



PROSPECTIVITY ASSESSMENT AND VALUATION

on the

Regional Tenement holdings

in

Queensland and the Northern Territory

for

AUSTRALIS RESOURCES LIMITED AND MOJO MINING LIMITED

30 June 2010

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PROSPECTIVITY ASSESSMENT AND VALUATION

Prepared by RAVENSGATE on behalf of:

Australis Resources Ltd and Mojo Mining Ltd

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For and on behalf of:
RAVENSGATE

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Contents

| | |
|---|-----------|
| 1. EXECUTIVE SUMMARY | 7 |
| 2. TERMS OF REFERENCE | 11 |
| 2.1 Introduction and Scope of Work..... | 11 |
| 2.2 Terms of Reference | 11 |
| 2.3 Disclaimer | 12 |
| 2.4 Principal Sources of Information | 12 |
| 2.4.1 <i>Qualifications and Technical Experience of Author</i> | 13 |
| 3. BACKGROUND | 15 |
| 3.1 Project Area Overview | 15 |
| 3.2 TENURE | 17 |
| 3.3 Sources of information and methodology | 19 |
| 4. REGIONAL GEOLOGICAL SETTING..... | 20 |
| 5. TARGET MINERALISATION STYLES AND EXPLORATION CRITERIA | 24 |
| 5.1 PHOSPHATE | 24 |
| 5.1.1 <i>GEOLOGY</i> | 24 |
| 5.1.2 <i>ECONOMIC CRITERIA</i> | 24 |
| 5.1.3 <i>EXPLORATION CRITERIA</i> | 25 |
| 5.2 Uranium Mineralisation Styles | 26 |
| 5.3 BASE METALS..... | 28 |
| 5.3.1 <i>Geology</i> | 28 |
| 6. MITTIEBAH PROJECT, NORTHERN TERRITORY | 29 |
| 6.1 INTRODUCTION | 29 |
| 6.2 Geology | 29 |
| 6.3 Previous Exploration | 29 |
| 6.4 Tenement Exploration Potential and Targets..... | 31 |
| 6.4.1 <i>Phosphate</i> | 31 |
| 6.4.2 <i>Base Metals</i> | 33 |
| 6.4.3 <i>Iron and Manganese</i> | 34 |
| 6.4.4 <i>Uranium</i> | 34 |
| 6.4.5 <i>Diamonds</i> | 34 |
| 6.5 Recommended Exploration Program | 36 |
| 7. DESSERT CREEK AREA, NORTHERN TERRITORY PROJECT | 39 |
| 7.1 INTRODUCTION | 39 |
| 7.2 Geology | 39 |
| 7.3 Previous Exploration | 39 |
| 7.4 Tenement Exploration Potential and Targets..... | 41 |
| 7.4.1 <i>Phosphate</i> | 41 |
| 7.4.2 <i>Base Metals</i> | 41 |



| | | |
|------------|---|-----------|
| 7.4.3 | <i>Uranium</i> | 41 |
| 7.4.4 | <i>Diamonds</i> | 41 |
| 7.5 | Recommended Exploration Program and Budget..... | 42 |
| 8. | RANKEN PROJECT, NORTHERN TERRITORY | 45 |
| 8.1 | Introduction..... | 45 |
| 8.2 | Geology | 45 |
| 8.3 | Previous Exploration | 45 |
| 8.4 | Tenement Exploration Potential and Targets..... | 47 |
| 8.4.1 | <i>Phosphate</i> | 47 |
| 8.4.2 | <i>Base Metals</i> | 47 |
| 8.4.3 | <i>Uranium</i> | 47 |
| 8.4.4 | <i>Diamonds</i> | 47 |
| 8.5 | Recommended Exploration Program and Budget..... | 49 |
| 9. | TABLELANDS PROJECT, NORTHERN TERRITORY | 51 |
| 9.1 | Introduction..... | 51 |
| 9.2 | Geology | 51 |
| 9.3 | Previous Exploration | 51 |
| 9.4 | Tenement Exploration Potential and Targets..... | 54 |
| 9.4.1 | <i>Phosphate</i> | 54 |
| 9.4.2 | <i>Base Metals</i> | 54 |
| 9.4.3 | <i>Uranium</i> | 54 |
| 9.4.4 | <i>Diamonds</i> | 54 |
| 9.5 | Recommended Exploration Program and Budget..... | 54 |
| 10. | TOBERMOREY PROJECT, NORTHERN TERRITORY | 55 |
| 10.1 | Introduction..... | 55 |
| 10.2 | Geology | 55 |
| 10.3 | Previous Exploration | 55 |
| | Figure 11: Tobermorey Project - Radiometrics and target areas | 57 |
| | Tenement Exploration Potential and Targets | 58 |
| 10.3.1 | <i>Phosphate</i> | 58 |
| 10.3.2 | <i>Base Metals</i> | 58 |
| 10.3.3 | <i>Uranium</i> | 58 |
| 10.4 | Recommended Exploration Program and Budget..... | 58 |
| 11. | MOJO PROJECT, QUEENSLAND | 60 |
| 11.1 | Introduction..... | 60 |
| 11.2 | Geology | 60 |
| 11.3 | Previous Exploration | 60 |
| 11.4 | Tenement Exploration Potential and Targets..... | 63 |
| 11.4.1 | <i>Phosphate</i> | 63 |
| 11.4.2 | <i>Base Metals</i> | 63 |
| 11.4.3 | <i>Uranium</i> | 63 |
| 11.5 | Recommended Exploration Program and Budget..... | 64 |
| 12. | CAMOOWEAL PROJECT, QUEENSLAND PROJECT | 68 |



| | | |
|------------|---|-----------|
| 12.1 | Introduction..... | 68 |
| 12.2 | Geology | 68 |
| 12.3 | Previous Exploration | 68 |
| 12.4 | Tenement Exploration Potential and Targets..... | 69 |
| 12.4.1 | Phosphate | 69 |
| 12.4.2 | Base Metals | 70 |
| 12.4.3 | Uranium..... | 70 |
| 12.5 | Recommended Exploration Program and Budget..... | 72 |
| 13. | WEST ISA PROJECT, QUEENSLAND PROJECT..... | 74 |
| 13.1 | Introduction..... | 74 |
| 13.2 | Geology | 74 |
| 13.3 | Previous Exploration | 74 |
| 13.4 | Tenement Exploration Potential and Targets..... | 77 |
| 13.4.1 | Phosphate | 77 |
| 13.4.2 | Base Metals | 77 |
| 13.4.3 | Uranium..... | 77 |
| 13.5 | Recommended Exploration Program and Budget..... | 79 |
| 14. | GLENORMISTON PROJECT, QUEENSLAND PROJECT | 83 |
| 14.1 | Introduction..... | 83 |
| 14.2 | Geology | 83 |
| 14.3 | Previous Exploration | 83 |
| 14.4 | Tenement Exploration Potential and Targets..... | 86 |
| 14.4.1 | Phosphate | 86 |
| 14.4.2 | Base Metals | 86 |
| 14.4.3 | Uranium..... | 86 |
| 14.5 | Recommended Exploration Program and Budget..... | 90 |
| 15. | BOULIA PROJECT, QUEENSLAND..... | 92 |
| 15.1 | Introduction..... | 92 |
| 15.2 | Geology | 92 |
| 15.3 | Previous Exploration | 92 |
| 15.4 | Tenement Exploration Potential and Targets..... | 94 |
| 15.4.1 | Base Metals | 94 |
| 15.4.2 | Uranium..... | 94 |
| 16. | VALUATION..... | 99 |
| 16.1 | Introduction..... | 99 |
| 16.2 | Previous Valuations and Material Agreements..... | 100 |
| 16.3 | Comparable Transactions..... | 101 |
| 16.4 | A Australis and Mojo Projects..... | 105 |
| 16.4.1 | Mittiebah Area, Northern Territory Project | 105 |
| 16.4.2 | Desert Creek Area, Northern Territory Project | 106 |
| 16.4.3 | Ranken Area, Northern Territory Project | 106 |
| 16.4.4 | Tablelands Area, Northern Territory Project..... | 107 |
| 16.4.5 | Tobermorey Area, Northern Territory Project | 107 |
| 16.4.6 | Mojo Area, Queensland Project | 108 |



| | | |
|---------|---|------------|
| 16.4.7 | <i>Camooweal Area, Queensland Project</i> | <i>109</i> |
| 16.4.8 | <i>Boulia Area, Queensland Project</i> | <i>110</i> |
| 16.4.9 | <i>West Isa Area, Queensland Project</i> | <i>111</i> |
| 16.4.10 | <i>Glenormiston Area, Queensland Project</i> | <i>113</i> |
| 16.5 | Conclusion..... | 116 |
| 16.6 | Valuation Summary | 116 |
| 17. | HIGH LEVEL EXPLORATION BUDGET | 118 |
| 18. | CONCLUSIONS AND RECOMMENDATIONS | 121 |
| 19. | REFERENCES AND PROVIDED FILES..... | 124 |
| 20. | GLOSSARY | 127 |
| | APPENDIX A: AUSTRALIS AND MOJO TENEMENT SUMMARY | 129 |
| | APPENDIX B: PHOSPHATE TARGET RANKING CRITERIA | 132 |
| | APPENDIX C: BASE METAL TARGET RANKING CRITERIA..... | 133 |

1. EXECUTIVE SUMMARY

Ravensgate has been commissioned by Australis Resources Limited (Australis) to provide a review of their phosphate, uranium and base metal projects in Queensland and the Northern Territory, assess their prospectivity, analyse previous work, and make recommendations on tenement holding strategies and future exploration programs and budgets. In addition Australis have requested an Independent Technical Valuation of the company's leases for internal use.

Australis Resources Limited and Mojo Mining Limited have acquired a very large holding of exploration licenses and license applications comprising some 70 tenements covering 45,149 km² of Queensland and the Northern Territory. Of this 31 tenements (25,124 km²) are granted with the remainder applications in Queensland that are at varying stages of the title application process.

Australis's and Mojo's licenses are centred on the Georgina Basin, an extensive sedimentary basin infilled with predominantly Cambrian age marine carbonate rocks. Elsewhere in the basin these Mid-Cambrian carbonates host large sedimentary phosphate deposits including Phosphate Hill, D Tree, Wonarah and Highland Plains. Forming the basement to the Georgina Basin is a sequence of Proterozoic rocks including interpreted extensions of the highly mineralised Mount Isa Inlier which hosts several world class Zn-Pb-Ag and Cu deposits including Mt Isa, Hilton and Century.

