Terra Search Pty Ltd
A.B.N. 59 011 073 939
Specialists in Mineral Exploration:
Geology and Computing

Titleholder:	Tellus Holdings Pty Ltd
Operator:	Tellus Holdings Pty Ltd
Tenement Manager / Agent:	Terra Search Pty Ltd
Tenements:	EL27984 Santa Teresa
Project Name:	Santa Teresa
Report Title:	Second Annual and Final Technical Report for EL27984 "Santa Teresa" for the period ending 24 October 2012
Author:	Jaime Livesey
Corporate Author:	Duncan van der Merwe
Company reference number:	TLH2012005
Target Commodity:	Halite (Sodium chloride) and trace minerals
Date of Report:	12 December 2012
Datum/zone:	GDA94 / zone 53
250K map sheet:	SG5302 Rodinga
100K map sheet:	5749 Santa Teresa
Address:	Tellus Holdings Pty Ltd Suite 1, Level 5, 71 Macquarie Street Sydney, NSW, 2000
Telephone:	+61 2 9241 7678
Fax:	+61 2 9241 7691
Email for further Technical details:	jaime.livesey@internode.on.net
Email for Expenditure:	duncan@tellusholdings.com.au

EXECUTIVE SUMMARY

Exploration Licence EL27984 is located in the Amadeus Basin, approximately 55km south of Alice Springs.

Exploration targeting subsurface salt deposits to assess potential evaporitic mineralisation within the Amadeus Basin. Two known salt units are present in the project area, namely the Chandler Formation and the deeper Gillen Salt Member.

Exploration activities to date were limited to regional desktop studies and literature reviews. Tellus has reviewed their tenement holdings and recommended EL27984 be surrendered, so they can focus on other tenements.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

Exploration Licence EL27984 is located in the Amadeus Basin, approximately 55km south of Alice Springs. Tellus Holdings consider this area to be prospective for evaporitic mineralisation.

2. PROJECT DESCRIPTION

Tellus is targeting subsurface salt deposits to assess potential evaporitic mineralisation within the Amadeus Basin. Two known salt units are present in the region, namely the Chandler Formation and the deeper Gillen Salt Member. Exploration activities by Tellus included initial assessment of open file data.

3. LOCATION

The tenement EL27984 is located in the southern part of the Northern Territory, approximately 55km south of Alice Springs (Figure 1). The area can be accessed via station tracks and stock routes.

The tenement occurs on the 1:250,000 sheet area; Rodinga SG5302 and on the 1:100,000 sheet area 5749 Santa Teresa.

4. TENURE

Exploration licences EL27984 "Santa Teresa" was granted to Tellus Holdings Pty Ltd on the 20th October 2010 for a 6 year term. The tenement was surrendered in full on the 24th October 2012. Tenure details are summarized in table 1.

Table 1. Summary of Exploration Licence details.

TENURE	NAME	STATUS	EFFECTIVE_DATE	SURRENDER_DATE	AREA_SQKM	SUBBLOCKS
EL27984	Santa Teresa	Grant	20/10/2010	24/10/2012	77.90	25

