Report No. 20240901_LAM

UPDATED MINERAL RESOURCE ESTIMATE AND NI 43-101 TECHNICAL REPORT FOR LARAMIDE'S WESTMORELAND URANIUM PROJECT, QUEENSLAND AUSTRALIA

PREPARED FOR

LARAMIDE RESOURCES LTD.

BY

ADDISON MINING SERVICES LTD.

QUALIFIED PERSON

RICHARD SIDDLE, MAIG

EFFECTIVE DATE: JANUARY 31ST 2025

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SIGNATURE DATE: AUGUST 27TH 2025

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Qualified Person *R. J. Siddle* **"Original Signed and Sealed"**	Mr Richard Siddle – MSc, MGeol, MAIG Director and Principal Consultant Addison Mining Services All Sections of the Technical Report

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iv. Certificates of Qualified Person

I, RICHARD JOHN SIDDLE, MGeol (Hons), MSc, MCSM, MAIG, FGS do hereby certify that:

1. I am currently employed as Principal Geologist by; Addison Mining Services Ltd, 110 Brooker Road, Waltham Abbey, Essex, EN9 1JH, United Kingdom Company
2. I am the Qualified Person for this Technical Report; "Updated Mineral Resource Estimate and NI 43-101 Technical Report for Laramide's Westmoreland Uranium Project, Queensland Australia" with the effective date January 31st 2025 and take responsibility for all Items of the technical report.
3. I graduated with a Master of Geology (Hons) from the University of Leicester, UK, in 2007. In addition, I obtained a Master of Science (merit) in Mining Geology in 2010 from the Camborne School of Mines, University of Exeter, Tremough, Cornwall, UK.
4. I am a member of the Australian Institute of Geoscientists (membership number 6802) and a fellow of the Geological Society of London.
5. I have worked as a geologist for over 15 years since graduation from university. Relevant experience includes 3 years of exploration, drilling supervision and resource development in respect to uranium, gold, silver and base metal deposits in Queensland, New South Wales and Western Australia and 2.5 years as a consulting resource geologist at Micromine Consulting Services. I have since spent 10 years performing resource estimation and geological modelling for Addison Mining Services.
6. I completed a site visit to the project area between the 21st and 23rd of January 2025, and inspected representative sections of drill core, visited rehabilitated drill sites and inspected selected outcrop geology. Discussions were held with the issuer's technical teams and exploration and socio-environmental considerations discussed.
7. I have read the CIM definitions, and definition of "qualified person" as set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements of being a "qualified person" for the purposes of NI 43-101.
8. I am independent of the issuer when applying all of the tests in section 1.5 of National Instrument 43-101.
9. I have prior involvement with the Westmoreland project having worked as an exploration geologist for the issuer in 2007 and 2008.
10. I have read and am familiar with the CIM definitions, National Instrument 43-101 and Form 43-101F1. The Technical Report has been prepared in compliance with those instruments and form.
11. As of the effective date of the Technical Report, to best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this day August 27th 2025.

R. J. Siddle

(Original signed and sealed)

Richard John Siddle

1 Summary

1.1 Introduction

Addison Mining Services Ltd ("AMS") were requested by Rhys Davies, Vice President of Exploration for Laramide Resources Ltd. (the "Company" or "Laramide") of 130 King Street West, Suite 3680 P.O. Box 99, Toronto, Ontario, Canada M5X 1B1, to compile a NI 43-101 Technical Report for Westmoreland Uranium Project, Queensland, Australia (the "Technical Report") in support of the News Release titled "Laramide Announces an Increase in Mineral Resource Estimate for Westmoreland Uranium Project", issued on February 28th 2025. AMS were also commissioned to complete an updated Mineral Resource Estimate disclosed in the release.

The Mineral Resources estimated, as part of this study have been prepared in accordance with The CIM Definition Standards on Mineral Resources and Reserves (CIM Definition Standards) and reported in accordance with the National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101).

In April 2016 Lycopodium Minerals Pty Ltd and Mining Associates Pty Ltd completed a Preliminary Economic Assessment (PEA) for the Project (Vigar and Jones 2016), the economic inputs for which are no longer considered current. The PEA has not been updated as part of this study. So as not to be misleading the relevant sections required for an Advanced Property (items 16-19, 21-22) are excluded from this report.

1.2 Property Description and Location

The Westmoreland project is situated in northwest Queensland Australia and comprises 3 granted exploration permits (EPM), with another in application at the time of writing, covering a total area of 1,036 km^2. Laramide Resources Ltd (the Issuer) through its wholly owned Australian subsidiary, Tackle Resources Pty Ltd (Tackle) owns 100% of the Westmoreland Uranium Project Laramide also owns 100% of Lagoon Creek Resources Pty Ltd (LCR) and Westmoreland Resources Pty Ltd (WRPL) which together owns 100% of the Murphy Project Tenements in the Northern Territory.

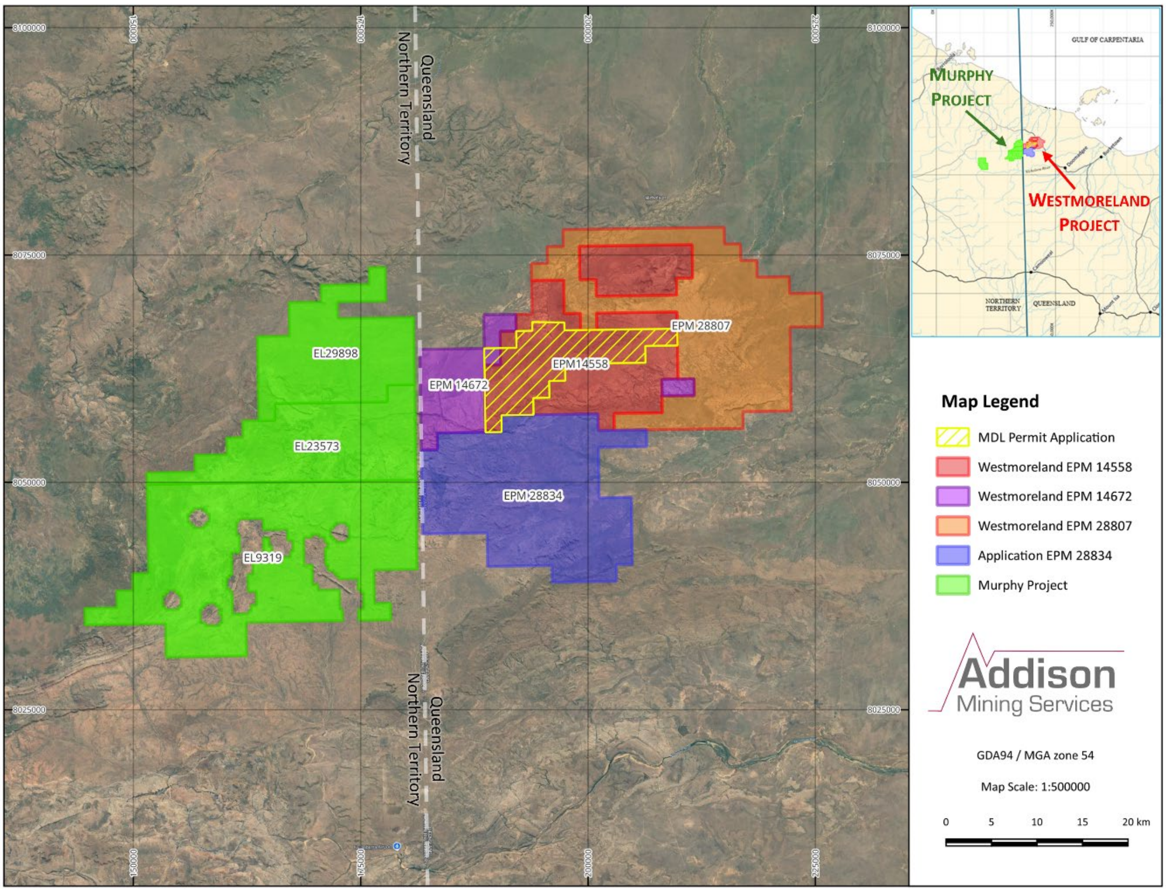


Figure 1.1 Project Location Map.

The property is accessible from the Savannah Highway, which is a sealed road in Queensland until near the Northern Territory border, then unsealed to the project location. Gravel roads and tracks from Hells Gate Roadhouse provide property access, with Hells Gate (near Long Pocket and Redtree) serving as an exploration base with a medium aircraft airstrip. Wet season rainfall can make some roads, including parts of the Savannah Highway, impassable. A disused airstrip exists north of Huarabagoo but is currently unserviceable. The region has two ocean ports, Burketown (non-trading) and Karumba, with Karumba being strategically important for mining exports, live animal exports, fishing, and general freight.

Mt. Isa is the largest population centre in the region, and as a major mining hub, is serviced with daily regional flights to major cities, and good road and rail links to Townsville.

Situated in the Gulf region, the local climate has significant annual variability with rainfall ranging from 400 mm to 800 mm and mostly falling in the December-March Monsoon. Temperatures reach up to 36°C in peak summer.

The Gulf is on the southern shores of the Gulf of Carpentaria with many rivers flowing north into the Gulf. The tenements are situated in remote, sparsely populated, rugged hill country and the elevation varies from 80 m to 360 m above mean sea level.

1.3 Mining Claims and Tenure

Laramide Resources Ltd (the Issuer) through its wholly owned Australian subsidiary, Tackle Resources Pty Ltd (Tackle) owns 100% of the Westmoreland Uranium Project Laramide also owns 100% of Lagoon Creek Resources Pty Ltd (LCR) and Westmoreland Resources Pty Ltd (WRPL) which together owns 100% of the Murphy Project Tenements in the Northern Territory.

A schedule of relevant EPMs and MDLs is presented in Table 1.1 below and shown in Figure 1.1 above.

Table 1.1 Laramide Tenements in Queensland as of August 2025

Lease	Grant Date	Expiry	Area (km^2)	No. Sub-blocks	Licence Holder	Approximate Centre (GDA94 UTM Zone 54)
EPM 14558	26/07/2005	24/07/2030	186.00	58	Tackle Resources Pty Ltd	199398 mE, 8063064 mN
EPM 14672	26/07/2005	24/07/2030	84.90	26	Tackle Resources Pty Ltd	186039 mE, 8060721 mN
EPM 28807	04/12/2024	03/12/2029	326.96	100	Tackle Resources Pty Ltd	212576 mE, 8067059 mN
EPM 28834	Under Application		326.75	100	Tackle Resources Pty Ltd	193960 mE, 8048406 mN
MDL 2026	01/07/2025	30/07/2030	111.14	NA	Tackle Resources Pty Ltd	194849 mE, 8063392 mN

1.4 Geology and Mineralisation

The Westmoreland project is located on the southeastern margin of the southern McArthur River Basin, a thick sequence of Palaeo-Mesoproterozoic sedimentary and volcanic rocks deposited on the North Australian Craton. The southern basin's stratigraphy, where the Westmoreland project is situated on the Wearyan Shelf (primarily within the Tawallah Group), is further categorized into the Leichhardt and Calvert Superbasins, characterized by various shallow marine and fluvial siliciclastic successions, with proximal fluvial facies prominent in formations like the Westmoreland Conglomerate.

The Westmoreland–Pandanus Creek uranium field has four main types of uranium occurrences, including those at contacts between volcanic units and the Westmoreland Conglomerate (Type A), near dyke contacts with the conglomerate (Type B), within the Cliffdale Volcanics beneath the conglomerate unconformity (Type C), and in fractures within the Seigal Volcanics above the conglomerate (Type D). These sandstone-hosted "Westmoreland-style" deposits are thought to have formed from basinal brines circulating through the Westmoreland Conglomerate, leaching uranium and precipitating it in favourable locations, possibly through reduction by diagenetic chlorite, with movement along unconformities and into shear zones. Another style, "Eva-style," is associated with shear zone mineralisation in the altered Cliffdale Volcanics.

1.4.1 Significant Mineralised Areas

Locally, the Westmoreland tenements are situated over the outcropping Westmoreland Conglomerate (Tawallah Group) where the southern McArthur Basin overlies the Cliffdale Volcanics (Murphy Inlier). The licence EPM 14558 contains the major deposits Redtree, Junnagunna, Huarabagoo and Long Pocket, collectively termed the Redtree Group, which have undergone the most exploration, have Mineral Resource Estimates and are at resource drilling stage. All of these deposits are hosted within the shallow-dipping Westmoreland Conglomerate, a thick sequence of fining-upward fluvial units whose basal conglomerate is suggested as a potential source for uranium mineralisation, with NE-trending dolerite-filled fractures crosscutting it. Conformably overlying the conglomerate are the Seigal Volcanics, and NE-trending dolerite dykes, potentially feeders to the volcanics, intrude both units.

1.4.2 Other Mineralised Areas

Regionally, there are 13 other known mineralised zones with no resources at the property of lower materiality but are worthy targets for future exploration. Situated in Queensland in the EPM 14558, the most significant of these are Moogooma, Black Hills and Uranium Valley, Amphitheatre and Eagle 3 of which have undergone various stages of exploration suggested the mineralisation styles are similar to that of the primary Redtree Group. Further exploration is warranted on these regional prospects.

1.5 Exploration and Drilling

1.5.1 Exploration

The property has undergone an extensive history, starting in the late 1800s, has that evolved through a mix of independent exploration, joint ventures, corporate acquisitions, and reorganisation, reflecting the shifting dynamics of mining exploration and resource focus in the area. Tackle Resources Pty Ltd has operated as the licence owner since 2000, with modern exploration starting in 2005 until the present day.

Multiple operators have held the ground now contained in the LCR licence package with significant exploration work undertaken since the mid-1960s, almost continuously the end of the 1990s. This work included:

- Field mapping campaigns
- Soil and stream sampling,
- Costeans and rock chip sampling
- Airborne and ground geophysical programs

Under Laramide's ownership since 2005, an extensive modern exploration targeting strategy has been undertaken at the Westmoreland Project, informed heavily by geophysical (particularly radiometric) anomalies and anomalous geochemistry in historic drilling and surface geochemistry. Significant exploration activities have included regional geophysical surveys and soil geochemistry sampling to prospect scale geophysics, and drilling. As part of the strategy, extensive geophysical surveys including regional FALCON gravity, magnetic, and radiometric surveys have been undertaken over the Property.

1.5.2 Drilling

Historic drilling at the property commenced with previous operator Mount Isa Mines in 1956 followed by an extensive 12,000 m core drilling campaign by Queensland Mines Ltd in 1967, and additional percussion, RAB, auger, and diamond drilling programmes carried multiple operators through to the late 1980s. The most significant phase of drilling, used for the first compliant Mineral Resource Estimate was undertaken by CRA Exploration Ltd from 1990-1995; a program comprising >17,000 m of percussion, RC and diamond drilling to define the Redtree, Huarabagoo and Junnagunna deposits.

Laramide has undertaken 7 main phases of diamond drilling campaigns from 2007 until 2024, with additional RC drilling in 2024, for a combined total of >37,000 m. Drilling focussed on the main deposits within the EPM 14558 licence area; Redtree, Huarabagoo, Junnagunna, and Long Pocket and also tested some of the regional targets with a scout drilling program.

1.6 Metallurgical Testing

Metallurgical testwork on the Westmoreland deposit, primarily ANSTO's 2011 report, indicates that the ore is amenable to conventional acid leaching for uranium extraction. Comminution testwork is limited and contradictory. Heap leaching yielded low extractions for fresh material. Agitated leaching with concentrated H_2SO_4 and H_2O_2 showed high uranium extractions under specific conditions (40°C, pH 1.5, ORP 475 mV, 55% w/w slurry density, $\sim$35% - 75 µm grind). Solid-liquid separation is not expected to be problematic. Early ion exchange (IX) tests showed good resin loading and elution, while direct precipitation produced impure U_3O_8.

ANSTO's 2011 program on four composite lens samples (Junnagunna, Redtree Upper, Redtree Lower, Jack) focused on acid leaching followed by IX or solvent extraction (SX). Mineralogical analysis indicated uraninite and coffinite as primary uranium minerals in a quartz-dominant gangue with minor illite, hematite, jarosite, chamosite, and hydroxylapatite. Uranium distribution was uniform across size fractions, negating upgrading by screening. Scrubbing was deemed ineffective due to minimal fines generation during crushing.

Dilute acid leach tests achieved 99% uranium extraction under base (40°C, pH 1.5, ORP 500 mV with ferric iron) and extreme (60∘C, pH 1.0, ORP 500 mV with ferric iron) conditions. Conventional leach tests (40∘C, 24 hrs, P80 250 µm, pH 1.5, ORP 500 mV with sodium permanganate) yielded good preliminary results for Junnagunna and Redtree, but lower for Jack Lens. Optimization tests on grind size, pH, temperature, and ORP for Junnagunna and Redtree showed minimal impact of grind size on extraction, increased extraction with lower pH (optimum 1.3-1.5), enhanced leaching rate with higher temperature (though with increased acid consumption), and lower extraction at 450 mV ORP. Pyrolusite proved equivalent to permanganate as an oxidant.

Jack Lens material required ferric iron addition or lower pH for improved extraction. Leach liquor analysis showed low concentrations of penalty elements (Mo, V, Zr), but higher arsenic (especially from Redtree). Leach residues indicated uranium minerals enclosed in quartz as a potential limitation to extraction.

Bulk leach tests on a blend of the four lenses (P80 250 µm, 55% solids, 12 hrs, pH 1.5, ORP 550 mV, pyrolusite, 40°C) achieved 96.2% uranium extraction. Higher acid and oxidant consumption in the bulk test was attributed to iron from grinding media and higher ORP. Settling and filtration tests on the bulk leach slurry by FLSmidth and ANSTO indicated reasonable settling rates, high underflow density, and good filtration rates.

Uranium recovery tests using IX (Ambersep 920 and Amberjet 4400 resins) showed Amberjet 4400 had higher loading capacity but slower kinetics than Ambersep 920. Elution with 1 M sulfuric acid was effective for both resins. Uranyl peroxide precipitation from eluates yielded a product comparable to converter specifications, although phosphorus levels may require management. Solvent extraction was also deemed viable but was not the focus due to LAM's preference against ammonia.

Conclusions highlight good acid leachability, manageable gangue co-leaching, the need for optimized leaching for Jack Lens, relatively coarse grind size requirement, reasonable leach kinetics, viability of IX for uranium recovery, potential for good quality uranium concentrate, reasonable pulp settling rate, and technical viability of SX. Recommendations for further work include leach tests with site/synthetic solutions, optimization on composite feed for piloting, neutralization testwork for arsenic immobilization, continuous pilot operation, and comprehensive downstream testing (filtration, settling, rheology, IX/SX). Tailings neutralization and liquor recycle should also be considered.

1.7 Mineral Resource Estimates

An update to the Mineral Resource Estimate for the Westmoreland Uranium Project, Queensland, Australia (Figure 1.2, Figure 1.3) has been prepared by Addison Mining Services of the United Kingdom on behalf of Laramide Resources Ltd. ("the issuer"). The issuer is a dual listed entity on the TSX and ASX stock exchanges of Canada and Australia respectively, as such the estimate is reported in accordance with National Instrument 43-101, *Standards of Disclosure for Mineral Projects*, ("NI 43-101") and prepared under Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards. CIM Definition Standards for Mineral Resources (2014) and Best Practices Guidelines outline by CIM (2019) have been followed. The estimate is also reported in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code' 2012 edition.)

The updated Mineral Resource Estimate has an effective date of January 31st, 2025, and is reported above a cut-off grade of 200 ppm U_3O_8 and comprises of:

- Indicated Resources of 27.8 million tonnes at an average grade of 770 ppm U_3O_8 for 48.1 million contained Lbs. of U_3O_8.
- Inferred Resources of approximately 11.8 million tonnes at an average grade of 680 ppm U_3O_8 for 17.7 million contained Lbs. of U_3O_8.

The updated estimate supersedes all previous estimates. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is important to note that currently, only exploration, and not mining for uranium is permitted in Queensland, Australia. However, it is reasonable to expect that the policy may change in the future as there is a historical precedent for uranium mining within the State. An activity exclusion zone exists at the southern end of the Huarabagoo deposit which will require further negotiation for future access and exploration activities and effects 30% of the contained tonnage and Metal of the Huarabagoo Inferred Estimate.

Table 1.2 sets out the Indicated and Inferred Mineral Resources by deposit. Readers are encouraged to review the accompanying notes and explanatory text in support of the estimate.

Table 1.2 Mineral Resources by deposit for the Westmoreland Uranium Project, Queensland, Australia. Reported above a cut-off grade of 200 ppm U3O8. Effective 31st January 2025

Deposit	Tonnes	Density g/m^3	U_3O_8 ppm	U_3O_8 MLbs.
		Indicated		
Redtree	14,000,000	2.5	880	27
Huarabagoo	2,500,000	2.6	890	4.9
Junnagunna	10,000,000	2.5	640	15
Long Pocket	1,300,000	2.5	420	1.2
Total Indicated	***27,800,000***	***2.5***	***770***	***48.1***
		Inferred		
Redtree	3,000,000	2.5	800	5.2
Huarabagoo	3,100,000	2.6	870	6.0
Junnagunna	3,000,000	2.5	620	4.2
Long Pocket	2,700,000	2.5	380	2.3
Total Inferred	***11,800,000***	***2.5***	***680***	***17.7***

Notes To Mineral Resource Estimate

1. Numbers are rounded to reflect that an estimate of tonnage and grade has been made, as such products may have discrepancies. Tonnages are expressed in the metric system, concentrations as parts per million (ppm), equivalent to grammes per tonne, and contained metal as pounds (Lbs.).
2. The Independent Qualified Person as defined by CIM definition Standards, and the Independent Competent Persons as defined by the JORC code 2012 edition is Mr. Richard Siddle MSc, MAIG. Mr. Siddle is a Member of the Australian Institute of Geoscientist (#6802) and Director of Addsion Mining Services Ltd of the United Kingdom, Mr. Siddle has been working continuously for Addison Mining Services as a Minerals Resource Geologist since November 2014.
3. Mr. Siddle completed a site visit to the project area between the 21st and 23rd of January 2025, and inspected representative sections of drill core, visited rehabilitated drill sites and inspected selected outcrop geology. Discussions were held with the issuer's technical teams and exploration and socio-environmental considerations discussed. No items of material concern were identified which are not discussed within the accompanying documentation.
4. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this Mineral Resource Estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured, however it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. Additional drilling, bulk density determination and improved topographic surveys are required to increase the confidence in the Mineral Resources; increased levels of information brought about by further drilling may serve to either increase or decrease the Mineral Resources. No Measured Resources are reported.
5. Reasonable Prospects of Eventual Economic Extraction contemplates mining by open pit mining methods with mineral processing by conventional leaching. Mining costs are estimated at approximately US$3/t, mineral processing at US$30/t and general and administrative cost at US$5/t processed. Considering a U_3O_8 price of US$80/Lb. a breakeven cut-off grade of 200 ppm is used for reporting.
6. Pit optimization tests showed that all mineralized material above cut-off grade within the Redtree, Junnagunna and Huarabagoo deposit block models has reasonable prospect of being extracted by open pit methods. At Long Pocket an ultimate pit shell was used to constrain the estimate of reported Mineral Resources.

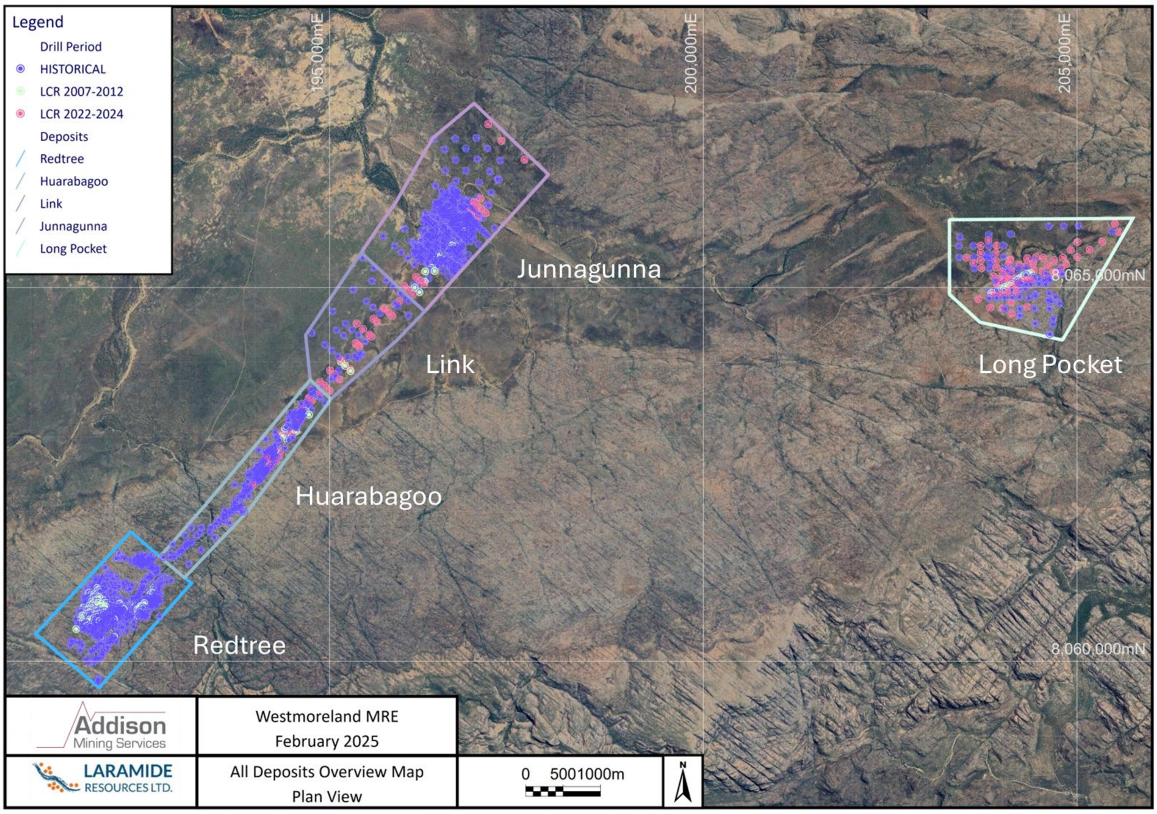


Figure 1.2 Westmoreland - Mineral Resource Estimate Areas (no Mineral Resources are reported for the Link area).

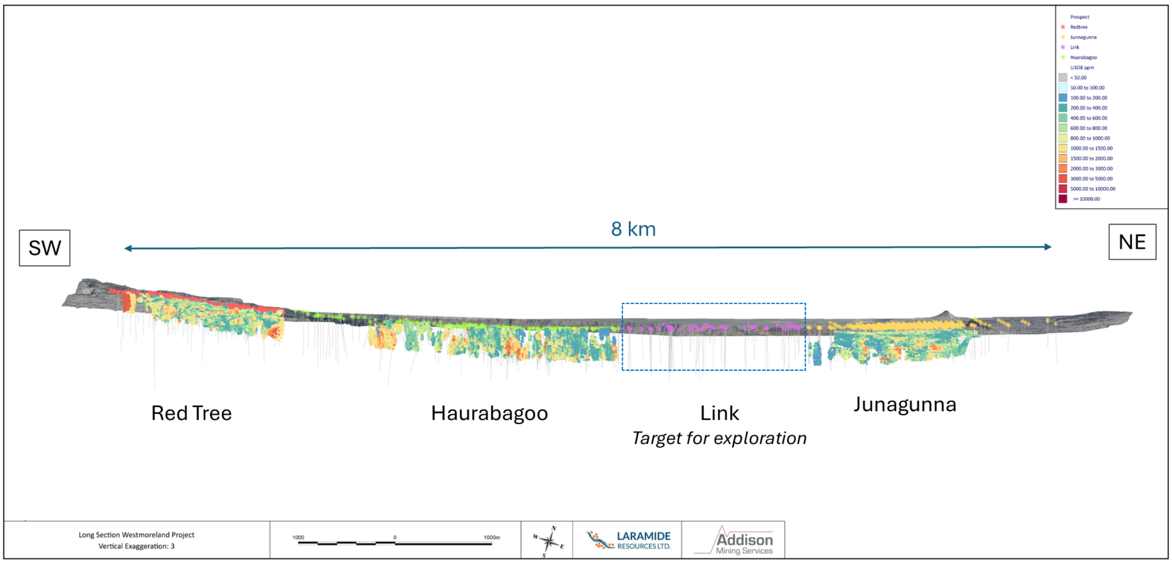


Figure 1.3 Westmoreland Long Section looking NW, displaying drillholes and block models.

1.8 Environmental Studies, Permitting and Community Impact

The Westmoreland Project is located in a sparsely populated northern Australian region straddling the NT/QLD border, with a population supported by pastoralism, mining, fishing, and tourism, including a high proportion of Aboriginal peoples, the closest community being Doomadgee (pop. ~1,460) roughly 80 km east. The region experiences a distinct monsoonal wet season (Nov-Mar, avg. 172 mm/month) and dry season (Apr-Oct, avg. 10 mm/month) with potential for cyclones, resulting in shallow groundwater (7m to SWL) with significant seasonal fluctuations across the Lagoon Creek and Nicholson catchments, where soils are mostly skeletal sands supporting native woodlands with environmental constraints including threatened species requiring further detailed studies and management through relevant approvals and ongoing monitoring. The wider region is serviced by roads that are subject to wet season closures and lacks rail lines, with two gulf ports within 200 km, and the project will necessitate various permits and approvals at both state and federal levels.

The Project area is subject to a native title determination held by the Gangalidda and Garawa Peoples, with whom Laramide has existing right-to-negotiate agreements from the exploration permit stage and recognizes as key stakeholders requiring a Mining Lease ILUA for future mining operations, which will address consents, commercial considerations including indigenous training and employment, and cultural heritage management for the 51 registered sites through a CHMP developed with the native title holders.

As part of progressing towards mining, Laramide intends to conduct a social impact assessment involving community consultation to identify and manage potential beneficial and adverse impacts on pastoral land uses, the surrounding community, local businesses, population changes, and regional services, with the November 2022 ILUA providing a framework for exploration and the recently applied for Mineral Development Licence while acknowledging the necessity of a Mining Lease ILUA for project advancement.

1.9 Recommendations

Recommendations to advance the project towards a Preliminary Feasibility Study (PFS) are provided over two stages, aspects of which may ultimately run in parallel. The first stage of work includes further infill and extension drilling, particularly in the Huarabagoo and Link areas though to the southwest of Junnagunna and along strike to the northeast of Junnagunna. Further drilling at Long Pocket is also warranted. Other regional targets including Moogooma and Amphitheatre also warrant further drilling. All drilling should adopt an agile approach and adapt based on results. The following budget has been proposed by the client and has been reviewed by the QP:

- Infill and Extension Drilling – AUD$7.5M
  - 18,000m DD @ $350/m ($6.5M) for Huarabagoo and HB-JG Link
  - 5,000m RC @ $200/m ($1M) for Junnagunna
- Regional exploration drilling – AUD$1M
  - 5,000 m RC @ $200/m
- Other exploration (non-drilling) activities 24 months AUD$3M
  - Geological mapping
  - Target access and reconnaissance,
  - Ground-based Geochemical surveys,
  - Ground geophysical surveys,
  - Remote sensing - LiDAR and Hyperspectral surveys
- General overheads 24 months – AUD$1M

The second phase of work includes supporting studies to advance the project toward PFS with a particular focus on reducing the environmental risk of the project. The PEA completed in 2016 is based on outdated financial inputs which should be revised. Work should include but not be limited to a review of the project infrastructure and power supply, and potential advances in mineral processing as well as overall costs. A review of mine scheduling may also allow for an updated PEA to be prepared as a stepping stone towards PFS. An indicative budget for this work is outlined as follows:

- Environmental Studies (& Permitting) AUD$1-2M
- Conceptual Engineering Studies AUD$150,000
- Economic Factors & Cost Analysis AUD$150,000
- Updated PEA AUD$300,000

2 Introduction

2.1 Terms of Reference

Addison Mining Services Ltd ("AMS") were requested by Rhys Davies, Vice President of Exploration for Laramide Resources Ltd. (the "Company" or "Laramide") of 130 King Street West, Suite 3680 P.O. Box 99, Toronto, Ontario, Canada M5X 1B1, to compile a NI 43-101 Technical Report for Westmoreland Uranium Project, Queensland, Australia (the "Technical Report") in support of the News Release titled "Laramide Announces an Increase in Mineral Resource Estimate for Westmoreland Uranium Project", issued on February 28th 2025 (Laramide, February 2025). AMS were also commissioned to complete an updated Mineral Resource Estimate disclosed in the release.

This Technical Report has been authored by the following Independent Qualified Persons ("QP"), the "Authors".

- Mr. Richard Siddle – Principal Geologist, AMS.

Additional contributions to the report have been made by the following personnel in assistance of and under the supervision and, or review of the above QP.

- Mr Jake Clark - AMS - Report compilation, drafting and images.
- Ms. Paula Mierzwa - AMS -drafting and images.

Additional background information has been provided by Laramide relating to items 4 to 11. The content of which has been reviewed and edited accordingly under the supervision of the QP. Mr Rhys Davies, Mr Lloyd Jones, Ms. Kate Pearse and Ms. Michelle Ellis are thanked for their contribution to the study.

In April 2016 Lycopodium Minerals Pty Ltd and Mining Associates Pty Ltd completed a Preliminary Economic Assessment (PEA) for the Project (Vigar and Jones 2016), the economic inputs for which are no longer considered current. The PEA has not been updated as part of this study. So as not to be misleading the relevant sections required for an Advanced Property (items 16-19, 21-22) are excluded from this report.

The issuer is a dual listed entity on the TSX and ASX stock exchanges of Canada and Australia respectively, as such the Mineral Resources estimated as part of this study are reported in accordance with National Instrument 43-101, *Standards of Disclosure for Mineral Projects*, ("NI 43-101") and prepared under Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards. CIM Definition Standards for Mineral Resources (2014) and Best Practices Guidelines outline by CIM (2019) have been followed. The estimate is also reported in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code' 2012 edition.)

2.2 Independence

The Qualified Persons for the Technical Report neither have nor hold:

- any rights to subscribe for shares in Laramide either now or in the future,
- any vested or unvested interests in any concessions held by Laramide,
- any rights to subscribe to any interests in any of the concessions held by Laramide, either now or in the future,
- any vested or unvested interests in either any concessions held by Laramide or any adjacent concessions,
- any right to subscribe to any interests or concessions adjacent to those held by Laramide either now or in the future.

The Qualified Persons only financial interest is the right to charge professional fees at normal commercial rates, plus normal overhead costs, for work carried out in connection with the investigations reported herein. Payment of professional fees is neither dependent on Project success nor on Project financing.

2.3 Units

All units of measurement used in the Technical Report are metric unless otherwise stated. Tonnages are reported as metric tonnes ('t'), and Uranium (U), Uranium Oxide Equivalent (U_3O_8) and other geochemical concentrations are reported in parts per million ('ppm') or percent ('%'). Currency is expressed in United States Dollars (USD$) or Australian Dollars (AUD$). Grid coordinates on maps and figures utilize the GDA94 / MGA zone 54 coordinate system unless otherwise stated. Elevations are metres above sea level.

2.4 Property Inspection by the Qualified Person

Mr. Siddle, the QP, completed a site visit to the project area between the 21st and 23rd of January 2025, and inspected representative sections of drill core, visited rehabilitated drill sites and inspected selected outcrop geology. Discussions were held with the issuer's technical teams and exploration and socio-environmental considerations discussed. No items of material concern were identified which are not discussed within this report.

2.5 Sources of Information

A list of major sources of information is included in Section 27. The Authors have made all reasonable attempts to establish the validity of the information supplied and included in the Technical Report. Historical exploration data has been provided in the form of access databases; the Qualified Person has reviewed reports which support this information. The Qualified Person has also inspected assay certificates relating to Laramide's exploration activities. The 2016 Preliminary Economic Assessment (Vigar and Jones 2016) was used to provide a summary of engineering activities related to that study and as a summary of the Mineral Processing and Metallurgical Testwork outlined in Item 13 of this report.

2.6 Forward-looking Statements

Certain statements contained in this Technical Report constitute forward-looking statements within the meaning of Canadian securities legislation. All statements included herein, other than statements of historical fact, are forward-looking statements and include, without limitation, statements about the exploration plans for the Project. Often, but not always, these forward looking statements can be identified by the use of words such as "estimate", "estimates", "estimated", "potential", "open", "future", "assumed", "projected", "used", "detailed", "has been", "gain", "upgraded", "offset", "limited", "contained", "reflecting", "containing", "remaining", "to be", "periodically", or statements that events, "could" or "should" occur or be achieved and similar expressions, including negative variations.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Laramide to be materially different from any results, performance or achievements expressed or implied by forward-looking statements. Such uncertainties and factors include, among others, the exploration plans for the Project; changes in general economic conditions, commodity prices and financial markets; Laramide or any joint venture partner not having the financial ability to meet its exploration and development goals; risks associated with the results of exploration and development activities; unanticipated costs and expenses; and such other risks detailed from time to time in the Company's quarterly and annual filings with securities regulators and available under Laramide's profile on SEDAR+ at www.sedarplus.com.

3 Reliance on Other Experts

The Qualified Persons have not, nor are they qualified to do so, independently verified title to the company's assets, nor have they verified the status of legal agreements with local landowners and relevant parties but has relied on information supplied by Laramide in this regard. The authors are relying on public documents and information provided by Laramide for the descriptions of title and status of the Property agreements. This disclaimer applies to Item 4 of the Report. The Qualified Persons have no reason to doubt that the title situation is other than that which was reported to it by the Company.

A list of references used in this study is provided in Section 27 of the Technical Report.

4 Property Description and Location

The Westmoreland project located in northwest Queensland Australia, comprises 3 granted Exploration Permits (EPM), namely EPM 14558, EPM 14672 and EPM 28807. A further EPM (28834) is in application and is yet to be granted at the time of writing. A Mineral Development Licence (MDL), MDL2026, was granted in July 2025 over ground dominantly held within EPM 14558 with a minor portion (approximately 2%) of land in EPM14672. The issuer also holds additional adjacent mineral tenure in the Northern Territory of Australia, these properties form the Murphy Project and are considered separate to the Westmoreland Project for the purpose of this report. Figure 4.1 shows the positioning of these licences.

Further information relating to the Westmoreland project is provided in the following sub sections.

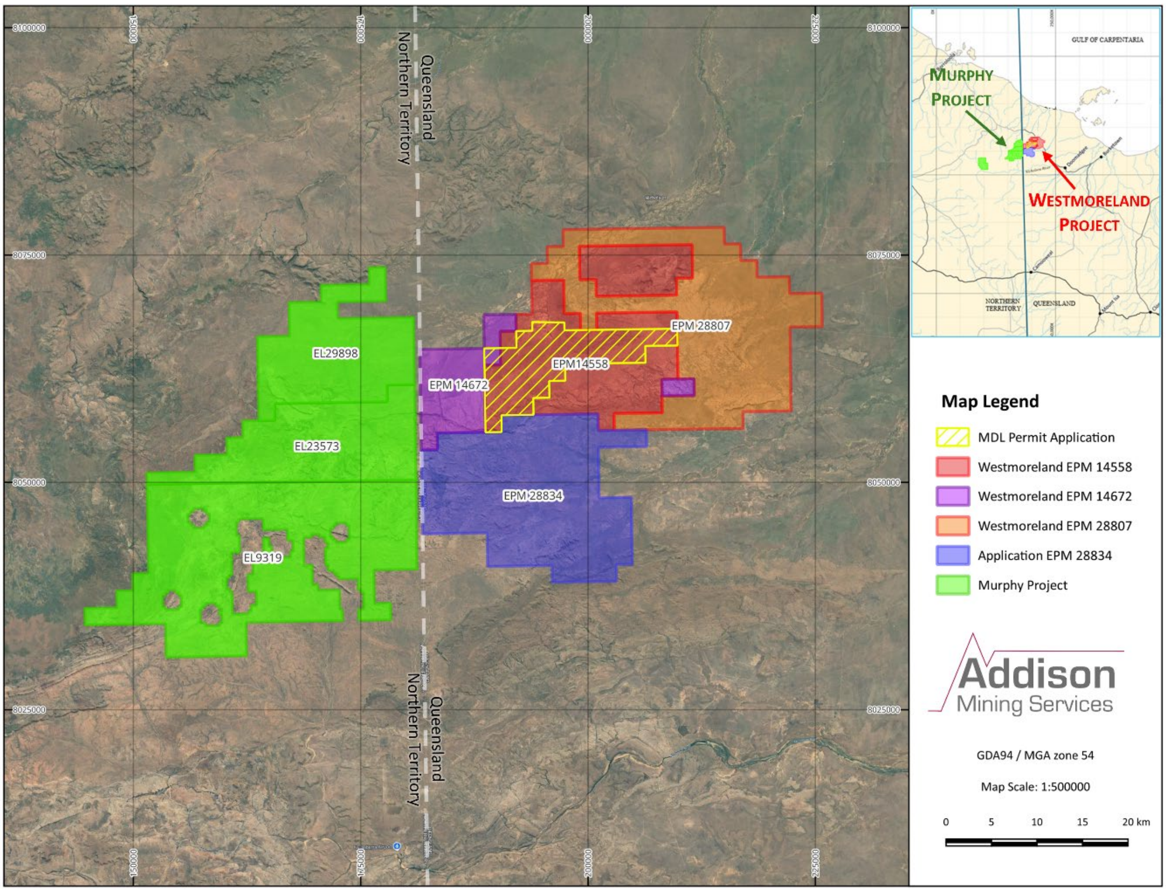


Figure 4.1 Location map, company licences.

4.1 Property Ownership and Location

Laramide Resources Ltd (the Issuer) through its wholly owned Australian subsidiary, Tackle Resources Pty Ltd (Tackle) owns 100% of the Westmoreland Uranium Project Laramide also owns 100% of Lagoon Creek Resources Pty Ltd (LCR) and Westmoreland Resources Pty Ltd (WRPL) which together owns 100% of the Murphy Project Tenements in the Northern Territory.

A schedule of relevant EPMs and MDLs is presented in Table 4.1 below and shown in Figure 4.2.

Table 4.1 Laramide Tenements in Queensland as of August 2025

Lease	Grant Date	Expiry	Area (km^2)	No. Sub-blocks	Licence Holder	Approximate Centre (GDA94 UTM Zone 54)
EPM 14558	26/07/2005	24/07/2030	186.00	58	Tackle Resources Pty Ltd	199398 mE, 8063064 mN
EPM 14672	26/07/2005	24/07/2030	84.90	26	Tackle Resources Pty Ltd	186039 mE, 8060721 mN
EPM 28807	04/12/2024	03/12/2029	326.96	100	Tackle Resources Pty Ltd	212576 mE, 8067059 mN
EPM 28834	Under Application		326.75	100	Tackle Resources Pty Ltd	193960 mE, 8048406 mN
MDL 2026	01/07/2025	30/07/2030	111.14	NA	Tackle Resources Pty Ltd	194849 mE, 8063392 mN

The project is centred about 380 km NNW of Mt Isa City in northwest Queensland. All Mineral Resources for the project which are described in this report are located within EPM 14558 and this is considered the most material EPM to the project. EPM 28807 has been recently granted (end of 2024) to LAM and has not undertaken any material exploration to date. MDL 2026 encompasses the major deposits that form the Westmoreland Uranium Project in Queensland.

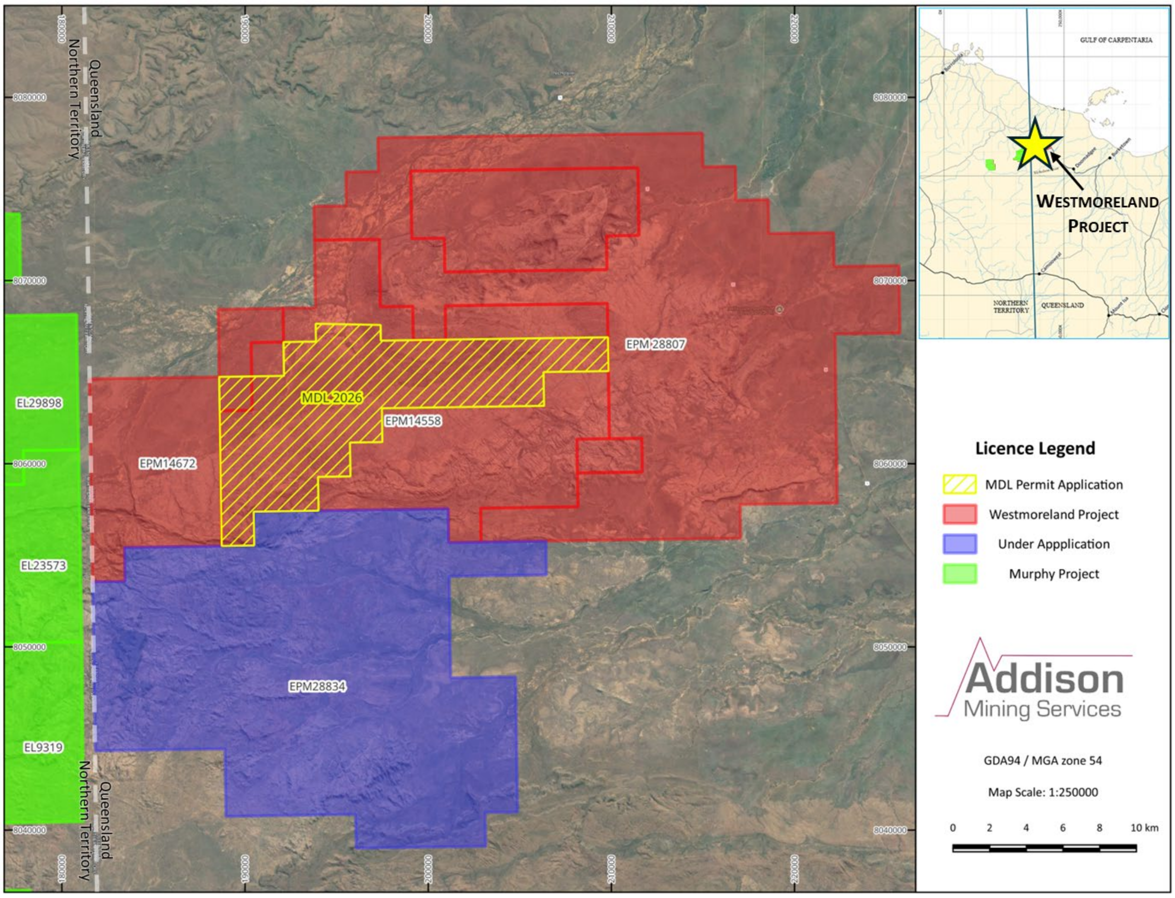


Figure 4.2 Location map of Westmoreland Uranium project.

4.2 Surface and Access Rights

In Queensland ownership of an EPM does not grant ownership of the land nor permission to access the property. Access to the Westmoreland project requires a Conduct and Compensation Agreement (CCA) with relevant pastoral land holders. Furthermore, an Indigenous Land Use Agreement (ILUA) is in place with the relevant native title groups who are the traditional custodians of the land upon which the project is located.

4.3 Mineral Rights in Queensland

Under the federal system, the Commonwealth Government regulates overall economic policy, tax, foreign investment, corporate law, and uranium mining and sale (environmental and safety aspects). State and Territory Governments own and allocate mineral rights, regulate operations, and collect royalties. The ownership of minerals is vested in the State, however ownership of minerals passes to the mining lease holder at the time of extraction.

The regulatory authorities and other parties involved in the mining leases and exploration permits include:

- Queensland Department of Natural Resources and Mines, Manufacturing, and Regional and Rural Development (NRMMRRD).
- Queensland Department of Environment, Tourism, Science and Innovation (DETSI).
- Burke Shire Council.
- Various Pastoral Lease holders and Native Title Groups.

In Queensland, exploration requires a Queensland Exploration Permit for Minerals (EPM), a tenure that can lead to a Mineral Development Licence (MDL) or Mining Lease (ML) if exploration is successful. EPMs are granted for up to five years and may be renewed. Registered native title parties have consultation, objection, and negotiation rights regarding the proposed EPM.

Under the Environmental Protection Act 1994, "Mining Activity" is classified as an "Environmentally Relevant Activity." An EPM is granted only after the EPA issues an Environmental Authority. An EPM allows activities to determine the existence, quality, and quantity of minerals, including prospecting, geophysical surveys, drilling, and sampling. Following resource identification, an MDL may be obtained for further economic viability evaluation. Full-scale mining requires an ML, with the term based on identified reserves and projected mine life.

4.4 Property Obligations and Fees

Under the Queensland Mining Act (Mineral Resources Act 1989), EPM holders must comply with conditions to maintain tenure, the most important of which regarding the Issuers EPMs are as follows:

- Conduct of activities in accordance with EPA requirements.
- Compliance with all compensation agreements and making compensation payments as required.
- Supply Technical and Financial capability.

There is a minimum exploration expenditure requirement associated with the property; permit holders are required to show progress in line with an annual work program which sets out plans to advance the project. Previously rent was required for EPMs, however under recent Queensland Government initiatives rent relief has been applied to all EPMs forming the project and no annual rent is due until the 31 August 2028.

4.5 Royalties

4.5.1 State Royalties

A royalty is payable to the state government when a mineral is sold, disposed of or used. In Queensland, the Mineral Resources Act 1989 requires that the holder of an ML to lodge a royalty return and any royalty payable at least annually for all MLs held, even if no production took place. Larger producers are required to pay royalties on a quarterly basis, while smaller producers generally pay royalties on an annual basis.

In the Mineral Resources Regulations 2013 - Schedule 3, S.13 includes a royalty rate of 5% if the average price per kilogram of uranium sold is AUD220 or less. Above AUD220 /kg the rate increases up to a maximum of 10%.

4.5.1 Other Royalties and Back in Rights

As part of the Data Licencing Agreement, dated 20 Dec 2005, a 1% Net Smelter Royalty (NSR) was agreed payable to International Royalty Corporation with cumulative payments capped at AUD10M indexed to inflation. In 2008, Rio Tinto sold the royalty to International Royalty Corporation. In February 2010 International Royalty Corporation was fully acquired by Royal Gold.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Access

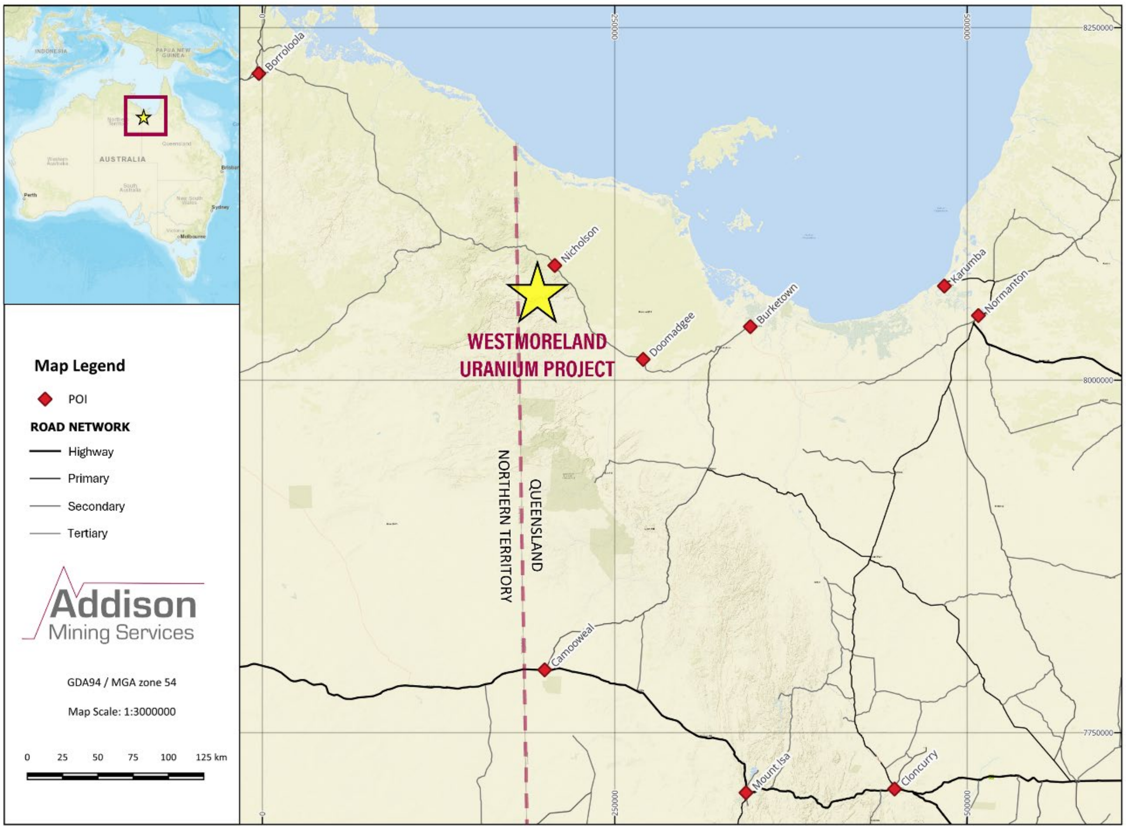


Figure 5.1 Map of regional accessibility to Westmoreland Project).

Westmoreland is readily accessed from the Savannah Highway, a road running from Burketown in Queensland to Borroloola in the Northern Territory. The highway is a two-lane sealed road in Queensland from Burketown to the Hells Gate Roadhouse, which is approximately 50 km from the Northern Territory border, thereafter the road remains unsealed. A network of gravel roads and pastoral tracks provides access to the property from Hells Gate Roadhouse which is approximately 15 km from the closest significant mineral deposit (Long Pocket) and approximately 30 km from the Redtree Deposit. Hells Gate is currently used as a base of operations for exploration activities and has an airstrip suitable for medium twin-engine aircraft. During periods of intense rainfall in the summer wet season some road creek crossings maybe impassable and this may include sections of the Savannah Highway. On the property approximately 2 km north of the Huarabagoo deposit there is a disused two runway crossed airstrip; however, this is not currently serviceable and would require upgrade to be operational. Access routes to the property are shown in Figure 5.2.

An activity exclusion zone exists at the southern end of the Huarabagoo deposit which will require further negotiation for future access and exploration activities.

The region has two ocean ports, Burketown (non-trading) and Karumba. Karumba Port, at the Norman River mouth, is strategically important for mining exports (e.g. Century Mine zinc), live animal exports, and supports fishing fleets. It also handles general freight for coastal communities and is a major live cattle export hub to Asia.

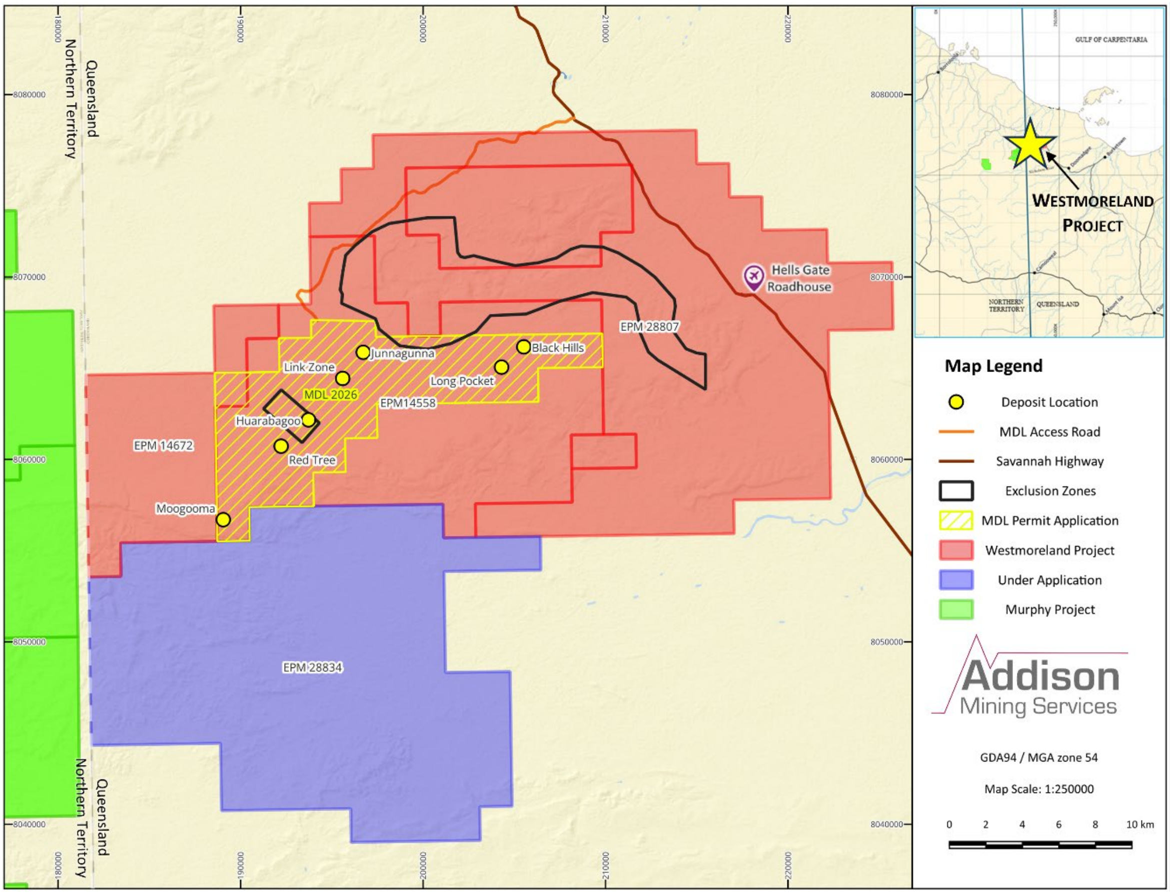


Figure 5.2 Local Access with main deposit locations and access routes.

5.2 Regional Population Centres

Mt Isa, the largest city in the region with a population of 18,317 (2021 Census, Table 5.1), is a significant mining and industrial hub. It benefits from daily flights via Qantas and Regional Express to Brisbane, Townsville, and Cairns, and is connected to Townsville, Queensland's largest city outside the capital, by major road and rail links.

While the primary land use in the broader region is pastoral, mining is the dominant economic driver, supported by large operations like the Mount Isa copper mine and the McArthur River and Century lead-zinc mines. The fishing industry also contributes significantly to employment. Any skilled workforce required for mining developments in the region would likely be sourced from Mt Isa.

The towns situated near the Westmoreland tenement block are smaller, offering essential amenities such as small health clinics, supermarkets, and a domestic airport. Notably, until 2016, these settlements were entirely powered by diesel generators. However, Ergon Energy, the state's energy provider, secured funding in 2023 to install an additional 4.5MW centralised solar farm, aiming to supply over half of the communities' energy needs from renewable sources by the end of 2025.

Table 5.1 Population Centres (2021 census, except Borroloola 2016 census)

Town	Population	Distance (Radial km)	Principal Activity
Mt Isa	18,317	400	Mining
Cloncurry	3,167	440	Mining
Normanton	1,391	300	Fishing
Karumba	487	275	Port / Fishing
Doomadgee	1,387	95	Indigenous
Borroloola	871	250	Pastoral
Burketown	204	145	Pastoral

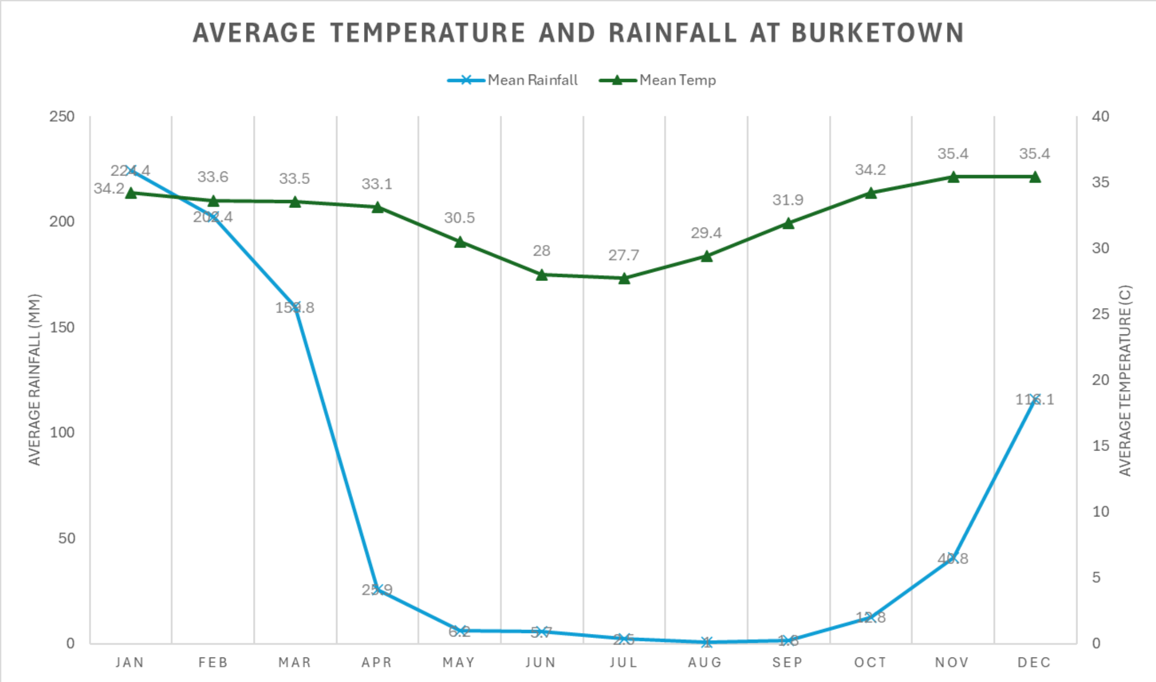
Population data acquired from the Queensland Government Statisticians Office (2021)

5.3 Climate

The Gulf region exhibits climatic gradients along the coast and north-south. Summer rainfall varies from 400 mm in the south to 800 mm in the north, with significant annual variability. Summer temperatures are hot (around 36°C) dropping to a mean of around 28°C in July.

Burketown, 150 km east of the tenement block, shows climate data influenced by the Gulf, moderating inland extremes (Figure 5.3). Most rain falls during the December-March monsoon, with January averaging 224 mm but historically reaching up to 1,000 mm.

Figure 5.3 Average Temperature and Rainfall at Burketown



Drawn by O. Ford from data provided by the Australian Bureau of Meteorology (2025).

5.4 Local Resources and Infrastructure

The Property is not services by local mains power water or sewerage. Existing and groundwater wells on the property are able to provide water all year round for pastoral activities as do the local dirt roads.

5.5 Physiography

Westmoreland is in a region known as the Gulf Country, which includes the southern shores of the Gulf of Carpentaria and the country around the many rivers that flow into the Gulf. The tenements are situated in remote, sparsely populated, rugged hill country. Topography ranges from broad gentle valleys covered by open woodland dominated by grey box eucalypt trees, to steep rugged east-west trending ridges on the flanks of valleys. The terrain ranges in elevation from 80 m to 360 m.

6 History

6.1 Ownership

The property has undergone an extensive history, that evolved through a mix of independent exploration, joint ventures, corporate acquisitions, and reorganisation, reflecting the shifting dynamics of mining exploration and resource focus in the area. A detailed summary is described in Vigar and Jones (2006) and is summarised as follows:

1. **1890s-1950s:** Nearby discoveries saw early prospecting efforts by independent explorers. Mount Isa Mines Limited (MIM) obtained Authority to Prospect in 1956 and discovered the Redtree deposit shortly after.
2. **1959:** MIM formed a joint venture with Consolidated Zinc Pty Ltd. Consolidated Zinc later became CRA, eventually gaining full ownership of the leases.
3. **1967-1996:** Queensland Mines Ltd (QML) conducted substantial exploration before shifting focus elsewhere. QML partnered with various entities, including Urangesellschaft Australia Pty Ltd (UAPL), Anglo Australian Resources NL, Omega Mines Ltd, and CRA Ltd, with CRA assuming full control of the joint venture by 1996.
4. **Post-1990:** CRA merged into the Rio Tinto group, which held significant tenements before relinquishing them in 2000. These areas were subsequently claimed by Tackle Resources Pty Ltd.

6.1.1 1890's to 1910's – Early Regional Work

The Westmoreland region was probably first prospected in the 1890's, after the discovery in 1887 of silver-lead deposits at Lawn Hill, 100 km south. Copper was discovered in 1911 at Settlement Creek and at the nearby Redbank lode in the Northern Territory in 1916. In 1912 the Packsaddle and Bauhinia copper lodes were discovered near Wollogorang homestead. Pitchblende has been mined in the Peters Creek Volcanics, which overlie the Westmoreland Conglomerate, 20 to 30 km west of Redtree (Syvret, 1957).

6.1.2 1956- Mount Isa Mines (MIM)

In August 1956, MIM secured Authority to Prospect (AP) 46M, covering 1,800 sq miles near the Queensland-Northern Territory border, targeting copper and uranium. Following up on Bureau of Mineral Resources (BMR) airborne scintillometer survey anomalies, MIM prospector A Blackwell discovered a "promising occurrence of torbernite" in the Westmoreland Conglomerate in November 1956, naming the deposit Redtree.

Due to the low grade and remote location, MIM relinquished the AP but secured mining leases over Redtree and other surface uranium mineralisation in 1959, in a 50:50 joint venture with Consolidated Zinc Pty Ltd (later CRA, which acquired 100% interest).

6.1.3 1967- Queensland Mines Ltd (QML)

QML took control of the licence area in 1967 and carried out exploration drilling, pitting and shaft sinking work programs in the region (see section 9.1.1 for detail). The Huarabagoo deposit was also discovered during this period.

Following the discovery of the Nabarlek deposit in 1971, QML ceased exploration at Westmoreland to concentrate their efforts in the Alligator Rivers area of the NT.

6.1.4 1975 – Joint Venture Work

In 1975, QML formed a joint venture with Urangesellschaft Australia Pty Ltd (UAPL), Anglo Australian Resources NL and CRA Ltd. UAPL discovered the deposit in the period 1976 to 1983 when they were managing the joint venture. Omega Mines Ltd entered the joint venture in 1982. In 1990 CRA took over management and purchased 100% of the joint venture in 1996. Prior to this time, CRA had purchased a 100% interest in the old MIM mining leases at Redtree.

6.1.5 1960 to 1980

From 1960 to 1980, 14 EPMs were held and explored within the boundary of the present EPM 14558, generating 60 open file reports. Several operators were involved in the area at the time:

- 1967-1973 BHP
- 1968-1970 US Steel International
- 1970 Westmoreland Minerals Limited

- 1971-1972 Esso Mineral Enterprises Australia Ltd
- 1973-1979 Mt Arthur Molybdenum NL
- 1975-1981 Savage Exploration Pty Ltd
- 1977-1979 Mines Administration Pty Ltd

Exploration programs are summarised in Table 9.1 in Section 9.1.2.

6.1.6 1980 to 1990

The surge in gold exploration from 1980 to 1990 was reflected in the increased tempo of exploration in the Westmoreland area. Ten EPMs were granted in the area now covered by EPM 14558; 35 open file reports record the work done through this decade. The following companies were operating during this decade:

- 1980-1982 Minatome Australia Pty Ltd
- 1982-1989 Uranerz Australia Pty Ltd
- 1983-1984 Total Mining Australia Pty Ltd
- 1983-1989 Central Electricity Generating Board Exploration (Australia) Pty Ltd
- 1984-1985 International Mining Corporation NL
- 1987 CSR Ltd
- 1988-1989 Golden Plateau NL

Significant exploration work is summarised in Table 9.2 in section 9.1.3.

6.1.7 1990 to 2000

Exploration slowed post-1990, with only seven EPMs granted in the area of EPM 14558 in the last 15 years. The GSQ received only 15 open file reports during this time, all from CRA detailing their previous work. CRA held a major tenement position until its absorption into Rio Tinto, which relinquished the tenements in 2000. Tackle Resources Pty Ltd then applied for these licence areas.

6.2 Previous Resource and Reserve Estimates

Previous operators conducted numerous mineral resource studies at Redtree over a 25-year period (1969-1994). These estimates are detailed in Vigar and Jones (2006), with the main estimates summarised below.

6.2.1 Early Estimates

- Queensland Mines Limited (QML) conducted the earliest estimate in 1969 for the Jack Lens at Redtree, using a basic polygonal method on 123 drill holes.
- In 1990, 1994 & 1995, CRA Ltd produced several internal estimations, improving their methodology with each attempt. They initiated a comprehensive review of the Westmoreland tenements (Figure 6.1) and digital terrain model was created from aerial photos (1990-1993). By 1993, 1,249 drill holes were in the database.

