

ELEMENT 92 PTY LTD

(ABN 82 119 094 423)

(Wholly Owned Subsidiary of Thundelarra Exploration Ltd)

ANNUAL COMBINED REPORT (GR204/11)

FOR

**EL25868 (MARY RIVER), EL27364 (NELLIE CREEK) AND
EL27365 (MOUNT SAUNDERS)**

ALLAMBER PROJECT, NORTHERN TERRITORY

FOR THE PERIOD

12 MARCH 2012 TO 11 MARCH 2013

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1.0 SUMMARY

Exploration Licences (ELs) 25868, 27364 and 27365 form part of Element 92's Allamber Project and are located about 180 km SE of Darwin and about 55 km NE of Pine Creek in the Northern Territory. These ELs were granted combined reporting status (GR204/11) in 2011, and this is second Combined Annual Report, for the year ending on 11 January, 2013. These titles are being explored for base metals, gold and uranium.

The project area is located within central part of the Pine Creek Orogen which is a folded sequence of Palaeoproterozoic pelitic and psammitic sediments, with interlayered cherty tuff units. These rocks have been intruded by the late-orogenic Palaeoproterozoic granites, causing wide spread contact/thermal aureole which contains most of the gold and other mineralisation in the Orogen. Geology of the project area is dominated by the Palaeoproterozoic rocks of the Namoon Group, Mt Partridge Group and the members of the Cullen Batholith. Main lithologies are tightly folded dolomites, sandstones, ferruginous shales and quartz-andalusite schists which have intruded by the Allamber Springs, Frances Creek and Minglo Granites. This geological sequence has potential for gold, base metals and uranium mineralisation.

During the period under review, significant on-ground works were undertaken in EL25868 and EL27365. This work included geological reconnaissance and mapping, rock chip sampling, soil sampling, ground magnetic surveys and drilling.

Most work was completed in EL25868 as part of significant works targeting the contact between Allamber Springs Granite and metasediments of the Masson Formation, in this and adjacent titles, for skarn-type mineralisation. The discovery of significant sulphide mineralisation in the forms of i) a laminated quartz-pyrrhotite-pyrite-chalcopyrite vein or lode (Tarpon Lode) and ii) a number of narrow quartz-sulphide veins (the Herringbone Lodes) within granite in EL10043 and EL28857 has presented a new type of exploration target, and significantly enhanced the prospectivity of all adjacent titles. Although results from drilling in EL25868 were disappointing in comparison, further work will be undertaken in an attempt to explain interesting soil geochemical and geophysical features.

Minor works were undertaken in EL27364 in the 2012 field season, including geological reconnaissance and some ground magnetic surveys. The transported cover in this title sabotaged attempts to locate outcrop for ground-truthing and mapping. In the 2013 field season, shallow drilling to refusal may be undertaken to obtain bedrock samples.

In EL27365, soil sampling at Lead Prospect defined an area of elevated lead, seemingly associated with a quartz breccia unit within granite. However, drilling from EL28857 did not intersect the unit at depth and no further work is planned in this Prospect. Two rock chips from an ironstone ridge returned anomalous base metal and gold results and will be followed up in 2013 field season.

2.0 INTRODUCTION

Exploration Licences (EL) 25868, 27364 and 27365 form part of Element 92's Allamber Project (**Map 1**). These ELs were granted combined reporting status (GR205-11) in 2011, and this is second Combined Annual Report for the year ending on 11 January 2013.

ELs 25868, 27364 and 27365 are located about 180 km SE of Darwin and about 55 km NE of Pine Creek in the Northern Territory (**Maps 1 and 2**). The project area can be accessed from Darwin by Stuart Highway to Pine Creek and then along the Kakadu Highway that connects Pine Creek with Jabiru which is located in the heart of the World-heritage listed Kakadu National Park.

EL 25868 is located on the central eastern margin part of the 1:250,000 Topography Sheet SD5208 Pine Creek, directly east of the natural feature known as Brumby Gap. Access to the tenement is via the Kakadu Highway and along the Mary River Station access road.

EL 27364 is situated about 160 km SE of Darwin and about 30 km NE of Pine Creek in the Northern Territory (**Maps 1 and 2**). The licence area can be accessed via the Frances Creek Road, turning north off the Kakadu Highway approximately 3km east of Pine Creek. About 4 kilometres south of the Frances Creek mine, a track leads from the Frances Creek road to the project area, which could mainly be accessible during the dry season.

EL 27365 is located about 160 km SE of Darwin and about 50 km NE of Pine Creek in the Northern Territory (**Maps 1 and 2**). The licence area can be accessed via the Frances Creek Road, turning north off the Kakadu Highway approximately 3km east of Pine Creek. Tenement can also be reached via Kakadu Highway – A track coming off from the Kakadu Highway about 27 km from Pine Creek and leads towards NE and passes through the tenement. Access within the tenement is via station tracks.

Several areas of these titles are the subject of intensive exploration by Element 92. Most areas are contained within, or at least, directly proximal to Prospects defined by Total and later explorers during their work along the Allamber contact. For convenience, these Prospect names are also used by Element 92 where appropriate.

3.0 TENURE

Details of the three titles that comprise Pine Creek Group 2 are provided in **Table 1**.

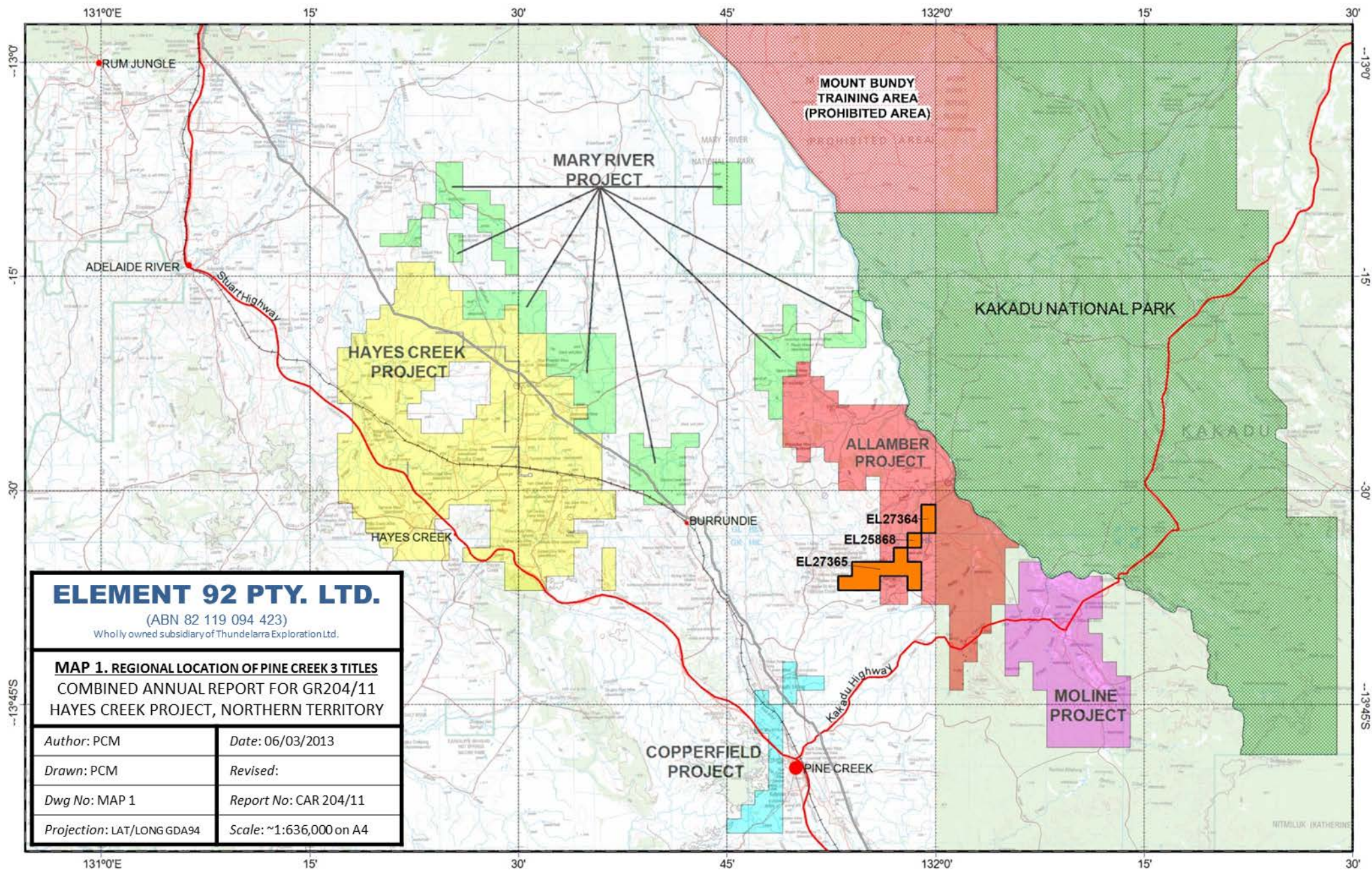
EL25868 was granted on 27 September 2007 to Element 92 Pty Ltd for a period of six years and will expire on 26 September 2013. The EL covers an area of one graticule block or approximately 3.35 km², and is in its fifth year of tenure. EL25868 is located within pastoral lease PPL1134 held by Mary River Wildlife Ranch Pty Ltd ("Mary River Station").