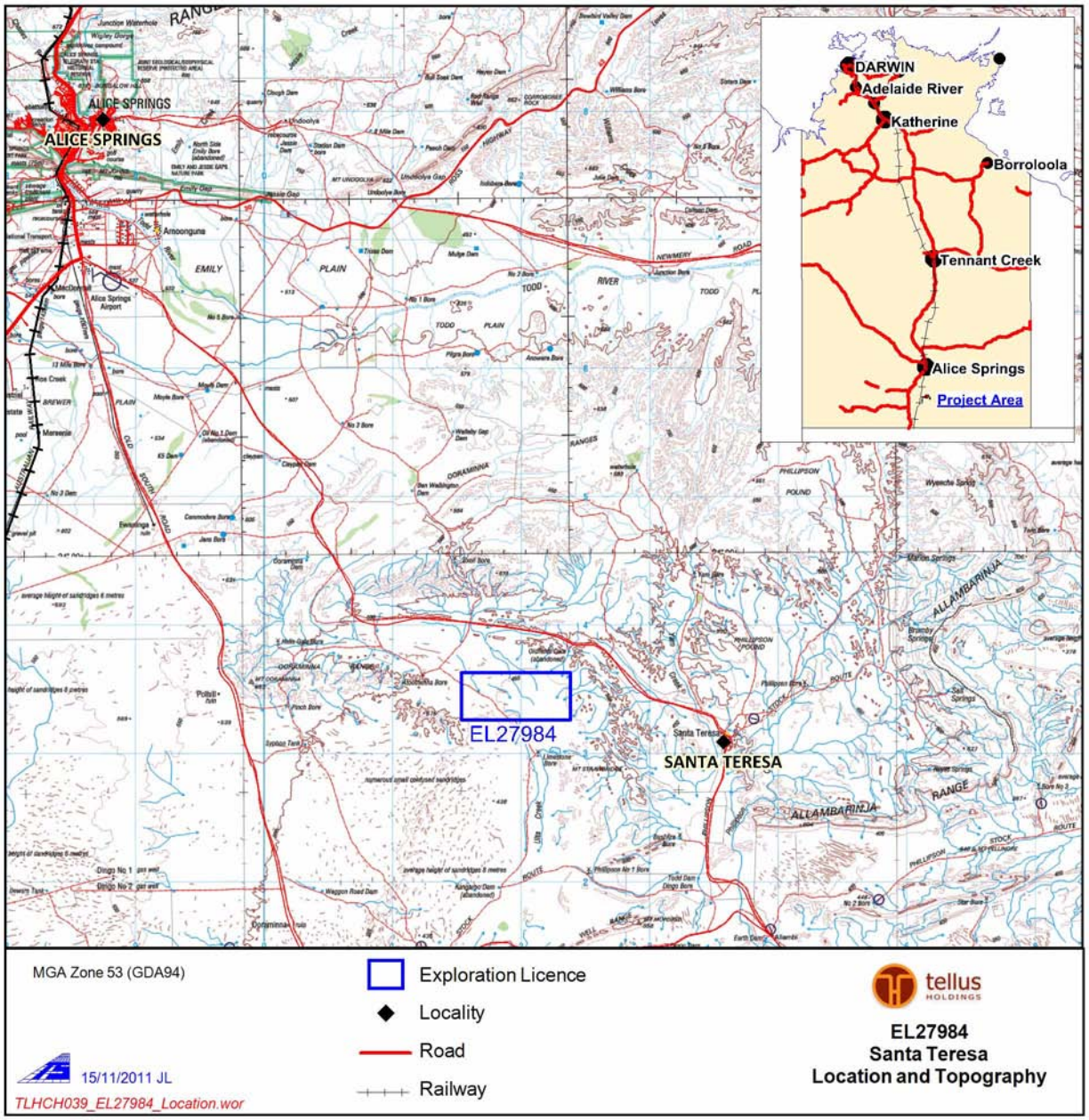

Figure 1. Project Location and Topography

5. REGIONAL GEOLOGY (adapted from Wakelin-King, 1992)

The Amadeus Basin is an asymmetrical, east-west trending, intracratonic depression covering 155000 sq km of central Australia (Figure 2).

The oldest elements of the Amadeus Basin are Neo-Proterozoic units having a very restricted known extent. These units consist of clastic sedimentary rocks and basalts along the south western margin of the basin (Mount Harris Basalt, Bloods Range Beds, Dixon Range Beds) and an unnamed succession of sedimentary rocks, basalt and dacite near Kintore in the north-west. The units have been interpreted as a rift sequence marking the opening of the Amadeus Basin (Lindsay and Korsch, 1989).

The fluvio-volcanic rift sediments are unconformably overlain by epeirogenic clastics of the Heavitree / Dean quartzites, followed by carbonates and evaporites of the Bitter Springs Formation. The Bitter springs Formation is terminated by an erosional surface upon which shallow marine and glacigene sediments of the Inindia Beds and its equivalents in the northern Amadeus Basin were deposited. An unconformity surface within the Bitter springs Formation at or near the top of the Gillen Member has wide extent and can be used as a seismic marker.

The top of the Inindia Beds is marked by a flooding surface upon which deeper water pelagic and turbiditic sediments accumulated. This deeper marine sequence is known as the Winnall beds in the south and the Pertatataka Formation in the north. It shallows upward into shallow marine and fluvial clastics in the south west and oolitic platform carbonates of the Julie Formation in the north. The Inindia Beds are thickest in the west and centre of the basin and are absent from the eastern margin of the basin.

