

Caranbirini Project

ANNUAL REPORT FOR THE PERIOD 3rd August 2020 to 2nd August 2021

EL32347

ABN: 35 091 271 911

Tenure Holder: Teck Australia Pty Ltd

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Trade (NT)
Teck Australia Pty Ltd

Teck

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Bibliographic Data

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**Unless specified, all maps, plans, and illustrations in this report are shown using the Map Grid of Australia (MGA94) projection, which is based on the GDA94 (zone 53) datum.*

Executive Summary

The Caranbirini Project Area is situated within the prospective Batten Fault Zone of the McArthur Basin, with the primary exploration target being sediment hosted massive zinc-lead-silver deposits of the McArthur Group. EL32347 covers an area of 165 km² on the northern end of the Teck operated Reward project. Teck Australia Pty Ltd acquired the Caranbirini licence EL32347 on the 3rd of Augusts 2020 and has been the sole operator and tenure holder since then.

Since acquiring the licence Teck Australia has focused on compiling all the historic data and integrating it into company internal data formats and database storage. Due to travel restrictions imposed by the COVID pandemic limited field work has been completed for this reporting year restricted to a reconnaissance field visit and a drill core viewing trip.

For the current reporting period, a total of \$18,076 was spent on the Caranbirini EL32347 tenure.

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1 Introduction

This report summarizes the 2020/2021 exploration activities conducted over EL32347 referred to as the Caranbirini Project. EL32347 is situated within the highly prospective Proterozoic McArthur Basin, just to the north of the world class McArthur River (HYC) zinc-lead-silver deposit and Teck's Teena discovery. This is the first Annual Report submitted by Teck Australia Pty Ltd since acquiring the permit on the 3rd of August 2020.

Work was focused on compiling all the historic data and integrating it into in-house data formats and database storage. In-house interpretations were also initiated. Due to travel restrictions imposed by the COVID pandemic limited field work has been completed for this reporting year restricted to a reconnaissance field visit. A visit to the Darwin core library to view the CPDH-006 Caranbirini drill hole was completed in September and will be reported in the next annual report.

Teck is exploring the project for sediment hosted massive zinc-lead-silver deposits of the McArthur Group. This annual report details work undertaken on EL32347 by Teck during the reporting period from 3rd August 2020 to 2nd August 2021.

2 Location and Access

The Caranbirini project is situated in the north-east of the Northern Territory (Figure 1), ~700 kilometres southeast of Darwin, 7km north of McArthur River Mine and Teck's Teena discovery.

Main access to the tenure location from Darwin is via the Stuart Highway to Daly Waters (~550km), then eastward via the Carpentaria Highway to Caranbirini (~350km).

The nearest sizeable township is Borroloola which is located approximately 45km to the north of the project. Borroloola has a permanent population of 871 people (2016 census). Land use in the region is predominantly cattle grazing on large pastoral holdings. The Caranbirini Project lies within the McArthur River station (Figure 2).

The Caranbirini Conservation Reserve lies within an area excised out of the tenure (Figure 2).

The following Determined Native Titles cover the Caranbirini project area:

- Federal Court #: NTD17/2014, Tribunal #: DCD2015/008, Name: McArthur River Pastoral Lease

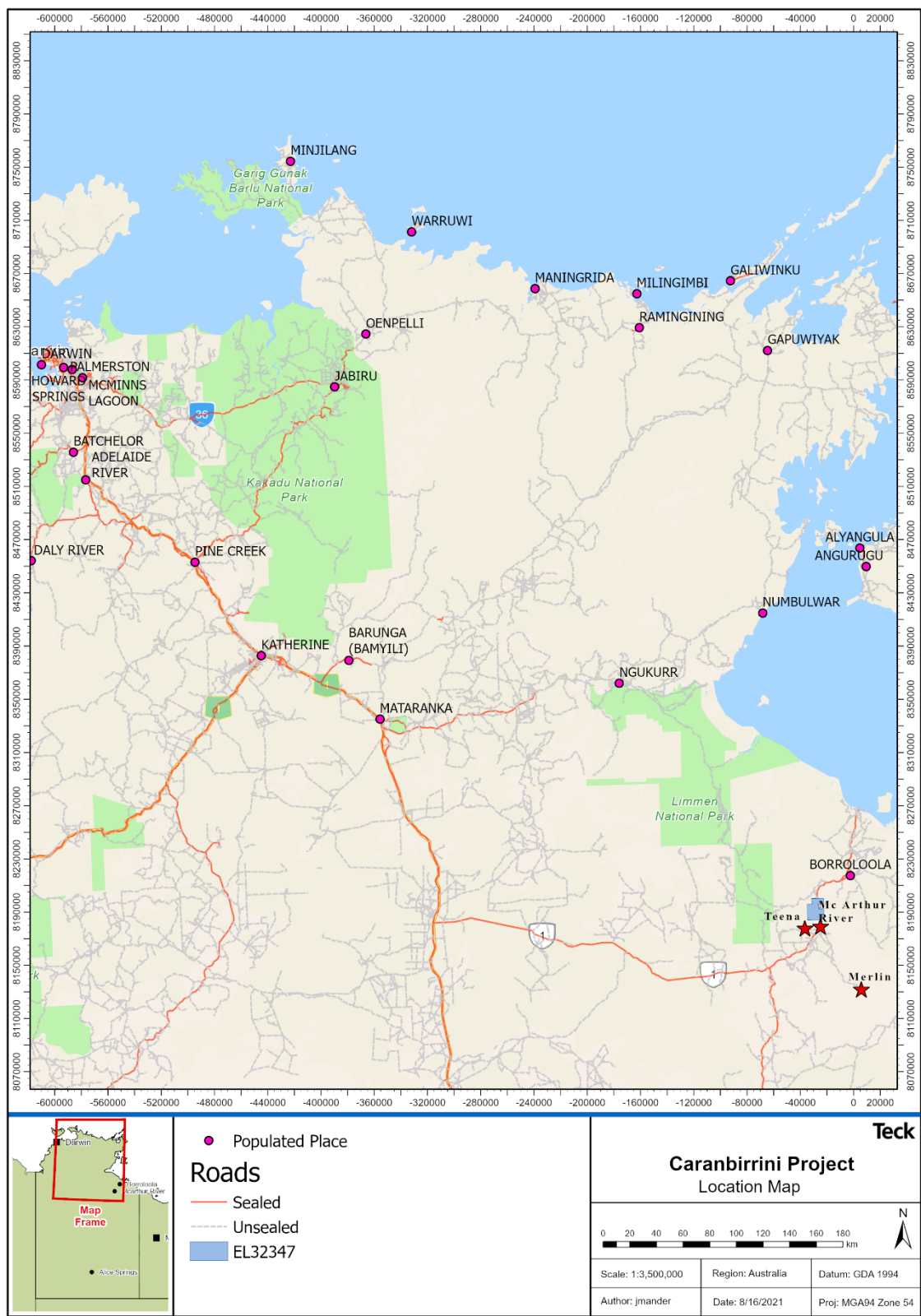


Figure 1: Regional location of the Caranbirini Project.