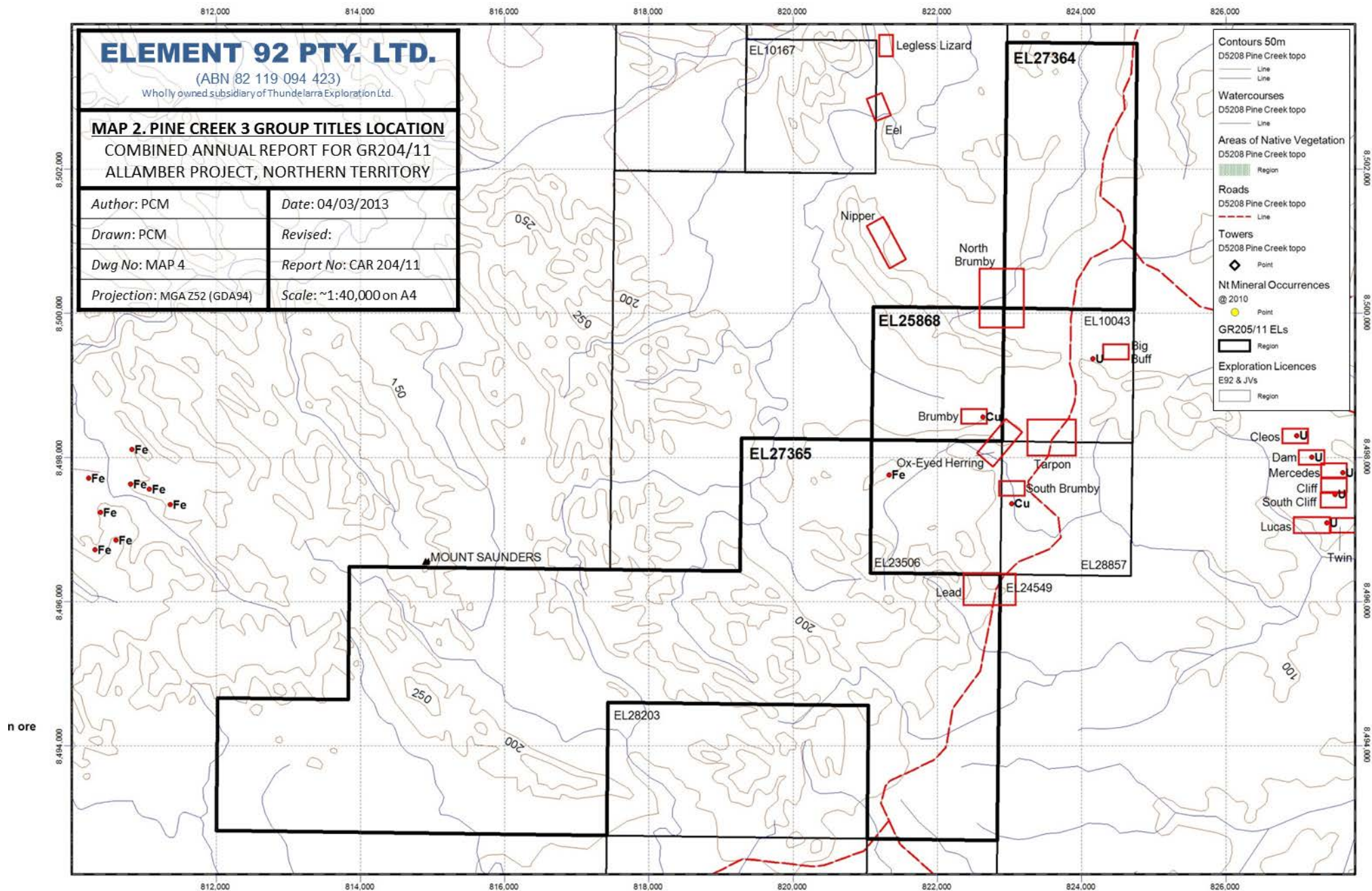
EL27364 was granted on 12 January 2010 to Element 92 Pty Ltd for a period of 3 years and will expire on 11 January 2013. The EL covers an area of two graticule blocks or approximately 6.68 km² and is in its third year of tenure. EL27364 is located within pastoral lease PPL1134 held by Mary River Wildlife Ranch Pty Ltd ("Mary River Station").

EL 27365 was granted on 12 January 2010 to Element 92 Pty Ltd for a period of 6 years and will expire on 11 January 2016. The EL covers an area of six graticule blocks or approximately 33.37 km² and is in its third year of tenure. EL27365 overlaps three pastoral leases i) PPL 1134 held by Mary River Wildlife Ranch Pty Ltd ("Mary River Station"), ii) PPL 1111 held by Ban Ban Springs Station Pty Ltd ("Ban Ban Springs Station) and iii) PL 815 held by Adicrest Pty Ltd ("Mary River West").

EL No	EL Name	Date Granted	Expiry Date	Area	Covenant
EL 25868	Mary River	27/09/2007	26/09/2013	1 Blocks	\$16,000.00
EL 27364	Nellie Creek	12/01/2010	11/01/2014	2 Blocks	\$12,000.00
EL 27365	Mount Saunders	12/01/2010	11/01/2016	10 Blocks	\$15,000.00

Table 1. Details of titles comprising Pine Creek 3 Group.





4.0 GEOLOGY

4.1 Regional Geology

The project area is located within central part of the Pine Creek Orogen (PCO) which is a folded sequence of Palaeoproterozoic pelitic and psammitic sediments, with interlayered cherty tuff units (Needham and Stuart-Smith, 1984 and Needham *et al.*, 1988). These rocks have been intruded by the late-orogenic Palaeoproterozoic granites, causing wide spread contact/thermal aureole which contains most of the gold and other mineralisation in the Orogen (Bajwah, 1994). Some uranium mineralisation is also confined to contact areoles. Less deformed Mesoproterozoic sedimentary and volcanic sequences unconformably overlie the Palaeoproterozoic rocks and is overlain by Cambrian-Ordovician lavas, sediments and Cretaceous strata. Cainozoic sediments, laterite and recent alluvium may obscure parts of the Orogen lithologies.

4.2 Local Geology

4.2.1 Summary by Title

Interpreted geology of the title areas is shown in **Map 3**. The geological data are drawn from 1:500,000 Pine Creek Orogen (Needham and Stuart-Smith, 1984)

The geology of EL25868 includes tightly folded dolomites, sandstones, ferruginous shales and quartz-andalusite schists of the Masson Formation and Mundogie Sandstone of the Palaeoproterozoic Namoonna and Mt Partridge Groups. In the far north-east corner of the EL, a contact the Minglo Granite is indicated.

The geology of EL27364 mostly comprises Frances Creek and Minglo Granites, and rafts of Bludells Dolerite.

The geology of EL27365 is dominated by the folded rocks of Namoonna Group, Mount Partridge Group and a contact with Allamber Springs Granite is reported along the eastern and southern boundaries.

4.2.2 Lithology Details

The oldest formation exposed in the project area is the Masson Formation (Namoonna Group). It conformably underlies the Mundogie Sandstone (Mount Partridge Group). It predominantly contains greywacke, carbonaceous shale, sandstone and beds of dolomite with minor quartzite, massive ironstone and rare tremolite marble. They are commonly exposed as ferruginous rubble on low rises and occasionally in creek beds (Stuart-Smith *et al.* 1987). Due to thermal metamorphism, beds have been metamorphosed to carbonaceous chiastolite hornfels, spotted grey cordierite-andalusite-muscovite hornfels and biotite-muscovite-quartz hornfels. Contact relation relationship between the Masson Formation and intruding Allamber springs is mainly discordant (Stuart-Smith *et al.*, 1987).

Some way north of this local area, NTGS mapping indicates that large bodies of Zamu Dolerite occur within the Masson Formation, and are generally conformable with overall bedding trends. Although

there are certainly dykes of Zamu Dolerite within the local area, Element 92 believes that they are of much lesser extent than shown on the PCO 1:500,000 geological sheet. Based on multiple field visits to the area, it is instead believed that for the most part, lithologies mapped as dolerite are in fact dolomite.