This large tenement holding has been grouped into ten geographic project areas. Five project areas lie in the eastern Northern Territory (Mittiebah, Desert Creek, Ranken, Tablelands, Tobermorey) and five lie in northwest Queensland (Mojo, Camooweal, West Isa, Glenormiston, Boulia)

Ravensgate has completed an extensive review of the geology, previous exploration and prospectivity of these project areas and collated and identified exploration targets focussing on phosphate, base metal and uranium. The projects generally have had little in the way of modern exploration. The identified targets and have been categorized as 'grass roots' or conceptual nature, with most having been generated from regional geophysical data-sets. These targets have been rated and ranked using various geological and economic parameters to aid in assessing prospectivity, developing exploration programs and associated high-level exploration operational budgets.

Of note is that a review of the scant amounts of historic government sponsored drilling and drilling by previous explorers has not identified any phosphate assays of potentially economic grades (however most drillholes were not assayed for phosphate). In addition most of all of the identified base metal targets lie below substantial cover (>200m) which means direct detection of mineralisation is difficult with exploration relying on conceptual geological and geophysical targeting along with relatively expensive deep drilling to assess targets.

Australis's and Mojo's large landholding has very substantial annual financial commitments particularly on the Queensland holdings (in excess of \$12M pa if all tenements are granted). This vast tenement package also presents challenges to exploring in a cost effective and systematic manner and indeed in raising this amount of funding to meet expenditure requirements.

Australis is aware there is need to rationalise the tenement holdings and develop a strategy for extracting the best value from the properties. Following extensive review of the geology, geophysics and previous work Ravensgate suggests the following approach:

Phosphate Prospectivity:

- The best phosphate targets lie in the Camooweal Project area in close proximity to the Sherrin Creek and Lily Creek Deposits. Ravensgate recommends accepting grant of the majority of the tenements in that project area (those which lie on the Georgina Basin margin)
- Hold the Mittiebah, Ranken, and Desert Creek projects in the NT. These are in close proximity to other known deposits such as Alroy, Wonarah and Alexandria. The holding

costs of these tenements are less onerous than in Queensland and they have good potential and are strategic benefit.

- Complete an exploration program which would entail data compilation, field verification, sampling and mapping, followed by a scout drilling program in year one. Year two would be focussed on follow up drilling and testing lower order targets.
- Drop the Tablelands Project tenements (no targets)

Base metal Prospectivity:

- The best targets for identifying a Mount Isa style Pb-Zn or Cu deposit lies within the Mojo project area under deep cover (>300m), where the same stratigraphic sequence that hosts Mount Isa style mineralization may be likely to be at depth. Ravensgate recommends holding these tenements and carrying out a detailed geophysics and selected deep drilling on priority targets. As these targets are primarily geophysical, Ravensgate recommends a geophysist be intimately involved in all stages of program design and targeting. Of note is that these tenements have over \$5Million in expenditure commitments to 2011. A reduction in land holding may be advantageous to reduce this commitment. In this case Ravensgate recommends dropping the western portion on the project area which in Ravensgate's opinion appears to be less prospective (ie over the interpreted Syabella Granite) and/or dropping areas where cover is deep (ie >500m). It may also be worthwhile looking at joint venture options for this package.
- Base metal targets have been identified within Boulia, West Isa, and Glenormiston Project areas. All of these targets are under deep cover (>200m) and lie within an inferred Proterozoic basement areas. To explore will require detailed geophysics and deep drilling to evaluate target areas (ie expensive exploration). These tenements are all applications. Australis need to decide whether they accept grant of the tenements with the view to completing deep exploration, or alternately withdraw applications. Alternately reducing application areas to cover the immediate target areas may be an option or looking at joint venturing some or all of these projects.
- Ravensgate suggests applying for a Queensland Government Collaborative Drilling Initiative Grant (the next round opens on the 1st of July, 2010) to test some of these targets, particularly those in the Mojo area. Of note is that Mojo Mining previously had applied for one of these grants and was successful, but the grant expired before any drilling could be completed.

Uranium Prospectivity:

- Surficial uranium targets have been identified within the Tobermorey Project in the NT which is a granted tenement. These require ground 'truthing' and sampling. Should these targets be of merit then Ravensgate recommends a systematic exploration program involving surface sampling, mapping followed up by drilling.
- Surficial uranium targets have also been identified within the West Isa and Glenormiston project area in Queensland. The Glenormiston and Tobermorey targets represent a continuation of the same paleochannel from QLD to NT. These licences are all tenements in application. Queensland currently does not allow uranium mining which means any exploration completed would be with a view to this legislation possibly being changed in the near to medium term future. Australis has two options, either to complete exploration of this area further or to reject the grant of tenements. Ravensgate notes that the QLD tenements covered by these surficial uranium targets have no other prospective mineral targets (e.g. base metal or phosphate) and would need to be warranted necessary for tenement holdings solely on exploration targets for uranium.
- Surficial / Sandstone targets have been historically identified within the Longsight Sandstone and equivalents. These targets occur within the Boulia, Glenormiston and Mojo Projects. Current geological and geophysical information suggests a fairly low prospectivity however it is suggested that any exploration work carried out for deep-cover base metal targets also considers more shallow-surface overlying uranium mineralisation e.g. examination of drill core targeting base metals

A summary of the Australis and Mojo project valuations in 100% terms is provided in Table A for granted tenements and Table B for tenements in application. The applicable valuation date is 30 June 2010 and is derived from the Comparable Transaction valuation method after review of the Valuation Methods. The value of a 100% equity interest in the Australis NT and QLD Projects is considered to lie in a range from \$9M to \$47.8M (in total and assuming all relevant tenements in application are granted to Australis), within which range Ravensgate has selected a preferred value of \$16.5M. The preferred value reflects the project's potential which remains to be fully tested and the accompanying opportunity to find economic mineralisation. In Ravensgate's opinion the provisional value also reflects the uncertain nature of early-stage, greenfields exploration for large tenement holdings. The valuation has been derived for 30 June 2010 and is only applicable at this point in time. The technical valuation is for internal purposes only and not for reporting on the ASX.

| Table A Australis and MOJO Projects - Technical Valuation Summary for Granted Tenements Only. Minor rounding errors may occur. | | | | | |
|---|--------------------------------|-----------------|------------|-------------|------------------|
| Project | Asset | Equity Interest | Valuation | | |
| | | | Low Aus\$M | High Aus\$M | Preferred Aus\$M |
| Mittiebah Area, NT. | Phosphate | 100% Australis | 1.5 | 8.7 | 2.5 |
| Mittiebah Area, NT. | Base Metal, Uranium, Iron | 100% Australis | 0.05 | 0.05 | 0.05 |
| Desert Creek Area, NT. | Phosphate | 100% Australis | 0.85 | 4.9 | 1.5 |
| Ranken Area, NT. | Phosphate | 100% Australis | 1.0 | 5.7 | 1.2 |
| Tablelands Area, NT. | Base Metal, Uranium, Phosphate | 100% Australis | 0 | 0 | 0 |
| Tobermorey Area, NT. | Uranium | 100% Australis | 0.5 | 1.2 | 1.0 |
| Mojo Area, QLD. | Base Metal | 100% MOJO | 0.9 | 6.7 | 2.8 |
| Mojo Area, QLD. | Uranium | 100% MOJO | 0.4 | 0.9 | 0.5 |
| Camooweal Area, QLD. | Phosphate | 100% Australis | 0.1 | 0.8 | 0.4 |
| Total | | | 5.3 | 29 | 10.0 |

| Table B Australis and MOJO Projects - Technical Valuation Summary for Tenements in Application Only. Minor rounding errors may occur. | | | | | |
|--|------------|-----------------|------------|-------------|------------------|
| Project | Asset | Equity Interest | Valuation | | |
| | | | Low Aus\$M | High Aus\$M | Preferred Aus\$M |
| Camooweal Area, QLD. | Phosphate | 100% Australis | 0.6 | 3.7 | 2.0 |
| Boulia Area, QLD. | Base Metal | 100% Australis | 0.5 | 3.8 | 1.0 |

| | | | | | |
|-------------------------|----------------------------------|----------------|------------|-------------|------------|
| Boulia Area, QLD. | Uranium | 100% Australis | 0.05 | 0.05 | 0.05 |
| West Isa Area, QLD. | Base Metal | 100% Australis | 0.3 | 2.3 | 0.4 |
| West Isa Area, QLD. | Uranium | 100% Australis | 0.4 | 3.2 | 0.9 |
| Glenormiston Area, QLD. | Base Metal | 100% Australis | 0.5 | 3.9 | 0.7 |
| Glenormiston Area, QLD. | Uranium - Moderate Prospectivity | 100% Australis | 0.8 | 1.8 | 1.4 |
| Glenormiston Area, QLD. | Uranium - Low Prospectivity | 100% Australis | 0.05 | 0.05 | 0.05 |
| Total | | | 3.7 | 18.8 | 6.5 |

2. TERMS OF REFERENCE

2.1 Introduction and Scope of Work

Ravensgate has been commissioned by Australis Resources Limited (Australis) to provide a review of the phosphate, uranium and base metal prospectivity of their Queensland and Northern Territory exploration leases and to provide an Independent Technical Valuation of these leases (for the company's internal use). Ravensgate understands the exploration tenements are held by Australis Resources Ltd and by Mojo Mining Ltd (Mojo). Ravensgate makes no other assertion as to the legal title of tenements and is not qualified to do so.

The scope of works outlined by Australis was to:

- Review previous work that has been completed within the tenement areas
- Systematically assess exploration targets that have been identified by other workers and identify additional targets
- Review and rank targets and identify targets for follow up
- Make recommendations or suggestions on where further work required and provide an estimate of high level year 1 and 2 exploration budgets required to advance the projects
- Make recommendations on tenement holdings and ground for relinquishment or refusal of grant (for tenements in application)
- Provide a valuation for internal purposes to aid in Australis's decision making process

2.2 Terms of Reference

The objective of this report is; (1) to provide a fair assessment of the geological prospectivity of the project areas; and, (2) to provide a project valuation and technical assessment of the mineralisation within the various NT and QLD Exploration Projects. The project valuation is not considered a strictly compliant Valmin valuation and is for internal purposes only. This reflects the inclusion of tenements under application where tenure or permits have not been granted to the relevant company and the company does not therefore own the tenements or any exploration value within the tenements. The project valuation has been split between granted tenements and tenements-in-application to provide an understanding of overall value increase if further relevant tenements are granted. Ravensgate considers that in other respects the valuation methodology is consistent irrespective of tenement status and fit for the purposes of internal reviews and studies. In conclusion the valuation is intended for Australis's and Mojo's internal use only, and that the valuations included in this document for granted tenements comply with the Valmin Code (2005) but those provided for tenement applications do not comply with the Valmin Code (2005).

The work has been commissioned by Australis and Mojo. Australis and Mojo will rely upon and use the report to assist separately forming an opinion about the value of the mineral rights in relation to an internal review of the project tenements granted and in application. This report does not provide a valuation of Australis or Mojo as a whole, nor does it make any comment on the fairness and reasonableness of any aspect of any proposed transactions.