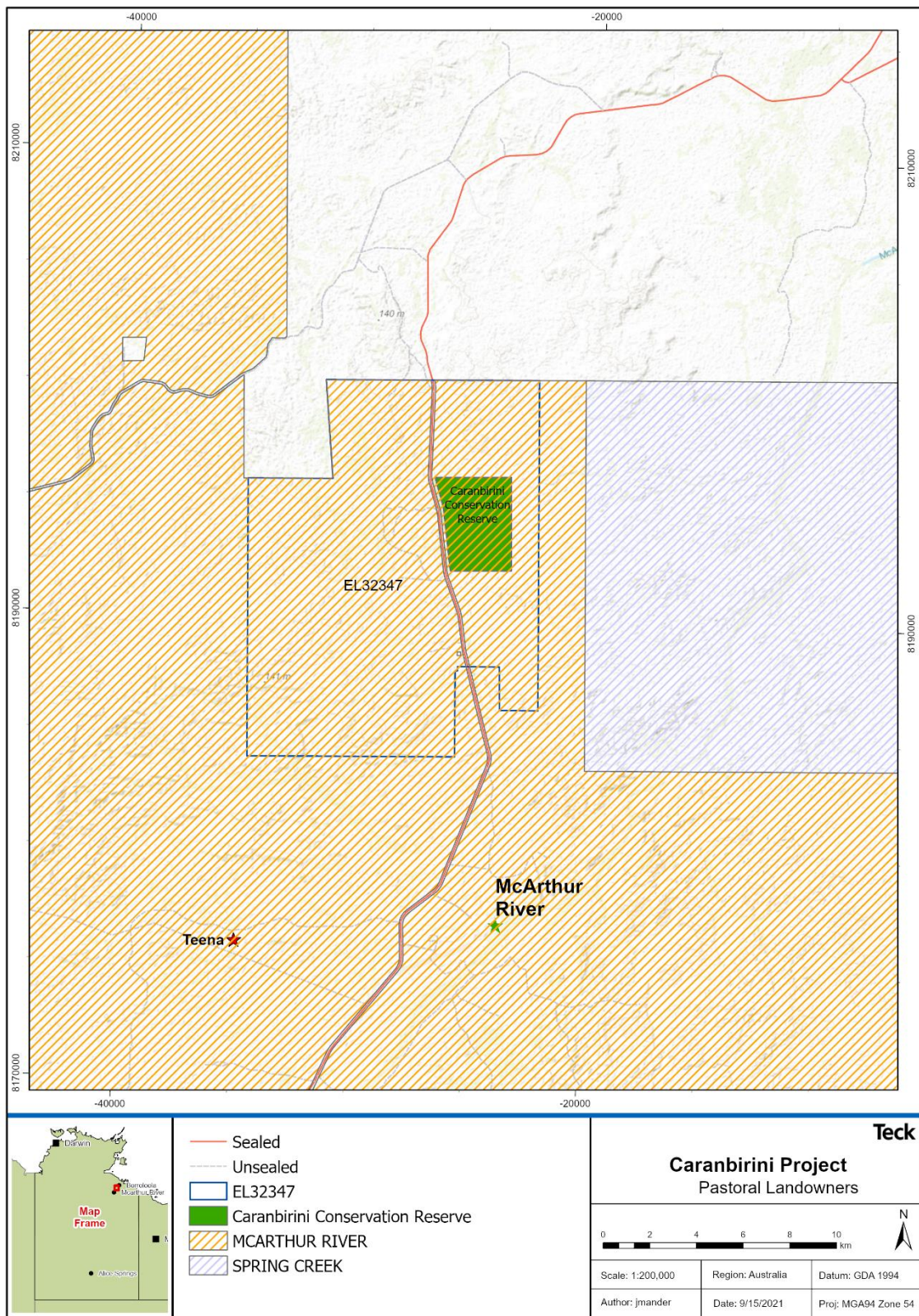


Figure 2: Map showing landholders covering Caranbirini project.

3 Tenure Information

The Lamont Pass Project EL32347 was granted to Teck Australia on the 3rd of August 2020 for a term of six (6) years and will expire on 2 August 2026. The permit comprises 57 sub-blocks and lies within the Bauhinia Downs SE53-03 1:250K map sheet.

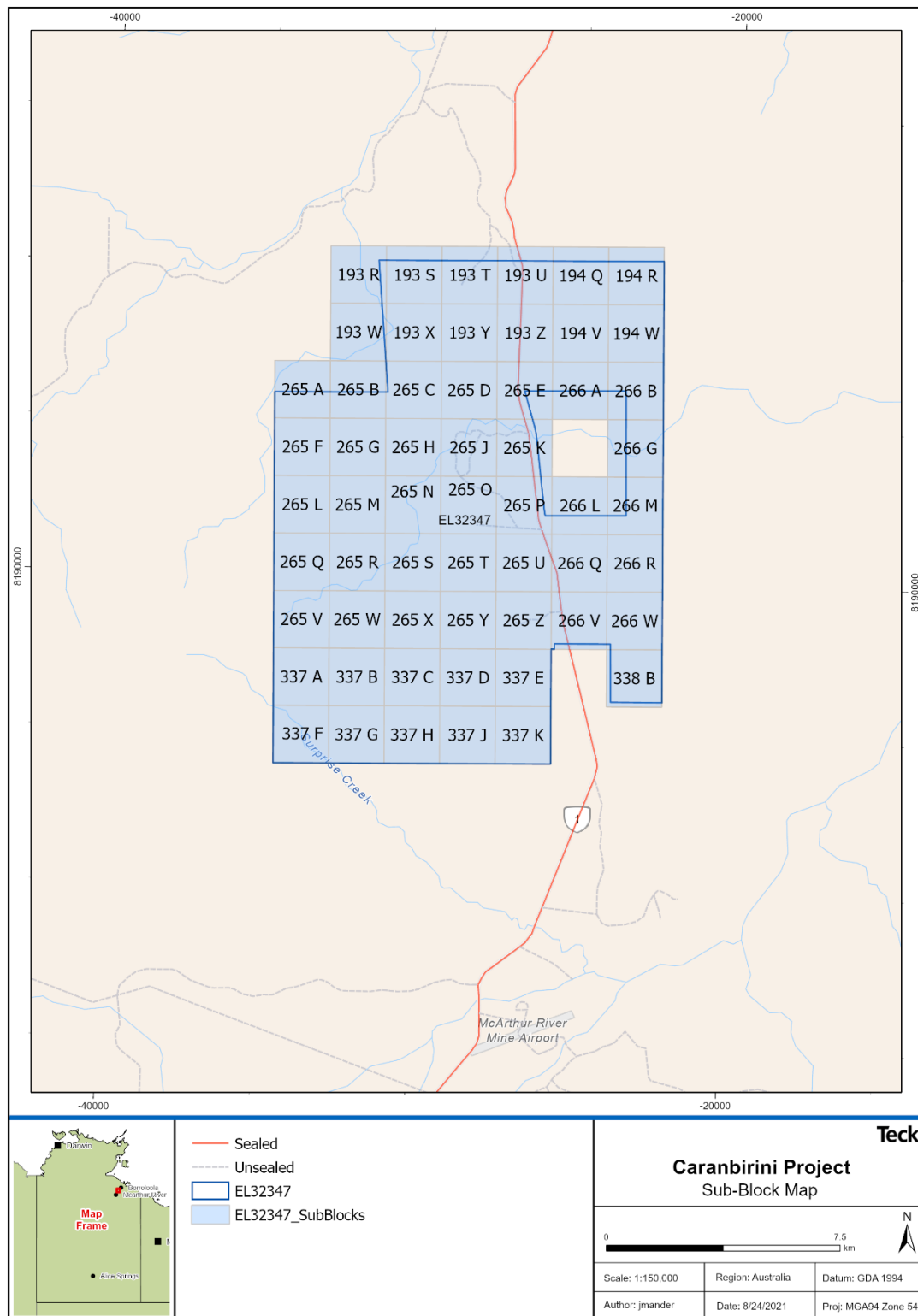


Figure 3: Tenement Sub-block plan for EL32347.

