



ARAGON
RESOURCES LIMITED



Territory Phosphate Pty Ltd

Titleholder	Territory Phosphate Pty Ltd
Project Operator	as above
Titles/Tenements	EL25185
Tenement Manager/Agent	Austwide Mining Title Management Pty Ltd
Mine/Project Name	Ammaroo
Report Title	Analytical Results of NTGS Core Sampling, Ammaroo Project, for the Annual Period ending 18 April 2009
Personal Author	Chris Bryans
Corporate Author	Aragon Resources Ltd
Company Reference Number	AAG_R_NTGSCore_2009
Target Commodities	P ₂ O ₅
Date of Report	18 May 2009
Datum/Zone	GDA94/Zone 53
250000K Mapsheet	Elkedra SF53-07
100000K Mapsheets	Sandover 6054, Annitowa 6155
Contact Details	
postal address	PO Box 6383, East Perth Business Centre, Perth WA 6892
fax	08 92021050
phone	08 93265788
Email for Further Technical Details	chris.bryans@aragonresources.com.au
Email for Expenditure	chris.bryans@aragonresources.com.au

Executive Abstract

The Georgina Basin is the largest intracratonic basin on the North Australian Craton. The Basin includes rocks of Neoproterozoic to Devonian age, with Cambrian platform carbonate rocks dominating basin fill. The southern Georgina Basin includes a thick sequence of Cambrian-Ordovician sediments, deposited within the Dulcie Trough and the adjoining Elkedra Shelf structural elements of the Basin.

Work completed by the NTGS, including the analysis of waterbore cuttings and legacy drillcore, identified an extensive area of phosphate mineralization within the southern Georgina Basin, in shelf-facies marine carbonate and clastic sediments of the Middle Cambrian Arthur Creek Formation.

The Ammaroo Project tenements cover approximately 100 kilometres of strike of this prospective stratigraphy.

Work completed by Aragon Resources Ltd during the reporting period included the non-destructive analysis of 155 legacy core samples from drillholes *NTGS Elkedra 2* and *NTGS Elkedra 3*, stored at the NTGS Alice Springs Core Facility, to validate previously reported analyses and verify the findings of the NTGS work.

The analyses confirmed the Project area is prospective for phosphate mineralization.

TABLE OF CONTENTS

Executive Abstract	1
1. Introduction	3
2. Location and Tenure	3
3. Geology	5
4. Analysis of Drillcore	7
5. Results	7
6. Conclusions	8
7. References	8

LIST OF TABLES

Table 1: Comparison of Analyses, <i>NTGS Elkedra 3</i>	7
---	----------

LIST OF FIGURES

Figure 1: Location Plan, Ammaroo Project 1:500000	4
Figure 2: Geology Plan, Ammaroo Project 1:500000	6

LIST OF APPENDICES

Appendix 1: XRF Analyses, <i>NTGS Elkedra 2 and NTGS Elkedra 3</i>	
---	--

1. Introduction

The Ammaroo Project tenements are located along the Sandover Highway, 280 kilometres northeast of Alice Springs, in the southern Georgina Basin of the Northern Territory.