The conclusions expressed are valid as at the Valuation Date (30 June 2010). The valuation is therefore only valid for this date and may change with time in response to changes in economic, market, legal or political factors, in addition to ongoing exploration results. All monetary values included in this report are expressed in Australian dollars (AUD) unless otherwise stated. The report has been compiled based on information available up to and including the date of this report. Consent has been given for the internal distribution of this report in the form and context in which it appears.

2.3 Disclaimer

Australis Resources Limited and Mojo Mining Limited are understood to be the beneficial owner of the tenements in Table 1. Ravensgate is not qualified to make any statement or comments whatsoever regarding the legal tenure of the mining properties.

Of note is that as this report is intended for Australis's internal use the valuation includes both granted tenements and tenement applications. The valuations provided for granted tenements have been prepared in accordance with the Valmin Code (2005). However the valuation provided for tenement applications do not comply with the Valmin Code.

All work conducted during this study is based on information provided by the understood title holders of the project, along with technical reports by other consultants, associated contractors, previous tenement holders, and other relevant published and unpublished data specified for the project areas concerned.

2.4 Principal Sources of Information

The principal sources of information used to compile this report comprise technical reports and data variously compiled by Australis or Mojo and their consultants, publically available information such as ASX releases, and discussions with Australis technical and corporate management. A listing of the principal sources of information is included in the references.

No site visits were undertaken to the exploration projects as they are generally at an early stage of development. Ravensgate is of the opinion that no significant additional benefit would have been gained through site visits.

All reasonable enquiries have been made to confirm the authenticity and completeness of the technical data upon which this report is based. A final draft of this report was also provided to Australis or Mojo, along with a request to identify any material errors or omissions prior to final submission.

2.4.1 Qualifications and Technical Experience of Author

Author : Don Maclean - Principal Consultant - Geology

MSc Geology, MAIG, MSEG

Don is a geologist with over fifteen years experience in exploration geology, mine geology, resource modelling and project management throughout Australasia and Europe. He has worked in a variety of commodities, including gold, precious and base metals. Prior to joining Ravensgate, Don was the Chief Geologist for Ironbark Zinc where he was responsible for managing exploration and resource development work at the Citronen Fjord Zinc project in Greenland. Prior to this, Don worked for Newmont and Normandy throughout Australasia in a variety of senior exploration and mine based roles. Don was instrumental in the discovery and development of the 1.5 Million ounce Westside Gold Deposit at Nimary-Jundee in Western Australia. Don has a broad skill base, having worked in regional and near mine exploration, resource development, open pit and underground geology as well as senior company management roles. He has extensive experience in planning and managing large exploration projects, working on feasibility teams, technical audits, resource generation, and exploration target generation. He has worked in a variety of geological terranes ranging from the high Arctic to the arid desserts of Australia. Mr. Maclean holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia.

Co Author: Craig Allison, Principal Consultant.

BAppSci (Hons) Geology, Member of Australasian Institute of Mining and Metallurgy.

Craig Allison is employed by Ravensgate Consulting as a Principal Consultant where he carries out work for Mineral Resource estimations, Independent Technical Valuations, Independent Geologist Report's and Formal Technical Project reviews. He has over 15 years mining industry experience in operational project exploration, grade control and resource estimation. Craig has worked for both junior and larger ASX listed companies, encompassing open-cut/underground base and precious metal operations and uranium resource evaluation. Competent Person sign-off was undertaken for BHP Billiton's Mt Keith nickel resource and other projects surrounding the mine in 2007. A Post Graduate course in Geostatistics was completed in 2006. Craig Allison holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia. He is a Qualified Person under the rules of the CIMM and NI43-101.

Co Author: H. Kate Holdsworth, Senior GIS Geologist

BSc (Hons) Geology, MAusIMM

H. Kate Holdsworth is a senior GIS geologist with over 17 years GIS experience who joined the Ravensgate team in September 2006. During her tenure at Ravensgate, she has contributed to the compilation of numerous Independent Geologists Reports, Valuation Reports, GIS projects as well as having assisted clients with their exploration reporting requirements and QA/QC investigations into client's data quality.

Prior to joining Ravensgate, she worked for Giscoe Pty Ltd, a GIS company in Johannesburg, for ten years, where she was involved in diverse GIS projects, including database creation, database population and data validation. Kate has four years experience in GIS with the Geological Survey of South Africa, where she was a member of their GIS database design team.

Reviewer: Stephen Hyland, Principal Consultant, Ravensgate.

Bachelor Of Science (Geol). MAusIMM , CIM & GAA.

Stephen Hyland has had extensive experience of over 20 years in exploration geology and resource modelling and has worked extensively within Australia as well as offshore in Africa, Eastern and Western Europe, Central and South East Asia modelling base metals, Phosphate, precious metals and industrial minerals. Stephen's extensive resource modelling experience commenced whilst working with Eagle Mining Corporation NL in the diverse and complex Yandal Phosphate Province where for three and half years he was their Principal Resource Geologist.

The majority of his time there was spent developing the historically successful Nimary Mine. He also, however assisted the regional exploration group with preliminary resource assessment of Eagle's numerous exploration and mining leases. Since 1997, Stephen has been a full time consultant with the minerals consulting firm Ravensgate where he is responsible for all geological modelling and reviews, mineral deposit evaluation, computational modelling, resource estimation, resource reporting for ASX / JORC and other regulatory compliance areas. Primarily, Stephen specialises in Geological and Resource Block Modelling generally with the widely used Medsystem / Minesight 3-D mine-evaluation and design software. Stephen Hyland holds the relevant qualifications and professional associations required by the ASX, JORC and ValMin Codes in Australia. He is a Qualified Person under the rules for NI43-101 reporting and compliance requirements.

Reviewer: Richard Hyde, Associate Consultant.

Bachelor of Science, Geology and Geophysics, Member of Australasian Institute of Mining and Metallurgy.

Mr Richard Hyde, is a geologist with more than 14 years experience in the minerals industry including over five years experience operating in exclusively West Africa. Richard has worked in a number of different geological environments in Australia, Africa and Eastern Europe. He has managed large exploration projects and worked extensively within the minerals industry as a consulting geologist. He is an Associate Consultant of Ravensgate and a Member of the AusIMM, and has the appropriate qualifications, experience and independence to satisfy the requirements as an "Expert" as defined under the Valmin code.

3. BACKGROUND

3.1 Project Area Overview

Australis Resources Limited and Mojo Mining Limited have acquired a very large holding of exploration licenses and license applications throughout northwest Queensland and the eastern Northern Territory (Figure 1). The licenses are centred on the marine carbonates of the Georgina Basin and the basement Proterozoic rocks of the Mount Isa group and correlates. The tenement package is primarily prospective for phosphate, base metal and uranium mineralisation.

This large tenement holding has been grouped into nine geographic project areas to aid in description and evaluation (Figure 1):

- Mittiebah Project (NT)
- Desert Creek Project (NT)
- Ranken Project (NT)
- Tablelands Project (NT)
- Tobermorey Project (NT)
- Mojo Project (QLD)
- Camooweal Project (QLD)
- West Isa Project (QLD)
- Glenormiston Project (QLD)
- Boulia Project (QLD)

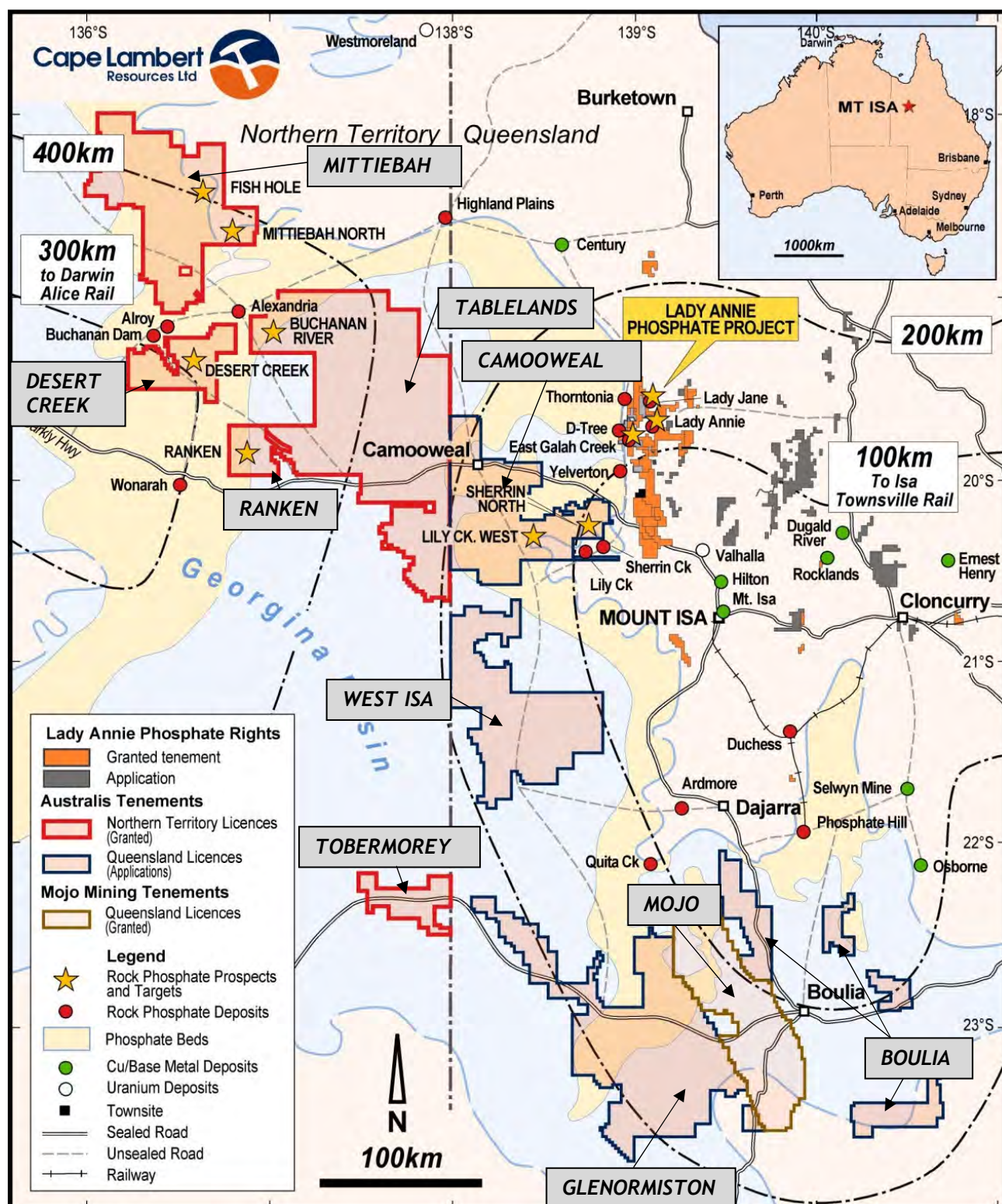


Figure 1: Australis Resources Limited and Mojo Mining Limited tenement holdings and project areas. Note Georgina Basin (pale blue) covers much if the exploration license areas.