4 Geology

4.1 Regional Geology

The Proterozoic Isa Superbasin, which includes the McArthur and Mt Isa Basins, hosts several of the world's largest SHMS Zn deposits in what is also known as the Carpentaria Zn Province. The Caranbirini project lies within the Emu (Batten) Fault Zone of the southern McArthur Basin, most of it covering the north-eastern Northern Territory extending over the border into the state of Queensland (Figure 4). Major tectonic elements are shown in Figure 5. The southern McArthur Basin comprises a sequence of Late Paleoproterozoic to Mesoproterozoic clastic sediments, evaporitic carbonates, basaltic and rhyolitic volcanics and mafic intrusions (Rogers, 1996). Phanerozoic strata of the Georgina, Carpentaria and Arafura basins unconformably overlie the McArthur Basin succession. Current basin models show the McArthur Basin as comprising several north-trending asymmetric rifts or grabens separated by northwest trending faults and transverse ridges (Ahmed et al. 2013). In the past, two north-trending troughs (Walker and Batten troughs), separated by the east-trending Urapunga Tectonic Ridge have been identified (Figure 5) (e.g. Plumb and Derrick 1975, Plumb et al. 1980). Later, studies by Rawlings et al. 2004 and others have shown that the troughs are zones of faulting and have been named the Walker Fault Zone (WFZ) and Batten Fault Zone (BFZ) (Rawlings et al. 2004).

Within the NNW-trending Batten Fault Zone there are four main sequences separated by unconformities, from oldest to youngest these include the Tawallah, McArthur, Nathan and Roper Groups (Pietsch et al. 1991). The stratigraphic relationships of these units are summarized in Figure 6. The four stratigraphic packages were deposited in shallow marine, alluvial/fluviol and lacustrine intracratonic settings (Rawlings et al 1993).

Both the McArthur River (also known as HYC) and Teena deposits are hosted within the Batten Fault Zone in close proximity to the north trending Emu Fault Zone. The eastern margin of the Batten Fault Zone is defined by the Emu Fault Zone and the western side is mainly covered by the Roper Group. Multiple 3rd order sub-basins are developed on either side of the Emu Fault Zone under moderate cover. The Caranbirini project area lies mostly on the Cambrian-aged Bukalara Sandstone which covers the Palaeo-/Mesoproterozoic sequences.

The McArthur Basin, together with the Mount Isa Basin as its lateral equivalent, forms one of the largest zinc provinces on Earth, which preserves several world-class sediment-hosted Zn-Pb-Ag deposits. Additionally, diamonds have been the target of previous exploration in the South Batten project area.

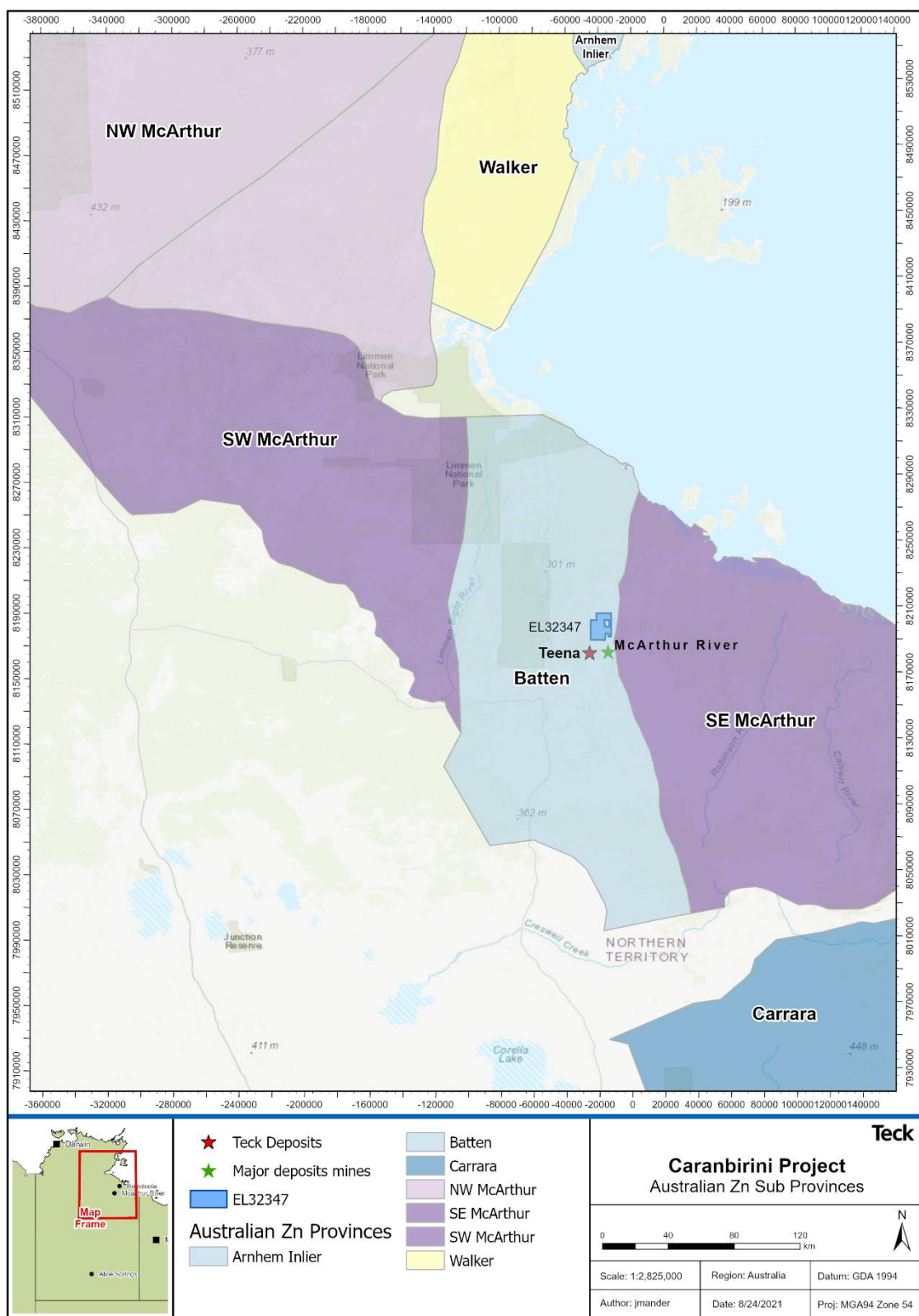


Figure 4: Regional map showing the Caranbirini Project location within the southern McArthur Basin Zn province.