The Late Proterozoic phase of deposition was terminated in the south by the Petermann Ranges Orogeny, a period of mountain building, recumbent folding and northward overthrusting (Wells et al. 1970). Molasse sediments were shed north and north-east from uplifted areas and accumulated in a foreland style basin immediately before the rising orogen (Mt Currie Conglomerate, Ayers Rock Arkose), bypassed the middle and eastern fringes of the basin, and accumulated as a prograding deltaic sequence in the north (Arumbera Sandstone).

The Petermann Ranges Orogeny shaped the framework of the Palaeozoic basin, and a northern trough initiated at this time persisted through most of the Palaeozoic. The southern central and south eastern parts of the basin remained uplifted. Palaeozoic sequences in these areas are generally thin with common significant breaks in accumulation.

During the early Cambrian, continental sedimentation persisted in the north-west (Cleland Sandstone), while shallow marine shales, carbonates and evaporites were deposited in the north-east (Shannon, Giles Creek and Chandler Formations). A widespread transgressive cycle in the Late Cambrian resulted in the deposition of the Goyder Formation.

Two transgressive cycles during the Ordovician resulted in the alternating deposition of tidal flat/barrier bar sands and deeper marine, euxinic muds and silts (Pacoota Sandstone, Horn valley Siltstone, Stairway sandstone, Stokes Siltstone). These sediments form the source-reservoir-seal sequence of the Mereenie and Palm valley hydrocarbon fields in the north-western Amadeus Basin. Of this Larapinta Group, only the Stairway Sandstone persists into the centre and southeast of the basin.

Marine deposition was terminated by the Late Ordovician Rodingan Movement. Uplift of the north-eastern basin resulted in the erosion of up to 3000m of Cambro-Ordovician sediments. This area became the source region for the Early Devonian Carmichael and Mereenie Sandstone. Arid climatic conditions prevailed with sediments transported by both aeolian and fluvial action into a shallow sea transgressing from the west.

Major uplift of the Arunta block along the present northern margin of the basin commenced in the Middle Devonian. Continental deposition continued as thick molasse sediments accumulated south of the uplifted area. High depositional loading at this time contributed to movement of the Bitter Springs Formation and Chandler Formation evaporites.

A lacustrine siltstone (Parke Siltstone) was laid down conformably on the Meerenie Sandstone, and after uplift, coarser sediments were deposited (Hermannsburg Sandstone, Brewer Conglomerate). These three units, comprising the Pertnjara Group, thin and become finer grained to the south.

Uplift of the Musgrave Province and deformation of the southern Amadeus sequence culminated in the Early-Middle Devonian Finke Movement (Polly Conglomerate), after which fluvial sands of the Langra Formation and estuarine silts of the Horseshoe Bend Shale accumulated. These sediments comprise the Finke Group, which is the southern time equivalent of the Pertnjara Group, although the former sequence fines upward in contrast.

Regional deposition was terminated in the Late Devonian-Early Carboniferous by the Alice Springs Orogeny. Some earlier structures were reactivated during this period of deformation. Substantial uplift of the basement Arunta block along the current northern margin initiated movement of thrust sheets in the Alice Springs and Altunga regions, and resulted in significant structuring of the basin. North over south thrusting and reverse faulting is typical of Alice Springs orogeny deformation.