3.2 TENURE

Australis Resources and Mojo Mining's tenure comprises some 70 tenements covering 45,149 km² of Queensland and the Northern Territory. Of this 31 tenements (25,124 km²) are granted with the remainder applications in Queensland that are at varying stages of the title application process. Tenement details are summarized in Table 1.

| TABLE 1: Australis Resources and Mojo Mining Tenement Schedule | | | | | |
|--|-----------------|--------------|----------------------|-----------------|---------------|
| <i>Project</i> | <i>Tenement</i> | <i>State</i> | <i>Tenement Name</i> | <i>Area km2</i> | <i>Status</i> |
| Ranken | EL26302 | NT | GLASSHOUSE 1 | 1589 | Granted |
| Tablelands | EL26303 | NT | GLASSHOUSE 2 | 1356 | Granted |
| Ranken | EL26304 | NT | GLASSHOUSE 3 | 1587 | Granted |
| Tablelands | EL26305 | NT | GLASSHOUSE 4 | 1601 | Granted |
| Tablelands | EL26307 | NT | GLASSHOUSE 5 | 1608 | Granted |
| Tablelands | EL26308 | NT | GLASSHOUSE 6 | 1622 | Granted |
| Desert Creek | EL26309 | NT | GLASSHOUSE 7 | 1622 | Granted |
| Desert Creek | EL26310 | NT | GLASSHOUSE 8 | 1620 | Granted |
| Mittiebah | EL26311 | NT | GLASSHOUSE 9 | 1626 | Granted |
| Mittiebah | EL26312 | NT | GLASSHOUSE 10 | 1628 | Granted |
| Mittiebah | EL26314 | NT | GLASSHOUSE 11 | 1633 | Granted |
| Mittiebah | EL26701 | NT | GLASSHOUSE 12 | 916 | Granted |
| Ranken | EL26702 | NT | GLASSHOUSE 14 | 639.7 | Granted |
| Tablelands | EL26703 | NT | GLASSHOUSE 13 | 958.3 | Granted |
| Tobermorey | EL26928 | NT | TOBERMORY | 1004.08 | Granted |
| Camooweal | EPMA16607 | QLD | WEST ISA 1 | 505.10 | Granted |
| Mojo | EPM15687 | QLD | Glenorm 4 | 317 | Granted |
| Mojo | EPM15688 | QLD | Glenorm 12 | 315.8 | Granted |
| Mojo | EPM15690 | QLD | Glenorm 2 | 317.5 | Granted |
| Mojo | EPM15691 | QLD | Glenorm 11 | 158 | Granted |
| Mojo | EPM15692 | QLD | Glenorm 3 | 317.2 | Granted |
| Mojo | EPM15693 | QLD | Glenorm 10 | 221.3 | Granted |
| Mojo | EPM15694 | QLD | Glenorm 9 | 224.5 | Granted |
| Mojo | EPM15695 | QLD | Glenorm 5 | 158.5 | Granted |
| Mojo | EPM15696 | QLD | Glenorm 7 | 158 | Granted |
| Mojo | EPM15697 | QLD | Glenorm 13 | 315.7 | Granted |
| Mojo | EPM15698 | QLD | Glenorm 6 | 316.7 | Granted |
| Mojo | EPM15699 | QLD | Glenorm 15 | 157.7 | Granted |
| Mojo | EPM15700 | QLD | Glenorm 8 | 158.2 | Granted |
| Mojo | EPM15701 | QLD | Glenorm 16 | 157.5 | Granted |
| Mojo | EPM15702 | QLD | Glenorm 14 | 315.5 | Granted |

| <i>Project</i> | <i>Tenement</i> | <i>State</i> | <i>Tenement Name</i> | <i>Area km2</i> | <i>Status</i> |
|-----------------------|------------------------|---------------------|-----------------------------|------------------------|----------------------|
| Camooweal | EPMA16609 | QLD | WEST ISA 3 | 644.50 | Application |
| Camooweal | EPMA16611 | QLD | WEST ISA 5 | 694.60 | Application |
| Camooweal | EPMA16616 | QLD | WEST ISA 4 | 571.30 | Application |
| West Isa | EPMA16619 | QLD | WEST ISA 2 | 447.60 | Application |
| Camooweal | EPMA16633 | QLD | WEST ISA 6 | 644.50 | Application |
| Camooweal | EPMA16789 | QLD | WEST ISA 7 | 90.35 | Application |
| West Isa | EPMA16790 | QLD | WEST ISA 9 | 629.30 | Application |
| West Isa | EPMA16791 | QLD | WEST ISA 11 | 640.50 | Application |
| West Isa | EPMA16792 | QLD | WEST ISA 15 | 638.90 | Application |
| West Isa | EPMA16793 | QLD | WEST ISA 16 | 108.60 | Application |
| West Isa | EPMA16794 | QLD | WEST ISA 13 | 624.00 | Application |
| Camooweal | EPMA16795 | QLD | WEST ISA 8 | 701.90 | Application |
| West Isa | EPMA16796 | QLD | WEST ISA 14 | 639.40 | Application |
| West Isa | EPMA16797 | QLD | WEST ISA 10 | 641.30 | Application |
| West Isa | EPMA16798 | QLD | WEST ISA 12 | 640.00 | Application |
| Glenormiston | EPMA16828 | QLD | SOUTH ISA 2 | 631.70 | Application |
| Glenormiston | EPMA16829 | QLD | SOUTH ISA 1 | 613.30 | Application |
| Glenormiston | EPMA16830 | QLD | SOUTH ISA 4 | 560.80 | Application |
| Glenormiston | EPMA16831 | QLD | SOUTH ISA 3 | 627.90 | Application |
| Glenormiston | EPMA16832 | QLD | SOUTH ISA 5 | 327.40 | Application |
| Boulia | EPMA16833 | QLD | SOUTH ISA 6 | 578.50 | Application |
| Boulia | EPMA16834 | QLD | SOUTH ISA 7 | 590.00 | Application |
| Glenormiston | EPMA17014 | QLD | SOUTH ISA 10 | 632.10 | Application |
| Glenormiston | EPMA17015 | QLD | SOUTH ISA 13 | 475.70 | Application |
| Glenormiston | EPMA17016 | QLD | SOUTH ISA 14 | 122.80 | Application |
| Glenormiston | EPMA17017 | QLD | SOUTH ISA 8 | 713.20 | Application |
| Glenormiston | EPMA17020 | QLD | SOUTH ISA 11 | 584.00 | Application |
| Glenormiston | EPMA17022 | QLD | SOUTH ISA 12 | 630.90 | Application |
| Glenormiston | EPMA17024 | QLD | SOUTH ISA 9 | 632.90 | Application |
| Glenormiston | EPMA17482 | QLD | SOUTH ISA 17 | 490.60 | Application |
| Glenormiston | EPMA17483 | QLD | SOUTH ISA 16 | 507.10 | Application |
| West Isa | EPMA17776 | QLD | SOUTH ISA 18 | 357.50 | Application |
| West Isa | EPMA17777 | QLD | TOBERMORY | 361.40 | Application |
| Boulia | EPMA17778 | QLD | BOULIA 4 | 557.90 | Application |
| Boulia | EPMA17779 | QLD | BOULIA 2 | 354.60 | Application |
| Glenormiston | EPMA17780 | QLD | WEST ISA 18 | 76.25 | Application |
| Glenormiston | EPMA17781 | QLD | WEST ISA 17 | 450.70 | Application |
| Boulia | EPMA17782 | QLD | BOULIA 1 | 390.40 | Application |

| | | | | | |
|--------|-----------|-----|----------|--------|-------------|
| Boulia | EPMA17783 | QLD | BOULIA 3 | 400.10 | Application |
|--------|-----------|-----|----------|--------|-------------|

3.3 Sources of information and methodology

Australis Resources provided Ravensgate an extensive array of data on the projects which included:

- Geophysics (Magnetism, Radiometrics, Gravity)
- Government Geological Mapping
- Historical Reports
- Various internal company reports

Of note is that Australis commissioned M Cooper of Resource Potentials to undertake compilation and geophysical target identification of their geophysical data sets and provided these reports to Ravensgate. This work of excellent standard and Ravensgate has drawn on the targets identified in this work and attempted to put them into geological context. In addition there has also been good prospectivity work done on the Mojo Project area by Groves (2008) and Mclean et al (2008) which Ravensgate has also used and acknowledges.

Ravensgate methodology was to systematically review the geological and geophysical data sets for each project area and review previous work. Extensive searches of historic tenement reports were carried out as the set of reports provided by Australis was incomplete. In addition historic drilling information for mineral exploration and waterbores was obtained from the relevant Northern Territory and Queensland authorities. Unfortunately none of these drilling data sets appear to have any sampling for phosphate, base metals or uranium within the project areas.

Targets were reviewed and ranked using a set of subjective geological and economic criteria. Using these ratings and rankings the prospectivity of each project area was evaluated, and on this basis recommendations for tenement holding strategy and future exploration work are based. This information, along with relevant comparable transactions was used to estimate valuations for the projects.

4. REGIONAL GEOLOGICAL SETTING

The regional geologic setting of Australis's and Mojo's tenement holdings are dominated by a sequence of extensive marine carbonates and sediments of the Paleozoic Georgina Basin (Figure 1). These are underlain by Proterozoic sediments, volcanics and granitoids of the Mount Isa Inlier and South Nicholson Basin.

The Mount Isa Inlier outcrops over some 50,000 km² of North Queensland (Blake et al, 1990) and consists of Early and Middle Proterozoic rocks which can be grouped into three broad tectonic belts; the Western Fold Belt, the Kalkadoon-Ewen Province and Eastern Fold Belt (Figure 2).

The Western Fold belt is further subdivided into three main units the Lawn Hill subprovince, the Mt Gordon Fault Zone and the Leichardt River subprovince. The Eastern fold belt is subdivided into the Mary Kathleen, Quamby-Malbon and Cloncurry-Selwyn zones (Blake et al, 1990).

The oldest Proterozoic basement metamorphic rocks are dated around 1890-1870 Ma (Blake et al, 1990). Three Proterozoic cover rock sequences of shallow marine and sub aerial volcanics have been identified with ages ranging from 1870 to 1670 Ma. Regional deformation, compression and metamorphism up to amphibolite facies occurred around 1620 to 1550 Ma. Granitoids and mafic intrusions have been emplaced at various times before 1100 Ma with those older than 1550 variably deformed and metamorphosed (Blake et al, 1990). Of note is the Syabella Granite, which is interpreted to underlie parts of the Mojo project area, which has been dated at 1670 Ma.