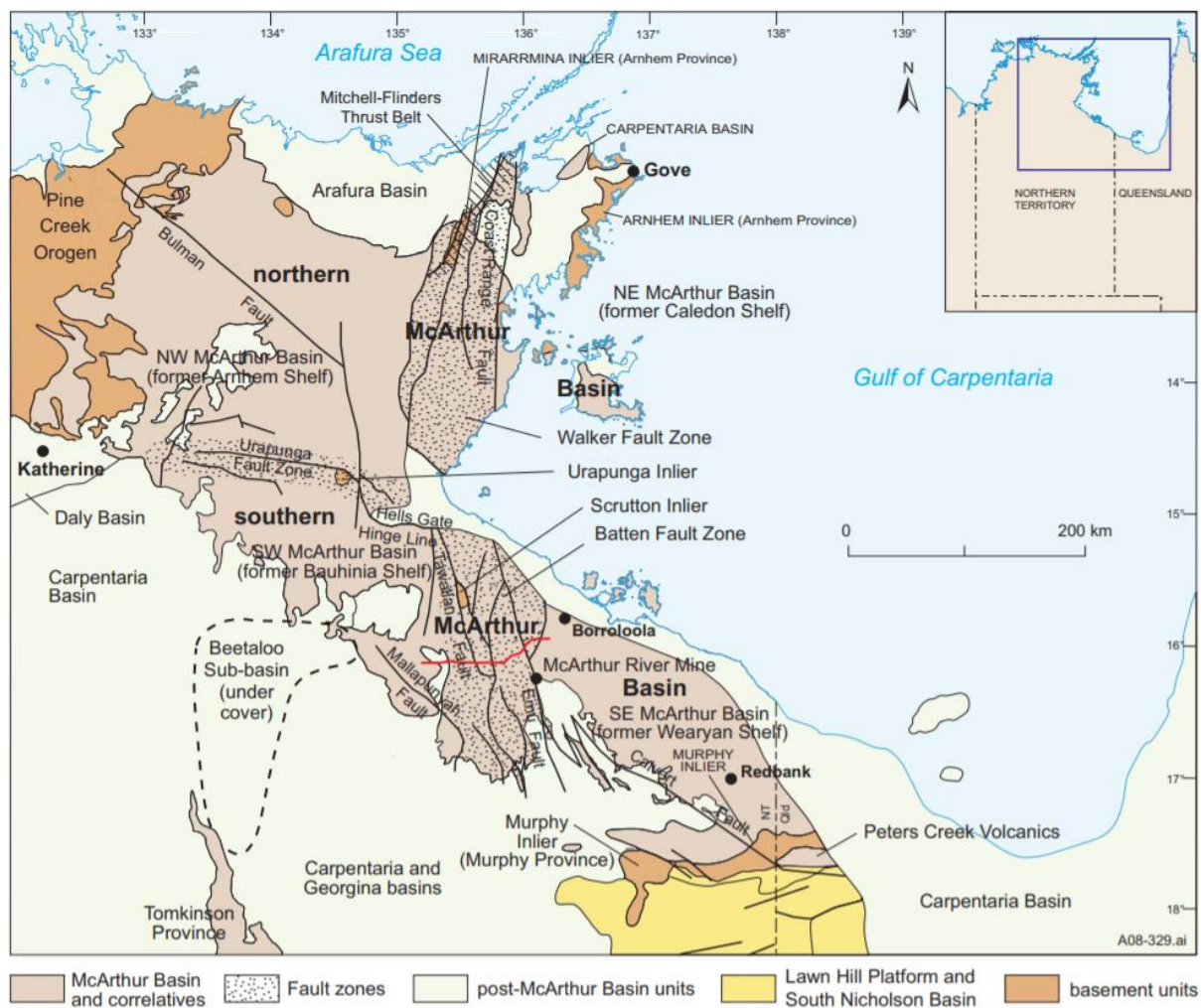


Figure 5: Main tectonic elements of the McArthur Basin (from Ahmad et al. 2013).

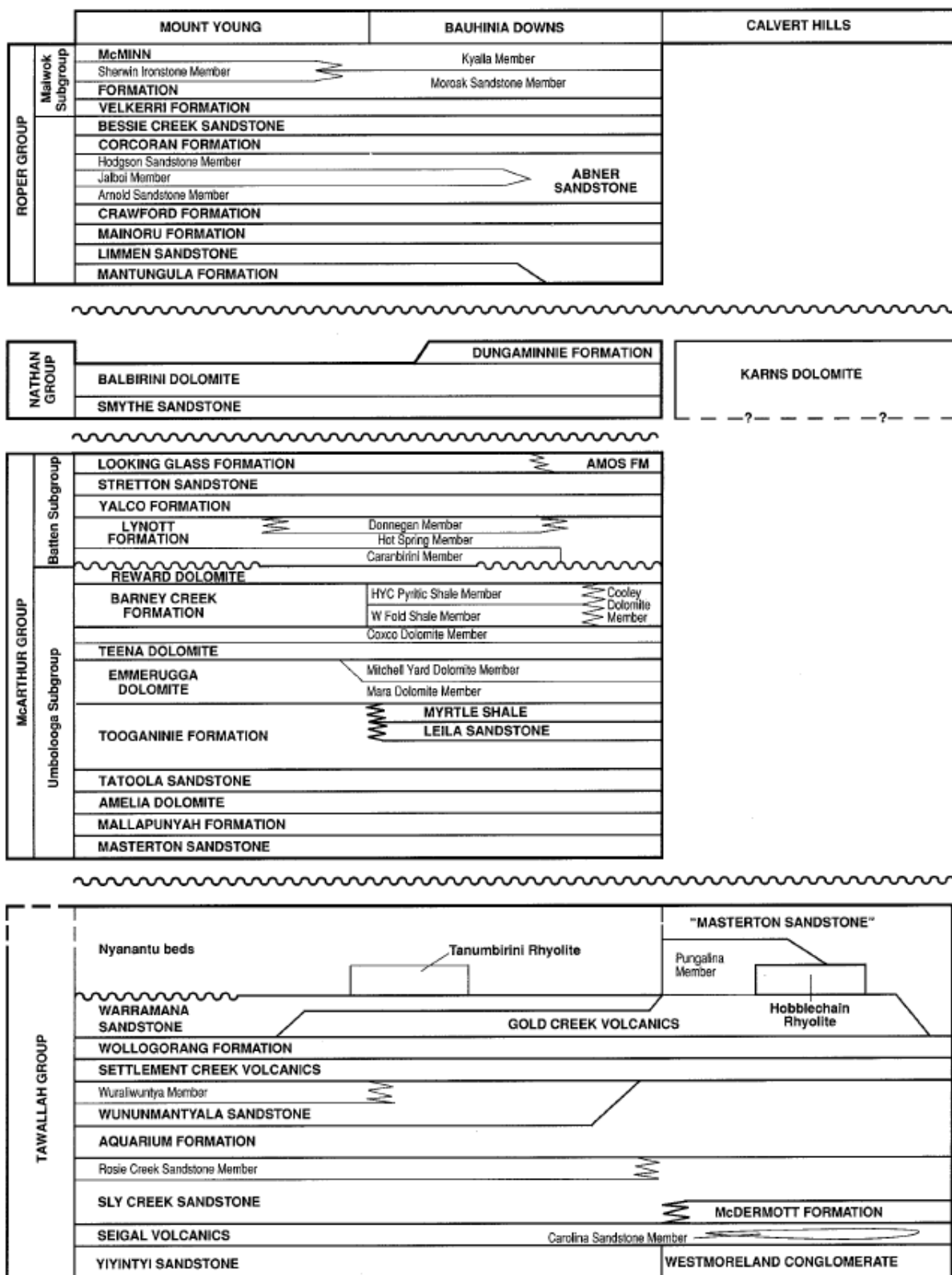


Figure 6: Proterozoic stratigraphy of the southern McArthur Basin (from Pietsch et al. 1991).

4.2 Local Geology

The Caranbirini exploration permit contains several main stratigraphic units within the McArthur Group, which are summarized below, as indicated by drill holes within the tenure. The geological surface map (modified from NTGS 1:250 000 Bauhinia Downs) is presented in Figure 7.