The Mundogie Sandstone conformably overlies the Masson Formation. The contact between the two rock units is obscured by scree or alluvium or may have been displaced by the emplacement of the Zamu Dolerite. In the project area, the unit is truncated by the emplacement of the Allamber Springs Granite and is responsible for contact metamorphism, hornfelsing the sediments extensively. The contact is mostly discordant and very irregular with the Allamber Springs Granite.

The Mundogie Sandstone is mainly composed of coarse pebbly sandstone with lenses of conglomerate and shale. Beds are generally about 1 – 5 meters thick and are massive with laminated tops in places. Sedimentary structures present include graded bedding, lenticular cross-bedding and load-cast (Stuart-Smith et al. 1987). In the contact zone with the Allamber Springs Granites, beds are generally tourmalinised and silicified and contact metamorphosed to micaceous hornfels, cordierite-mica hornfels and black carbonaceous hornfels.

Quartz dolerite sills ascribed to Zamu Dolerite also occur in the general area. Due to poor exposure, contact effects are not well known. Dolerite is poorly exposed in valleys as rounded cobbles and pebbles.

The metasedimentary sequence is intruded by late-orogenic Palaeoproterozoic granites including Frances Creek Granite, Minglo Granite and Allamber Springs Granite. All are part of the Cullen Batholith, or Cullen Supersuite, and were emplaced during Top End Orogeny event (1870 – 1780 Ma). The members of the Cullen Supersuite are predominantly I-type (Chappell and White, 1974), but some may also have S-type characters. Rafts of Bludells Dolerite are mapped near the northeastern part of the contact, and are believed to be remnants of dolerite.

The Frances Creek Granite crops out poorly in creek beds and as isolated pavements and scattered boulders, separated by sandy plains (Bajwah 1994). The granite contains abundant xenoliths and rafts up to several kilometres in dimension. It is felsic, fine to medium-grained, predominantly equigranular, although in some areas it may contain K-feldspar phenocrysts, defining porphyritic fabric. The main constituent minerals are quartz, K-feldspar, plagioclase with minor biotite and uncommon hornblende. Accessory minerals are magnetite and zircon which are randomly distributed in the matrix. Geochemical analyses of the Frances Creek Granite show that it has a narrow range of SiO₂ (70.93 wt% - 76.08 wt%), which is considered to be felsic in nature. TiO₂ and FeO_(t) are low as reflected in the presence of mafic minerals. Na₂O lies in a moderate range (2.83 – 3.46 wt%) and subordinate to K-feldspar. Rb abundance varies 213-324 ppm, whereas Sr ranges from 56 – 151 ppm; this suggests that granite body is moderately fractionated. An important feature of the Frances Creek Granite is that it contains elevated levels of uranium (6-73 ppm) and Th (38 – 87 ppm) contents.

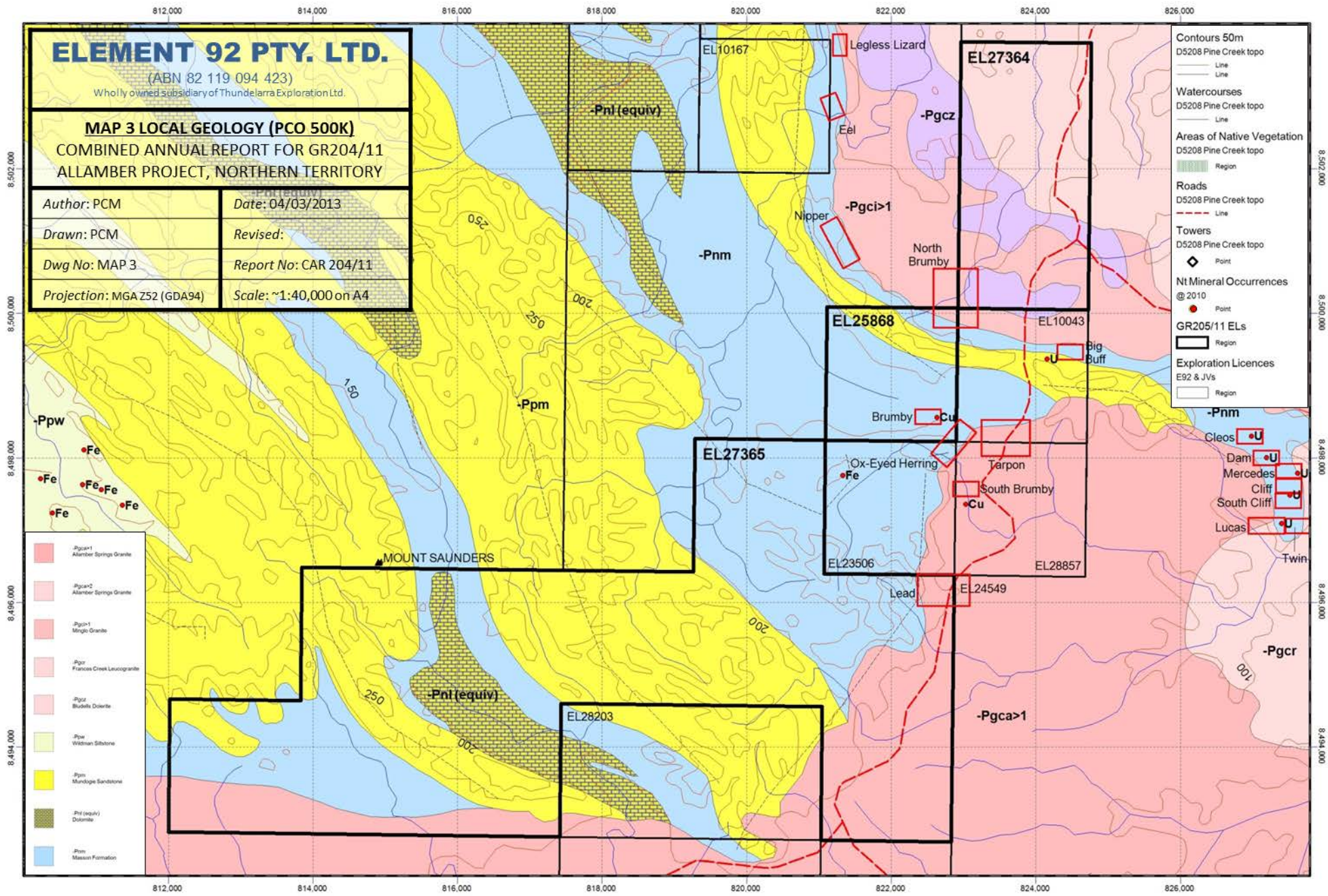
The northeastern part of the tenement is covered by the Minglo Granite which is also member of the Cullen Batholith. Much of the granite body is covered by residual sandy soil and Quaternary alluvial

deposits of the Mary River. The pluton forms semi-continuous outcrops of rugged hills along the eastern side of the Minglo Creek, elsewhere outcrop is restricted to low boulder hills and isolated tors and pavements. It intrudes the Palaeoproterozoic metasediments, causing contact metamorphism which apparently resulted in several Sn and Sn-sulfide prospects/deposits towards the north.

The Minglo Granite is generally medium- to coarse-grained, equigranular to porphyritic. Quartz is the most abundant mineral (up to 35%) whereas K-feldspar and plagioclase are other felsic minerals. Biotite and hornblende (rare) are mafic minerals which are randomly distributed within the granite pluton. Accessory minerals are sphene, and magnetite along with rare minerals such as allanite, apatite and zircon. Felsic nature of the granite is shown by SiO₂ content which ranges from 72.12 – 75.38 wt%. FeO_(t) and MgO are in restricted range and are low in concentrations. Na₂O is consistently higher whereas K₂O is moderately high but in narrow range (Bajwah, 1994). Trace elements such as Rb and Ba are in moderate range, varying from 167 – 310 ppm and 177 – 691 ppm. Sr is low and decreases in response to SiO₂ rise, whereas Rb increases when plotted against Sr, which is indicative of feldspar fractionation.

Allamber Springs Granite occurs towards the south of the local area and is a significant plutonic body. It is likely genetically related to gold, uranium and base metals mineralisation in the adjacent contact zone. It is mainly massive and largely homogenous and even-grained, although porphyritic marginal variants occur in several restricted localities. Mafic inclusions in low abundances occur particularly towards the margin of the pluton. It crops out as expanses of bare rock, boulders and tors separated by alluvial flats. The marginal fine-grained porphyritic variety is light grey and characterised by the presence of quartz and/or K-feldspar phenocrysts. It is mainly composed of quartz (25-35%), K-feldspar (30-35%), plagioclase (20-25%), biotite (5-8%) and accessories such as magnetite, allanite and sphene. Hornblende (>10%) is generally confined to medium to coarse-grained varieties which form greater part of the pluton and shows a progressive increase in grain size from the marginal to the core of the granite body. In coarse-grained variety K-feldspar could be up to 50%. The Allamber Springs show weak pervasive hydrothermal alteration (sericitisation, chloritisation) throughout but griesenisation of the granitic rock may occur towards the margins.