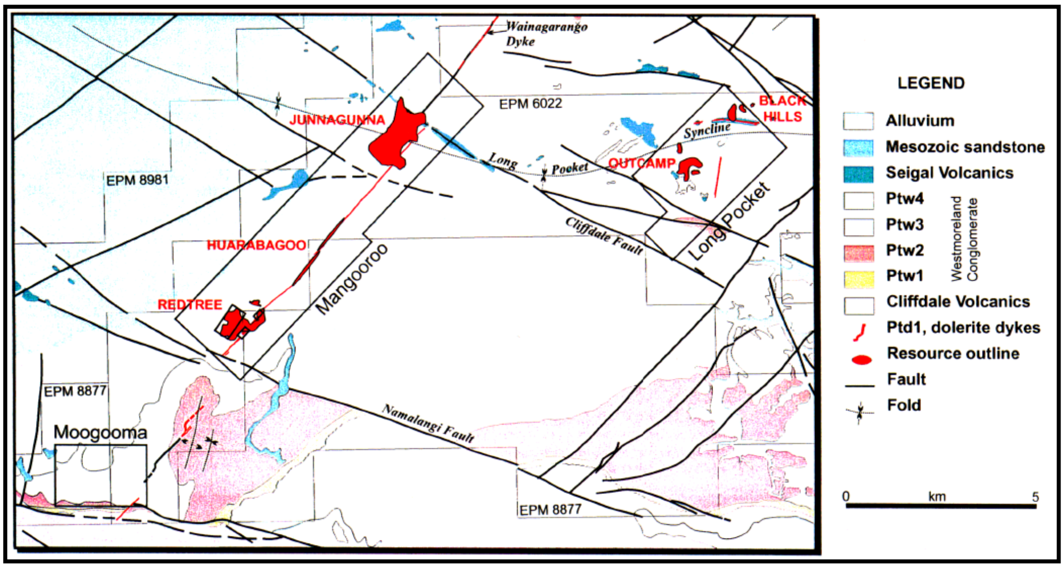


Figure 6.1 CRA's Westmoreland Uranium Deposits (Minenco, 1995).

- In 1995 Minenco were commissioned by CRA to update their earlier pre-feasibility study using a lower cut-off grade of 0.05%.

The estimations produced were not prepared in accordance with CIM definition standards and not reported under NI 43-101. The 1996 estimate Minenco was never signed off by a Competent Person. Additional estimates were produced during this period but were based on less data than what is available today. Therefore, to avoid misleading the reader, these historical estimates are not included here.

6.2.2 2006 – Mining Associates Estimation

In 2006, Mining Associates (Vigar and Jones, 2006) created 3D geological interpretations using a 0.02% (200 ppm) cut-off and 1m minimum width. The project area was split into three sub-areas based on mineralisation and drilling trends. Geological wireframes defined domains of similar style to constrain the resource model. Mining Associates classified resources above a 0.02% U_3O_8 economic cut-off, deemed appropriate for the shallow, flat deposit.

Table 6.1 Resource Estimates (above 0.02% U_3O_8) from 2006

Category	Deposit	Tonnes	U_3O_8 Uncut	U_3O_8 Cut	U_3O_8 (kt)	Mlbs
Inferred	Redtree	10,928,500	0.094%	0.093%	10.2	22.4
	Huarabagoo	2,925,250	0.122%	0.108%	3.2	7.0
	Junnagunna	2,149,500	0.077%	0.075%	1.6	3.6
Total Inferred w/ grade average		**16,003,250**	**0.097%**	**0.094%**	**14.9**	**32.9**
Indicated	Redtree	3,672,250	0.096%	0.096%	3.5	7.8
	Huarabagoo	0	-	-	0.0	0.0
	Junnagunna	4,364,750	0.082%	0.081%	3.5	7.8
Total Indicated w/ grade average		**8,037,000**	**0.088%**	**0.088%**	**7.1**	**15.6**

6.2.3 2009 – Mining Associate Update

In 2009, a resource update was undertaken by Mining Associates (Vigar and Jones, 2009) which included the 2007 and 2008 drilling results.

Mining Associates (Vigar and Jones, 2016) published a Scoping Study (Preliminary Economic Assessment) in 2016. This update, reviewed by a 2009 QP, stated that the drilling undertaken in 2009, 2010 and 2012 confirmed earlier work but did not significantly change the resource. The 2009 estimate was restated in the April 2016 Study with no change to Indicated or Inferred tonnages. The April 2009 estimate (Table 6.2) was reported in accordance with National Instrument 43-101, *Standards of Disclosure for Mineral Projects*, ("NI 43-101") and prepared under Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards. The estimate was also reported in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code' 2012 edition.)

Table 6.2 Westmoreland Mineral Resource Estimates, May 2009

2009 MRE, (Vigar and Jones, 2009)				
Deposit	**Tonnes**	**Density g/m^3**	**U_3O_8 ppm**	**U_3O_8 MLb.**
Indicated				
Redtree	12,900,000	2.5	900	25.5
Huarabagoo	1,460,000	2.5	830	2.7
Junnagunna	4,360,000	2.5	810	7.8
Long Pocket	-	-	-	-
Total Indicated	**18,700,000**	**2.5**	**880**	**36**
Inferred				
Redtree	4,460,000	2.5	670	6.6
Huarabagoo	2,400,000	2.5	1,090	5.8
Junnagunna	2,150,000	2.5	750	3.6
Long Pocket	-	-	-	-
Total Inferred	**9,000,000**	**2.5**	**800**	**15.9**

6.2.4 2016 – Scoping Study and Preliminary Economic Assessment (PEA)

In April 2016 Lycopodium Minerals Pty Ltd and Mining Associates Pty Ltd completed a Scoping Study and Preliminary Economic Assessment (PEA) for the Project (Vigar and Jones 2016). The study outlined scope for open-cut mining for a 13-year life of mine and considered other aspects of the project including pit optimisation, mine scheduling, processing methodologies and throughputs, infrastructure requirements, and economic analysis. The economic inputs used in this study are no longer considered current.

7 Geological Setting and Mineralisation

7.1 Regional Geology

The Westmoreland project licences are located on the southeastern margin of the southern McArthur River Basin. Mapping of the area done in the late 1970's is covered by the GSQ's 1:250,000 scale "Westmoreland Geological Sheet" and the Bureau of Mineral Resources' 1:100,000 scale "Seigal NT and Hedleys Creek Qld" sheet.

The Palaeo-Mesoproterozoic McArthur Basin is a substantial (5-10 km thick) sequence of largely unmetamorphosed sedimentary and volcanic rocks deposited on the North Australian Craton between approximately 1800 and 1575 Ma. The southern extent of this basin is defined by the Murphy tectonic ridge (Murphy Inlier), which separates it from the Mt Isa Inlier. The east-west trending Urapunga fault zone marks the boundary between the southern and northern parts of the McArthur Basin. The oldest sediments in the southern basin unconformably overlie the Cliffdale Volcanics (part of the Murphy Inlier), the Scrutton Volcanics, and the Urapunga Granite.

Sediment deposition occurred in a variety of intracratonic settings, including fluvial, coastal, and shallow marine environments. The southern McArthur Basin is lithostratigraphically divided into the Tawallah, McArthur, Nathan, and Roper Groups. However, on the Wearyan Shelf, where the Westmoreland project is situated, only the Tawallah Group is significantly represented, with the younger groups largely absent (except for the Karns Dolomite of the Nathan Group).

The stratigraphy of the southern McArthur Basin is further categorised into three regionally correlatable "superbasins": the Leichhardt (ca. 1800 to ca. 1740 Ma), the Calvert (ca. 1710 to 1690 Ma), and the Isa (ca. 1670 to 1575 Ma), separated by approximately 20-25 million year gaps Jackson et al. (2000) proposed an eight-fold subdivision of older Statherian rocks within these superbasins across an 800 km outcrop belt. The Leichhardt Superbasin comprises the five older associations (A to E), and the Calvert Superbasin includes the younger three. These superbasins are separated by a basin inversion event.

The lithology of the Calvert and Leichhardt superbasins in the southern McArthur Basin is characterised by shallow marine and fluvial siliciclastic successions, outer-ramp carbonate successions, turbiditic siliciclastic units, and bimodal igneous rocks. These sediments can be broadly classified into four facies associations, with the proximal fluvial facies being prominent near the base of the Leichhardt superbasin, particularly in formations like the Westmoreland Conglomerate, lower Yiyinti Sandstone, and Sly Creek Sandstone, where they form thick sequences.

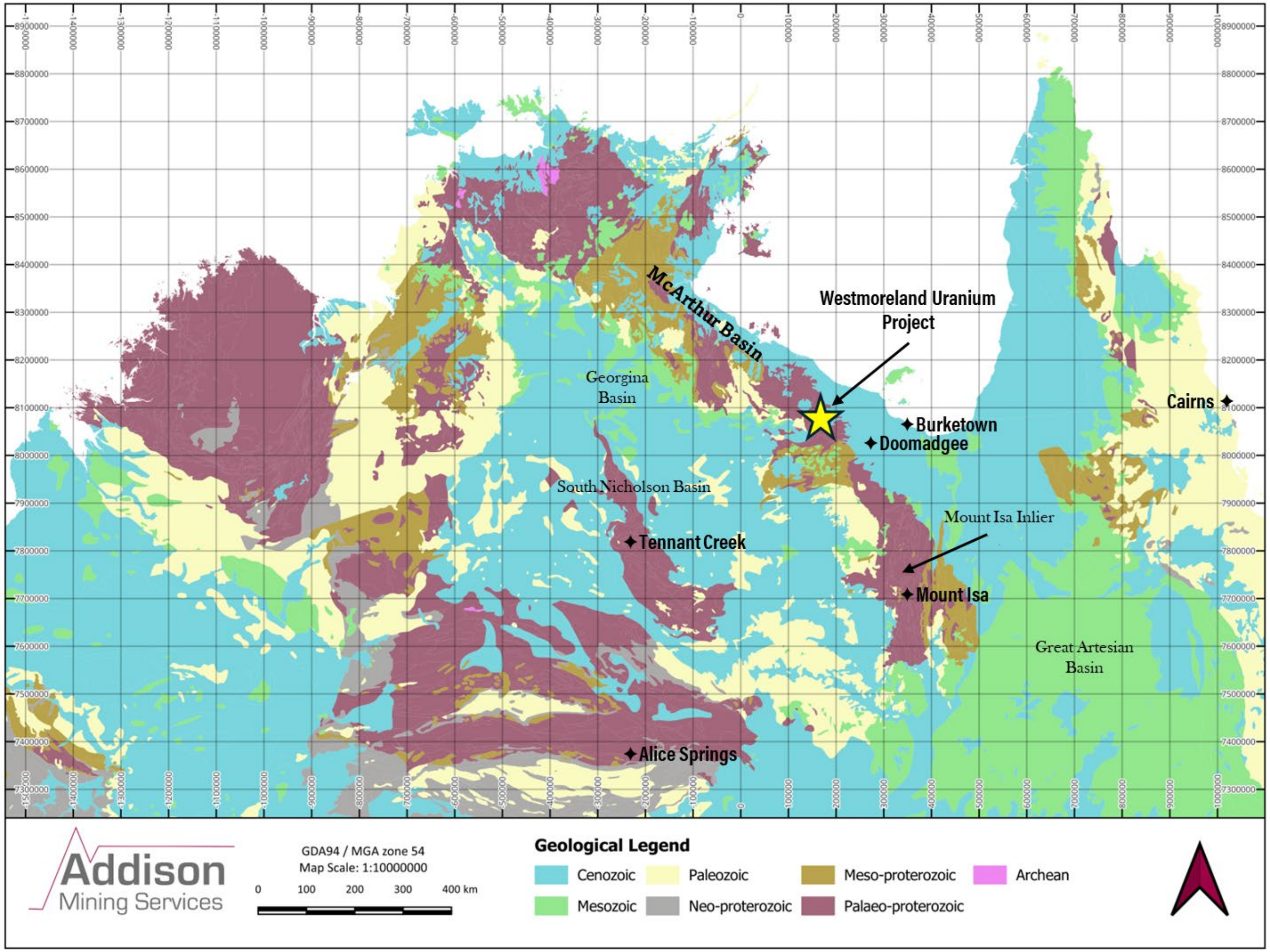


Figure 7.1 Geological setting of Northern Australia, with Westmoreland licences.

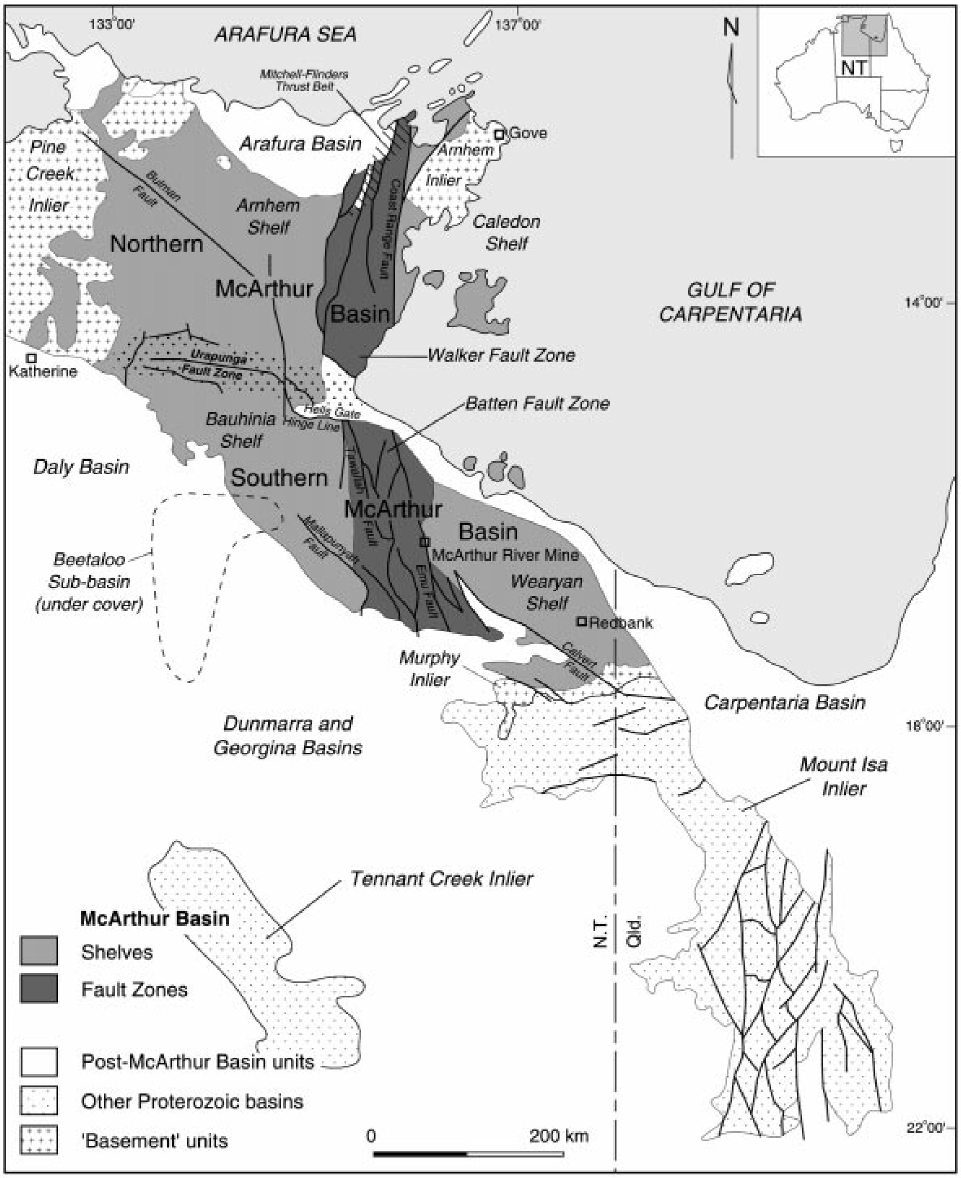


Figure 7.2 McArthur Basin – Westmoreland Located North Flank of Murphy Inlier (Rawlings, 1999).

7.1.1 Westmoreland–Pandanus Creek Uranium Mineralisation

The Westmoreland–Pandanus Creek uranium field has four types of uranium occurrences (Figure 7.3):

- Type A: At the reverse-fault contact between the Cliffdale Volcanics (hanging wall) and Westmoreland Conglomerate (Type A1), or at the contact between the Seigal Volcanics and the conformably overlying Westmoreland Conglomerate (Type A2).
- Type B: Near a contact between impermeable vertical mafic dykes and the Westmoreland Conglomerate.

- Type C: Hosted by the Cliffdale Volcanics, beneath an exhumed unconformable contact with the overlying Westmoreland Conglomerate.
- Type D: Hosted by fractures in the Seigal Volcanics, at some distance above the contact with the Westmoreland Conglomerate.

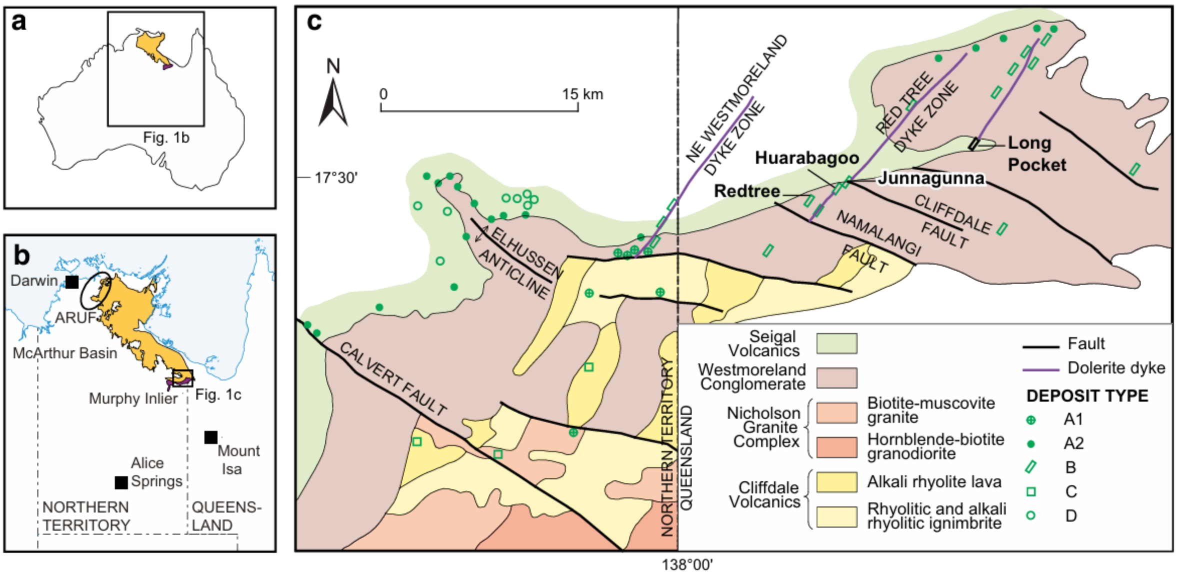


Figure 7.3 Geological setting for the Westmoreland uranium field (modified from Lally and Bajwah (2006)).
***a** location of the McArthur Basin and Murphy Inlier, **b** Westmoreland (black rectangle), **c** simplified geology map.*

7.1.1.1 Sandstone Hosted Westmoreland-Style

Polito et al. (2005); Polito et al. (2006) proposed that poorly sorted fluvial sandstones and conglomerates in the southern McArthur Basin evolved into diagenetic aquifers hosting basinal brines similar to those in Pb-Zn and U deposits. These brines, formed primarily in the Westmoreland Conglomerate and parts of the Calvert Superbasin, could leach Pb-Zn ± Cu and U from sediments and volcanics. Well-sorted sediments typically become aquitards at depth due to quartz cementation, limiting their brine source potential. Conversely, initially poor aquifers with heterogeneous composition can develop secondary porosity through framework dissolution at depths exceeding 4 km, becoming conduits for metal-bearing brines. Diagenetic alteration replaces unstable detrital minerals with stable phases like illite and chlorite, indicative of aquifer formation. Increased silicate solubility at depth created secondary porosity in the Westmoreland Conglomerate, facilitating fluid flow. Basinal brines in the Leichhardt Superbasin reached ~200°C (corresponding to 5-9 km burial depth) and were open to fluid migration from 1680 ± 21 Ma to 1541 ± 8 Ma, encompassing the formation of the Redtree-Junnagunna U deposits (~1650 Ma) (see section 7.3).

7.1.1.2 Cliffdale Volcanic-Hosted Eva-Style

Lally and Bajwah (2006) cited a 1987 classification dividing Westmoreland-Pandanus Creek uranium occurrences into five types based on hydrology and geology. McKay et al. (2001) used a local system classifying Eva as shear zone mineralisation in altered acid volcanics (Cliffdale Volcanics). All uranium mineralisation in the area is within or near the Westmoreland Conglomerate.

Prospect geology and isotope studies suggest mineralizing basinal brines moved through the Westmoreland Conglomerate, along unconformities (reverse faults), and into shear zones and permeable sandstones within the Cliffdale Volcanics, where uranium precipitated via reduction, possibly by diagenetic chlorite.

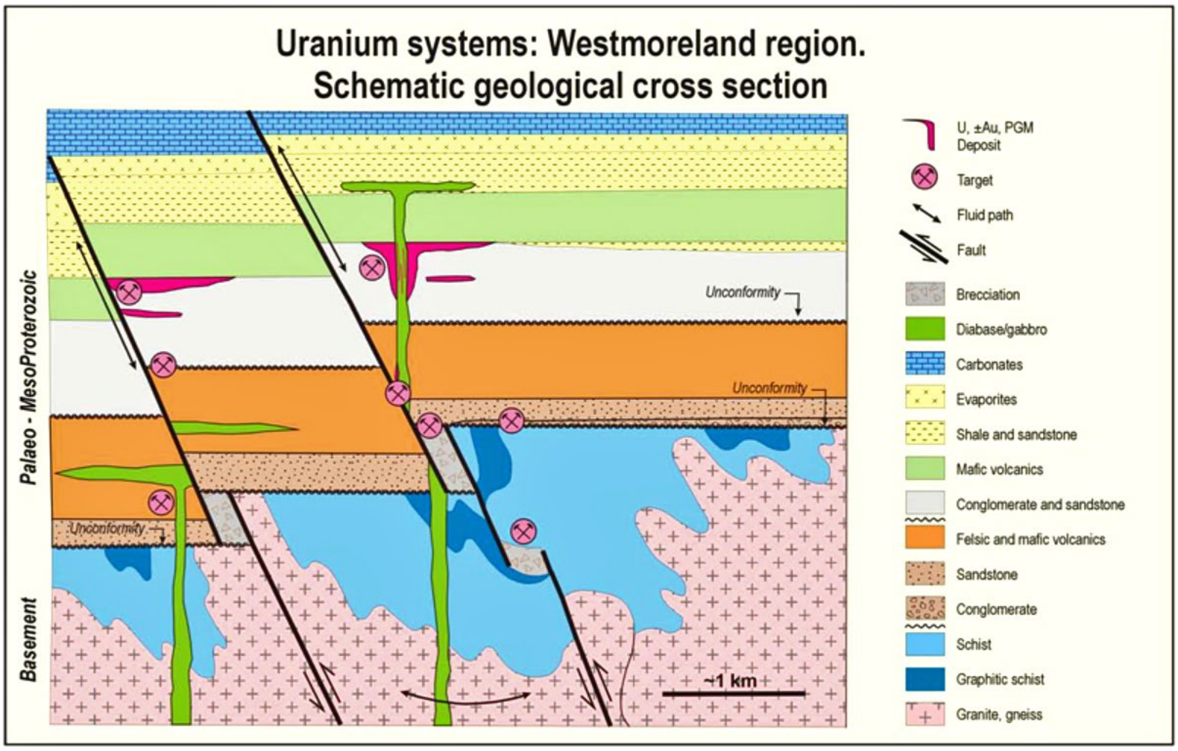


Figure 7.4 Uranium Systems of the Westmoreland Region: Schematic Geological Cross-Section

7.2 Local Geology

The Westmoreland tenements are centred about the outcropping Westmoreland Conglomerate of the Tawallah Group, where the southern McArthur basin on laps the Cliffdale Volcanics of the Murphy Inlier (e.g. Blaikie and Kunzmann (2020)). The Redtree deposit is located in the southwest of EPM 14558.

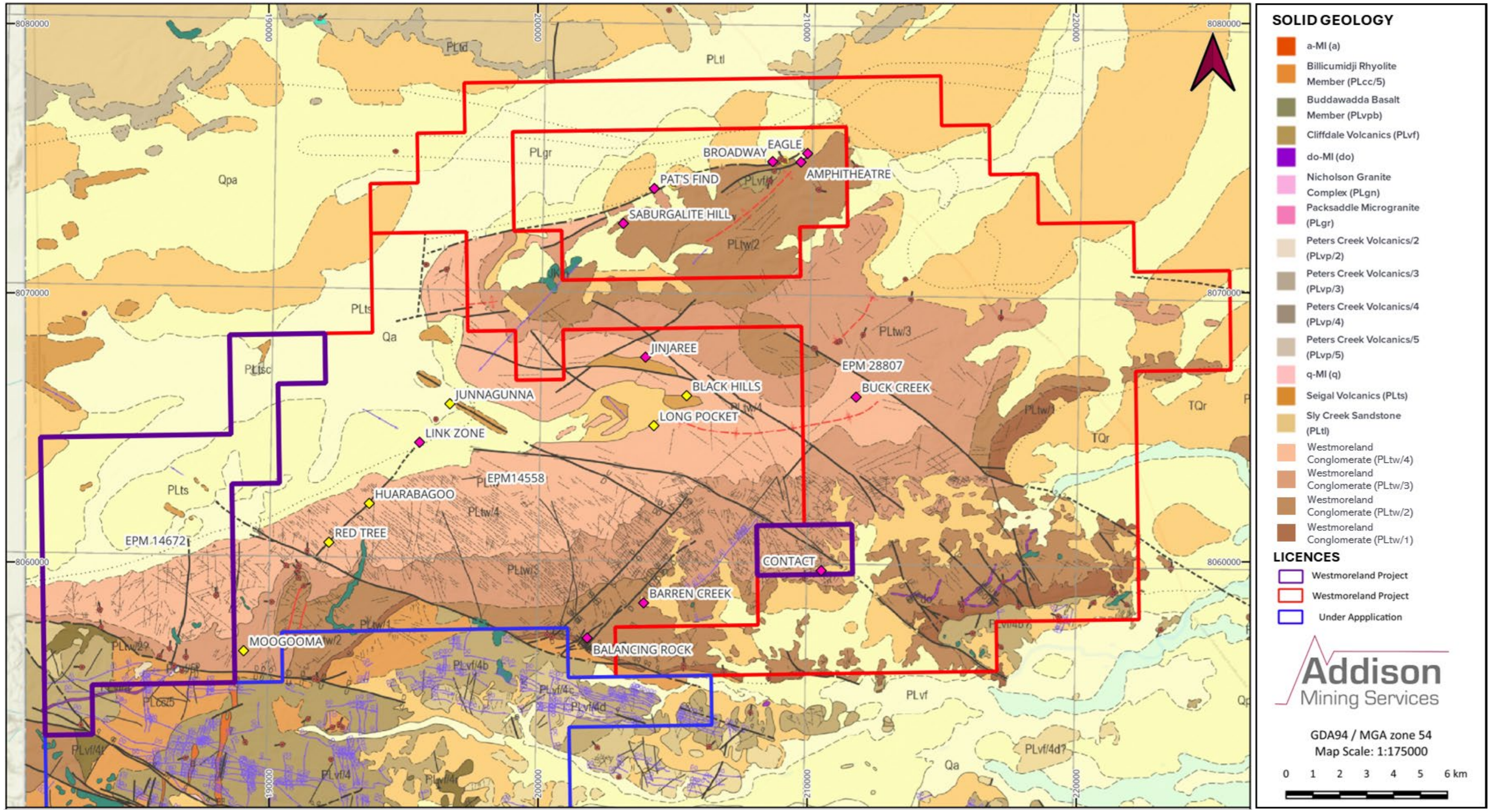


Figure 7.5 Local geology of Westmoreland project.

The Westmoreland uranium deposits (Redtree, Junnagunna, Huarabagoo) are primarily hosted within the shallow-dipping Westmoreland Conglomerate. This conglomerate, up to 1,800 m thick, is divided into five fining-upward units (PTW1-PTW4), each representing proximal fluvial deposits (debris flows, alluvial fans, braided rivers) overlain by well-sorted sandstone. Angular unconformities or disconformities mark breaks, with new units often starting with pebble/boulder conglomerate. The basal conglomerate contains cobbles and coarse sand (reworked quartz veins, chert, felsic/mafic volcanics from the Murphy Inlier or similar basement) and it is suggested that this detrital material and the lithic clasts themselves likely acted as a source for the uranium mineralisation found within the deposit (Polito et al., 2005). NE-trending fractures, some filled with dolerite, crosscut the conglomerate.

Conformably overlying the Westmoreland Conglomerate is the Seigal Volcanics unit. This unit is characterised by predominantly massive flows of tholeiitic basaltic lava, although localised occurrences of amygdaloidal textures are noted, along with minor interbeds of siltstone and sandstone.

Aphyric, medium-grained dolerite dykes, often NE-trending and potentially linked to basement weaknesses intrude both the Westmoreland Conglomerate and the underlying basement units of the Murphy Inlier. These dykes, like the Redtree dyke, weather easily and are often obscured at the surface. In its unaltered state, the dyke rock is typically a dark green dolerite and in core shows brecciation, shearing, and alteration at contacts. The Redtree dyke's geochemistry resembles the Seigal Volcanics, suggesting it might have been a feeder (Polito et al., 2005; Rheinberger et al., 1998). The Redtree dyke zone is a series of en echelon dykes (typically <20 m thick, 1 km long) extending for 15 km.

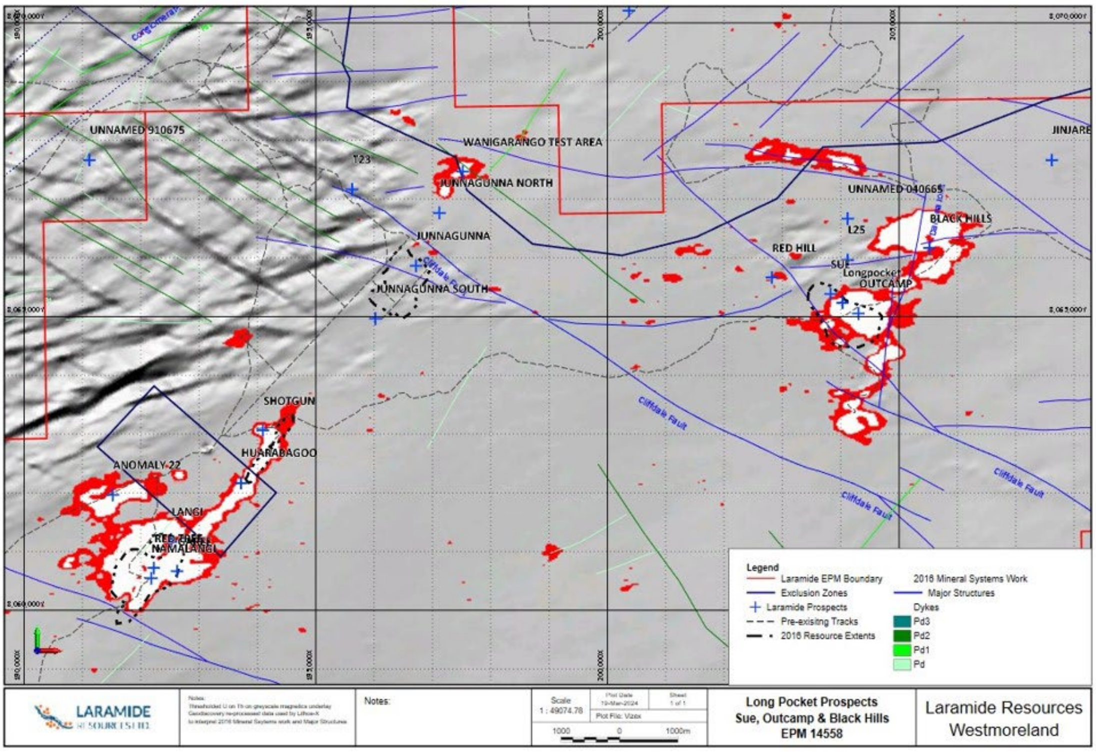


Figure 7.6 Showing WNW and NW faults and mineralisation as a function of Thresholded U/Th

Figure 7.7 Westmoreland conglomerate outcrop.

7.3 Significant Mineralised Areas

The four main deposits located in the prospect area are all hosted within the shallow dipping Westmoreland Conglomerate with alluvial overburden cover and overlying Seigal Volcanics in part (Figure 7.8). Redtree, Junnagunna, Huarabagoo and Long Pocket, collectively termed the Redtree Group, which have undergone the most exploration, have Mineral Resource Estimates and are at resource drilling stage. They are described in the following sub sections. A Schematic cross section showing the geological relationship between the deposits is shown in Figure 7.9.

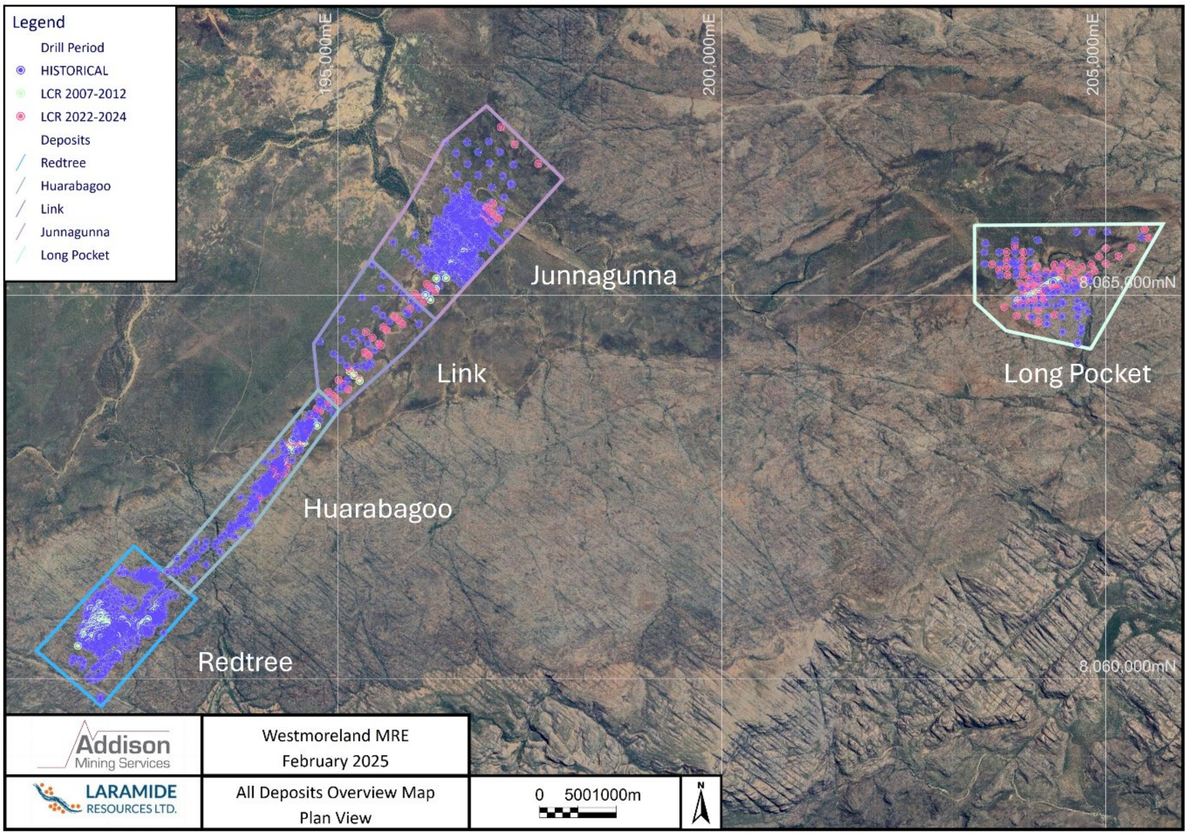


Figure 7.8 Deposit geology of the Westmoreland uranium field, redrawn after RTZ (1997) and Cuney (2009).

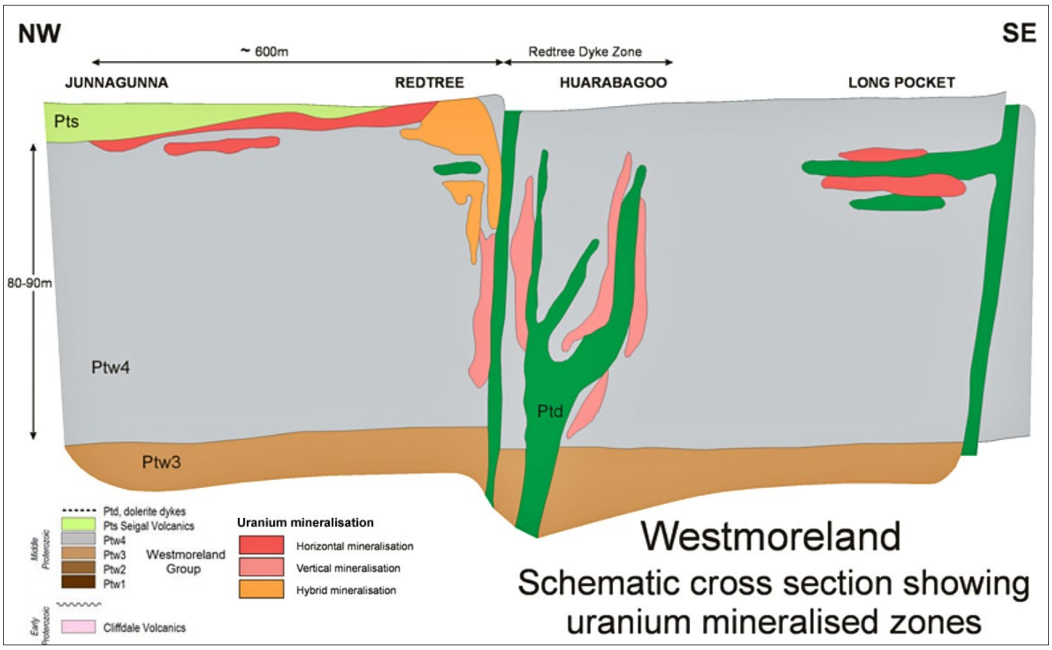


Figure 7.9 Uranium Mineralisation Styles at Westmoreland after Rheinberger et al. (1998).

7.3.1 Redtree

The Redtree uranium deposit flanks the Redtree dyke zone immediately north of the northwest-trending Namalangi fault. The deposit is made up of four mineralised lenses (Figure 7.8, Figure 7.9)- horizontal mineralisation in the Jack, Garee, and Langi lenses, and vertical mineralisation in the Namalangi lens. The Jack lens becomes locally steep close to the dyke edge and there is minor mineralization in the dyke. Grades range from 0.15% to >2% U_3O_8 (Rheinberger et al., 1998).

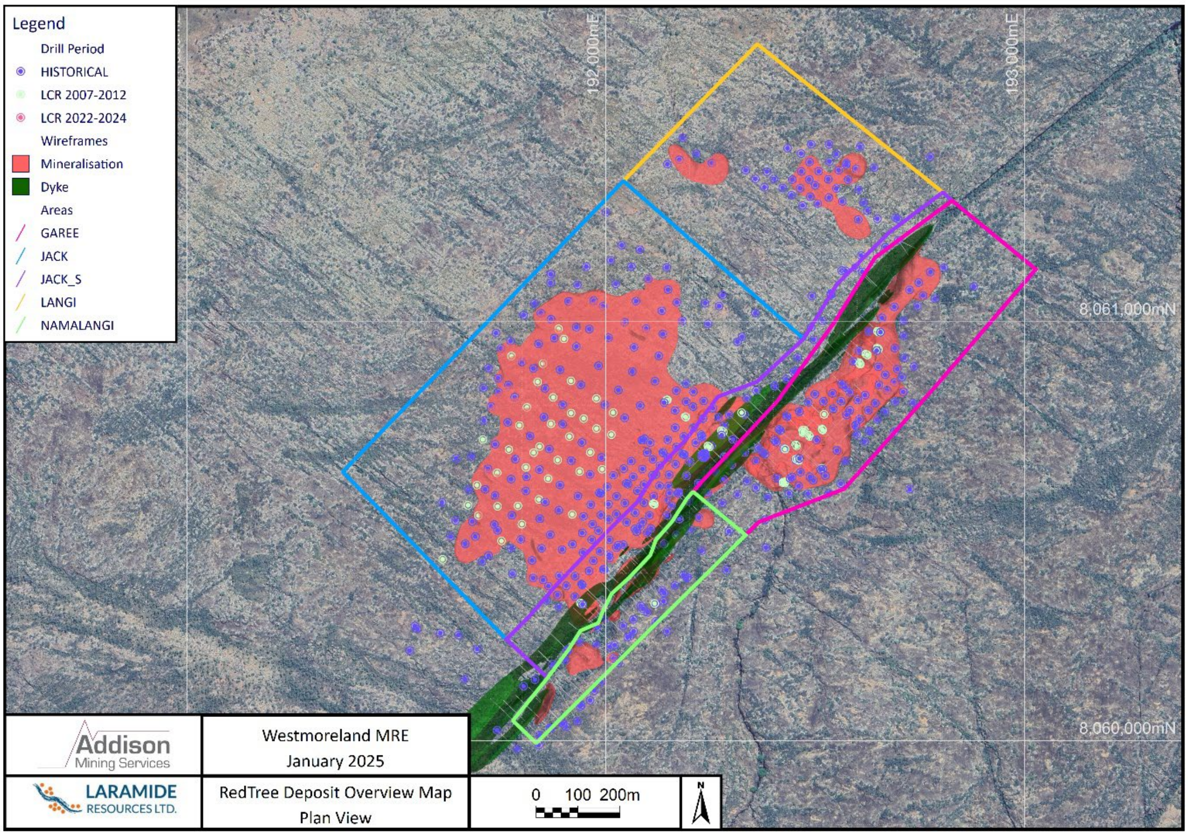


Figure 7.10 Redtree showing four major lenses of mineralisation.

Mineralisation and alteration contacts are mostly bedding parallel and gently dipping. The central deposit area lacks significant steep or dyke-related mineralisation. Shallow, flat-lying mineralisation is often linked to a continuous pebble conglomerate layer, including the Jack and upper Garee Lenses (Figure 7.10), associated with moderate to strong hematite alteration and lesser chlorite/sericite. Deeper mineralisation, linked to more variable stratigraphy, also shows higher grades in coarser sandstone/pebble conglomerate units and is commonly associated with chlorite-altered sediments with less hematite/sericite.

The horizontal mineralisation in Jack and Langi lenses on the northwest side of the dyke zone is entirely hosted within PTW4 of the Westmoreland Conglomerate. It forms a sheet of mineralisation 0 to 10 m below ground surface (less than 20 m below the projected basal contact of the now removed Seigal Volcanics) up to 15 m thick (increasing with proximity to the dyke zone) and up to 500 m wide.

The Garee lens consists of a mix of horizontal and vertical mineralisation in the PTW4 of the Westmoreland Conglomerate on the eastern side of the dyke zone. Mineralisation is 5 to 30 m below the surface, up to 50 m thick adjacent to the dyke and thins to the east (away from the dyke).

Vertical mineralisation at the Namalangi lens occurs over a strike length of more than 700 m within the dyke zone, particularly within the sandstone wedge between the two dykes.

SEM analysis shows consistent uranium mineralogy across drill-intersected lenses. Uraninite dominates (60-80%), with coffinite (2-15%) and meta-autunite (1-6%) as the main remainder. Coffinite was found to be proportionally more abundant in two samples in lower Garee lens (40% and 32%). Brannerite was absent or present in trace amounts (<1% of uranium).

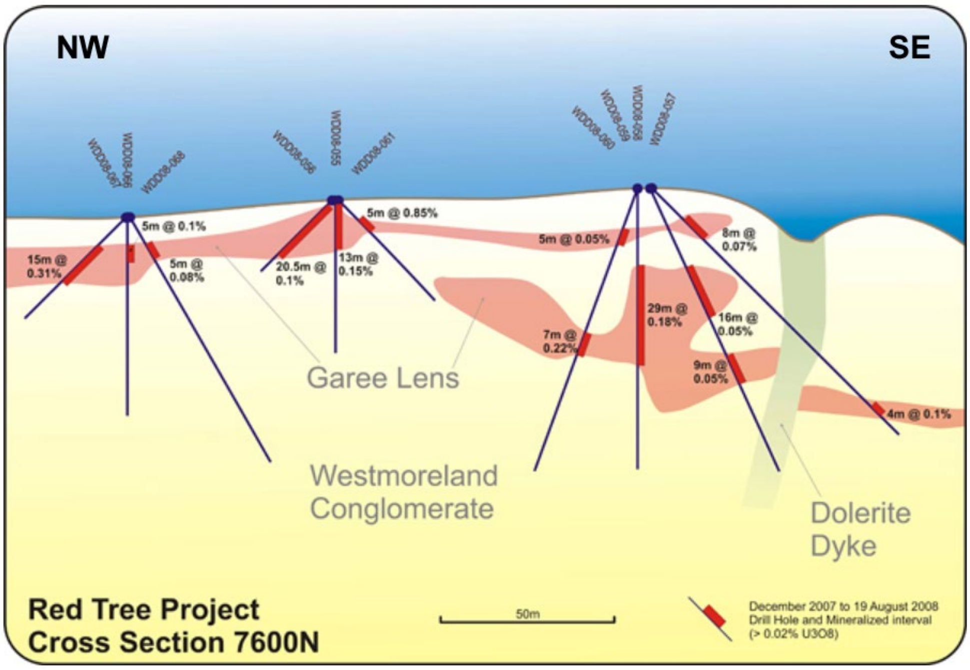


Figure 7.11 Redtree Cross-Section 7600N. Source: Laramide

Drilling at Redtree intersected primarily the upper unit of the Westmoreland Conglomerate (PTW4). Lithologies intersected within this unit were predominantly coarse quartz arenites with intervals grading into pebble conglomerate. These lithologies are underlain by coarser cobble conglomerates at depth.

7.3.2 Huarabagoo

Situated 3 km NE of Redtree along the Redtree dyke zone, Huarabagoo straddles the contact of the Seigal Volcanics with the Westmoreland Conglomerate (Figure 7.8)

The mineralisation outcrops at the southern end and is concealed to the north under 2 to 3 m of sandy alluvium and 5 to 8 m of weathered basalt of the Seigal Volcanics. The deposit comprises a 3 km zone of vertical mineralisation associated with a complex dyke geometry with vertical and horizontal branches between the two principal dykes (Figure 7.12). Some 75% of the mineralisation is within the flanking PTW4 sandstone (the remainder in the dykes) with individual lenses up to 20 m thick, 100 to 500 m long, and extending to a depth of about 80 m. Mineralisation rarely extends beyond the PTW4 into PTW3 conglomerate.

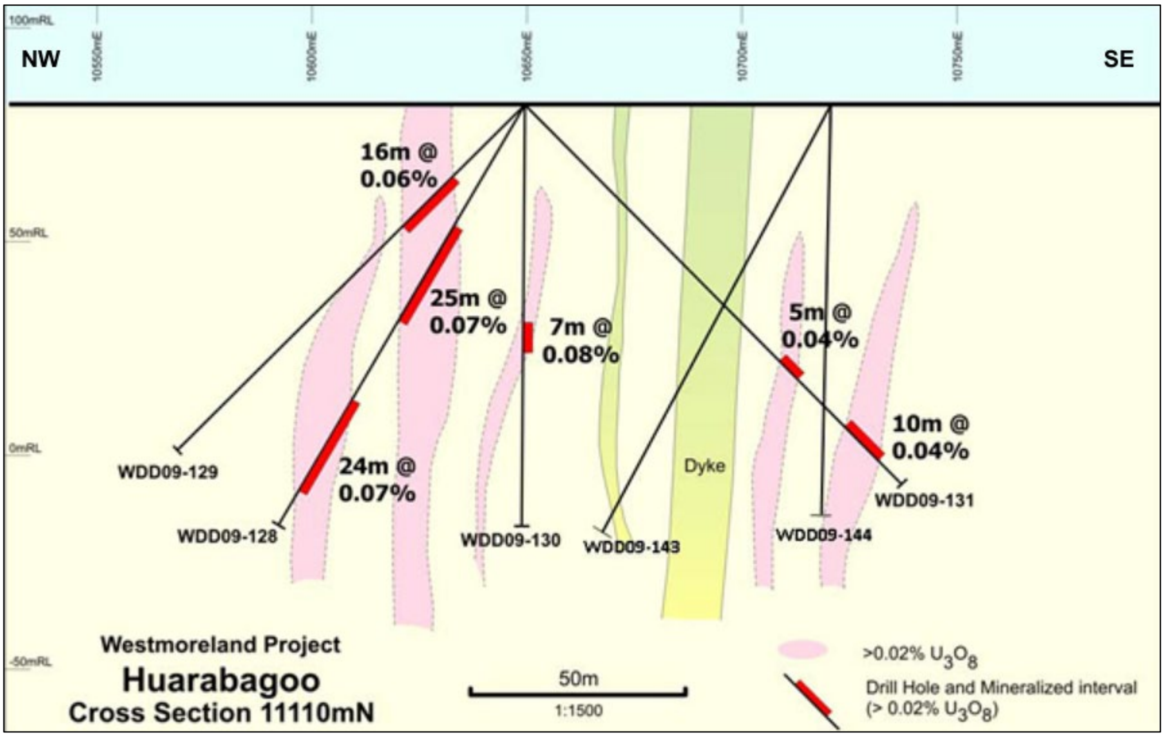


Figure 7.12 Huarabagoo Cross Section 11110N. Source: Laramide

7.3.1 Huarabagoo-Junnagunna Link Mineralisation

Mineralisation in this zone is mainly hosted within the PTW4 unit of the Westmoreland Conglomerate, peripheral to the Redtree dyke system (Figure 7.13), and typically associated with strong hematite alteration.

The Huarabagoo-Junnagunna Link is a mineralised structural corridor along strike of the Redtree dyke system, connecting the Huarabagoo and Junnagunna deposits (Figure 7.13). Mineralisation identified to date in this zone is predominantly hosted within the PTW4 unit of the Westmoreland Conglomerate peripheral to the Redtree dyke system, similar to the other Westmoreland uranium deposits, and typically associated with strong hematite alteration. Overlain by alluvial cover, it lacks surface radiometric response.

The Westmoreland Conglomerate is buried under 2-10 m of sandy alluvium and 5-15 m of weathered Seigal Volcanics. The PTW3 unit is found at 100-110 m depth. Drilling targeting dyke continuity intersected the Redtree dyke but identified offsets, suggesting cross-faulting. Further drilling is expected to improve definition of this zone and associated vertical mineralisation shadowing the intrusive body, and test continuity between the deposits to potentially increase the overall resource size.

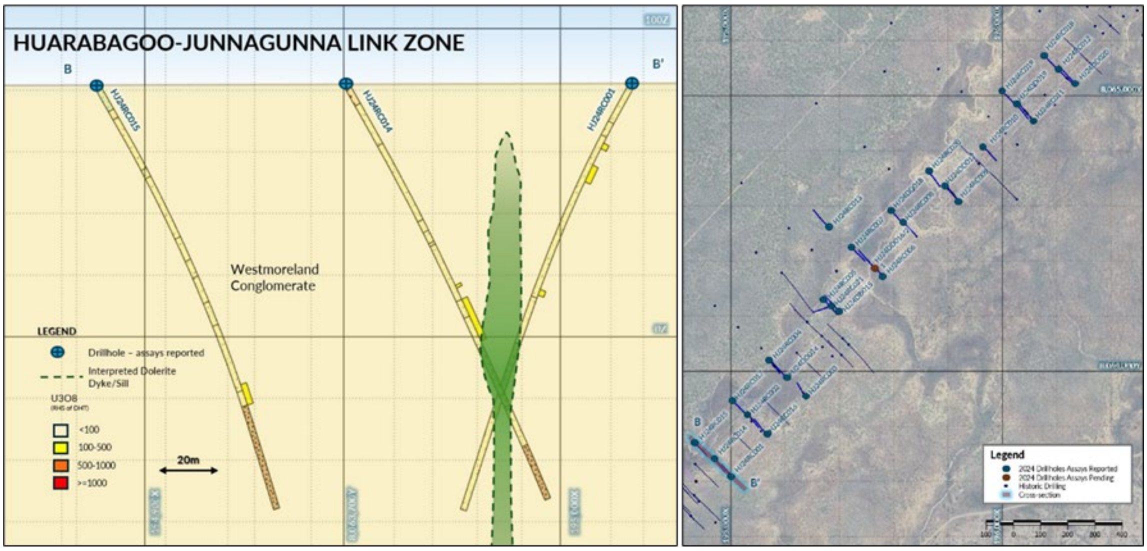


Figure 7.13 2024 drilling at the Huarabagoo-Junnagunna Link

7.3.2 Junnagunna

At Junnagunna, the Westmoreland Conglomerate is beneath Seigal Volcanics, which are overlain by ~8 m of Quaternary alluvium/colluvium. Weathered basalt extends to 10-25 m depth. The Junnagunna Conglomerate lacks the coarse pebble units seen at Redtree, with the upper sequence dominated by medium to coarse sandstone, underlain by a coarse sandstone with scattered pebbly clasts. The Junnagunna uranium deposit is located at a fault intersection west of the Redtree dyke zone and south of the Cliffdale fault, obscured by 3-10 m of alluvial sand and 5-20 m of weathered/fresh Seigal Volcanics. Extensive flat-lying mineralisation in PTW4 sandstone occurs on both sides of the Redtree dyke, typically 0.5 to 10 m thick, just below the Seigal-Westmoreland contact. Mineralization becomes steep and rolls over approximately 20 m form the dyke contact (Figure 7.14).

Strongest mineralisation is linked to chlorite and hematite-altered coarse pebbly sandstones, similar to Redtree. Highly silicified and fractured rock near the dyke is generally poorly mineralised. While alteration and mineralisation contacts show a bedding parallel aspect, the overall mineralisation geometry indicates vertical control. Higher grades likely occur within favourable horizons but are laterally confined by a broad structural corridor.

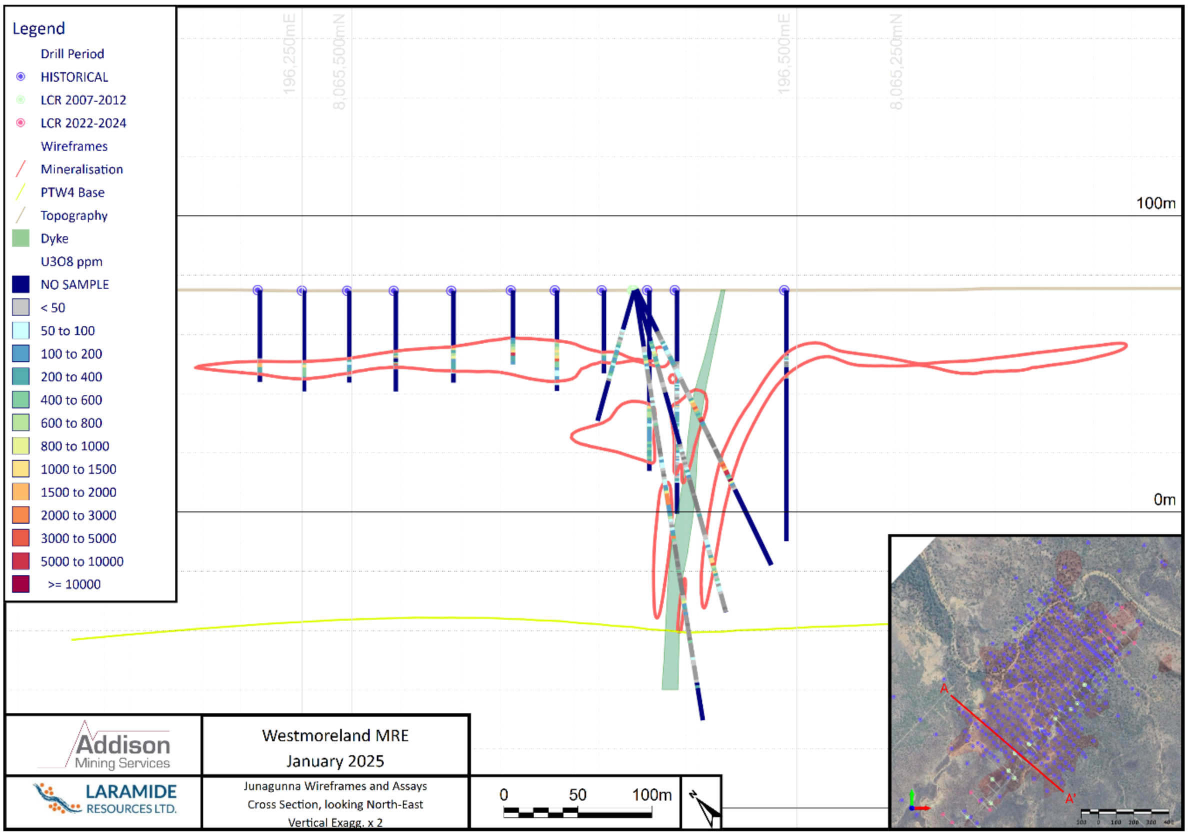


Figure 7.14 Example cross section showing geometry of Junnagunna mineralization.

7.3.3 Long Pocket

Uranium mineralisation occurs on the northern side of the Cliffdale fault and the eastern side of the Redtree dolerite dyke zone. The Long Pocket deposits (Outcamp, Sue and Black Hills) are situated 8 km east of the Junnagunna deposit.

Long Pocket mineralisation is sub-horizontal over a 500 m strike length to the east northeast above a dolerite sill and immediately below the underlying sill contact (Figure 7.15). Zones of higher-grade uranium are generally intercepted within the broader coherent mineralised envelope above the dolerite sill. Outcamp and Sue were historically viewed as separate zones but by 2020, Laramide viewed Outcamp and Sue as a single contiguous zone.

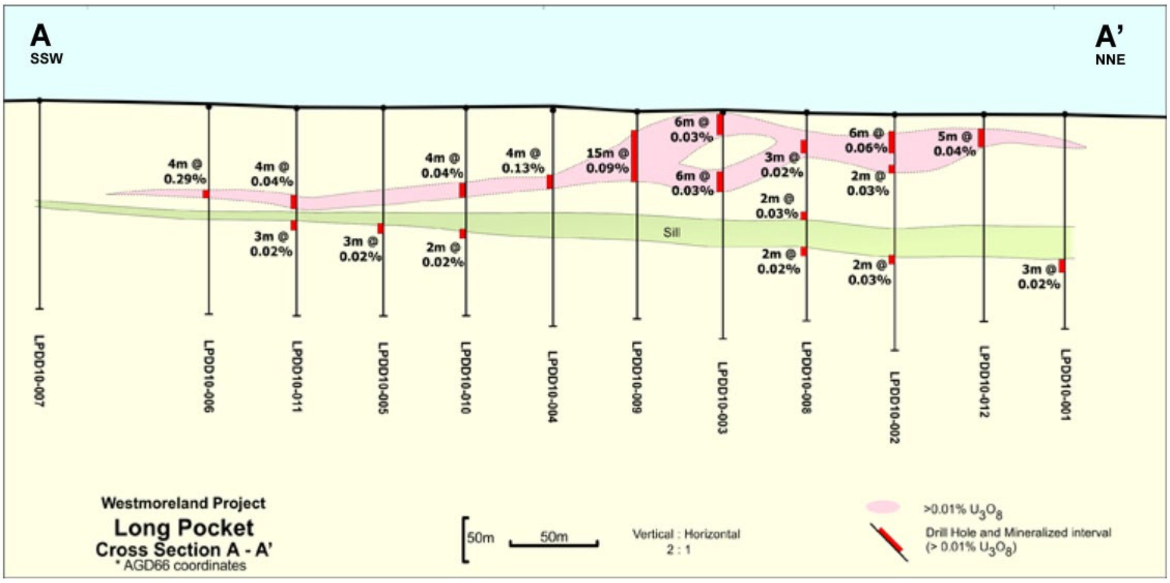


Figure 7.15 Long Pocket Schematic Cross Section.

7.3.4 Oxidisation and Weathering

Determining oxidation and weathering at Redtree is challenging due to the sandstone's resistance. Competent, partly silicified sandstone is at the surface. Oxidation occurred early diagenetically. Clays are diagenetic, not weathering products. Weathering is assessed by chlorite and hematite alteration, making a consistent weathering front definition difficult. Sulphur analyses provide a more quantitative oxidation measure, with low sulphur correlating to the upper deposit. The base of oxidation is defined by logging and sulphur data.

Slight weathering (chlorite to smectite, minor oxidation) is common but doesn't affect rock competency or density. The upper Redtree deposit (east of the dyke) contains primary uranium minerals (uraninite, coffinite), not secondary ones.

The base of oxidation, based on sulphur assays, ranges from 0 to 26 m, but is typically 5-15 m below ground. At Junnagunna, the upper deposit is extremely weathered alluvium/colluvium over moderately to strongly weathered basalt. Alluvial thickness is 6-23 m (generally 8-15 m), and the basalt base is usually 15-28 m. Underlying sandstones are slightly weathered to fresh, but oxidation state determination is complex.

7.3.5 Uranium Mineral and Alteration Mineralogy

The uranium mineralisation is characterised by late-phase uraninite, hematite, illite, and minor rutile. Uraninite and hematite act as matrix cement between quartz grains. Uraninite also occurs as micron-sized grains within hematite (Polito et al., 2005) Hematite is dominant, imparting a red-brown colour to samples. Some uraninite fills fractures in pyrite. Pyrite appears contemporaneous with some uraninite but also occurs as brecciated grains cemented by uraninite.

Secondary uranium minerals found at Redtree, Huarabagoo, Junnagunna and Long Pocket include torbernite, met-torbernite, carnotite, coffinite, autinite, bassetite and ningyoite.

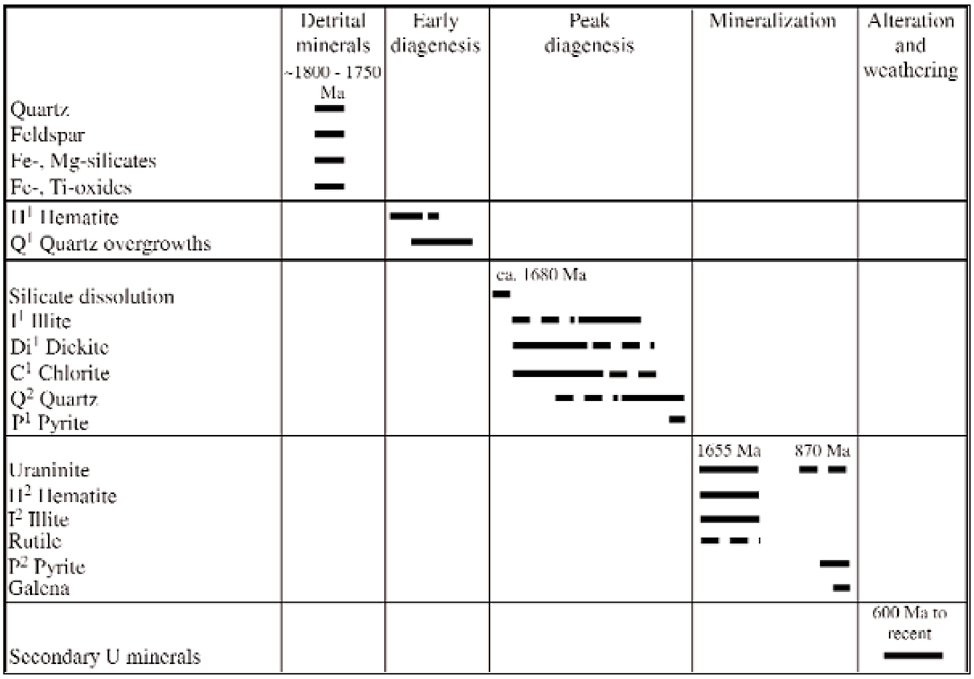


Figure 7.16 Paragenesis in the Westmoreland Uranium Field, after Polito et al. (2005).

The PTW4 subunit of the Westmoreland Conglomerate contains most of the identified uranium at Westmoreland. It is porous, coarse grained quartz sandstone, with cross-bedding and conglomerate portions. It is brown coloured in outcrop and white to pale grey when fresh. Within the deposit area, it is about 80 m thick with a basal discontinuous tuffaceous fine grained laminated siltstone.

At Redtree, while primary uraninite exists, the ore is mainly supergene altered to silicate (sklodowskite, boltwoodite, beta-uranophane) and minor phosphate (saleeite, autunite, tobernite) minerals. Shallow mineralisation is linked to moderate to strong hematite alteration with less chlorite and sericite.

Huarabagoo shows zones of strong silicification by secondary quartz. Late-stage limonitic oxides are common with clays on joint surfaces. Dusty hematite is widespread in the matrix, with stronger, near-opaque hematite alteration associated with mineralisation. Sericite selectively fills fine-grained clays, likely replacing feldspar.

Junnagunna's strongest mineralisation is in chlorite and hematite-altered coarse pebbly sandstones, similar to Redtree. Highly silicified and fractured rock near the dyke is generally poorly mineralised.

Long Pocket's PTW4 is a moderately sorted, quartz-cemented sub-litharenite (as classified by Barren (2008)), often pale pinkish-brown due to hematite staining. Alteration is generally mild sericite-hematite-rutile, with strongest mineralisation associated with strong hematite alteration.

7.4 Other Mineralised Areas on the Property

In addition to the primary identified deposits of Redtree, Huarabagoo, Junnagunna, and Long Pocket, thirteen other zones of known mineralisation have been identified on the property and are illustrated in Figure 7.17. No Mineral Resource Estimates have been completed for these prospects.

The Moogooma, Black Hills & Uranium Valley, Amphitheatre, and Eagle prospects are deemed most significant and warrant immediate further exploration, as described below.

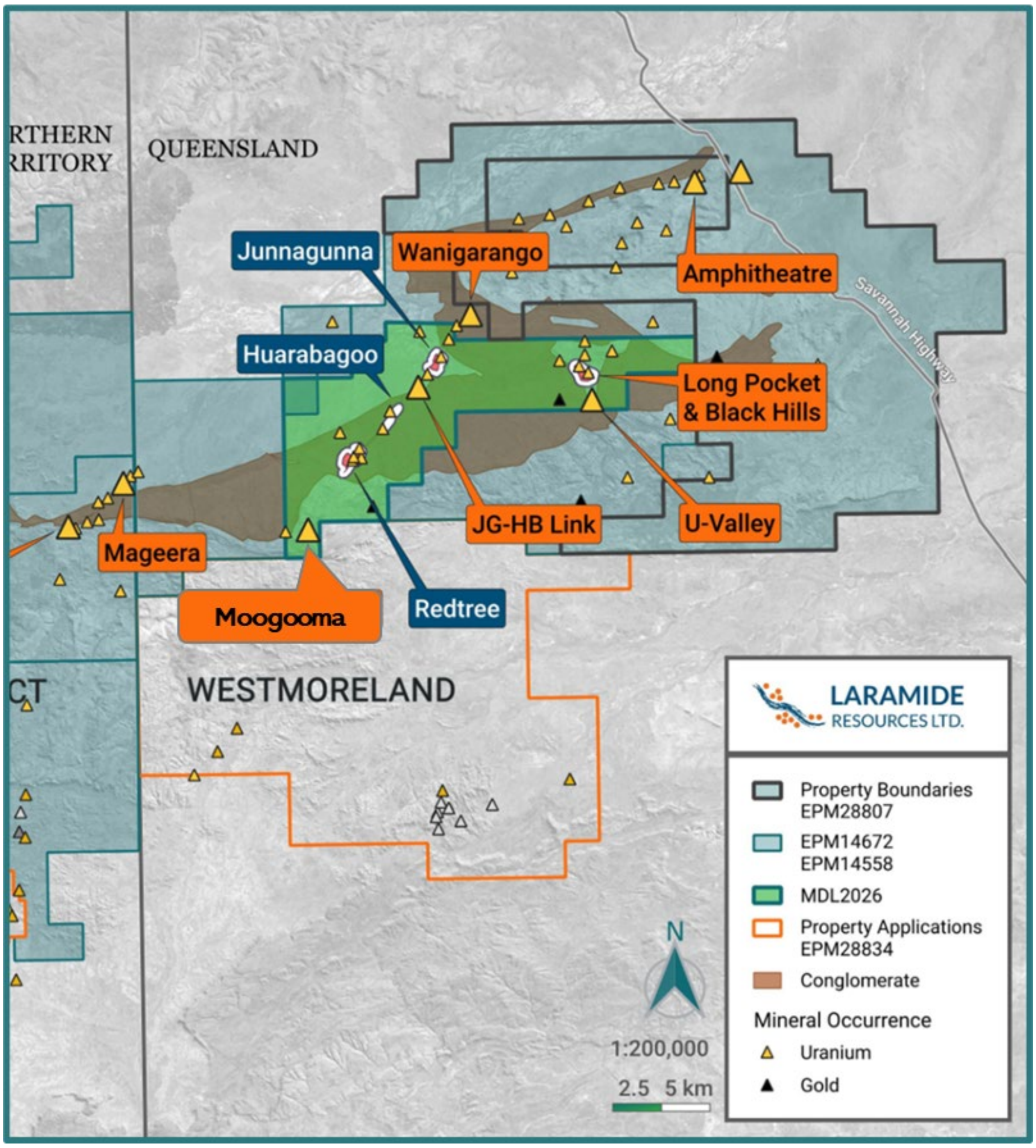


Figure 7.17 Map of Westmoreland deposits and prospects.