The Western Fold belt outcrops in the eastern part of the Camooweal project area and is interpreted to form the basement to the Mojo and Boulia project areas. The belt is comprised of a sequence of felsic volcanics and coarse conglomerates (Bottle Tree Formation) overlain by the sandstones/siltstones/quartzites, mafic volcanic (Eastern Creek Volcanics) and carbonates of the Haslingden Group. These units are overlain by felsic/silicic volcanics and the shales and siltstones of the Mount Isa and McNamara Group rocks.

The Mount Isa Inlier is a highly mineralized province with four major styles of mineralization recognized (Queensland Minerals ref):

- Sediment hosted Zn-Pb-Ag; these are found within metamorphosed pyritic and dolomitic shales of the sedimentary successions of the Western Fold Belt. Notable deposits including Mount Isa Pb-Zn, Century, George Fisher, Hilton, Dugald River and Lady Loretta
- Brecciated Sediment Hosted Cu; brecciated sediment hosted Cu deposits occur within the brecciated sediments proximal to fault zones within the Western Folds Belt. Notable examples are the Mount Isa, Esparanza/Mammoth and Lady Annie.
- Iron-oxide Cu-Au; these styles occur within high metamorphic grade rocks of the Eastern Fold belt with examples including Ernest Henry, Selwyn and Osbourne. Mineralisation is typically chalcopyrite-pyrite-magnetite.
- Broken Hill Type Ag-Pb-Zn; this style of mineralization occurs within high metamorphic grade rocks of the Eastern Fold Belt with the Cannington being the only major example.

Unconformably overlying the Western Fold belt are Proterozoic age rocks of the South Nicholson Basin. These are comprised of sandstones, siltstones and shales of the South Nicholson Group. These rocks outcrop in the northeast of the Mittiebah project area and are interpreted to form basement to much of Australis's Northern Territory and western Queensland project areas. Of note is that little mineralization of economic significance (aside from sedimentary ironstone deposits) has been identified within these rocks to date.

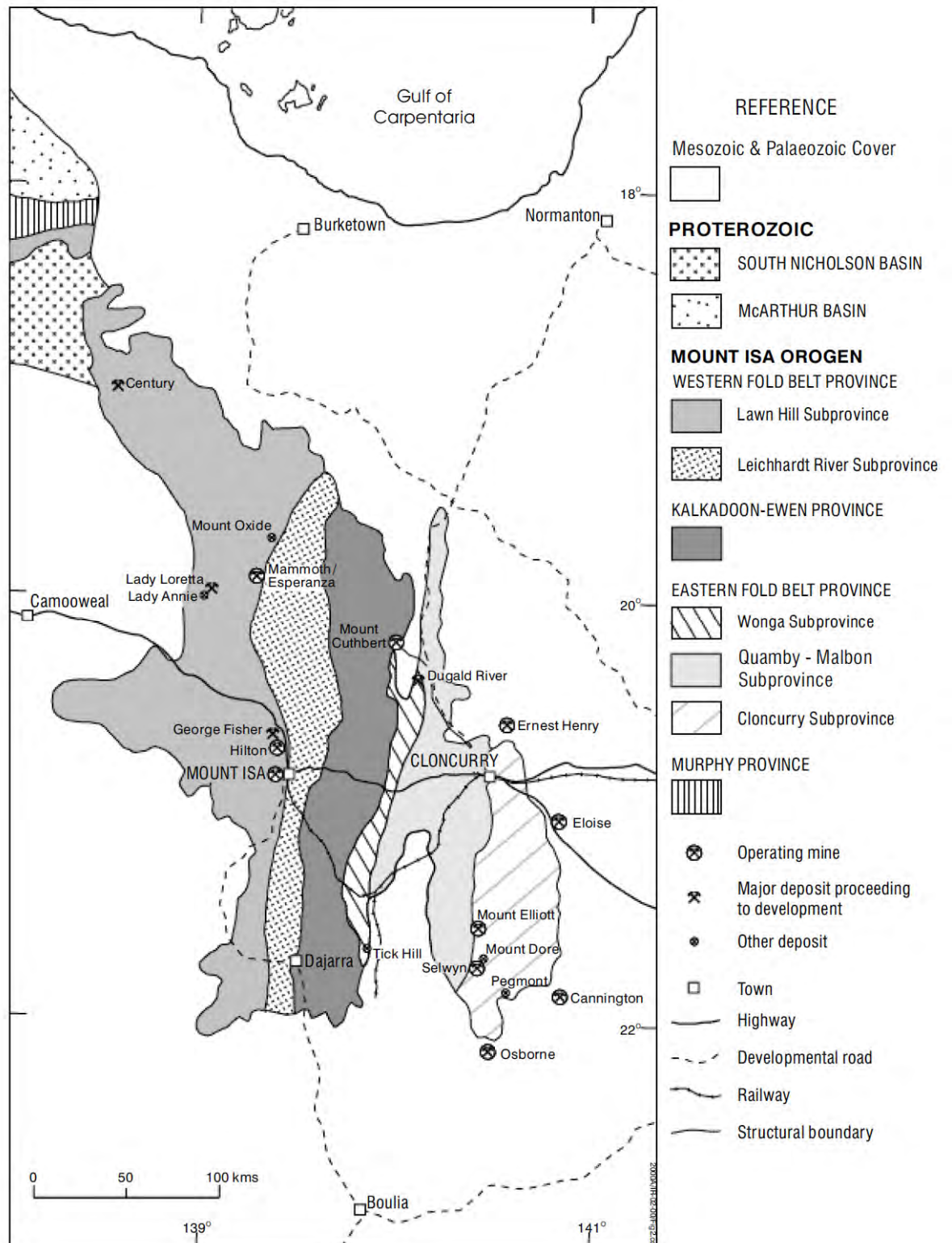


Figure 2: Geological Setting of North Queensland Proterozoic Basement and major deposits (after Queensland Geological Survey)

The majority of Australis's and Mojo's tenement holdings are held within the Georgina basin which is Cyrogenian (Neoproterozoic) to Devonian in age. This extensive basin has an area of over 325,000km² (Khan, 2007). Basin thickness ranges from tens of metres on basin margins and highs to up to two km in the deepest parts. The basin fill is dominated by Cambrian marine carbonate platform sediments.

The Basin has been subdivided into several smaller sub-basins (Figure 3) which reflect the thickness of fill (Khan, 2007). Australis's projects are generally on the margins of the Barkly and Undilla sub-basins.

The stratigraphic sequence within the basin consists of a basal sequence of terrigenous sediments overlain by Early Cambrian flood basalts (Helen Creek Volcanics and equivalents). These are overlain by marine arenaceous rocks that grade upwards into marine carbonates as the basin deepened (Thortonia Limestone) and siltstone-shale-chert sequences (Gum Ridge Formation). At this time the sedimentary lateral facies trends of arenites, lutites, clastic and chemical carbonates and chert was established and deposition of phosphate began (Howard, 1986).

A marine regression and transgression followed in the Mid Cambrian and in the Undillan sub-basin the major deposition of phosphorite within the silt-shale-chert-carbonate facies of the Beetle Creek, Border Waterhole, Wonarah and Burton beds began (Howard, 1986). These are overlain and interdigitated with marine carbonates (Camoweal Dolomite). In deeper parts of the basin these grade upwards into deeper marine siltstones and sandstones (Ninmaroo Formation)..

A number of major phosphate deposits are hosted within the mid Cambrian carbonates of the Georgina Basin which Howard (1986) groups into three distinctive depositional regimes:

- open marine shelf - deposition of phosphorites on the marine shelf on the seaward flank of the margins of the basin (eg Duchess)
- shallow marine epicontinental basin - deposition of phosphorites in hypersaline carbonate banks on the margins of channels within lagoons and estuaries (eg D-Tree, Lady Annie)
- epicontinental basin high - deposition of phosphates on the crest and margin of a submarine ridge within an area dominated by red beds (eg Wonarah, Alroy)

Overlying the Georgina Basin Cambrian-Ordovician rocks are a sequence of Jurassic Cretaceous shales, siltstones and sandstones and carbonates related to the Carpenteria Basin, formed in an extensive shallow marine basin (Longsight Sandstone, Poland Waterhole Shale).

In the Tertiary uplift and erosion resulted in formation of ferruginous duricrust and weathered leached kaolonitised rocks throughout many areas. In the Miocene transgression resulted in the formation of extensive lacustrine or shallow marine carbonates (Austral Downs Limestone, Brunette Limestone). Uplift and erosion from the Pliocene to present has resulted in the development of nodular ferricrete, residual soils, colluvium and alluvial material related to the development of drainage systems.