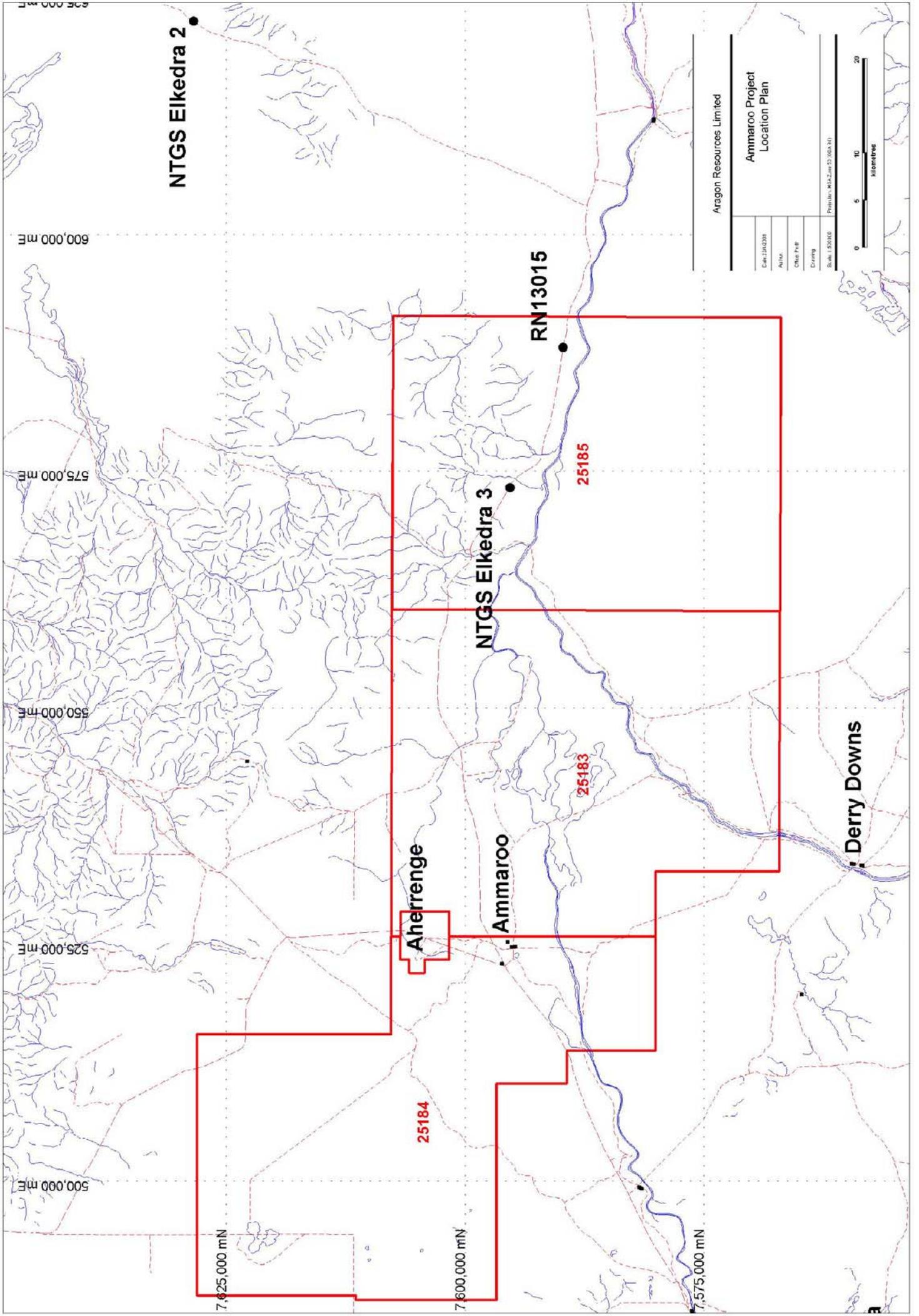
Work undertaken by NTGS within the southern Georgina Basin, including the testing of waterbore cuttings, together with previous legacy drilling results, identifies an extensive area of phosphate mineralization within the southern Georgina Basin, in shelf-facies marine carbonate and clastic sediments of the Middle Cambrian Arthur Creek Formation. Specific drill intercepts within the Ammaroo Project tenements include 4m @ 9.16% P₂O₅, from 64m (2m composite samples) from the stratigraphic diamond drillhole *NTGS Elkedra 3*; and 12m @ 12.8% P₂O₅, from 45m (3m composite samples) in waterbore *RN13015*.

During the reporting period, exploration activities completed by Aragon Resources Ltd for the Ammaroo Project included the non-destructive analysis of relevant legacy drillcore stored at the NTGS Alice Springs Core Facility, using an Innov-X Omega hand-held XRF unit. The analyses validated previously reported results, verifying the Project area is prospective for phosphate mineralization.

2. Location and Tenure

The Ammaroo Project tenements EL25183, EL25184 and EL25185 are located 280 kilometres northeast of Alice Springs, on the Barrow Creek SF53-06 and Elkedra SF53-07 1:250000 mapsheets. Access to the Project area is attained via the sealed Stuart Highway and the unsealed Plenty and Sandover Highways. Access within the Project area is limited to various station and previous explorers' tracks.

Stratigraphic drillhole *NTGS Elkedra 3* is located within EL25185. Waterbore *RN13015* is positioned 13 kilometres further to the east, also within EL25185. Drillhole *NTGS Elkedra 2* is located 60 kilometres northeast of *NTGS Elkedra 3*, outside the Project area but in a similar geological position (Figure 1).



Aragon Resources Limited

**Ammaroo Project
Location Plan**

Client	ARDC
Project	AMM
Scale	1:50,000
Projection	Map Grid Zone 50 (GDA 94)

3. Geology

The Ammaroo Project tenements overlie marine carbonate and clastic sediments of the southern Georgina Basin (Figure 2).

The Georgina Basin is the largest intracratonic basin on the North Australian Craton. The Basin includes rocks of Neoproterozoic to Devonian age, with Cambrian platform carbonate rocks dominating basin fill. The southern Georgina Basin includes a thick sequence of Cambrian-Ordovician sediments, deposited within the Dulcie Trough and the adjoining Elkedra Shelf structural elements of the Basin.

The Cambrian stratigraphy of the southern Georgina Basin includes units of the Shadow and Narpa Groups, significantly:

- the mid-Cambrian Thornton Limestone – a limestone and dolostone unit with phosphorite beds
- the mid-Cambrian Arthur Creek Formation – deep-water anoxic organic-rich shales overlain by shallow-water aerobic calc- and dolo-siltstones

Legacy drilling and analytical results indicate the shelf-facies marine carbonate and clastic sediments of the upper Arthur Creek Formation host an extensive area of phosphate mineralization. Specific drill intercepts within the Ammaroo Project tenements include 4m @ 9.16% P₂O₅, from 64m (2m composite samples) from the stratigraphic diamond drillhole *NTGS Elkedra 3*; and 12m @ 12.8% P₂O₅, from 45m (3m composite samples) in waterbore *RN13015*. The equivalent unit on the eastern (Queensland) margin of the Georgina Basin hosts the Phosphate Hill Mine and other undeveloped phosphate resources. The Project area is also prospective for hydrocarbons, base metals, and industrial materials.