7.4.1 Moogooma

Moogooma is a radiometric anomaly located approximately 5 km SW of Redtree along strike of the Redtree Dyke (Figure 7.17). Exploration in 1973 conducted by QML revealed a radiometric anomaly to the SW of Moogooma in the Cliffdale Volcanics, reporting over 1,200cps in a total count aerial survey, and a uranium anomaly of 40cps (Figure 7.18). The QML radiometrics show the main U anomalies (except Junnagunna), and the high background of the Cliffdale Volcanics. It has been postulated that the Channel 2 U anomaly along structure from Redtree-Moogooma might have primary uranium implications.

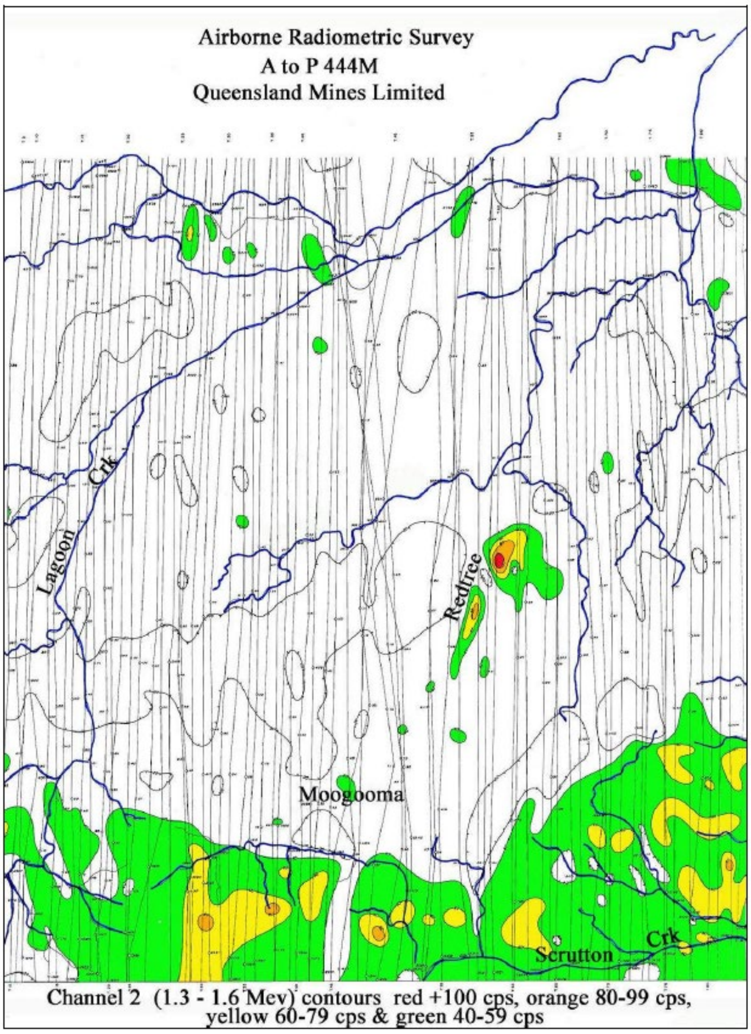


Figure 7.18: EPM 444 Redtree Area, Airborne Radiometric Survey, QML, Channel 2 Contours - Sheet 1 (after QML, 1974, CR5053)

Work by CRA Exploration Pty Ltd in 1996, noted the uranium mineralisation at Moogooma was confined to a series of isolated hills, and represented the eroded remnants of a former extensive shallow dipping sheet of mineralisation, similar to the one at Redtree. Mineralisation was pertained relative to the Moogooma dyke hosted in the Westmoreland Conglomerate, reported to consist of interstitial, pebble coatings and fracture filling secondary U mineralisation. Although the assay data recorded is limited with only modest notable intercepts (Table 10.5, Section 10) the data suggests that the mineralisation is open to the west. Furthermore, the target has only been explored to shallow depths and has not been defined in a north-south direction.

Rossiter (1976) reported as a result of regional work conducted by BMR in 1979, that U-As-Au stream sediment geochemistry is an informative exploration strategy, showing strong U anomalies from known mineralisation zones Redtree, Huarabagoo, and Long Pocket, as well as Moogooma.

Arsenic is associated with uranium in all these areas. A weak gold association is noted at Redtree and Huarabagoo, but not elsewhere. Mineralisation is likely sourced from the Cliffdale Volcanics. The radiometric anomaly at Moogooma might represent a smaller, near-surface deposit with a strong radiometric signature due to erosion exposing remnants of a shallow, once extensive mineralised sheet.

Additional radiometrics conducted by Laramide over QLD tenements identified several U-Th targets, with data analysis highlighting U over K. These U-emphasized targets correlate with the NE-trending Redtree Dyke system and are also seen SW of Redtree at Moogooma. Anomalies exist along the Main Ridge Fault south of Moogooma, between the Westmoreland Conglomerate and Cliffdale Volcanics. Moogooma is a priority target for further Laramide exploration.

7.4.2 Black Hills and U-Valley

Black Hills and Uranium Valley (U-Valley) located 9 km east of Huarabagoo and 12 km NE of Redtree, along with Long Pocket, form a 4 km x 2 km area of NE-trending U/Th radiometric anomalies (Figure 7.19). U-Valley, a significant radiometric anomaly SW of these prospects, shows strong Uranium and U/Th anomalism within PTW4 of the Westmoreland Conglomerate, linked to the NE-trending Darlona Joint structure off the Cliffdale Fault.

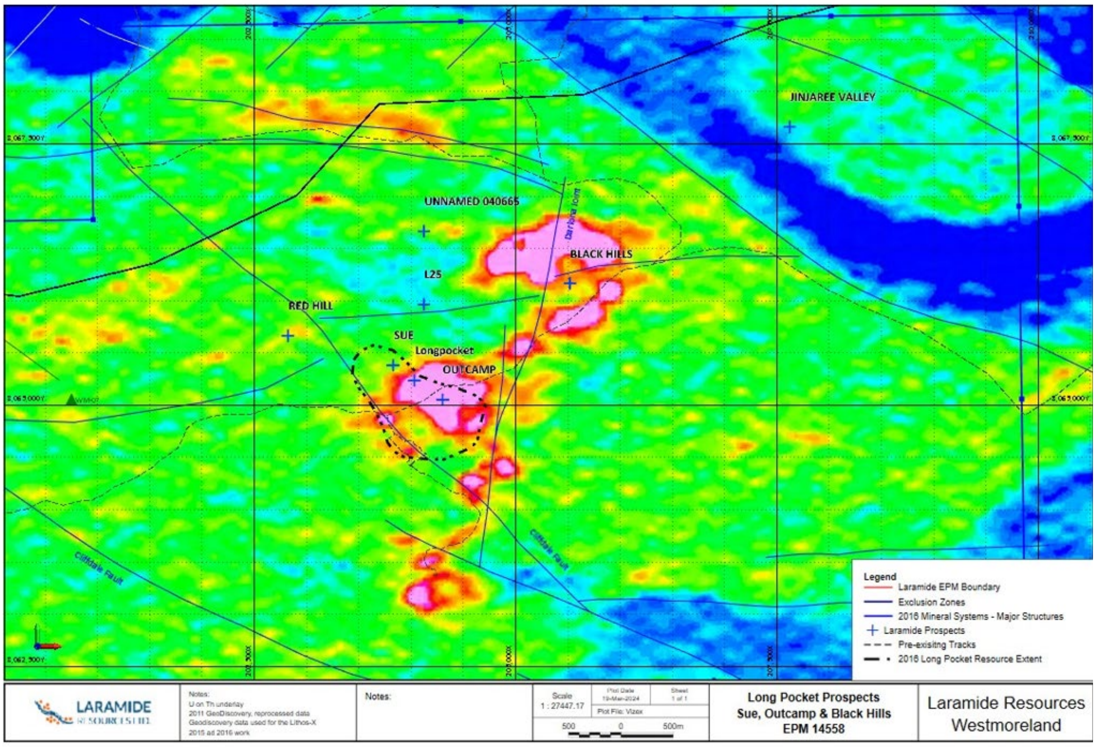


Figure 7.19: U on Th, Geodiscovery reprocessed data (2011). *Classified as strong for both Uranium and Uranium of Thorium anomalism hosted in PTW4 associated with the Darlona Joint structure running to the NE. 2016 in house resource overlain.*

Black Hills, 1.5 km NE of Long Pocket, is a broad 1.5 km x 1 km E-W radiometric anomaly (Figure 7.19), forming an E-W quartz ridge similar to one north of Junnagunna. The ridge is associated with Seigal Volcanics (Pts) and is located on the axis of the Long Pocket Valley syncline. The contact between PTW4 and Pts is inferred through alluvial cover in places of lower topography. The deposit is hosted by the PTW4 sandstone and is typically adjacent to the contact with the overlying Seigal Volcanics. Rock chip sampling shows anomalous U values and visible mineralisation similar styles to others prospects in the Westmoreland project area.

Historical drilling shows mineralisation spatially related to the E-W Black Hills dyke, with varying associations to the dyke (footwall, hanging wall, distal). The results of the 2023 Laramide scout drilling campaign (see section 10.3.1), combined with a review of historical data from the 1970's, promote Black Hills to one of Laramide's priority exploration targets which will include validation and qualification of historical work.

7.4.3 Long Pocket Gorge

South of Long Pocket is the 'Long Pocket Gorge,' a surface expression of the Darlona joint extending SW, displaying magnetite and iron-rich lithology, possibly eroded intrusive sills. These exposures are limited to the gorge's SW edge, approximately 2-5m thick and visible for 20m, often covered by boulder debris from the overlying PTW4. The Cliffdale Fault is evident south and west of Long Pocket, marked by quartz-filled veins. Uranium Valley, a valley in PTW4 south of where these structures diverge (1.3 km south of Long Pocket), likely formed due to Cliffdale Fault movement. Its southern edge is a small sandstone escarpment (10m high) and a notable 0.7 km x 0.7 km radiometric anomaly (Figure 7.19).

Initial field work and pit sampling has suggested sandstone hosted mineralisation with elevated U, seen on a spectrometer, and secondary mineralisation in fractures. Due to its proximity to a known mineralised zone and limited data, Uranium Valley is considered an untested satellite prospect warranting further exploration.

7.4.4 Amphitheatre

The Amphitheatre prospect is 11km NE of Long Pocket, in the Northeastern part of EPM 14558, located within Cliffdale Volcanics and Westmoreland Conglomerate (primarily PTW1). It is bound to the east by an interpreted NS trending fault. This fault, covered to the north, may extend or be truncated by the Conglomerate Hill Shear Zone.

Geophysically, it's a 400 m x 300 m radiometric anomaly with weak to moderate U-U/Th signatures Figure 7.20). Historical exploration (late 1960s/early 1970s) established a stratigraphic control, showing an eastern downthrow with no lateral movement (PTW2 expressing to the east and PTW1 to the west). Historical exploration in the late 1960s and early 1970s (percussion/diamond drilling, costeaning, pitting) established stratigraphic control showing an eastern downthrow with no lateral movement. Mineralisation is interpreted as structurally and stratigraphically controlled, with extensive remobilisation and secondary mineralisation (carnotite, autunite, torbenite) west of the NS structure, potentially from down-dip solution flow. East of the fault, both primary and secondary mineralisation were found, but no feeder dyke was identified as a driver.

Recent drilling (post-2022) intersected disseminated uraninite and torbernite associated with hematite alteration and silicification. Hole AMD009 intersected a potential feeder mafic dyke at ~190 m, considered a key driver for mineralisation, similar to the Westmoreland deposit. Quartz veining with epithermal textures correlates with Au assay results (see section 10.3.1).

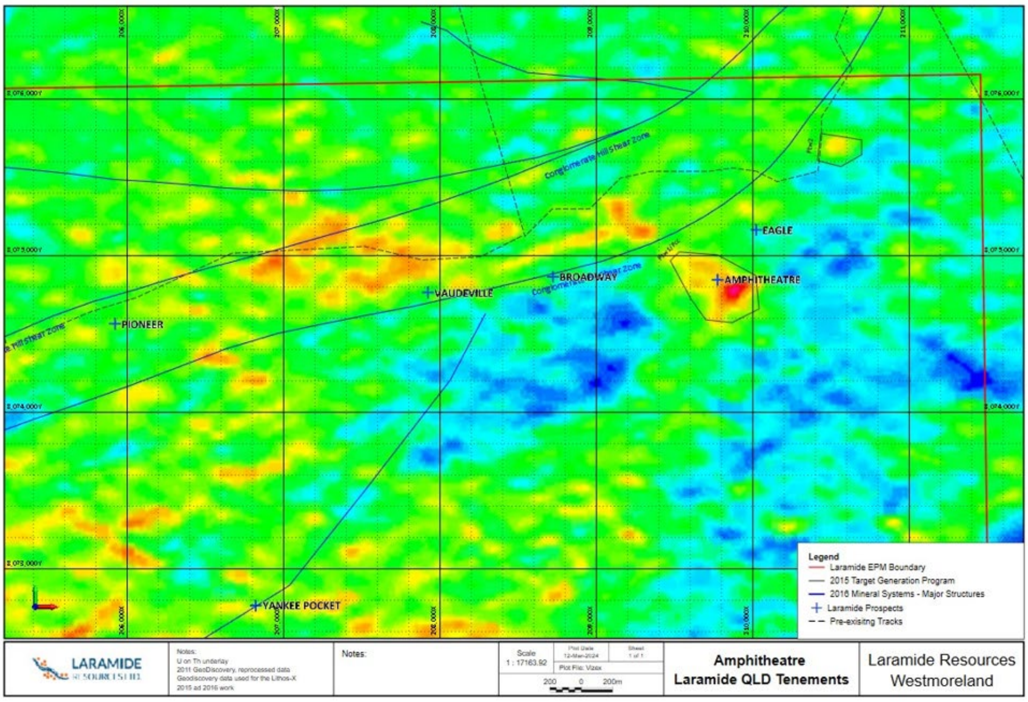


Figure 7.20 U on Thorium, GeoDiscovery reprocessed data (2011) Lithos-x target generation areas identifying Amphitheatre as a moderate priority drill target in 2015 due to moderate U on Th signature of the Amphitheatre prospect in proximity to the Conglomerate Hill

7.4.5 Eagle

Eagle is the most northeasterly target within EPM 14558. The geology is similar to Amphitheatre with gently north-dipping bedding and veins along NS and EW joint sets. Hematite alteration is present, sometimes strata-bound rather than constrained to veins and joints. Anomalous mineralisation has been identified in historic exploration work, including drilling targeting northward fault/shear continuations which intersected uraninite, confirming northward continuation of mineralisation. As a result, The Eagle prospect is a priority target and warrants further exploration.

Mineralisation throughout the Westmoreland region is generally recognised stratigraphically within the PTW4 unit of the Westmoreland Conglomerate, however with mineralisation confirmed at the contact of PTW1 and PTW2 at both Amphitheatre and Eagle prospects, demonstrates potential for mineralisation to be stratigraphically unconstrained (and likely structurally controlled in close association with apparent feeder mafic dyke systems), presenting opportunities for improved exploration strategies and targeting across a vast Westmoreland Region.

8 Deposit Types

Uranium in sandstone-hosted deposits, like the Westmoreland deposits in Australia, is typically precipitated through a process involving the interaction of uranium-rich oxidizing fluids with reducing environments within the sandstone (Figure 8.1). Several deposit controls are discussed in the below section after Guihe et al., (2023), with detailed particularities of the Westmoreland deposits themselves detailed in previous sections.

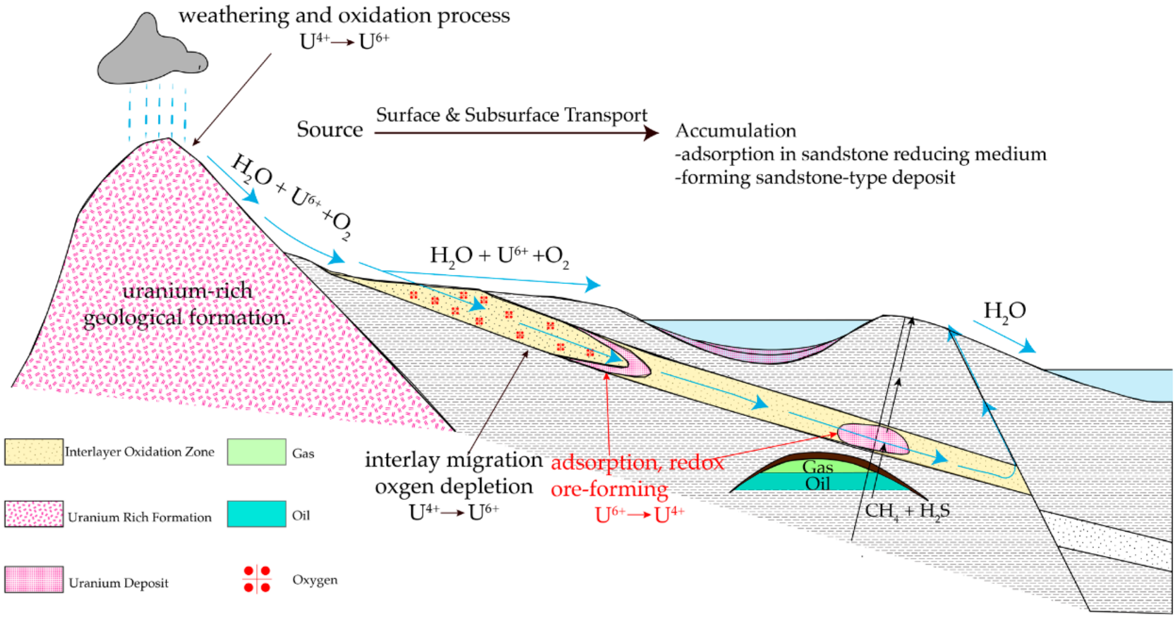


Figure 8.1 Graphical abstract of metallogenic mechanisms of sandstone-type uranium deposits (Guihe et al., 2023).

8.1 Host Lithologies

These deposits occur in medium to coarse-grained, poorly sorted sandstones, often of fluvial (continental) or marginal-marine origin. A key characteristic is the presence of pyrite (FeS_2) and organic matter (plant-derived), which can be disseminated within the sandstone matrix or concentrated in lignite seams.

8.2 Redox Control on Precipitation

Uranium (U^{6+}) is mobile under oxidizing conditions as uranyl complexes. Precipitation occurs when these fluids encounter a reducing environment, converting U^{6+} to less soluble U^{4+} phases (e.g., uraninite).

8.3 Sources of Reductants

Hydrogen sulphide (H_2S) is a highly effective reductant. It can be generated in situ via anaerobic microbial decomposition of organic matter, a process often associated with sulphate-reducing bacteria. Alternatively, H_2S can migrate into the host sandstone from underlying or overlying hydrocarbon reservoirs, creating a reducing front.

8.4 Temporal Favourability

Post-Silurian continental sandstones are considered more prospective due to the widespread terrestrialisation of plants from the Silurian onwards, providing a significant source of organic matter for in-situ H_2S generation. Proterozoic deposits, such as those at Westmoreland, formed in the absence of significant terrestrial organic matter, relying instead on the presence of abundant ferrous iron (Fe^{2+}) within the host rocks as the primary reductant.

8.5 Hydrogeological Setting

Gently dipping sandstone beds, typical of continental basin margins and coastal plains, are favoured. This geometry promotes slower groundwater flow rates, preventing the destruction of reducing conditions by oxygenated water. Low dips also maximize the surface area for the interaction of uranium-bearing groundwater with the reducing environment.

8.6 Deposit Classifications

Sandstone uranium deposits are broadly categorised based on orebody geometry, depositional setting, and structural controls. These include:

- Tabular: Relatively flat, tabular orebodies often controlled by stratigraphic boundaries.
- Roll-front: Crescent-shaped orebodies formed at the interface between oxidizing and reducing groundwater regimes.
- Tectonic-Lithologic (Shear-Hosted): Occur along permeable fault zones that intersect sandstone-mudstone sequences. Mineralisation forms tongue-shaped zones within permeable sandstone layers adjacent to the fault, often with multiple vertically stacked zones. The Westmoreland deposits are examples of this type.

8.7 Resource Characteristics

Sandstone-hosted deposits represent a significant portion of global uranium resources, although individual deposits are often of low to medium grade (typically 0.05 to 0.4% U_3O_8Uranium provinces or basins can host numerous small to medium-sized deposits, with some reaching up to 50,000 tonnes of U_3O_8The cumulative uranium tonnage within a province (e.g., the Colorado Plateau) can be substantial, reaching several hundred thousand tonnes.

9 Exploration

9.1 Significant Historic Exploration

9.1.1 1967 – Queensland Mines Ltd (QML)

QML carried out pitting and shaft sinking at the Redtree prospect during 1967 to 1969 and indicated continuous primary uranium mineralisation between minimum depths of 15 m and maximum depths of 135 m extending for at least 4,800 m along a major joint system.

At the same time, BHP carried out an airborne radiometric survey of 1,224 km line cutting across the strike of the Westmoreland Conglomerate. Minor anomalies were recorded.

9.1.2 1960 to 1980

The ownership of the licence area changed hands multiple times during this period, and the respective exploration programs are summarised in Table 9.3.

Table 9.1 Summary table of exploration activities, 1960 to 1980

Year(s)	Company	Exploration Work Program
1967-1973	BHP	Airborne radiometrics
1968-1970	US Steel International	Stream sampling for base metals around the Gulf of Carpentaria, as part of a manganese-uranium search
1970	Westmoreland Minerals Limited	Field inspection of base metal anomalies in Hedley's Creek.
1973-1979	Mt Arthur Molybdenum NL	Reconnaissance radiometrics, including 170 km of Track Etch lines
1975-1981	Savage Exploration Pty Ltd	Soil geochemistry, airborne radiometrics,
1977-1979	Mines Administration Pty Ltd	Stream sediment geochemistry and ground radiometrics for uranium, tin and tungsten.

9.1.3 1980 to 1990

An upsurge in gold exploration during this period is reflected in the increase in exploration work, with multiple companies actively exploring the area, now covered by EPM 14558. Table 9.2 summaries the operator and exploration program details.

Table 9.2 Summary table of exploration activities, 1980 to 1990

Year(s)	Company	Exploration Work Program
1980-1982	Minatome Australia Pty Ltd	Ground geophysics, costeans
1982-1989	Uranerz Australia Pty Ltd	BLEG sampling for gold and ground geophysics
1983-1984	Total Mining Australia Pty Ltd	Ground geophysics (including Track Etch) for uranium in the Westmoreland area.
1983-1989	Central Electricity Generating Board Exploration (Australia) Pty Ltd	BLEG sampling for gold and soil gas sampling for radon
1984-1985	International Mining Corporation NL	Stream sediment sampling for gold, diamonds, uranium, and base metals.
1987	CSR Ltd	BLEG and rock chip sampling for epithermal gold in the Cliffdale Volcanics.
1988-1989	Golden Plateau NL	BLEG and rock chip sampling for gold.

9.2 Laramide Exploration Programs

Laramide has held prospective tenure in the Westmoreland District since 2005. The exploration targeting strategy is informed heavily by geophysical (particularly radiometric) anomalies and anomalous geochemistry in historic drilling and surface geochemistry.

During this period, the Company has conducted significant exploration activities ranging from regional geophysical surveys and soil geochemistry sampling to prospect scale geophysics, and drilling (discussed separately in section 10.1.6). Extensive geophysical surveys including regional FALCON gravity, magnetic, and radiometric surveys have been undertaken.

Table 9.3 Summary table of exploration work carried out by Laramide since 2005

Period	Description of work completed
2005 – 2006	Detailed airborne magnetic and radiometric survey was flown over the Westmoreland area by UTS Geophysics Pty Ltd
	Compilation of historical drill hole and geological data from open file reports
	Acquisition and processing of relevant Landsat and SPOT satellite imagery
	Reprocessing of existing open file geophysical data
	A geological review was undertaken by Mining Associates Pty Ltd

Period	Description of work completed
	Application was made to Carpentaria Land Council Aboriginal Corporation (CLCAC) for clearance to conduct initial reconnaissance on the ground
	A Westmoreland Project Desktop Baseline study was undertaken
2006 – 2007	Initial sacred site clearance took place alongside the CLCAC enabling a soil sampling and geological mapping program to commence in August 2007
	Independent resource estimate was undertaken by Mining Associates Pty Ltd
	A desktop conceptual study for mining and processing completed by GRD Minproc
2007 – 2008	Soil sampling, geological mapping of the Junnagunna and Huarabagoo Prospects
	Petrological examination of a selection of rock samples
2008 – 2009	Resource estimate update by Mining Associates, incorporating the results of recent drilling. A total resource (Indicated and Inferred) of 27.7Mt @ 0.09 % U_3O_8 for 51.9M lb contained U_3O_8
	A regional stream sediment sampling program over the project area commenced
	Scanning Electron Microscope (SEM) analysis on assay pulps by SGS Minerals Services
	Additional petrography and hyperspectral PIMA (portable infrared mineral analyser) analysis of selected drill core
	Radiological surveys were undertaken comprising ground gamma surveys
2009 – 2010	Continued regional stream sediment sampling program. A total of 142 samples were collected from 71 sample sites
	Ground scintillometer surveys and geological mapping on radiometric anomalies in the Long Pocket area
	QEMSCAN analysis of samples undertaken by SGS
	Review of project metallurgy and feasibility study
2010 – 2011	Soil sampling program with ground scintillometer points over the Huarabagoo – Junnagunna Prospects. A total of 1,050 soil samples were collected from 525 sample sites
	Reprocessing of the 2005 Westmoreland Airborne Survey Data by GeoDiscovery Pty Ltd.
	ANSTO Minerals commissioned to undertake a metallurgical test and recovery program
2011 – 2012	Ground radiometric surveys over two areas, Southern Valley and Southern Black Hills (Long Pocket area). Rock chip sampling and geological mapping.
	An updated conceptual mining study of the Westmoreland Project area

Period	Description of work completed
2012 – 2013	Geological database review and targeting exercise of the main Westmoreland resource and surrounding area
	Predictive modelling for the discovery of further sandstone hosted uranium mineralisation as found at the Westmoreland uranium deposit
2013 – 2014	Work on a Scoping Study and Preliminary Economic Assessment (PEA) was undertaken
2014 – 2015	The Company commenced a project examining the Mineral Systems which relate to the deposition of Uranium in the region. Development of this comprehensive model incorporates a detailed review of influencing factors on mineralised deposition and brings together the various aspects of structural architecture, sedimentology, fluid sources and pathways from regional to prospect scale. This geological modelling not only focussed on Uranium indicators, but also investigated vectors in relation to other commodities
	New information gathered as part of this modelling included an extensive Short Wave Infrared (SWIR) spectral data collection and assay of significant data points from previously drilled core in and around the Westmoreland Project
	Gold Occurrence Review
	Work on a Scoping Study and Preliminary Economic Assessment (PEA) was undertaken incorporating an updated mine plan and costings for open cut operation
2015 – 2016	Continued work on the Mineral Systems project that commenced in the previous year. This project had the objective of expanding and refining the regional targeting model to expand the overall resource potential of the region. The Minerals System Review incorporated detailed solid geology and stratigraphical interpretations over the Westmoreland region, and a number of targets were identified for exploration away from the main resource area
	Completion of the Preliminary Economic Assessment (PEA) on the Westmoreland Project
2016 – 2017	SWIR (Short Wave Infrared) spectral data collection and assay including a total of 4,207 spectra samples taken from 63 drill holes at Westmoreland
2017 – 2018	3D magnetic inversion modelling study utilising established detailed airborne magnetic survey data. The aim of the modelling was to closely examine the geological contact between the Seigal Volcanics and the underlying Westmoreland Conglomerate. The study could provide a way of estimating the depth to mineralisation most likely located at the base of the Seigal Volcanics and indicate

Period	Description of work completed
	subtle structural offsets in the base of the Seigal Volcanics that may be related to mineralisation at Westmoreland.
	Planning a FALCON Airborne Gravity Gradiometry, Magnetics and DTM Survey
2018 – 2019	Completion of FALCON Airborne Gravity Gradiometry, Magnetics and DTM Survey. Follow up investigations included extensive geophysical modelling and 3D inversions of the aeromagnetic & airborne gravity data.
2019 – 2020	Several technical and targeting reviews were completed to assist with future exploration and development planning. These included a preliminary resource estimate for the 'Long Pocket' prospect, a Vanadium potential review, and a Pb-isotope study.
2020 – 2021	172 soil and 20 rock chip samples with supplementary data acquisition, including a Portable X-ray fluorescence analyser (pXRF), an Exploranium G-110 scintillometer, and a Gamma Surveyor spectrometer. Furthermore, the previously drilled core stored at Camp Caroline was resampled for petrography, primary chemical assays, or Pb-isotopic characterisation.
2021 – 2022	Interpretation of soil geochemistry results from the fieldwork conducted in the prior reporting year. Follow-up soil programs were proposed
2022 – 2023	Field reconnaissance, earthworks at two prospects, Amphitheatre and Long Pocket
2023 – 2024	Field reconnaissance at four prospects, Huarabagoo, Amphitheatre, Long Pocket and Black Hills

9.2.1 Airborne Geophysics

9.2.1.1 Radiometrics

Three airborne radiometric surveys have been completed concurrently with magnetics across the tenement areas. CRA completed a survey in 1988 using Austirex Internationals Pt Ltd, followed by Lagoon Creek Resources in 2005 (UTS contractor); followed by GSQ in 2007 (Fugro, Figure 9.1).

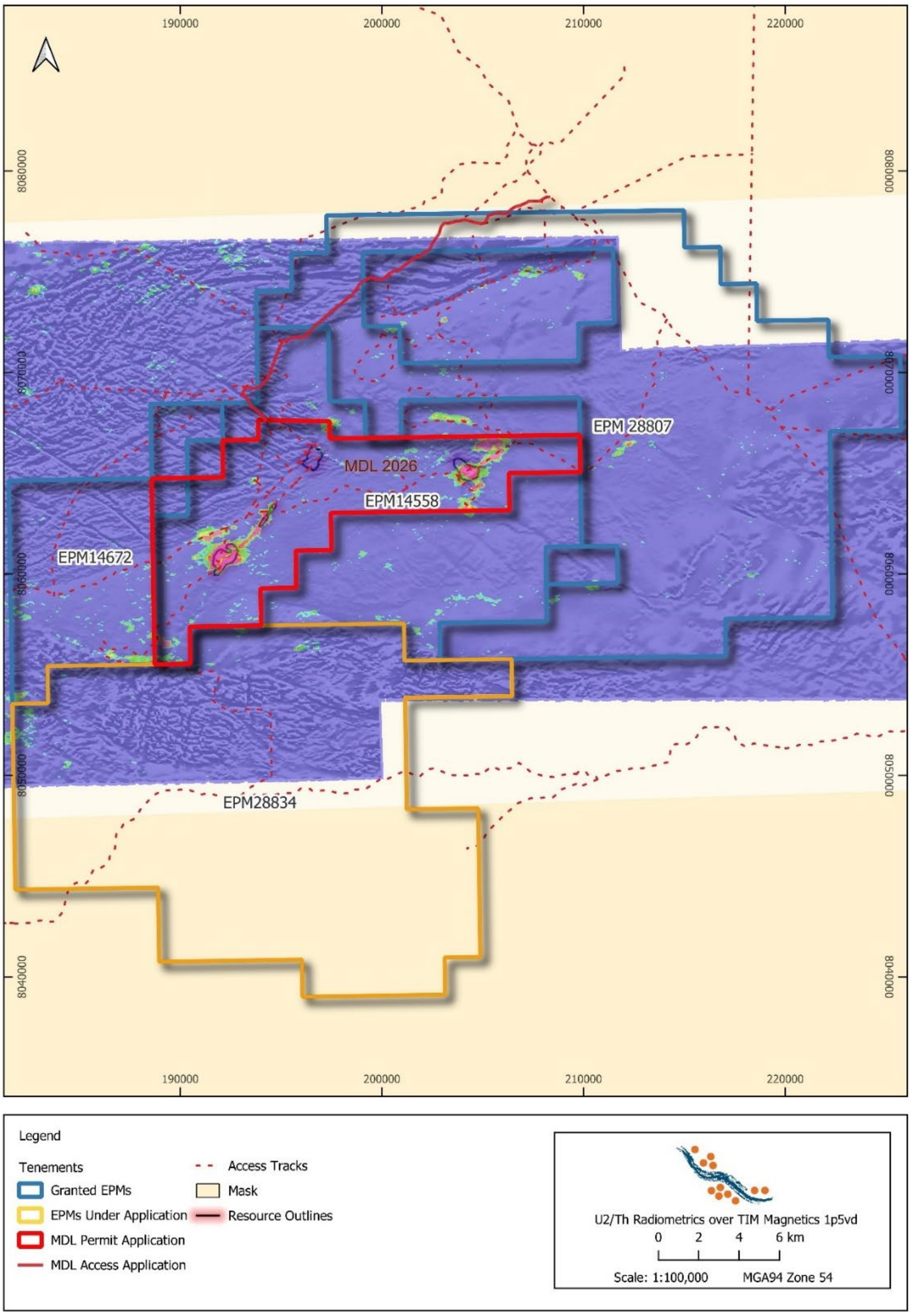


Figure 9.1 U2/Th Radiometrics overlaying Magnetics RTP-1VD with mineral occurrences and resource outlines.

9.2.1.2 Gravity

Geoscience Australia released a South Nicholson Gravity Survey in 2016. The grid was derived from gravity observations stored in the Australian National Gravity Database. Grid spacing was approximately 800 m.

As part of the Company's Mineral Systems investigations, it was identified that structural positions have provided a conduit for mineralising fluids into fault segments and a gravity survey would greatly assist with understanding the structure regime of this area. CGG Aviation Australia Pty Ltd was contracted to conduct the FALCON Airborne Gravity Gradiometry, Magnetics and DTM Survey in 2018 (Figure 9.2).

The survey area covered a total of 3,007 line kilometres of data acquired. Traverse line spacing was 800m with a tie line spacing of 6,500 m.

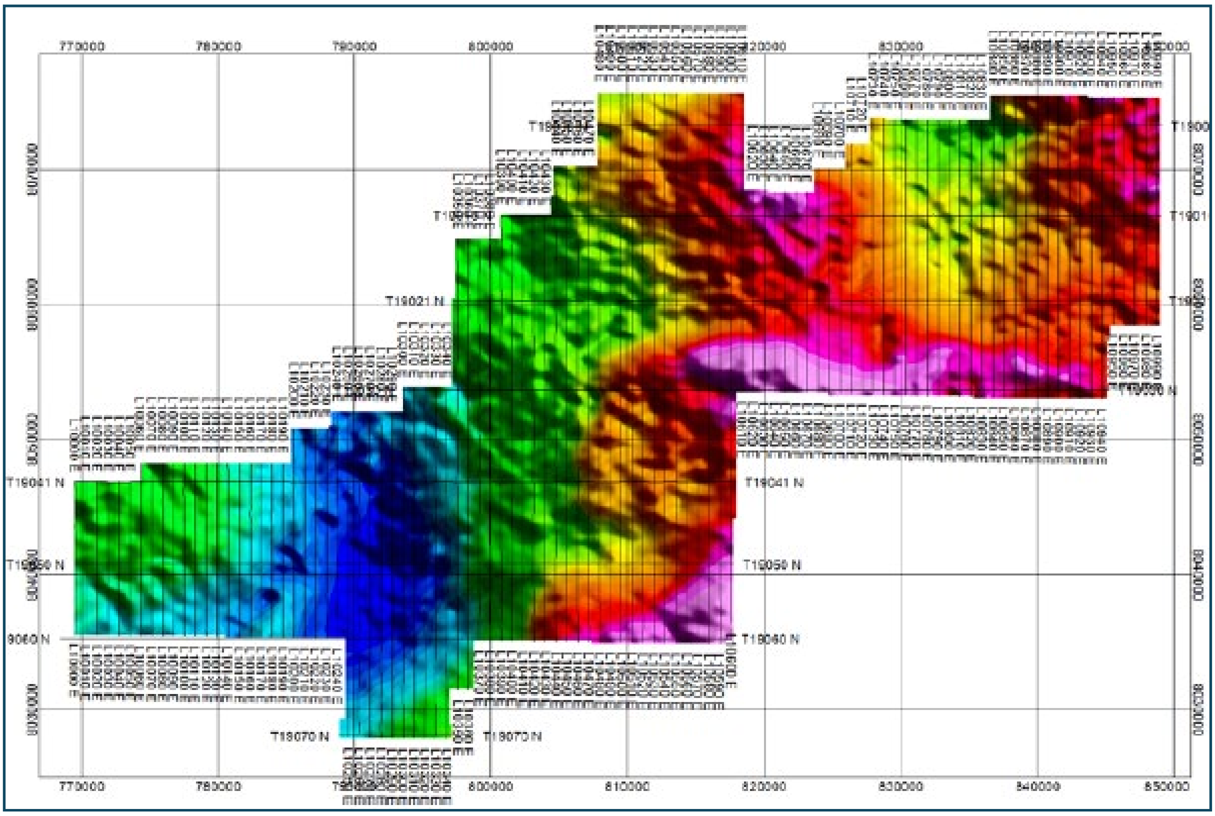


Figure 9.2 Gravity image (unprocessed).

9.2.1.3 Magnetics

Four magnetic/radiometric surveys have been completed over the history of the tenement areas. An initial airborne magnetic survey was completed by CRA in 1988 by Austirex Internationals Pty Ltd, followed by Lagoon Creek Resources in 2005 (UTS contractor); followed by GSQ in 2007 (Fugro); and lastly a FALCON AGG system in 2018. A 3D inversion of TMI Magnetics was also completed covering the Redtree, Huarabagoo and Junnagunna deposits (Figure 9.1).

9.2.2 Geochemical and Radiometric Surveys

9.2.2.1 Geochemical surveys

LAM has acquired a large database of soil geochemistry samples during the company's tenure with a mix of conventional XRF analysed soils and laboratory analyses. Over 2,000 samples have been taken within the area proposed to be covered under the hyperspectral survey. LAM utilised the geochemistry analysis results to identify mineralised systems, validate geophysical anomalies, and for lithogeochemical analysis of host geology.

Selection of the appropriate analytical technique is dependent on the presence and thickness of alluvial cover overlying Proterozoic geology. Conventional soils, in areas of outcropping to sub cropping Proterozoic lithology, samples were analysed by LAM staff using portable X-Ray Fluorescence (pXRF). Where assay for Au following pXRF analysis is required, samples have been sent for fire assay.

9.2.2.2 Scintillometer surveys

Ground Scintillometer surveys have been captured across the tenure areas over the decades, with approximately 5,500 sites captured in recent years. The acquisition of this data both confirms and defines radiometric anomalies which assist with more detailed prospect and drill hole targeting.

The most recent scintillometer grids were completed at Amphitheatre and Eagle prospects.

At Amphitheatre, two Scintillometer grids were conducted in May and December in 2023. The grids were designed to test NS structures preferentially over the EW structures (which are regionally linked with dolerite dyke emplacement associated with the most economically significant uranium mineralisation). Interpretations from the survey results delineate a radiometric high, skirting a unit expression in the SE of the Amphitheatre basin outcrop. Elevated readings also appear to correlate with northerly structures, in comparison to the EW trends. EW structures with elevated readings appear to be discrete and isolated.

A scintillometer grid was also completed at the Eagle Prospect. Bedding is observed as gently north dipping with veins associated with broadly perpendicular joint sets, orientated NS and EW. Hematite alteration was also observed strata bound. Elevated scintillometer readings (1,000 - 3,800 cps) in the NE of the grid, are found predominantly associated with a pervasively hematite altered conglomerate unit, roughly correlating with a U^2/Th high. Elevated readings (2,000 – 42,000 cps) to the SE of the grid correlate with a weak but distinct U peak observed in the U count radiometric geophysical data.

A sample from the highest reading was taken (42,000 cps), with visible Torbernite (Figure 9.3). Elevated readings appeared to continue further to the south, and an extension of the grid is warranted.

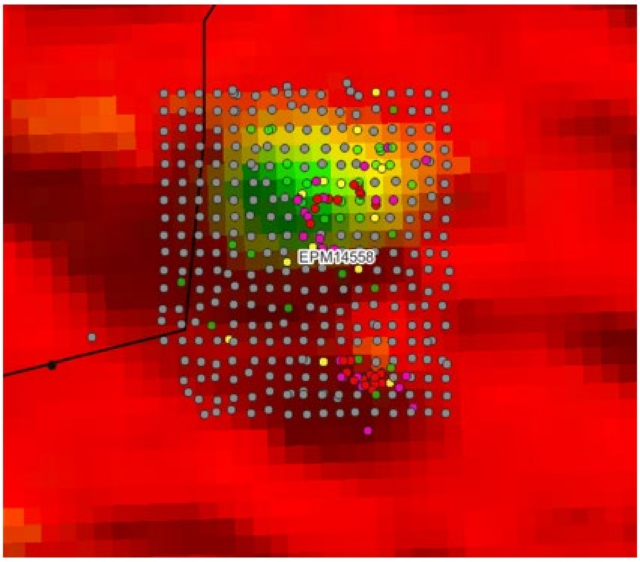


Figure 9.3 (left) Categorised field data over radiometric U, (right) rock chip sample, recording 42,000 cps from SE cluster of elevated readings within Eagle Scintillometer grid.

9.2.3 Petrological and SEM Analysis

A petrological, mineragraphic examination and semi quantitative electron microscopic identification of selected encrusting uranium bearing secondary minerals was undertaken in 2008. The work was based upon a selection of rock samples and a selection of quarter core samples chosen from the 2007 Phase 1 drilling. Thin sections were prepared, and a report was compiled by an independent expert (Barren, 2008). Additional samples were selected in 2022 from Long Pocket drill core, were submitted to Dr Carol Simpson in Raworth, NSW for petrological description (Simpson, 2023). Descriptions of the intrusive sill unit observed at Long Pocket identified a preserved textural similarity between the dolerite samples, which would suggest that the various sills observed in the prospect area are likely to be part of a single magmatic event.

A scanning electron microscope (SEM) analysis was conducted on assay pulps by SGS Minerals Services. The study included a general mineralogical analysis and specific uranium study of uranium-bearing species and associated gangue minerals. The purpose was to provide accurate characterisation of the uranium species present in the Redtree and Junnagunna mineralisation.

QEMSCAN analysis of samples was also undertaken. SGS was contracted to analyse a number of uranium bearing ore samples to quantify their mineralogy, particularly with respect to uranium bearing minerals (SGS, 2009).

In 2015 analysis of drill core was undertaken using a hyperspectral PIMA (portable infrared mineral analyser). The purpose was to physically examine and interpret the mineralised intervals of the Westmoreland conglomerate, and to gain information on clay alteration halos present (Stevenson, 2009).

10 Drilling

10.1 Historic Drilling Campaigns

Due the Westmoreland Uranium Project changing hands multiple times since the late 1950s, there have been many phases of exploration drilling across under the respective licence holders. For the purpose of this report, hole numbers and metres quoted are from inside the three EPM licences (Figure 10.1 and Table 10.1). It is worth noting that there are additional drilling campaigns external of the Westmoreland licences in Queensland that are not referred to in this report.

The major drilling campaigns are outlined in the following section:

10.1.1 Early Drilling – Mount Isa Mines

In 1958, MIM initially drilled 13 "wagon" percussion holes, totalling 350 m, at Redtree, encountering visible torbernite. MIM reported up to 12 mineralised horizons in the secondary mineralisation, averaging 7.3 m thick over a 430 m by 90 m area, with grades ranging from 0.05% to 0.5% U_3O_8 (Brooks, 1960).

10.1.2 1969 to 1971 – Queensland Mines Ltd (QML)

Following on from MIM, QML carried out ~17,000 m of percussion and ~25,000 m of diamond drilling across the Redtree Group prospects, in addition to the other exploration campaigns carried out (detailed in section 9.1.1). The average width of mineralisation was quoted to be 9.5 m. Assays varied between 0.05% and 1%, averaging 0.2% U_3O_8 (Culpeper et al., 1999).

10.1.3 1969 to 1971 – BHP

At the same time as QML, BHP drill tested some regional prospects outside the Redtree Group, paying particular emphasis on Amphitheatre. BHP drilled a total of 5,680 m (2,275 m diamond, 3,404 m percussion), with 2,534 m of those total metres at Amphitheatre. Amphitheatre is not included in the MRE update.

10.1.4 1975 – Mount Isa Mines (MIM) and Minad

In 1975, MIM returned back to the licence area and drilled 57 diamond holes at Redtree for 2,251 m. Minad also drilled 2 diamond holes at Redtree for 108 m and 8 diamond holes at Huarabagoo for 594 m.

10.1.5 1975 to 1989 – Joint Venture Work

In 1975, 5 companies formed a JV (QML, Urangesellschaft Australia Pty Ltd, Anglo Australian Resources NL and CRA Ltd, Omega (later, in 1982) to work the licence area together. As a result, there were multiple drilling campaigns, often at the same time:

10.1.5.1 1976 to 1980 Urangesellshaft (UGA)

UGA drill tested all Redtree Group Deposits (Redtree, Huarabagoo, Junnagunna, Long Pocket), the Huarabagoo-Junnagunna (HB-JG) link, and other regional prospects:

- Redtree – 2 diamond holes for 154 m
- Huarabagoo – 2 percussion holes for 174 m, 133 diamond holes for 11,034 m
- Junnagunna – 212 diamond holes for 11,520 m
- HB-JG link- 27 diamond holes for 1,823 m
- Long Pocket – 35 percussion holes for 1,082 m, 45 diamond holes for 3,045 m
- Other prospects – 6 percussion holes for 114 m, 89 diamond holes for 7,744 m.

10.1.5.2 1977, 1985 -1986 – Omega

In 1977, Omega drilled 2 diamond holes at Huarabagoo for 121 m and 1 diamond hole at Redtree for 61 m. In 1982, Omega joined the JV and drilled again in 1985-86 with an additional 45 diamond holes targeting Huarabagoo for 1821 m and 1 isolated diamond hole at a regional prospect (51 m).

10.1.5.3 1995 – CRA Exploration Ltd.

CRAE took control of the ground in 1990, and in 1995 undertook a large drilling campaign, comprising 5,129 m of percussion, 11,064 m RC and 1350 m of diamond drilling over the Redtree Group deposits to define the resource. The RC holes were sampled at 1 m intervals over a riffle splitter for dry samples. Wet samples were bulked sampled and then spear sampled at 1 m intervals. Intervals to be sampled were selected based on radiometric response using a scintillometer (URTEC UR135).

Much of the 1995 MRE was based on this RC program, and it appears that most of the core holes drilled by CRAE were used for metallurgical sampling and were not used for estimation.

CRAE also drill tested Black Hills, a regional prospect 1.6km NE of Long Pocket, with an extensive 8,754 m percussion, RC and diamond drilling campaign. Black Hills is not part of the Mineral Resource Estimate update but is discussed in section 7.4.2.

Various other companies during this period drilled other regional prospects which are not discussed but are summarised in Table 10.1.

Table 10.1 Drill hole summary of collars inside the Laramide Uranium Project EPMs, Queensland

Deposit	Company	Period	Open Hole Percussion		Reverse Circulation		Diamond Core		Total	
			No. Holes	Metres	No. Holes	Metres	No. Holes	Metres	No. Holes	Metres
Redtree	MIM	1958	13	349.58					**13**	**349.58**
	QML	1969-1971	286	14675			30	5021.9	**316**	**19697**
	MIM	1969-1970					57	2251.1	**57**	**2251.1**
	Minad	1975					3	107.9	**3**	**107.9**
	UGA	1976-1978					2	154.05	**2**	**154.05**
	Omega	1977					1	61.3	**1**	**61.3**
	CRAE	1990-1995	83	2870.4			17	797.08	**100**	**3667.5**
Huarabagoo	QML	1969-1971	30	999.44			105	14704	**135**	**15703**
	Minad	1975					8	594.14	**8**	**594.14**
	UGA	UGA	2	174.28			133	11034	**135**	**11208**
	Omega	1977, 1985-1986					45	1821.3	**45**	**1821.3**
	CRAE	1990-1995	8	397.53	23	1895	4	326.53	**35**	**2619.1**
Junnagunna	UGA	1976-1978					212	11520	**212**	**11520**
	CRAE	1990-1993	13	1154.9	205	8500	3	149.7	**221**	**9804.6**
JG-HB Link	QML	1969					9	1586.8	**9**	**1586.8**
	UGA	1976-1979					27	1822.5	**27**	**1822.5**
	CRAE	1993			9	669			**9**	**669**
Long pocket	QML	1970	54	1315.2			21	4165	**75**	**5480.1**
	UGA	1976-1980	35	1082			45	3045.1	**80**	**4127.1**
	CRAE	1988, 1993	9	216			1	38.4	**10**	**254.4**
Other	BHP	1969-1971	51	2178.2			11	967.4	**62**	**3145.6**
	QML	1971-1976	19	603.18			4	1007.8	**23**	**1611**
	AFMECO	1973	34	3375.3					**34**	**3375.3**
	SARACEN	1976	2	130.03			5	1021	**7**	**1151**
	UGA	1984	6	114			89	7744.4	**95**	**7858.4**
	OMEGA	1986					1	51.5	**1**	**51.5**
	CRAE	1989-1994	72	2368.6	93	6367.7	1	18.06	**166**	**8754.4**

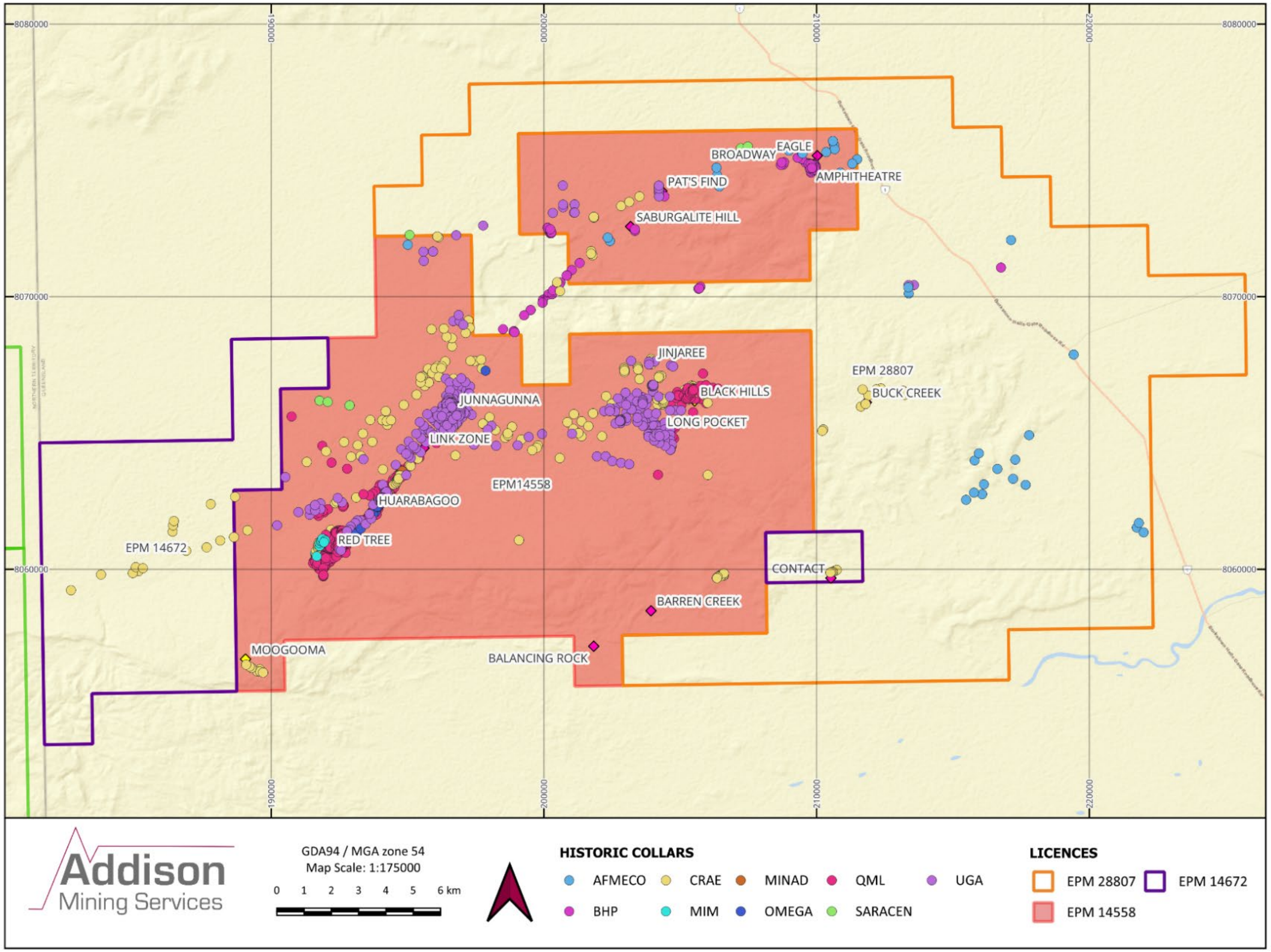


Figure 10.1 Map of current targets with historic collars drilled and the company responsible.

10.1.6 Example Historic Drilling Cross Sections

The figures below (Figure 10.2 to Figure 10.5) show example cross sections of historic drilling results for the Redtree group of deposits and Long Pocket.

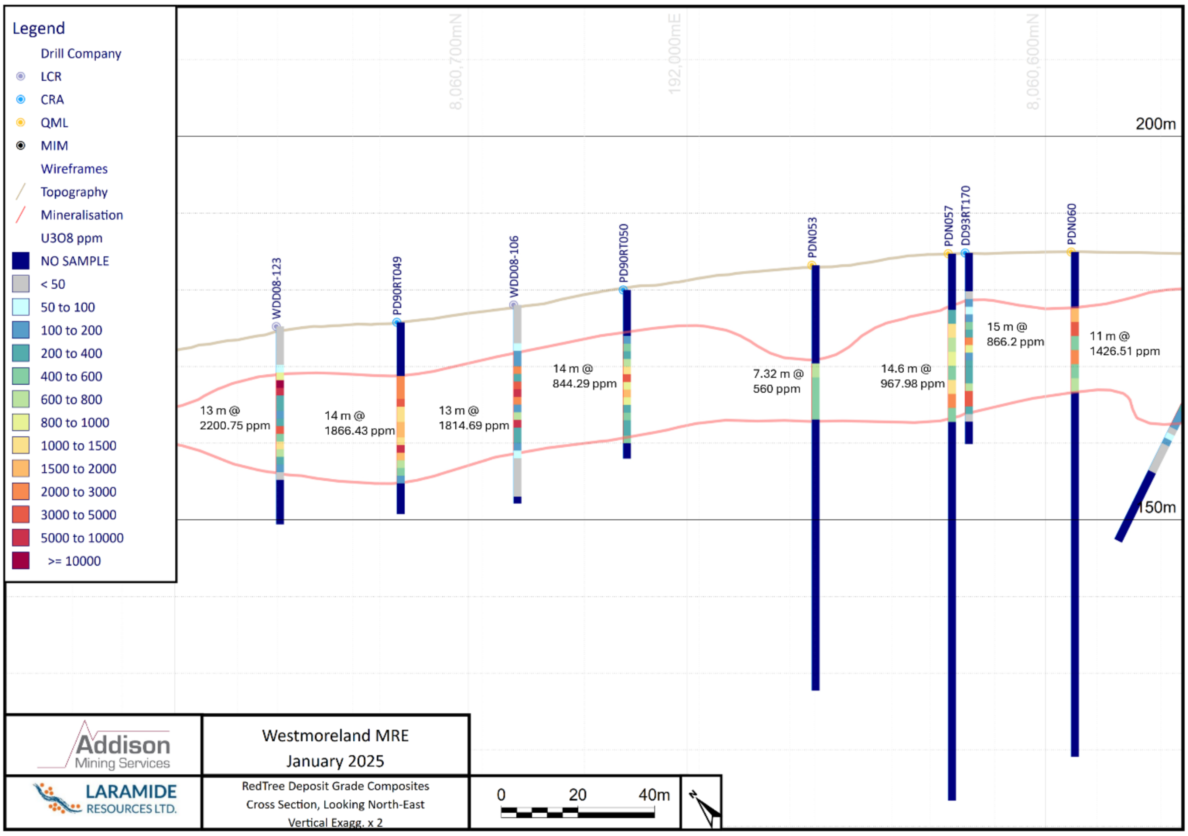


Figure 10.2 Redtree example cross section of historic drilling results.

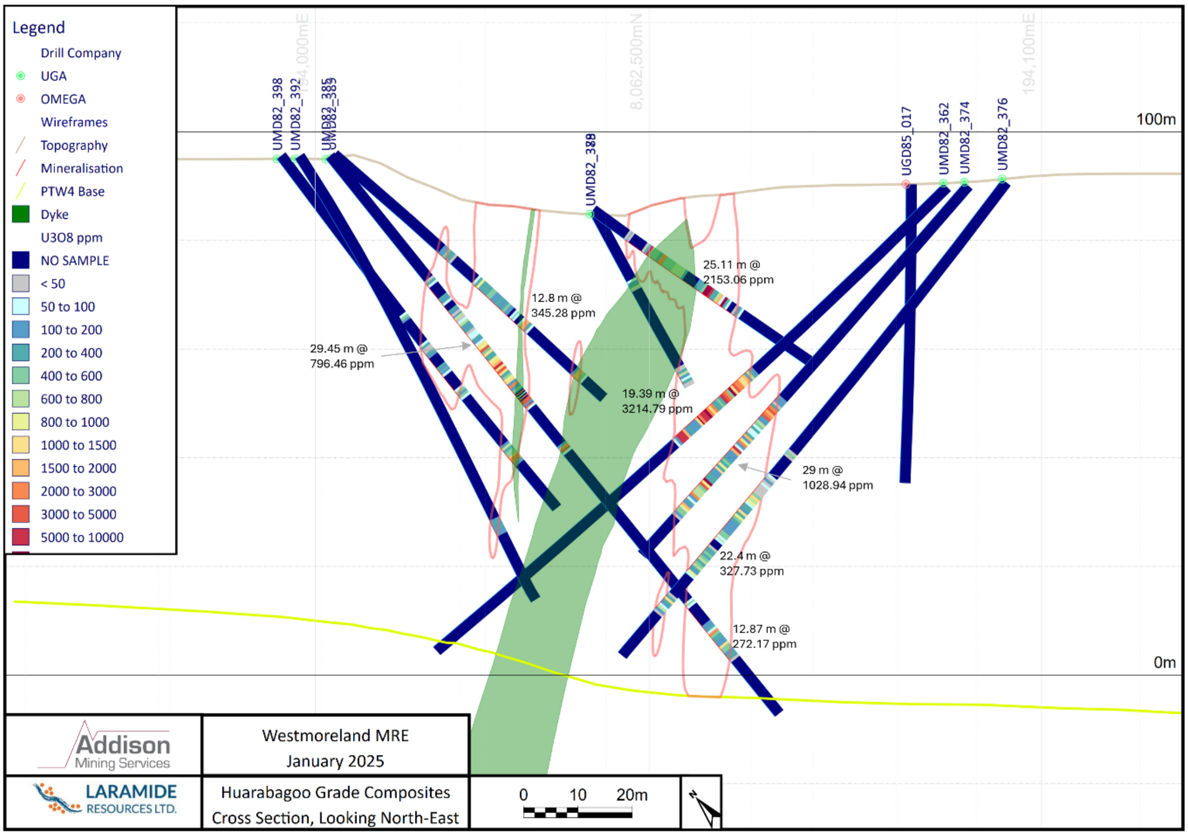


Figure 10.3 Huarabagoo example cross section of historic drilling results.

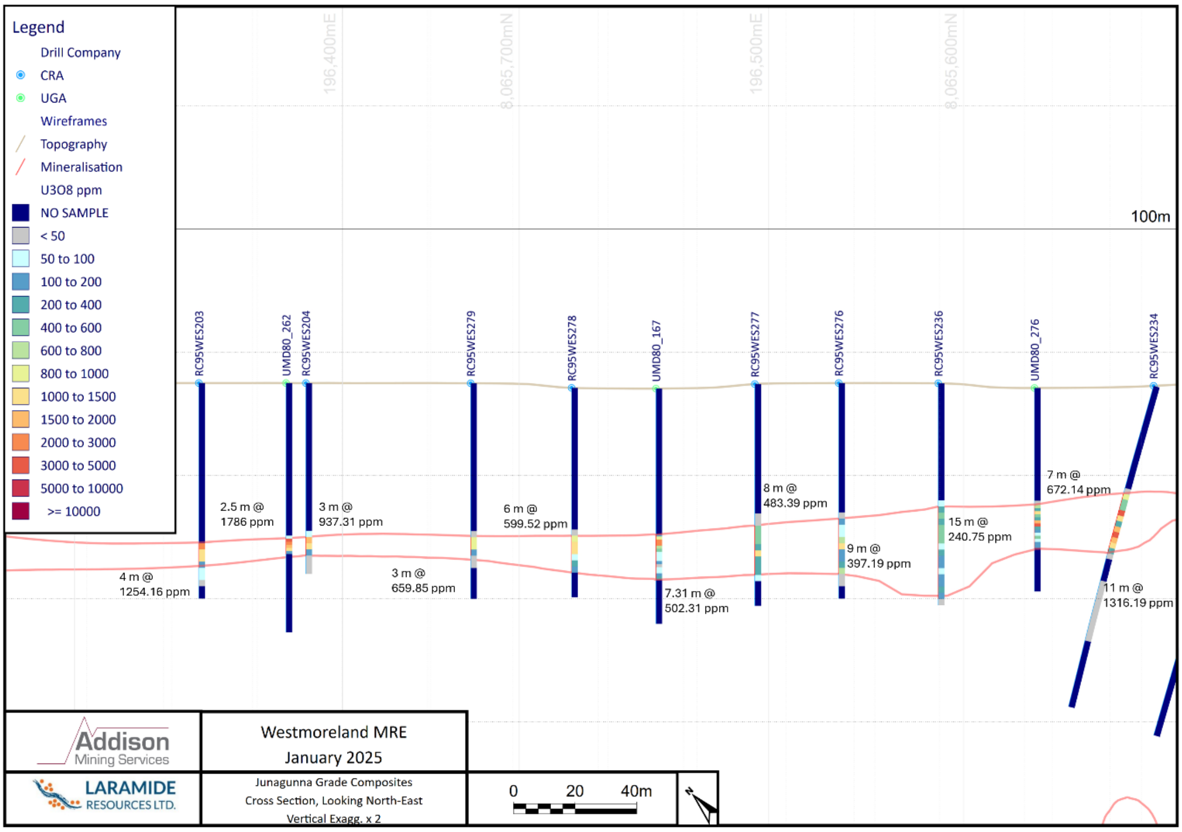


Figure 10.4 Junnagunna example cross section of historic drilling results.

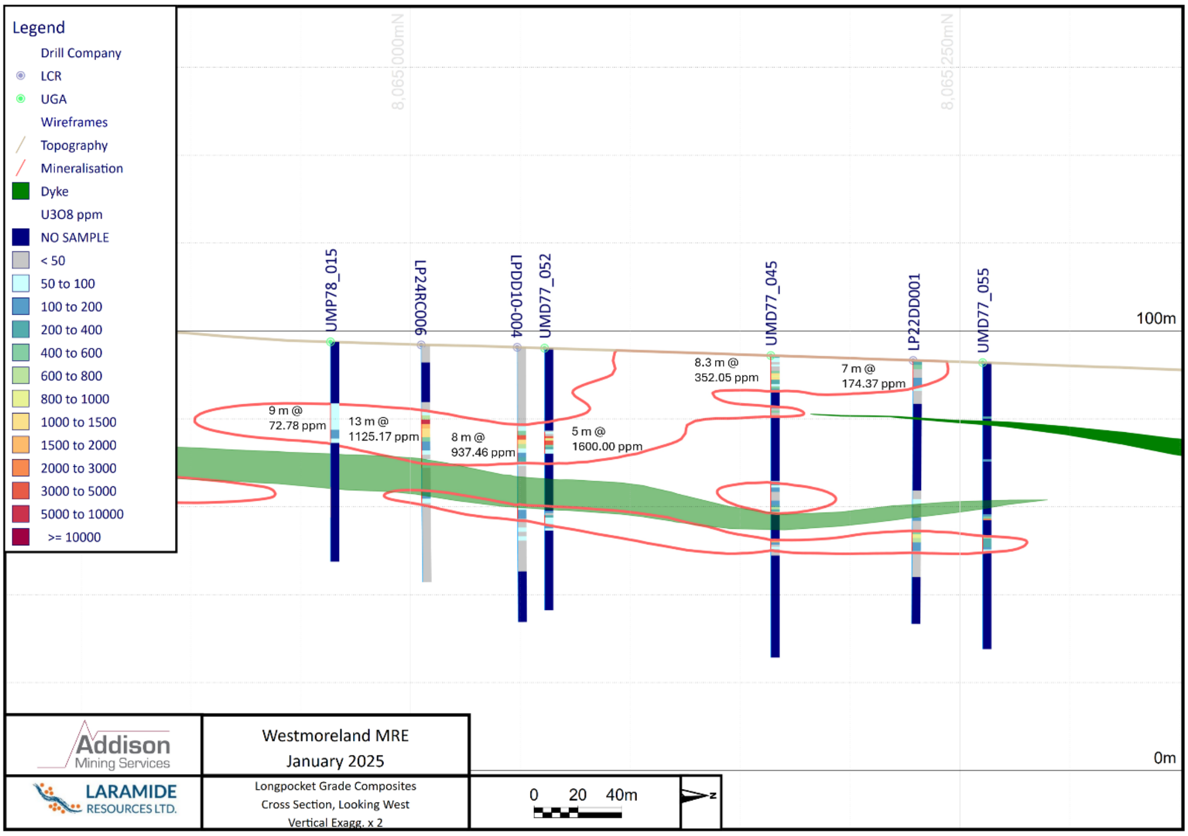


Figure 10.5 Long Pocket example cross section of historic drilling results.

10.2 Laramide Drilling Campaigns

Laramide has undertaken multiple drilling campaigns as part of its exploration strategy since 2005. The drilling took place in several stages and is summarised in Table 10.2 and detailed in the following sections.

Table 10.2 Summary table of Laramide drilling campaigns

Period	Description of drilling activity completed
2007 – 2008	2007 to 2008 campaign at Redtree and Junnagunna Prospects examined totalling 161 holes and 12,272m.
2008 – 2009	Phase 2 helicopter supported drilling at Redtree, focussing on the Jack Lens. A total of 925.9m of diamond core drilling was completed in 39 drillholes
2009 – 2010	Diamond core drilling at the northernmost part of the Huarabagoo and the southern extension of the Junnagunna Deposit between November and December 2009. A total of 1,871.2m was completed in 31 drillholes
2010 – 2011	Diamond core drilling program consisting of 19 drillholes for 1,377.9m was completed. The program comprised 630.4m in 7 holes at Huarabagoo, and 747.5m in 12 holes at Long Pocket in August 2010
2012 – 2013	Diamond drilling program comprising 31 drill holes for 4,117.9m over the Huarabagoo prospect and the Huarabagoo-Junnagunna 'Structural Corridor'
2016 – 2017	SWIR (Short Wave Infrared) spectral data collection and assay including a total of 4,207 spectra samples taken from 63 drill holes at Westmoreland
2020 – 2021	Drilled core stored at Camp Caroline was resampled for petrography, primary chemical assays, or Pb-isotopic characterisation.
2022 – 2023	>1,250m of diamond drilling at Amphitheatre and Long Pocket
2023 – 2024	4,468 m of diamond drilling at four prospects, Huarabagoo, Amphitheatre, Long Pocket and Black Hills
2024 +	104 Diamond and RC drillholes completed for a total of 10,959.46m across Amphitheatre, Long Pocket, Huarabagoo, the link zone between Huarabagoo & Junnagunna, and Junnagunna Prospects

10.2.1 2007 to 2008

The first Laramide drilling program commenced in December 2007 and continued into 2008. Two prospects, Redtree and Junnagunna, were drilled by an LF70 rig and two-man portable rigs. The primary objectives of the drilling program were:

- to provide quality controlled drill data within the Redtree and Junnagunna deposits from which to assess the accuracy and validity of historical drilling
- to improve geological understanding of lithology, alteration, and structural controls on mineralisation, and
- to provide closer spaced drilling to improve confidence levels on resource estimates.