The east side of the Caranbirini Project area is buried under unconformable Roper and Georgina Superbasins, whereas the west side of the licence has outcrops of the McArthur Group, mainly the Batten Subgroup with small areas of outcropping Barney Creek Formation and rare Cainozoic cover. The west part shows a more complex structural geology characterized by faulted Proterozoic rocks. The Caranbirini area has a limited history of exploration and includes ~15 diamond drill holes drilled by previous explorers mainly along the central part of the permit. The drill holes confirm the presence of thick, locally pyritic BCF with minor to high Zn- Pb-Cu anomalism and also highly anomalous Zn has been intercepted within veining in the overlying Caranbirini Formation.

Teck's focus within the Caranbirini project is the McArthur Group which is described as a sequence of interbedded carbonates, lutites and arenites confined to the BFZ and is further divided into the Umbolooga Subgroup and the overlying Batten Subgroup (Pietsch et al. 1991). The host lithologies of the Barney Creek Formation are found within the upper parts of the Umbolooga Subgroup. A detailed description of the stratigraphy of the McArthur Group is provided in Table 1. Outcrops of the McArthur Group are mainly confined to the eastern side of the tenure along the Batten Fault Zone (Ahmed et al. 2013).

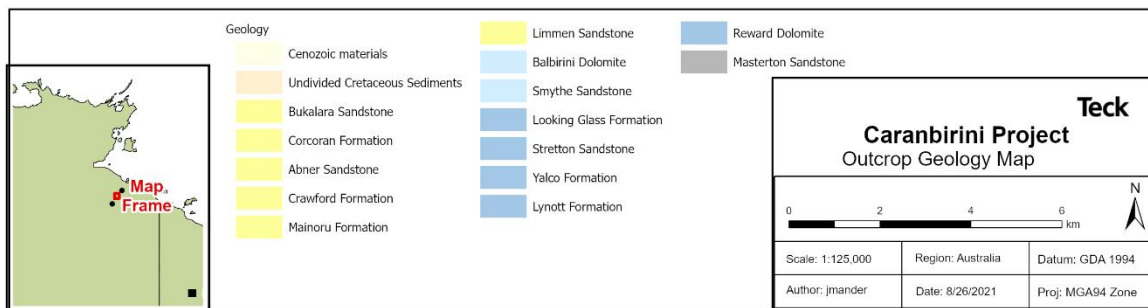
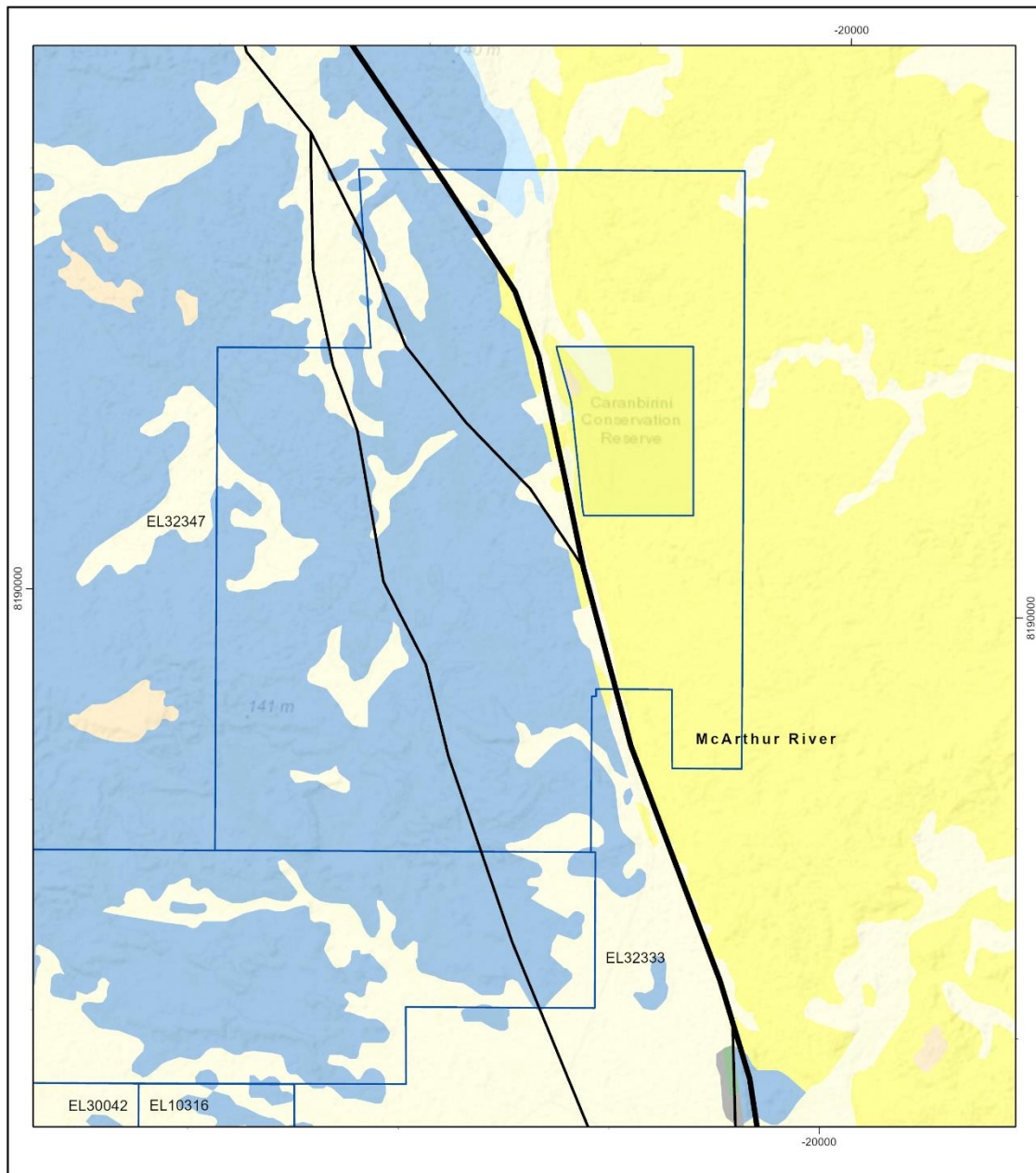


Figure 7: Modified NTGS 1:250 000 Geological Map Caranbirini Project area.