The Allamber Springs Granite is characterised by a variable SiO₂ range (66.10-78.10 wt%), K₂O contents range from 4.20-7.0 wt% and are predominant over Na₂O. In terms of trace elements, the granite body has high concentrations of Th (2-90), U (3-30) and Rb (141-336).



5.0 HISTORIC EXPLORATION SUMMARY

The area of EL25868 was previously explored for a variety of commodities by a number of companies. In the late 1960's to early 1970's Australian Geophysical P.L. carried out airborne magnetic surveys over the tenement area and carried out limited follow-up. In the mid to late 1970's CRA Ltd carried out regional soil traverses for base-metals. During the 1980's Total Mining (Australia) Ltd carried out uranium exploration over the EL area. This consisted of ground radiometric traversing and limited rock-chip sampling.

During the early 1990's Aztec Mining carried out base-metal exploration in the wider area. Exploration on the EL consisted mainly of grid soil sampling.

From 1995 to 2002 Earthowl & Teelow explored the area for a number of commodities, including gold, barite and base-metals. This exploration included RAB drilling, rock-chip and soil sampling. A small barite occurrence was located just south of the EL.

EL27364 has been explored mainly for commodities such as gold, uranium and base metal mineralisation. It was mapped by BMR in 1950's which provided our understanding of geological setting of the area. The project area was remapped as part of Pine Creek (1:250 000) sheet (Ahmad *et al.* 1993) which led to some re-interpretation of geology of the area along with metallogenesis. Airborne geophysical cover of the project is available from the Northern Territory Geological Survey, Darwin (WGC 1999).

In 1970's ground exploration commenced which was mainly conducted by Australia Geophysical Survey Pty Ltd, CRA, Australia and New Zealand Exploration Company, Total Mining Australia and Aztec Mining Limited. Details of these programs are given in Bajwah and De Kever (2011a).

EL27365 has been explored since 1960's when the First Edition of the Pine Creek (1:250,000) map was prepared by BMR (now Geoscience Australia). Second Edition Pine Creek map was published by NT Geological Survey in 1993 (Ahmad *et al.*, 1993) which incorporated metallogenic data and provided a framework for exploration. A regional geophysical coverage (WGC, 1999) which includes the project area is available from Northern Territory Geological Survey. Following these programs, on-ground exploration activities commenced for the discovery of uranium, gold and base metals mineralisation. These exploration programs were mainly conducted by Australia Geophysical Survey Pty Ltd, CRA Exploration Pty Ltd, CSR Limited, Dominion Gold Operation Pty Limited, Aztec Mining Company, Corporate Development Pty Ltd and Total Mining. Details of these programs are given in Bajwah and De Kever (2011b).

6.0 PREVIOUS EXPLORATION BY ELEMENT 92

This section provides details on works undertaken on the three ELs comprising Pine Creek 3 Group since they were amalgamated in 2010.

6.1 EL25868 – Mary River

For details of work in EL25868 prior to amalgamation with EL27364 and EL27365, the reader is referred to Mees (2008), Vieru (2009) and Richardson (2010).

6.1.1 Exploration During 2011 Field Season

Work completed in this period included geological reconnaissance, soil and rock chip sampling, and a ground gravity survey. The work aimed to investigate relatively low order base metals anomalism in soil samples collected by CRA in the late 1970s (Ikstrums, 1979) and by Aztec Mining in mid-1990s.

At Brumby Gap, rafts of skarn were mapped along a major NE-trending fault zone. Historical exploration data indicated the silicified and skarnified dolomitic materials were anomalous in copper, zinc and lead.

A total of 23 soil samples, screened to +2mm, were collected in EL25868 as part of a 204 sample programme covering the Ox-Eyed Herring Prospect (which also overlaps EL10043, EL23506 and EL28857). All samples were assayed for Ag, As, Au, Cu, Pb, Zn, Bi, Mo, Pd, and Pt.

Assay data from the soil grid indicated significant elemental concentration of copper, lead and zinc, defining coherent geochemical anomalies at Ox-Eye Herring Prospect.

One rock chip sample (TK650905, GR 822586E, 8498608N) was collected within EL25868 and examined petrographically.

A gravity survey was conducted over the local area in order to map the contact between metasediments and granite, and also to identify possible carbonate bodies within the Masson Formation. Data were collected on regular 100 m station spacing and interpretation of the gravity data was undertaken by Montana GIS, NSW. The reader is referred to Bajwah and Vieru (2012) for further details of this work.

6.2 EL27364 – Nellie Creek

For details of work in EL27364 prior to amalgamation with EL25868 and EL27365, the reader is referred to Bajwah and De Kever (2011a).

6.2.1 Exploration During 2011 Field Season

Appraisal of available geological and geophysical data was undertaken with the aim of assessing the mineral potential of the project area in order to define drill targets. A number of field visits were undertaken for ground-truthing purposes.

A number of radiometric anomalies were identified from airborne radiometric data which were suggested are caused by concentration of uranium within the granite bodies in final stages of magma consolidation.

6.3 EL27365 – Mount Saunders

For details of work in EL27365 prior to amalgamation with EL25868 and EL27364, the reader is referred to Bajwah and De Kever (2011b).

6.3.1 Exploration During 2011 Field Season

During the reporting period, exploration activities included, ground-truthing, selected geological mapping and collection of soil/rock chip samples.

The geological setting of the project area was noted to be similar to that of Cleo group of uranium deposits located further east, where Allamber Springs Granite appears to have played a role for providing hydrothermal fluids responsible for mineralisation. Interpretation of radiometric images of the area showed a number of anomalous areas.

7.0 EXPLORATION DURING PERIOD OF REVIEW

In the period under review, which is coincident with the 2012 field season, most exploration effort within the Allamber Project was directed at a cluster of small prospects in the central south of the project area including Ox-Eyed Herring, Brumby, and Brumby South Prospects as shown in **Map 4**. This work occurred in **EL25868**, EL10043, EL23506, EL28857 and **EL27364**.

7.1 EL25868 – Mary River

7.1.1 Geological Reconnaissance and Mapping

Geological reconnaissance and mapping was undertaken within an area covering the Ox-Eyed Herring, Brumby and South Brumby Prospects. The aim of the exercise was to gain a greater understanding of the morphology of the contact between the Allamber Springs Granite and Masson Formation, as well as identifying any evidence of mineralisation that might cause the soil anomalism seen in samples collected the previous year. Mapping was carried out on the extended soil grid. These data are currently being compiled.

Several sulphide gossans were identified although all were relatively limited in visible extent, and apparently associated with relatively thin ferruginous quartz veins. No secondary copper minerals were found.

7.1.2 Rock chip Sampling

A total of 6 rock chip samples were collected within EL25868 as part of the wider sampling programme. Samples were assayed at Ultra Trace or NAL for the suites of elements shown in **Table 2**. Selected assay results are shown in **Table 3**. The results were generally disappointing as several of the samples appeared in hand specimen to contain box-works after sulphides. There is clear anomalism in Cu and Pb from a single sample of dolomite near a contact with graphitic schist.

Sample Type	Laboratory	Preparation Technique	Assay Technique/s	Analytes
Rock	Ultra Trace	PR044	ICPMS ICPOES	Ag, As, Pb, Bi, Mo, Th, U Au, Co, Cu, Fe, Zn, Pd, Pt
Rock	NAL	Pulverising	FA50 G300I	Au Ag, As, Cu, Pb, Zn

Table 2. Summary of analytical parameters for rock chips collected within EL25868 in 2012 field season.

Sample ID	Easting MGA94 Zone 52	Northing MGA94 Zone 52	As ppm	Au ppb	Au ppm	Cu ppm	Pb ppm	Zn ppm	Bi ppm	Mo ppm	Description
TK555659	822625	8498267	35	7	0	100	-10	7	-1	10	Composite sample – vein quartz, brecciated, haematitic, schist host rock.
TK555678	822595	8498606	10	2	0	-50	-10	2	-1	-5	Dolomite, dark grey, minor VQ with pyrite, disseminated pyrite throughout
TK568303	822893	8498252	173	0	0	1164	132	0	0	0	Silicified dolomite with minor Fe at contact with graphitic schist
TK568307	821351	8498637	0	0	0	101	39	0	0	0	Haematitic breccia
TK568431	822608	8498573	15	4	0	100	30	4	1	-5	Amorphous quartz + specular haematite + cerussite
TK568432	822625	8498517	10	-1	0	150	-10	-1	-1	-5	Haematitic sandstone + ex-sulphides + trace malachite & azurite

Table 3. Details of rock chips collected within EL25868 during the 2012 field season with selected assays.