At Redtree the drilling was helicopter assisted, using a combination of Bell 206 Jet Rangers and UH1 Huey helicopters. Drilling was completed in early July 2008 totalling 161 holes for 12,272 m. As part of the drilling program, downhole gamma data was collected (discussed in section 10.4.1).

Samples were collected from both Redtree and Junnagunna and were submitted for chemical analysis at ALS Laboratories. In addition, samples were sent for petrological analysis, SEM (scanning electron microscope) analysis, and a number of holes were drilled for metallurgical testing.

Drilling in 2008 focussed on the Jack lens at Redtree, comprising of 39 holes for 925.9 m completed between September - October. The program was helicopter supported due to the difficult terrain. The drilling aimed to validate historical drillhole data and provide information about structure and mineralogy of the prospect. The results confirmed continuity of mineralisation identified in historical drilling and also indicated the potential for high grade lenses within the broader mineralised envelope.

Following the program, an updated independent resource estimate was undertaken by Mining Associates(Vigar and Jones, 2009). This resource estimation incorporated the results of the drilling. A total resource (Indicated and Inferred) of 27.7 Mt at 0.09% U_3O_8 for 51.9Mlb contained U_3O_8 was estimated. This document was compliant with NI43-101 requirements and was released to the Toronto Stock Exchange.

10.2.2 2009

A diamond core drilling program was undertaken between November and December 2009. Drilling targeted the northern most part of the Huarabagoo prospect, structurally controlled mineralisation within the Junnagunna deposit and the southern extension of the Junnagunna deposit. A total of 1,871.2 m was completed for 31 holes. The results confirmed continuity of mineralisation identified in historical drilling and also indicated the potential for high grade lenses within the broader mineralised envelope.

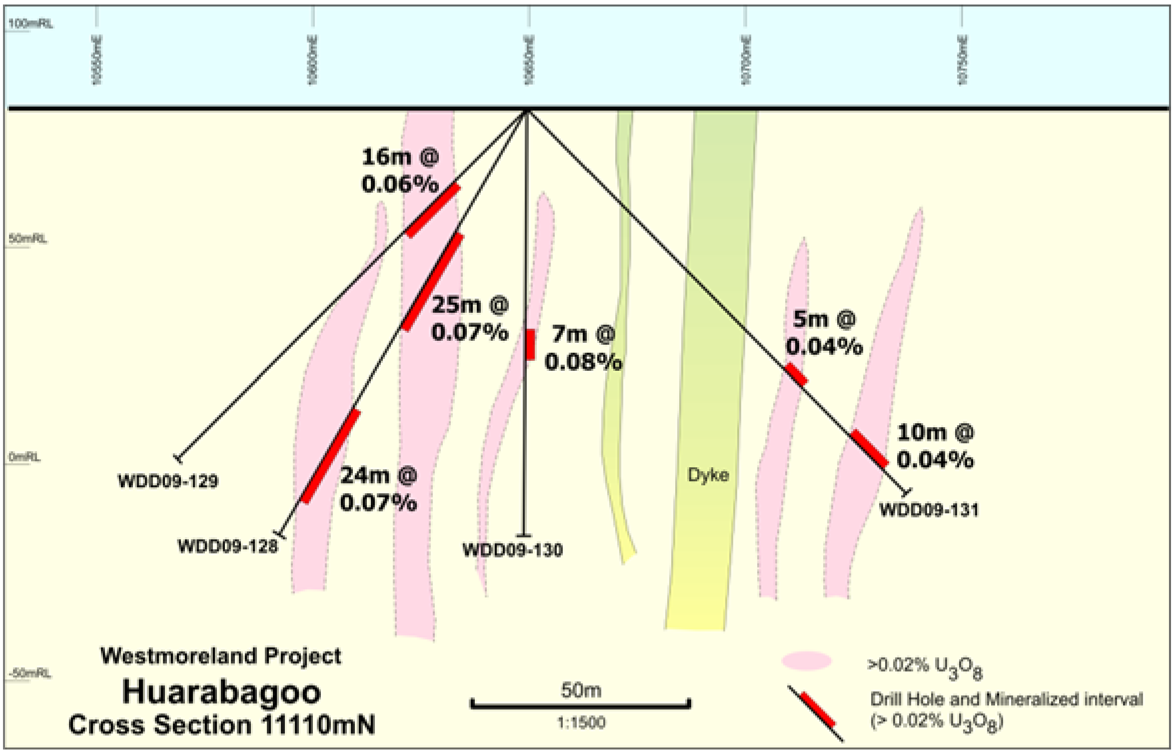


Figure 10.6 Huarabagoo Cross Section 111110 mN.

10.2.3 2010

A diamond core drilling program was undertaken in August 2010 to further understanding of the Huarabagoo deposit and investigate the Sue and Outcamp prospects at Long Pocket. The program consisted of 19 drill holes for 1,377.9 m which comprised 7 holes for 630.4 m at Huarabagoo, and 12 holes for 747.5 m at the Sue and Outcamp prospects at Long Pocket, approximately 7 km east of the resource area.

The Huarabagoo drilling confirmed the mineralisation is bound by steep structures broadly parallel to the Redtree Dyke, with indications of horizontal mineralisation in coarser more permeable sandstone facies. The drilling at Long Pocket confirmed the presence of a broad flat-lying and a relatively shallow zone of uranium mineralisation.

10.2.4 2012

A diamond drilling program was undertaken between August and November 2012 at the Huarabagoo prospect and the Huarabagoo-Junnagunna Link 'Structural Corridor'. This program of diamond drilling comprised 31 drill holes for 4,117.9 m.

One phase of the drilling program was focused on the highly prospective structural corridor that connects the Huarabagoo and Junnagunna deposits – an area not extensively targeted in the past by Laramide. This drilling was one component of a broader program to assess the potential for additional uranium resources at Westmoreland. Initial drilling in the corridor resulted in the discovery of a new zone of mineralisation that was not previously known to the Company. In addition, a shallowly dipping zone of mineralisation, similar in style to the shallow mineralisation at Junnagunna, was intersected in the structural corridor and shows the potential to further increase the overall size of the resource (Figure 10.7).

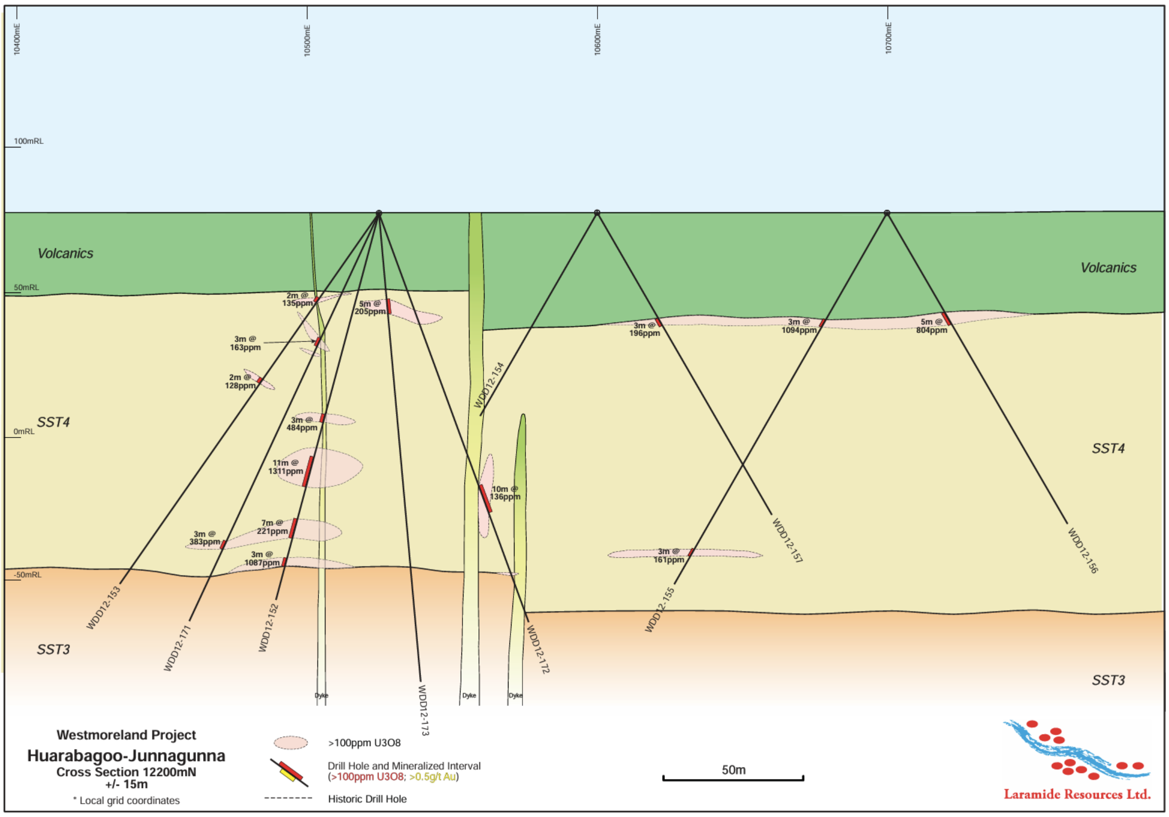


Figure 10.7 Cross Section within HB-JG Link Structural Corridor

The second phase of the drilling program focused on the Huarabagoo deposit both in the existing resource and in the northern section outside of the resource area. Drilling was designed to better define the structurally controlled mineralisation in this area and, potentially, increase the resource within the existing deposit and along strike. Drilling delivered significant widths and grades at Huarabagoo. The drilling confirmed the Huarabagoo mineralisation is controlled by steep structures broadly parallel to the Redtree Dyke (Figure 10.8). Drilling in the northern portion of the prospect successfully identified a new intersection east of the dyke.

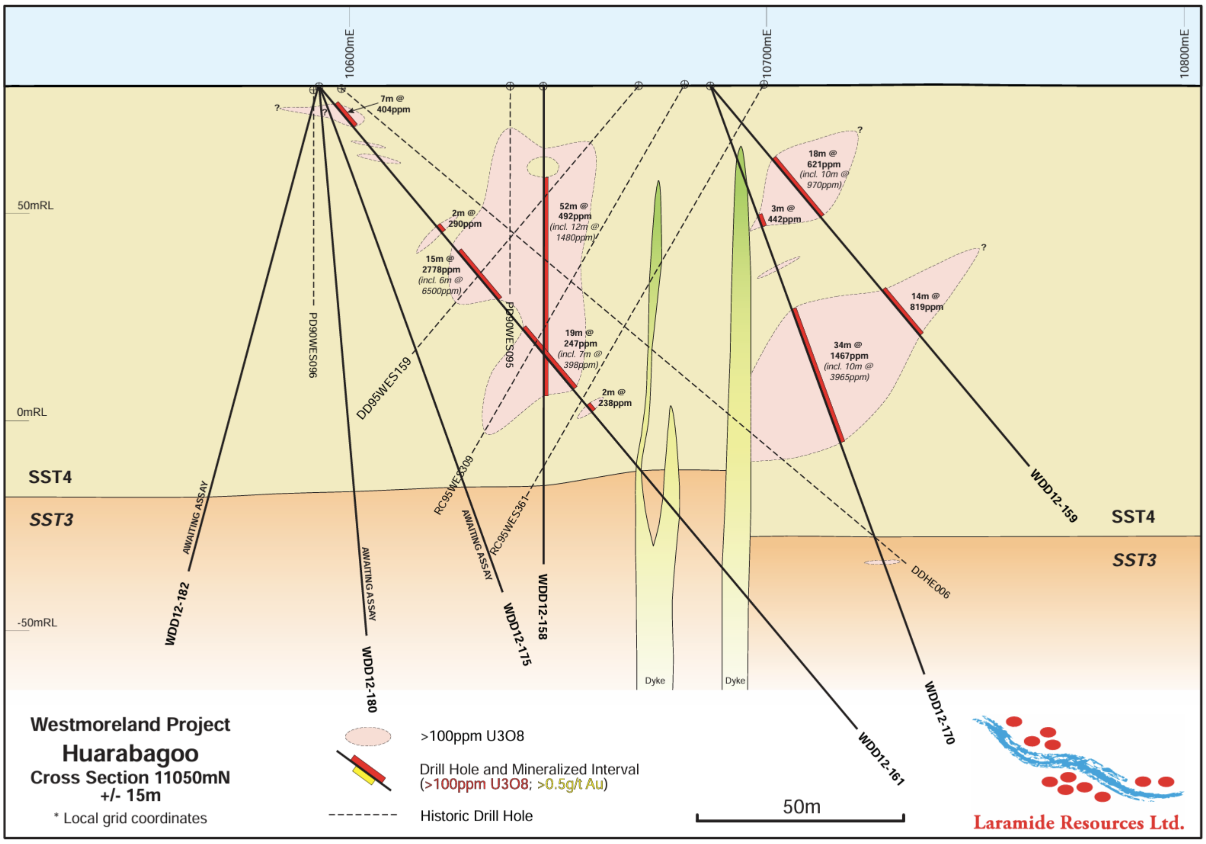


Figure 10.8 Cross section at Huarabagoo, showing mineralisation subparallel with Redtree dyke

10.2.5 2022

Drilling in 2022 comprised of 18 diamond drill holes totalling 1,413.5 m across Long Pocket and Amphitheatre Prospects. The drilling contractor used was owner operated Schonknecht Drilling, utilising a truck mounted DR800 and Tulla Drilling Pty Ltd using a Sandvik DE710 track-mounted rig.

Long Pocket totalled 13 holes for 727.5m completed by Schonknecht Drilling. Drilling aimed to extend the mineralisation envelope to the northeast. Results from drill holes provided immediate step outs of over 100m from known shallow, flat-lying mineralisation, and also suggested a potential mineralised corridor to the Black Hills uranium prospect.

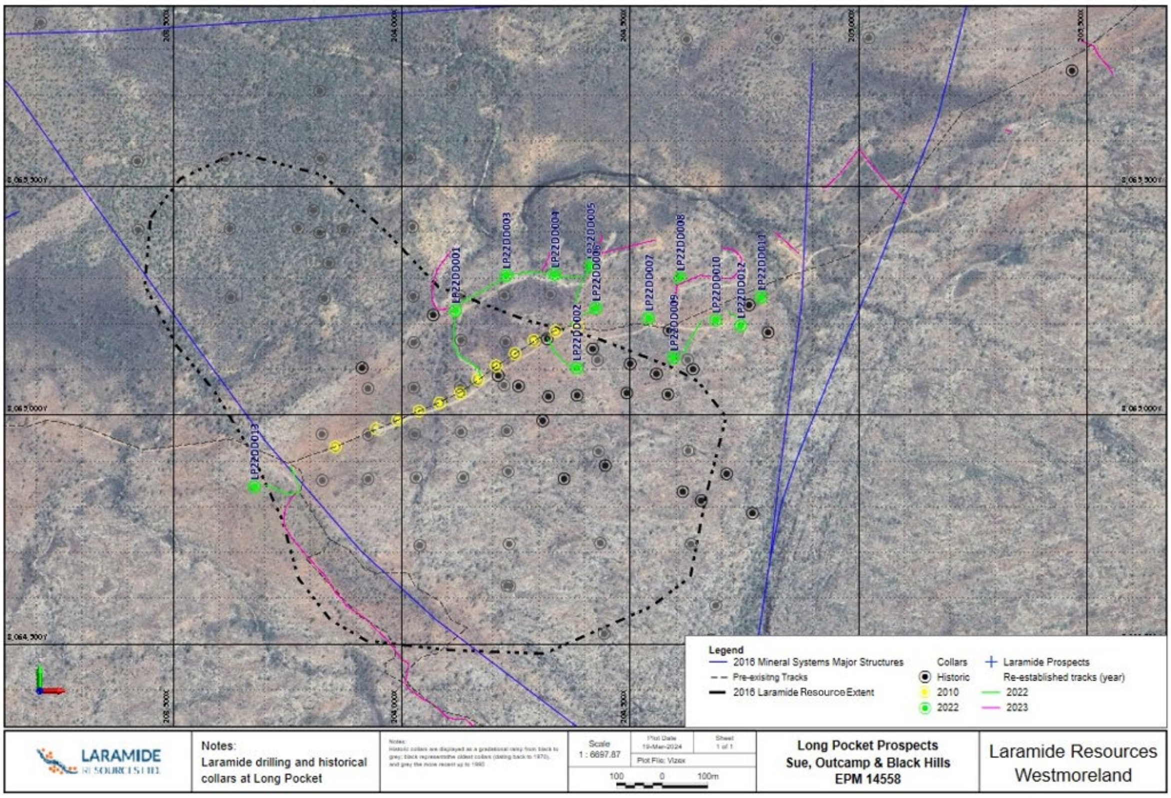


Figure 10.9 2022 Long Pocket drilling with historical collars.

The Amphitheatre uranium prospect expresses as a 400 x 300m radiometric anomaly and was subject to historical exploration in the late 1960's and early 1970s. Exploration included drilling percussion and diamond holes, costeaning, and 'pitting' up to a depth of 34 feet.

Reconnaissance fieldwork by the company resulted in the 're-discovery' of the Amphitheatre prospect in 2021.

Subsequently, five drillholes were completed at Amphitheatre prospect in May 2022 for a total of 686m. Drilling was completed by Tulla Drilling Pty Ltd using a Sandvik DE710 track-mounted rig. Drilling intersected mostly sedimentary sequence with minor mafic packages. Significant results (>200ppm U3O8) included: AMDD001 – 3m @ 507ppm U3O8 from 59 m, including 1m @ 1072ppm (0.107%) U3O8 AMDD004 – 4 m @ 277ppm U3O8 from 34 m AMDD005 – 2 m @ 413ppm U3O8 including 1 m @ 601ppm U3O8 from 89 m. True widths are not yet understood.

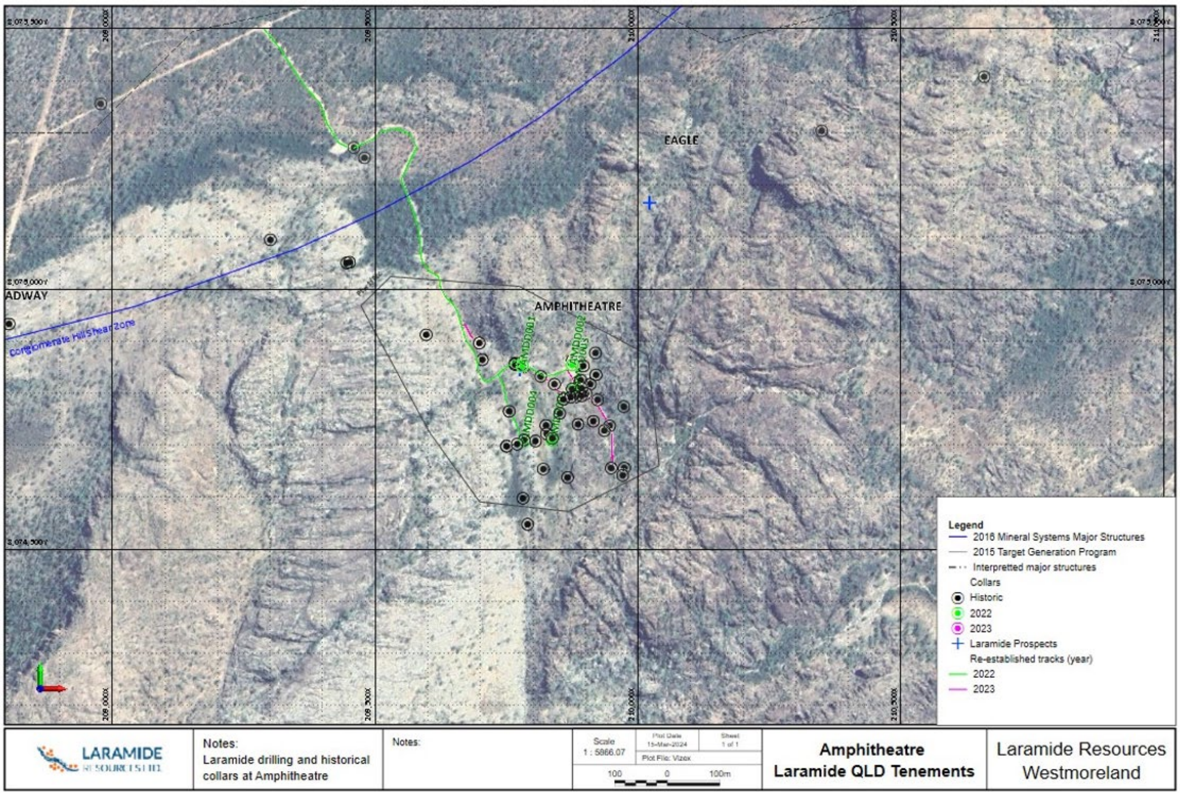


Figure 10.10 2022 Amphitheatre drilling with historical collars.

10.2.6 2023

A larger diamond drilling campaign was designed for 2023, as detailed in Table 10.3.

Table 10.3 Key Drilling metrics for the 2023 programs broken down by prospect.

Prospect	Total Meters Drilled (m)	Number of Holes completed
Amphitheatre	856	9
Long Pocket	1,016	15
Black Hills	646	3
Huarabagoo	1,590.50	13
Total	**4,109**	**40**

At Long Pocket, the program aimed to further test extents of the mafic sill and associated mineralisation to the north-northeast, stepping out ~100-200 m spacings following a radiometric anomaly extending towards the Black Hills Prospect. The drilling contractor used was owner operated Schonknecht Drilling, utilising a truck mounted DR800.

Only six significant Uranium intercepts (>100 ppm U_3O_8) were identified in this step out program. Near resource significant intercepts were typical of Long Pocket mineralisation styles, albeit low grade (148 ppm and 108 ppm respectively). High grade intervals were isolated to the east, with no clear trend in mineralisation style.

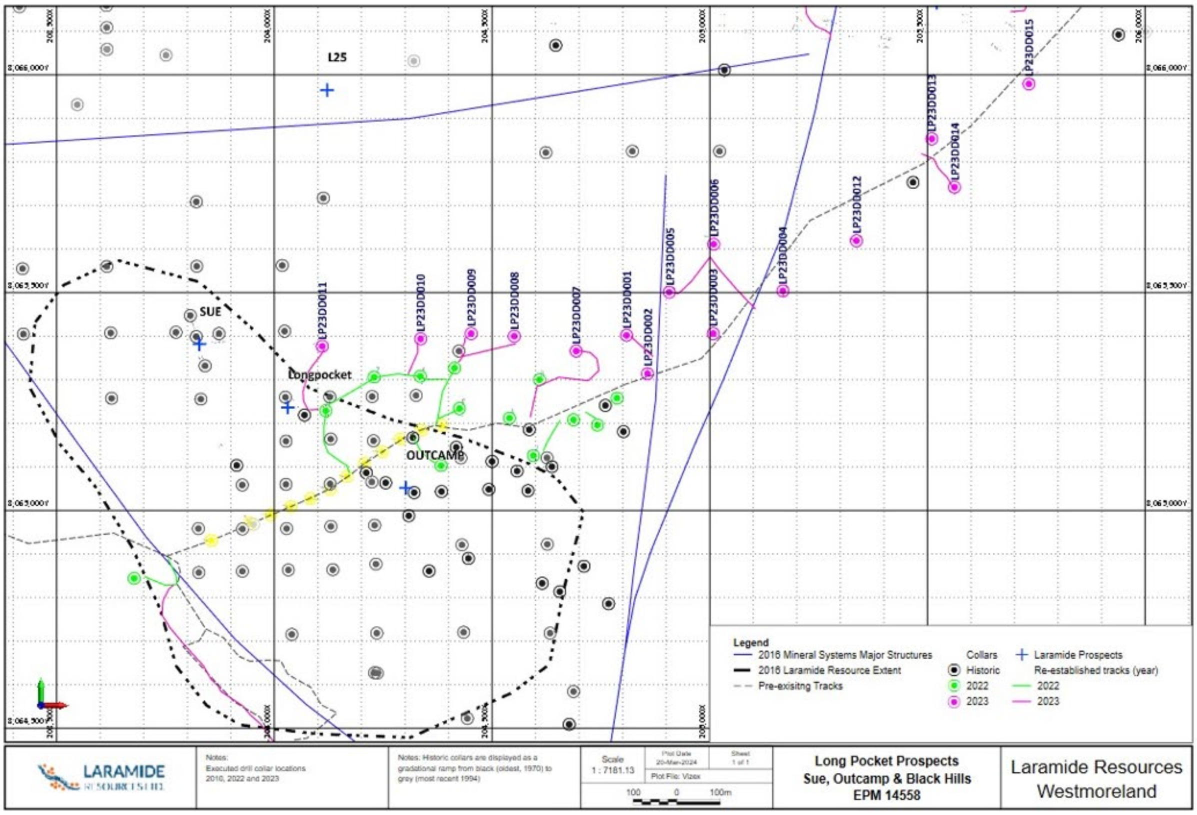


Figure 10.11 Plan view of drill hole locations, completed at Long Pocket in 2023.

At Huarabagoo, drilling aimed to infill zones that had been historically drilled, and to test for potential extensions of mineralisation to the northeast, beyond the footprint of the existing resource. Typical drillhole geology showed a weakly weathered sandy-gravelly conglomerate from surface as the PTW4 of the Westmoreland Conglomerate series. All holes intercepted multiple zones of mineralisation (>100ppm U_3O_8) with some zones displaying grades exceeding 1.0% U_3O_8. The high-grade mineralisation intercepted improved the confidence in the integrity of the deposit with tighter spacing of less than 50m in some places and supported extensions to over 250m strike of a gold zone identified in 2012.

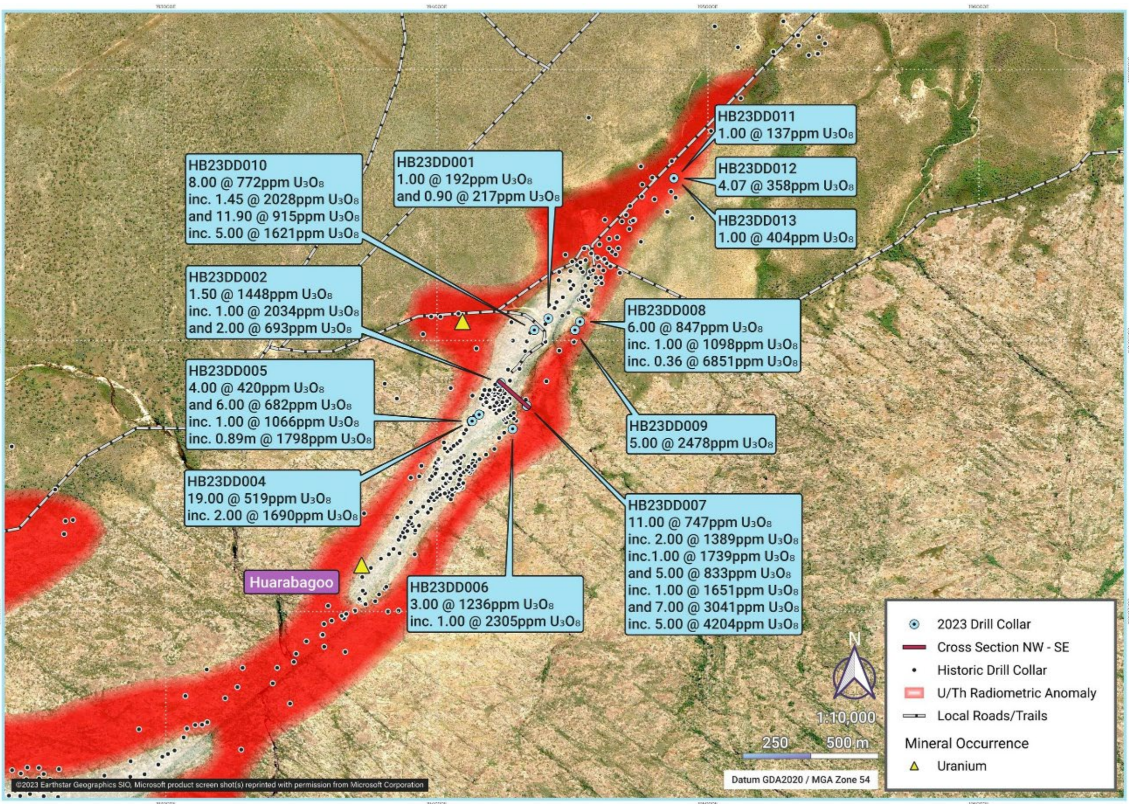


Figure 10.12 Plan view of 2023 Huarabagoo (HB23) drill holes and respective assay results

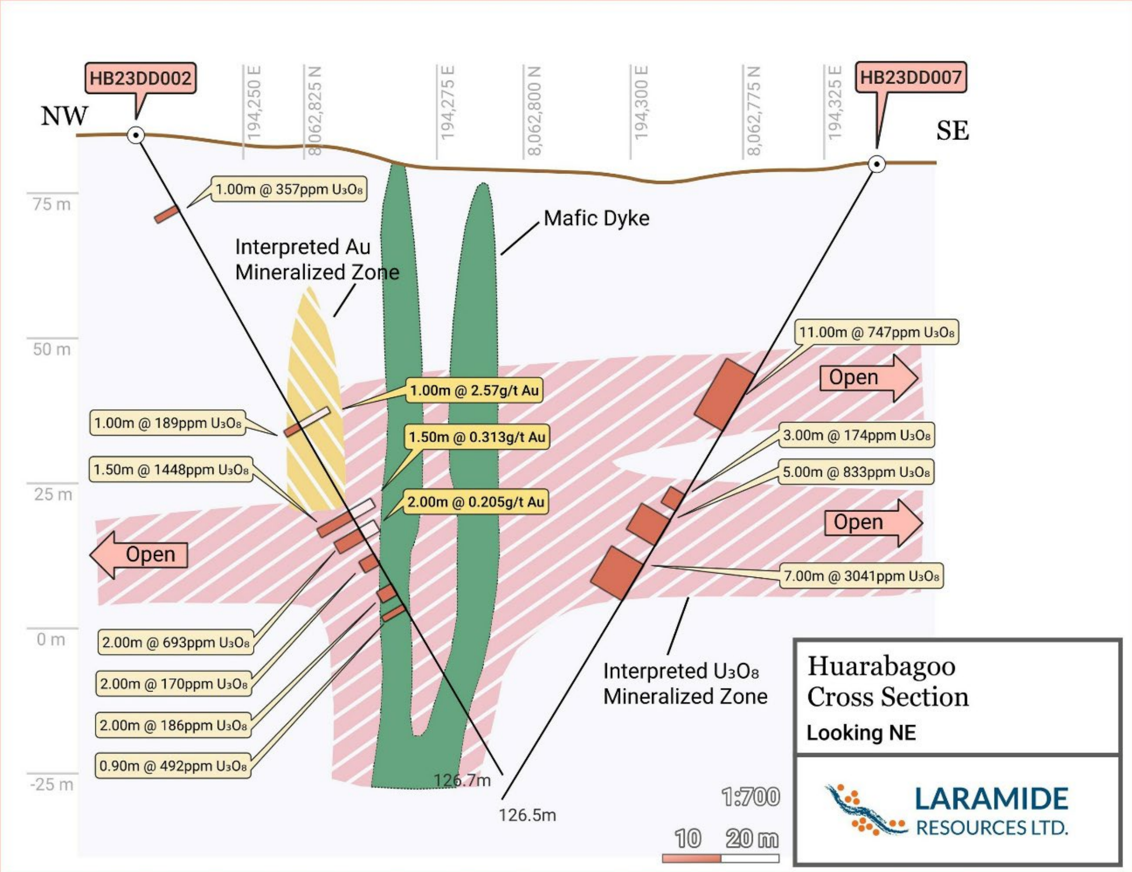


Figure 10.13 Huarabagoo cross section showing broad mineralised intercepts

The drilling program at Amphitheatre aimed to test its potential as a satellite deposit. Drilling intersected predominately sandstones, minor siltstones, mudstones and clays, with the latter typically associated with apparent fault zones and secondary alteration. Alteration is variable but dominated by hematite alteration and found in close association with uranium mineralisation. Results showed multiple zones of shallow mineralisation, and highlighted mineralisation over 200m south of previous drilling which remained unconstrained to the east and south.

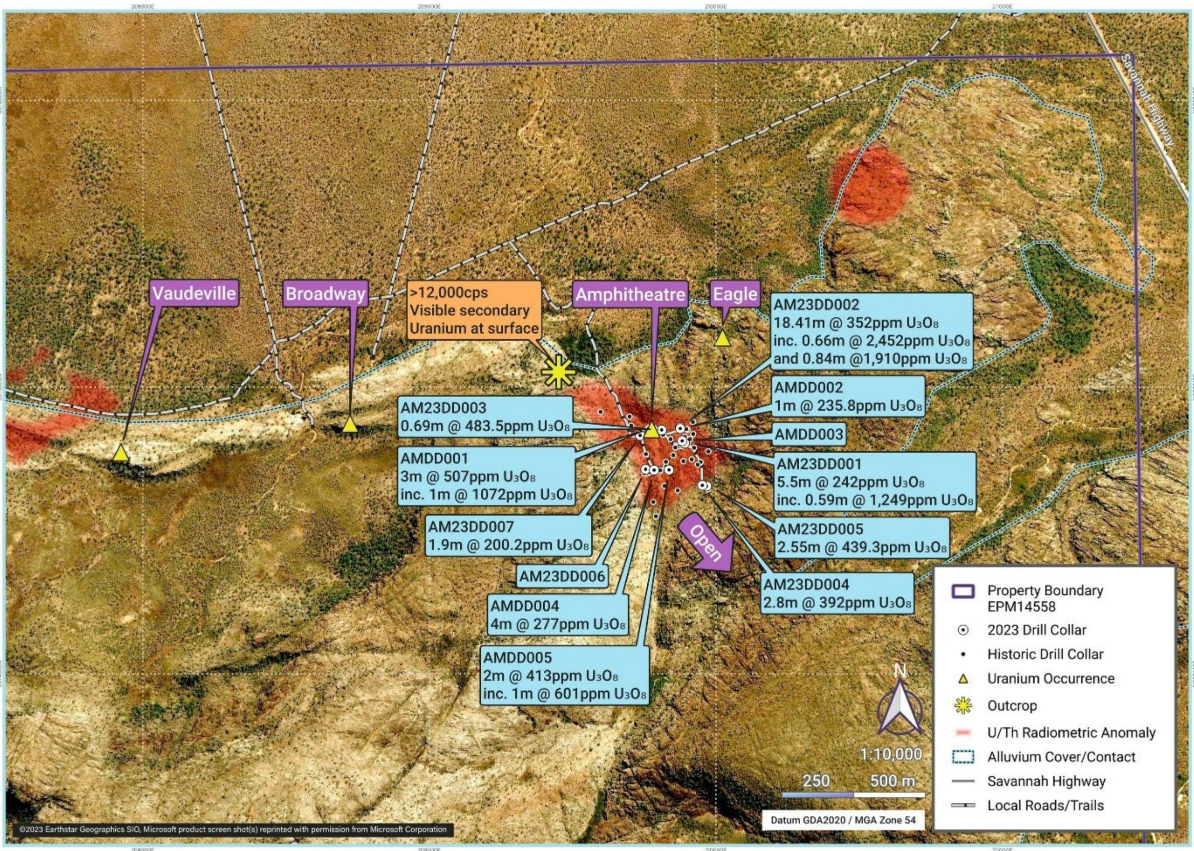


Figure 10.14 Summary of drilling results at Amphitheatre

10.2.7 2024

A substantial drilling campaign across various prospects was also completed in 2024 (Table 10.4). Planetary Drilling Pty Ltd completed diamond drilling at Amphitheatre & Huarabagoo utilising a Sandvik DT600 SPMP and AED Pty Ltd completed both RC and Diamond at Long Pocket, the Huarabagoo-Junnagunna (HJ) Link Zone and Junnagunna, utilising a McCullochs multipurpose URD650.

Table 10.4 Drilling details for 2024 campaign.

PROSPECT	Amphitheatre	Long Pocket	Huarabagoo	HJ-Link Zone		Junnagunna		Totals		
Drill Type	DD	RC	DD	RC	DD	RC	DD	RC	DD	Total
# holes	8	38	17	21	8	1	11	60	44	104
# metres	1,336	2136	1827.16	3096	1124.1	114	1326.65	5346	5613.46	10959.5

Infill and extension resource drilling was completed at Long Pocket, Huarabagoo and Junnagunna with positive results contributing to this resource upgrade (examples shown in Figure 10.15).

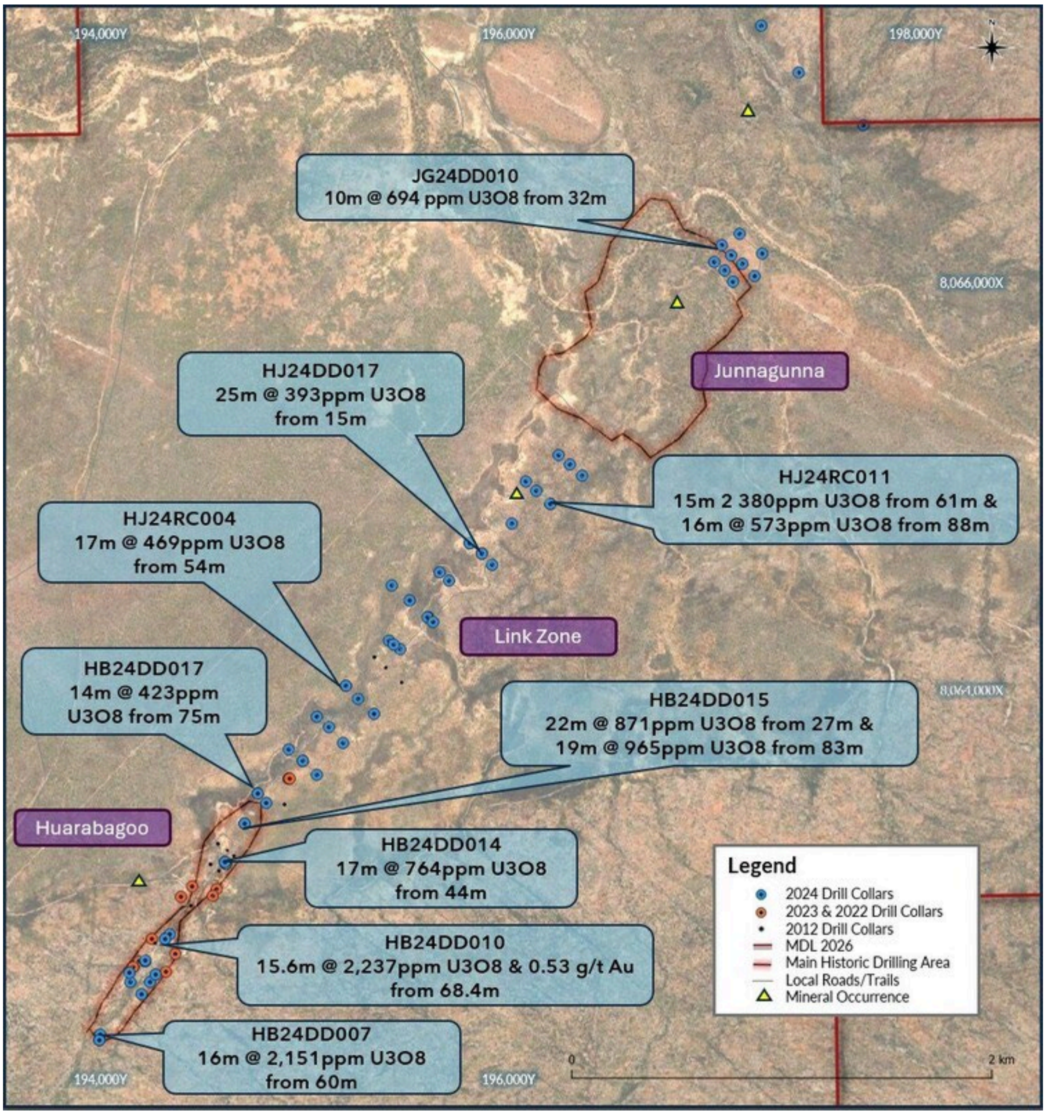


Figure 10.15 Map showing examples of broad mineralised intercepts from 2024 drilling

Further exploration drilling was also completed at Amphitheatre, testing to the east of the prospect area for primary and secondary uranium mineralisation. The program also aimed to define structural controls on mineralisation, and test for potential extensions to the north, obscured by tertiary sediments. Encouraging results were returned and warrant follow up in 2025 & 2026.

10.3 Other Prospect Campaigns

10.3.1 Laramide Scout Drilling- Black Hills and U-Valley

While Laramide's recent focus has been on Long Pocket, three 2023 scout holes (BH23DD001-BH23DD003) were drilled to orient the dolerite body and verify historical intercepts at the Black Hills exploration prospect.

Multiple zones of mineralisation were identified, with results including:

- BH23DD001 with 3.0 m at 259 ppm U_3O_8 from 29 m
- BH23DD001 with 0.8 m at 505 ppm U_3O_8 from 120.12 m
- BH23DD002 with 2.0 m at 591 ppm U_3O_8 from 209 m, including 0.9 m at 1,154 ppm U_3O_8 from 210 m
- BH23DD003 with 3.0 m at 1,844 ppm U_3O_8 from 88 m, including 2.0 m at 2,671 ppm U_3O_8 from 89 m.

Mineralisation identified in the 2023 scout holes was predominantly hosted in the coarse-grained granular Westmoreland conglomerate, with the higher grades associated with the fractured footwall contact of the intrusive dolerite dyke. Significant intercepts reported in BH23DD003 associated with the dolerite dyke, recorded anomalous Ti, V and Y in both the hanging and footwall.

10.3.2 Historical Campaigns

10.3.2.1 Moogooma

CRA Exploration Pty Ltd drilled seven percussion holes in the general Moogooma area in 1990. Example intercepts (U_3O_8) are reported in Table 10.5. The holes presented in Table 10.5 are a series of shallow holes over a 620m WNW-ESE section and are listed East to West. The following interpretations can be made from the assay data available:

- The best values are observed in the western hole at 6-7 m in a 26 m deep hole
- Next best values are reported at 2-3 m in 19 m deep hole located further to the east
- No economic assays are identified in the middle holes that ranged from 19-40 m deep
- A marginal assay is recorded in the most eastern hole.

Table 10.5 Moogooma Drill Holes, and limited U_3O_8 Assays by XRF (Rio Tinto, 2000)

Hole ID	From (m)	To (m)	U_3O_8 (%)	Au (ppm)	Gamma Log
PD90WES082 **EOH depth 26m**	3.0	4.0	0.0034	0.02	
	4.0	5.0	**0.011**	0.02	
	5.0	6.0	0.007	0.02	
	6.0	7.0	**0.10**	**0.14**	
PD90WES081 **EOH depth 19m**	0	1.0	0.003	0.02	
	1.0	2.0	0.0075	0.04	
	2.0	3.0	**0.025**	**0.08**	
	3.0	4.0	0.0085	0.02	
PD90WES080 **EOH depth 19m**	No recorded assay data				
PD90WES077 **EOH depth 40m**	0	1.0	0.0018	0.02	Low level ~50-150cps from 3-21m
	1.0	3.0	0.0044	0.02	
PD90WES076 **EOH depth 40m**	No recorded assay data				Low level ~50-150cps from 3-23m
PD90WES078 **EOH depth 23m**	No recorded assay data				Low level ~50-150cps from 3-23m
PD90WES079 **EOH depth 61m**	35.0	36.0	0.0044	0.02	Elevated frp, 36-39m, not elsewhere. Peak ~100 cps
	36.0	37.0	**0.021**	0.02	
	55.0	56.0	0.003	0.02	
	56.0	57.0		0.02	

10.4 Laramide Logging and Data Capture

Holes drilled during the LAM drilling are generally gamma logged at the completion of each hole. All holes are geotechnically and geologically logged and photographed. Based on Geological Logging and scintillometer readings, one-metre lengths of core were selected for chemical analysis. Selection is based mainly on the gamma log, supported by hand-held scintillometer checking. Any section >300 cps (based on the modern REFLEX gamma log) is sent for assay, plus a one metre buffer either side of that interval (sampled in one metre ½ core intervals). Historically, a 50 ppm eU_3O_8 sampling threshold was used.

Petrology samples were selected to provide a representative suite of mineralisation and alteration across all mineralised zones. Metallurgical samples were collected by taking half HQ core 5 m composite samples.

10.4.1 Downhole Gamma Logging

Logging of drill holes was conducted within steel casing after filling the hole with clean water. An Auslog W450-1 (T070) probe (2008-2024) and a REFLEX EZ-Gamma (007) probe (2024 onwards) were used, both recording raw cps readings at 10 cm intervals.

Calibration holes with steel casing are re-logged before each drilling season, showing consistent readings.

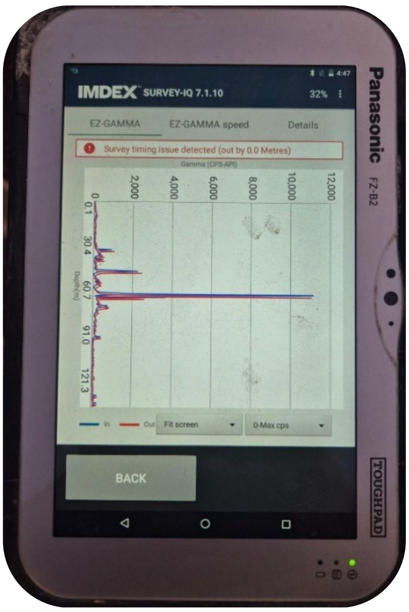


Figure 10.16 Example of the REFLEX DH Gamma data survey results.

From 2008-2023, an approximate K-factor was calculated by comparing Auslog W450-1 (T070) logging with assay results from early drill holes. The resulting approximate eU_3O_8 values guided initial interpretation and sample interval selection (broad intervals >50 ppm eU_3O_8 with a 2-5m buffer into barren material; entire intervals sampled where multiple zones occurred). These values are not for resource estimation.

From 2024, the REFLEX tool provided effective real-time uranium mineralisation indication on a tablet. Sections >300 cps were sent for assay at ALS Laboratories with a 2m barren material buffer.

Gamma log and assay relationships were monitored throughout the program to check for disequilibrium and ensure proper sampling.

Good correlation was observed with the Auslog W450-1 (T070) from 2008-2023, with no significant disequilibrium identified. The REFLEX tool in 2024 occasionally produced false positives, leading to over-assaying. While useful for identifying broad mineralisation trends, the REFLEX tool is not for resource estimation. No under-sampling occurred due to the REFLEX tool or geologist oversight.

Gamma logging results are stored electronically in the company's cloud-based drillhole database (MX Deposit, MXD), linked to individual holes.

10.4.2 Geological Logging

Logging data for all RC and DD drill holes is captured in the company's cloud database (MXD) following standard procedures. Data is entered into standardised tables in MXD using field tablets assigned per hole to prevent overwriting. After logging, tablets are synced to the cloud database, and the assignment is released. Automated validation checks ensure data accuracy. A supervising geologist verifies log and data integrity before marking each hole as complete and locking it. The cloud database is backed up daily by the provider (Seequent), and API (Application Programming Interface) integrations enable separate daily backups to LAM SharePoint servers.

10.4.2.1 Reverse Circulation

All Reverse Circulation (RC) drillholes have data tabs for Collar, Survey, Lithology & Alteration, Recovery, Scintillometer & Downhole Gamma, and Sampling (Primary, Standard, Duplicate).

All 1m RC intervals were sampled (bulk and split from cyclone) and organised at the drill site. Field weights of 1m splits were recorded in the MXD Recovery table. Lab weights were also recorded, and a comparison between these datasets was used to identify potential sampling errors, showing good correlation in the 2024 RC program.

Each 1m RC interval was geologically logged, with chips sieved and stored in trays. High-resolution photos of chip trays are stored on SharePoint. A downhole Gamma survey was conducted at the end of each RC hole to check for mineralisation, and data is stored in MXD.

10.4.2.2 Diamond Drill Core

Diamond drillholes have data tabs for Collar, Survey, Lithology & Alteration, Geotechnical (including Core Recovery and RQD), Structure, Bulk Density, Scintillometer & Downhole Gamma, Petrology & SEM, and Sampling (Primary, Standard, Duplicate).

As per the SOP mentioned above, core trays are laid out sequentially for logging. Steel V-bars create channels on the logging table to reconstruct and orient the core. Man-made breaks are marked with an X and included in RQD calculations.

Geotechnical logging is followed by geological logging after core assembly and orientation.

All drill core is photographed shortly after drilling, with the reference line facing down. Photos are taken under uniform conditions (dry and wet) using a standard camera connected to the logging tablet via Bluetooth. High-resolution images are stored on LAM's SharePoint server.

10.4.3 Downhole SWIR

In May 2015, 3,086 short-wave infrared (SWIR) spectra (1 spectra taken at each metre interval) were measured from 33 drill holes, forming several cross sections through the various mineralised zones at Westmoreland. The instrument used was an ASD Terraspec.

From this initial SWIR data collection (Round 1), the drill holes generally showed a strong sericite signature with some chlorite developed locally. From these spectra it was considered additional SWIR analysis was required to determine if there is a clear footprint/zonation in the data.

Subsequently, in July 2015, an additional 12,387 spectra samples were collected from 110 drill holes, as part of Round 2. These drill holes analysed included both QLD and NT drill holes, with a total of 4,207 spectra samples taken from 63 drill holes at Westmoreland. The initial review of the Westmoreland resource area drill holes is as detailed below.

Some of the results were plotted in sections (Figure 10.17). The data reviewed was SWIR mineralogy, and sericitic and chloritic wavelength compositions. The mineralogy reviewed comprised of the following:

- Chlorite
- Dickite
- Dolomite
- Kaolinite
- Montmorillonite
- Sericite
- Sericitic-chlorite
- Sericitic-kaolinite

In summary, results indicated that is difficult to draw any firm conclusions for mineralised areas, however, the holes with mineralisation generally appear to have some SWIR mineralogy (i.e. sericitic-kaolinite, montmorillonite, etc) within PTW. whereas unmineralized holes (WDD12-182) do have a simpler mineralogy of generally only sericite in PTW. This is a slightly tenuous conclusion and additional scanning of unmineralized / 'background' holes should help further.

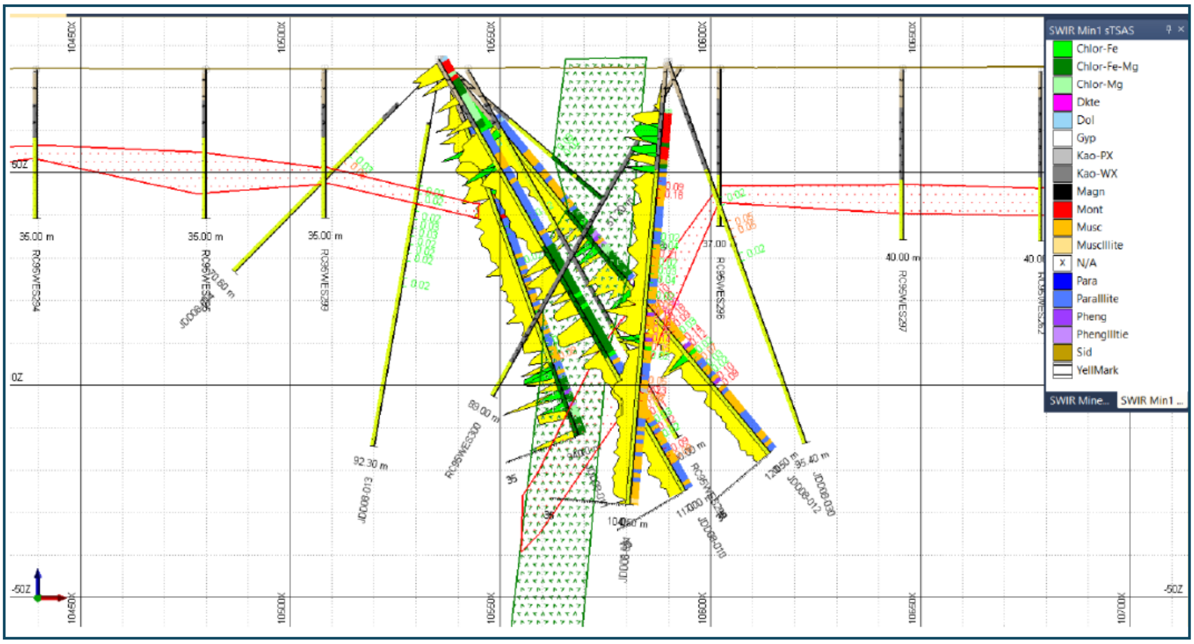


Figure 10.17 Junnagunna drillhole cross-section with SWIR and assay values plotted down-hole.

10.4.4 Sampling for Chemical Analysis

Assay sampling intervals are selected after logging and photography, primarily based on gamma logs and supported by scintillometer readings (Figure 11.1.5).

Any section exceeding 300 cps on the REFLEX probe is assayed, with a buffer on either side. The sample table is populated with primary samples, non-sampled intervals, and controls (standards, blanks, duplicates).

10.4.4.1 Reverse Circulation

For sampled RC intervals, split samples in pre-labelled bags were sent to ALS Laboratories for pulverisation, with pulps retained. Non-sampled 2024 splits were stored sequentially in labelled green RC bags at the core processing yard for potential future use.

During chip sieving for geological logging, fines from each 1-meter interval were collected in numbered Geochem packets. These are boxed per drillhole and stored at Laramide's core processing facility for potential future pXRF analysis.

10.4.4.2 Diamond Drill Core

Core is typically sampled at one-meter intervals, respecting unit changes. All core is sawn using an Almonte diamond saw and placed in pre-labelled bags (LCDXXXXXX). The core is cut along the geologist's orientation lines. If no orientation line exists, a cutting line is marked. Core is then crushed and pulverised by ALS Laboratories, with pulps retained for potential additional assays.

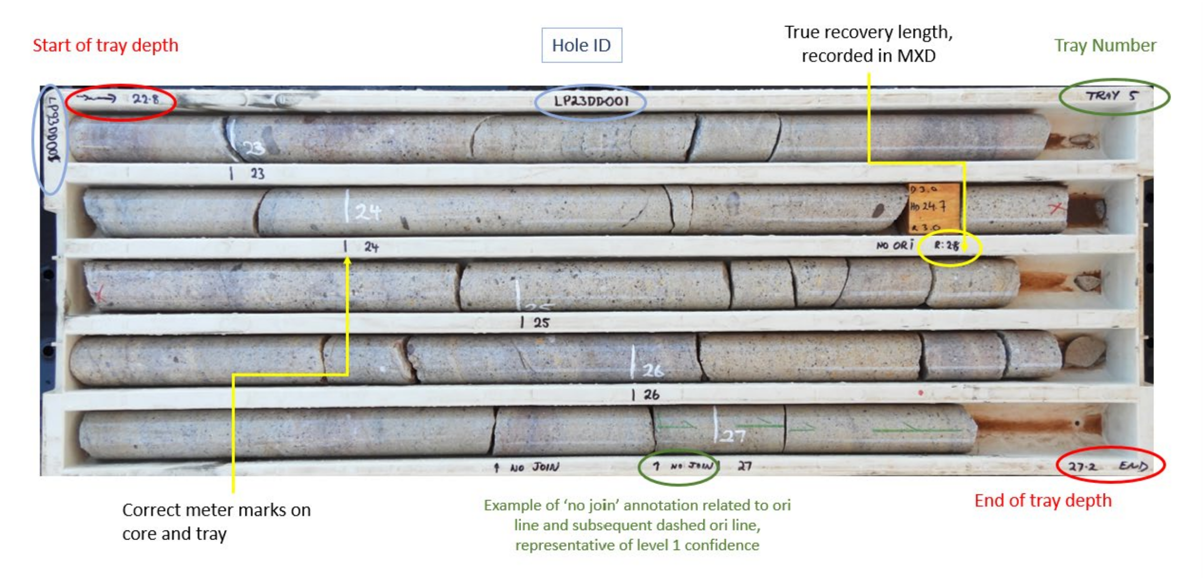


Figure 10.18 Example drill core marked up for cutting and sampling

10.4.5 Petrology

Sample off-cuts were routinely selected for petrologic examination during core logging. Samples were given a sample number and their location recorded in drill logs and entered into the database. Samples are stored in sample bags and are currently housed in the Brisbane storage facility.

A selection of samples were submitted to Dr Jane Barron in St Ives, NSW for petrological description in 2008 (Barron, 2008). Petrographic descriptions of samples selected from the Redtree area describe the sediments as variously silicified, poorly to moderately sorted quartz-rich arenites. The sandstones and conglomerates are considered to be formerly permeable quartz arenites which have become aquifer sediments in which variable proportions of cement (quartz, clay, chlorite) were deposited in pore spaces. Cementing clays are dominantly smectite and kaolinite. Alteration minerals occurring in the matrix are dominantly chlorite, sericite and hematite.

Additional samples were selected in 2022 from Long Pocket drill core, were submitted to Dr Carol Simpson in Raworth, NSW for petrological description (Simpson, 2023). Sediments selected from the Long Pocket area describe the sediments as predominantly coarse-grained to pebbly quartzose sedimentary successions hosting fine grained intervals. Descriptions of the intrusive sill unit observed at Long Pocket identified a preserved textural similarity between the dolerite samples, which would suggest that the various sills observed in the prospect area are likely to be part of a single magmatic event. Minor differences between the various dolerite samples occur in the estimated proportions of the main original minerals, especially in the amount of interstitial ex-glass relative to plagioclase and ferromagnesian minerals, and in grainsize but most of the differences between the dolerite samples occurs in the overprinting secondary alteration assemblage.

10.4.6 SEM Samples

The objectives of the SEM analysis (QEMSCAN) were to provide accurate characterisation of the uranium species present in the Redtree and Junnagunna deposits, a scanning electron microscope analysis was conducted on assay pulps from 20 mineralised intervals in 2009. The study included a general mineralogical analysis and specific uranium study of uranium bearing species and associated gangue minerals (SGS, 2009).

The predominant uranium bearing mineral was found to be uraninite (UO_2) which with coffinite ($U(S_iO_4)1\text{-}x(OH)4x$) generally comprise >80% wt of uranium minerals (Figure 10.19). The species autunite ($Ca(UO_2)2(PO_4)_2.10\text{-}12H_2O$) and the dehydrated product meta-autunite is the other distinguishable uranium mineral of note, reporting up to 10% wt of the uranium.

The proportion of brannerite ($(U,Ca,Ce)(Ti,Fe)_2O_6$) is less than 1% of uranium mineralisation in 15 of 19 mineralised samples with values from 1 to 3.2% in four samples.

The results are consistent with previous SEM analyses undertaken by Rio Tinto in 1994.

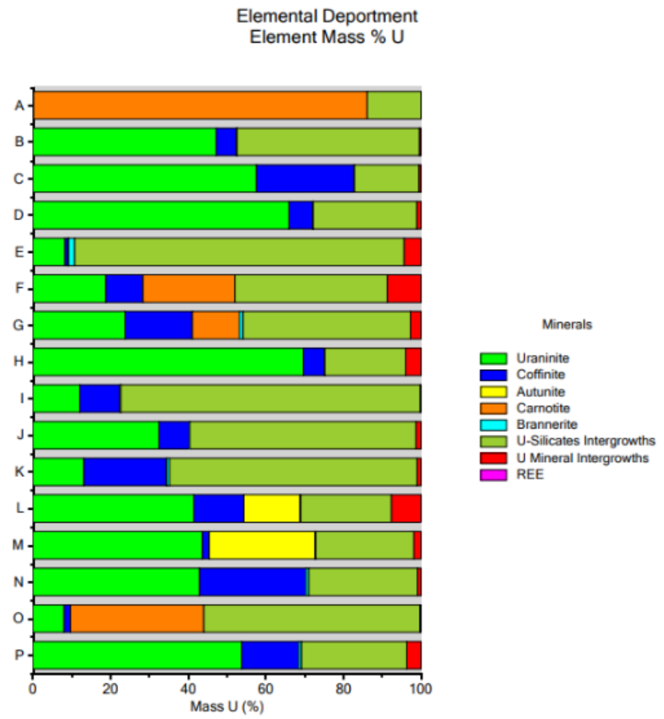


Figure 10.19 Elemental Deportment of the uranium between the uranium-bearing minerals in all the 2009 SEM samples (SGS, 2009)

10.4.7 Metallurgy

A total of 16 drill holes were drilled with HQ core size during the 2007 to 2008 program to obtain samples that may be submitted for metallurgical test work. The holes were selected to provide representative samples throughout the Redtree deposit and to a lesser extent, Junnagunna (Baker et al., 2011). Samples consisted of five metre intervals of half HQ core. The samples were delivered to ANSTO at Lucas Heights in sealed 200 litre drums.

10.4.8 Discussion

The QP considers the procedures employed by Laramide to be well managed and thought out. Rock quality data indicated the core was competent and drill core recovery is excellent (average 97%). Areas of poorer recovery can be identified as near surface unconsolidated sediments (up to 20 m thick in places) or zones of poorer recovery below surface are generally associated with the dolerite dyke contact.

11 Sample Preparation, Analyses and Security

11.1 Historical Sampling

The exact procedures employed by previous explorers is not well understood, procedures that are known are described in the following sub sections. The assay methods used by previous explorers was captured in the access databases and migrated to Laramide's MX Deposit system and are presented in Table 11.1.

Table 11.1 Summary of analysis techniques used by previous explorers.

Value	Description	Company
GS3	SCINTREX GS3 SCINTILLOMETER	QML
RAD-MIM	SCINTILLOMETER - MIM	MIM
XRF-1	XRF ALS	UGA, QML
XRF-5	XRF ANALABS/PILBARA	Omega
XRF-A	XRF AMDEL	CRA, MINAD, QML, UGA
XRF-G	XRF GEOMIN LABORATORY	UGA
XRF-MIM	XRF MT ISA MINES LABORATORY	MIM

11.1.1 Queensland Mines Limited

Percussion and core samples from the Jack and Garee lenses were bulked over 3 foot (0.91 m) or 6 foot (1.83 m) lengths. The samples were analysed on site using a Scintrex GS-3 spectrometer and any samples >0.05% U_3O_8 were sent to Amdel in Adelaide for analysis by XRF. The holes were also probed using a Berthold LB1200 gamma logger, and anomalous intervals were used as a check against readings from the GS-3 spectrometer.

11.1.2 Urangesellschaft

The UG percussion samples were bulked into 2-metre lengths and a representative sample of approximately 1 kg obtained by quartering the bulk sample at the drill site. Core was sawn in half at Camp Ridgeway. Lengths ranged from 0.1 m to 0.5 m; most were bulked into 0.5 m core lengths and sent for assay. During 1976 all UG core samples were sent to ACS in Adelaide and analysed for U3O8 by XRF. The 1977 core samples were analysed by Geomin in Sydney using fluorometric and colorimetric techniques. Sixteen duplicate samples were checked by ALS in Brisbane; these averaged 10% higher assay than Geomin. In 1978 UG sent all core and percussion samples to ALS in Brisbane for XRF analysis of U3O8. All the samples sent to Geomin in 1977 were re-assayed by ALS using both fluorometric/colorimetric and XRF techniques. Check analyses were carried out by Amdel in Adelaide using XRF. From 1978 onwards, all UG samples were assayed by ALS in Brisbane using XRF. Twenty duplicate samples were sent in 1980 to Pilbara Laboratories in Perth. The Pilbara results averaged 6% less than the ALS assays.

11.1.3 CRA Exploration Pty Ltd

The CRAE percussion (RC) holes were sampled at 1m intervals over a riffle splitter for dry samples. Wet samples were bulked sampled and then spear sampled at 1 m intervals. Intervals to be sampled were selected based on radiometric response using a scintillometer (URTEC UR135). No mention was made of techniques used to sample drill core. It appears that most of the core holes drilled by CRAE were used for metallurgical sampling and were not used for resource estimation.

11.1.4 Historical Quality Control

There is limited Quality Control data for the historical data. A 'duplicate assays' sheet was identified in historical access database pack which contained hole ID, depth from and depth to U uranium assay results for each sample. These were paired with the parent samples in the database based the hole ID and depths resulting 182 sample pairs with the parent sample assay method shown as follows.

- XRF AMDEL (XRF-A) 170 CRA samples
- XRF ALS 7 (XRF-1) UGA samples and 1 CRA sample
- XRF ANALABS/PILBARA (XRF-5) 4 OMEGA samples

Figure 11.1 shows a scatter plot of the available data, with the CRA data being most meaningful. The correlation is generally good with some outliers; however, it is not known what method was used for the duplicate analysis. Furthermore, the duplicate samples only have indication of Hole ID and depth from and to, no parent sample numbers were assigned so there is a risk that keystroke errors may exist in the duplicate data.

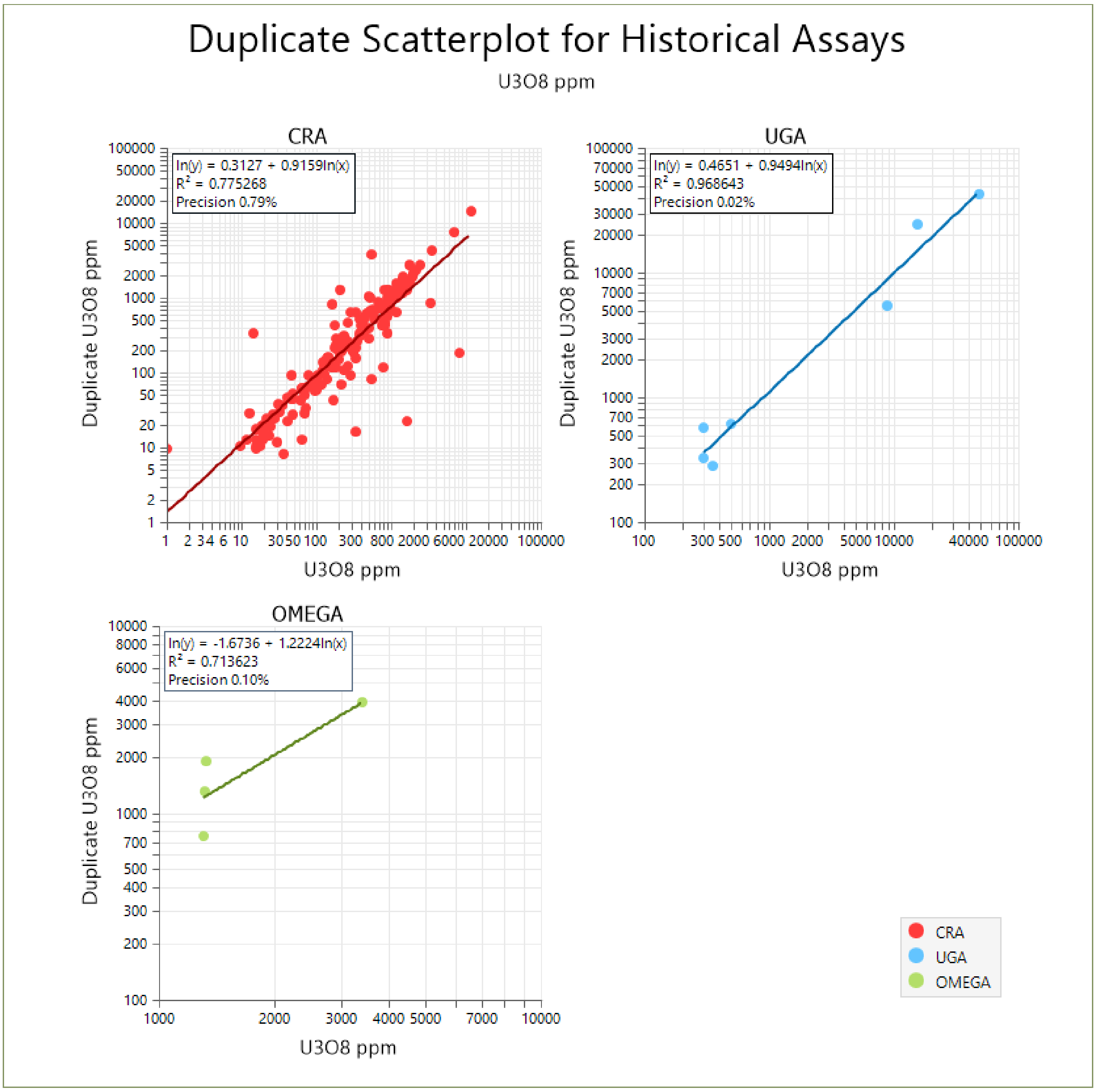


Figure 11.1 Scatterplot of original values against duplicates for historical assays from respective companies.

A further 1876 sample pairs were identified for the CRA downhole Gamma and XRF analysis (Figure 11.2), the duplicates compare well overall with some dispersion and outliers. It is possible some drillholes may have been examined after drilling, with a potential accumulation of Radon present. The probed intervals also did not exactly match the original sample intervals and were joined by means of compositing two interval files; this may result in some discrepancy for the outliers. Analytical error or calibration issues with the probe may also account for the outliers.