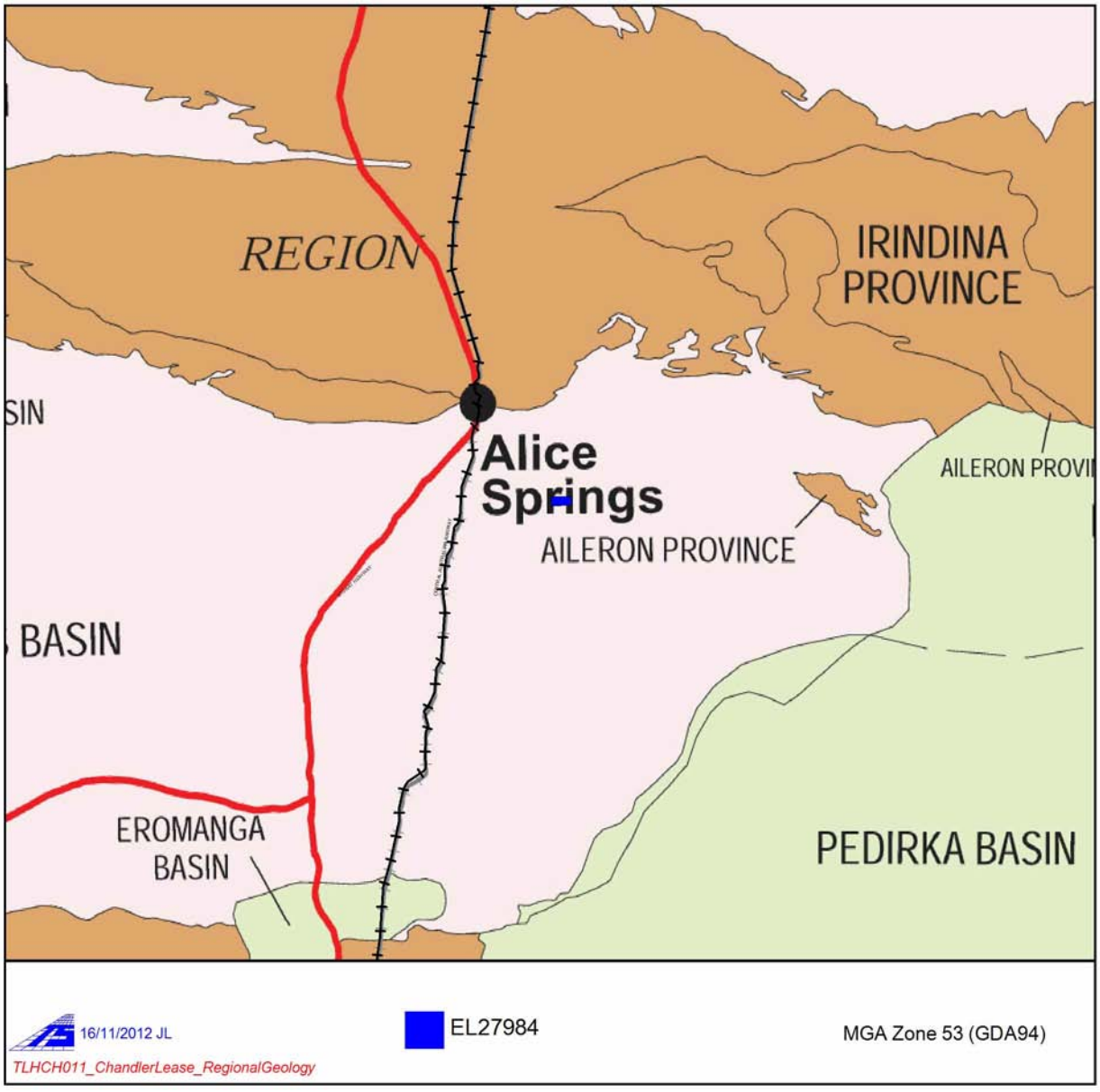

Figure 2. Geological Regions of Northern Territory (adapted from NTGS, 2006)

6. LOCAL GEOLOGY

The project area overlies 1:250K map sheets Rodinga, which was geologically mapped in 1964 by the Bureau of Mineral Resources. The surface geology is predominantly Quaternary alluvial gravel and sands with minor outcropping Tertiary silcrete. Surface geology is shown in Figure 3 and stratigraphy is included as figure 4.