7.1.3 Soil Sampling

A total of 125 soil samples, screened to +2mm, were collected in EL25868 as part of a 204 sample programme extending the Ox-Eyed Herring soil grid collected in 2011. The extended soil grid overlaps EL10043, EL23506 and EL28857. See **Map 4** for details.

Samples were assayed at Ultra Trace or NAL for the suites of elements shown in **Table 4**.

Sample Type	Laboratory	Preparation Technique	Assay Technique/s	Analytes
Soil	Ultra Trace	PR044	ICPMS ICPOES	Ag, As, Pb, S, Bi, Mo, Th, U Au, Co, Cu, Fe, Zn, Ni, Mn, Mg, Pd, Pt
Soil	NAL	Drying, pulverising	FA050 G300I	Au Ag, As, Cu, Pb, Zn, Bi, and Mo

Table 4. Summary of analytical parameters for soil samples collected within EL25868 in 2012 field season.

Maps 5 to 8 show grids of assays for Cu, Pb, Zn and Au respectively. Grids were created using Inverse Distance Weighting, cell size of 25m, search distance of 100m and histogram equalisation of values.

Full geochemical data are provided in **Appendix 1**.

7.1.4 Geophysical Surveying

In period under review ground magnetic surveys were completed on a large grid across the local area covering Ox-Eyed Herring, Brumby, Brumby South and Tarpon Prospects, as shown in **Map 9**. The work aimed to provide high-resolution images of magnetic features identified in airborne magnetic data collected by Element 92 in 2010, some of which seem to be related to a newly-discovered mineralised system, the Tarpon Lode.

Within EL25868, nearly 23,000 data points were collected along 23.16 line kilometres on predominantly 20 metre spaced E-W survey lines. Data were collected by Terra Search Pty. Ltd. using two GSM-19 Overhauser Walking magnetometers with inbuilt GPS. A reading was recorded twice per second. A Geometrics G856 was used as a base station to record diurnal variations during the survey.

Data are provided in GDF format as **Appendix 3**.

7.1.5 Drilling

Two reverse-circulation (RC) drill holes, TAL073RC and TAL09RC, were completed within EL25868 as part of a wider programme targeting significant base-metal anomalism in soil samples and rock chips within Ox-Eyed Herring Prospect and surrounding areas.

TAL073RC was drilled at Brumby Prospect to test coincident aeromagnetic and gravity lows and soil copper anomalies. No significant mineralisation was encountered in this hole. A brief review of surface geochemistry suggests that the copper soil anomalism is at least in part transported; it seems to be restricted to low lying areas and appears to wrap around a hill to the south of the drilling. The aeromagnetic low is explained by the thick sequence of dolomitic metasediments

intersected in the hole. Due to disappointing geological and portable XRF results, no samples were taken for assay from this hole.

TAL090RC was designed to test a strong ground and airborne magnetic anomaly. While the setting of the magnetic anomaly was suggestive of a stratigraphic unit, the intensity of the anomaly was considered by the geophysicists to be caused by magnetite rather than pyrrhotite. However, TAL090RC was completed early at 71m after intersecting strongly magnetic, pyrrhotitic carbonaceous shales in the target position. This particular style (i.e. disseminated and bedding parallel veinlets) of pyrrhotite is likely to be the result of contact metamorphism altering diagenetic pyrite in the shales to pyrrhotite, and appears to be devoid of significant base-metal mineralization. Only 4 samples were taken for laboratory assay from this hole.

Full drill hole, survey and assay details are provided in **Appendix 2**.

Hole Type	Hole Number Range	No of Holes	Total Metres
RC	TAL073RC, TAL090RC	2	173
Grand Total		2	173

Table 5. Summary of drilling completed within EL25868 during the 2012 field season.

Hole ID	Easting MGA94 Zone 52	Northing MGA94 Zone 52	RL (GPS)	Azi. MGA	Dip	Depth	Date Start	Date Complete
TAL073RC	822522	8498530	164	120	-60	102	28/07/2012	28/07/2012
TAL090RC	823410	8498116	152	270	-60	71	09/11/2012	09/11/2012

Table 6. Details of drilling completed within EL25868 during the 2012 field season.

Sample Type	Laboratory	Preparation Technique	Assay Technique/s	Analytes
Drill cuttings	NAL	Drying, pulverising	FA050 G300I	Au Ag, As, Cu, Pb, Zn, Bi, and Mo

Table 7. Summary of analytical parameters for drill samples collected within EL25868 in 2012 field season.

7.2 EL27364 – Nellie Creek

Work completed in this period included geological reconnaissance and a small amount of ground magnetics.

7.2.1 Geological Reconnaissance

Given the results achieved in and around the Ox-Eyed Herring and Tarpon Prospects, where sulphide lodes were intersected within granitic units, EL2364 may assume increased significance in the coming field season. Several visits were made to this title in an attempt to identify similar outcrops of the vuggy, ferruginous quartz that typifies the Tarpon Lode to the south. A secondary objective was to locate Bludells Dolerite in outcrop. However, practically all of this title is covered by transported materials and no significant outcrops were located.

7.2.2 Geophysics

Within EL27364, 1,108 ground magnetic data points were collected along 1.32 line kilometres over the eastern part of the North Brumby Prospect grid. Further details of the survey are provided in Section 7.1.4. Results can be seen on **Map 9**. Data are provided in GDF format as **Appendix 3**.

7.3 EL27365 – Mount Saunders

Work completed within this title in the period under review included geological reconnaissance, rock chip sampling, soil sampling and a small amount of ground magnetics.

7.3.1 Geological Reconnaissance

Given the results achieved in and around the Ox-Eyed Herring and Tarpon Prospects, where sulphide lodes were intersected within granitic units, EL2365 may assume increased significance in the coming field season. Several visits were made to this title in an attempt to identify similar outcrops of the vuggy, ferruginous quartz that typifies the Tarpon Lode to the south. There is good potential for skarn-type mineralisation if carbonate lithologies can be identified in this title. Further work is planned for the 2013 field season.

7.3.2 Rock Chip Sampling

A total of 3 rock chip samples were collected within EL27365 as part of the wider sampling programme (**Map 4**). Samples were assayed at NAL for the suite of elements shown in **Table 8**. Selected assay results are shown in **Table 9**.

The results show clear anomalism in As, Au (ppb), Cu and Bi across samples TK555665 and TK555666. These rock chips were collected on a ridge of ironstone breccia and will be followed up in the 2013 field season.

Sample Type	Laboratory	Preparation Technique	Assay Technique/s	Analytes
Rock	Ultra Trace	PR044	ICPMS ICPOES	Ag, As, Pb, Bi, Mo, Th, U Au, Co, Cu, Fe, Zn, Pd, Pt

Table 8. Summary of analytical parameters for rock chips collected within EL27365 in 2012 field season.

Sample ID	Easting MGA94 Zone 52	Northing MGA94 Zone 52	As	Au	Au	Cu	Pb	Zn	Bi	Mo	Description
			ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	
TK555662	820971	8498203	40	-1	0	-50	30	-50	1	5	Conglomerate. Large haematite clasts up to 10cm + laterite + angular VQ clasts. Haematite /goethite matrix.
TK555665	820042	8497878	615	68	0	1500	20	100	8	15	Ironstone breccia ridge. Angular VQ clasts, Haematite /goethite matrix. 10m wide.
TK555666	819933	8497928	125	25	0	750	70	100	1730	5	Haematitic sandstone + ex-sulphides + trace malachite & azurite

Table 9. Details of rock chips collected within EL27365 during the 2012 field season.

7.3.3 Soil Sampling

A total of 71 soil samples, screened to +2mm, were collected within Lead Prospect in EL27365 (**Map 4**) to investigate anomalous lead values in rock chip samples associated with a quartz breccia unit where a raft of metasediments lenses out into granite. Minor cerrusite was observed in hand specimen.

The samples were analysed at NAL in Pine Creek, Northern Territory, for a suite of elements shown in **Table 10**.