Unit, thickness, age	Lithology	Depositional environment	Stratigraphic relationships
BATTEN SUBGROUP			
Amos Formation <70 m 1614 ± 4 Ma	<i>Upper-</i> Massive karstic-weathering dark-grey to yellow-grey recrystallised dolostone <i>Lower-</i> Red siltstone, fine sandstone, sandy dolarenite and dolostone	Upper 30 m probably represent calcrete and the lower part of the formation represents a classic redbed environment. The middle part may be deposited under shallow-marine conditions	Disconformable lower contact. Unconformable upper contact with Nathan Group.
Looking Glass Formation 30–70 m	Silicified, commonly stromatolitic dolostone; dolarenite and sandy dolarenite	Peritidal–shallow-marine	Conformable lower contact. Upper contact with Amos Formation may be erosional
Stretton Sandstone <5–270 m 1625 ± 2 Ma	Fine- to medium-grained, thinly bedded quartzarenite; distinctive wavy bedding, small ripples, toolmarks, mudclast casts, desiccation cracks and convolute bedding	Shallow-marine to sub-wave base	Conformable upper and lower contacts
Yalco Formation <50–250 m	Ridge-forming; thinly interbedded stromatolitic dololomite, silty dololomite, dolarenite and minor sandstone with abundant chert nodules and laminae; abundant small domal stromatolites and common desiccation cracks, tepee structures and gypsum pseudomorphs	Shallow-marine to emergent	Conformable upper and lower contacts
Lynott Formation 50–600 m			
<i>Donnegan Member</i> 0–134 m 1636 ± 4 Ma	Dolomitic siltstone, fine- to coarse-grained dolomitic sandstone and dolarenite; thinly to medium bedded, commonly rippled and cross-bedded; small botryoidal quartz nodules (cauliflower chert and enterolithic chert)	Peritidal, supratidal to sabkha on stable platform	Conformable upper and lower contacts
<i>Hot Spring Member</i> 50–350 m	Thinly bedded dolomitic siltstone and silty dololomite with interbeds of fine-grained sandstone, chertified stromatolitic dolostone, dolarenite, sandy dolarenite and dolomitic sandstone; siltstone and dololomite commonly contain chert pods; sandstone, rippled and cross-bedded, stromatolite mainly stratiform and domical; common desiccation cracks, tepee structures and pseudomorphs after sulfate evaporites and halite	Intertidal to supratidal flats, sporadic brine logging	Gradational upper and lower contacts
<i>Caranbirini Member</i> 0–400 m	Thinly bedded laminated dolomitic siltstone and shale, in part carbonaceous and pyritic; silty dololomite, dololomite; minor fine-grained dolarenite and lenses of slump breccia; uncommon ripples and evaporite mineral casts; small vertical fractures and fenestrae commonly filled with calcite and/or chert	Submarine grading upward to intertidal deposited in actively subsiding sub-basins	Disconformable or unconformable over Reward Dolostone.
UMBULOOGA SUBGROUP			
Reward Dolostone 30–350 m	Dololomite, stromatolitic dololomite, silty dololomite and dolarenite with lesser sandy dolarenite, dolerudite and sandstone; laminated, thinly to massive bedded, cross-bedded, brecciated and slumped; pseudomorphs after sulfate evaporites; onkoids, ooids, small silica spheroids; pseudomorphs after pyrite (pyritohedron)	Shallow-marine upward-shallowing cycles, local high-energy to peritidal	Generally conformable but locally disconformable upper and lower contacts
Barney Creek Formation 10–900 m+ 1640 ± 4 Ma	Thinly bedded to laminated, dolomitic, carbonaceous and pyritic shale and siltstone, dololomite, rare breccia and sandstone; occasional gypsum casts; talus slope breccia adjacent to Emu Fault	Basinal shale deposited in actively subsiding sub-basins	Conformably overlies Teena Dolostone and is conformably overlain by Reward Dolostone
Teena Dolostone			
<i>Coxco Dolostone Member</i> 15–70 m	Grey crystalline dololomite with radiating, needle-like gypsum crystal pseudomorphs normal to bedding; rare conical stromatolites; uncommon thin intervals of dolomitic shale and siltstone	Seafloor cement associated with transgression and upwelling	Conformably and gradationally overlain by Barney Creek Formation
<i>lower Teena Dolostone</i> <60 m	Thinly bedded to laminated dololomite, silicified in places; dolomitic shale and sandstone, intraclast breccia and conglomerate, and dolarenite	Marine, partly below wave base. Upward-shallowing cycles	Conformably overlies Emmerugga Dolostone
Emmerugga Dolostone 620 m			
<i>Mitchell Yard Dolostone Member</i>	Massive, dark grey, karstic-weathering, crystalline dololomite; lacks obvious internal sedimentary structures	Possible deep marine	Conformably overlain by Teena Dolostone
<i>Mara Dolostone Member</i>	Dololomite, stromatolitic dololomite, dolomitic siltstone, dolarenite and dolomitic breccia; columnar, domal and conical stromatolites, often forming bioherm series; common halite casts and quartz nodules after evaporites	Shallow-marine, peritidal and flanking carbonate sabkha	Conformably overlies Myrtle Shale and in turn conformably overlain by Mitchell Yard Dolostone or Teena Dolostone.

Unit, thickness	Lithology	Depositional environment	Stratigraphic relationships
Myrtle Shale 40–60 m	Thinly bedded to laminated, commonly dolomitic siltstone, shale and fine-grained sandstone (halite casts common); dololite (in places stromatolitic)	Lagoonal and/or low-gradient alluvial plain	Conformable and gradational upper and lower contacts
Leila Sandstone <10–30 m	Dark grey-weathering dolomitic sandstone; fine- to coarse-grained, poorly sorted, thinly to medium bedded, commonly cross-bedded and rippled; thin interbeds of sandy dolostone	Shallow marine	Conformable and gradational upper and lower contacts
Tooganinie Formation ca 200 m	Dololite, stromatolitic dololite (stratiform, domal, columnar and conical forms), dolomitic shale and siltstone, ripple-marked and cross-bedded dolarenite and sandstone; common desiccation cracks and pseudomorphs after gypsum and halite; breccia beds and ooids in dolarenite	Peritidal marine to emergent shoreline, possibly deepening to the south	Conformable and gradational upper and lower contacts
Tatoola Sandstone 80–350 m	<i>Upper:</i> ridge-forming, mainly medium-grained, thinly to medium bedded and rippled sandstone with shale clasts and evaporite mineral casts and moulds. <i>Lower:</i> flaggy, thinly bedded, usually fine-grained sandstone; thinly bedded shale and siltstone (dolomitic in places) and very fine-grained sandstone at base; abundant small-scale cross-beds, pinch and swell, tool marks, ripples and mud clast impressions. Several recessive dolomitic units consisting of dololite, dolomitic siltstone, stromatolitic dololite and dolarenite	Changing up-sequence from clastic peritidal to mixed carbonate/siliciclastic subtidal beach to peritidal	Conformable and gradational upper and lower contacts
Amelia Dolostone 50–180 m	Recessive; stromatolitic dololite (stratiform, domal, conical and columnar forms) and silty dololite with interbeds of dolarenite and infrequent shale and rare fine-grained sandstone; ooid, brecciated and conglomeratic intervals common; localised development of diagenetic sideritic dololite	Broad marginal marine, remobilised evaporites and brine flushing	Conformable upper and lower contacts
Mallapunyah Formation 100–ca 450 m	Mainly recessive; red to purple dolomitic, cross-bedded sandstone interbeds; stromatolitic dolostone, more prevalent in the upper part of the formation; common botryoidal quartz nodules (cauliflower chert), ripples, desiccation cracks and gypsum and halite casts and moulds	Continental and coastal sabkha	Lower contact conformable and gradational. Conformably overlain by Amelia Dolostone
Masterton Sandstone 40–650 m	Ridge-forming; pink, brown and buff, fine- to medium-grained, moderately sorted quartzarenite; thinly to thickly bedded, cross-bedded (planar and trough) and extensively rippled; very fine-grained sandstone and siltstone form generally recessive minor units; distinctly ferruginous mottled sandstone with halite and gypsum casts and pseudomorphs mainly in uppermost beds; basal sandstone conglomerate	Alluvial fan and braided river base, the remainder very shallow-marine and intertidal to supratidal	Unconformable on various units of the Tawallah Group. Lower contact marked by basal conglomerate

Table 1: Stratigraphy of the McArthur Group (after Ahmed et al. 2013, modified from Pietsch et al. 1991).

4.3 Exploration Rationale

The Caranbirini project area covers a 15km segment of the north-south trending Emu Fault Zone, a major regional structure that is believed to control the formation of the nearby McArthur River Zn-Pb-Ag sediment-hosted massive sulfide (SHMS) deposit. Sub-basin formation associated with the Emu Fault Zone and the connected east to east-northeast trending Bald Hills Fault was critical to the formation of Teck's Teena SHMS deposit (Reward Project), located approximately 8km west of McArthur River.