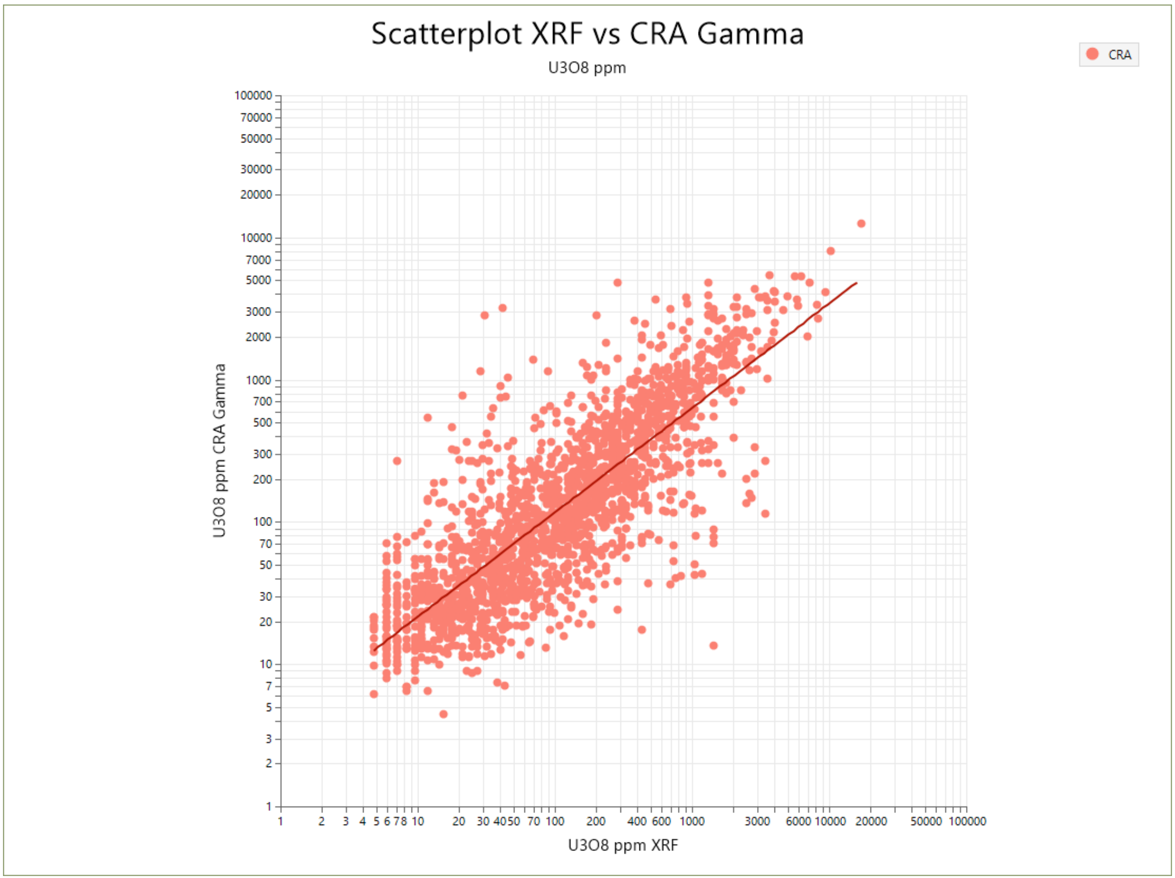


Figure 11.2 Scatterplot XRF values against Rio 1995 gamma results.

11.2 Laramide Sampling

Sample numbers and intervals are recorded by the geologist into the sampling table in MXD, before being produced as a cut sheet for the sampler.

Blanks are inserted at the start of each dispatch and at an insert rate of 1:50, or at least one blank per hole preferably at the end of a mineralised zone. A coarse blank reference material, 'Rainbow Quartz', sourced from Dynamics G-EX is currently in used. Historically, (2008-2012) a stockpile of un-mineralised core was used as a coarse blank material.

A duplicate sample is added at an insert rate of 1:50, or at least one in every drillhole, and preferably across a range of mineralised grades.

A stockpile of certified reference materials (CRMs) has been purchased by Laramide from Ore Research & Exploration Pty Ltd (Oreas), Bays Water North, Australia. Laramide currently uses 5 different CRMs stocked by Oreas, which are detailed in Table 11.2. These are inserted at a rate of 1:25 original samples, where the CRM selection should match the local grade in the primary sample sequence.

Table 11.2 Table of U and Au CRMs used in the LAMs sampling programs.

Standard	Description	Years incorporated
OREAS 101a	Medium grade U (410ppm) Mt Gee granitic and haematitic breccia bodies, IOCG variant.	2007-2012
OREAS 101b	Medium grade U (387 ppm) Mt Gee granitic and haematitic breccia bodies, IOCG variant.	2007-2012
OREAS 120	Low grade U (39.6 ppm) Nyota Prospect Karoo sandstone-hosted tabular deposit.	2022 - present
OREAS 121	Resource grade U (206 ppm) Nyota Prospect Karoo sandstone-hosted tabular deposit.	2023 - present
OREAS 123	Moderate to high grade U (825 ppm) Nyota Prospect Karoo sandstone-hosted tabular deposit.	2023 - present
OREAS 124	High grade U (1779 ppm) Nyota Prospect Karoo sandstone-hosted tabular deposit.	2022 - present
OREAS 233b	Orogenic lode gold mineralisation style, Au bearing ore blended with barren greenstone (1.07 ppm), ore sourced from Frogs Leg Gold Mine, WA.	2023 - present

Individual samples are packed into prelabelled calico bags Sample bags are packed, five at a time, into white polyweave sacks. About one hundred to one hundred and fifty samples are then packed into a larger bulk bag. These are mounted on to pallets and loaded for transport as complete holes. Depending on the mode of transport (Toyota Landcruiser with or without a trailer; truck or semitrailer). One or more complete holes were transported at a time to Mt Isa for sample preparation by ALS Laboratories.

11.2.1 Security

A sample submission and chain of custody form is held by the driver for each batch of samples transported to Mt Isa and handed over to the laboratory on arrival at the laboratory. Prior to despatch, the metal sample boxes are checked with a Ludlum 2241-3 rate meter, to ensure that the external radiation level is less than 5 µSv otherwise special labelling is required. Judicious packing (high-grade samples are packed at the centre surrounded by low-grade material) ensures that this standard is never exceeded. The laboratory manager is notified of the despatch before the driver departs. The journey takes 8 to 10 hours, and the driver maintains contact with the camp by satellite phone or mobile telephone to ensure security of the cargo during transport.

11.2.2 Laboratory Sample Preparation and Analysis

The ALS laboratory in Mount Isa employs experienced staff for conventional and uranium sampling and assaying. ALS Brisbane and Perth are NATA accredited (No. 825) and ISO/IEC 17025:2005 certified for ore and mineral analysis using AAS, AES (ICP), ICP/MS, XRF, and classical techniques. ALS Mt Isa and Townsville hold ISO9001:2015 accreditation (No. ISO9001-0058569).

Upon arrival at the Mt Isa lab, sample submission forms are checked, and samples are scanned with a ROTEM-GENE dosimeter to determine radioactivity and appropriate handling according to ALS's NORM protocols.

Non-radioactive samples (<1uSv/hr) are processed in Mt Isa, barcoded, and weighed. A Work Order is created (ALS batch numbers with MI prefix). Sample preparation occurs in Mt Isa before dispatch for analysis. Au-AA26 analysis is done in ALS Townsville, and ME-MS61 analysis in ALS Brisbane.

Radioactive samples (>1uSv/hr) are prepared at the Perth Hazardous Materials Prep Facility (ALS batch numbers with PH prefix). ME-MS61 and Au-AA26 analysis for these samples is conducted by ALS Perth, which has specialised equipment and safety protocols for handling radioactive materials, including isolated dust capture and mandatory PPE.

All samples are weighed upon receipt for riffle splitting calculations. Samples are crushed, and a portion (~0.5 kg) is split for pulverisation, with the remainder kept as a coarse reject. The 0.5 kg aliquot is pulverised to 85% passing 75 microns in a ring grinder. Silicon wash is applied if requested.

The 0.5 kg pulp is subsampled, and 30 g is placed in a labelled, barcoded wire top packet. Barcodes are generated using ALS software. Labelled pulp samples are weighed, packed, and a corresponding barcode label is applied to the box for chain of custody tracking via ALS's LIMS.

Boxes arriving at ALS Brisbane, Townsville, or Perth are scanned, opened, and individual sample barcodes are scanned into LIMS. Boxes are repacked and stored in a balance room. Before analysis, samples are scanned and weighed, cross-referencing preparation weights. A sub-sample is extracted, weighed, and digested using four-acid for base metals and fire assay for gold.

ALS Brisbane inserts two standards and two duplicates per 36 client samples, analysed in batches of 40.

ICP-MS and ICP-AES are used for broad base metal concentration ranges (e.g., uranium 0.1-10,000 ppm). Gold analysis uses fire-assay fusion with AAS finish.

ALS uses internal standardisation to monitor instrument drift. Historically, europium was used for drift correction and matrix effect adjustments. Older ME-XRF05 samples were analysed by pressed pellet XRF, where samples were weighed post-compression for barcode cross-reference. Two standards were included per 40-sample batch for drift monitoring. Modern XRF typically uses fused-based methods.

Table 11.3 Analytical Methods use by Laramide by year.

Method Code	Element(s)	Campaign(s)
ME-XRF05	U	2008
ME-XRF07		
ME-XRF10s		
ME-XRF15b		2012
ME-XRF30		2024
ME-ICP61s	Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sr, Ti, U, V, W, Zn	2008
ME-ICP61		2008-2012, 2022-2024
ME-MS61	Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr	2022-2024
ME-MS61r	Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Ho, In, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, P, Pb, Pr, Rb, Re, S, Sb, Sc, Se, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr	2024
PGM-ICP23	Au, Pd, Pt	2008
PGM-ICP27		
PGM-MS23		2007
P-OG62	P	2023
Zr-MS85	Zr	2022, 2023
Au-AA25	Au	2008-2012, 2022, 2023
Au-AA26		2023, 2024

11.2.3 Quality Assurance

Laramide has a detailed standard operating procedure which has been reviewed and discussed with the QP. There are no concerns with Laramide's procedures.

Laboratory procedures include:

- Silicon wash after milling high grade samples and scanning of mill for residue, conducted on request,
- Ability to use sample weight as additional check on sample number,
- Analysis by two methods (ICP / MS or AES depending on grade versus XRF)
- Insertion of two standards and two duplicates every 36 samples.

The Qualified Person has not completed any laboratory inspections.

11.2.4 Quality Assurance

On site procedures include the following control insert rates as a minimum requirement. Additional controls may be added at the discretion of the logging geologist.

- Blank sample of un-mineralised material at the beginning of each batch and immediately following a mineralised sample, or at a minimum at an inset rate of 1 per 50 samples
- Mineralised duplicate to be taken every 50 samples, or at least one in every drillhole, and preferably across a range of mineralised grades.
- Certified reference material inserted every 25 samples, grade matched to local primary samples.
- Sampling of barren material either side of mineralised zones.

11.2.4.1 Standards

11.2.4.1.1 2007-2012

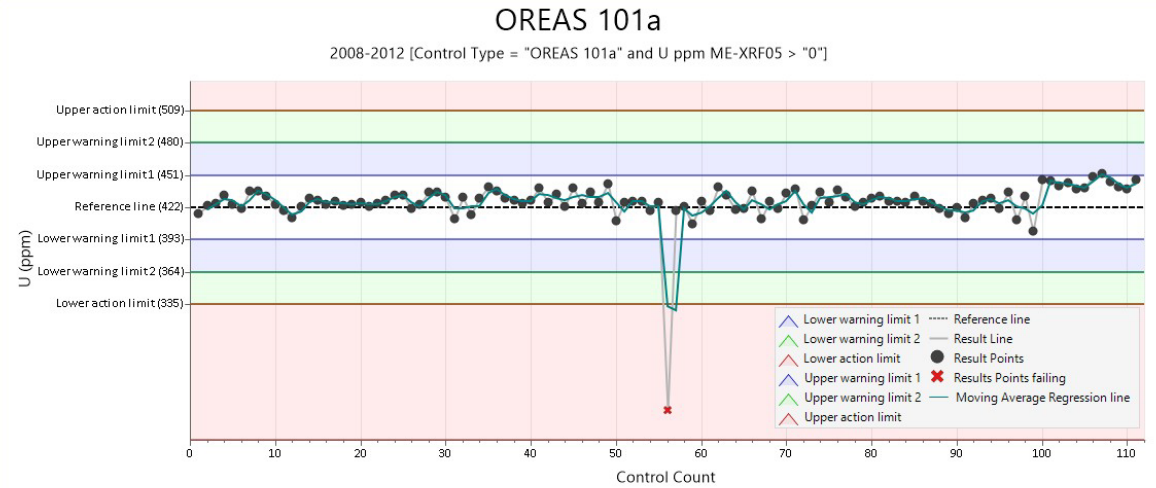
One hundred and eleven-samples of Standard 101a and 107 samples of 101b were submitted for analysis during the 2007 to 2012 drilling programs. Table 11.4 shows the summary statistics of the analysis of these samples. During Laramide drilling programs between 2008-2012, ALS Fusion Method ME-XRF05 was nominated as the preferred method for all U assay results.

Table 11.4 Summary of LAM's Certified Standards from 2008-2012

	CRM		Control Assays Results	
Standard	**Certified Value***	**2 x Standard Dev. Certified Value***	**Mean**	**2 x Standard Dev.**
	U ppm	**U ppm**	**U ppm**	**U ppm**
Oreas 101a	422	58	427.0	40.5
Oreas 101b	396	29	403.8	20.2

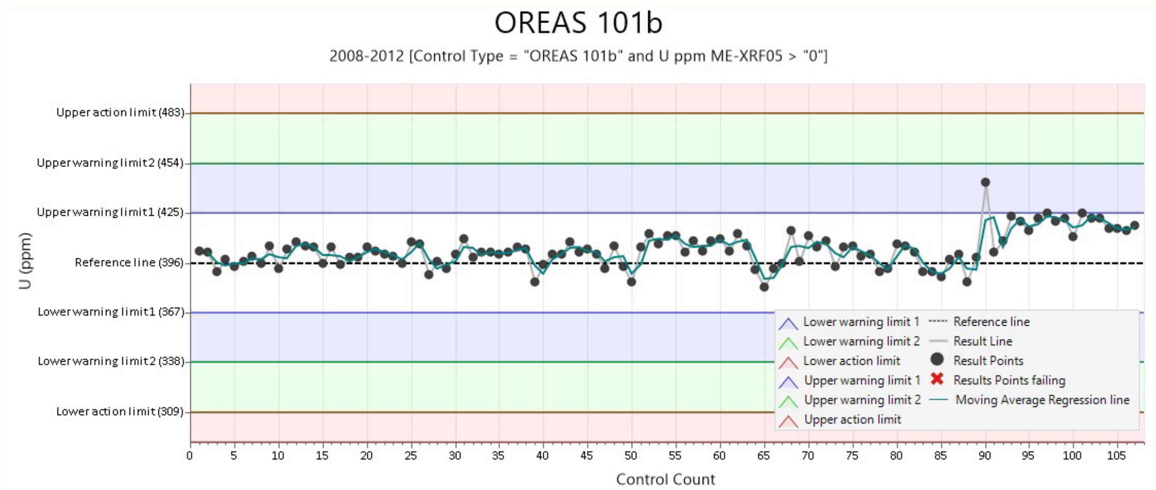
**Certified value and Standard Deviation for each CRM reported under Fusion*

Assay results for submitted standards from 2008-2012 are provided in Figure 11.5.1 and Figure 11.5.2. The certified value is shown as a dashed black line and the blue, green and red lines indicate one, two and three standard deviations from the mean value, respectively.



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	29.00	Variance	409.8070	Maximum	453.0000	-1SD to -2SD	0 (0.00%)	-3SD	1 (0.90%)
Field Name	U ppm	Count	111	Coeff. of Variation	0.0474	Expected to +1SD	85 (76.58%)	1SD to 2SD	1 (0.90%)	Outside 3SD	1 (0.90%)
Action Level	68.2700	Median	428.0000	Kurtosis	63.8914	Expected	1 (0.90%)	+2SD to +3SD	0 (0.00%)		
Groups	111	Mode	426.8500	Skewness	-7.1433	Expected to -1SD	23 (20.72%)	-2SD to -3SD	0 (0.00%)		
Group Size	1	Mean	426.9550	Range	213.0000	Inside 1SD	109 (98.20%)	2SD to 3SD	0 (0.00%)		
Ref Mean	422.00	Std Dev	20.2437	Minimum	240.0000	+1SD to +2SD	1 (0.90%)	+3SD	0 (0.00%)		

Figure 11.3 Results for Standard 101a



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	29.00	Variance	101.5234	Maximum	443.0000	-1SD to -2SD	0 (0.00%)	-3SD	0 (0.00%)
Field Name	U ppm	Count	107	Coeff. of Variation	0.0250	Expected to +1SD	81 (75.70%)	1SD to 2SD	1 (0.93%)	Outside 3SD	0 (0.00%)
Action Level	68.2700	Median	403.0000	Kurtosis	1.2701	Expected	4 (3.74%)	+2SD to +3SD	0 (0.00%)		
Groups	107	Mode	401.2500	Skewness	0.6749	Expected to -1SD	21 (19.63%)	-2SD to -3SD	0 (0.00%)		
Group Size	1	Mean	403.7944	Range	61.0000	Inside 1SD	106 (99.07%)	2SD to 3SD	0 (0.00%)		
Ref Mean	396.00	Std Dev	10.0759	Minimum	382.0000	+1SD to +2SD	1 (0.93%)	+3SD	0 (0.00%)		

Figure 11.4 Results for Standard 101b

Generally, the Laramide submitted standards returned excellent accuracy during 2008-2012, with the average grade well within the specified range of the certified grade, indicating reliability in the assay method.

11.2.4.1.2 2022-2024

Oreas 101a and Oreas 101b were unavailable for purchase at the beginning of the 2022 field season, and suitable alternatives were sourced from Ore Research & Exploration Pty Ltd (Oreas), Bays Water North, Australia (Table 11.5). Laramide now has a selection of 5 Uranium certified reference materials (CRMs) in use, cross a range of grades. Table 11.5 summarises the statistics of the analysis of these CRMs. All CRMs from 2022-2024 were reported by ALS under their 4-acid digest ME-MS61 method of analysis.

Table 11.5 Summary of LAM's Certified Standards from 2022-2024

Standard	Count *	CRM		Control Assays Results	
		Certified Value #	2 x Standard Dev. Certified Value*	Mean	2 x Standard Dev.
		ppm	ppm	ppm	ppm
Oreas 120	50	39.6 U	3.02 U	40.2	4.34
Oreas 121	47	206 U	14.0 U	208.1	14.64
Oreas 123	50	825 U	70.0 U	823.5	62.52
Oreas 124	33	1,779 U	180 U	1,754.7	148.70
Oreas 233b	44	1.07 Au	0.086 Au	1.07	0.06

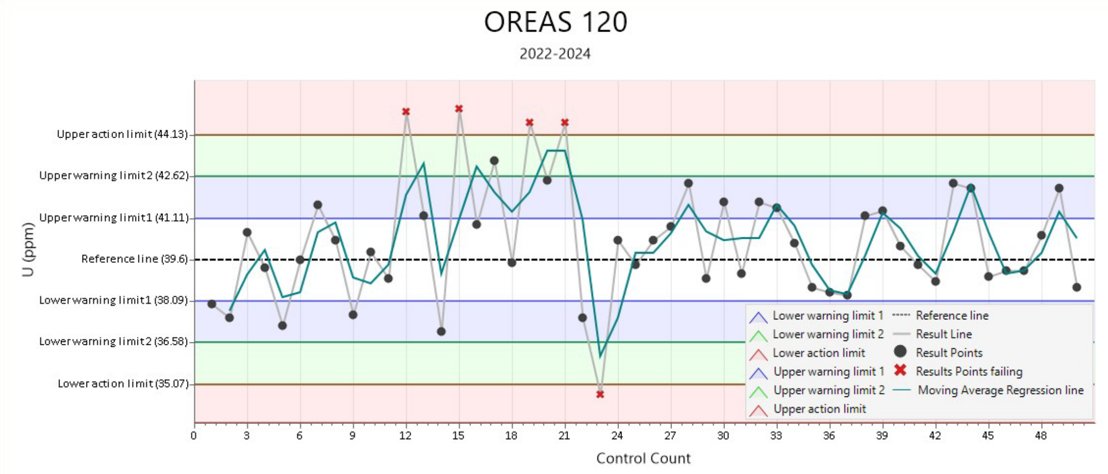
**CRMs used in drill programs contributing to the resource update*
 # All uranium standards report CVs under 4-Acid Digestion. Oreas 233b (Au) reports to a Pb-Fire Assay CV.

Assay results for submitted standards from 2022-2024 are provided in Figure 11.5 to Figure 11.9. The certified value in each case, is shown as a dashed black line and the blue, green and red lines indicate one, two and three standard deviations from the mean value, respectively. Generally, each CRM has reported an average grade within the specified range of the certified grade.

Oreas 120 (50) has seen 5 instances where the CRM failed (reported more than 3SD from the CV). However, due to the nature of this low-grade CRM (39.6 ppm U) and the tight SD increments attributed (1.51 ppm U), it has never warranted further investigations. Broadly, the CRM has performed well, with a mean assay result of 40.24 ppm U, which is within the specified range of the certified grade.

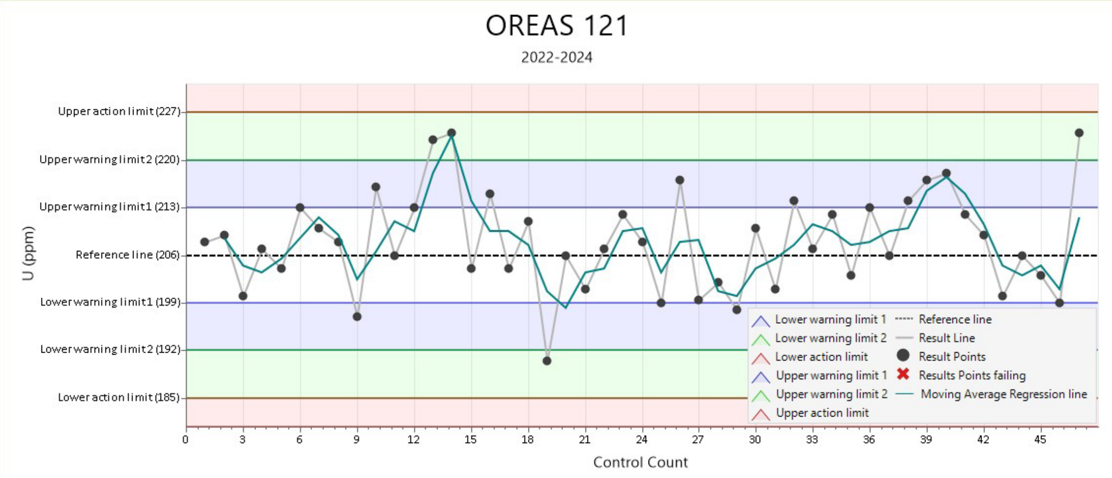
All other CRMs have not observed any reported failures. Oreas 121 (47) which represents a near cut-off grade of 206 ppm U, observed a very modest positive bias which equates to less than 5 ppm U on average (mean assay results 208 ppm U), and so is not considered a cause for concern for the reliability of the assay method. There have been four instances of the CRM reporting beyond 2SD but not beyond 3SD from the CV, and no further investigations were required.

Generally, Oreas 123 reported well, with only 3 instances of the CRM reporting beyond 2SD but not beyond 3SD from the CV, and no further investigations were required. Oreas 124 appears to slightly under report with a control assay average of 1,754.6 ppm U. This under reporting equates to less than 25 ppm U variance and has not been considered a cause for concern for the reliability of the assay method.



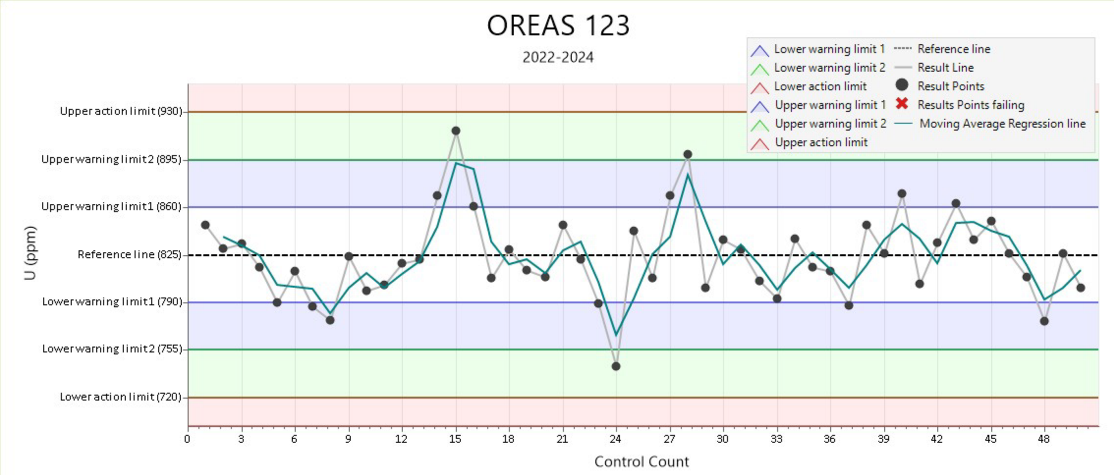
File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	1.51	Variance	4.7151	Maximum	45.1000	-1SD to -2SD	6 (12.00%)	-3SD	1 (2.00%)
Field Name	U ppm	Count	50	Coeff. of Variation	0.0540	Expected to +1SD	10 (20.00%)	1SD to 2SD	18 (36.00%)	Outside 3SD	5 (10.00%)
Action Level	68.2700	Median	40.1500	Kurtosis	0.1577	Expected	1 (2.00%)	+2SD to +3SD	1 (2.00%)		
Groups	50	Mode	40.3340	Skewness	0.2675	Expected to -1SD	15 (30.00%)	-2SD to -3SD	0 (0.00%)		
Group Size	1	Mean	40.2420	Range	10.4000	Inside 1SD	26 (52.00%)	2SD to 3SD	1 (2.00%)		
Ref Mean	39.60	Std Dev	2.1714	Minimum	34.7000	+1SD to +2SD	12 (24.00%)	+3SD	4 (8.00%)		

Figure 11.5 Results for Standard 120



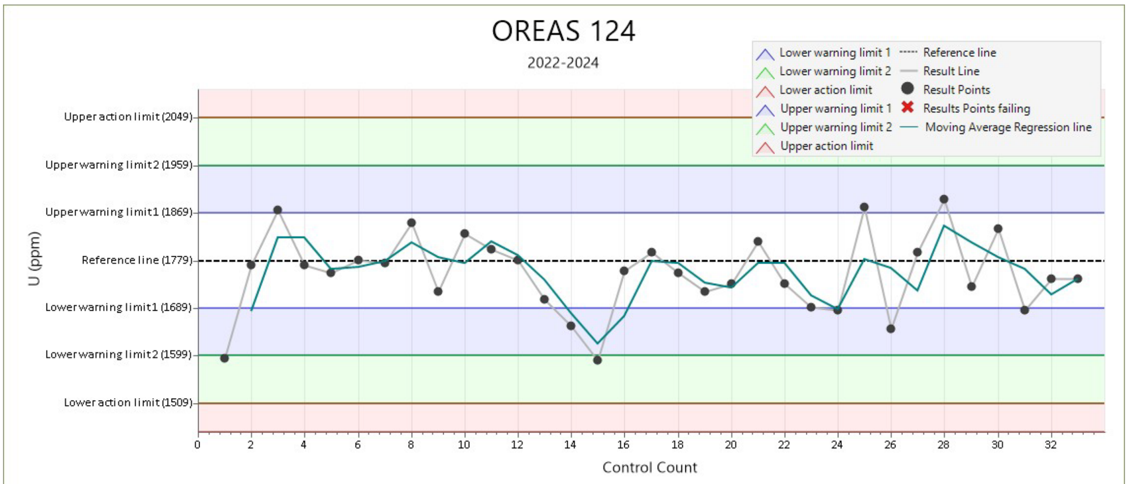
File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	7.00	Variance	53.6122	Maximum	224.0000	-1SD to -2SD	2 (4.26%)	-3SD	0 (0.00%)
Field Name	U ppm	Count	47	Coeff. of Variation	0.0352	Expected to +1SD	17 (36.17%)	1SD to 2SD	9 (19.15%)	Outside 3SD	0 (0.00%)
Action Level	68.2700	Median	208.0000	Kurtosis	-0.1512	Expected	4 (8.51%)	+2SD to +3SD	3 (6.38%)		
Groups	47	Mode	206.1100	Skewness	0.1751	Expected to -1SD	13 (27.66%)	-2SD to -3SD	1 (2.13%)		
Group Size	1	Mean	208.0851	Range	33.5000	Inside 1SD	34 (72.34%)	2SD to 3SD	4 (8.51%)		
Ref Mean	206.00	Std Dev	7.3220	Minimum	190.5000	+1SD to +2SD	7 (14.89%)	+3SD	0 (0.00%)		

Figure 11.6 Results for Standard 121



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	35.00	Variance	977.2331	Maximum	916.0000	-1SD to -2SD	5 (10.00%)	-3SD	0 (0.00%)
Field Name	U ppm	Count	50	Coeff. of Variation	0.0380	Expected to +1SD	16 (32.00%)	1SD to 2SD	10 (20.00%)	Outside 3SD	0 (0.00%)
Action Level	68.2700	Median	822.0000	Kurtosis	1.0413	Expected	0 (0.00%)	+2SD to +3SD	2 (4.00%)		
Groups	50	Mode	813.0400	Skewness	0.4714	Expected to -1SD	21 (42.00%)	-2SD to -3SD	1 (2.00%)		
Group Size	1	Mean	823.4600	Range	173.0000	Inside 1SD	37 (74.00%)	2SD to 3SD	3 (6.00%)		
Ref Mean	825.00	Std Dev	31.2607	Minimum	743.0000	+1SD to +2SD	5 (10.00%)	+3SD	0 (0.00%)		

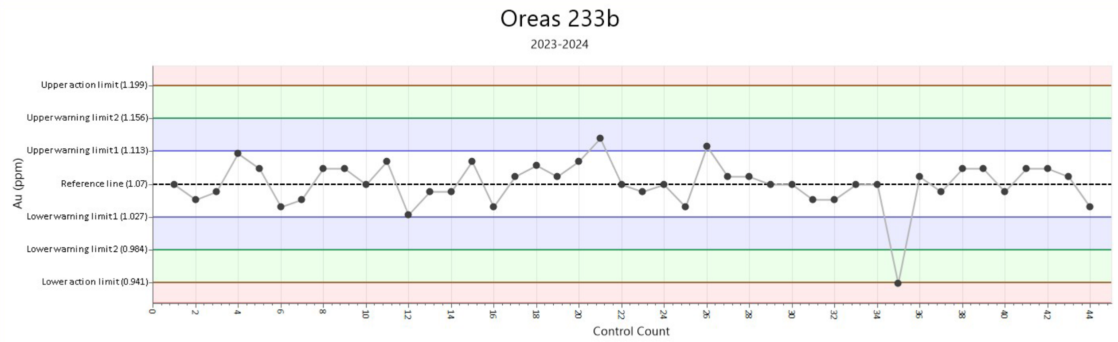
Figure 11.7 Results for Standard 123



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Ref Std Dev	90.00	Variance	5528.0303	Maximum	1895.0000	-1SD to -2SD	4 (12.12%)	-3SD	0 (0.00%)
Field Name	U ppm	Count	33	Coeff. of Variation	0.0424	Expected to +1SD	9 (27.27%)	1SD to 2SD	7 (21.21%)	Outside 3SD	0 (0.00%)
Action Level	68.2700	Median	1755.0000	Kurtosis	-0.1375	Expected	0 (0.00%)	+2SD to +3SD	0 (0.00%)		
Groups	33	Mode	1683.1000	Skewness	-0.2309	Expected to -1SD	15 (45.45%)	-2SD to -3SD	2 (6.06%)		
Group Size	1	Mean	1754.6970	Range	305.0000	Inside 1SD	24 (72.73%)	2SD to 3SD	2 (6.06%)		
Ref Mean	1779.00	Std Dev	74.3507	Minimum	1590.0000	+1SD to +2SD	3 (9.09%)	+3SD	0 (0.00%)		

Figure 11.8 Results for Standard 124

Oreas 233b has been used as a gold CRM, which has only one instance of reporting more than 2SD but less than 3SD from the CV. The CRM has performed well, with a mean assay result of 1.071 ppm Au, which is within the specified range of the certified grade, indicating reliability in the fire assay method used for Au.



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples	Count	44	Kurtosis	6.5169	Expected to -1SD	15 (34.09%)	2SD to 3SD	0 (0.00%)
Field Name	Au ppm	Median	1.0700	Skewness	-1.6868	Inside 1SD	41 (93.18%)	+3SD	0 (0.00%)
Action Level	0.0000	Mode	1.0710	Range	0.1900	+1SD to +2SD	2 (4.55%)	-3SD	1 (2.27%)
Groups	44	Mean	1.0708	Minimum	0.9400	-1SD to -2SD	0 (0.00%)	Outside 3SD	1 (2.27%)
Group Size	1	Std Dev	0.0300	Maximum	1.1300	1SD to 2SD	2 (4.55%)		
Ref Mean	1.07	Variance	0.0009	Expected to +1SD	18 (40.91%)	+2SD to +3SD	0 (0.00%)		
Ref Std Dev	0.04	Coeff. of Variation	0.0280	Expected	8 (18.18%)	-2SD to -3SD	0 (0.00%)		

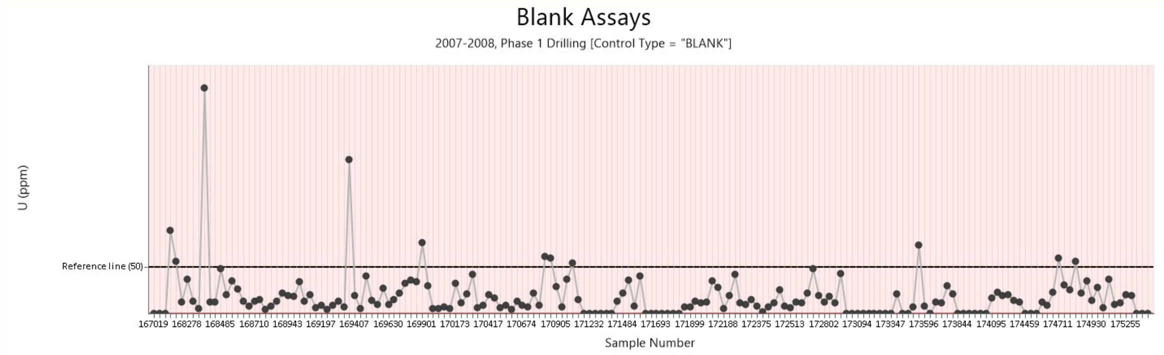
Figure 11.9 Results for Standard 233b

11.2.4.2 Blanks

11.2.4.2.1 2007-2012

From 2007 to 2012, blanks were prepared from half core samples obtained from exploration drillholes of equivalent material (Westmoreland Conglomerate). Blanks of this nature were selected using a scintillometer to obtain samples having less than 50 ppm U (56 ppm U_3O_8). Samples were then stored in a drum before being inserted into the sampling sequence. Blanks were generally inserted within the mineralised intervals of each drill hole.

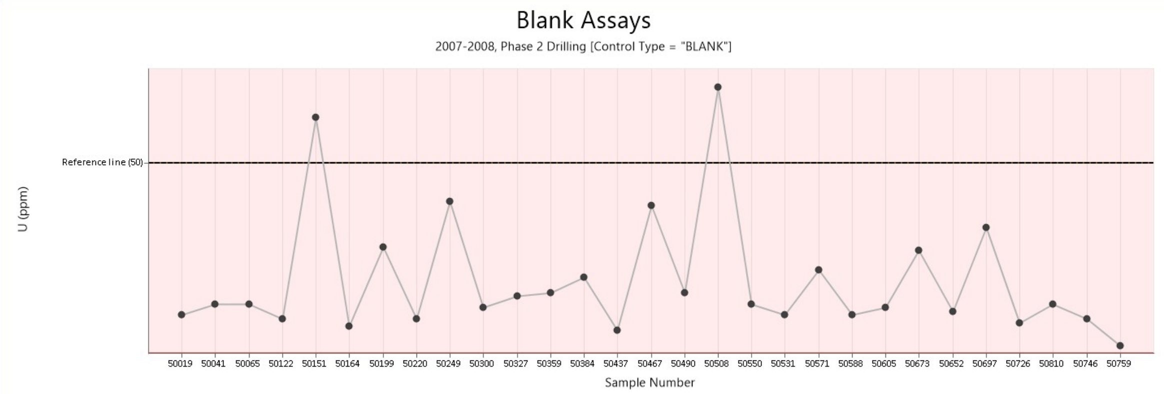
A total of 179 blanks were analysed during the first phase of drilling 2007 to 2008 (Figure 11.10). Some 92% of the blanks returned values less than 50 ppm U. Eleven samples returned values greater than 50 ppm U. Six of these results were returned from the first two sample batches. Investigation of these results by re-assay of coarse splits and examination of samples indicated that some weakly mineralised material had been included in the blanks drum. Subsequently, each blank sample was screened individually before being sent to the laboratory.



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM 0708 P1 Samples	Count	179	Kurtosis	34.7328	Expected to -1SD	0 (0.00%)	2SD to 3SD	0 (0.00%)
Field Name	U ppm	Median	12.0000	Skewness	4.9398	Inside 1SD	0 (0.00%)	+3SD	11 (6.15%)
Action Level	0.0000	Mode	0.7500	Range	242.7500	+1SD to +2SD	0 (0.00%)	-3SD	168 (93.85%)
Groups	179	Mean	18.0335	Minimum	0.2500	-1SD to -2SD	0 (0.00%)	Outside 3SD	179 (100.00%)
Group Size	1	Std Dev	26.1259	Maximum	243.0000	1SD to 2SD	0 (0.00%)		
Ref Mean	50.00	Variance	682.5635	Expected to +1SD	0 (0.00%)	+2SD to +3SD	0 (0.00%)		
Ref Std Dev	26.13	Coeff. of Variation	1.4487	Expected	0 (0.00%)	-2SD to -3SD	0 (0.00%)		

Figure 11.10 Phase 1, Drilling 2007 – 2008, Blank Assay Results

The second phase of drilling in 2007 – 2008, aimed to use blank material with concentrations closer to the detection limit (Figure 11.11). Core consisting of sandstone and conglomerate of the Westmoreland Conglomerate was selected from exploration drillholes and 29 representative samples sent for analysis. A comparison of blanks assayed during the second phase of drilling with the previous sample in the sequence was undertaken (Figure 11.12).



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM 0708 P2 Samples	Ref Std Dev	16.09	Variance	258.8374	Maximum	70.0000	-1SD to -2SD	0 (0.00%)	-3SD	27 (93.10%)
Field Name	U ppm	Count	29	Coeff. of Variation	0.8407	Expected to +1SD	0 (0.00%)	1SD to 2SD	0 (0.00%)	Outside 3SD	29 (100.00%)
Action Level	0.0000	Median	13.0000	Kurtosis	2.8971	Expected	0 (0.00%)	+2SD to +3SD	0 (0.00%)		
Groups	29	Mode	13.5000	Skewness	1.8582	Expected to -1SD	0 (0.00%)	-2SD to -3SD	0 (0.00%)		
Group Size	1	Mean	19.1379	Range	68.0000	Inside 1SD	0 (0.00%)	2SD to 3SD	0 (0.00%)		
Ref Mean	50.00	Std Dev	16.0884	Minimum	2.0000	+1SD to +2SD	0 (0.00%)	+3SD	2 (6.90%)		

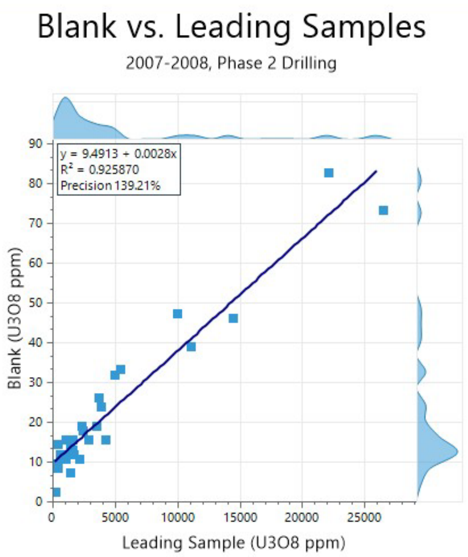
Figure 11.11 Phase 2, Drilling 2007 – 2008, Blank Assay Results

The comparison shows very low-level contamination for blanks inserted after samples having a grade less than 4,000 ppm U_3O_8. For these samples the level of contamination is considered to be less than 10 ppm U_3O_8.

For blanks inserted following samples having a grade of about:

- 5,000 ppm U_3O_8 there is about 35 ppm (0.6%) contamination.
- 10,000 ppm U_3O_8 there is about 45 ppm (0.5%) contamination.
- 20,000 ppm U_3O_8 (i.e. 2% grade) is about 50 to 75 ppm (0.4%) contamination.

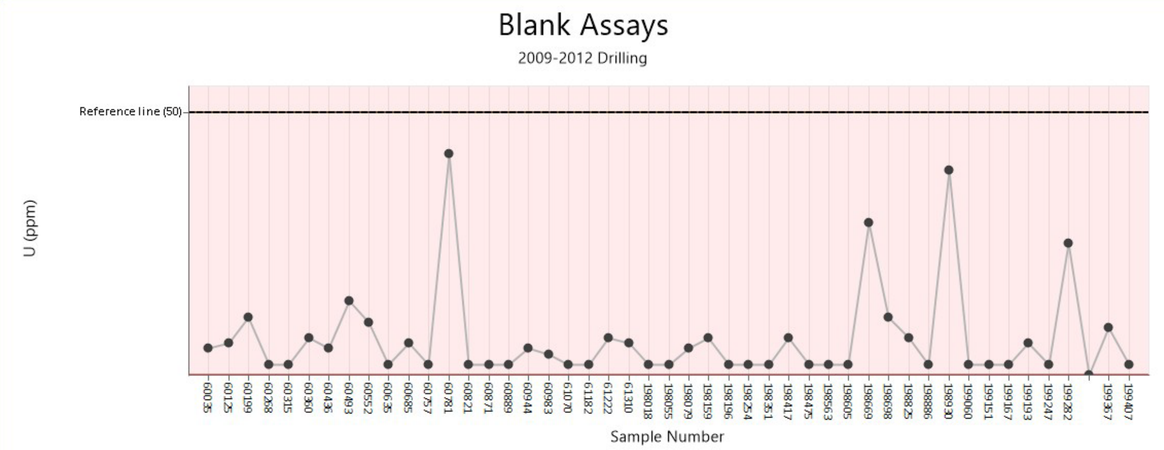
It should be noted that the precision of the analytical technique for grades above 10,000 ppm is 100 ppm which is greater than the indicated level of contamination.



Number of Pairs	29	Corr Coeff (R)	0.962	**X: U3O8 ppm Leading**		Variance	41670517	Min	2.358
Model Type	Linear	R^2	0.926	Count	29	Std Dev	6455	Max	82.544
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.898	Mean	4624.009	**Y: U3O8 ppm Blank**		Variance	360
b0	9.491298	Precision %	139%	Min	227.586	Count	29	Std Dev	19
b1	0.0028279	X Var / Y Var	115778	Max	26532.000	Mean	22.567		

Figure 11.12 Low Level Contamination in Blanks, Phase 2 Drilling, 2007 – 2008

The method of utilising half core samples obtained from exploration drillholes of equivalent material was used up until 2012, with 47 blanks inserted during these programs (Figure 11.13).



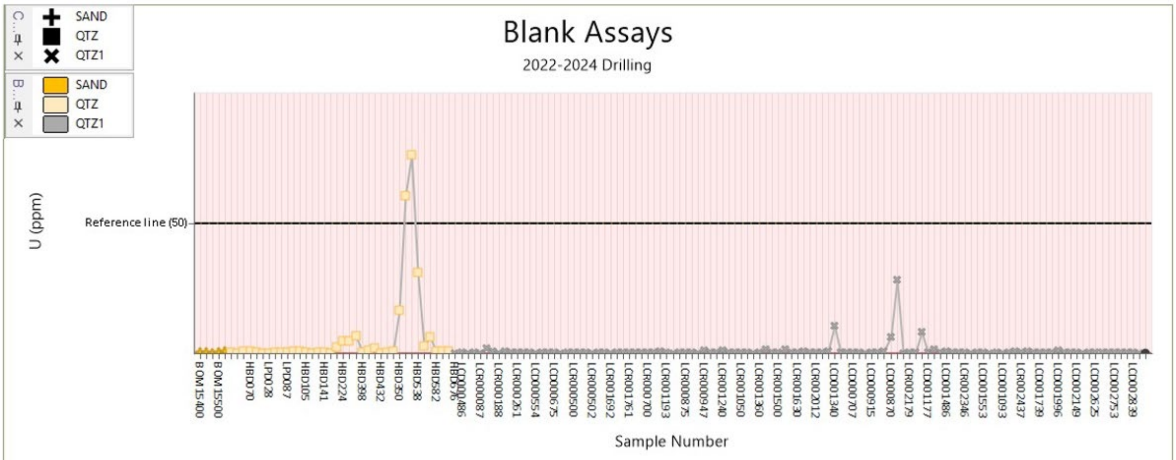
File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples 09-24	Median	2.0000	Range	42.0000	-1SD to -2SD	0 (0.00%)
Field Name	U ppm	Mode	2.1000	Minimum	0.0000	1SD to 2SD	0 (0.00%)
Action Level	0.0000	Mean	6.7872	Maximum	42.0000	+2SD to +3SD	0 (0.00%)
Groups	47	Std Dev	9.0912	Expected to +1SD	0 (0.00%)	-2SD to -3SD	0 (0.00%)
Group Size	1	Variance	82.6494	Expected	0 (0.00%)	2SD to 3SD	0 (0.00%)
Ref Mean	50.00	Coeff. of Variation	1.3395	Expected to -1SD	0 (0.00%)	+3SD	0 (0.00%)
Ref Std Dev	9.09	Kurtosis	6.7076	Inside 1SD	0 (0.00%)	-3SD	47 (100.00%)
Count	47	Skewness	2.6840	+1SD to +2SD	0 (0.00%)	Outside 3SD	47 (100.00%)

Figure 11.13 Drilling 2009-2012, Blank Assay Results

In summary the analysis of blank/low grade samples submitted throughout the 2007-2012 drilling programs indicates that laboratory cross sample contamination is within acceptable limits and considered inconsequential.

11.2.4.2.2 2022-2024

In 2022, unconsolidated play sand acquired from a local homeware store was utilised as a blank material (SAND). It was recognised that unconsolidated sands would be unlikely to pass through the first mass reduction phase at the laboratory's preparation facilities and so would not be testing the whole circuit. In 2023, a new coarse pebble quartz material was acquired (QTZ). Due to supply limitations, in 2024 a new pebble coarse blank material was sourced from a new provider (QTZ1). A total of 153 blanks were inserted across the various drill programs from 2022-2024, 96.7% of which reported <10ppm U (Figure 11.14).



File Name	Working\LCR DB_MXD_All\QAQC Plots\LAM_Samples 09-24_resource restricted	Median	0.3000	Range	76.1500	-1SD to -2SD	0 (0.00%)
Field Name	U ppm	Mode	0.2100	Minimum	0.0500	1SD to 2SD	0 (0.00%)
Action Level	0.0000	Mean	2.0683	Maximum	76.2000	+2SD to +3SD	0 (0.00%)
Groups	153	Std Dev	8.5951	Expected to +1SD	0 (0.00%)	-2SD to -3SD	0 (0.00%)
Group Size	1	Variance	73.8749	Expected	0 (0.00%)	2SD to 3SD	0 (0.00%)
Ref Mean	50.00	Coeff. of Variation	4.1556	Expected to -1SD	0 (0.00%)	+3SD	2 (1.31%)
Ref Std Dev	8.60	Kurtosis	49.1757	Inside 1SD	0 (0.00%)	-3SD	151 (98.69%)
Count	153	Skewness	6.7713	+1SD to +2SD	0 (0.00%)	Outside 3SD	153 (100.00%)

Figure 11.14 Drilling 2022-2024, Blank Assay Results

Coarse blank control samples reporting greater than 5 ppm U were reviewed on a case-by-case basis, taking into consideration the blank sample size and leading sample grades. In each case, the preceding three leading sample grades and weights were reviewed under a 1% sample preparation carry-over limit as per the equation below. The same formula is used by ALS to discern acceptable carryover, and/or trigger further in-laboratory investigations where required.

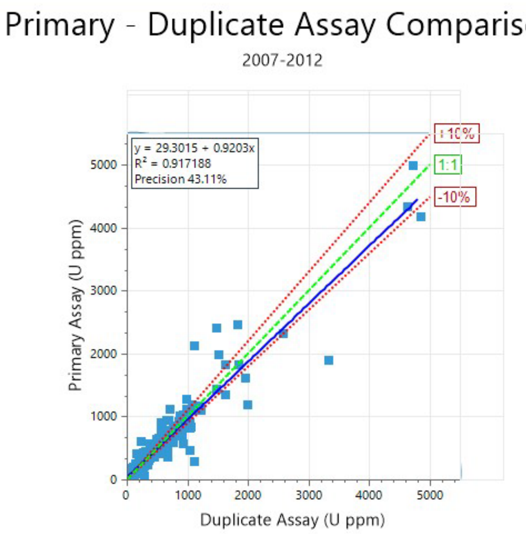
$$Blank\ Result = \frac{((Result\ prior\ to\ sample\ \times Carry\ over\ weight) + (Expected\ blank\ results\ \times Blank\ sample\ weight))}{(Carry\ over\ weight + Blank\ sample\ weight)}$$

In summary the analysis of blank/low grade samples submitted throughout the 2022-2024 drilling programs indicates that laboratory cross sample contamination is within acceptable limits and considered inconsequential.

11.2.4.3 Duplicates

11.2.4.3.1 2007-2012

A total of 294 primary duplicates were sampled during the 2007 to 2012 drilling programs (Figure 11.15) which displays the greatest variation in paired results, this is not unexpected and is within accepted tolerances. Primary duplicates were made up of the remaining ½ core, after the primary sample was collected.

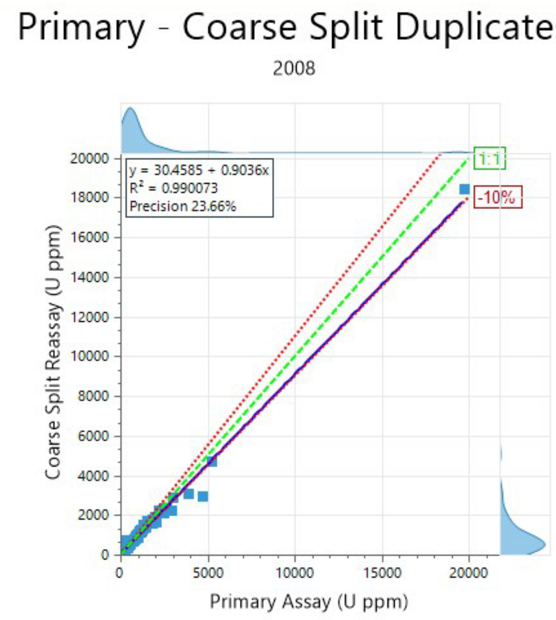


Number of Pairs	294	Corr Coeff (R)	0.958	**X: Duplicate sample result**		Variance	384867	Min	8.0
Model Type	Linear	R^2	0.917	Count	294	Std Dev	620	Max	4980.0
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.964	Mean	414.2	**Y: Original sample result**		Variance	355406
b0	29.30149	Precision %	43%	Min	8.0	Count	294	Std Dev	596
b1	0.9203141	X Var / Y Var	1.08	Max	4860.0	Mean	410.5		

Figure 11.15 Primary Duplicate Assay Comparison, 2007-2012

11.2.4.3.1.1 Coarse Split Residue Duplicates

A total of 100 samples of retained coarse material from initial jaw crushing were resubmitted as duplicates from 2008 drillholes. The comparison of uranium assays between the primary and sample and the coarse split duplicate is presented in the following graph (Figure 11.16). The comparison shows a generally good correlation indicating good repeatability. The regression line indicates a positive bias towards the primary sample over the coarse split residue re-assayed. However, it is thought this has been skewed by a handful of high-grade samples and is not considered significant.



Number of Pairs	100	Corr Coeff (R)	0.995	**X: Parent U ppm**		Variance	4416984	Min	24
Model Type	Linear	R^2	0.99	Count	100	Std Dev	2102	Max	18400
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.976	Mean	1174.18	**Y: U ppm**		Variance	3642615
b0	30.45854	Precision %	24%	Min	23	Count	100	Std Dev	1909
b1	0.9036021	X Var / Y Var	1.21	Max	19800	Mean	1091.45		

Figure 11.16 Comparison of Coarse Split Duplicates, 2008

11.2.4.3.2 2022-2024

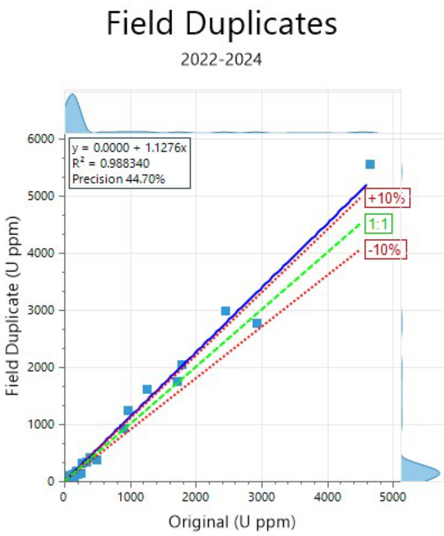
During the 2022-2024 field programs, 132 duplicates pairs were nominated across each of the mass reduction phases including the ALS processing circuit; field, coarse or pulp duplicates.

11.2.4.3.2.1 Field Duplicates

A total of 61 primary field duplicates were sampled during the 2022 to 2024 drilling programs (Figure 11.17). The field duplicate pairs display the greatest variation in paired results, which is not unexpected and is only just beyond a +10% tolerance. Primary field duplicates were made up of the ¼ cut core, after the primary sample was collected.

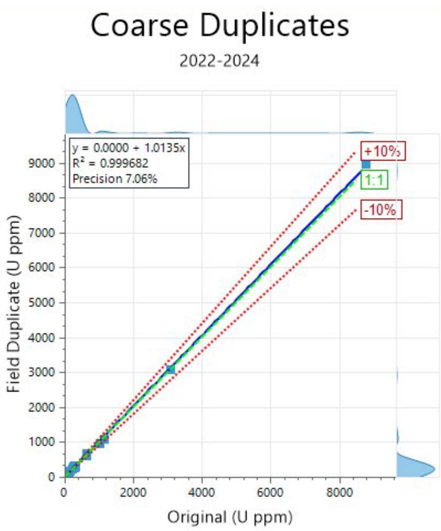
11.2.4.3.2.2 Coarse Split Residue Duplicates

A total of 36 coarse split residue duplicates were sampled during the 2022 to 2024 drilling programs (Figure 11.18). Samples of retained coarse material from initial jaw crushing were resubmitted as duplicates. The coarse duplicate pairs from 2022-2024 indicate strong repeatability and in hand strong laboratory performance at their first mass reduction phase in the ALS processing circuit.



Number of Pairs	61	Corr Coeff (R)	0.994	**X: Original sample result**		Variance	664765	Min	1.2
Model Type	Linear	R^2	0.988	Count	61	Std Dev	815	Max	5540.0
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.991	Mean	334.2	**Y: Duplicate sample result**		Variance	867205
b0	0	Precision %	45%	Min	1.1	Count	61	Std Dev	931
b1	1.127557	X Var / Y Var	0.767	Max	4650.0	Mean	361.3		

Figure 11.17 Primary Field Duplicate Assay Comparison, 2022-2024

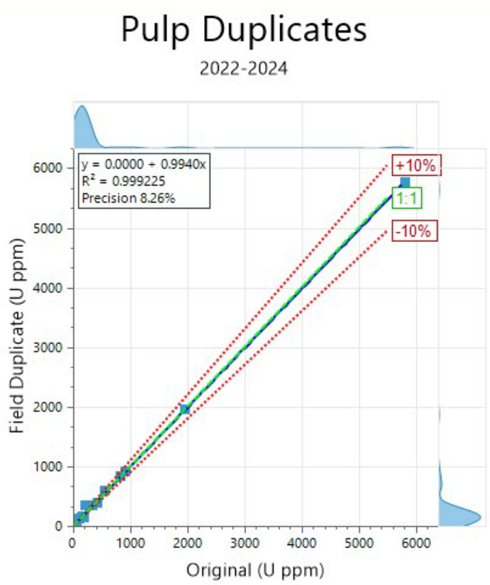


Number of Pairs	36	Corr Coeff (R)	1	**X: Original sample result**		Variance	2317467	Min	2.6
Model Type	Linear	R^2	1	Count	36	Std Dev	1522	Max	8950.0
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.996	Mean	511.0	**Y: Duplicate sample result**		Variance	2389735
b0	0	Precision %	7.06%	Min	2.6	Count	36	Std Dev	1546
b1	1.013467	X Var / Y Var	0.97	Max	8780.0	Mean	509.8		

Figure 11.18 Comparison of Coarse Split Duplicates, 2022-2024

11.2.4.3.2.3 Pulp Duplicates

A total of 35 pulp duplicates were tested during the 2022-2024 drill programs. A second aliquot of the pulp material was spilt at the final mass reduction phase, to make a comparison between two pulp duplicates and test the laboratory's analytical reproducibility. The comparison between these pulp duplicate pairs is presented in Figure 11.19. The comparison indicates a strong performance in the laboratory's analytical precision under the ME-MS61 method of analysis for uranium.

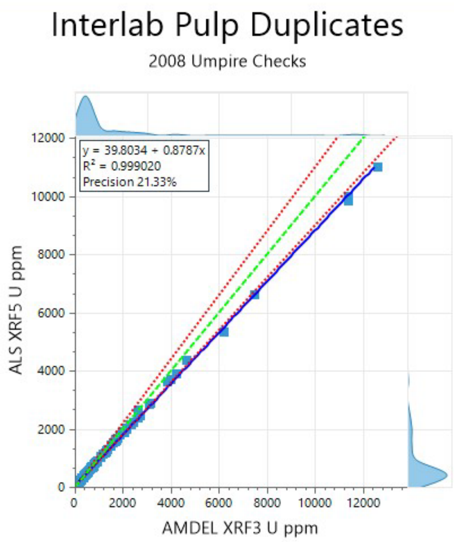


Number of Pairs	35	Corr Coeff (R)	1	**X: Original sample result**		Variance	1044153	Min	2.6
Model Type	Linear	R^2	0.999	Count	35	Std Dev	1022	Max	5760.0
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.998	Mean	354.5	**Y: Duplicate sample result**		Variance	1029169
b0	0	Precision %	8.26%	Min	2.7	Count	35	Std Dev	1014
b1	0.9939879	X Var / Y Var	1.01	Max	5810.0	Mean	356.9		

Figure 11.19 Comparison of Pulp Duplicates, 2022-2024

11.2.4.3.2.4 Inter-laboratory Checks

144 pulp duplicates originally sent to ALS (Mt Isa) during the 2007-2008 drilling program were re-submitted to AMDEL Laboratories in Mount Isa for uranium analysis (XRF). A comparison of the two sets of analyses is presented in Figure 11.20. A review of these 144 inter-laboratory checks indicates that ALS potentially under reports in comparison to AMDEL. However, given the performance of all other controls, it was not considered that this variance warranted further investigations but has been noted, particularly as it is only just beyond a -10% tolerance. No inter-laboratory checks have been conducted on sampled material collected from 2022-2024.



Number of Pairs	144	Corr Coeff (R)	1	**X: Parent U ppm**		Variance	3762553	Min	121
Model Type	Linear	R^2	0.999	Count	144	Std Dev	1940	Max	11000
Model	$y = b_0 + b_1x$	Rank Corr Coef (%)	0.999	Mean	1130.8402777777778	**Y: AMDEL XRF3 ppm U**		Variance	2908004
b0	39.80345	Precision %	21%	Min	131	Count	144	Std Dev	1705
b1	0.8787056	X Var / Y Var	1.29	Max	12600	Mean	1033.4791666666667		

Figure 11.20 Comparison of Inter-Laboratory Repeats, 2008

11.2.5 Discussion

The QP considers that Laramide's exploration programs have been well executed and managed with particular attention to detail. While there are minor signs of contamination in blank material the concentrations are not of material concern. Precision and Accuracy appear suitable for use in Mineral Resource Estimation.

12 Data Verification

Mr. Siddle, the QP, completed a site visit to the project area between the 21st and 23rd of January 2025, and inspected representative sections of drill core, visited rehabilitated drill sites and inspected selected outcrop geology. Mineralization is clearly visible in drill core and inspection of assay results against the drill core with the aid of Laramide's a Exploranium G-110 scintillometer served to confirm the depth and relative grade of the reported results. The Qualified Person has had sight of Laramide's laboratory assay certificates although he has not completed a laboratory inspection. The QP has also been involved in periodic discussion with Laramide's exploration team since 2022.

No drill core from previous explorers is available for inspection as it was disposed of by CRA. The QP has had inspected the Microsoft Access databases which Laramide inherited with the property along with various company reports. By for the greatest support for the legacy data was the drilling undertaken by Laramide which serves to confirm the tenor of grade and thickness seen in legacy data. During this time historic collars at Redtree were located and surveyed.

The QP worked for Laramide as an exploration geologist on the project in 2007 and 2008 and has firsthand knowledge of the drilling in those periods. He is now independent of the issuer and has been since January 2009.

While there cannot be absolute certainty in the historical data, the QP considers it suitable for use in Mineral Resource estimation.

13 Mineral Processing and Metallurgical Testing

Previous Metallurgical Testwork is summarized from (Vigar and Jones, 2016) as follows.

13.1 Introduction

Metallurgical testwork programmes and evaluations have been carried out on the Westmoreland deposit by various laboratories over several decades. These include AMDEL 1989, ANSTO 1992, 93, 94, 95, and 2011, JKTech 1993, and SGS 2008. The evaluation and interpretation of results reported here is based largely on the most recent ANSTO 2011 report, with reference to other sources as noted. This work has been reviewed by Lycopodium's Process Consultant (Mr Grenvil Dunn). Key relevant aspects of the report together with Lycopodium's comments are extracted and included in the sections that follow.

13.2 Previous Metallurgical Testwork

R. Nice (2012) undertook a review of the past testwork performed on the Westmoreland prospect. A brief summary of his findings are presented here.

13.2.1 Comminution

Very little comminution testwork has been done. Some comminution testwork was reported by JKTech 1993 - *"Crushing Simulations for a Uranium Heap leach Project", JKTech (JKMRC Commercial Division), May 1993*. The results are presented in Table 13.1.

Table 13.1 Comminution Test Results

Material	Bond Ball Work Index kWh/t	JK Parameters		
		A	b	Ab
Oxide	17.2	69.8	2.1	146.6
Fresh	19.4	79	1.8	142.2

The Bond ball work index values and the JKtech A and b parameter results are contradictory, suggesting that the tests were performed on different samples. In the ANSTO 2011 report, reference is made to the samples as competent ore, producing little fines during crushing, and consequently, for the purpose of the scoping study the Bond Ball mill results have been accepted as representative.

13.2.2 Heap Leaching

Early testwork conducted by ANSTO and AMDEL looked at heap leaching techniques. The use of heap leaching was discounted by LAM for good reason; the extractions of the Fresh material were very low.

Table 13.2 Heap Leach Test Results

Material	Leach Time Days	Extraction %	Size % -300 um	Acid kg/t	Peroxide kg/t
Oxide	34	92 – 93	9.3	4.2	0.6
Fresh	44	77 – 78	8.7	12.9	1.1

13.2.3 Agitated Leach Testwork

ANSTO previously carried out extensive leaching testwork and mineralogy on ore samples from several deposits in the Westmoreland area in 1992 to 1995. The testwork conditions used concentrated sulphuric acid (H_2SO_4) as the leachate, and hydrogen peroxide (H_2O_2) as the oxidant. The standard conditions were:

- Temperature: 40°C
- pH: 1.5
- ORP: 475 mV
- Slurry density: 55% w/w
- Grind size: ~35% - 75 µm.

Some optimisation tests were conducted looking at changes to each of these variables. The four separate samples tested were a low grade oxide, a low grade fresh, a high grade oxide, and a high grade fresh. The optimisation tests were conducted on a 1:1 blend of low and high grade oxide materials. Table 13.2.3 summarises the various agitated leach test results.

13.2.4 Solid Liquid Separation

Limited settling and filtration tests were carried out by ANSTO on slurries from Junnagunna and Redtree generated in the laboratory program at the base case grind of P_{80} = 250 µm and 30°C (pH 1.5, 500 mV). The batch tests were performed in a 1 L measuring cylinder. Magnafloc E10 at a concentration of 0.025 wt% was the flocculant used.

These preliminary flocculant and thickener requirements indicate that solid / liquid separation will not be an issue.

13.2.5 U_3O_8 Recovery

The early IX testwork looked at two ion exchange resins both of which performed well. The resin loaded to about 60 g/L of wet settled resin (g/L wsr) with U recovery of about 76%. About 20 bed volumes (BV) of liquor were treated before the uranium in the barren solutions started to climb (breakthrough). Elution of the resin was also tested and about 12 BV of 1 molar (M) sodium chloride (NaCl) and 0.1 M sulphuric acid eluant was used. The resulting eluate solution was relatively clean with only phosphorus and arsenic as significant impurities. SX tests were conducted and the extraction rates were very good after three stages of extraction. A test of UOC production by direct precipitation was conducted on the leach solutions using hydrogen peroxide. The precipitate produced contained 53% U_3O_8 equivalent with very high amounts of iron (4.6% Fe) and aluminium (6.4% Al) suggesting that direct precipitation would not be technically viable.

Table 13.3 Agitated Leach Test Results – Blend Low and Hight Grade Oxides

Grind % -75 ppm	Leach hrs	Slurry % Solids	Temp °C	Extraction %	pH	Acid kg/t	ORP mV	H_2O_2 kg/t	Oxidant
27	24	55	40	90.7	1.5	7.7	475	0.8	H_2O_2
36	24	55	40	92.5	1.5	9.5	475	1.2	H_2O_2
37	24	55	40	92.3	1.5	10.1	475	1.8	H_2O_2
41	24	55	40	93.0	1.5	10.3	475	2.1	H_2O_2
49	24	55	40	93.4	1.5	9.5	475	0.9	H_2O_2
36	24	55	40	98.2	0.5	26.4	475	1.2	H_2O_2
36	24	55	40	96.6	1.0	12.0	475	1.1	H_2O_2
36	24	55	40	92.5	1.5	9.5	475	1.2	H_2O_2
36	24	55	40	83.8	1.9	6.1	475	1.1	H_2O_2
36	24	55	40	83.0	1.5	10.5	270/337	1.2	None
36	24	55	40	92.5	1.5	9.5	475	1.2	H_2O_2
36	24	55	40	92.9	1.5	9.0	550	1.9	H_2O_2
36	24	55	40	95.6	1.5	8.3	479/530	1.2	H_2O_2/Fe^{3+}
36	24	55	40	93.6	1.5	14.2	478/485	3.1	pyrolysite
36	24	55	40	94.0	1.5	9.8	498/643	1.2	$NaC1O_3$
36	24	55	40	93.2	1.5	12.5	624/669	2.0	$NaC1O_3$
36	24	55	40	95.4	1.5	11.0	433/602	1.1	$NaC1O_3$
36	24	55	40	85.9	1.5	6.3	430/478	0.7	H_2O_2
36	24	55	30	91.3	1.5	9.3	475	1.0	H_2O_2
36	24	55	40	92.5	1.5	9.5	475	1.2	H_2O_2
36	24	55	60	96.1	1.5	9.8	475	1.1	H_2O_2
36	24	55	40	92.5	1.5	9.5	475	1.2	H_2O_2
36	24	65	40	94.3	1.5	11.0	475	1.7	H_2O_2
Average				**92.4**	**1.5**	**10.5**		**1.3**	**H_2O_2**

13.2.6 Product Preparation

One test investigated precipitation with ammonia-based compounds to produce an ammonium diuranate (ADU). Using ammonium hydroxide (NH_4OH) over 99.5% of the U_3O_8 equivalent was precipitated. The mean grade of the ADU was 78% U_3O_8 with the only significant impurity being arsenic at 1.2%. The product grade of 78% U_3O_8 equivalent is above the minimum specification of 65% U (76.6% U_3O_8). The arsenic level at 1.2% is well above the Cameco product specification of 0.05% with a reject level of 0.15% As. However, the Comurhex specification allows 1% As and rejects at 2.5% As. Further testwork is necessary to reduce this arsenic level.