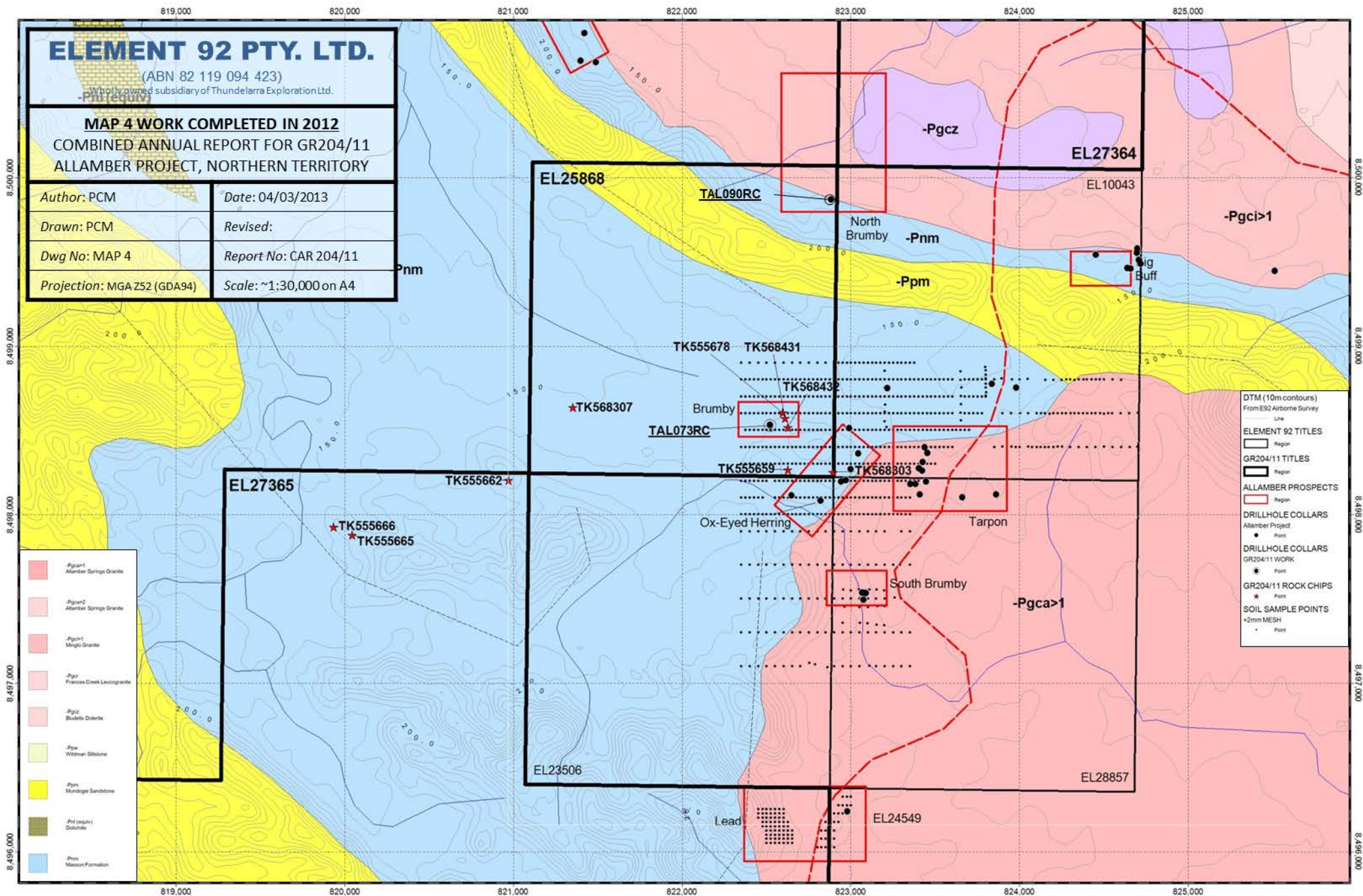
Sample Type	Laboratory	Preparation Technique	Assay Technique/s	Analytes
Soil	NAL	Drying, pulverising	FA050 G300I	Au Ag, As, Cu, Pb, Zn, Bi, and Mo

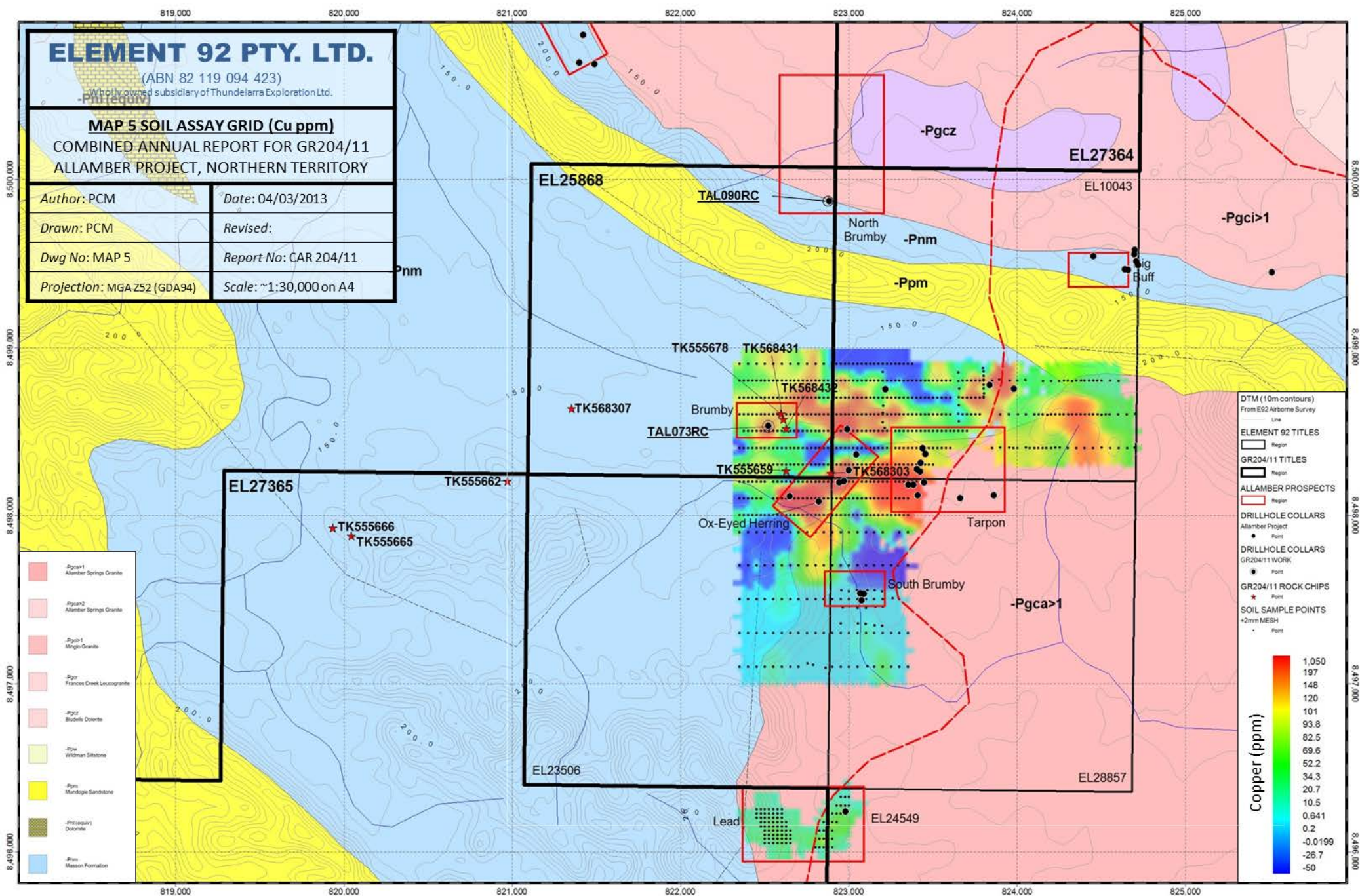
Table 10. Summary of analytical parameters for soil samples collected within EL27365 in 2012 field season.

The results indicated a significant lead anomaly in soils surrounding the quartz breccia unit, consistent with the discovery of cerrusite in these areas. This feature was drilled from EL24549, however the quartz breccia unit appeared to lens out at shallow depth and was not intersected. No further work is proposed for this prospect at the current time.

7.3.4 Geophysics

Within EL27365, 1,154 ground magnetic data points were collected along 1 line kilometre on the far southern extent of the Ox-Eyed Herring/Brumby grid. Further details of the survey are provided in Section 7.1.4. Results can be seen on **Map 9**. Data are provided in GDF format as **Appendix 3**.