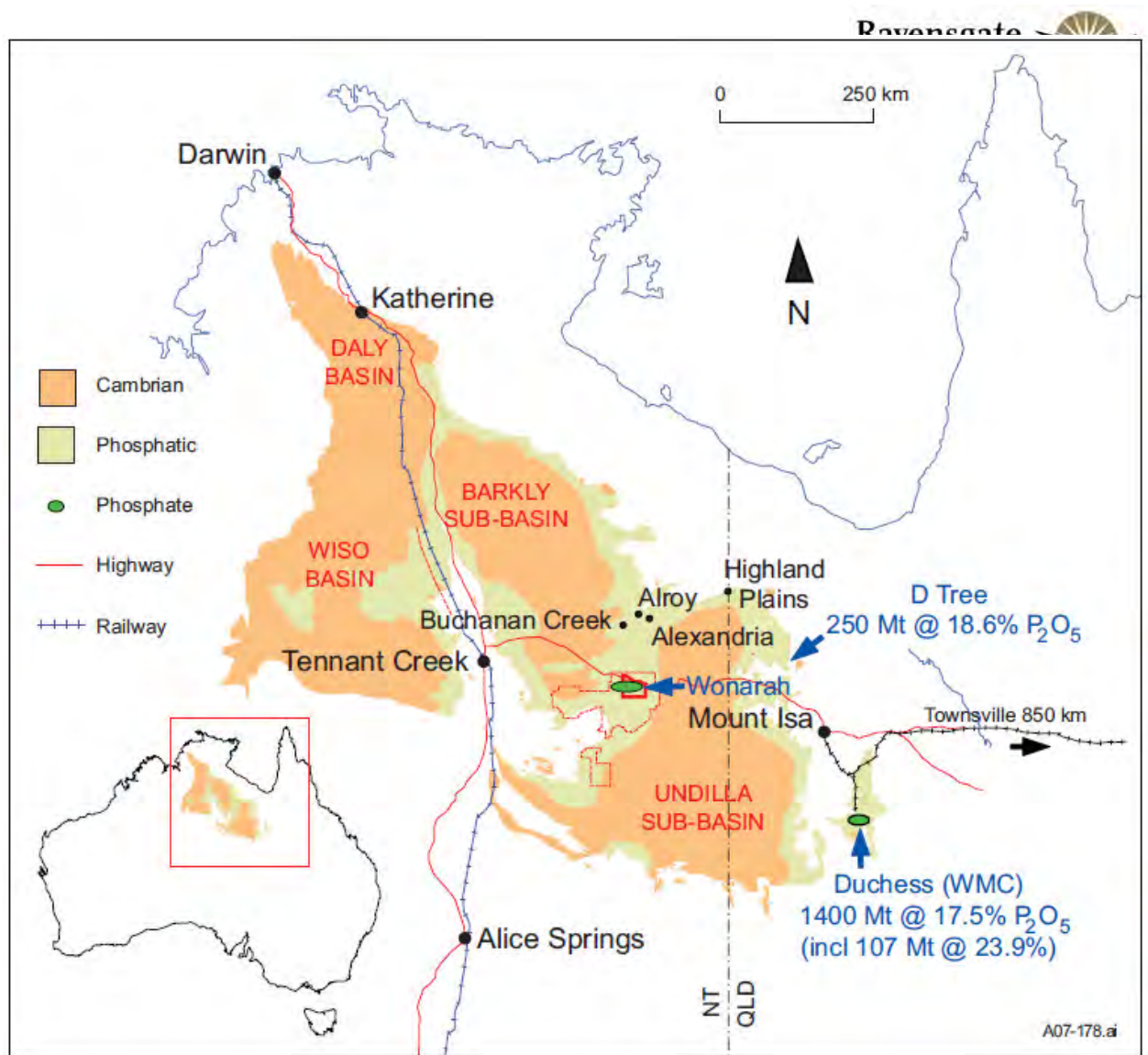


Figure 3: Georgina Basin and major phosphate deposits. Note deposits lie on the margins of the basin or on a major basin high (the Wonarah-Alexandria basement high) (after Khan, 2007)

5. TARGET MINERALISATION STYLES AND EXPLORATION CRITERIA

5.1 PHOSPHATE

5.1.1 GEOLOGY

Phosphate deposits can be classified into three types. The most economically significant are marine sedimentary deposits, termed phosphorites, which are typically argillaceous to sandy sediments containing stratified concentrations of calcium phosphate, mainly as apatite. Phosphate mineralisation within the Georgina Basin is typical of this type of deposit. Other deposit types are, apatite-rich igneous rocks, and modern and ancient guano accumulations.

The generally accepted genetic model for marine phosphate deposits relates to upwelling deep ocean currents feeding phosphate onto shallow marine platforms. The P_2O_5 concentration of marine waters is at a maximum at between 30 and 500m. Above this depth dissolved phosphorous is consumed by phytoplankton. Below 500m saturation of the water with respect to apatite is prevented by the increasing fugacity of CO_2 with depth. Precipitation of solid phosphate can thus occur between these extremes typically at a depth of 50 to 200m. Phosphorites generally form beds a few centimetres to tens of metres thick that are composed of grains of cryptocrystalline carbonate fluorapatite, which is often referred to as collophane, along with other detritus. Collophane grains were often carbonate grains, oolites or nodules that were phosphatised during diagenesis.

Many phosphorite deposits strongly resemble limestones and in fact contain bioclasts and oolites in all stages of replacement by phosphate species. This is evidence that phosphate metasomatism is certainly an active process. This, however, does not constitute proof that the entire rock is a replacement product (Blatt et. al., 1980).

Ancient phosphate deposits are nearly all of shallow marine origin. This can be seen from the presence of shelf dwelling organisms, reef building algae and shallow water sedimentary structures. The phosphatic component occurs in the phosphorites as a cement, oolitic and pelletiferous grains, bioclastic fragments and intraclastic debris (Blatt, 1980). Paleobathymetry is thought to play an important role on the deposition and distribution of phosphorite facies sediments.

Phosphate nodules vary in size, up to several centimetres in diameter as well as in composition. Some nodules are composed mainly of collophane while some nodules are partially silt and clay i.e. terrigenous material in a collophane matrix. Nodules are also layered with some being concentrically banded. Many nodules are composed of smaller fragments and have a brecciated or conglomeritic texture. Nodular phosphorites are most common with platform style deposits, they are also a relict feature of many disconformity and unconformity surfaces.

5.1.2 ECONOMIC CRITERIA

Phosphate content of phosphate rock is generally quoted at %P₂O₅ or as %BPL (bone phosphate of lime) which equates to 2.1853x%P₂O₅. Sedimentary phosphate rock mined at present usually grades between 20 - 30% P₂O₅. Treatment is required to remove contaminants and to increase the grade of P₂O₅ to 30 - 40%. Figure 4 illustrates the grades of processed concentrates from various global phosphate producers (after Van Kauwenbergh, 2002). Treatment takes the form of either flotation or calcination. The beneficiated phosphate is treated with sulphuric acid to produce phosphoric acid, which is the feedstock for ammonium fertilizer. Superphosphate and triple superphosphate are the feedstock for higher-grade fertilizers.

Australia's largest phosphate deposits are found in Middle Cambrian phosphorites of the Georgina Basin in Queensland, and include the Phosphate Hill deposit which is being mined by open-cut methods by Incitec Pivot Limited. Phosphate rock at Phosphate Hill is converted into high-quality ammonium phosphate fertiliser for domestic and export markets in a vertically integrated operation that includes the mine, a phosphoric acid facility and ammonia and granulation plants at Phosphate Hill, a sulphuric acid plant at Mount Isa, and storage and port facilities at

Townsville. Approximately 2.1 Mt of phosphate rock is mined annually and used to manufacture di-ammonium phosphate fertiliser, mono-ammonium phosphate (MAP) and sulphur-impregnated MAP (MAP-S) products. The operation is Queensland's most significant industrial mineral in terms of production value and in 2006-07 the company reported production of 961,000 tonnes of ammonium phosphate fertiliser.

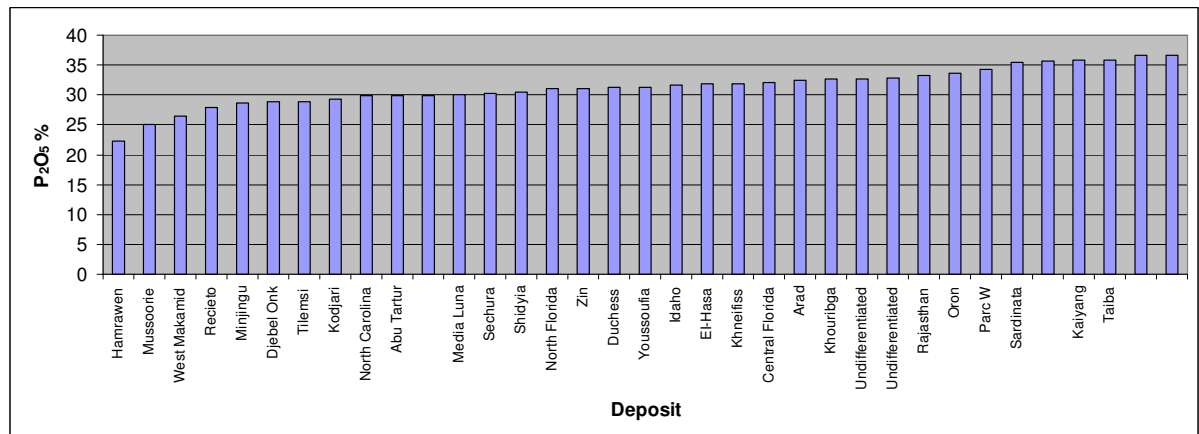


Figure 4 Phosphate grades of processed concentrates of sedimentary phosphate deposits (After Van Kauwenbergh (2002)).

5.1.3 EXPLORATION CRITERIA

Phosphate deposits within the Georgina Basin area exhibit a number of key geological features. All deposits are shallow marine and are either within 20 kilometres of the margins of the basin or lie on a major structural high within the basin (Figure 3). The depth at which phosphate precipitates out of solution is generally accepted to be in the range of 30 to 200 metres below surface, with most Georgina Basin deposits likely to be at the shallower end of this range.

The depositional environment bathymetry and sedimentary facies distribution play major roles in phosphate deposition and concentration. In particular embayments in the basin margin (ie lagoonal or estuarine environments) appear to often have been important sites for phosphate deposition. Understanding the depositional environment is very important to identify areas that have potential for accumulation of phosphate at economic grades at thicknesses.

In addition all known major deposits in the basin are of Middle Cambrian age and occur within the Beetle Creek and Wonarah Formations or equivalents. It appears that at this time the paleoclimatic and oceanic chemical conditions were the most favourable for deposition of phosphate.

Geophysical datasets are useful in aiding in the identification of outcropping phosphate occurrences as apatite within the phosphate beds may have a radioactive signature (Cooper, 2010). This appears to be the case with other Queensland phosphate deposits however Cooper (2010) notes Northern Territory deposits such as Wonarah have no or minimal radioactive signatures. Cooper (2010) reviewed the geophysical characteristics of Georgina Basin phosphate deposits and concludes that they have no spectral signature (ie Landsat, Aster, Hymap), have no discrete magnetic or gravity signature, but that gravity and magnetic are useful in identifying basement highs or margin embayments that have potential for phosphate deposition.

5.2 Uranium Mineralisation Styles

Different styles of uranium mineralisation occur throughout the world, and those which relevant to projects discussed in this report are noted here. Information regarding various deposit styles has largely been compiled from McKay & Miezeitis, 2001. Uranium deposition has been proven to occur in a variety of environments of many different origins, and as many diverse ore types. Economic uranium deposits occur in a variety of geological environments which include :

- Vein-related eg Jachymov (Czech Republic) and Shinkolobwe (Zaire).
- Primary magmatic intrusion eg Rossing-alaskite (Namibia), Olympic Dam (Australia) and skarns.
- Ancient placers eg Elliot Lake (Canada), Witwatersrand (South Africa).
- Unconformity-related eg Athabasca (Canada) , Alligator River (Australia).
- Sandstone-hosted 'roll front' eg Grants Mineral Field (New Mexico, USA).
- Calcrete drainage and playa lake eg Yeelirrie (Australia).

Unconformity-related deposits - Unconformity deposits are typically Proterozoic in age and are developed in association with major structural dislocation and thrusting on the margins of basement ridges. Reactive metasedimentary rocks such as marble, calc silicate, graphitic schists, within and proximal to thrust zones, are preferred host lithologies especially where overlain unconformably by sheet sandstone sequences. The uranium is considered to be eroded initially from the high background basement and deposited in the overlying porous sandstone sequence. Subsequent fluid flow dissolves the uranium and transports it to suitable chemical and physical trap sites at the unconformable base of the sandstone and within underlying basement structures. Accompanying the uranium mineralisation is chlorite and hematite alteration which destroys magnetite and associated magnetic response. Unconformity deposits can be of relatively high grade and of significant tonnage. Examples of unconformity related deposits are Ranger, Nabarlec, Koongara and Rum Jungle in the Pine Creek Geosyncline of Australia and Cigar Lake, Gaertner and Midwest Lake in the Athabasca region of Canada.

