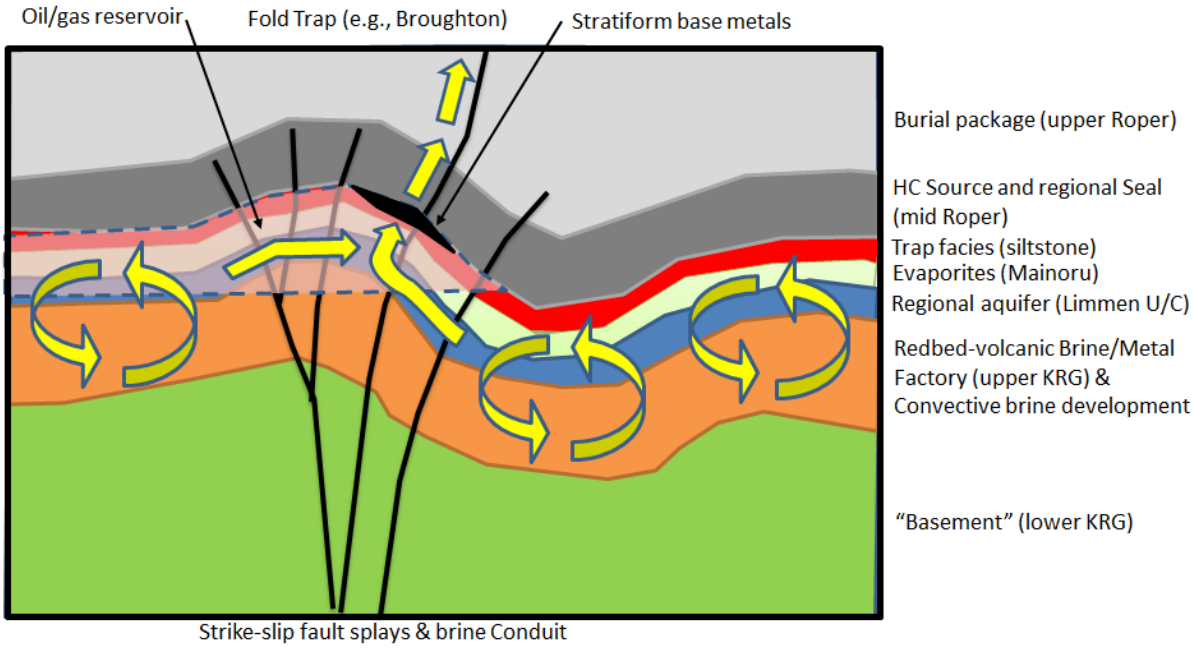

Figure 4 Genetic model cross section

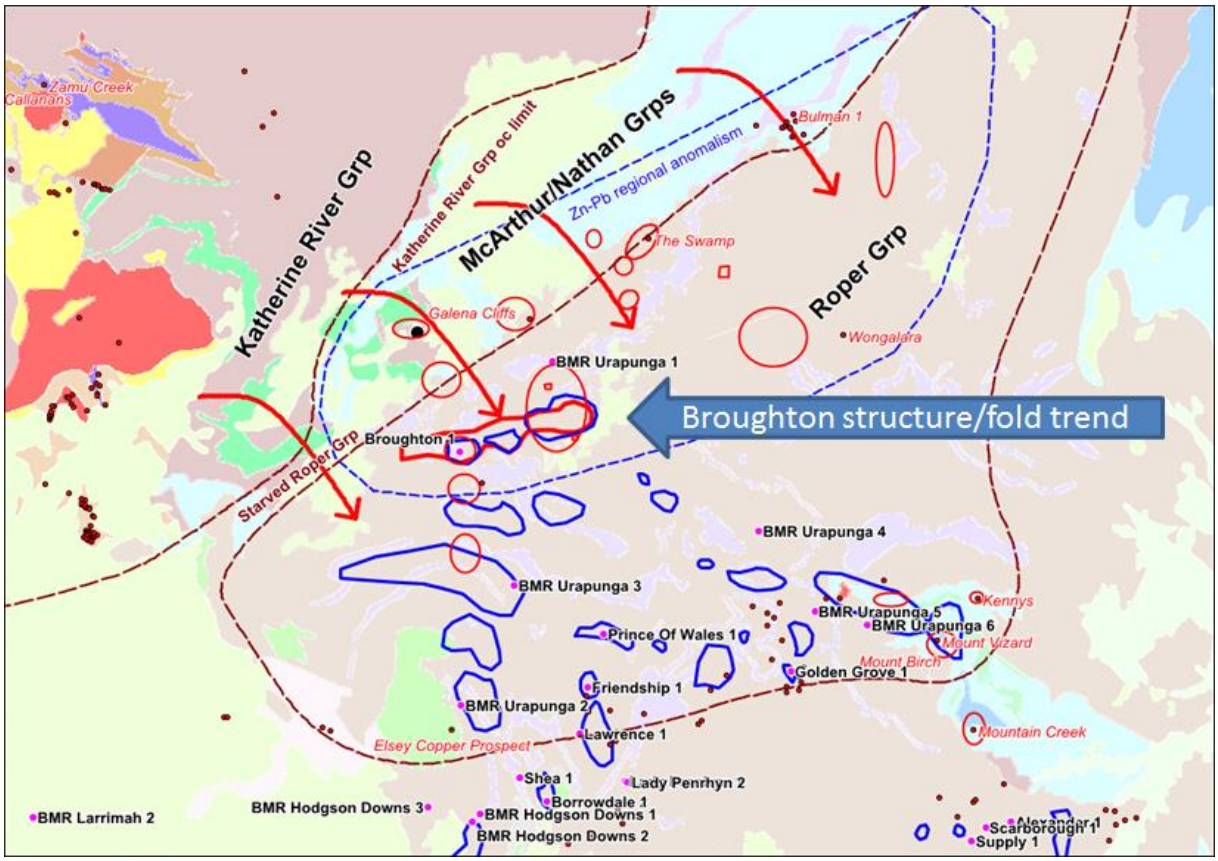

Figure 19 Genetic model spatial

Broughton Project – Genetic model – analogues

- HYC-McArthur River and Century
- Both have metal-rich Engine room, overlying evaporites and effectively a "first reductant" cover
- Diachronous mineralising events – Isa, Century, HYC, Bulman
- Young towards the west where composite basins thin
- Basin needs to reach critical burial depth before metallogenic Engine room and hydrocarbon system activate.
    - At HYC this was at 1640 Ma (thick basin fill).
    - At Broughton this was ~1200 Ma (thin basin fill)
- Same type of structure – strike-slip with pop-up flowers/anticlines in cover, probably related to salt movement (as opposed to tilt-block sub-basins for exhalative HYC)
- Allows for simultaneous tapping of Engine room and slow breach of HC trap.
- Significant time period has elapsed for Engine room to develop and entrain metals.
- Base metal "smoke" in vicinity

8 EXPLORATION CARRIED OUT

Work completed by Coolabah to date has been restricted to compilation and analysis of the historic data, as outlined above. No field visits have been undertaken as yet. Targets have been generated using the genetic model described above (Figure 4) in concert with NTGS spatial mapping datasets (Figure).

9 CONCLUSIONS AND RECOMMENDATIONS

There is significant base metal "smoke" in the region in the form of several base metal prospects (Galena Cliffs, Bulman, etc) and widespread base metal anomalism in stream sediments and soils. This is expected prior to big discovery; for example, McArthur River and Century were both found after explorers recognised a series of small discordant prospects in the 10 km radius of the deposits.

Regionally, there is sporadic evidence of sulphides in the Corcoran, Limmen, Crawford and Velkerri Fmns. The Velkerri is difficult to explore because of its overall high organic content over a broad region. The others are well known regionally as weakly reduced or oxidized, with negligible TOC. Broughton 1 is regionally a "one off" thus far – evidence of enhanced organic content (migrated) in the Munyi Mbr of Corcoran Fmn.

The complete review of historic work over the project has identified many targets worthy of follow-up (Figure).