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MAP 6 SOIL ASSAY GRID (Pb ppm)
COMBINED ANNUAL REPORT FOR GR204/11
ALLAMBER PROJECT, NORTHERN TERRITORY

Author: PCM

Date: 04/03/2013

Drawn: PCM

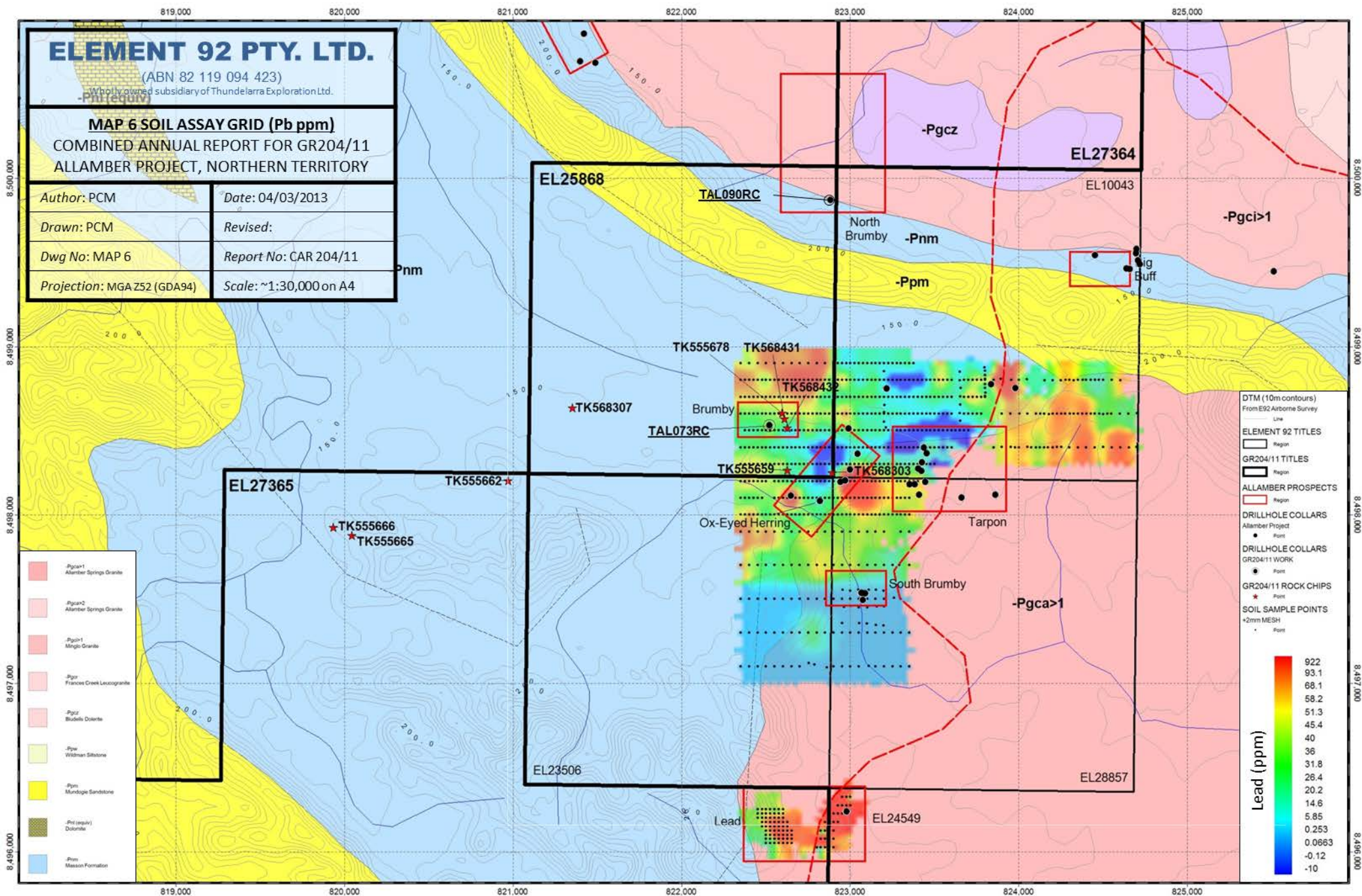
Revised:

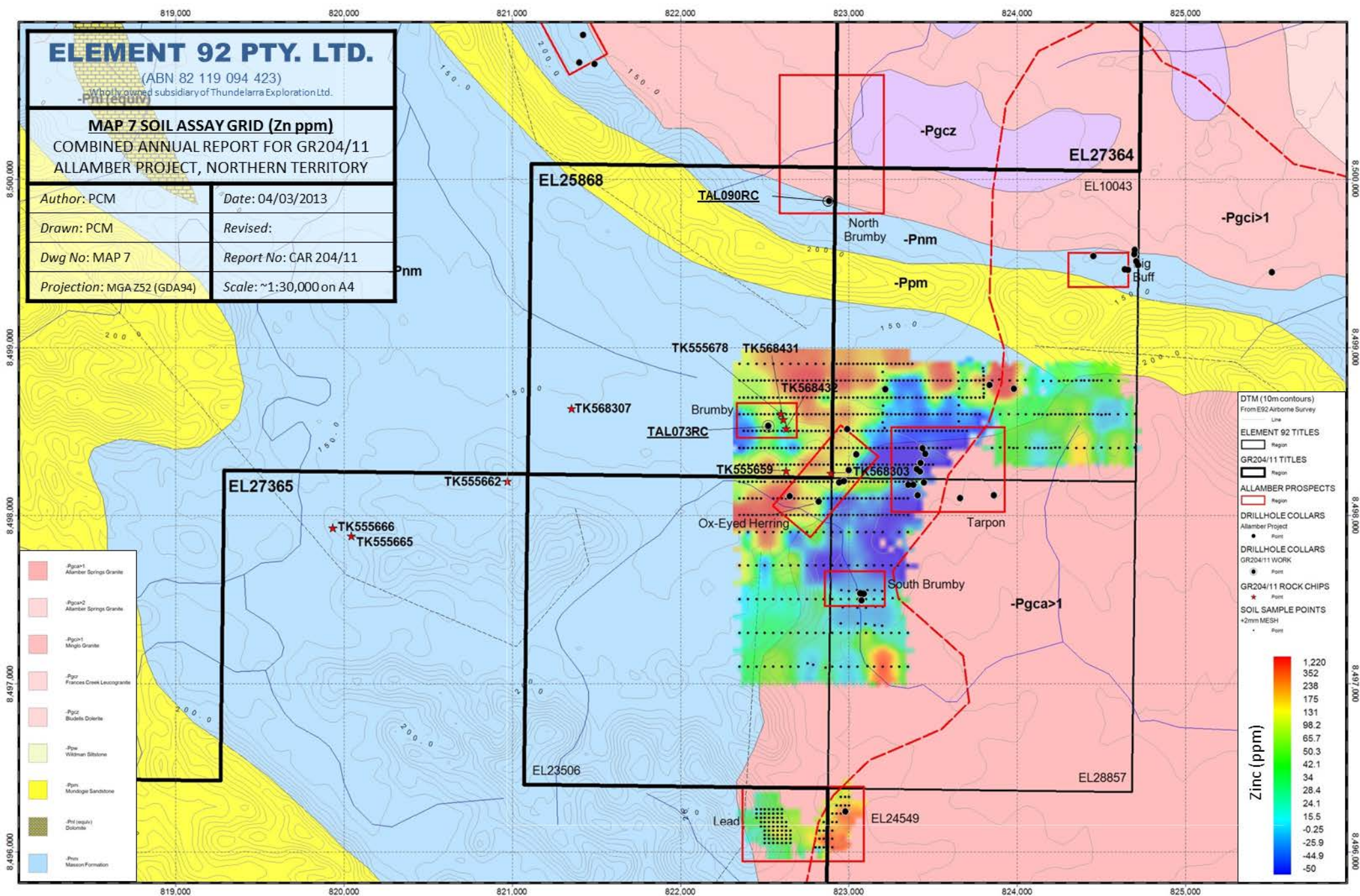
Dwg No: MAP 6

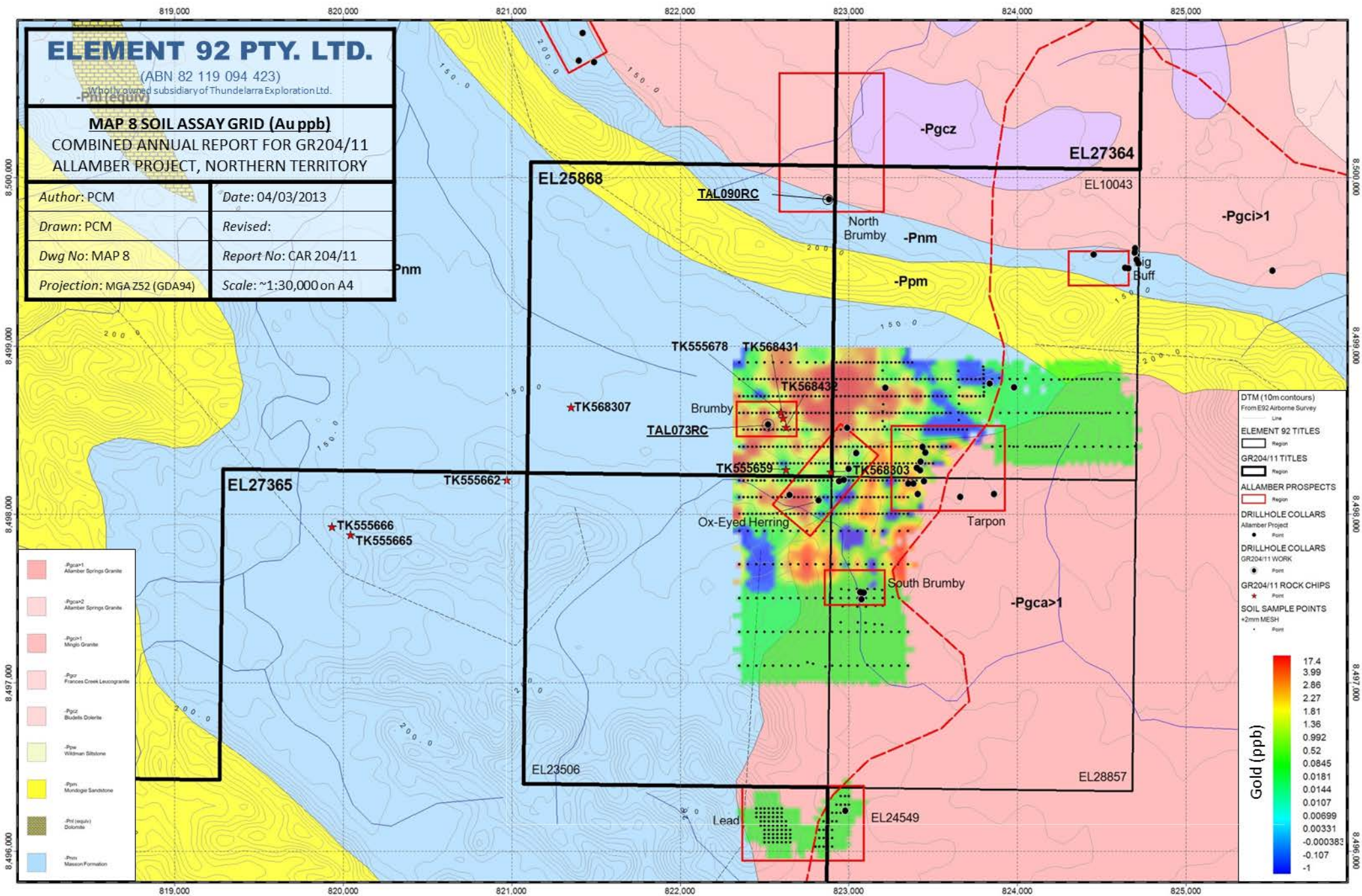
Report No: CAR 204/11

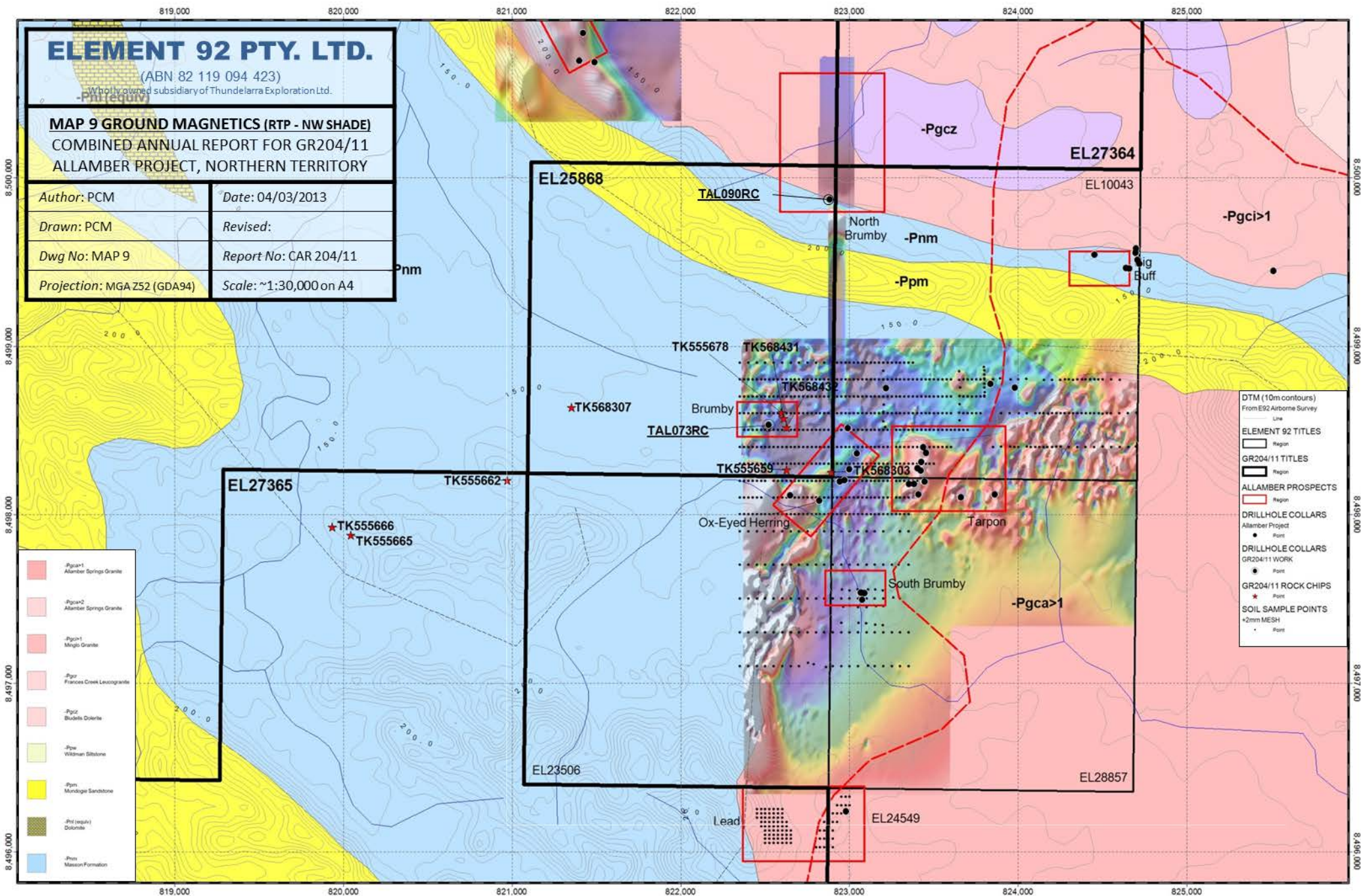
Projection: MGA Z52 (GDA94)

Scale: ~1:30,000 on A4









8.0 CONCLUSIONS and RECOMMENDATIONS

Exploration Licences (ELs) 25868, 27364 and 27365 form part of Element 92's Allamber Project and are located about 180 km SE of Darwin and about 55 km NE of Pine Creek in the Northern Territory. These ELs were granted combined reporting status (GR204/11) in 2011, and this is second Combined Annual Report, for the year ending on 11 January, 2013. These titles are being explored for base metals, gold and uranium. Work completed within the Group in the 2012 field season included geological reconnaissance and mapping, rock chip sampling, soil sampling, ground magnetics and reverse-circulation drilling.

Most work was completed in EL25868 as part of significant works targeting the contact between Allamber Springs Granite and metasediments of the Masson Formation, in this and adjacent titles, for skarn-type mineralisation. The discovery of significant sulphide mineralisation in the forms of i) a laminated quartz-pyrrhotite-pyrite-chalcopyrite vein or lode (Tarpon Lode) and ii) a number of narrow quartz-sulphide veins (the Herringbone Lodes) within granite in EL10043 and EL28857 has presented a new type of exploration target, and significantly enhanced the prospectivity of all adjacent titles. Although results from drilling in EL25868 were disappointing in comparison, further work will be undertaken in an attempt to explain interesting soil geochemical and geophysical features.

Minor works were undertaken in EL27364 in the 2012 field season, including geological reconnaissance and some ground magnetic surveys. The transported cover in this title sabotaged attempts to locate outcrop for ground-truthing and mapping. In the 2013 field season, shallow drilling to refusal may be undertaken to obtain bedrock samples.

In EL27365, soil sampling at Lead Prospect defined an area of elevated lead, seemingly associated with a quartz breccia unit within granite. However, drilling from EL28857 did not intersect the unit at depth and no further work is planned in this Prospect. Two rock chips from an ironstone ridge returned anomalous base metal and gold results and will be followed up in 2013 field season.

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