Sandstone deposits - Sandstone uranium deposits occur in medium to coarse-grained sandstones deposited in a continental fluvial or marginal marine sedimentary environment. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sandstone. Uranium is precipitated under reducing conditions caused by a variety of reducing agents within the sandstone including: carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H₂S), hydrocarbons (petroleum), and interbedded basic volcanics with abundant ferromagnesian minerals (e.g. chlorite).

There are three main types of sandstone deposits:

- Rollfront deposits, which are arcuate bodies of mineralisation that crosscut sandstone bedding;
- Tabular deposits are irregular, elongate lenticular bodies parallel to the depositional trend which commonly occur in palaeochannels incised into underlying basement rocks; and
- Tectonic/lithologic deposits which occur in sandstones adjacent to a permeable fault zone.

Sandstone deposits constitute about 18% of world uranium resources. Ore bodies of this type are commonly low to medium grade (0.05 - 0.4% U₃O₈) and individual ore bodies are small to medium in size (ranging up to a maximum of 50 000 tonnes U₃O₈). The main primary uranium minerals are uraninite and coffinite. Conventional mining/milling operations of sandstone deposits have been progressively undercut by cheaper in situ leach mining methods. Some of the largest known uranium deposits are of a sedimentary origin, and in particular from roll front deposition. The roll front deposition mechanism depends upon the geochemical cycle of uranium. At low temperature and pressures, uranium in rocks and minerals undergoing weathering and leaching is oxidised

from U^{+4} to U^{+6} . This is then soluble in ground waters as the $(UO_2)^{+2}$ ion. As long as the ground water remains oxidizing, the uranium ions remain mobile; when the water percolates through a reducing environment the uranyl ions are reduced and uranium is re-precipitated as crystalline uraninite, as coliform bands or pitchblende, or in some cases as the silicate coffinite. The uranium may also bond with vanadium to produce uranium /vanadium minerals.

Roll front deposits form in porous sandstone units confined between impervious clay layers in arid continental environments. They are Tertiary to Recent in age and typically occur in clusters. This style of uranium deposit was the major source of uranium for the USA from 1950 to the 1970's. Other examples of roll front deposits are the Beverley Mine in South Australia the Manyingee deposit, Western Australia and the Kayelekera deposit in Malawi. They generally require easily weathered tuffs or other uranium-rich source rocks in outcrop which are actively undergoing oxidation and leaching. Uranium is released into the groundwater and transported down the hydrological gradient within the sandstone aquifer. When the migrating tongue of oxidized fluid meets reduced waters at depth the chemical interface is known as the redox boundary. The ground waters become reduced and the uranium and associated elements drop out of solution and form a roll front deposit. Such deposits may develop into tabular ore bodies or develop lobates around the progressive roll front as it migrates forward with the ground water flow

Surficial deposits - Surficial uranium deposits are broadly defined as young (Tertiary to Recent) near-surface uranium concentrations in sediments or soils. These deposits usually have secondary cementing minerals including calcite, gypsum, dolomite, ferric oxide, and halite. Uranium deposits in calcrete are the largest of the surficial deposits. Uranium mineralisation is in fine-grained surficial sand and clay, cemented by calcium and magnesium carbonates. Surficial deposits comprise about 4% of world uranium resources. They are formed where uranium-rich granites were deeply weathered in a semi-arid to arid climate. The Yeelirrie deposit in WA is by far the world's largest surficial deposit. Other significant deposits in WA include Lake Way, Centipede, Thatcher Soak, and Lake Maitland. In Western Australia, the calcrete uranium deposits occur in valley-fill sediments along Tertiary drainage channels, and in playa lake sediments. These deposits overlie Archaean granite and greenstone basement of the northern portion of the Yilgarn Craton. The uranium mineralisation is often comprised of carnotite (hydrated potassium uranium vanadium oxide).

Intrusive deposits - included in this type are those associated with intrusive rocks including alaskite, granite, pegmatite, and monzonites. Major world deposits include Rossing (Namibia), Ilimaussaq (Greenland) and Palaborwa (South Africa). In Australia, the main locations are Radium Hill (South Australia) which was mined from 1954-62 (mineralisation was mostly davidite) and the larger ore bodies of low grade mineralisation known are at locations such as Crocker Well and Mount Victoria in the Olary Province, South Australia.

Phosphorite deposits - Cambrian phosphorates at the Duchess deposit in north-west Queensland feature an average grade of 0.0126% U_3O_8 (126ppm) in phosphate ore. Uranium concentrations are generally noted as 0.01 to 0.0015% U_3O_8 within secondary phosphorates which may contain low concentrations of uranium in fine-grained apatite.

8. RANKEN PROJECT, NORTHERN TERRITORY

8.1 Introduction

The Ranken Project consists of 3 granted nearby tenements (EL26302, EL26304 and EL26702), covering 3,815.7km² of the central eastern Northern Territory, close to the border with Queensland. The project is located approximately 230km east of Tenant Creek and 10km north of the Barkly Highway. The western boundary of the project area lies within 35 km of Minemaker's Wonarah phosphate deposit.

8.2 Geology

The geology of the Ranken project area is dominated the basin fill sediments of the Cambrian to Mid Ordovician Georgina Basin. The Cambrian and Early Ordovician rocks are predominantly marine carbonate rocks with minor sandstone and siltstone, and the Middle Cambrian rocks are mostly siltstone and sandstone. In the west of the project areas lies a basin high known as the Alexandria-Wonarah Basement high, a shallow marine platform during the Mid Cambrian, on which all the known phosphate deposits in the region are located. Much of the of the project area is overlain by recent cover rocks and alluvial material.

8.3 Previous Exploration

The Ranken Project area has been explored by previous workers. The details of this and the work that was completed are presented in Table 10.

Table 10: Ranken Project - Previous Exploration

| | Company | Findings |
|-----------|-----------------|--|
| 1968-1971 | IMC Development | IMC Development completed an extensive phosphate exploration program covering the majority of the project area. Work completed included air photo interpretation, geological mapping, and interpretation of radiometric and magnetic geophysics surveys. They completed an extensive drilling program which led to the discovery of the Wonarah and Alexandria phosphate deposits (outside of project area to the west and north). They note that phosphate mineralisation occurs within clastic sediments on the margins of Precambrian basement highs and these sediments (the Wonarah Beds, Burton Beds and Anthony Lagoon Beds) are likely to be Mid-Cambrian correlates of the Beetle Creek-Inca Creek Formations in Queensland that host the D-Tree phosphate deposit. They also note that the most favourable environment appears to be have been in silt-chert facies in the shallows of the Middle Cambrian phosphogenic sea. A total of 2 widely spaced drill holes were completed within the northern part of the project area (approximately 100 metres). Drill cuttings were tested with ammonium molybdate to assess whether phosphate was present and select intervals for assaying. No assay results for the holes have been located but the tenements were relinquished as they were not thought prospective for phosphate mineralisation and to focus on the neighbouring Wonarah and Alexandria deposits. |
| 1984-1985 | CRA Exploration | Completed diamond exploration program over the eastern two thirds of the project area. Completed a helicopter supported drainage sampling program with several micro-diamonds recovered that were believed to have been recycled from a secondary detrital source. Orientation aeromagnetic surveying was completed, indicating the area was amenable to detailed magnetic for detecting magnetic diatremes. |
| 2003-2004 | De Beers | Completed work covering part of the western quarter of the project area. From geophysical interpretation of data three anomalies were identified as being prospective for diamond mineralisation and were drill tested. No diamond indicator minerals or favourable host rocks were found and the tenement was relinquished |

8.4 Tenement Exploration Potential and Targets

8.4.1 Phosphate

The Ranken project area is considered to be prospective for phosphate deposits due to the following:

- The western part of the project area lies along strike on the same interpreted basin high as the Wonarah deposit to the west.
- Mid Cambrian shallow marine carbonate facies assemblages are mapped and outcrop in the western part of the project (most notably the Wonarah Formation)
- The western margin of the project area lies within 30 km of Minemaker's Wonarah deposit.
- Phosphatic beds within the Georgina basin have been interpreted by geological survey workers to cover much of the project area
- Gravity and magnetic suggest areas suggest that there may be some basement highs within parts of the Georgina Basin that may have been favourable for phosphate deposition.
- Drilling by previous workers targeting phosphate was very widely spaced and there is space and target areas for substantial deposit to remain un-discovered (ie the Wonarah deposit covers an area of 25 km by 4 km and the Alexandria deposit covers an area of 25km by 1 km)

A number of prospective target zone for phosphate mineralisation throughout the project area. A summary of these targets and their characteristics is shown in Table 11.

8.4.2 Base Metals

The potential for base metal deposits within the project area is considered to be low. There are no outcropping Proterozoic age rocks within the project area. Proterozoic aged rocks are interpreted to form the basement below the Palaeozoic to recent cover, however are mostly at depths that make effective exploration difficult (ie >200m of cover). In addition aeromagnetics and gravity images suggest the basement is rather featureless and there are no obvious prospective structurally favourable sites for mineralisation.

8.4.3 Uranium

Projects tenements are ranked with a low prospectivity for significant, near surface uranium mineralisation. The ranking of low prospectivity reflects geophysical review for anomalous uranium areas over surficial rocks, lack of historical exploration success and examination of geological stratigraphy and understanding

8.4.4 Diamonds

The project area has been extensively explored for diamonds in the 1980's as part of larger regional programs carried out by several companies. A number of micro-diamonds recovered from bulk sampling programs however no significant kimberlite pipes or prospective diatreme targets appear to have been identified. It may be worthwhile re-examining the potential of the area, however of note is that De Beers held tenements covering most of the project area in 2002-2003, carried out a review and decided to relinquish their tenements.