Teck considers that similarly oriented and connected east-northeast trending faults within the Caranbirini area may have created sub-basin architecture and syn-sedimentary growth analogous to Teena. The project area is contiguous with Teck's Reward Project tenure and is situated within a regional SHMS targeting framework. The Caranbirini area includes several potential targets of interest to Teck that have not been effectively tested. The primary host unit being targeted is the Barney Creek Formation (BCF), which hosts all major SHMS occurrences within the Batten Trough.

JOGMEC recently completed two deep diamond drill holes, through an earn-in/JV arrangement with Marindi Metals. Drilling confirmed the presence of thick, locally pyritic BCF with minor Zn- Pb-Cu anomalism in one hole and a thin, highly anomalous Zn intercept within veining in overlying Caranbirini Formation in the other.

Teck has had a long-term presence and exploration focus within the Batten Trough. The company continues to target major Zn-Pb-Ag SHMS deposits along the Emu Fault Zone and regards the Caranbirini project area as potentially prospective.

5 Previous Exploration

The McArthur Basin presents one of the most significant base metal provinces of Australia and hosts over three hundred mineral occurrences with significant mining activity closest to the Caranbirini tenure restricted to McArthur River mine site (Ahmad et al. 2013). Historical mineral exploration has focused on base metals (lead, zinc, silver, copper), uranium, iron ore, manganese, barite and phosphate (Ahmad et al. 2013).

Previous exploration in the Southern Batten province area has been focussed on zinc-lead, copper and diamonds. Following the discovery of the nearby McArthur River deposit in the 1950s, there has been extensive exploration for similar Zn-Pb-Ag deposits. Diamond exploration activities through the 1980s and 1990s led to the discovery of the nearby Merlin diamondiferous kimberlite field.

The Caranbirini project area is historically, relatively underexplored with various programs having taken place covering the area and surrounding permits. The most recent activity includes exploration activity by Marindi Metals (2007-2019) which is summarised below:

- In the first years of tenure to 2008 to 2010, desk top studies were completed. In 2011 a VTEM survey was completed over the project area. The VTEM survey identified 11 conductive targets for McArthur River Pb-Zn-Ag style mineralisation. Four diamond drill holes were drilled to test three of the VTEM anomalies, with elevated Zn values intersected in two holes and elevated silver in one hole.
- During the 2016 / 2017 reporting period Marindi applied for a grant under the Innovation Connections Program. In cooperation with the CSIRO, Marindi established a geological and structural 3D model using a combination of geophysical and geochemical techniques. This included reinterpretation of the VTEM survey, relogging and reinterpretation of historical drilling, including hyperspectral analysis of historic core and a 2017 ground gravity survey over the project area on a 500m x 500m grid.
- In 2017-2018 an infill gravity survey was completed and a soils geochemistry program on a 500m x 100m grid was done over the entire project area. A further three drill holes were also drilled, but no significant mineralisation intersected.
- Prior to Marindi Metals, Brumby Resources (merged with Marindi Metals in 2015) compiled the previous exploration data, flew a Falcon Gravity survey jointly with Armour Energy, drilled one 1275m drillhole, and undertook a basin wide Frogtech study on tenure within Caranbirini.

A compilation of previous exploration activity in the Caranbirini area has been compiled by Marindi Metals Pty Ltd is summarised in a modified Table 2 below:

Year(s)	Company	Tenure	Commodity	Exploration Work	Results
1967-1971	CEC	AP1748	Cu, Pb, Zn, Ag	Geological mapping, Regional IP survey, Detailed IP and resistivity surveys, Geophysical interpretation, Diamond drilling, Stream sediment and soil sampling, Auger drilling RC Drilling (80holes, 34,370ft) Diamond Drilling (63 holes, 28,050ft)	IP anomalies were drilled, Regionally high content of Pb-Zn in the Amelia Dolomite, Geochem anomalies were verified by geophysical surveys and follow up drilling
1972-1976	CEC	EL598	Cu, Pb, Zn, Ag	Soil Sampling, Geological mapping, Diamond Drilling (6 + 11 holes) at Buffaloo Lagoon, Ridge II, Cooley 1, Emu, West-Fold (outside?) 1974 Diamond Drilling: 21 holes at W=Fold, 11 holes at Wickens Hill, 3 holes at Emu 1975 Diamond drilling: 7 holes at Emu, Wickens Hill, Cooley and Ridge and 12 holes at HYC (outside) 1976 Diamond drilling: 5 holes at HYC, 7 holes at Emu, Buffalo, and Teena and 8 holes at Bulburra, 3 holes at Squib and Coxco (Emu Fault Project)	
1977-1983	Amoco (brief joint venture with Kennecott) and JV with CRA Exploration	EL1332, E1803	Cu, Pb Zn, Hydrocarbons	Airborne Input EM/magnetics and spectrometry, ground IP and geochemistry (rock chip and stream sediment sampling), percussion drilling and three diamond drill holes, Air photo interpretive geology to identify shallow BCF. CRA Exploration drilled 13 percussion holes and one diamond drill hole (DD82CA1) after entering to a joint venture with Amoco in 1982. outlined basinal structures known to contain the prospective Barney Creek Formation. During 1983 CRAE drilled a further two diamond drill holes, recording weak Cu and Pb values in silicified Reward Dolomite. An infill gravity survey was conducted and subsequently DD84CA4 was drilled; the fault zone, where drilled, was barren.	Negative results from drilling, a prospective zone, known as the Caranbirini anomaly, showed strongly anomalous geochemical and geophysical responses proximal to the Emu Fault Zone. DD82CA1 intersected Reward Dolomite and Barney Creek Formation; massive pyrite beds were common with traces of sphalerite and some coarse galena. Drilling indicated that the Barney Creek Formation thickens substantially towards the Emu Fault Zone. Gas flows are mentioned in GR9, which is located ca 75 km SSE of Caranbirini. EL1803 considered to be prospective but taret depth too great.