13.3 ANSTO 2011 Metallurgical Testwork Program

For the most recent testwork (2011), ANSTO Minerals was requested to undertake a metallurgical test program on the extraction of uranium from four composite lens samples (Junnagunna, Redtree Upper, Redtree Lower and Jack) of the Westmorland deposit. The overall aim of this work was to obtain data on process options for the recovery of uranium. A conceptual design flowsheet, which comprises conventional acid leaching followed by IX or SX and uranium product recovery, was examined in this test program. Petrological SEM work and analysis was also undertaken by ANSTO as part of the metallurgical study.

The results were reported by ANSTO in the June 2011 document, *"The Extraction of Uranium from the Westmoreland Deposits"*. The following program formed the basis of the testwork:

- Undertake quantitative XRD on the four lens samples to identify the proportions of major/minor gangue minerals. Four selected leach residues were similarly assessed.
- Undertake dilute leach tests on samples from each lens to determine the limit for uranium extraction under typical and more severe leach conditions.
- Develop laboratory grind calibration curves for the Redtree and Junnagunna composites.
- Undertake a series of tests to determine optimum leaching conditions for the Redtree and Junnagunna composites.
- Carry out two to three slurry leach tests on a sample of Jack lens composite.
- SEM examination of four selected leach residues to assist in identifying any factors limiting uranium extraction during leaching.
- Prepare a "bulk" composite for leaching and for the generation of pregnant liquor for use in uranium recovery work.

- Undertake batch laboratory ion exchange equilibrium, loading and elution tests.
- Undertake batch laboratory solvent extraction equilibrium and stripping tests.
- Produce uranium oxide concentrates from the IX and SX routes.

The individual samples were crushed to <25 mm and then combined to prepare composites for each of the four lenses:

- Junnagunna Lens.
- Garee Upper Lens.
- Garee Lower Lens.
- Jack Lens.

The four crushed composite lens samples were split to provide sub-samples. One sub sample for each lens was used to determine size versus uranium distribution and to conduct scrubbing tests. A second sub-sample was crushed to <2 mm to provide samples for assay and leach testwork. The remaining sub-samples were retained.

13.3.1 Samples Tested

Four sets of samples were compiled by LAM from their 2008 drilling program for testwork by ANSTO. Table 13.4 summarises the make-up of these samples.

Table 13.4 Testwork Sample Details

Deposit	Drill Hole	From m	To m	Total m	U_3O_8 ppm	Weight kg
Junnagunna	JDD08-023	45	65	20	2,250	70
	JDD08-023	80	90	10	2,910	34
	JDD08-026	20	70	50	850	179
				80	**1,443**	**283**
Garee Upper Lens	WDD08-009	30	50	20	540	69
	WDD08-012	35	55	20	540	68
	WDD08-037	12	36	24	610	86
	WDD08-040	16	36	20	5,270	74
				84	**1,739**	**297**
Garee Lower Lens	WDD08-011	62	82	20	2,580	73
	WDD08-012	60	80	20	510	68
	WDD08-040	88	103	15	3,210	74
				55	**3,018**	**215**
Jack Lens	WDD08-054	11.5	20	18.5	90	35
	WDD08-055	0	25	25	1,050	69
				43.5	**727**	**104**

The samples were chosen to be representative intervals of specific recognizable lenses, which account for the majority of the resource base. Only limited leach testwork was done on the Jack Lens composite as it was considered to be surface oxidised ore.

The size by size analysis of each composite sample of crushed rock over the range 1 to 19 mm indicated that uranium was uniformly distributed in each size fraction, in proportion to the sample mass distribution, with a slight enrichment in the <1 mm fraction. Therefore, upgrading of ore could not be achieved by a size-based separation.

It was noted that the weighted average grades of the samples were well above the nominated "resource average" of 1,000 ppm U_3O_8 and consequently the samples were not strictly representative of the ore to be treated over the life of mine. None the less, the samples are considered to be sufficiently representative of the deposit for the purpose of a scoping study.

13.3.2 Mineralogy

LAM sent 20 samples from the 2008 drilling program to SGS Mineral Services (SGS) in Perth for mineralogical study. The results of this work indicated that uranium occurred predominantly as uraninite and coffinite with lesser torbenite and autunite. No ningyoite was identified.

Quantitative XRD indicated that quartz was the dominant gangue mineral in all ore samples. Its relative concentrations varied from 88 to 92 wt%. The minor constituents (less than 5% each) were illite, hematite, jarosite, chamosite and hydroxylapatite. Chamosite (Fe rich chlorite), an acid consuming mineral, was found in four ores, whereas hydroxylapatite was detected only in Junnagunna ore. The uranium-bearing minerals were not abundant enough to be detectable by XRD.

SEM analysis on leach residues showed other gangue minerals such as rutile / anatase (TiO_2), zircon ($ZrSiO_4$), monazite ($(Ce,La,Nd,Th)PO_4$), florencite ($(Ce,La)Al_3(PO_4)_2(OH)_6$), pyrite ($FeS_2$), galena (PbS), iron copper sulphide, copper sulphide and barite ($BaSO_4$) were also present in the samples. The U bearing minerals are closely associated with the quartz phases and, to a lesser degree, to the iron rich phases. In the near surface "weathered" profiles carnotite which is a potassium and vanadium oxide mineral is also present.

13.3.3 Scrubbing Tests

Following the crushing tests ANSTO assessed that the material was quite competent due to the surprisingly few 'fines' produced during crushing. On this basis, it was deemed that scrubbing would have no significant effect in any attempt to upgrade leach feed and no further testwork on scrubbing was performed.

13.3.4 Size-by-Size Deportment

Each composite was crushed to <25 mm and the screened with each fraction analysed for U. The results are shown in Table 13.5.

Table 13.5 Size-by-Size Uranium Distribution

Size mm	Junnagunna			Garee Lower			Garee Upper			Jack Lens		
	Weight	Uranium		Weight	Uranium		Weight	Uranium		Weight	Uranium	
	%	ppm	%	%	ppm	%	%	ppm	%	%	ppm	%
19	25.5	1,223	25.1	24.3	1,139	21.8	21.9	1,967	28.0	23.7	616	18.0
16	13.2	1,246	13.3	14.1	1,013	11.3	12.5	864	7.0	14.9	674	12.4
12.5	12.2	1,277	12.6	13.8	1,390	15.2	13.2	1,467	12.6	12.3	902	13.7
9.4	12.3	1,159	11.5	12.7	1,505	15.1	12.0	1,103	8.6	12.3	872	13.2
7.4	9.5	1,330	10.2	10.2	1,347	10.8	9.6	1,353	8.4	10.0	737	9.1
2.0	7.6	1,170	7.2	7.8	1,294	7.9	8.5	1,195	6.6	7.9	868	8.4
1.0	4.0	1,099	3.5	4.0	1,121	3.5	5.6	1,299	4.8	5.2	739	4.7
<1.0	15.7	1,321	16.7	13.0	1,399	14.4	16.5	2,246	24.1	13.8	1,209	20.6
Calc		1,241			1,269			1,543			812	
Assay		1,138			1,170			1,579			737	

There is very little upgrading on a size-by-size basis with U distributed on a similar basis to the particle size fraction. As a result, upgrading by screening would not be beneficial.

13.3.5 Grind Calibration

Comminution tests were not conducted during the recent programme. However, grind calibration tests were conducted to determine the time required to reduce the <2 mm material to four different size distributions equivalent to eighty percent passing (P_{80}=) 350, 250, 150, and 75 micron (µm) for the purpose of sample preparation.

13.3.6 Dilute Acid Leach Tests

ANSTO conducted dilute acid leach tests – two on each composite pulverised to determine the ultimate uranium extraction and provide an estimate of the propensity for gangue dissolution. The two tests per composite comprised:

1. A Base Case leach with pH at 1.5, temperature at 40 degrees Celsius (40°C) and an oxygen-reduction potential (ORP) of 500 millivolts (mV) by adding 1.5 g/L of ferric iron.
2. An Extreme Case leach with pH at 1.0, temperature at 60°C and an ORP of 500 mV by adding 1.5 g/L of ferric iron.

The results are summarised in Table 13.6. The uranium was readily leached with a similar high recovery of ~99% under either base case or extreme conditions. The relative dissolution of gangue can be assessed by comparing the concentrations of ions in the final dilute leach liquors. For the dilute base case conditions, the concentrations are relatively low, decreasing in the order Ca>Si>Al>K>Mg. Gangue dissolution was greatest for Garee Lower lens, and lowest for Jack Lens, noting that Fe dissolution could not be estimated because iron was added to the leach solution.

Table 13.6 ANSTO Dilute Leach Test Results

Lens	Base Case			Extreme Case		
	Head ppm[1]	Residue ppm[1]	Extraction %	Head ppm[1]	Residue ppm[1]	Extraction %
Junnagunna	1,370	14	99.0	1,370	9	99.3
Garee Lower	1,380	19	98.6	1,380	12	99.1
Garee Upper	1,862	21	98.9	1,862	14	99.2
Jack	929	22	97.6	929	14	98.5

Note 1. All values as U_3O_8 determined by DNA

13.3.7 Conventional Leach Tests

Conventional laboratory scale leach tests were then conducted on the composites. In addition, these tests were also optimised for acid addition, oxidant type and addition, temperature, and leach times. Sydney tap water was used in all tests as no site water was available. The following "base case" conditions were used based on previous historical testwork and general conventional acid leach conditions:

- Solids Density 55% solids by weight (w/w).
- Temperature 40°C.
- Leach Time 24 hrs.
- Grind Size Distribution P_{80} = 250 µm.
- Acidity (24hrs) pH = 1.5.
- ORP 500 mV.

The oxidant used by ANSTO in the laboratory was sodium permanganate. This oxidant is not used in operating plants but is used in the laboratory for convenience and ease of control. The results of these base case tests are summarised in Table 13.7.

Table 13.7 ANSTO Conventional Leach Test Results

Composite	Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t[1]
Junnagunna	1,370	34	97.5	20.6	1.6
Garee (Redtree)	1,704	59	96.5	17.1	1.6
Jack Lens	929	119	87.2	5.5	0.4

Note. 1. Sodium permanganate is an acid consumer in the leach being responsible for 1 kg per kg of oxidant applied.

The preliminary results are good for the two main composites the Jack Lens results less so. The Jack lens leaching tests are discussed in more detail in Section 13.3.13 below. The results confirmed that the ore is amenable to leaching with sulphuric acid. The leach kinetics indicate that leaching will be complete after 12 hours as shown in Figure 13.1.

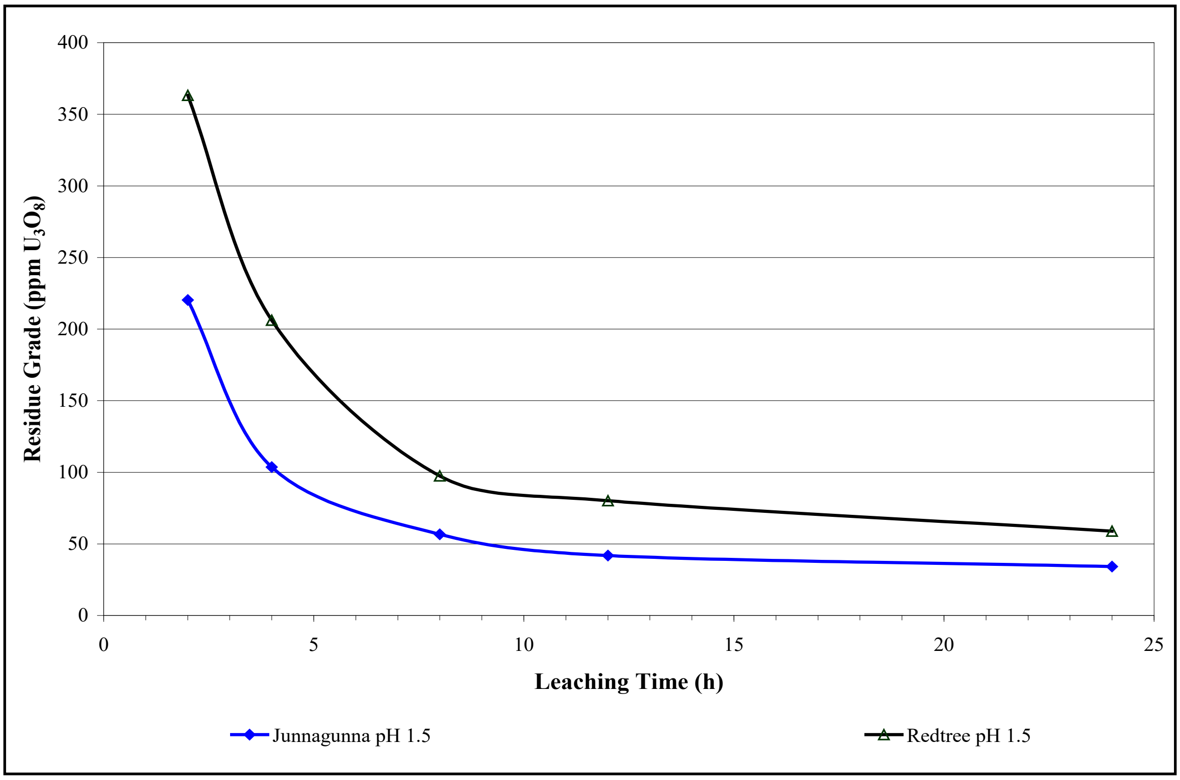


Figure 13.1 ANSTO Base Case Conventional Leach Test Kinetics

Optimisation tests were then undertaken to ensure the correct leach conditions were established. A total of 43 tests were conducted looking at a range of parameters, as indicated below.

Table 13.8 Range of Parameters

Grind Size P_{80} = µm	Acidity pH	Oxidant ORP mV	Oxidant Type	Temperature °C
350	2.0	450	Sodium permanganate	50
150	1.7	550	pyrolusite	30
75	1.3	450 + 1.0 g/L Fe^{3+}		

NB: Fe^{3+} indicates ferric iron added as ferric sulphate. Pyrolusite is a natural mineral containing about 75% manganese dioxide (MnO_2) and is commonly used by operating uranium extraction plants.

13.3.8 Effect of Grind Size

The effect of grind size on uranium extraction was examined at varying P_{80} grind sizes of 350, 250, 150, and 75 µm under base case conditions (pH 1.5, 40°C and ORP of 500 mV) for both the Junnagunna and Garee Redtree composites by holding pH, Temperature, ORP, and leach time constant. Table 13.9 summarises the results for both composites. As shown, grind size has very little effect on the leach extraction.

Table 13.9 ANSTO Grind Size Optimisation Leach Test Results

Grind Size P_{80} = µm	Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t[1]
Junnagunna	1,370				
350		40	97.1	18.8	1.4
250		34	97.5	20.6	1.6
150		41	97.0	19.4	1.5
75		27	98.1	19.8	1.7
Garee Redtree	1,704				
350		56	96.7	16.4	1.4
250		59	96.5	17.1	1.6
150		56	96.7	16.4	1.5
75		54	96.8	17.3	1.7

Note 1. Potassium Permanganate oxidant

13.3.9 Effect of pH

The effect of pH on leaching performance for Junnagunna and Redtree was examined in four tests. For Junnagunna, except for leaching at pH 2, 24 hr uranium extractions were very similar at pH 1.3 to 1.7. Optimum conditions were leaching at pH 1.5 to 1.7 for 12 hr. However for the Redtree ore, the extraction increased with decreasing pH. The 24 hr extraction increased from 92% to 98% when the leaching pH was decreased from pH 2.0 to pH 1.3. The pH also had an impact on the initial leaching rate. For this ore, optimum conditions were leaching for 12 hr at pH 1.3 to 1.5. For both ores, acid requirements were relatively low, with an acid addition of 20 kg/t sufficient at the "optimum" conditions. Thus, the Junnagunna composite is less sensitive to the acidity than the Garee Redtree composite, however both show that if the pH is held at 1.7 or lower, the extractions are quite good. Table 13.10 summarises the results for both composites.

Table 13.10 ANSTO Acidity Optimisation Leach Test Results

Acid pH	Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t[1]
Junnagunna	1,370				
2.0		52	96.2	9.8	1.2
1.7		36	97.3	14.7	1.5
1.5		34	97.5	20.6	1.6
1.3		28	97.9	25.0	1.7
Garee Redtree	1,704				
2.0		130	92.4	11.8	1.0
2.0		116	93.2	9.5	1.0
1.7		73	95.7	11.4	1.3
1.5		59	96.5	17.1	1.6
1.5		55	96.8	16.7	1.4
1.3		31	98.2	20.4	1.6

Note 1. Potassium Permanganate oxidant

13.3.10 Effect of Pulp Temperature

The effect of leaching temperature was investigated for Junnagunna and Redtree. These tests were carried out under similar base case conditions with temperature as the only variable. As expected, the uranium leaching rate increased with increasing temperatures from 30°C to 50°C. For both ores, leaching at 30°C significantly decreased the extraction rate, and to a lesser extent, the final extraction of uranium. The initial rate of leaching was reduced at 40°C, but extractions were quite similar to those at 50°C after 12 hours. Slurry pulp temperatures were varied while keeping other parameters constant. Table 13.11 summarises these results.

Table 13.11 ANSTO Slurry Treatment Optimisation Leach Test Results

Temperature °C	Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t[1]
Junnagunna	1,370				
30		55	96.0	14.3	1.1
40		34	97.5	20.6	1.6
50		27	98.0	24.1	1.8
Garee Redtree	1,704				
30		98	94.2	12.4	1.1
40		59	96.5	17.1	1.6
50		41	97.6	19.0	1.8

Note 1. Potassium Permanganate oxidant

Although temperature has a significant effect on the initial extraction rate, there is also a significant relative increase in the acid addition. At the highest temperature, after eight hours leaching, the rate of gangue dissolution, as reflected in the acid addition, is much greater than the decrease in the uranium residue grade. Whereas at 30°C, the relative rates of uranium and gangue dissolution are still reasonably favourable after 24 hours.

13.3.11 Effect of Oxidation Potential

The effect of ORP on the leaching of the Junnagunna and Redtree composites is summarised in Table 13.12.

Table 13.12 ANSTO ORP Optimisation Leach Test Results

ORP mV	Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t
Junnagunna	1,370				
550		28	97.9	18.3	1.8
500		34	97.5	20.6	1.6
500		38	97.2	20.0	2.9*
450		61	95.5	18.0	0.6
Garee Redtree	1,704				
550		44	97.4	17.5	1.8
500		59	96.5	17.1	1.6
500		53	96.9	17.0	2.8*
450		106	93.8	15.0	0.8

***Indicates substitution of pyrolusite for the potassium permanganate**

For both samples, there is a significant increase in oxidant demand for increasing the ORP from 450 to 500 mV, but only a further small addition is required to achieve 550 mV. The oxidant demand for both samples was very similar for both samples. Extraction is lower at the lowest ORP level of 450 mV. However, the differences between 500 mV and 550 mV are not so significant. The purpose of controlling ORP is to control the concentration of the ferric (Fe^{+3}) iron. As shown in Figure 13.3, at an ORP of 450 mV, the ferric ion concentration is <1g/L for much of the leach, while at the higher ORP levels the Fe^{+3} reaches as much as 2.5 g/,L enabling higher leach extraction kinetics.

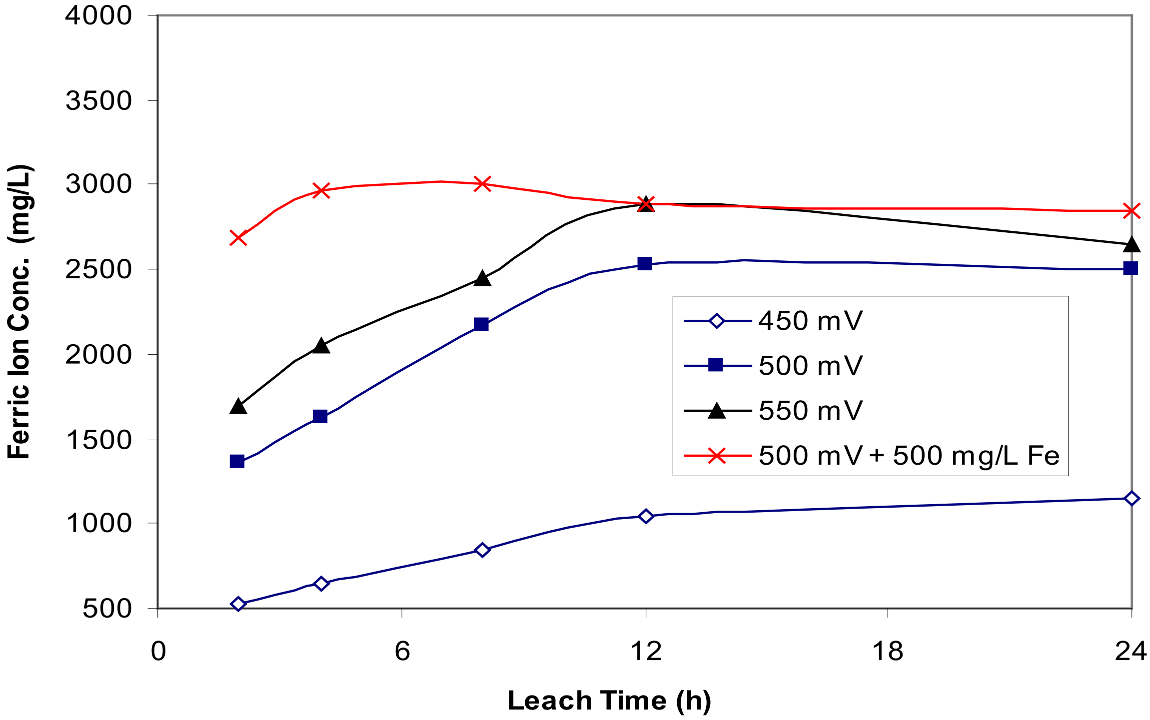


Figure 13.2 ANSTO Ferric Iron Concentrations Junnagunna Composite

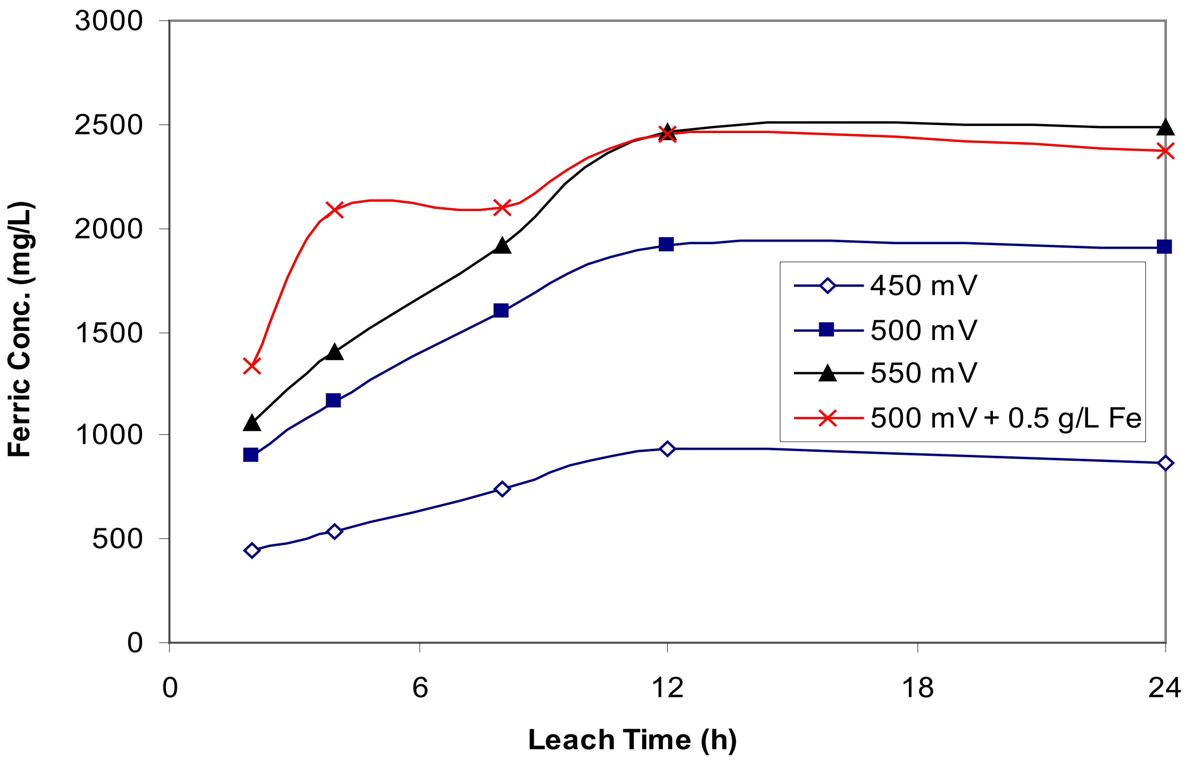


Figure 13.3 ANSTO Ferric Iron Concentrations Garee Redtree Composite

13.3.12 Effect of Oxidant Type

For ease of control in the laboratory, ANSTO used sodium and potassium permanganate in most leach tests. Base case leaches for Junnagunna and Redtree were also carried out using pyrolusite to demonstrate that both oxidants gave equivalent results. The leach kinetics for each composite with the two oxidants are almost identical, as shown in Figure 13.4. ANSTO calculated that a pyrolusite containing 75% MnO_2 would theoretically report a consumption of about 3.3 kg/t, which is close to the consumption experienced in the testwork.

Table 13.13 ANSTO Oxidant Comparison Leach Test Results

Composite	Oxidant Type	ORP 24 hrs mV	Head Grade ppm	Residue Grade ppm	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t
Junnagunna	Permang	485	1,370	34	97.5	20.6	1.6
	Pyroluste	481		38	97.2	20.0	2.9
Garee Redtree	Permang	477	1,704	59	96.5	17.1	1.6
	Pyrolusite	472		53	96.9	17.0	2.8

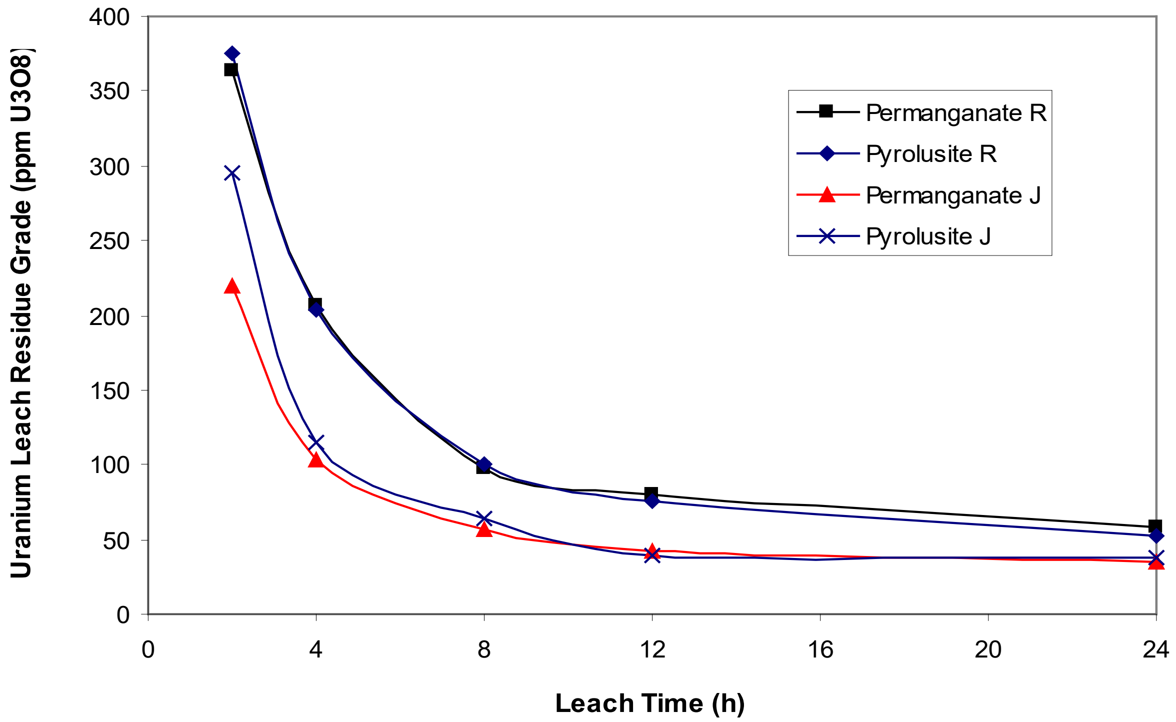


Figure 13.4 ANSTO Comparison of Oxidants Leach Kinetics

13.3.13 Leaching of Jack Lens Material

The Jack Lens composite material was tested separately from the Junnagunna and Garee composites because of the relatively small amount of this material expected to occur within the resources / reserves.

Initially, only one leach test was conducted on the Jack Lens material. These results were using "Base Case" conditions and are reported in Figure 13.4 and Table 13.14. The results were poor when compared to the Junnagunna and Garee results. Subsequently, some optimisation tests were conducted as summarised in Table 13.14. These tests were conducted at a constant 40°C, and a grind size distribution of P_{80} = 250 µm, except for one test at P_{80} = 150 µm, and all at 24 hours.

It is evident that to increase extraction from the Jack Lens material there will be a need to add ferric iron. Lowering the operating pH to 1.2 from 1.5 produced a better extraction than adding the ferric iron but almost doubled the acid addition. Lowering pH as well as adding ferric iron has no benefit and increases acid consumption. Reducing the grind size distribution also provides little benefit. The optimum conditions for Jack Lens would be either lower pH or the addition of ferric iron. ANSTO suggest that if Jack Lens was blended with the Junnagunna and/or Garee materials, the natural ferric from these materials would be enough to allow the Jack Lens extractions to improve. ANSTO recommended further work to identify methods of improving extraction on the Jack lens ore.

Table 13.14 ANSTO Jack Lens Optimisation Leach Test Results

ORP mV	pH	Ferric Add'n g/L	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t
500	1.5	0	119	87.2	5.5	0.37
500	1.2	0	79	91.5	9.8	0.28
500	1.5	1.0	83	91.0	4.0	0.14
500	1.2	1.0	81	91.3	8.9	0.11
500	1.5	1.0	82	91.2*	4.3	0.28

*** Indicates the grind size distribution of P_{80} = 150 µm**

13.3.14 Leach Liquor Composition

ANSTO analysed the leach liquor for major and minor element composition. The concentrations of the minors, and elements that could report to final product as penalty elements, e.g, Mo, V, Zr, are low. Arsenic was at the greatest concentration (especially from Redtree ore) and may warrant additional attention in regards to wastewater treatment. Ferric concentrations are reasonably high in Junnagunna and Redtree, which is a positive for leaching, but will result in some degree of iron loading if IX is used for uranium recovery. However, ANSTO note that none of the gangue element concentrations in solutions would be expected to result in downstream processing problems.

13.3.15 Leach Residues

ANSTO analysed the leach residues on a size-by-size basis, and it was determined that the U was well leached from all fractions when compared with the size-by-size analyses of the feed material. There is a slight decrease of extraction in the coarser particle sizes, but the differences are quite minor and do not warrant finer grinding to possibly allow more extraction. The uranium bearing minerals in the residues of Junnagunna and Redtree were predominantly enclosed within quartz. They did not appear altered by leaching. It is likely that the acid solution could not penetrate the enclosing quartz, since no liberated or partially exposed uranium minerals were found.

13.3.16 Bulk Leach Tests

LAM decided to have a bulk sample leached using a blended sample from the four lenses being investigated. A 70.4 kg sample was composited using the following mix:

- Junnagunna 22.3 kg.
- Garee Upper 13.5 kg.
- Garee Lower 13.5 kg.
- Jack 22.1 kg.

The leach parameters were as a result of the optimisation leach testwork:

- Grind Size P_{80} = 250 µm.
- Slurry Solids 55%.
- Duration 12 hrs.
- pH 1.5.
- ORP 550 mV.
- Oxidant pyrolusite.
- Temperature 40°C.

The assayed head grade of this composite was 1,360 ppm U_3O_8, compared with a calculated grade of 1,560 U_3O_8. Table 13.15 summarises the leach results.

Table 13.15 ANSTO Bulk Sample Leach Test Results

Head Grade ppm U_3O_8	Residue Grade ppm U_3O_8	Extraction %	Acid Add'n kg/t	Oxidant Add'n kg/t
1,360	52	96.2	23.7[1]	6.44

Note 1. 23% of the acid was employed to leach the oxidant

The uranium extraction was 96.2% for the bulk leach. This was below the extraction achieved on the Junnagunna and Redtree ores, but higher than the extraction achieved on Jack ore. From the three tests conducted under similar conditions on the individual ores the calculated extraction expected in the Bulk Leach is 95.6%. ANSTO considered that this increase may be due to the elevated ORP and iron levels enhancing the leaching of uranium from the Jack ore component of the composite. The acid consumption is higher than expected as was the oxidant consumption. Leach kinetics were as expected as shown in Figure 13.5.

ANSTO explain the higher acid and oxidant consumptions as due to the extra iron introduced by the mild steel grinding media used by Metcon when dry grinding the sample. The ORP was also held at a higher level for the bulk leach (550 mV) compared to the individual sample leaches (500 mV). The kinetics curve further confirms that 12 hours leach time should be adequate. The bulk leach liquors report much higher manganese due to the use of the pyrolusite as an oxidant.

In summary it can be said that the bulk leach tests was a strong confirmation of the individual sample testwork results and allows confident process design based on the results.

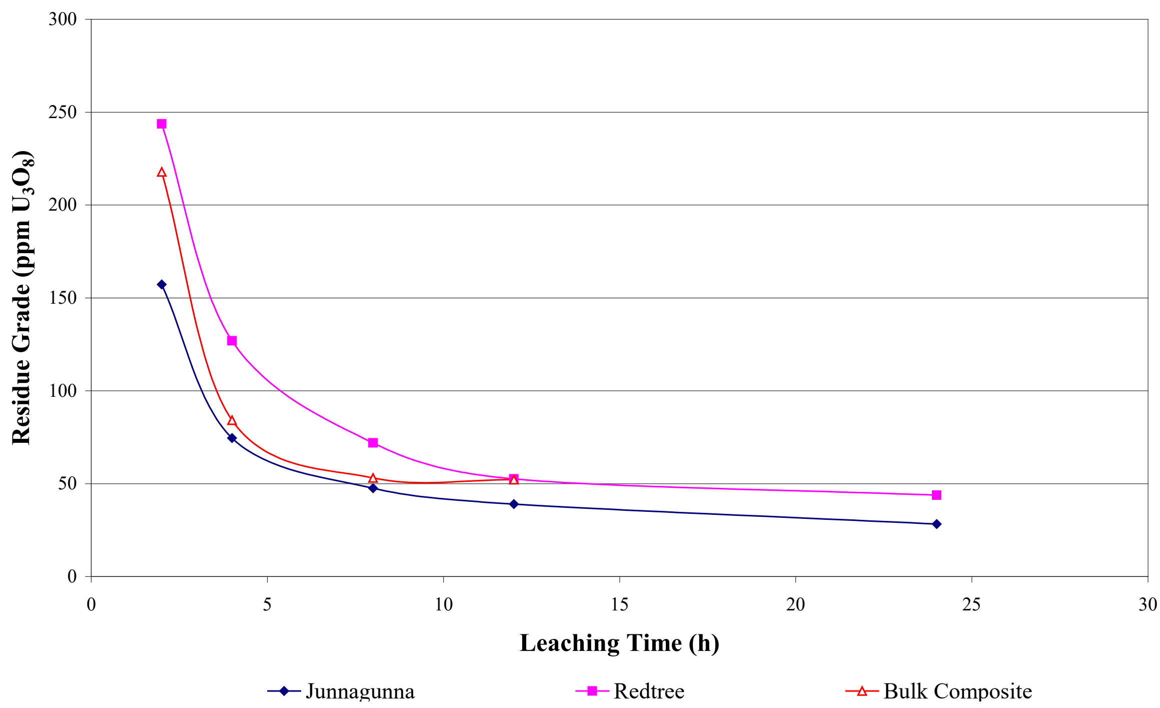


Figure 13.5 ANSTO Comparison of Bulk Leach Kinetics and Individual Sample Leach Kinetics

13.3.17 Settling and Filtration Tests

Vendor thickening and filtration tests were undertaken by FLSmidth on slurries from the bulk leach tests. ANSTO also undertook some batch cylinder settling tests. Table 13.16 summarises the FLSmidth and ANSTO test results. FLSmidth quoted an overflow solids concentration of less than 100 ppm.

Table 13.16 NSTO / FLSmidth Settling Test Results

Parameter	Units	FLSmidth g/L	ANSTO	
			Junnagunna	Garee
Feed Rate	tph	30	30	30
Feed Solids	% (w/w)	45	-	-
Feedwell Solids	% (w/w)	7.5	7.5	6.6
Flocculant Addition	g/t	50 – 100	62.5	71.6
Flocculant Type (Magnafloc)	-	800 HP	E10	E10
Rise Rate	m/h	4.1	-	-
Free Settling Rate	m/h	30	5.9	5.9
Expected Underflow Solids	% (w/w)	60 – 61	39.9	37.6
Underflow Stress Yield	Pa	14 – 19	-	-
Flux Rate	$t/m^2/h$	0.38	0.103	0.142
Thickener Diameter (at 30 tph)	M	10	19.3	16.4
Thickener Diameter (at 125 tph)	M	20	-	-

13.3.17.1 Filtration Tests

FLSmidth conducted some preliminary filtration tests using the thickened samples from the settling tests. At a feed percent solids of 60%, the filtering rate was 0.472 $t/m^2/h$.

13.3.18 Pulp Rheology

FLSmidth conducted viscosity tests at various slurry pulp densities as well as determining the stress versus shear rate relationship. Figure 13.6illustrates the shear rate versus shear stress relationship.

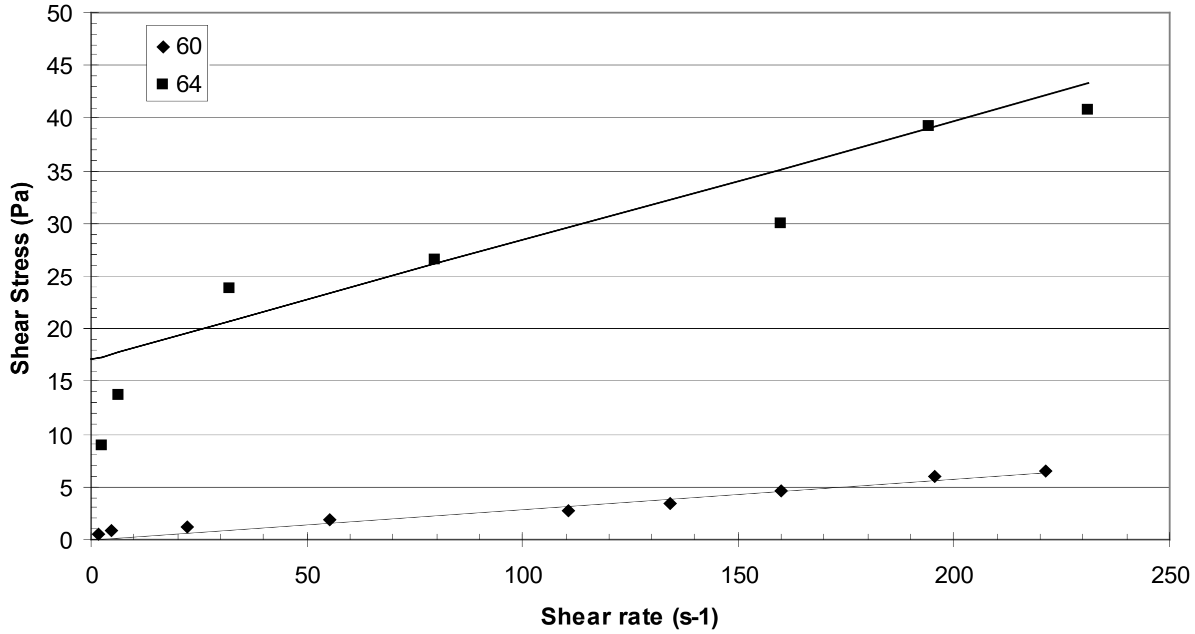


Figure 13.6 Thickened Pulp Shear Rate vs Shear Stress – Bulk Sample

The relationship for shear stress and slurry pulp density is illustrated in Figure 13.7. ANSTO concluded, based on these results, that the product slurry settled reasonably well and the filtration testwork conducted by FLSmidth indicated that the leach product slurry was amenable to filtration. The slurry filtration rate was reasonable and the filter cake could be washed to recover more than 99% of the soluble uranium without excessive wash water.

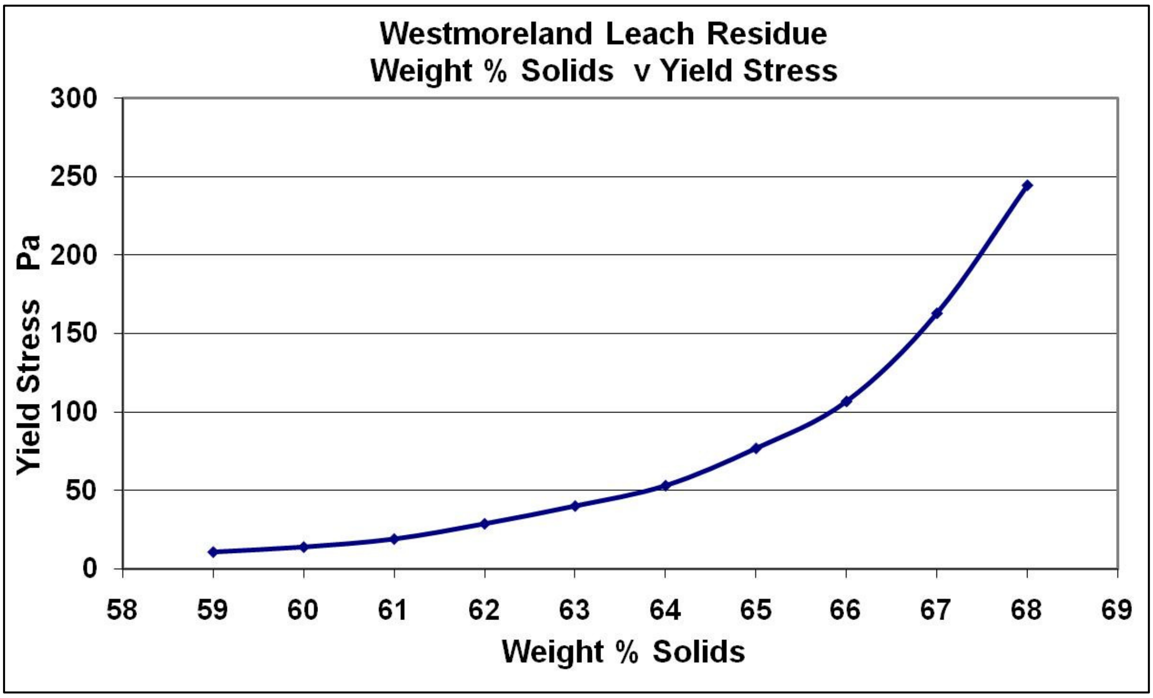


Figure 13.7 Thickened Pulp Yield Stress vs Slurry Solids Density – Bulk Sample

13.3.19 Uranium Recovery Tests

Liquor generated from the bulk leach testwork was used to investigate alternative methods to recover the U_3O_8. The use of ion exchange (IX) and solvent exchange (SX) techniques were tested, as well as precipitation of the U_3O_8 as an ammonium diurinate or as a uranyl peroxide.

The liquors for testing were as indicated in Table 13.17.

Table 13.17 IX Feed Liquor Compositions (mg/L/ppm)

Sample	pH	U_3O_8	Fe	Al	As	Si	V	Mn	S	Ca	Mg	Mo	K
Leach Liquor	1.8	1,605	5,350	609	100	589	21	3,750	9,910	312	170	13	236
RIP Feed	1.5	1,540	4,510	933	96	618	27	3,690	10,080	329	269	14	2
IX Feed	1.5	939	3,240	680	56	432	19	2,650	7,490	244	194	10	2

The IX feed has been diluted to simulate the effect of the wash water that would normally be used while the RIP feed solution is the PLS with no dilution.

13.3.20 Ion Exchange Testwork

The IX testwork looked at two options, resin-in-pulp (RIP) which adsorbs the uranium ions to the surface of specific resins while still within the leach pulps, and straight IX using clarified liquors, which are then put in contact with a resin and the uranium ions adsorb.

The resin chosen by ANSTO for the RIP simulated testwork was Ambersep 920, which had a mean particle size diameter of 0.75 mm to 0.95 mm. The resin chosen for the IX simulated testwork was Amberjet 4400, which had a mean particle size diameter of 0.58 mm. Prior to use, both resins were conditioned by contacting them with sulphuric acid and water to convert exchange sites to the sulphate form from the chloride form. The Ambersep 920 was screened at 600 µm. The Amberjet 4400 was screened at 600 µm and at 300 µm. The test results reported for the Ambersep 920 were derived by treating the PLS, rather than placing the resin in the leached pulp. In addition to this limitation in the test representation, Lycopodium considers that further testwork around the highly siliceous nature of the ore to determine if high rates of resin abrasion would be experienced in simulated RIP conditions. RIP has not been selected as the preferred process for the scoping study.

13.3.20.1 Resin Loading

Figure 13.8 illustrates the loading curve for the RIP resin, Ambersep 920. The maximum loading for the RIP resin was 51 g/L wet settled resin (wsr). The anticipated loading from a solution concentration of 1,450 g/L U3O8 would be about 42 g/L wsr Ambersep 920.

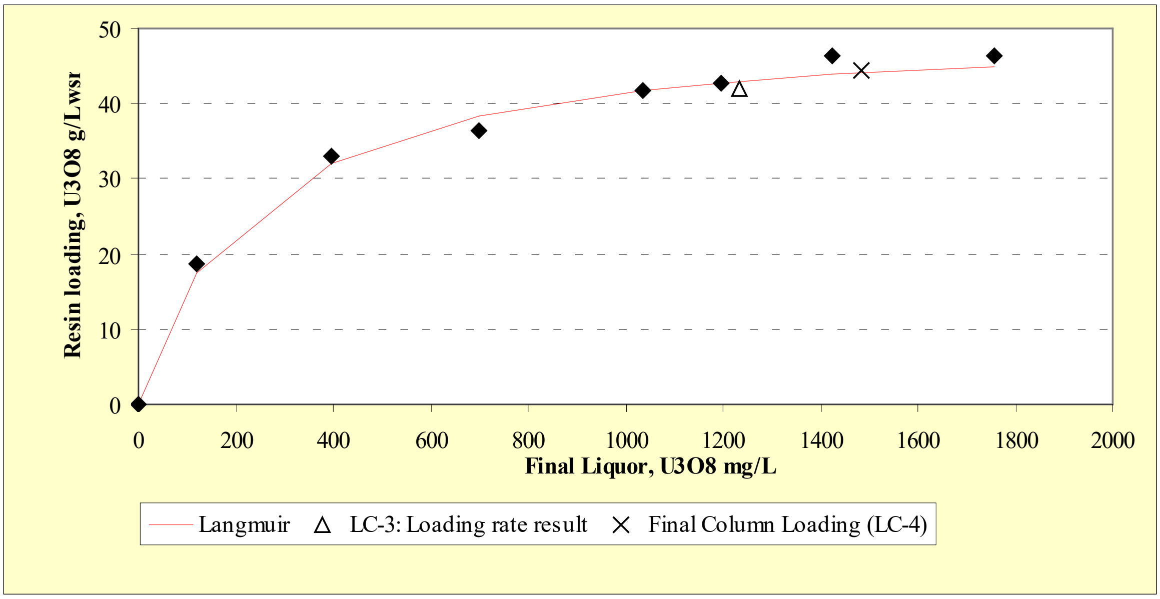


Figure 13.8 Uranium Resin Loading – RIP Resin Ambersep 920

The equivalent curve for the Amberjet 4400 is shown in Figure 13.9.

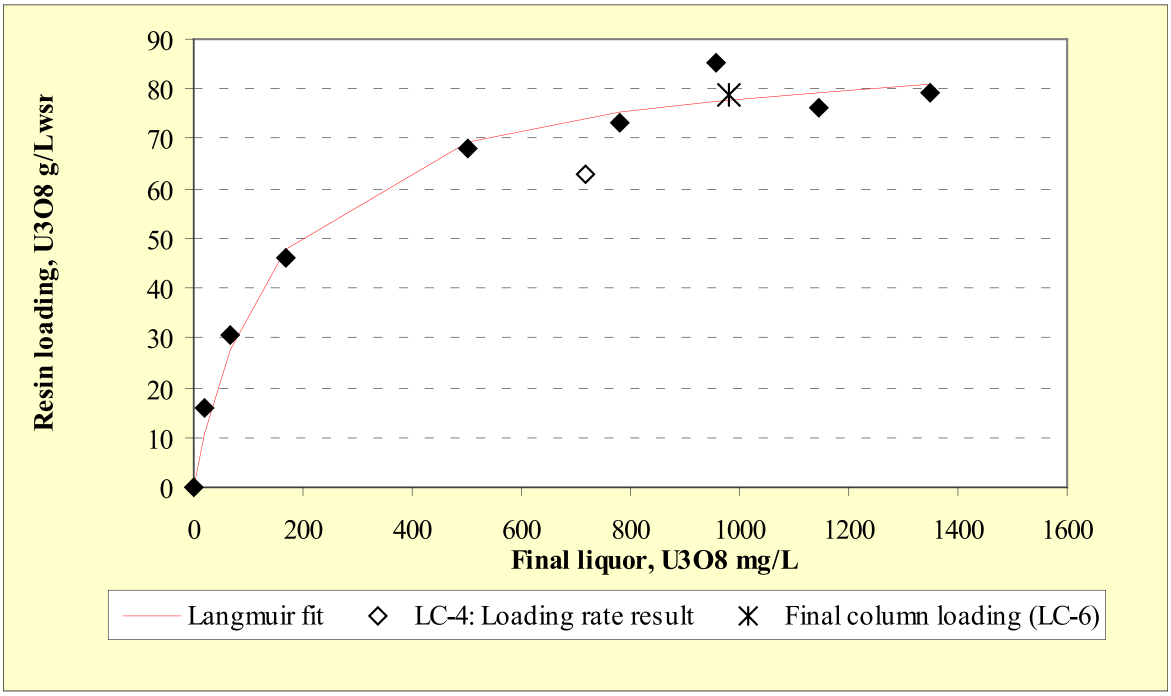


Figure 13.9 Uranium Resin Loading – IX Resin Amberjet 4400

The loading for the Amberjet 4400 is higher than that of the Ambersep 920. ANSTO also measured the loading rates for both resins as indicated in Figure 13.10.

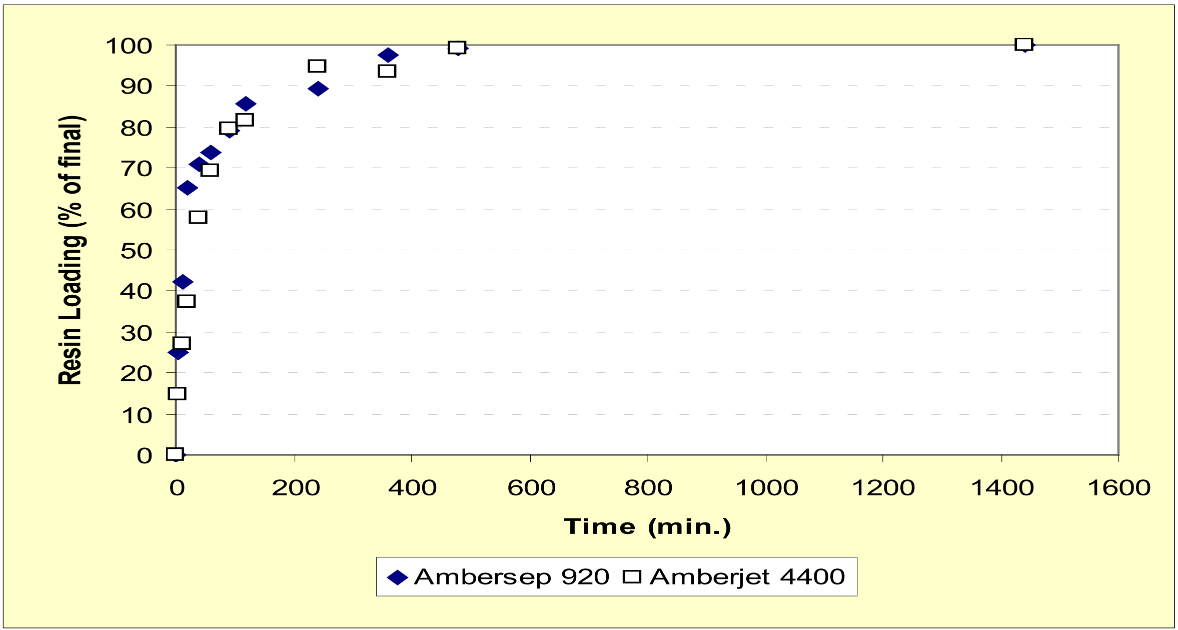


Figure 13.10 Uranium Resin Loading – RIP Resin Ambersep 920 and IX Amberjet 4400

As can be seen the loading rate for the Ambersep 920 is slightly faster than that of the Amberjet 4400.

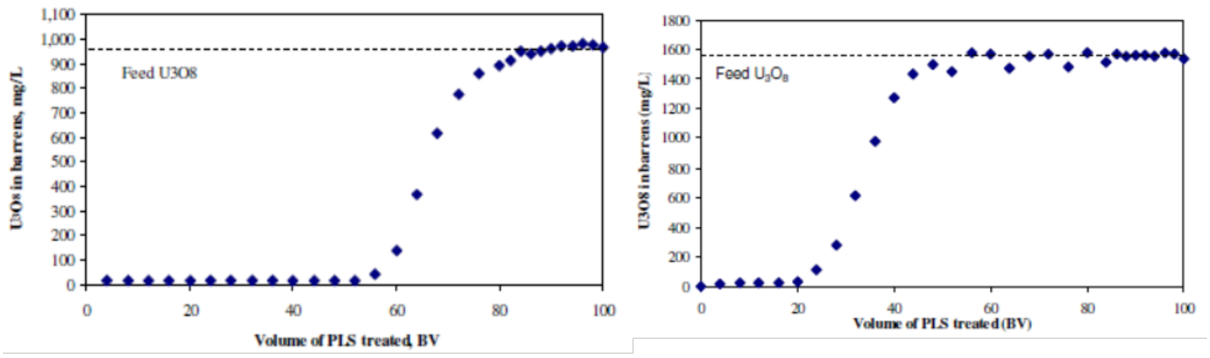
The kinetic parameters as calculated by ANSTO for the two resins are summarised in Table 13.18.

Table 13.18 Loading Kinetic Parameters Ambersep 920 and Amberjet 4400

Resin	T_{50} minutes	T_{75} minutes	Final Resin Loading g/L wsr U_3O_8	k
Ambersep 920	14.5	64.5	42	21.0
Amberjet 4400	32.0	77.0	63	26.6

This data indicates that the Ambersep 920 loads slightly quicker albeit to a lower maximum resin loading.

Column breakthrough curves were produced for each resin using leach solution delivered downflow to the column at a flow rate of 4 BV/h (1.05 m/h). The loading was conducted at 35°C for delivery of 100 BV of feed. A fraction of column effluent was taken every 2 BV and analysed for uranium and impurities. Figure 13.11Figure 13.11 Uranium Resin Breakthrough Curvessummarise the curves and shows that the Ambersep 920 requires about 50 bed volumes (BV) to reach saturation loading, and that loading occurs at 45.3 g/L which confirms the previous determination of 42 g/L WSR. The Amberjet 4400 reaches saturation at approximately 100 BV and loads to 79 g/L WSR, which is higher than previously determined. In all the tests indicate the Amberjet 4400 has a higher capacity than Ambersep 920, with a ratio of about 1.4:1.0 equivalent /L wsr.



IX Amberjet 4400 ***RIP Resin Ambersep 920***

Figure 13.11 Uranium Resin Breakthrough Curves

Table 13.19 indicates resin loadings for some of the other elements in the PLS. Scrubbing stages may be required in the process flowsheet if these elements deport to the eluate in excessive amounts. It is noted that the high apparent silica loading on the Ambersep 920 might suggest that a RIP process would not be appropriate for the adsorption and recovery of uranium.

Table 13.19 Metal Ions Loading for Ambersep 920 and Amberjet 4400

Resin	U_3O_8 g/L wsr	Fe g/L wsr	SO_4 g/L wsr	Si g/L wsr	P g/L wsr
Ambersep 920	45.3	1.6	59.4	17.6	0.4
Amberjet 4400	78.7	0.5	94.3	1.7	0.6

13.3.20.2 Resin Elution

The elution behaviour of each resin was characterised by performing equilibrium measurements, elution rate measurements and column elution behaviour with 1 M sulphuric acid and at 35°C. The isotherms for the resins are given in Figure 13.12 and Figure 13.13.

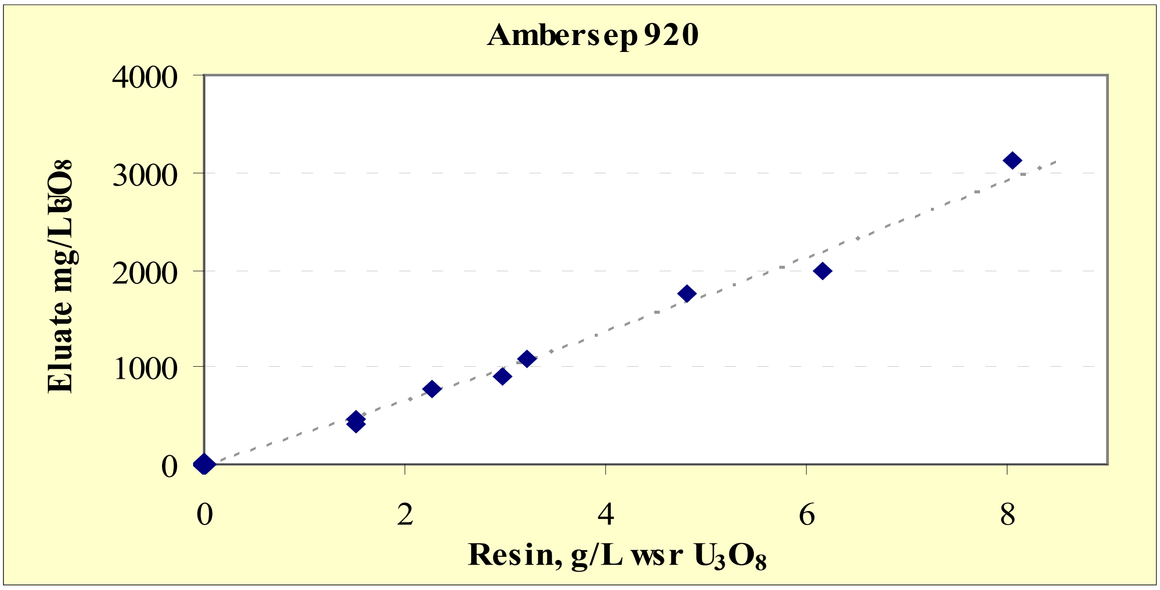


Figure 13.12 Uranium Elution Isotherm – RIP Resin Ambersep 920

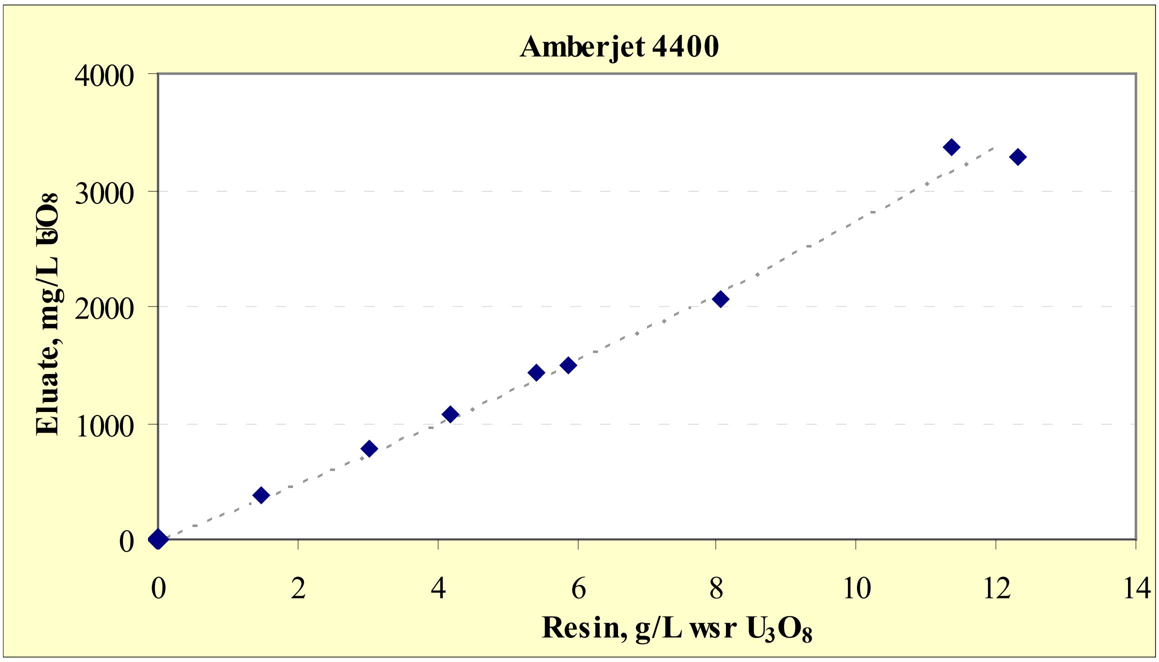


Figure 13.13 Uranium Elution Isotherm – IX Resin Amberjet 4400

Uranium loaded Ambersep 920 and Amberjet 4400 resins were contacted with 1 M sulphuric acid in bottle roll tests at 35°C. The rate of uranium elution was determined by monitoring the variation in the uranium concentration of the eluant over 24 hours. The elution kinetic parameters are shown in Table 13.20.

Table 13.20 Elution Kinetic Parameters Ambersep 920 and Amberjet 4400

Resin	T_{50} minutes	T_{75} minutes	Final Resin Loading (g/L wsr U_3O_8) Initial	k
Ambersep 920	9	22	45.3	0.8
Amberjet 4400	26	53	78.7	1.4

The elution rates were also determined as shown in Figures 13.3.14 and 13.3.15 and indicate that both resins were eluted efficiently by sulphuric acid. A final resin concentration of 1 g/L wsr U_3O_8 indicated practically complete elution.

ANSTO also conducted column elution testwork. These elution curves (at 35 C) are shown in Figure 13.14 and Figure 13.15. The eluant was delivered to the column at a flow rate of 1 BV/h (0.09 m/h). ANSTO concluded that both elution curves indicate that uranium elution is achieved well within 20 BV of eluant delivered to the column with a stripped resin composition of 1 g/L wsr U_3O_8 reached after 7 BV of eluate for the Ambersep 920 and 14 BV for Amberjet 4400. The elution process is kinetically impaired at lower temperatures and a minimum temperature of 40°C is recommended. The elution behaviour of the two impurities, iron, and phosphorous are also included. Iron appears to elute prior to the uranium, particularly for Amberjet 4400. Ferric iron in its ferric sulphate complex form is less strongly bound compared to the uranium oxide sulphate complex and can be eluted with a weak acid or a reductant to effect a "scrubbing step" thereby improving the U/Fe ratio. Phosphorous elution is coincident with uranium for both resins, and this may impact to some extent on precipitate purity during product recovery when direct precipitation of the uranium from the eluate is undertaken.

The variation of the uranium concentrations in the bulk eluate for both resins are compared in Figure 13.3.18 and show that bulk eluates can contain up to 8.8 g/L and 11.3 g/L U_3O_8 for the Ambersep and Amberjet after collection of 4 and 5 BV, respectively.