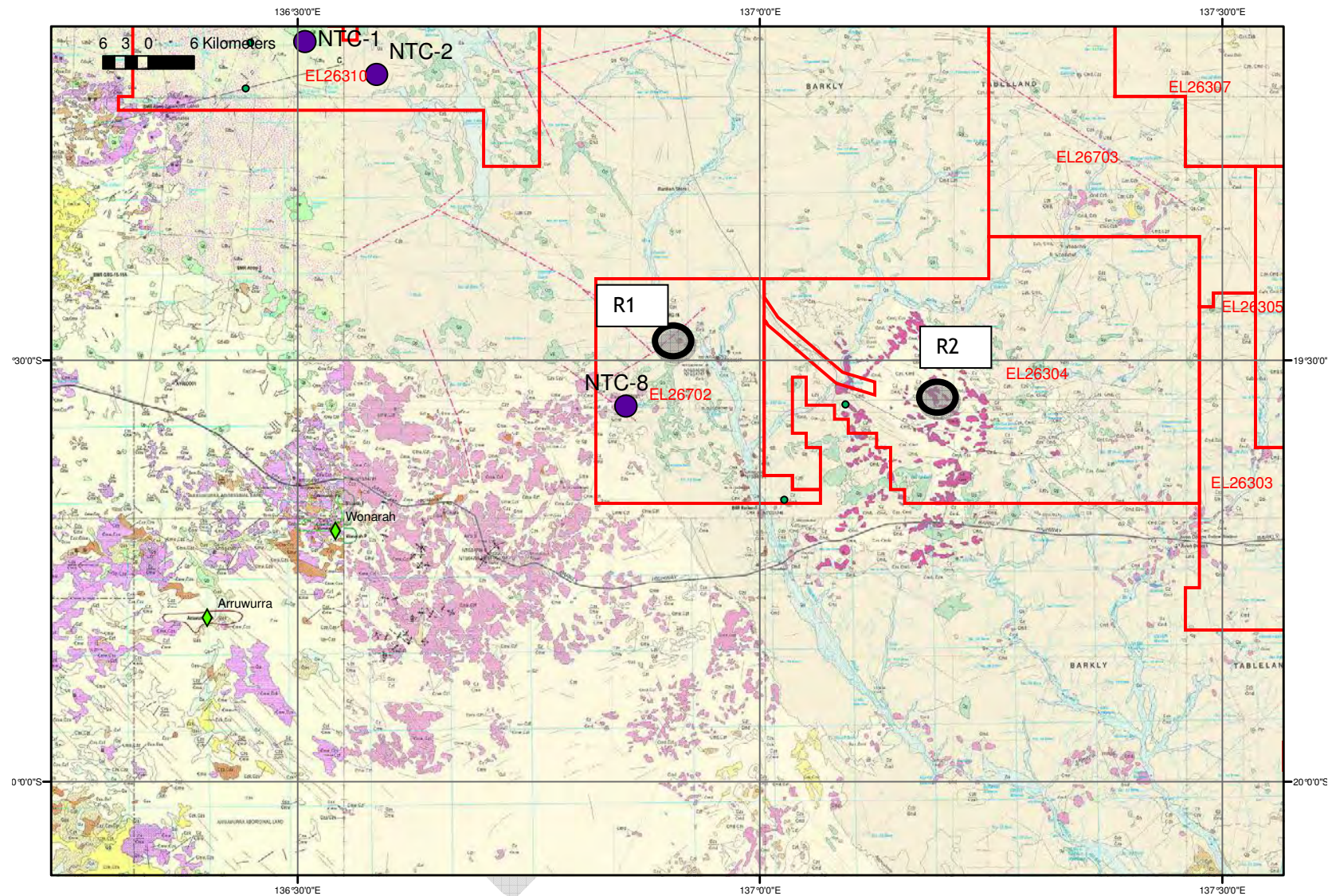


Figure 8: Ranken Project Area Geology. Georgina Basin outline shown by black and white line. Phosphate targets shown as purple dots. Green dots are historic IMC Development corporation drill holes.

8.5 Recommended Exploration Program and Budget

A number of targets have been identified from desktop geological and geophysical studies. Ravensgate recommends holding all the tenements within the project areas. A work program is proposed as follows is recommended:

Year One

- Compilation of historic drilling data from previous explorers (in particular from IMC Development phosphate drilling programs) and government agencies. Sedimentological characterisation and study of the data may be useful in refining geological targeting if geological logging is adequate.
- Compilation of all other appropriate geological and geophysical data to aid in target refining
- Ground truthing of anomalies identified (ie to identify regolith regimes, assess outcrop and sample any prospective horizons)
- Mapping and appropriate surface geochemistry programs
- Drilling - wide spaced scout drilling of highest priority targets

Year Two

- Drilling - systematic follow up of year one targets. Infill drilling where appropriate.

Table 11: Ranken Project Phosphate Targets

| Anomaly Name | Reference | Target | MGA_East | MGA_North | Description | Prospective Host Rocks (0-5) | Known Phosphate Occurrences (0-5) | Proximity to basin margin/basin high (0-5) | Geophysical responses (radiometrics) (0-3) | Basin Margin Embayment (0-2) | GEOLOGICAL PROSPECTIVITY SCORE (/20) | Potentially Economic Phosphate Grades (0-7) | Proximity to known deposits/prospects (0-3) | Proximity to infrastructure (road/rail) (0-5) | Potential Depth of mineralisation (0-5) | ECONOMIC MODIFYING FACTORS SCORE (/20) | TOTAL SCORE | TARGET RANKING (HIGH, MOD, LOW PRIORITY) |
|--------------|------------------|-----------|----------|-----------|---|------------------------------|-----------------------------------|--|--|------------------------------|--------------------------------------|---|---|---|---|--|-------------|--|
| R1 | Ravensgate, 2010 | Phosphate | | | Possible Wonorah Formation and basement high | 5 | 3 | 5 | 2 | 1 | 16 | 3 | 1 | 0 | 5 | 9 | 25 | M |
| R2 | Ravensgate, 2010 | Phosphate | | | Possible Wonorah Formation and basement high | 5 | 3 | 5 | 2 | 1 | 16 | 3 | 1 | 0 | 5 | 9 | 25 | M |
| C-8 | Cooper, 2010 | Phosphate | 692300 | 7802000 | Elevated Uranium response associated to Woronah Formation | 5 | 3 | 5 | 2 | 1 | 16 | 3 | 1 | 0 | 5 | 9 | 25 | M |

Table 12 Ranken Uranium Targets

| Anomaly Name | Reference | Target | MGA_East | MGA_North | Description | Prospective Host Rocks (0-5) | Known Uranium Occurrences (0-5) | Proximity to Known Occurrence (0-5) | Geophysical responses (radiometrics) (0-3) | Uranium Mineralogy (0-2) | GEOLOGICAL PROSPECTIVITY SCORE (/20) | Potentially Economic Uranium Grades (0-7) | Proximity to known deposits/prospects (0-3) | Proximity to infrastructure (road/rail) (0-5) | Potential Depth of mineralisation (0-5) | ECONOMIC MODIFYING FACTORS SCORE (/20) | TOTAL SCORE | TARGET RANKING (HIGH, MOD, LOW PRIORITY) |
|---------------------------------------|--------------|---------|----------|-----------|-------------|------------------------------|---------------------------------|-------------------------------------|--|--------------------------|--------------------------------------|---|---|---|---|--|-------------|--|
| None | Cooper, 2010 | Uranium | | | | | | | | | 0 | | | | | 0 | 0 | L |
| No significant, near-surface targets. | | | | | | | | | | | | | | | | | | |

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20. GLOSSARY

| | |
|-------------------------|---|
| alluvial | Sand, clay and silt deposit - water transported. |
| anomalous | A departure from the expected norm, generally geochemical or geophysical values higher or lower than the norm. |
| anticline | An area of rocks that have been arched upwards in the form of a fold. |
| auger | A corkscrew-shaped sampling tool. |
| Archaean | A geologic eon before 2.5 billion years ago. |
| assay | A procedure where the element composition of a rock soil or mineral sample is determined. |
| BLEG | Bulk Leach Extractable Gold, a geochemical analysis tool used in the exploration for gold. |
| Brownfields | Mineral exploration is termed Greenfields or Brownfields depending on the quantity and quality of previous exploration. Brownfields exploration is generally taken to refer to exploration close to existing mineralised deposits. |
| clastic | Pertaining to sedimentary rocks composed primarily from fragments of pre-existing rocks or fossils. |
| conformable | Description of rock strata where the layers are uninterrupted through time. |
| conglomerate | A sedimentary rock consisting of rounded rock fragments greater than 2mm in size cemented together. |
| costean | Exploration trench. |
| deltaic deposits | A deposit of sediments formed at the mouth of a river where it enters a lake or the sea. |
| diamond drilling | A method of obtaining a cylindrical core of rock by drilling with a diamond impregnated bit. |
| fault | A fracture in rocks whereby rocks on one side have been moved relative to the rocks on the other. |
| fluvial deposits | Applied to sand and gravel deposits laid down by streams or rivers. |
| g/t | Grams per tonne. |
| granite | A common type of intrusive, felsic, igneous rock. |
| Greenfields | Mineral exploration is termed Greenfields or Brownfields depending on the quantity and quality of previous exploration. Greenfields exploration is generally taken to refer to exploration further away from known mineralisation and is more conceptual in nature compared to Brownfields exploration. |
| hydrothermal | A term applied to hot aqueous solution having temperatures up to 400° C which may transport metals and minerals in solution. |
| JORC | Joint Ore Reserves Committee (of the Australian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia) |
| lithology | A term pertaining to the general characteristics of rocks. |
| lode | A vein or other tabular mineral deposit with distinct boundaries. |
| mafic | A dark igneous rock composed dominantly of iron and magnesium minerals (such as basalt). |
| metamorphic | A rock type which has been subjected to heat and pressure. |

| | |
|-----------------------|--|
| metasediment | Metamorphosed sedimentary rock. |
| mineralisation | A geological concentration minerals or elements of prospective economic interest. |
| ore | A volume of rock containing components or minerals in a mode of occurrence which renders it valuable for mining. |
| orogen | The physical manifestation of orogenesis (the process of orogeny). |
| orogeny | A period of mountain building. |
| Palaeozoic | The era of geologic time that includes the Cambrian, Ordovician, Silurian, Devonian, Carboniferous, and Permian periods. |
| pluton | A large body of intrusive igneous rock. |
| pyrite | An iron sulphide mineral. |
| quartz | Mineral species composed of crystalline silica (SiO ₂). |
| RAB drilling | A relatively inexpensive and less accurate drilling technique (compared to RC drilling) involving the collection of sample returned by compressed air from outside the drill rods. |
| radiometric | Geophysical technique measuring emission from radioactive isotopes. |
| RC drilling | Reverse Circulation drilling, whereby rock chips are recovered by airflow returning inside the drill rods, rather than outside, thereby returning more reliable samples. |
| schist | Medium grade metamorphic rock which contains more than 50% platy and elongated minerals. |
| sedimentary | Rocks formed by the deposition of particles carried by air, water or ice. |
| sedimentation | The accumulation of sediment. |
| shale | Fine grained sedimentary rock with well defined bedding planes. |
| tectonic | Forces or movements resulting in the formation of geologic structural features. |
| ultramafic | Dark to very dark coloured igneous rocks composed mainly of mafic minerals. |
| unconformity | Description of rock strata where the layers are interrupted, discontinuous. |