The best analogue for exploration here is Century Zn-Pb-Ag deposit on the Lawn Hill Platform – the target is a world-class base metal deposit with a footprint of >500x1000m. The target is at <200m to reduce exploration, drilling and development costs.

COOLABAH will require a combination of datasets to explore, principally:

- Conductivity is the first filter - define organic rich zones in otherwise oxidized or low-TOC sediments. This is interpreted to be migrated hydrocarbons in fold closures, subtle upwarps along strike slip faults, and positive flower structures. Airborne EM can be to detect conductive zones of massive sulphide, or where hydrocarbons have accumulated in conventional traps. This is first pass and will generate target areas of fertile traps. Fixed wing vs heli EM? Cost vs effectiveness. Depth penetration of the system is not that important, as our targets need to be shallow. The philosophy here is simple: anywhere that is conductive is likely to be migrated hydrocarbons. Unlike the HYC area, where mineralisation is hosted in a formation that is universally TOC-rich and conductive, the part of the Roper Group that COOLABAH will focus on does not contain

appreciable quantities of in situ TOC. It will therefore have a resistive character in EM data unless it represents a palaeo-hydrocarbon trap.

- The next step is finding leakage structures where oxic fluids can pervade from below and interact with the hydrocarbon trap. Detailed magnetics should assist with this, as well as existing geology maps. A structural interpretation focussing on structures synchronous with reservoir development is crucial. Broughton 1 provides encouragement that the through-going Broughton Fault system is fertile, but vastly under-explored.
- There is limited existing old seismic (1980s vintage) that can help with structural modelling.

The company is almost starting with a "blank canvas". Historic drilling is almost entirely petroleum holes drilled by Pacific Oil and Gas (POG) into conventional closures. No significant oil or gas found, but there is lots of smoke from a former petroleum system. The area is now the focus of unconventional shale-gas exploration.

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