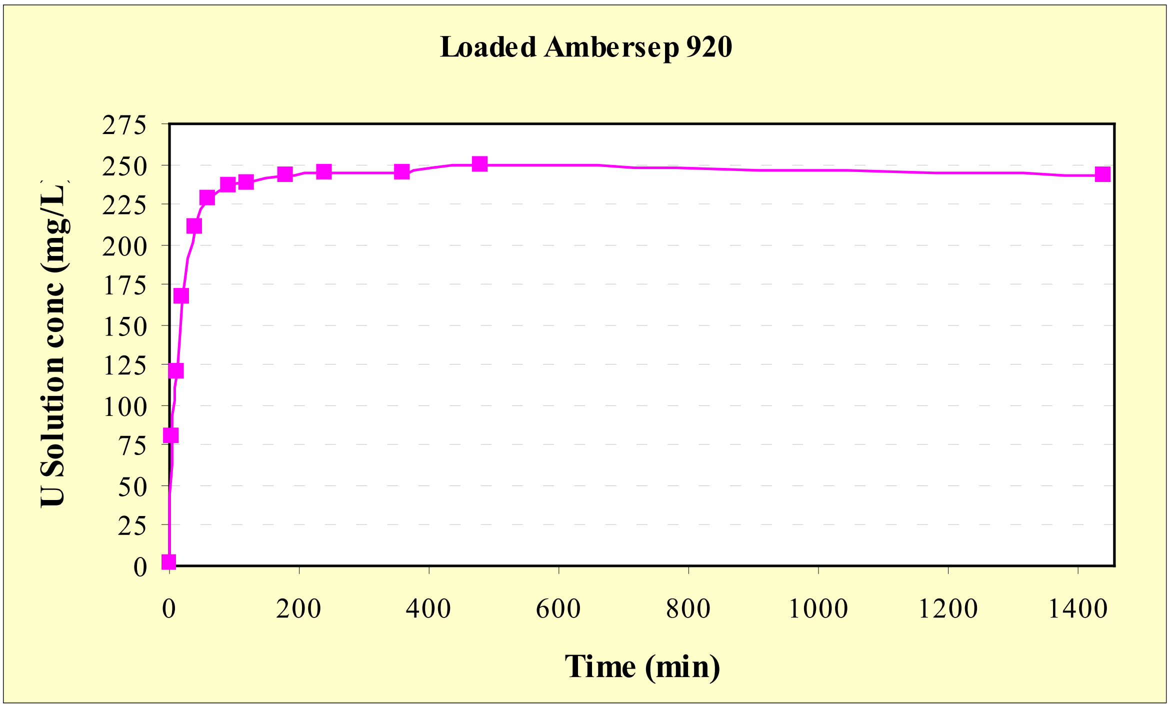


Figure 13.14 Uranium Elution Rate – RIP Resin Ambersep 920

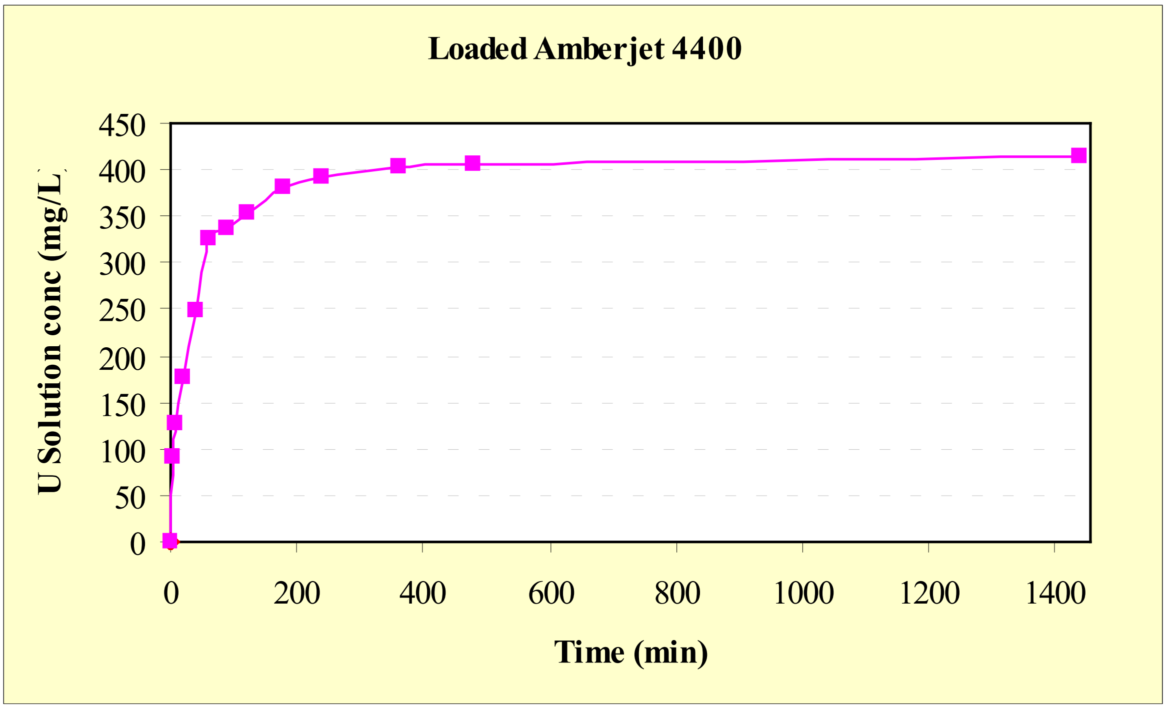


Figure 13.15 Uranium Elution Rate – IX Resin Amberjet 4400

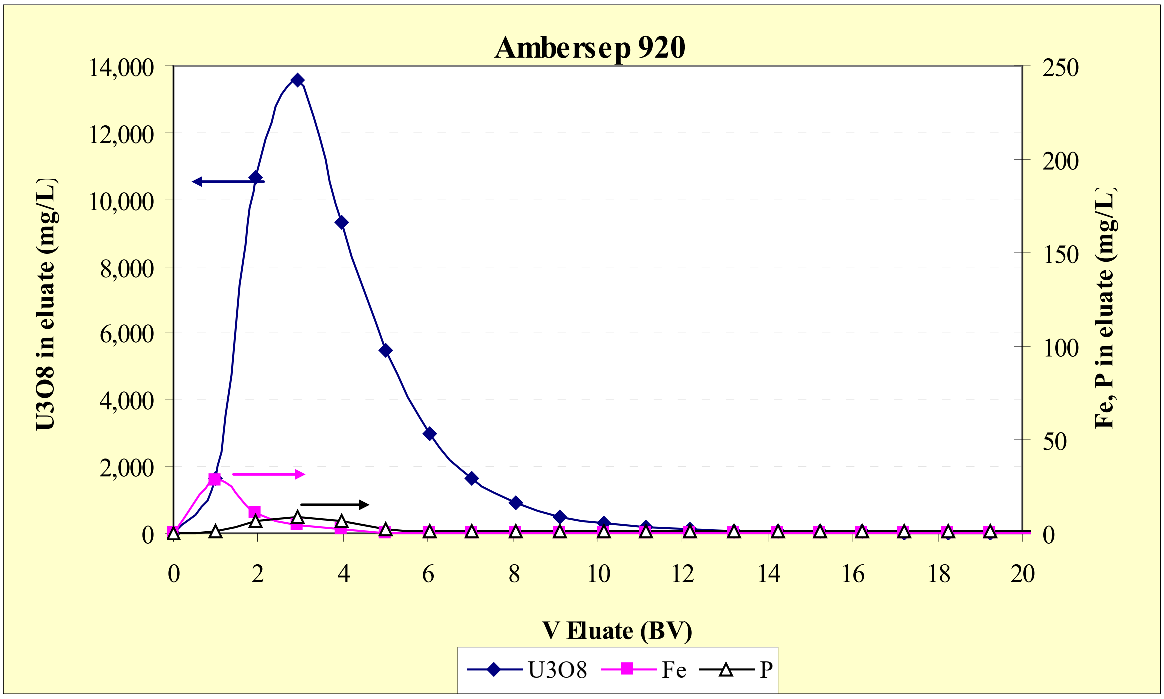


Figure 13.16 Uranium and Impurity Elution – RIP Resin Ambersep 920

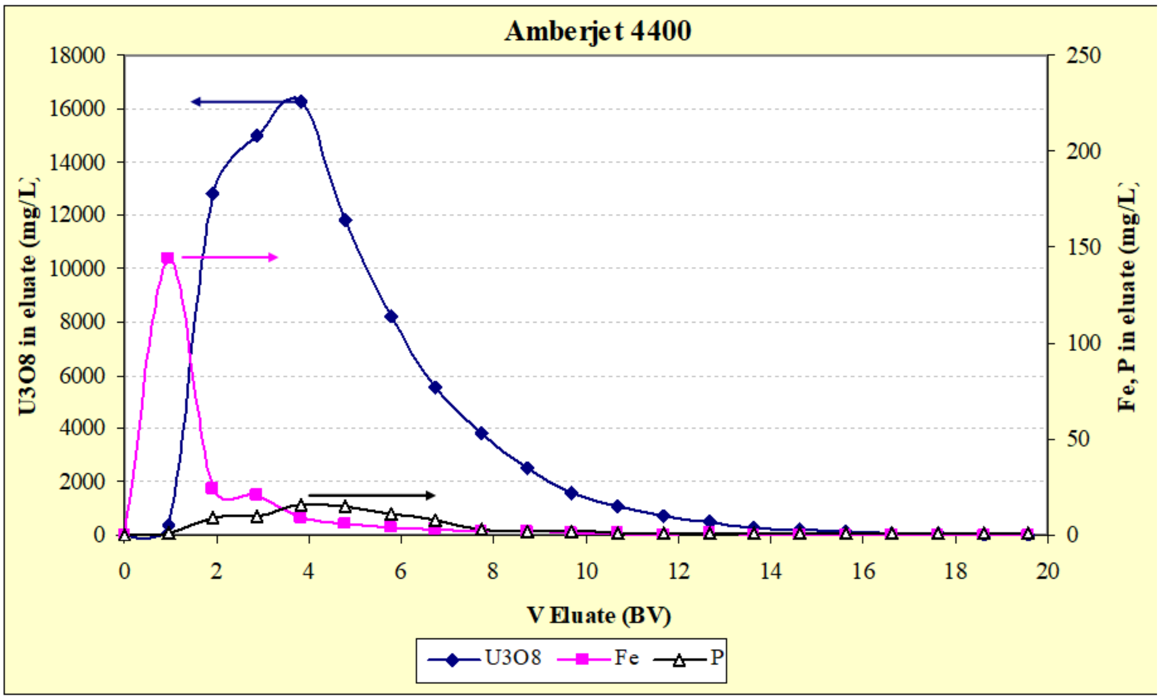


Figure 13.17 Uranium and Impurity Elution – IX Resin Amberjet 4400

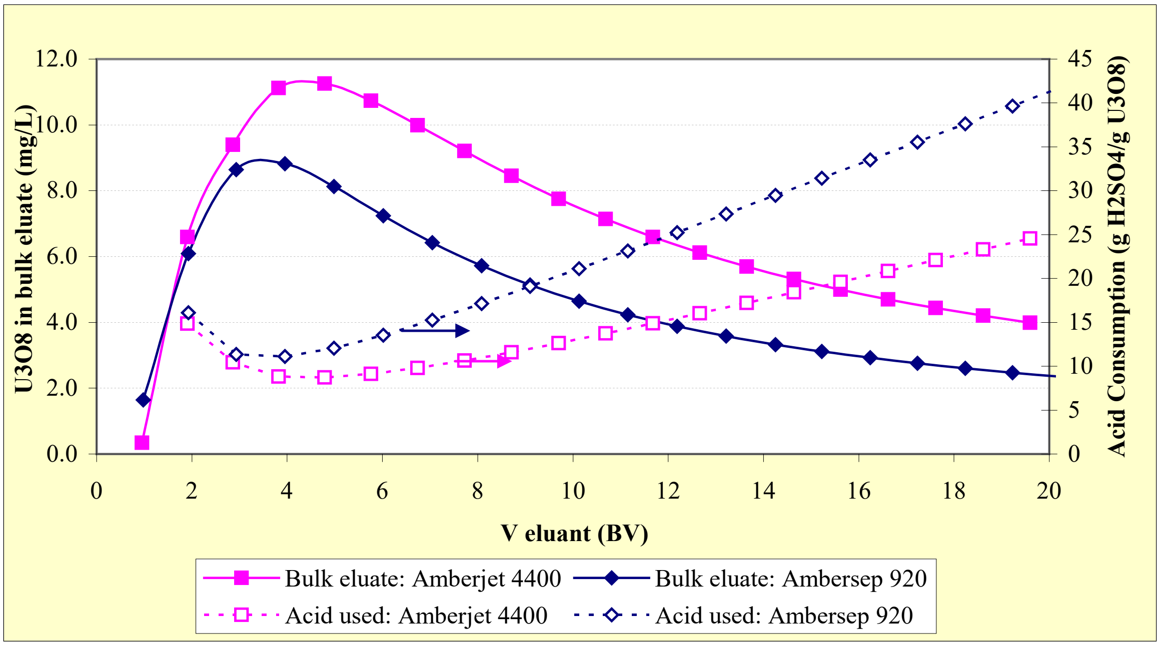


Figure 13.18 Bulk Eluate Concentrations – RIP Resin Ambersep 920 and IX Resin Amberjet 4400

13.3.21 Uranyl Peroxide Precipitation

ANSTO conducted some non-optimised precipitation tests using the eluate generated in the elution testwork and based their previous experience, to indicate impurity deportment, as well as U levels.

The method was based on a two stage process where gypsum (pH 1.5) and iron hydroxide (pH 3.5) were precipitated first and removed, prior to uranyl peroxide precipitation ($UO_{4.2}H_2O$) using hydrogen peroxide at pH 3.5 and 35°C. This final production reaction follows the equation below.

$$UO_2(SO_4)_3 + H_2O_2 + 2NaOH + {}_xH_2O \rightarrow UO_{4x}H_2O + 2H_2SO_4 + Na_2SO_4$$

Table 13.21 presents the analyses of the products from the precipitation tests for both resins, and compares them to the specifications provided from the three converter companies, Comurhex, Converdyne, and Cameco. Not all elements are shown, only the more evident ones. Iron nearly met specification, but phosphorous exceeded reject specifications for Cameco and attention needs to be paid to managing it. The gypsum / iron cake composition indicated that some uranium losses occurred during the preliminary precipitation. XRF assays show that the gypsum from the Amberjet eluate contained 0.67% U_3O_8 and from the Ambersep 920 eluate, the gypsum contained 0.44% U_3O_8. The uranium in gypsum represented 12% and 6% of the uranium in feed for Amberjet and Ambersep, respectively. In practice this slurry could be recycled to the leach circuit and the wash liquor combined with the filtrate to recover this uranium. ANSTO believed that the high sulphate ion content resulted from poor cake washing during filtration. An alternative would be to employ magnesia or sodium hydroxide, with an iron precipitation step to control phosphate, but uranium recycle in the precipitate would be inevitable. The use of limestone should be avoided as a consequence of this reagent introducing calcium, and also manganese depending upon the source of limestone.

Table 13.21 Uranyl Peroxide Compositions (as % of U)

Element	Ambersep	Amberjet	Cameco		Comurhex		Converdyne	
	920	4400	Accept	Reject	Accept	Reject	Accept	Reject
U*	71.0	71.2	-	-	-	-	-	-
V_2O_5	n/m	n/m	-	-	0.30	0.30	-	-
V	<0.03	<0.03	0.05	0.10	-	-	0.01	0.05
As	<0.04	<0.03	0.05	0.15	1.00	2.50	0.01	0.04
B	<0.04	<0.02	0.01	0.15	0.20	0.20	0.01	0.10
C	n/m	n/m	-	-	0.20	1.00	0.01	0.20
Ca	0.32	0.47	-	-	-	-	-	-
Cl	<0.35	0.44	-	-	0.15	0.25	0.05	0.10
CO_3	n/m	n/m	-	-	2.00	3.00	0.20	0.50
F	<0.04	<0.03	-	-	0.15	0.30	0.01	0.10
Fe	0.23	0.19	1.00	2.00	-	-	0.15	0.50
K	0.41	0.26	1.00	2.00	-	-	0.20	1.00
Mg	<0.04	<0.03	3.00	4.00	-	-	0.02	0.50
Mo	<0.03	<0.02	0.10	0.30	0.10	0.30	0.10	0.30
Na	0.20	0.26	1.00	2.00	1.00	7.50	0.50	3.00
PO_4	0.86	0.83	-	0.50	1.00	1.00	0.10	1.00
S	4.08	2.56	1.00	3.50	0	0	0	0
Se	<0.03	<0.02	-	-	-	-	0.01	0.04
SiO_2	0.43	0.28	1.07	2.00	0.50	2.50	0.50	2.00
SO_4	12.24	7.68	-	-	3.00	10.00	1.00	4.00
Th	<0.03	<0.02	0.50	2.00	-	-	0.01	0.05
Ti	<0.04	<0.03	0.05	0.10	-	-	0.01	0.05
Zr	<0.03	<0.02	0.10	0.50	0.20	2.00	0.01	0.50
Cd	<0.04	<0.02	-	-	-	-	0.01	0.04

Based on these results ANSTO concluded that precipitation of uranyl peroxide from the eluates generated a product for which the composition compared favourably to a Cameco, Comurhex and Converdyn (upper limit) purity specification. Iron phosphate precipitation during the iron removal stage or resin scrubbing prior to elution, may provide a solution to the high levels of phosphorus in the uranyl peroxide product.

13.3.22 Solvent Extraction Testwork

Bench scale solvent extraction testwork was also conducted by ANSTO and demonstrated that the ore was suited to this approach to uranium recovery. However, for environmental reasons LAM's preference was for a flowsheet that excludes the use of ammonia and consequently the focus of the scoping study was on the use of ion exchange. Details of the solvent extraction testwork performed can be found in ANSTO Westmoreland Final Report 25 July 2011.

13.4 Conclusions and Recommendations

The principal conclusions reached on the basis of the most recent ANSTO testwork were:

1. The Westmoreland material generally acid leaches very well with modest acid consumption and high U extractions.
2. Co leaching of gangue elements is not considered to present any problems for down-stream processing.
3. The Jack Lens material was the only exception, and extraction was improved by adding ferric iron to assist oxidation of tetravalent uranium in the material. Further optimisation of leach conditions is expected to improve performance on Jack Lens material, for example treat as a blend with the other ores that release iron in the leach.
4. The grind size distribution required is relatively coarse which favours milling power consumption and filtration performance.
5. The leach kinetics are reasonably fast.
6. Recovery of the U from the leached slurry can be undertaken by several methods including continuous ion exchange.
7. Precipitation of the U as a concentrate to be sold to the market can be of a good quality and can be treated by any of the three main converters that will be treating the material.
8. Pulp settling rate is reasonable with a high solids underflow density and a relatively clear overflow pregnant leach solution (PLS).
9. The use of SX technology also has been tested and would be a technically viable treatment option.

A significant metallurgical test program, including closed circuit piloting will be required if the project moves to the next phase, including collection and testing of representative samples and composites, variability tests on specific zones of the deposits and comminution testwork over the range of lithologies expected to be encountered. ANSTO specifically recommended the following:

- Conduct leach tests using solution either from site or a synthetic solution to simulate expected leach make-up solution.
- Conduct optimisation tests on the expected composite feed, and use these blends for the pilot plant test program.
- Conduct downstream neutralisation testwork, on liquors generated from Redtree ore and a composite of all three ores, to ensure that the arsenic can be effectively immobilised into an iron precipitate.

- Conduct a continuous pilot operation on the expected feed composite to confirm data generated in batch tests, and to generate slurry/solution for continuous downstream piloting.
- Conduct filtration, settling and rheology testwork on the product slurry from the continuous testwork.
- Conduct downstream continuous testwork, i.e. ion-exchange and/or solvent extraction.
- Consider tailings neutralisation treatment and recycle of liquor.

14 Mineral Resource Estimates

14.1 Introduction

An update to the Mineral Resource Estimate (MRE) for the Westmoreland Uranium Project, Queensland, Australia has been prepared by Addsion Mining Services of the United Kingdom on behalf of Laramide Resources Ltd. The updated Mineral Resource Estimate has an effective date of January 31st, 2025, and was prepared using Micromine Origin and Beyond 2025 software. MRE's were prepared for the Redtree, Huarabagoo, Junnagunna and Long Pocket deposits (Figure 14.1). No MRE's are reported for other areas. A review of the gold assay data was also completed for Huarabagoo, due to sampling of gold being non-systematic by previous explorers continuity was difficult to identify and it was considered that any estimate of a gold credit was not meaningful.

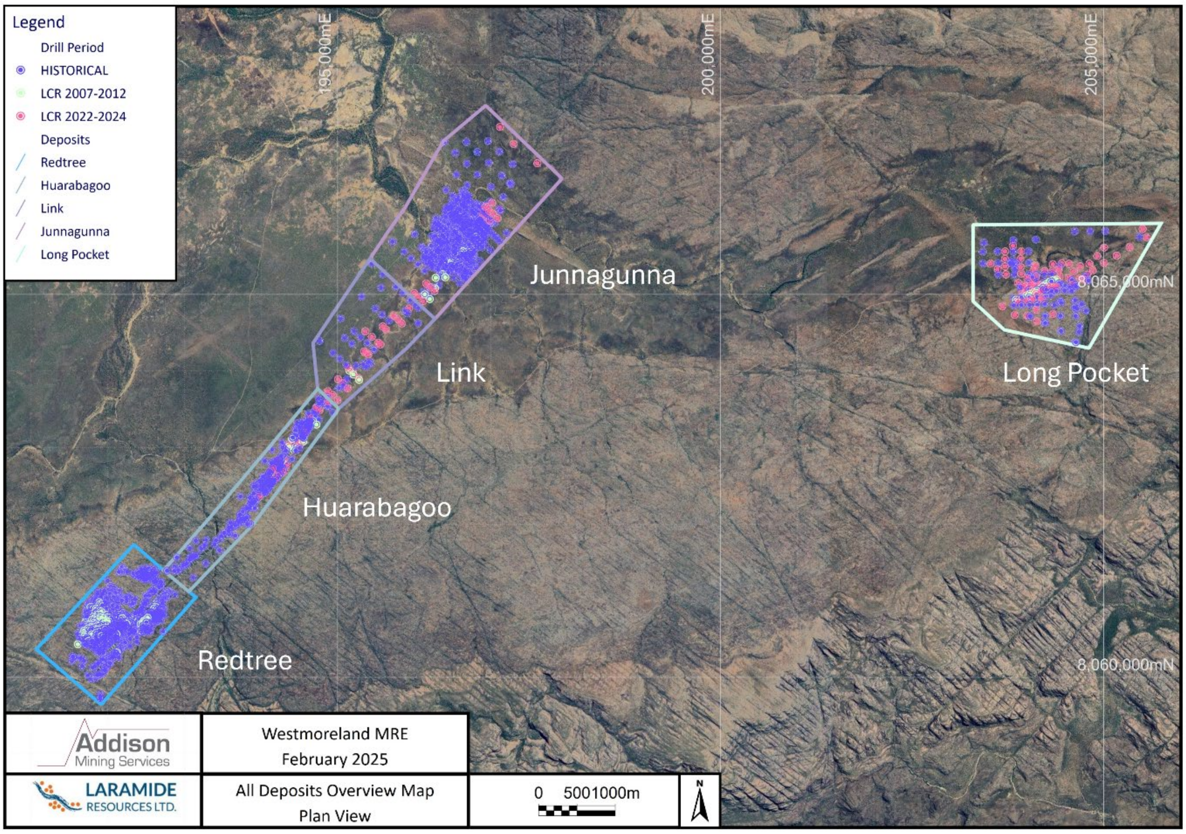


Figure 14.1 Westmoreland - Mineral Resource Estimate Areas (no Mineral Resources are reported for the Link area)

14.2 Input Data Summary

A summary of drillholes by deposit and drilling period used to inform the estimate is summarized in Table 14.1. It should be noted that the Westmoreland Project drillhole database contains 2327 collars for 153,146 m of drilling, only those drillholes in the areas of interest are summarized below. A more detailed breakdown of historical drilling is provided in section 10 of this report. The estimate incorporated all relevant drilling completed by LAM up to an including the 2024 drilling. No new drilling has been completed by LAM since 2008 at Redtree. Additionally, Table 14.2 summarises the drilling by type in each area.

A summary of the assay type falling within the mineralization wireframe models is shown in Table 14.3. 87% of the samples used are analysed by XRF methods, with 7% by scintillometer methods and 6% by ICP-MS.

Table 14.1 Summary of drillhole information.

Deposit	Drill Period	No of Drillholes	Minimum Depth (m)	Maximum Depth (m)	Total meters	Mean Depth (m)
Redtree	Historical	504	3.66	245.24	26,640.34	53
	LAM 2007-2008	126	13.50	302.70	8,855.00	70
	ALL	630	3.66	302.70	35,495.34	56
Huarabagoo	Historical	357	3.66	216.10	31,785.55	89
	LAM 2007-2012	39	80.00	201.00	4,616.39	118
	LAM 2022-2024	30	37.80	141.10	3,417.80	114
	ALL	426	3.66	216.10	39,819.74	93
Junnagunna	Historical	443	25.00	154.05	22,115.56	50
	LAM 2007-2012	41	50.00	152.40	4,168.40	102
	LAM 2022-2024	18	98.60	158.05	2,286.75	127
	ALL	502	25.00	158.05	28,570.71	57
Long Pocket	Historical	83	9.14	217.93	4,942.60	60
	LAM 2007-2012	12	60.00	71.20	747.50	62
	LAM 2022-2024	65	42.70	132.70	3,730.10	57
	ALL	160	9.14	217.93	9,420.20	59

Table 14.2 Summary of drillhole type used to inform MRE.

DD-Diamond Drilling, PD-Percussion Drilling, WD-"Wagon "Percussion Drilling, RC-Reverse Circulation.

Deposit	Type	No of Holes	Minimum Depth (m)	Maximum Depth (m)	Total meters	Mean Depth (m)	% Holes	% Meters
Redtree	ALL	630	3.66	302.70	35495.34	56.34	100.0	100.0
	DD	237	9.14	302.70	17278.41	72.90	37.6	48.7
	PD	367	3.66	128.02	17517.77	47.73	58.3	49.4
	WD	26	15.03	36.73	699.16	26.89	4.1	2.0
Huarabagoo	ALL	426	3.66	216.10	39819.74	93.47	100.0	100.0
	DD	363	13.50	216.10	36352.49	100.14	85.2	91.3
	PD	40	3.66	110.28	1571.25	39.28	9.4	3.9
	RC	23	40.00	114.00	1896.00	82.43	5.4	4.8
Junnagunna	ALL	502	25.00	158.05	28570.71	56.91	100.0	100.0
	DD	276	28.77	158.05	18004.84	65.23	55.0	63.0
	PD	13	31.00	108.00	1154.87	88.84	2.6	4.0
	RC	213	25.00	150.00	9411.00	44.18	42.4	32.9
Long Pocket	ALL	160	9.14	217.93	9420.20	58.88	100.0	100.0
	DD	84	35.03	217.93	6054.25	72.07	52.5	64.3
	PD	38	9.14	51.00	1228.95	32.34	23.8	13.0
	RC	38	48.00	96.00	2137.00	56.24	23.8	22.7

Table 14.3 Summary of assay methods used in MRE by deposit and company.

Only assays falling within the mineralized wireframes are included. Scint = Scintillometer. See section 11 for further details of analytical methods.

Deposit	Company	Method Code	Assay Type	No of Assays	% of Assays	Min U_3O_8 ppm	Max U_3O_8 ppm	Mean U_3O_8 ppm	CoV
Redtree	CRA	XRF-A	XRF	731	9.1	1.00	13000.00	766.82	1.71
	LAM	ME-XRF05	XRF	3847	48.1	5.90	11792.00	791.93	1.78
	LAM	U-XRF07	XRF	25	0.3	12145.76	32899.68	17447.44	0.30
	MIM	RAD-MIM	Scint.	156	1.9	10.00	6390.00	641.41	1.52
	MIM	XRF-MIM	XRF	686	8.6	1.00	14770.00	1102.72	1.64
	MINAD	XRF-A	XRF	94	1.2	100.00	8200.00	734.04	1.61
	QML	GS3	Scint.	866	10.8	10.00	4900.00	358.88	0.73
	QML	XRF-A	XRF	1411	17.6	50.00	135800.00	1729.74	2.52
	UGA	XRF-1	XRF	112	1.4	25.00	16500.00	1093.36	2.39
	UGA	XRF-A	XRF	32	0.4	200.00	22800.00	3499.69	1.44
	UGA	XRF-G	XRF	44	0.5	10.00	910.00	110.23	1.32
Huarabagoo	CRA	XRF-A	XRF	769	11.8	10.61	22518.90	643.49	2.04
	LAM	ME-MS61	ICP-MS	521	8.0	4.01	10353.38	702.13	1.78
	LAM	ME-XRF05	XRF	847	13.0	2.36	9280.30	546.82	1.59
	LAM	ME-XRF15b	XRF	3	0.0	15801.28	23171.28	18316.91	0.23
	LAM	ME-XRF30	XRF	1	0.0	14209.36	14209.36	14209.36	0.00
	MINAD	XRF-A	XRF	268	4.1	100.00	8800.00	604.48	1.63
	OMEGA	XRF-5	XRF	119	1.8	11.00	17000.00	2490.48	1.26
	QML	GS3	Scint.	345	5.3	40.00	4380.00	382.12	1.04
	QML	XRF-1	XRF	192	3.0	1.00	10900.00	704.62	1.81
	QML	XRF-A	XRF	697	10.7	50.00	96000.00	2247.63	2.39
	UGA	XRF-1	XRF	2733	42.1	10.00	48700.00	1263.56	2.38
Junnagunna	CRA	XRF-A	XRF	1528	30.6	1.00	17095.50	592.19	1.68
	LAM	ME-MS61	ICP-MS	137	2.7	8.84	4610.67	396.05	1.71
	LAM	ME-XRF05	XRF	922	18.4	2.36	11756.62	591.58	1.95
	LAM	U-XRF07	XRF	5	0.1	12735.36	16744.64	14857.92	0.12
	UGA	XRF-1	XRF	2034	40.7	1.00	19100.00	850.81	1.72
	UGA	XRF-A	XRF	365	7.3	1.00	10000.00	426.28	1.91
	UGA	XRF-G	XRF	9	0.2	20.00	220.00	145.56	0.47
Long Pocket	CRA	XRF-A	XRF	8	0.8	66.00	1250.00	386.38	1.07
	LAM	ME-MS61	ICP-MS	443	41.9	2.24	8525.62	249.39	2.11
	LAM	ME-XRF05	XRF	177	16.7	2.36	8183.65	317.39	2.57
	QML	GS3	Scint.	11	1.0	170.00	480.00	340.91	0.36
	QML	XRF-A	XRF	17	1.6	150.00	2600.00	1102.94	0.59
	UGA	XRF-1	XRF	250	23.7	8.00	4800.00	456.52	1.62
	UGA	XRF-G	XRF	151	14.3	5.00	55070.00	917.41	5.22

14.3 Geological Interpretation and Mineralization Modelling

Mineralization is hosted almost exclusively in the Paleoproterozoic "PTW4" Westmoreland sandstone conglomerate with minor mineralization in the basaltic Red Tree dyke and the basaltic Seigal Volcanics. Typically, mineralization is steep to sub vertical within proximity to the Westmoreland dyke system which spans the length of Redtree, Junnagunna and Huarabagoo, rolling over to horizontal to sub horizontal mineralization approximately 20 m from the dyke edges and can extend laterally for 100 to 500 m or more perpendicular to the dyke. At Huarabagoo mineralization is dominantly sub vertical and proximal to the dyke walls. At Long Pocket Mineralization is hosted in the PTW4 sandstone conglomerate and is sub horizontal and sits under intrusive basaltic sills.

Mineralization was modelled using implicit modelling techniques and using 100-200 ppm U_3O_8 cut offs over a minimum 2 m interval to generate a mineralized shell. Non assayed intervals were inserted into the assay file and given a value of 0.05 ppm U_3O_8 to prevent the model from extending through areas of null value. Variable anisotropy was used during implicit modelling of wireframes and was guided by the proximity to the dyke, volcanics or sills. Due to the scale of the project each area was modelled individually. Further details are provided as follows.

14.3.1 Redtree

At Redtree the dyke was modelled along with the base of PTW4/roof of PTW3 which outcrops at surface, no other geological units are present. Mineralization is present on the southeast and northwest of the PTD1 dyke in PTW4 and is divided into the following lenses, Jack, Garee, Langi and Namalangi (Figure 14.2), the Jack lens was modelled continuously but was subdivided into a steep ("Jack S") and flat component to aid with variography and modelling. Minor additional mineralization was present in the dyke itself, and this was modelled separately and contained to the dyke. 37 Drillholes were ignored due to the proximity of more recent drilling, or due to lack of assay data (CRA metallurgical drillholes) (

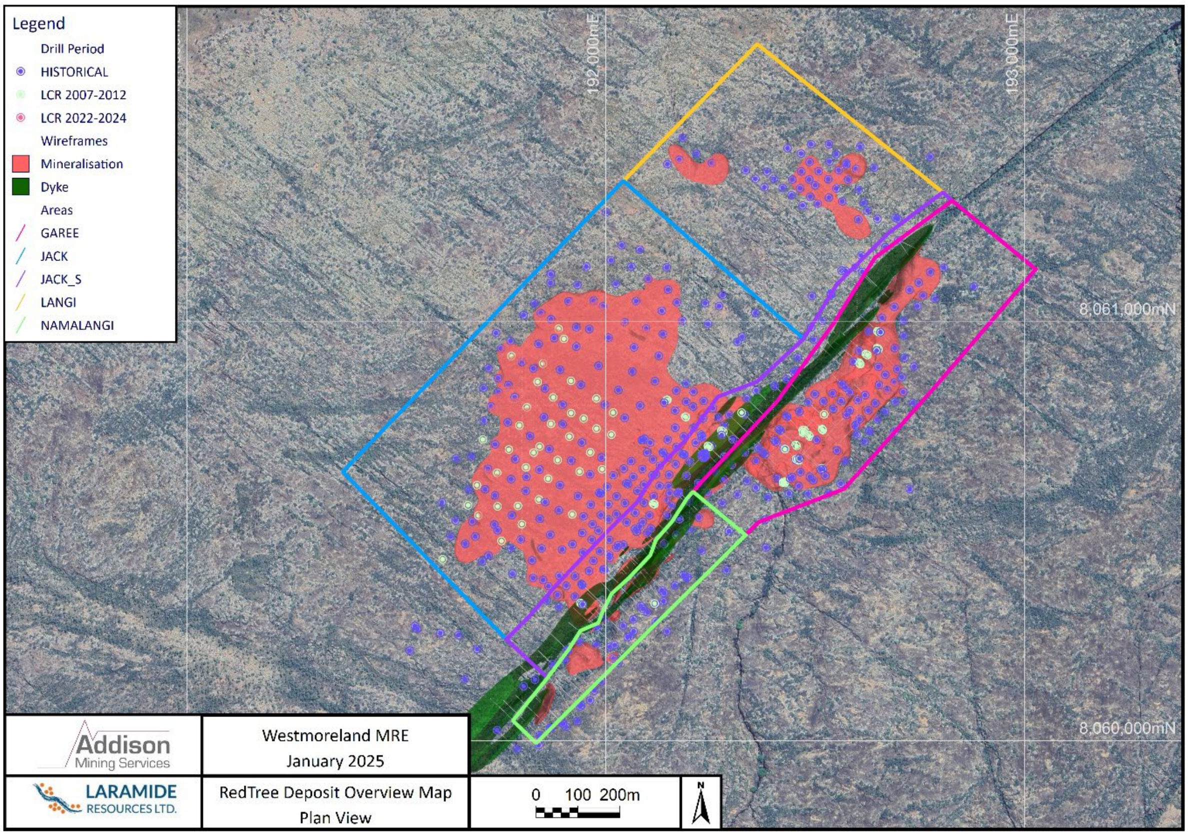


Figure 14.2 Redtree mineralization and dyke wireframes.

Table 14.4). Example cross sections are shown in Figure 14.3 and Figure 14.4.

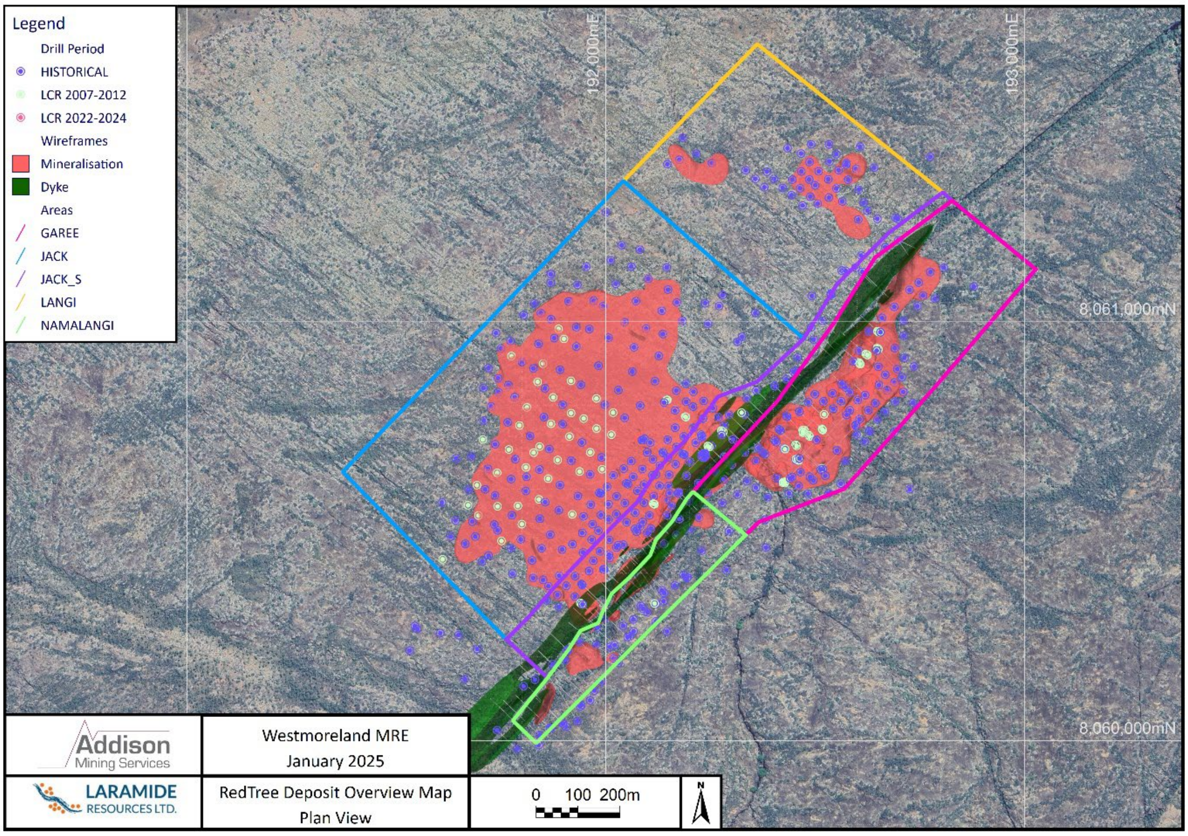


Figure 14.2 Redtree mineralization and dyke wireframes.

Table 14.4 Ignored drillholes Redtree.

Hole ID	Hole type	Year	Company		Hole ID	Hole type	Year	Company
DD011	DD	1969	MIM		DD92RT116	DD	1992	CRA
DD92RT104	DD	1992	CRA		DD92RT129	DD	1992	CRA
DD92RT105	DD	1992	CRA		DD011	DD	1969	MIM
DD92RT106	DD	1992	CRA		DDI016	DD	1970	MIM
DD92RT107	DD	1992	CRA		PD90RT017	PD	1990	CRA
DD92RT108	DD	1992	CRA		PD90RT023	PD	1990	CRA
DD92RT109	DD	1992	CRA		PD90RT024	PD	1990	CRA
DD92RT110	DD	1992	CRA		PD90RT026	PD	1990	CRA
DD92RT111	DD	1992	CRA		PD90RT036	PD	1990	CRA
DD92RT112	DD	1992	CRA		PD90RT037	PD	1990	CRA
DD92RT113	DD	1992	CRA		PD90RT055	PD	1990	CRA
DD92RT114	DD	1992	CRA		PD90RT064	PD	1990	CRA
DD92RT115	DD	1992	CRA		PDNL005	PD	1970	QML

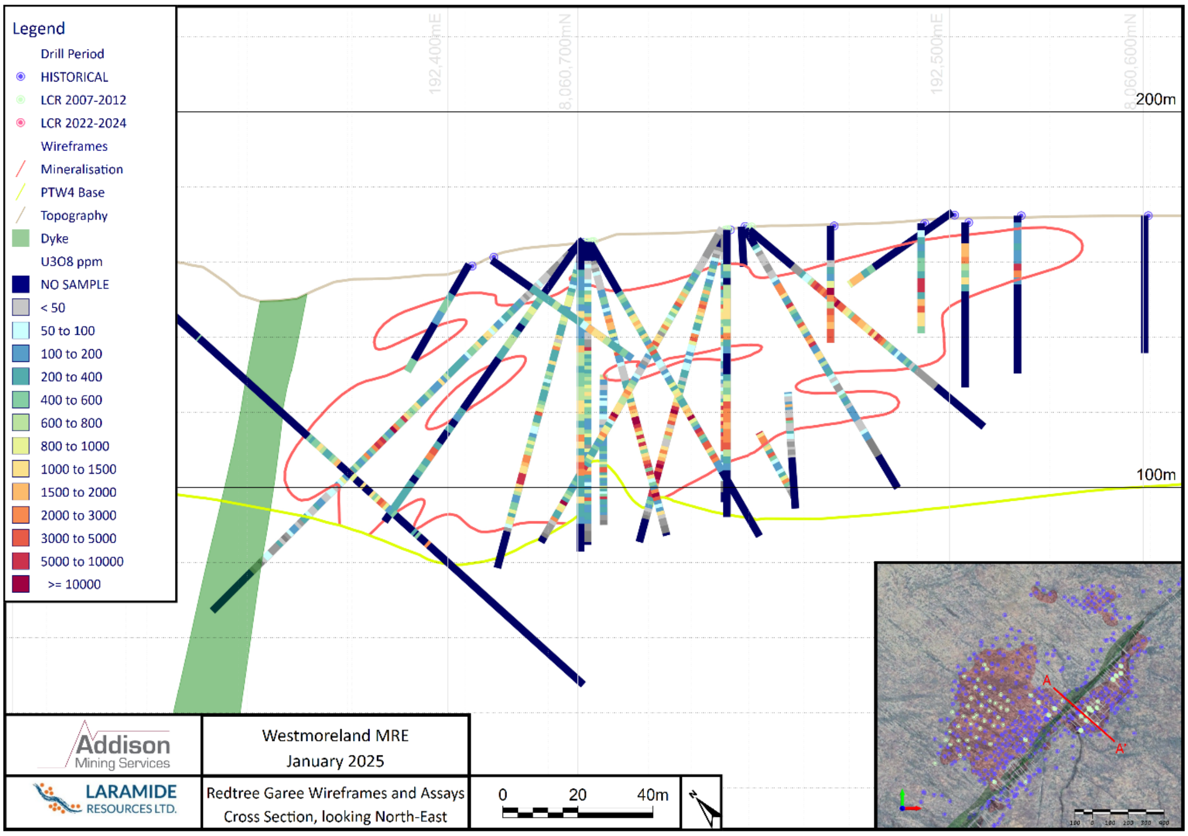


Figure 14.3 Redtree Example Cross Section of wireframe interpretation, Garee Lens.

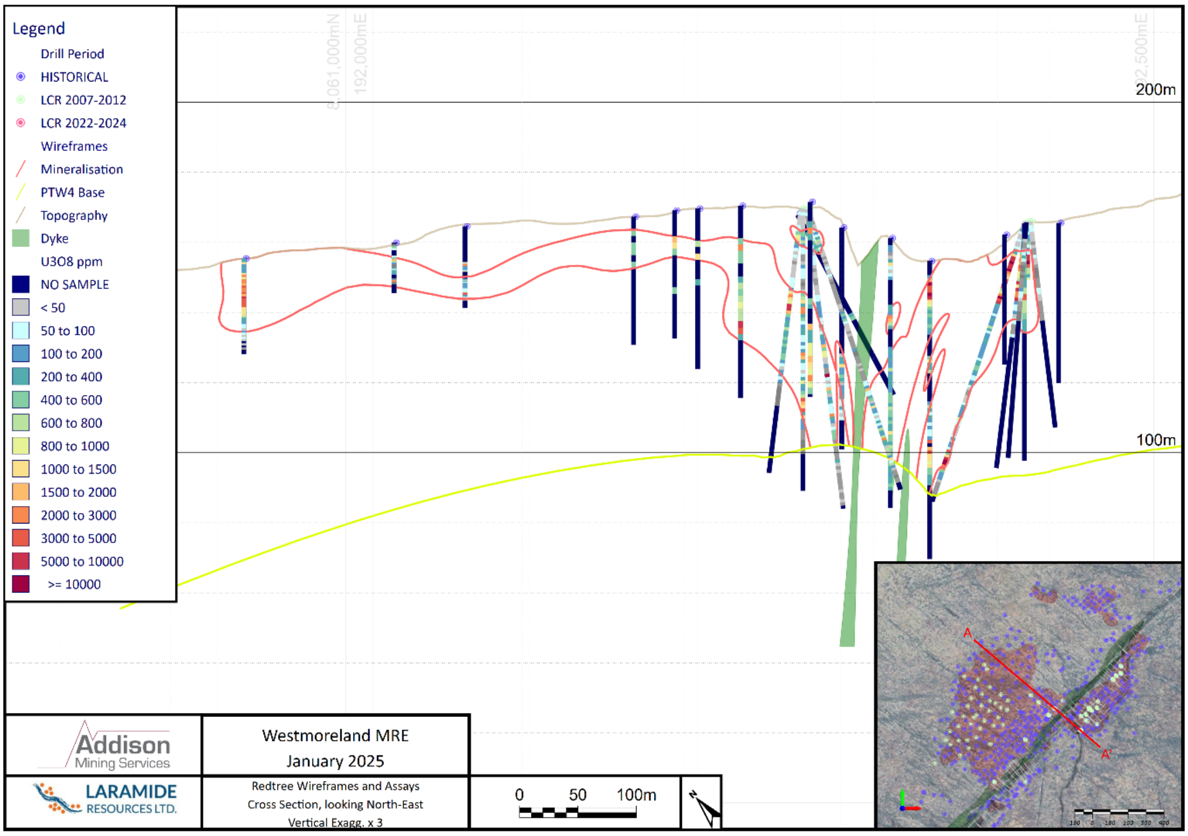


Figure 14.4 Redtree Example Cross Section of wireframe interpretation, Garee, Jack and Jack Steep Lenses. Vertical exaggeration times 3.

14.3.2 Huarabagoo

Mineralization at Huarabagoo is interpreted to be steep and proximal to the walls of the dyke. The dyke was modelled by correlation of major dyke material drilling intercepts as six dominant units which appear to have been emplaced with a dextral sense of shear. The correlated dyke units were modelled using the Micromine Implicit Vein Network tool, individual centre of mass surfaces were generated for each body and these surfaces were in turn used to create dynamic anisotropy models to guide the mineralization around the geometry of the dyke. Due to the geographic size of the deposit with a strike length of approximately 2.4 km, the deposit was split into 3 sections for modelling to allow the implicit models to be generated at a finer mesh size and maximize computing power. A mineralized shell was generated for the uranium mineralization using the dynamic model and was truncated by the base of the PTW4 unit, in the north of the model area alluvial cover is present and this was used to trim the model also. Example images are shown in Figure 14.5 and Figure 14.6.

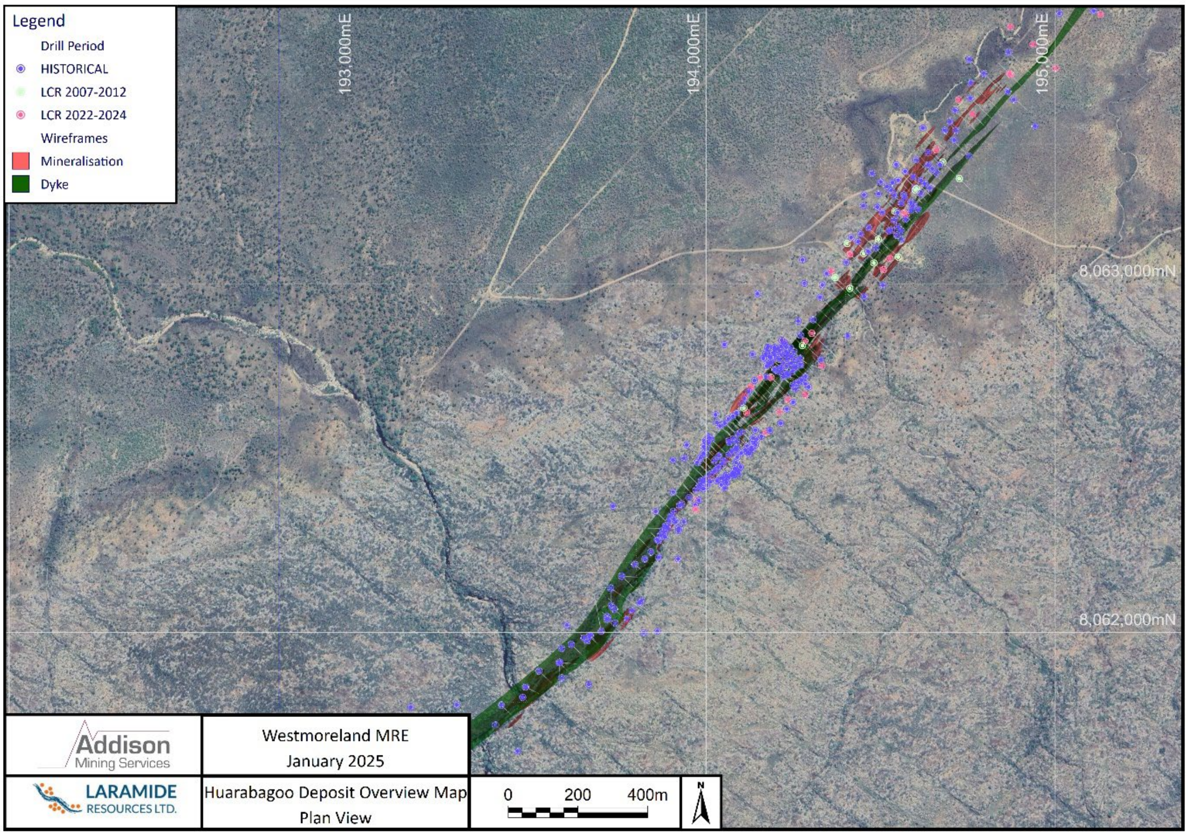


Figure 14.5 Huarabagoo dyke and mineralization wireframes plan map.

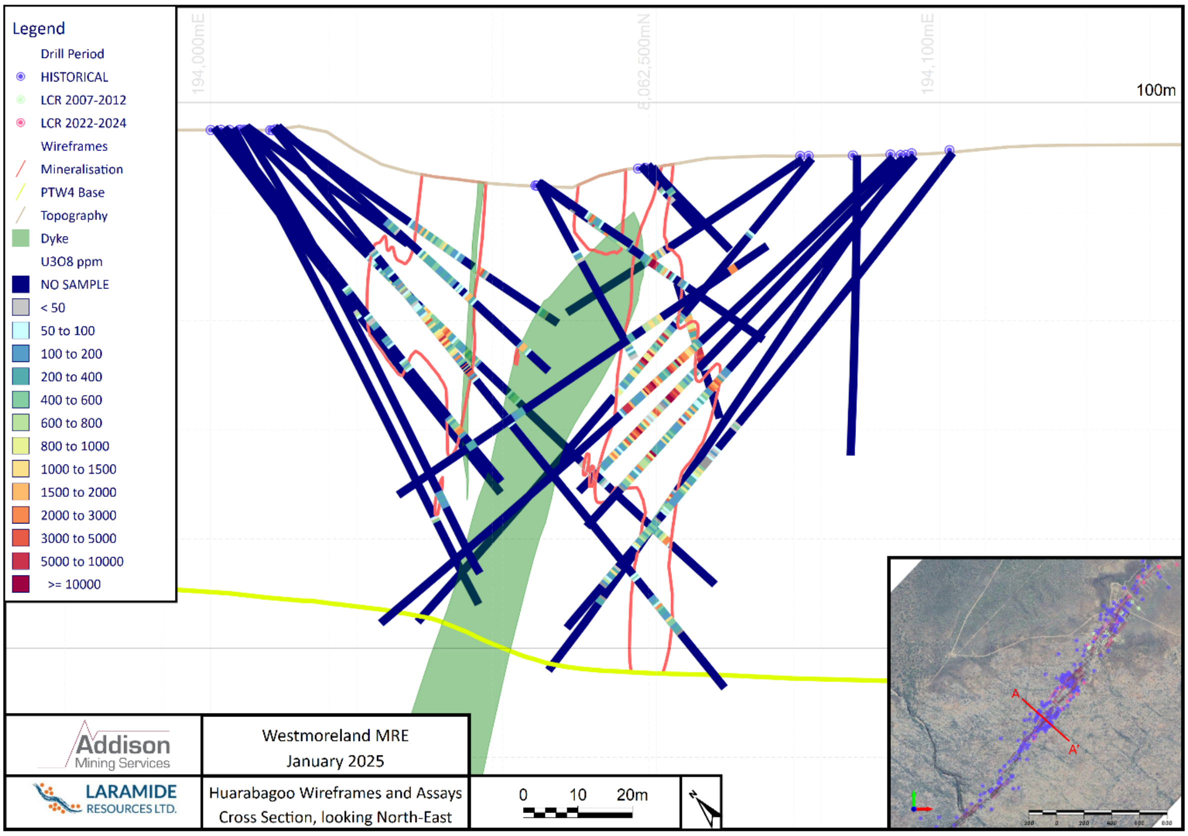


Figure 14.6 Huarabagoo example cross section.

14.3.3 Junnagunna

At Junnagunna mineralization is flat on either size of the dyke and extends 400-500 m from the dyke to the northwest and up to 200 m in the southeast. Mineralization sits under the "PTS" volcanics unconformity and rolls over to become steep 20-30 m from the edge of the dyke. The dyke was modelled using the vein modeller and the centre of mass surface used to generate a dynamic trend model along with surfaces representing the trend of the flatter mineralization. The dynamic trend model was used to generate a mineralized wireframe shell. Example images are shown in Figure 14.7 and Figure 14.8.

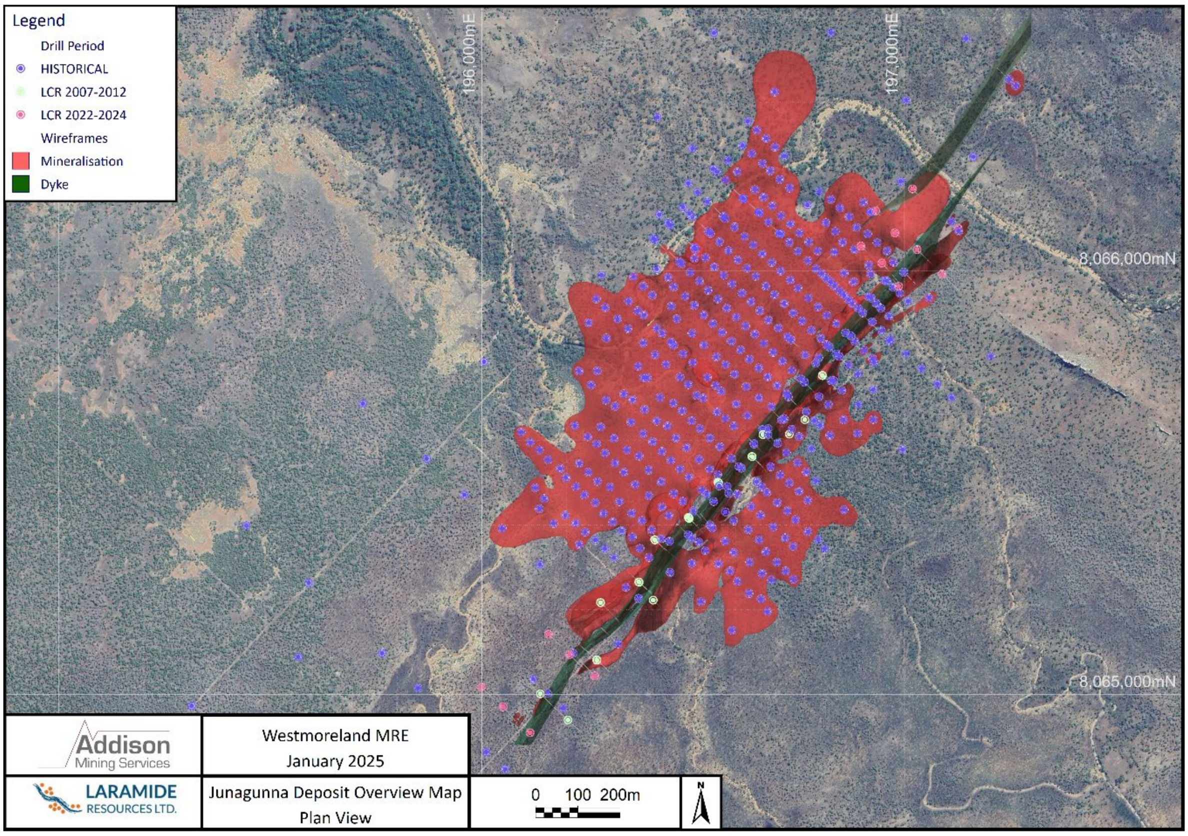


Figure 14.7 Junnagunna dyke and mineralization wireframes plan map.

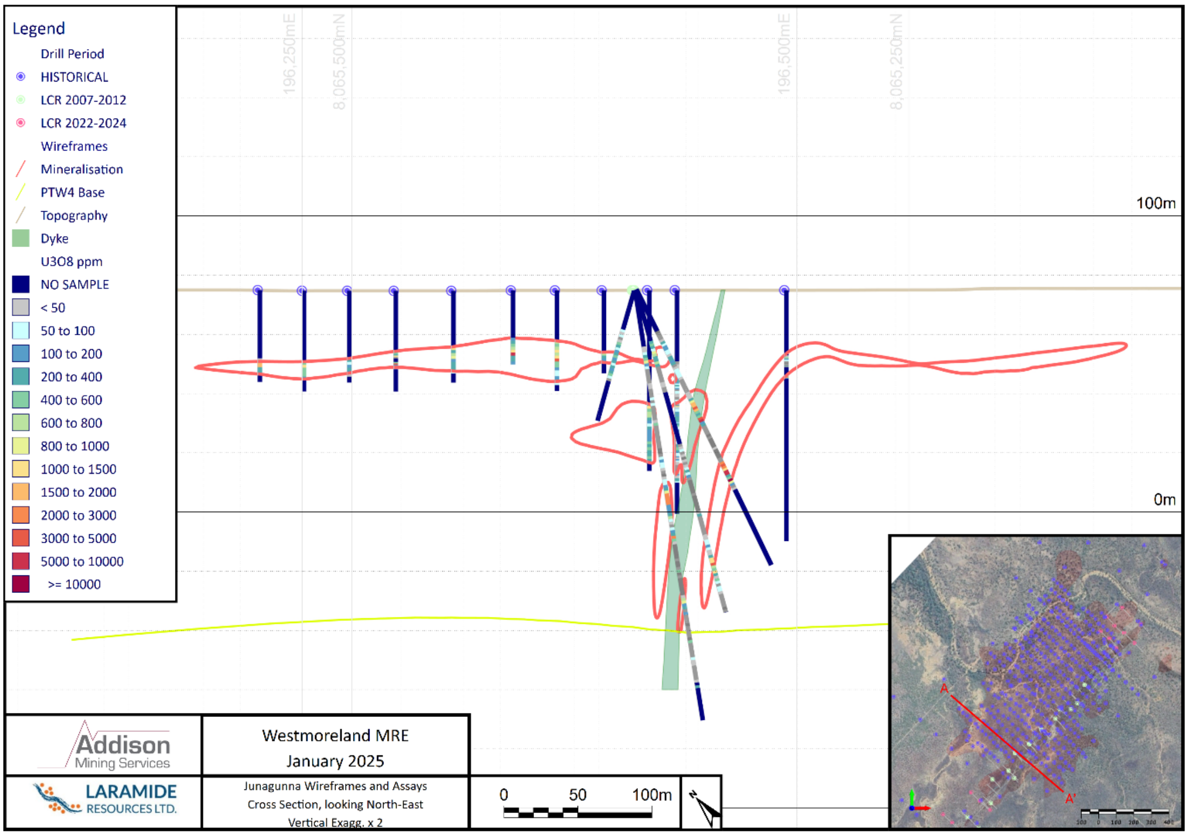


Figure 14.8 Junnagunna example cross section.
Vertical exaggeration times 2.

14.3.4 Long Pocket

At Long Pocket Mineralization is hosted in the PTW4 sandstone conglomerate and is sub horizontal and sits under intrusive PTD1 basaltic sills. The sill units were correlated and modelled using the vein implicit vein modelling tool and the centre surfaces used to create a dynamic model, the dynamic model was then in turn used to model the mineralization. Example images are shown in Figure 14.9 and Figure 14.10.

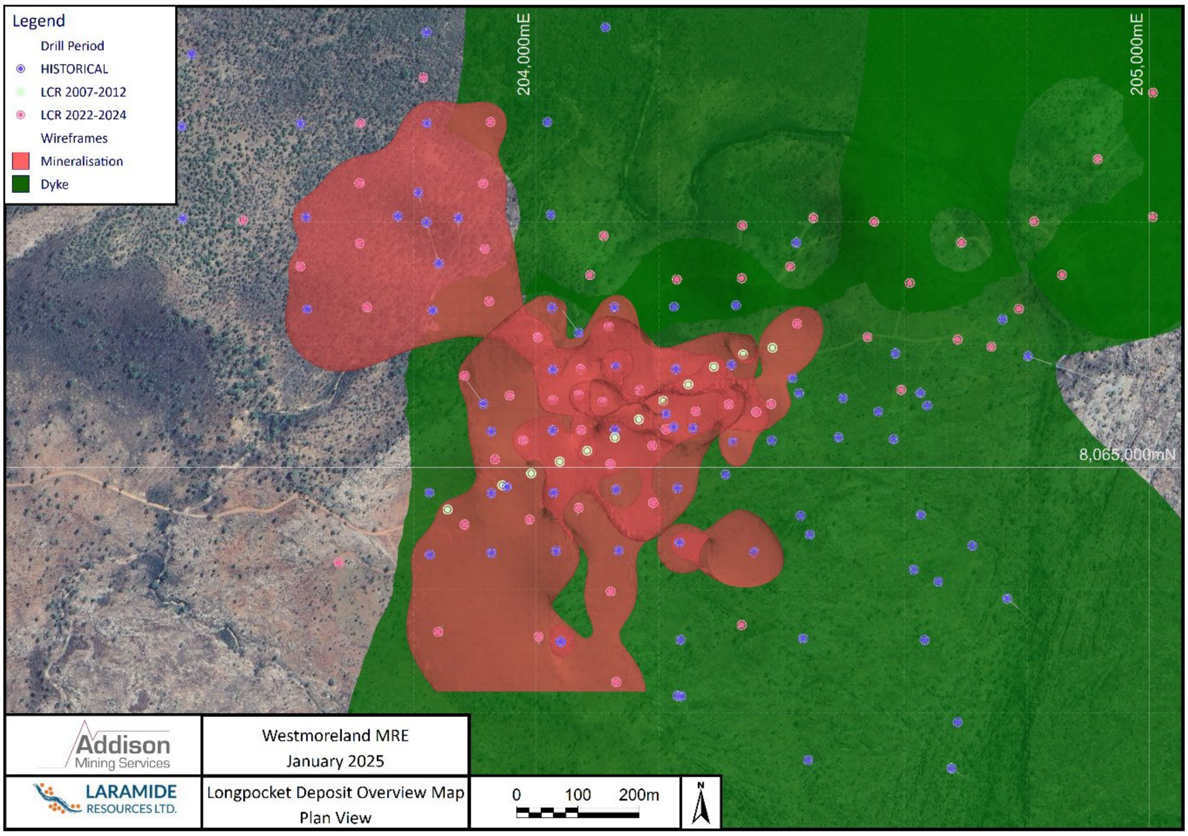


Figure 14.9 Long Pocket dyke/sill and mineralization wireframes plan map.

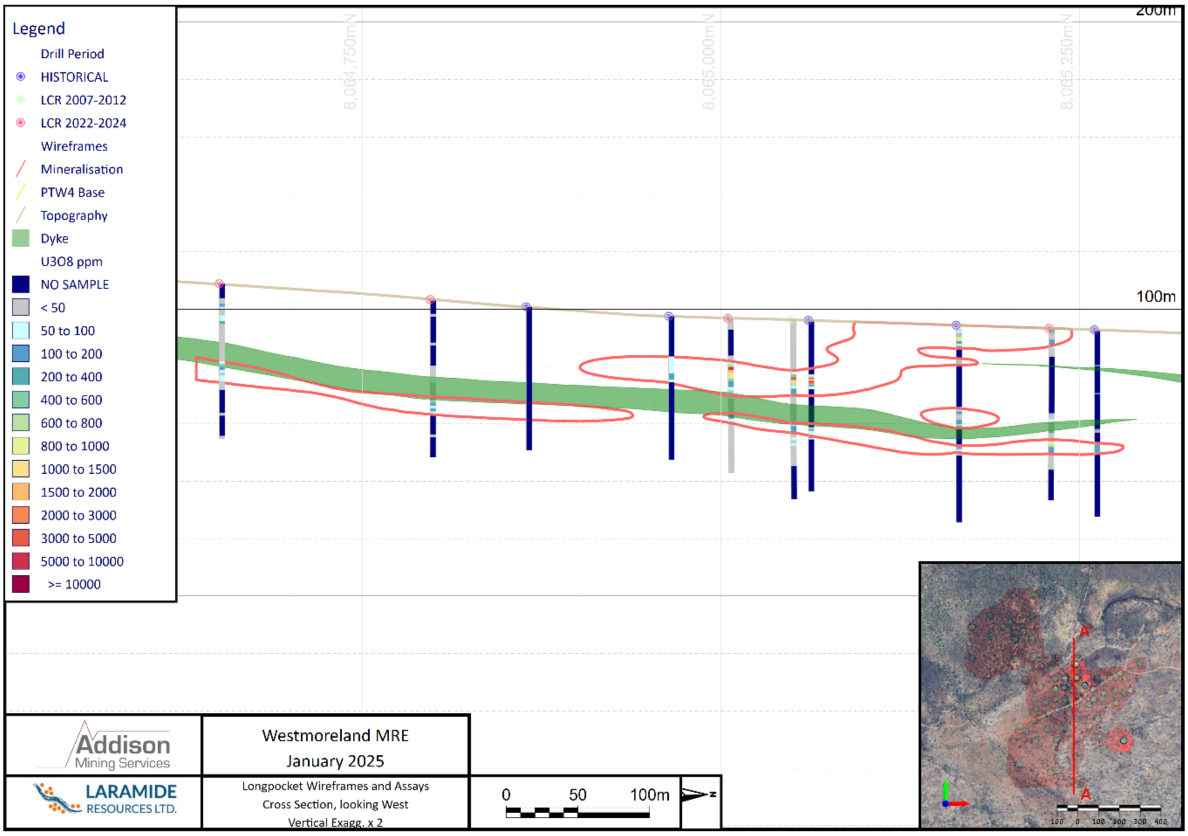


Figure 14.10 Long pocket example cross section.
Vertical exaggeration times 2.

14.4 Grade Compositing and Variography

All assay data falling within the wireframe was composited to 2 m intervals, the minimum accepted length was 1 m and residual values were added to the last composite, length weighted averaging was used.

Directional semi-variograms were generated for the Redtree Jack, Jack Steep and Garee lenses as well as for Huarabagoo, Junnagunna and Long Pocket. Normal scores transform or median indicator transform models were used according to which type gave the most meaningful structures. The normal scores models were back transformed by Micromine Origin and Beyond software prior to estimation. At Redtree meaningful models could not be generated for the Dyke and Namalangi lenses which used the Jack Steep semi-variogram models during estimation, and the Langi lens which used the Jack semi-variogram model. Example experimental models and fitted models are shown in Figure 14.11 to Figure 14.14.

Table 14.5 Semi-variogram parameters and axis directions.

Variogram	Nugget	Sill 1	Sill 2	Axis 1		Axis 2		Axis 3	
				Range 1	Range 2	Range 1	Range 2	Range 1	Range 2
RT Jack	0.3727	0.5078	0.7028	51.7	76.2	52.8	87.3	3.9	8.24
RT Jack Steep	0.28	0.5353	0.4064	32	94	10	27	7.53	8.58
RT Garee	0.1075	0.0475	0.095	5.9	18.67	8.82	29.41	4.3	10
HB	0.1	0.083	0.067	15	45	10	20	5	15
JG	0.09	0.098	0.062	50	104	13	62	3.72	6.4
Long pocket	0.5	0.25	0.25	48	88	35	60	3	8
	Model Type			**Azimuth**	**Plunge**	**Azimuth**	**Plunge**	**Azimuth**	**Plunge**
RT Jack	Normal Scores			230	25	320	25	320	20
RT Jack Steep	Normal Scores			43.2	3.8	137.8	49.7	130.0	-40.0
RT Garee	Median Indicator			240.2	3.8	330.9	10.2	310.0	-79.0
HB	Median Indicator			216	0	306	86.06	306	-3.94
JG	Median Indicator			44	0	134	0	0	-90
Long pocket	Normal Scores			60	0	150	0	0	-90

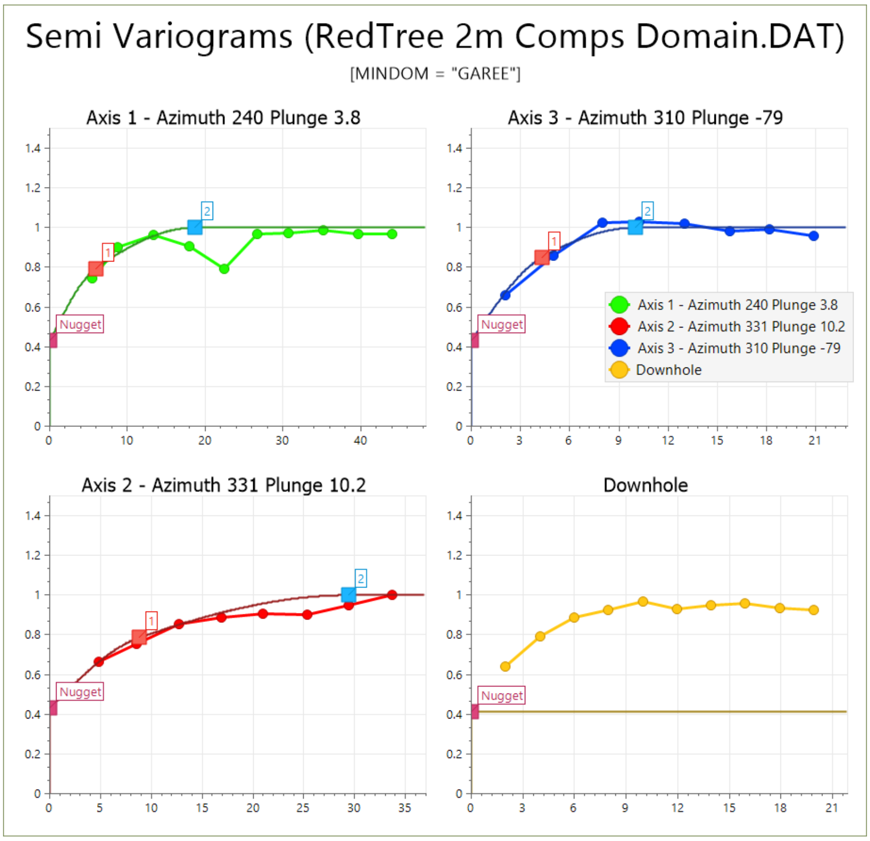


Figure 14.11 Garee Semi-variograms.