1984-1986	Amoco, CRA	EL4169, EL4234	Cu, Pb Zn	Diamond Drilling (inside) DD83CA2 (687.9m) DD83CA3 (717.6m) DD84CA4 (615m) Physical property tests	DD83 CA2 best intersection 0.5m at 6.45%Pb, 4.85%Zn and 11gm/t Ag from 387.5m DD83 CA3 best intersection 3m at 0.85%Pb, 7.25% Zn and 9.5g/t Ag from 663m DD84 CA4 best intersection 2m at 1.4%Pb, 1.3% Zn, 9.5gm/t Ag from 520.9m. Weak mineralization encountered in Reward Dolomite and
1992-1995	BHP	EL7576	Diamonds, Cu, Pb, Zn	125-line km of airborne TEM/magnetics and collected 23 soil samples, 54 stream sediment samples and one rock chip sample., RC Drilling (12 holes, outside)	No encouraging results were received from the work conducted
1991-1996	Ashton Mining	EL7302	Diamonds, Cu, Pb, Zn	airborne EM and TEM / magnetic survey (449 line km) and a stream sediment sampling program (205 samples) over sedimentary rocks of the lower Roper Group and the Batten Subgroup (western edge of the lease). Two anomalies defined by the QUESTEM survey of 1992 were followed up with soil sampling. In total 238 stream sediment samples were collected along with 102 soil samples and 16 rock chip samples. Ground TEM surveys were conducted over two anomalies defined by the airborne survey but no conductors found were considered to be worthy of drill testing.	TEM survey defined eight anomalies within the lease and several areas of elevated stream sediment geochemistry were determined. Only one of the TEM anomalies was coincident with a stream sediment anomaly.
1988-1998	MIM	EL6236	Cu, Pb, Zn	Helicopter assisted reconnaissance, sampling (soil and rock chip), mapping, Ground EM, followed by airborne EM and more rock chip sampling. QUESTEM and GEOTEM flown, confirming strongly conductive surface signature. 6 Holes drilled RC, and diamond drilling incl. a total of 425.8 core drilling. Lag sample collection and two discrete anomalies identified. SIROTEM survey conducted to verify deep conductors, but anomalies couldnt be repeated. TEM sounding data acquired, followed by 2 diamond drill holes to test EM anomalies	Geochemical sampling gace no significant anomalies, but several EM targets, after drilling in 1997 to test EM anomalies and no significant mineralisation intersected project downgraded.
1996	MIM	EL8834	Cu, Pb, Zn	Rock chip sampling,	Max value of 110ppm Zn
1993-1999	MIM	EL8078	Cu, Pb, Zn	orientation rock chip sampling program, Questem, Aeromagnetics, Sirotem, Moving loop EM Helimag survey, RC Drilling (11 holes for 976.7m) Diamond Drilling (7 holes,	No significant mineralization
2003-2005	Anglo American	EL23635	Zn, Pb	9 lines of ground TEM survey	The TEM survey had not shown any bedrock conductor responses, which met targetting criteria (explorable depths <300m).
2003-2008	Legend International Holdings	EL25617	Diamonds	Data review, Stream sediment sampling	No diamond indications
2003-2008	Astro Diamond Mines	EL22351	Diamonds	Data review, Stream sediment sampling	HVC Deposit discovery

Table 2: Summary of previous work.

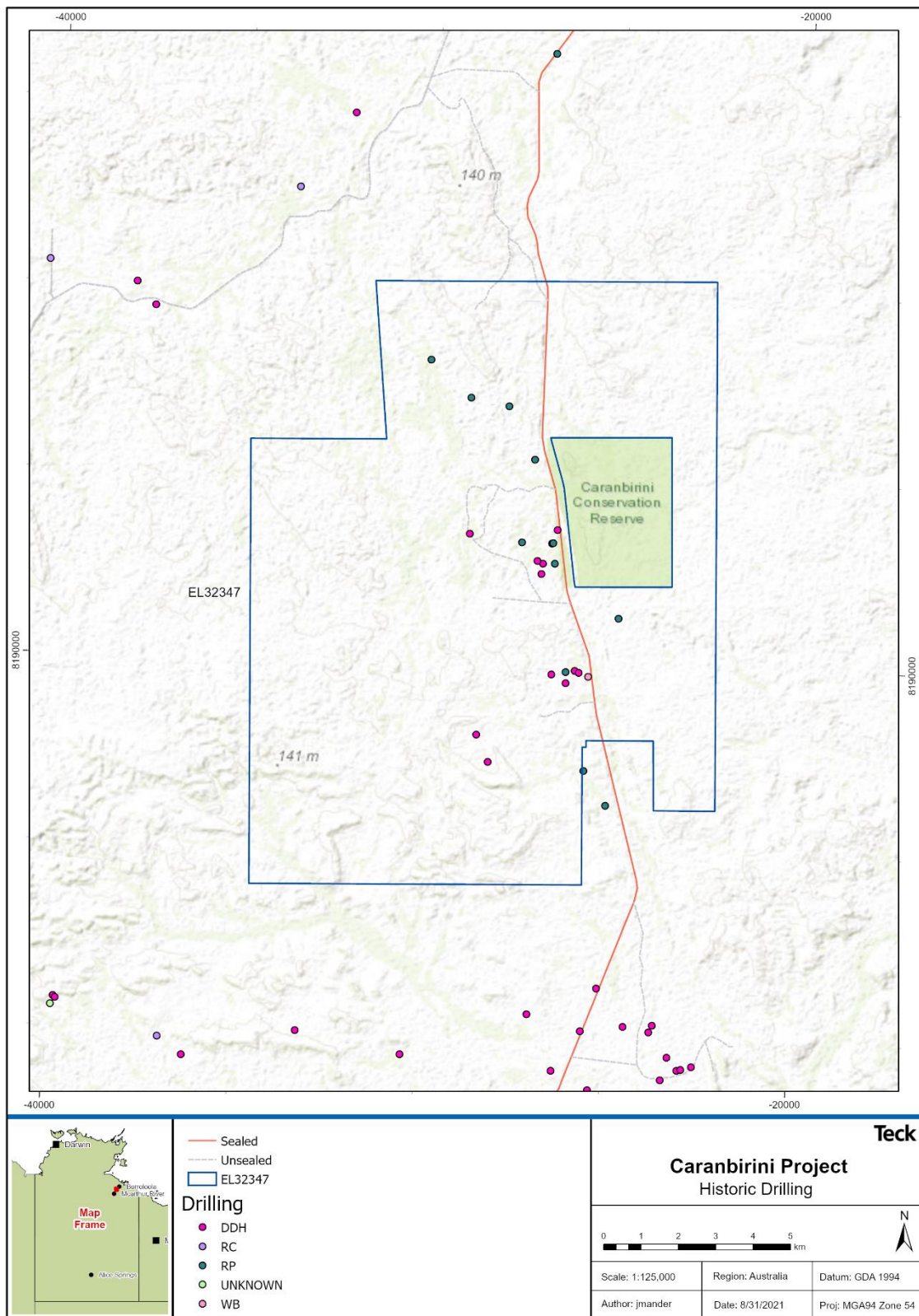


Figure 8: Summary of historic drilling within EL32347.

6 Exploration Activities

This is Teck Australia's first Annual report for the Caranbirini project area. Most of the work in this first reporting year by Teck included compiling the historic data and integrating it into our data formats and database storage. Additionally, preliminary community consultations have been initiated discussing heritage, planned field work, and Teck access in the Caranbirini project area in the upcoming years.

In July 2021 a Teck team visited the Caranbirini Project licence area to conduct initial field reconnaissance. This preliminary site visit was for familiarization and to check access and topography.

A Teck team also conducted a trip to the Darwin NTGS core library to view drill core CPDH-006 in early September 2021 to assess the lithologies and compare the logged stratigraphy against Teck's other regional observations. The black shale units interpreted as BCF by Marindi Metals, were recognised as being anomalously pyrite-carbonate poor, compared to other nearby BCF sequences including those reported at McArthur River (Spinks et al., 2021).

7 Conclusions

Initial synthesis and interpretations of all previously collected data are ongoing for the Caranbirini Project. Early observations have highlighted areas in which Teck will focus their future work, including poorly tested favourable structural settings, where the host lithologies of the Barney Creek Formation are expected to be located at explorable depths.

8 Planned Exploration Work

Work planned in the upcoming year will include finalising data compilation and digitizing historic datasets into the Teck database and continue in-house interpretations to assess what additional datasets may be needed for targeting.

Furthermore, it is planned to review in-house data of previous diamond drill holes, including logged data, downhole wireline data, Assay/XRF and Hylogger data (from co-funded drilling). This information will be used in conjunction with understandings developed from Teena and the greater Reward Project including chemostratigraphic correlations and mineral abundance vectoring. A field trip to re-log some historic drill holes and collect additional data may also be undertaken in the new year.

A review of the more recently released data including surface geochemistry and ground gravity data is also planned.

Finally, additional community relations & land access activities are planned including seeking heritage approvals and/or conducting heritage surveys.

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