Cambrian sediment outcrop is restricted to the north of the Project area, along the flanks of the Davenport Range (on the Elkedra Shelf structural element). Alluvial, eolian and residual sediments of Cenozoic age blanket much of the remaining Project area.

Geological Legend

Q	Quaternary		alluvium
Czs	Cenozoic		colluvium
Dd	Devonian	Dulcie Sandstone	quartz arenite
Olk	Ordovician	Kelly Creek Formation	sandstone, siltstone
-COt	Cambrian-Ordovician	Tomahawk Formation	sandstone
-Cua	Cambrian	Arrintringa Formation	dolostone, limestone
-Cue	Cambrian	Euowie Sandstone Member	quartz arenite
-Cuc	Cambrian	Chabalowe Formation	quartz arenite
-Cma	Cambrian	Arthur Creek Formation	siltstone, shale
-Cmt	Cambrian	Thornton Limestone	limestone
-P	Proterozoic		undifferentiated sediments
-Pud	Proterozoic	Andagera Formation	conglomerate
-Pg	Proterozoic		granitoid

4. Analysis of Drillcore

Legacy phosphate analyses reported for diamond drillhole *NTGS Elkedra 3* (4m @ 9.16% P₂O₅, from 64m (2m composite samples)) were validated using an Innov-X Omega hand-held vacuum XRF unit (SN#81165). Samples were analysed for Mg, Si, Al, P, S, Ca, Ti, Mn, Fe and K content within an approximate 1cm³ volume of core, positioned immediately below the x-ray source window of the unit. Selected intervals of diamond drillhole *NTGS Elkedra 2* were also analysed. In all, 155 samples were analysed (Appendix 1).

5. Results

The non-destructive analysis of legacy drillcore using a hand-held XRF unit successfully identified the zone of phosphate mineralization within drillhole *NTGS Elkedra 3*, returning similar analyses to legacy results and thus validating the legacy phosphate assays (Table 1; Appendix 1).

Table 1: Comparison of Analyses, *NTGS Elkedra 3*

XRF		Legacy Core Analysis (ICP)			
Sample Depth (m)	%P	Average (as %P ₂ O ₅)*	Sample Interval From – To (m)		%P ₂ O ₅
60.00	0.42	1.31	60.00	62.00	0.76
60.25	0.46				
60.50	0.34				
60.75	ND				
61.00	0.41				
61.25	0.71				
61.50	ND				
61.75	2.19				
62.00	ND	2.29	62.00	64.00	1.57
62.25	0.47				
62.50	4.99				
62.75	0.49				
63.00	0.56				
63.25	0.70				
63.50	0.39				
63.75	0.34				
64.00	0.79	11.82	64.00	66.00	9.44
64.25	3.30				
64.50	6.53				
64.75	8.57				
65.00	0.41				
65.25	8.56				
65.50	2.08				
65.75	11.01				
66.00	5.09	9.74	66.00	68.00	8.88
66.25	11.53				
66.50	10.30				
66.75	3.45				
67.00	0.87				
67.25	1.45				
67.50	1.32				
67.75	ND				
68.00	1.05	3.32	68.00	70.00	3.13
68.25	ND				
68.50	1.09				
68.75	1.67				
69.00	0.59				
69.25	1.04				
69.50	6.13				
69.75	ND				

*conversion factor = 2.291

In drillhole *NTGS Elkedra 2*, a zone of weak phosphate mineralization was also identified, in a similar stratigraphic position to that identified in drillhole *NTGS Elkedra 3* (Appendix 1).

6. Conclusions

The results of non-destructive analysis of core from drillholes *NTGS Elkedra 2* and *NTGS Elkedra 3* confirm the Ammaroo Project area is prospective for phosphate mineralization.

7. References

Dunster JN, Kruse PD, Duffett ML and Ambrose GJ, 2007. Geology and resource potential of the southern Georgina Basin. *Northern Territory Geological Survey, Digital Information Package DIP007* (October 2007).

Khan M, Ferenczi PA, Ahmad M and Kruse PD, 2007. Phosphate testing of waterbores and diamond drillcore in the Georgina, Wiso and Daly Basins, Northern Territory. *Northern Territory Geological Survey, Record 2007-003*.

Stidolph PA, Bagas L, Donnellan N, Walley AM, Morris DG and Simons B, 1988. Elkedra, Northern Territory (Second Edition). *Northern Territory Geological Survey, 1:250000 geological map series explanatory notes SF53-7*.