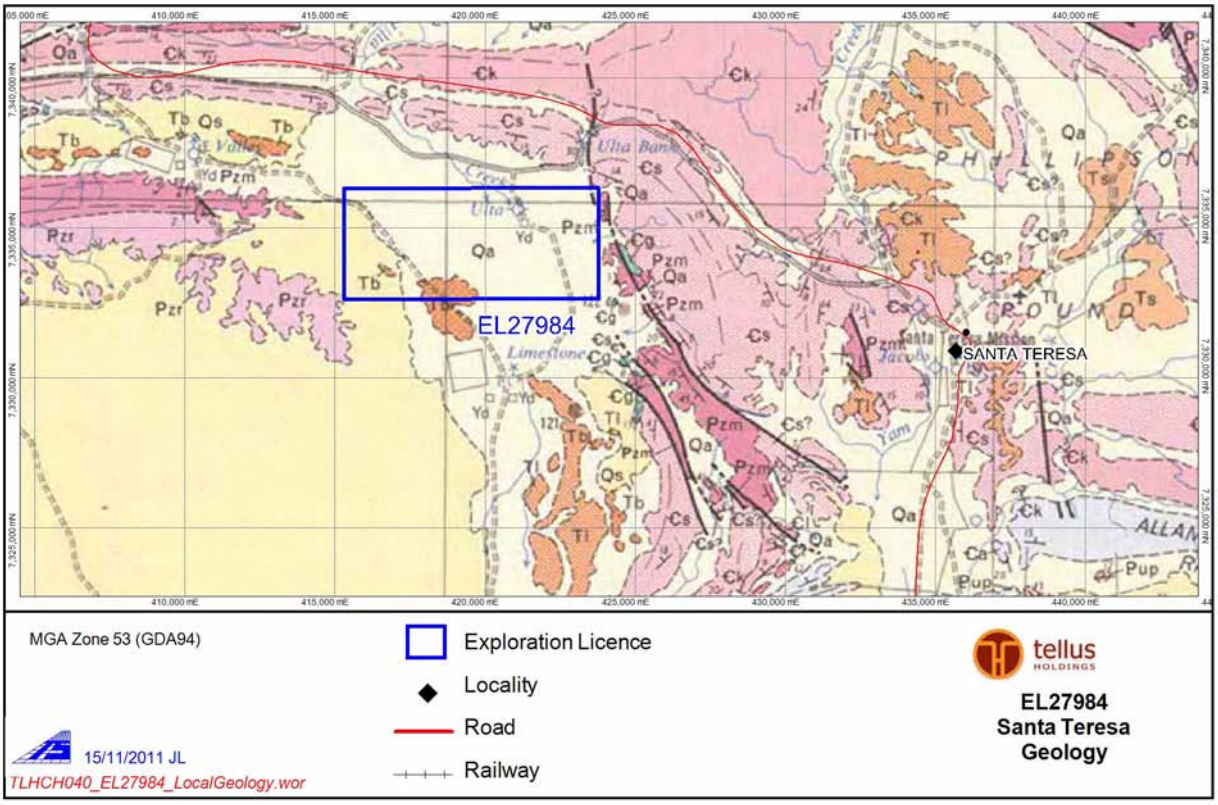

Figure 3. Local geology

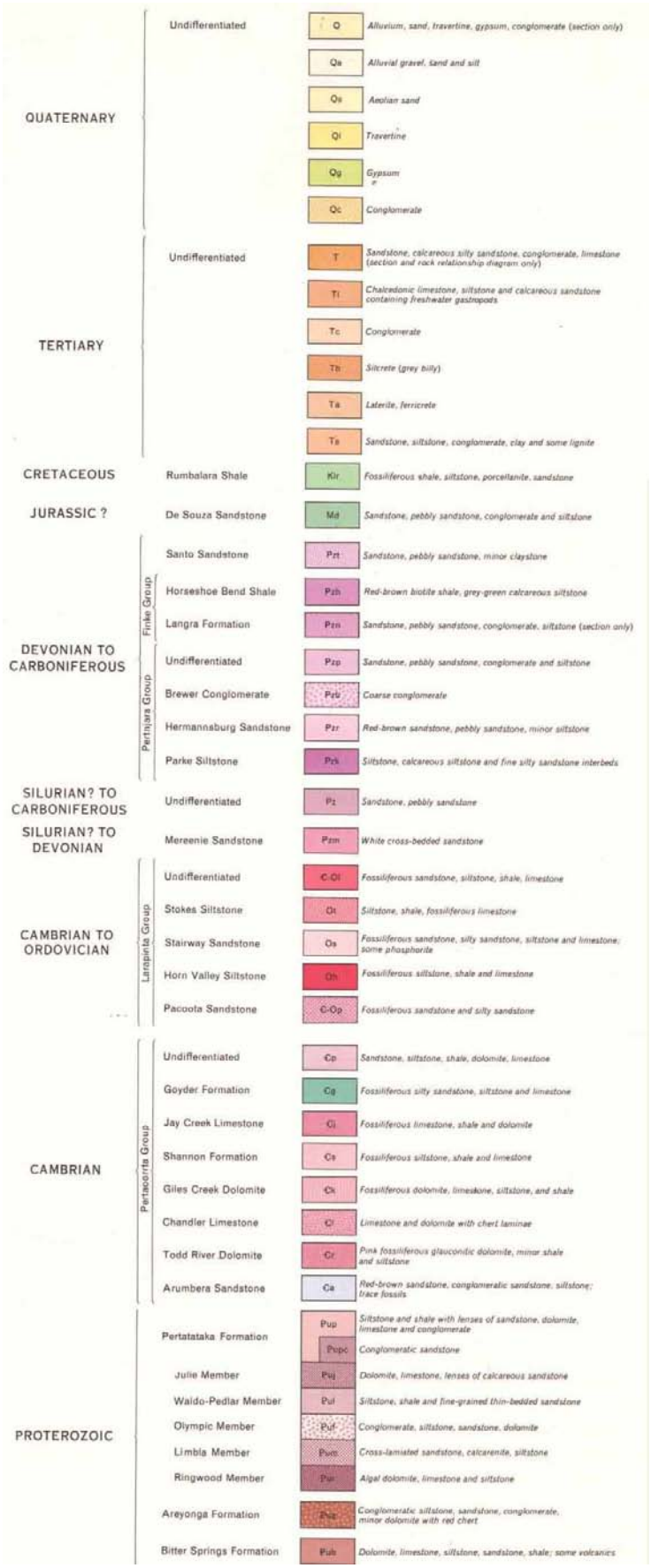

Figure 4. Stratigraphy (from Rodinga SG5302 1:250K map sheet)

7. HISTORIC EXPLORATION

The area covered by EL27984 has been included all or in part by seven previously held Exploration Licences or Authority to Prospects. Exploration in the area has predominantly targeted uranium and base metals, with some diamond and gold exploration (table 2).

Table 2. Historic Exploration

Tenure	Granted	Ceased	Report	Company	Target
AP1604	19660810	19670809	CR1966-0017	Magellan Petroleum	Base metal
AP2123	19690916	19700915	CR1971-0018	CRA Exploration	zinc
EL1345	19770316	19810315	CR1978-0078	Uranerz	Uranium
			CR1979-0073	Uranerz	Uranium
			CR1980-0107	Uranerz	Uranium
			CR1981-0118	Uranerz	Uranium
EL6963	19900913	19920814	CR1991-0586	CRA Exploration	diamonds, base metals
			CR1992-0613	CRA Exploration	diamonds, base metals
EL9336	19960530	19980514	CR1996-0891	CRA Exploration	base metals
			CR1997-0777	Rio Tinto Exploration	base metals
			CR1998-0564	Rio Tinto Exploration	base metals
EL10279	20020220	20030723	CR2003-0085	Johnson's well mining	
			CR2004-0166	Gutnick	Gold
EL25260	20070208	20100125	CR2008-0047	Globe Resources	Uranium
			CR2009-0062	Globe Resources	Uranium
			CR2009-0252	Globe Resources	Uranium
			CR2010-0194	Globe Resources	Uranium

8. EXPLORATION ACTIVITES CONDUCTED BY TELLUS

A regional geological desktop study was carried out by Terra Search Pty Ltd for Tellus to identify areas prospective for evaporite mineralisation. A review of historic work over the area was completed.

9. CONCLUSIONS

Exploration activities to date were limited to regional desktop studies and literature reviews. Tellus has reviewed their tenement holdings and recommended EL27984 be surrendered, so they can focus on other tenements.

10. REFERENCES

Northern Territory Geological Survey, March 2006. Geological Regions of the Northern Territory map sheet.

Wakelin-King, G. and Austin L., 1992. EP 38, Well Completion Report Magee 1 Northern Territory. *Pacific Oil & Gas. Limited, Report no. 304715. NTGS Open File Petroleum Report PR1992-0121*