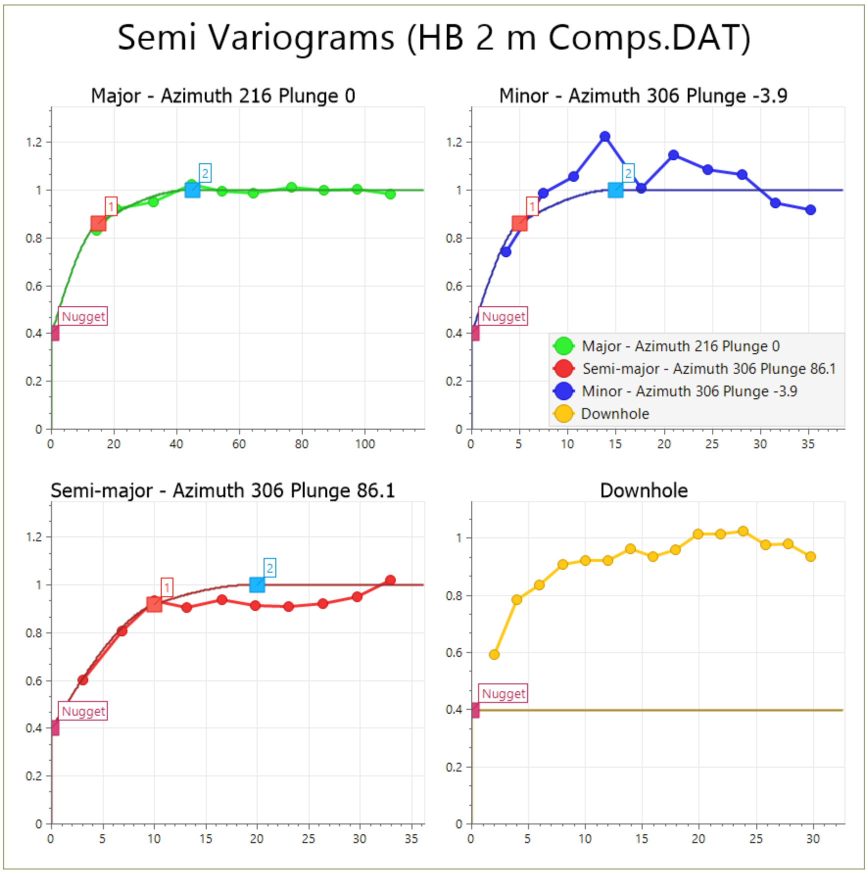


Figure 14.12 Huarabagoo semi-variograms.

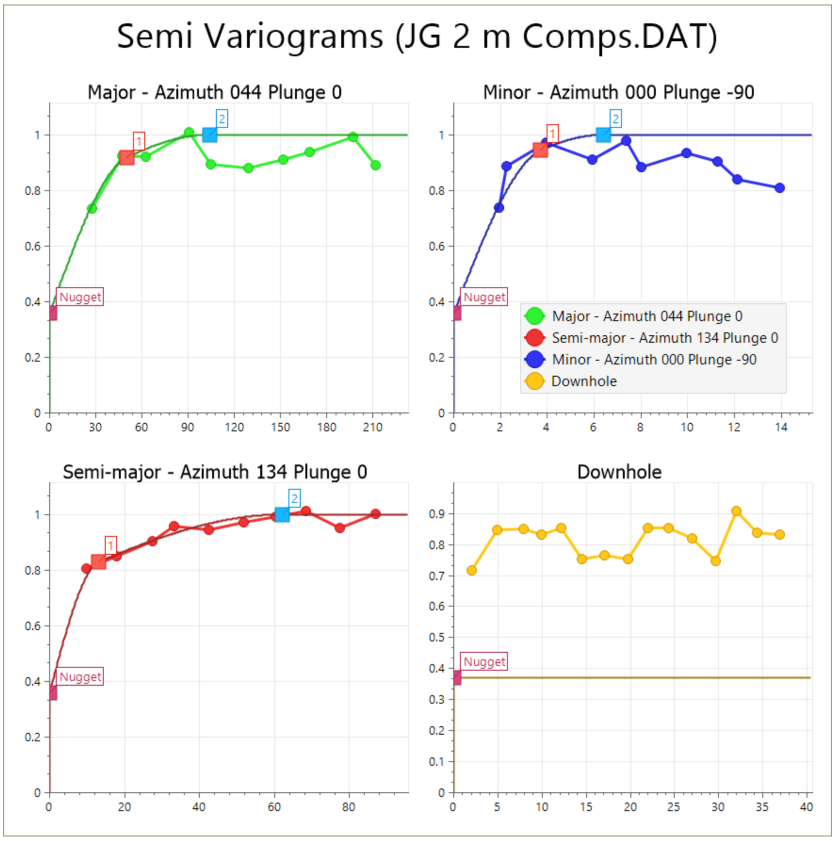


Figure 14.13 Junnagunna semi-variograms.

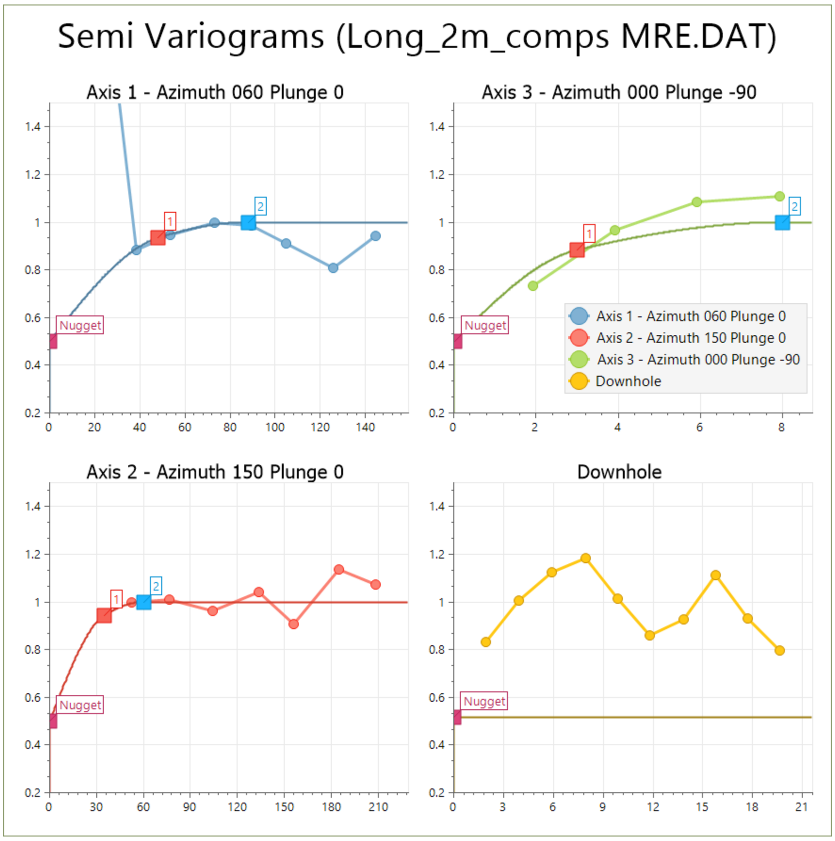


Figure 14.14 Long Pocket Semi-variograms.

14.5 Block Model Parameters

A blank block model was created for each deposit, the dynamic anisotropy models were written to the block model for each deposit for use in block estimation, the block models were then restricted to the mineralization wireframes and sub-blocked accordingly. The Redtree group of deposits (Redtree, Huarabagoo and Junnagunna) were rotated 40 degrees clockwise around the Z axis to better honour the strike of the mineralization. Block model parameters are shown in Table 14.6.

Table 14.6 Block model parameters.

Direction	Min Centre	Block Size/m	Max Centre	Azimuth Rotation	Number of Sub Block Divisions
Redtree					
East	191630	10	192810	40	5
North	8060040	10	8061430		5
Z	50	5	210		2
Huarabagoo					
East	193375	5	194890	40	2
North	8061700	10	8063630		2
Z	-40	5	120		5
Junnagunna					
East	196010	10	197280	40	2
North	8064900	15	8066760		3
Z	-40	5	65		5
Long Pocket					
East	203589	20	204469	0	10
North	8064555	20	8065595		10
Z	45	4	105		2

14.6 Grade Estimation

All block models were estimated using ordinary kriging on a domain-by-domain basis and at parent block scale, within the Redtree Jack and Jack Steep lenses a soft boundary was used to allow samples to inform block on either side of the boundary. Dynamic anisotropy was used which rotates the search and variogram axis during estimation of each block. Discretization of points within each block was applied accordingly to honour change of support effects when estimating from points to blocks. A single sector search was used in each estimate and the maximum number of points in each drillhole restricted. Incrementally larger searches were used and a minimum number of drillholes applied. At Long Pocket the parent cell size was doubled in areas of more sparse drilling. Table 14.7 sets out the estimation parameters for each domain. The handling of high-grade values is discussed in the following section.

Table 14.7 Block estimation parameters

Domain	Pass	Radius 1 m	Radius 2 m	Radius 3 m	Max Samples	Min Hole Count	Max Samples per Hole	Block Size Multiplier	Discretisation X,Y,Z
RT Dyke	1	100	100	10	24	3	3	1	5,5,2
RT Dyke	2	100	100	10	24	1	3	1	5,5,2
RT Garee	1	40	40	10	24	3	3	1	5,5,2
RT Garee	2	40	40	10	24	1	3	1	5,5,2
RT Jack/Steep	1	60	40	10	24	3	3	1	5,5,2
RT Jack/Steep	2	60	40	10	24	1	3	1	5,5,2
RT Langi	1	60	40	10	24	3	3	1	5,5,2
RT Langi	2	60	40	10	24	1	3	1	5,5,2
RT Namalangi	1	60	40	10	24	3	3	1	5,5,2
RT Namalangi	2	60	40	20	24	1	3	1	5,5,2
Huarabagoo	1	30	30	10	24	3	3	1	2,5,2
Huarabagoo	2	50	50	10	24	3	3	1	2,5,2
Huarabagoo	3	50	50	10	24	2	3	1	2,5,2
Huarabagoo	4	100	100	20	24	2	3	1	2,5,2
Junnagunna	1	75	45	10	36	3	4	1	5,5,2
Junnagunna	2	100	60	15	36	3	4	1	5,5,2
Junnagunna	3	150	150	20	36	2	4	1	5,5,2
Junnagunna	4	150	150	20	36	1	4	1	5,5,2
Long Pocket	1	50	50	10	24	3	3	1	10,10,2
Long Pocket	2	75	75	15	24	1	3	1	10,10,2
Long Pocket	3	75	75	15	24	2	3	2	10,10,2
Long Pocket	4	150	150	30	24	1	3	2	10,10,2

14.7 Top Cutting and Grade Distance Thresholds

In order to control the influence of high-grade samples a process of distance thresholds was applied whereby a composite sample is allowed to keep its original value within a given percentage of the search radius, outside of this radius the grade is capped to the threshold value. The grade thresholds were selected after inspection of domain histograms and review of the block model and input data following test kriging runs. The thresholds and distances are presented in Table 14.8.

Table 14.8 Grade capping distance thresholds.

	Range / m								
Domain	**Axis1**	**Axis2**	**Axis3**	**Axis1**	**Axis2**	**Axis3**	**Axis1**	**Axis2**	**Axis3**
Threshold U_3O_8 ppm	**10,000**			**8100**			**5000**		
RT Dyke	10	10	1	20	20	2	60	60	6
RT Garee	4	4	1	8	8	2	24	24	6
RT Jack/Steep	6	4	1	12	8	2	36	24	6
RT Langi	6	4	1	12	8	2	36	24	6
RT Namalangi	6	4	1	12	8	2	36	24	6
Threshold U_3O_8 ppm	**10,000**			**8000**					
Huarabagoo	10	10	3	20	20	6			
Junnagunna	10	10	3	20	20	6			
Threshold U_3O_8 ppm	**3000**			**1500**					
Long Pocket	25	25	5	56	56	10			

14.8 Block Model Validation

The block models were validated by comparison of input and output data histograms (Figure 14.15 to Figure 14.18), global statistics, and inspection of the models in cross section (Figure 14.19 to Figure 14.23) and three dimensions. Table 14.9 shows statistics for the composites and block models by domain. Particular attention was paid to the mean and weighted mean of the composite data vs the volume weighted mean of the block models. The weighting of the composites was assigned by cell delustering to remove bias brought about by data clustering that results from favourably drilling high grade areas. The weighted mean values compare favourably with some discrepancy in Redtree Langi, Namalangi and the Dyke where the number of data points are comparatively few.

Table 14.9 Domain Composite and Block Model Statistics.

	RT Jack/Steep		RT Garee		RT Langi		RT Namalangi	
	Comps	**BM**	**Comps**	**BM**	**Comps**	**BM**	**Comps**	**BM**
Min Value	7.3	67.8	5.9	117.7	115.0	115.0	65.0	189.7
Max Value	15000.0	6572.8	15000.0	6436.8	3069.5	1921.9	15000.0	4367.9
2nd Highest	15000.0	6390.2	15000.0	6436.8	3043.0	1908.3	13278.5	4053.0
3rd Highest	12446.5	5281.4	15000.0	6436.8	2932.6	1792.7	10700.5	3865.4
4th Highest	9457.2	5162.3	13608.0	4656.8	2864.0	1792.7	10056.8	3865.4
No. of Points	1640.0	21865.0	2452.0	18430.0	57.0	1453.0	152.0	3532.0
Mean	938.0	819.3	889.5	746.3	829.0	664.2	1477.5	1069.4
Wtd. Mean	860.0	878.4	791.7	797.0	836.2	708.3	1310.9	1092.6
Wtd. Std. Dev.	1174.9	523.9	1385.7	580.8	695.5	374.7	2312.8	627.8
Std. Dev.	1271.0	452.2	1523.0	558.4	737.3	365.2	2480.4	636.8
CoV	1.4	0.6	1.7	0.7	0.9	0.5	1.7	0.6
Median	509.2	724.1	387.6	563.7	642.1	597.7	513.8	1027.6
	RT Dyke		**Huarabagoo**		**Junnagunna**		**Long Pocket**	
	Comps	**BM**	**Comps**	**BM**	**Comps**	**BM**	**Comps**	**BM**
Min Value	46.6	78.1	0.1	45.6	0.1	62.7	2.5	57.1
Max Value	15000.0	4548.7	33914.5	9796.3	10565.6	3836.6	9276.8	1979.4
2nd Highest	7000.0	4548.7	20952.3	9528.7	9900.0	3836.6	5501.0	1979.4
3rd Highest	6498.0	4519.7	18490.0	9528.7	7812.2	3729.5	5052.9	1979.4
4th Highest	4937.0	4486.2	17676.6	9528.7	7125.0	3729.5	2892.0	1979.4
No. of Points	62.0	1744.0	2724.0	23203.0	1984.0	28576.0	449.0	74927.0
Mean	1627.1	1446.2	917.3	867.8	610.9	600.2	303.5	270.8
Wtd. Mean	1468.2	1615.9	885.6	848.2	600.9	614.8	287.4	273.1
Wtd. Std. Dev.	2008.6	1305.1	1780.0	643.0	817.0	361.0	566.0	169.0
Std. Dev.	2436.6	1115.4	1754.0	652.0	902.0	346.0	650.0	167.0
CoV	1.5	0.8	1.9	0.8	1.5	0.6	2.1	0.6
Median	496.5	1101.6	365.5	685.2	300.4	530.2	133.3	231.9

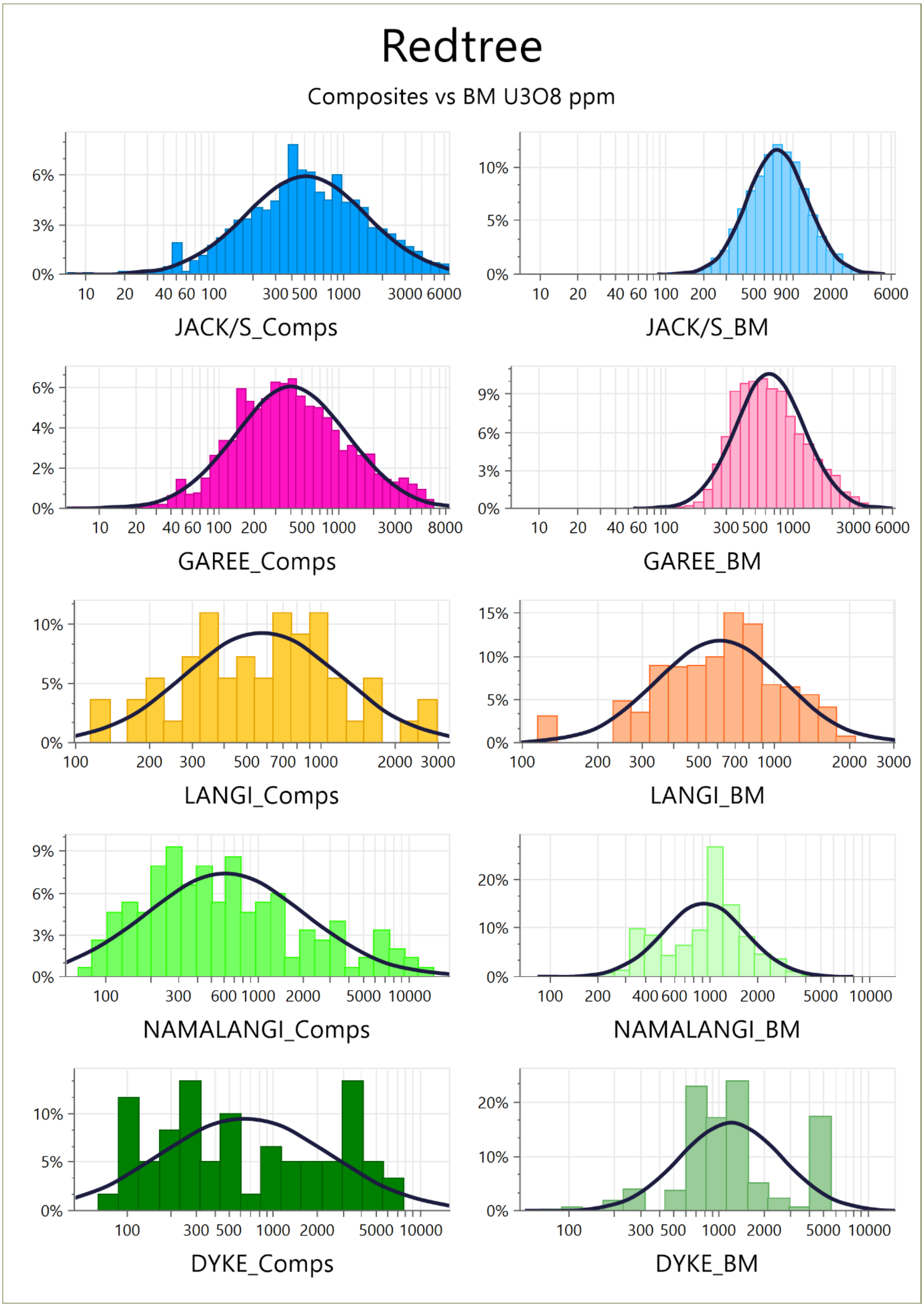


Figure 14.15 Redtree Composite and Block Model Histograms.

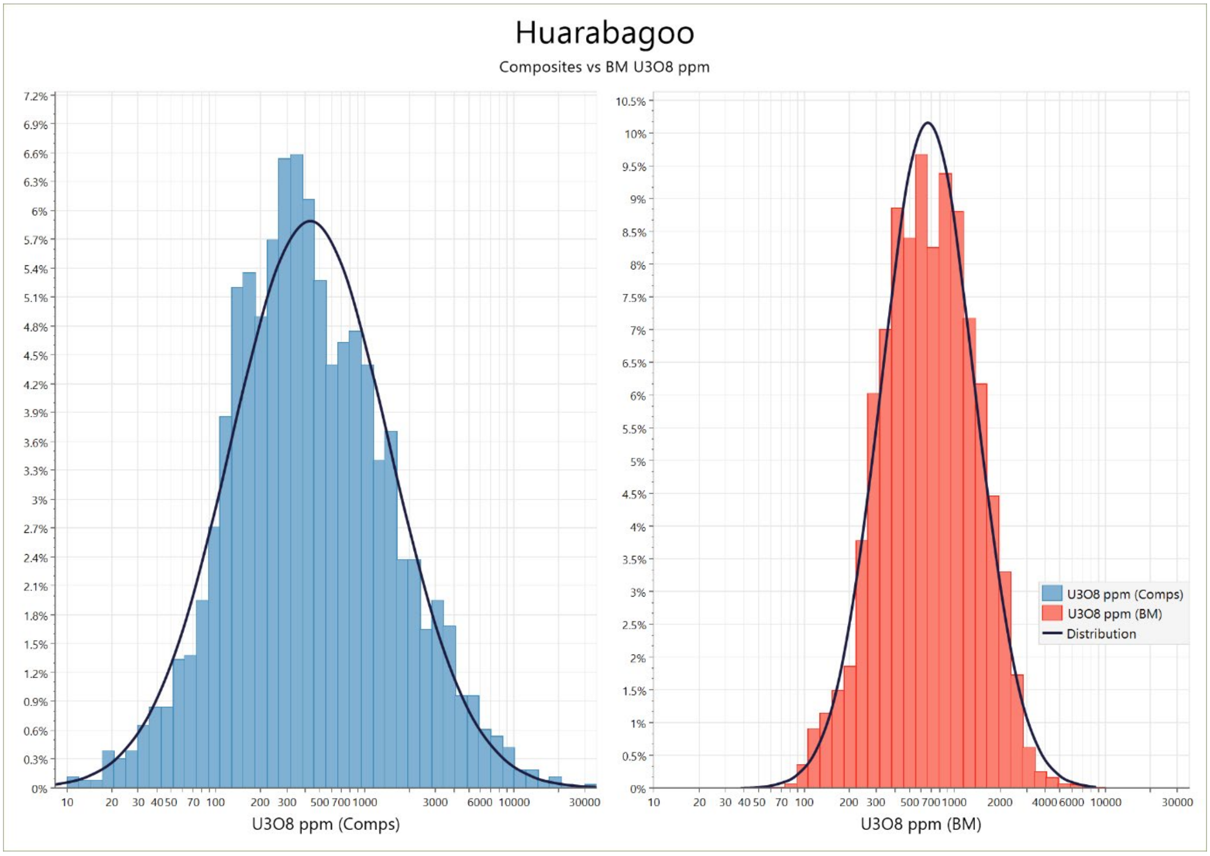


Figure 14.16 Huarabagoo Composite and Block Model Histograms.

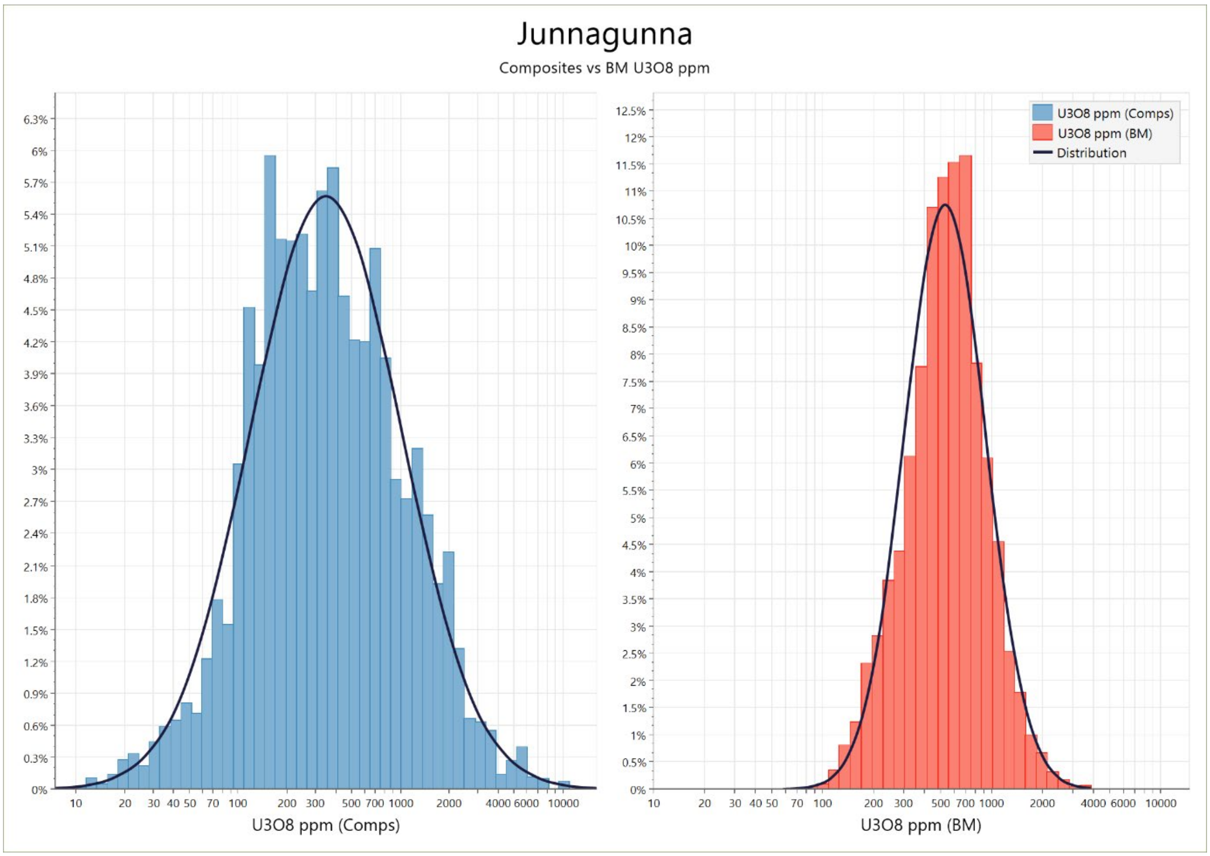


Figure 14.17 Junnagunna Composite and Block Model Histograms.

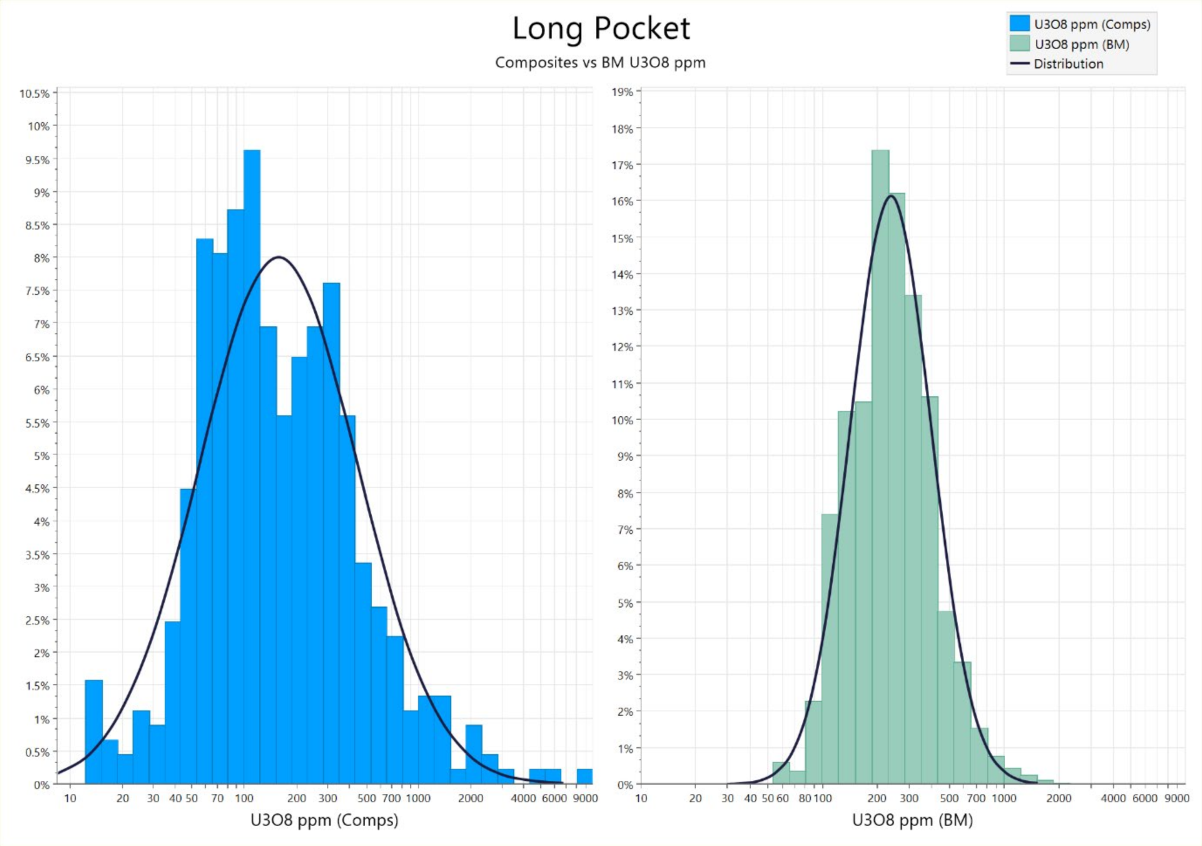


Figure 14.18 Long Pocket Composite and Block Model Histograms.

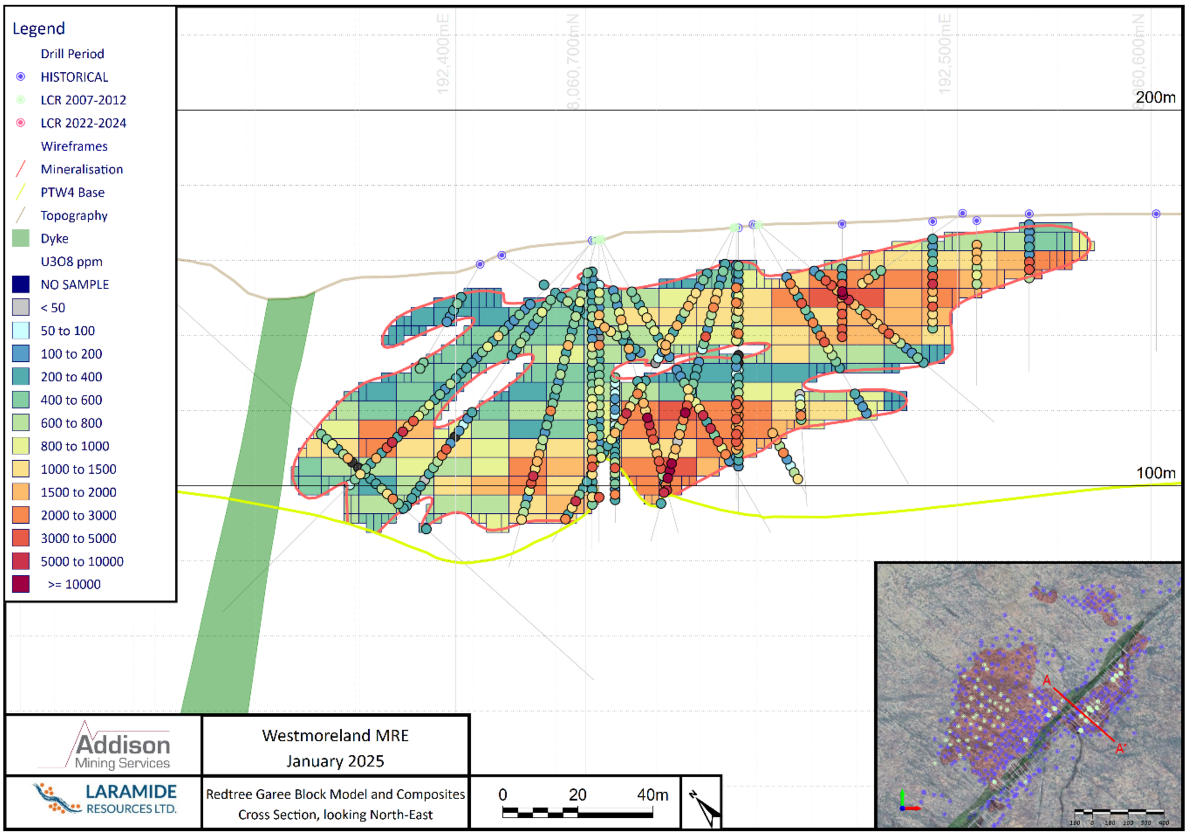


Figure 14.19 Redtree Garee block model cross section.

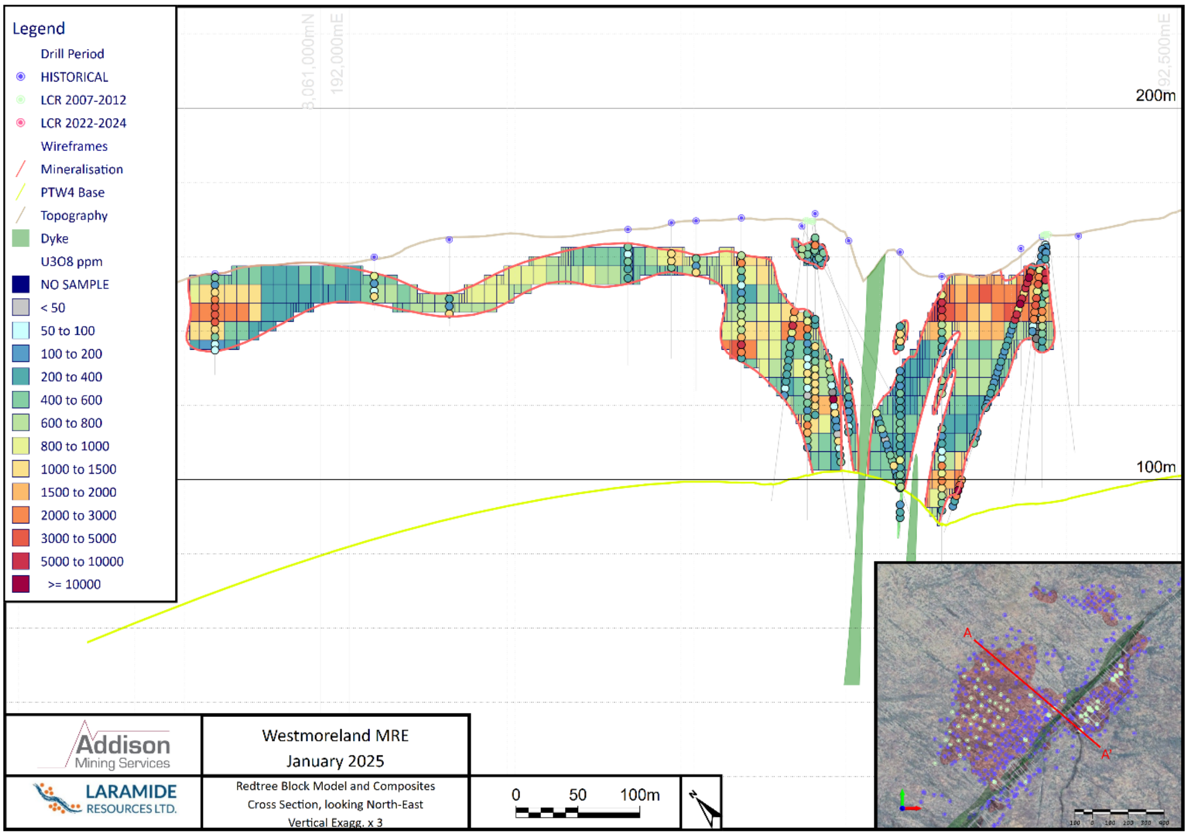


Figure 14.20 Redtree Jack-Garee block model cross section.

Vertical exaggeration x3

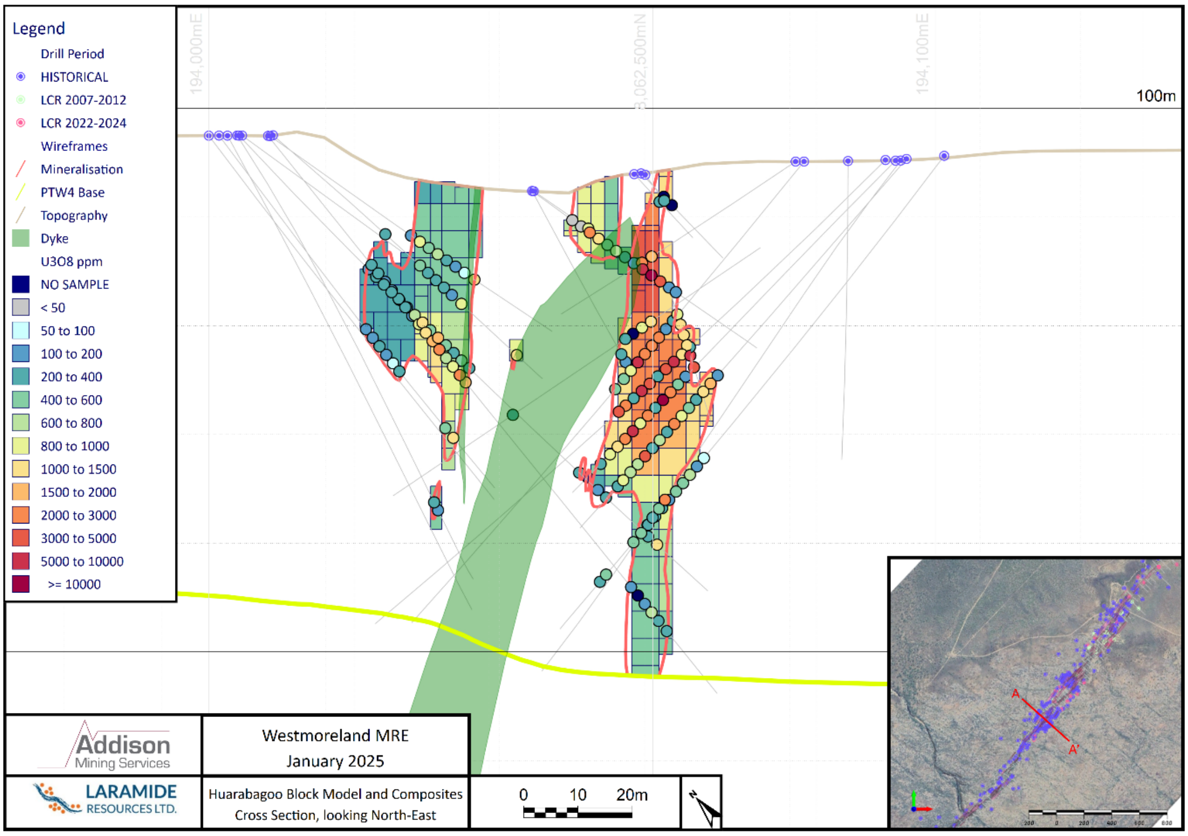


Figure 14.21 Huarabagoo block model cross section.

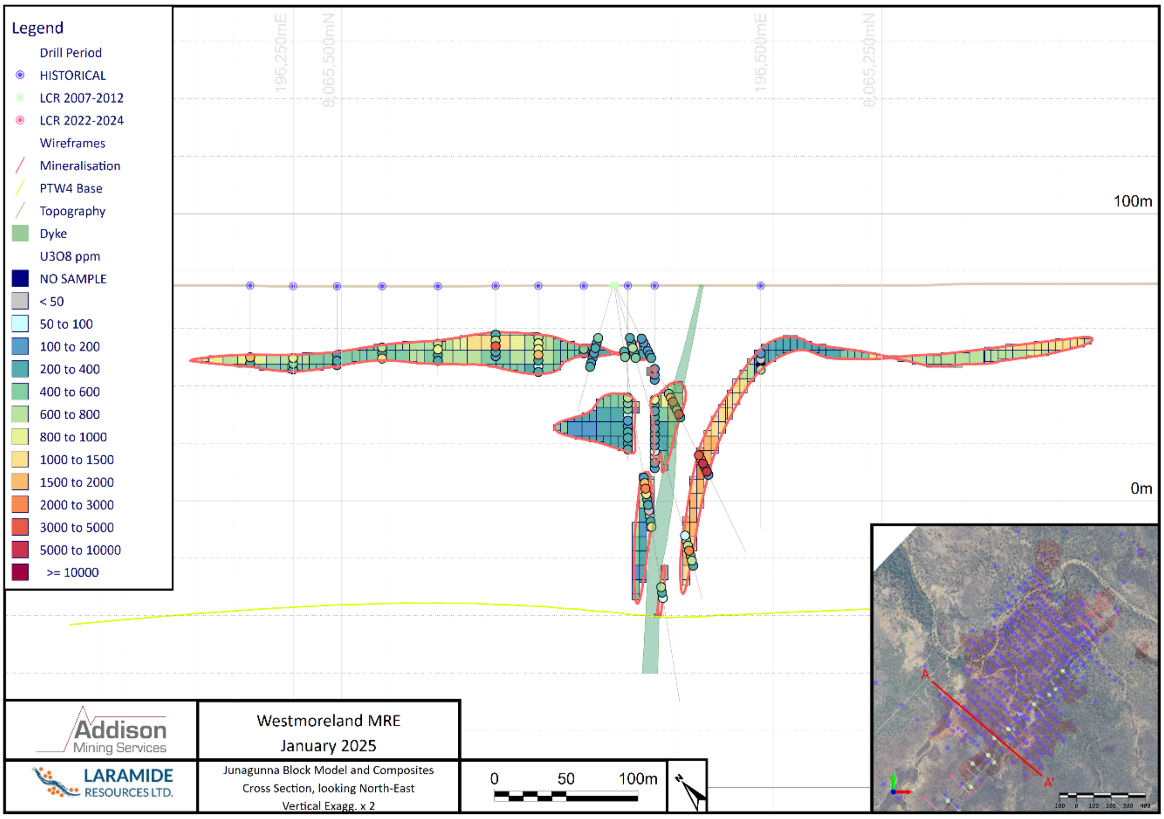


Figure 14.22 Junnagunna block model cross section.
Vertical Exaggeration x2

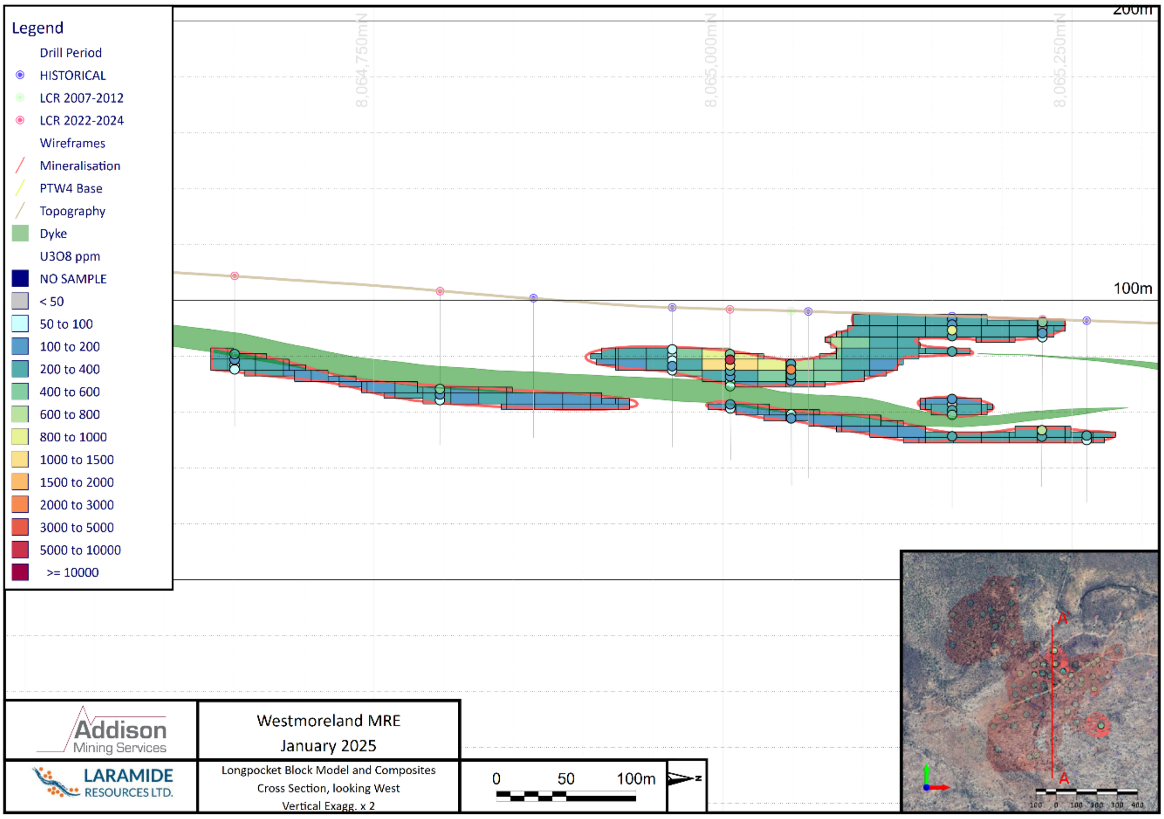


Figure 14.23 Long Pocket block model cross section.
Vertical Exaggeration x2

14.9 Bulk Density

There are 1428 Bulk Density determinations in the Westmoreland database across different lithologies and zones of mineralization the mean value is 2.57 g/cm^3. No relationship was found between density and grade. Analysis showed a mean value of 2.7 g/cm^3 was appropriate for material in the dyke while PTW4 sediment were given values of 2.5 g/cm^3 at Redtree and Long Pocket, 2.6 g/cm^3 at Huarabagoo 2.54 g/cm^3 at Junnagunna.

14.10 Cut-off Grade and Reasonable Prospects of Eventual Economic Extraction.

Reasonable Prospects of Eventual Economic Extraction contemplates mining by open pit mining methods with mineral processing by conventional leaching. Mining costs are estimated at approximately US$3/t, mineral processing at US$30/t and general and administrative cost at US$5/t processed. Considering a U_3O_8 price of US$80/Lb. a breakeven cut-off grade of 200 ppm is used for reporting and aligns with the cut-off grade used in previous estimates. Process recovery is estimated at 97.5%.

Pit optimization tests showed that all mineralized material above cut-off grade within the Redtree, Junnagunna and Huarabagoo deposit block models has reasonable prospect of being extracted by open pit methods. At Long Pocket an ultimate pit shell was used to constrain the estimate of reported Mineral Resources.

14.11 Resource Classification

The estimate was classified according to the Qualified Persons view of the estimation confidence. Indicated Resources are reported in areas where the spacing and quality of data are sufficient to allow estimation to a level of confidence which can be used for mine planning and economic evaluation. Those areas classified as Indicated Resources are typically informed by data with spacing 30 to 50 m, or in the case of the Junnagunna flat mineralization 30 m across strike and 60-70 m along strike. Indicated Resources are estimated into blocks approximately one third of the data spacing and are typically informed in the first estimation pass using a minimum of 3 drillholes. Inferred Resources are classified in areas typically with spacing 50-100 m.

Measured Resources were thought not warranted due to the reliance on legacy data and the accuracy of the digital terrain model which, which is material at Redtree where the topography is more variable. Redtree in the most densely drilled parts of the Garee lens which Laramide has also drilled extensively measured Resources maybe warranted in the future with the addition of improved topographic controls.

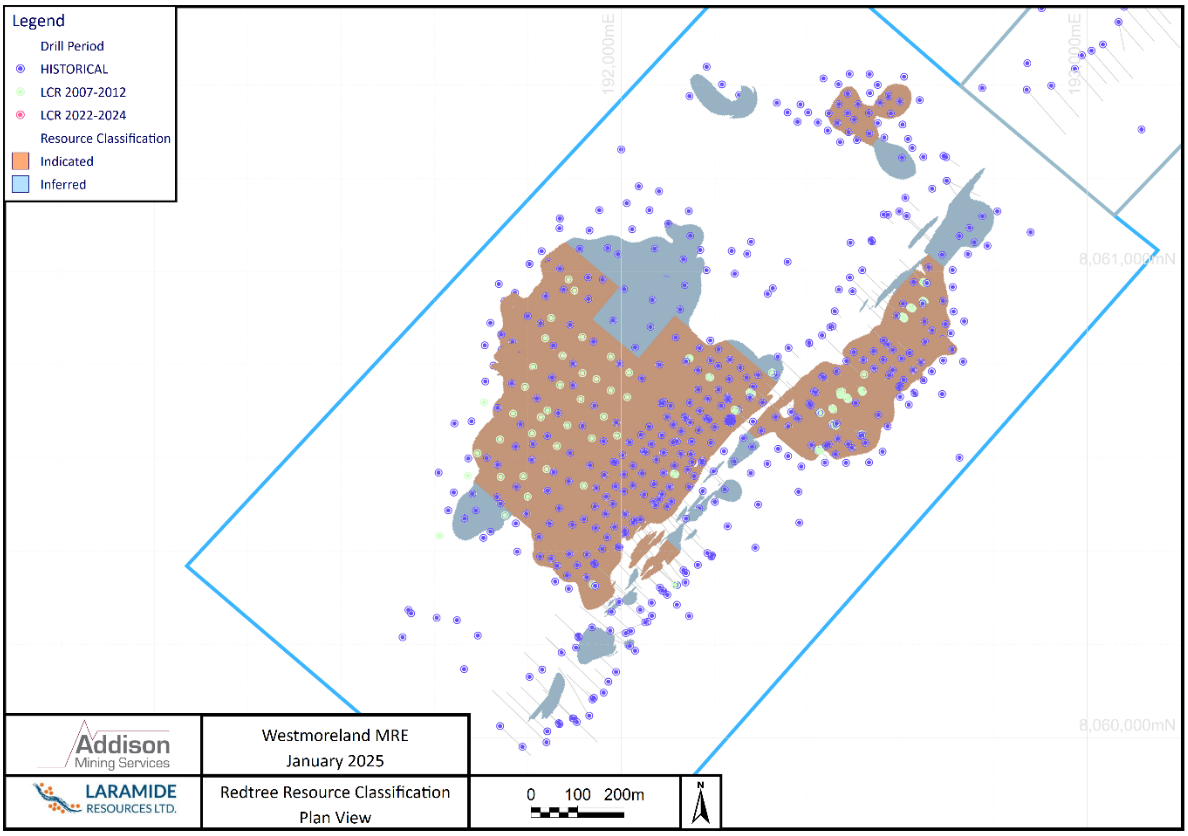


Figure 14.24 Redtree resource classification.

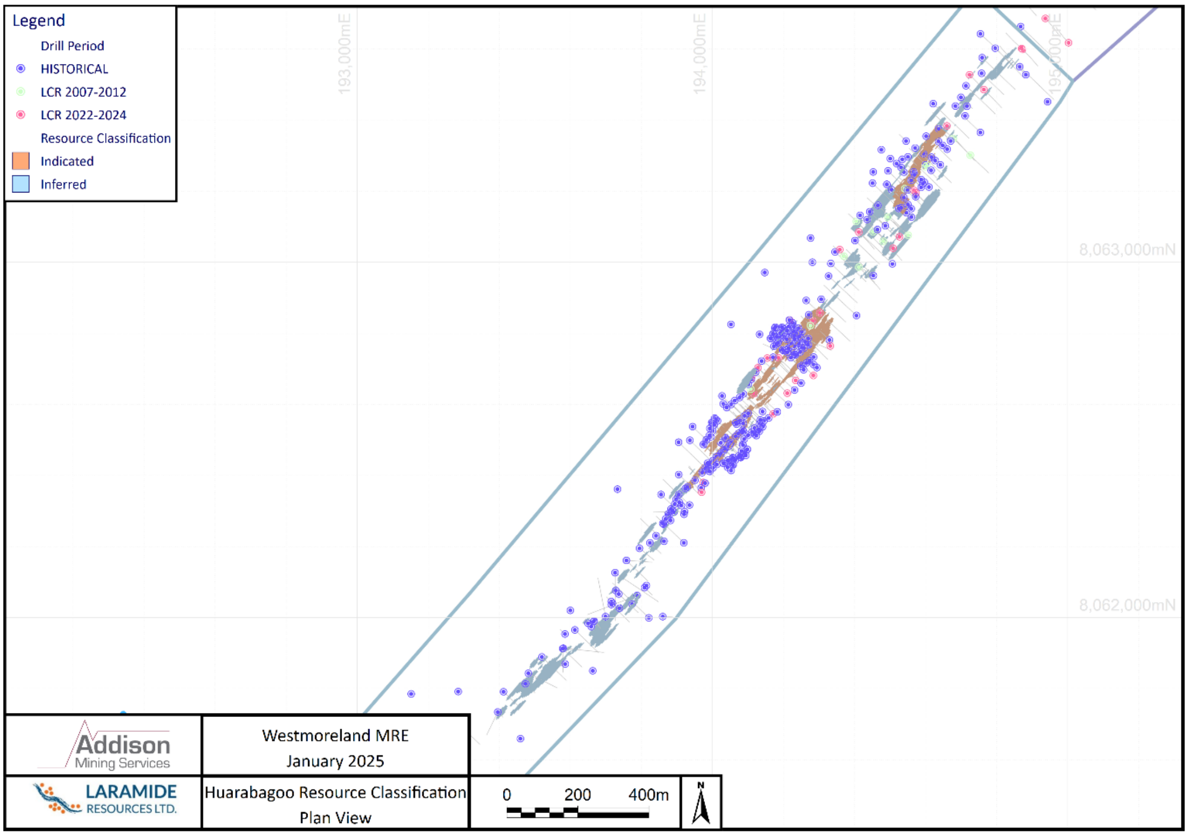


Figure 14.25 Huarabagoo resource classification.

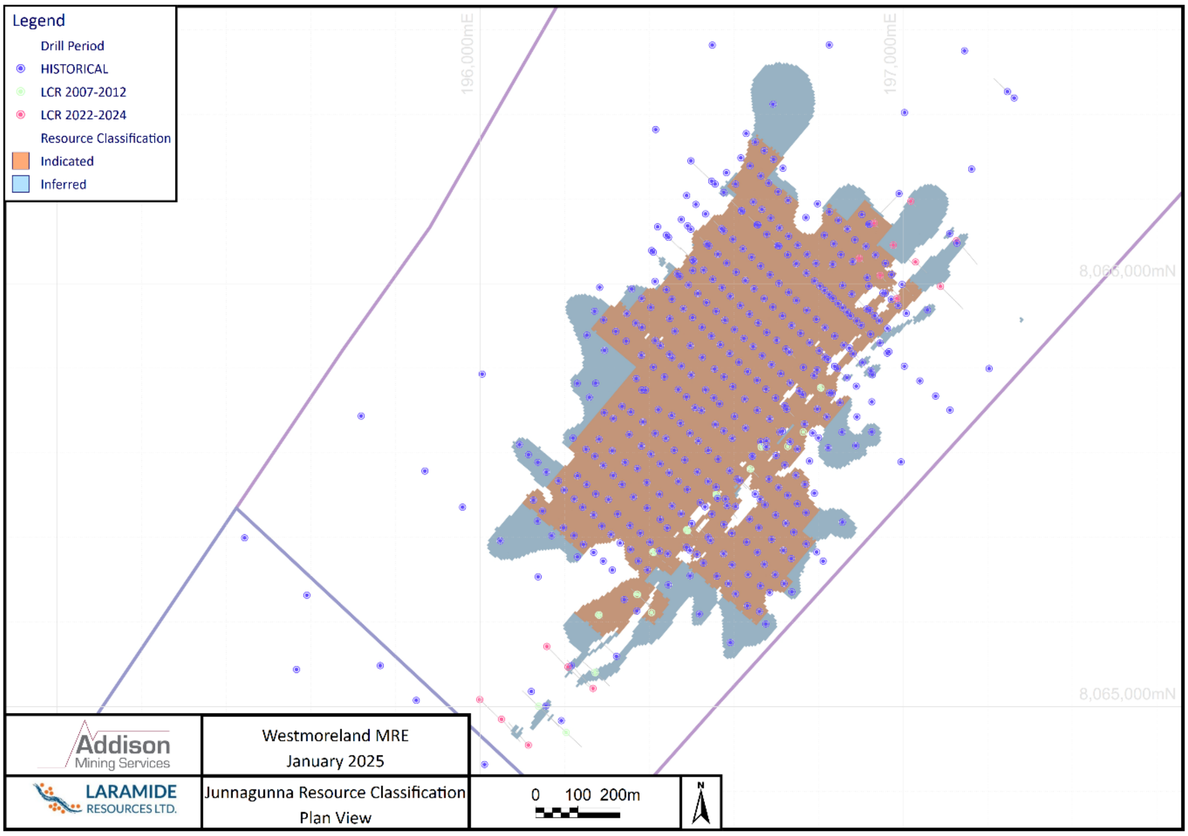


Figure 14.26 Junnagunna resource classification.

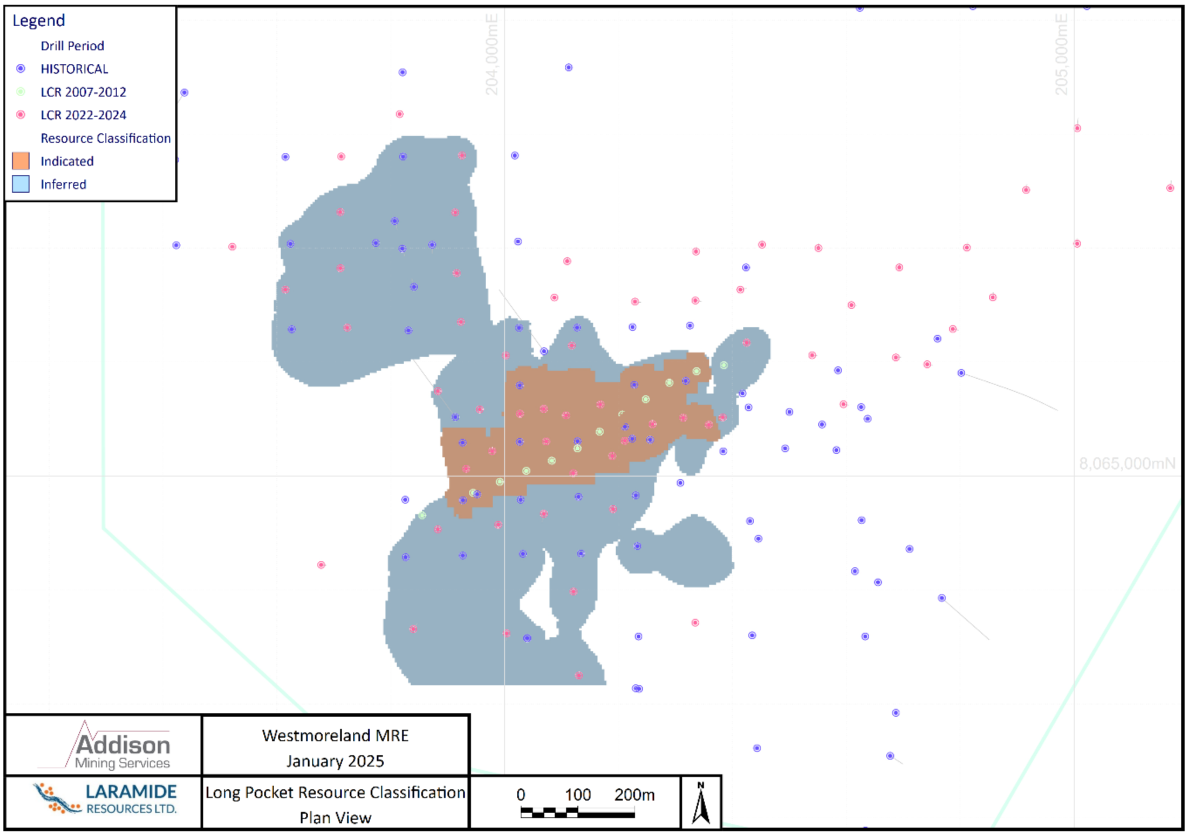


Figure 14.27 Long Pocket resource classification.

14.12 Resource Estimate Results

The updated Mineral Resource Estimate has an effective date of January 31st, 2025, and is reported above a cut-off grade of 200 ppm U_3O_8 and comprises of:

- Indicated Resources of 27.8 million tonnes at an average grade of 770 ppm U_3O_8 for 48.1 million contained Lbs. of U_3O_8.
- Inferred Resources of approximately 11.8 million tonnes at an average grade of 680 ppm U3O8 for 17.7 million contained Lbs. of U_3O_8.

The updated estimate supersedes all previous estimates. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is important to note that currently, only exploration, and not mining for uranium is permitted in Queensland, Australia. However, it is reasonable to expect that the policy may change in the future as there is a historical precedent for uranium mining within the State. An activity exclusion zone exists at the southern end of the Huarabagoo deposit which will require further negotiation for future access and exploration activities and effects 30% of the contained tonnage and Metal of the Huarabagoo Inferred Estimate. Table 14.10 sets out the Indicated and Inferred Mineral Resources by deposit.

Table 14.10 Mineral Resources by deposit for the Westmoreland Uranium Project, Queensland, Australia. Reported above a cut-off grade of 200 ppm U3O8. Effective 31st January 2025.

Deposit	Tonnes	Density g/m^3	U_3O_8 ppm	U_3O_8 MLbs.
		Indicated		
Redtree	14,000,000	2.5	880	27
Huarabagoo	2,500,000	2.6	890	4.9
Junnagunna	10,000,000	2.5	640	15
Long Pocket	1,300,000	2.5	420	1.2
Total Indicated	***27,800,000***	***2.5***	***770***	***48.1***
		Inferred		
Redtree	3,000,000	2.5	800	5.2
Huarabagoo	3,100,000	2.6	870	6.0
Junnagunna	3,000,000	2.5	620	4.2
Long Pocket	2,700,000	2.5	380	2.3
Total Inferred	***11,800,000***	***2.5***	***680***	***17.7***

14.13 Comparison to Previous Estimate

The previous Mineral Resource Estimate had an effective date of May 11th 2009 and is superseded by this estimate dated effective January 31st 2025. Differences in the estimate are shown in Table 14.11. Differences in the estimate are attributed to the following items.

- Additional drilling and receipt of assay results post May 2009 to January 2025 at Junnagunna and Huarabagoo.
- Additional exploration at Long Pocket, which was not included in the previous estimate.
- Application of more sophisticated 3D modelling techniques, including implicit modelling which was not commonly employed in 2009, and is more adept at modelling complex geometry than traditional cross section interpretation.
- The Redtree deposit, which has not seen further exploration has no material change and this helps to support the veracity of the estimates.

Table 14.11 Comparison to previous estimate

2009 MRE				
Deposit	**Tonnes**	**Density g/m³**	**U_3O_8 ppm**	**U_3O_8 MLb.**
		Indicated		
Redtree	12,900,000	2.5	900	25.5
Huarabagoo	1,460,000	2.5	830	2.7
Junnagunna	4,360,000	2.5	810	7.8
Long Pocket	-	-	-	-
Total Indicated	**18,700,000**	**2.5**	**880**	**36**
		Inferred		
Redtree	4,460,000	2.5	670	6.6
Huarabagoo	2,400,000	2.5	1,090	5.8
Junnagunna	2,150,000	2.5	750	3.6
Long Pocket	-	-	-	-
Total Inferred	**9,000,000**	**2.5**	**800**	**15.9**
		Relative Difference %		
	Tonnes		**Grade**	**Contained Metal**
		Indicated		
Redtree	9%		-2%	6%
Huarabagoo	71%		7%	81%
Junnagunna	129%		-21%	92%
Long Pocket				
Total Indicated	**49%**		**-13%**	**34%**
		Inferred		
Redtree	-33%		19%	-21%
Huarabagoo	29%		-20%	3%
Junnagunna	40%		-17%	17%
Long Pocket				
Total Inferred	**31%**		**-15%**	**11%**
		Absolute Difference %		
	Tonnes		**Grade ppm**	**Contained Metal MLbs.**
		Indicated		
Redtree	1,100,000	-	-20	1.5
Huarabagoo	1,040,000	0.1	60	2.2
Junnagunna	5,640,000	-	-170	7.2
Long Pocket	1,300,000	2.5	420	1.2
Total Indicated	**9,100,000**	**-**	**-110**	**12.1**
		Inferred		
Redtree	-1,460,000	-	130	-1.4
Huarabagoo	700,000	0.1	-220	0.2
Junnagunna	850,000	-	-130	0.6
Long Pocket	2,700,000	2.5	380	2.3
Total Inferred	**2,800,000**	**-**	**-120**	**1.8**

15 Mineral Reserve Estimates

There are no Mineral Reserve Estimates.

16 Mining Methods

This section is not applicable to the stage of the project.

17 Recovery Methods

This section is not applicable to the stage of the project.

18 Project Infrastructure

This section is not applicable to the stage of the project.

19 Market Studies and Contracts

This section is not applicable to the stage of the project.

20 Environmental Studies, Permitting, and Social or Community Impact

Note that the current Queensland government has a policy not to approve uranium mining projects. However, during the previous LNP government of 2012 to 2015 a process preparing for the recommencement of uranium mining was undertaken. During this time, a Uranium Mining Implementation Committee was established to examine and recommend a best practice framework for the recommencement of uranium mining in Queensland. Uranium mining has taken place historically in Queensland and it is reasonable to expect that policy may change in the future.

20.1 Environmental Considerations

The Westmoreland Project (the Project) is situated in a sparsely populated region of northern Australia, straddling the Northern Territory (NT) and Queensland border. The region's population is supported primarily by pastoralism, mining, commercial fishing and tourism, and consists of a high proportion of Aboriginal peoples. A few small towns (i.e. populations <3,000 people) are located within a few hundred kilometres of the Westmoreland Project area; the closest town is the Aboriginal community of Doomadgee, with an approximate population of 1,460 people, which is located roughly 80 km to the east. The majority of the land tenure around the Westmoreland Project is leasehold with minor freehold properties and Aboriginal Freehold, which is held by Aboriginal Land Trusts both in Queensland and in the NT.

The Project inhabits a region with a marked wet and dry season that is subject to monsoonal conditions and occasional cyclonic activity. The average Wet Season (November to March) rainfall is in the order of 172 mm/month, while the average Dry Season rainfall (April to October) is in the order of 10 mm/month. High rainfall intensities and durations do occur during cyclonic conditions. Mean Wet Season maximum temperature is 33°C, with no significant variation in Dry Season maximums.

The Project area spans two rainfall catchments, namely the Lagoon Creek Catchment and the Nicholson Catchment. No flood mapping is available for those areas of the catchments.

Groundwater occurs at relatively shallow depth below surface in the Project area (from 7 m to SWL). However, depth to groundwater is expected to vary with seasonal rainfall. As 88% of the rainfall occurs in the Wet Season, significant recharge is expected over that period. During the Dry Season, little to no recharge is expected and groundwater levels are expected to recede. Standing Water Level (SWL) variations of five metres or more may be expected in some areas.

In the broader area there are a wide range of aquifer types from high-yield, high-potential aquifers that are part of the Great Artesian Basin (GAB), to low-potential, local aquifers such as those associated with river alluvium or fractured rocks. There are nine groundwater bores in immediate Westmoreland Project area and 72 in the wider area.

The soils in the Westmoreland Project area are mostly skeletal or shallow sands. These support native woodland vegetation with a spinifex and tussock grass understorey. Isolated patches of monsoon rainforests occur in gorges, with riparian vegetation along the rivers. This vegetation is typical of the broader region.

Preliminary environmental studies have been completed in the area, acknowledging the presence of environmental constraints such as threatened species and ecosystems on both local and regional scales. Further detailed ecological and environmental studies will be undertaken to identify and manage significant species populations and their habitats. Any potential impacts will be addressed through the relevant planning and environmental approval processes, including provisions for ongoing monitoring and management as required.

Roads of varying standards service the wider region in which the Westmoreland Project is situated. During the wet season, November to March, all major roads are closed for various amounts of time due to impassable river crossings. No rail lines currently service the area.

Two designated gulf ports lie within approximately 200 km of the Westmoreland Project Area.

This project will require a range of permits, licences and development applications covering the development in Queensland, as well as approvals under Commonwealth legislation.

20.2 Social and Community Considerations

There is one native title determination over the Westmoreland Project area. This is a determination that native title exists in the area and the native title holders are the Gangalidda and the Garawa Peoples. Right to negotiate agreements were entered into with the Gangalidda and the Garawa Peoples (who were then registered native title claimants) at the time of the grant of the exploration permits. Laramide recognises that the Gangalidda and the Garawa Peoples native title holders are key stakeholders in the project and, as part of the process towards a commencement of a mining operation, agreements will need to be negotiated under the Native Title Act. These agreements will provide for consents to mining grants and activities in return for commercial consideration, including training and employment of indigenous personnel. There are also 51 registered cultural heritage sites registered within the Westmoreland Project area. To meet the cultural heritage duty of care in relation to these and other sites in the project area, and in accordance with the Environmental Impact Assessment process, a Cultural Heritage Management Plan (CHMP) or its equivalent as part of any native title agreement, will be sought to be developed with the Gangalidda and the Garawa Peoples native title holders.

As part of the process working towards a mining operation Laramide intends to undertake a social impact assessment. A community consultation program will gather information and views from parties in the region who may be impacted by the operation. The assessment of these impacts is to identify possible beneficial and adverse impacts.

Consideration is to be given to the following:

- The impact of the project on existing pastoral land uses and land holders.
- Any potential impacts on the surrounding community.
- The potential and mechanisms for local and statewide communities and businesses to tender contracts for services and supplies for any relevant components of the construction and operation of the project.
- The potential positive and negative social impacts that could result from an increased population.
- Impact on services or other development projects in the region that have relevance to this proposed operation.

The entering of an Indigenous Land Use Agreement (ILUA) with the Gangalidda and Garrwa People in November 2022 has provided the company with a pathway for operating under our Exploration Permits and recently applied for Mineral Development Licence but importantly recognises the need for the negotiation of a Mining Lease ILUA for the project to proceed.

An activity exclusion zone exists at the southern end of the Huarabagoo deposit which will require further negotiation for future access and exploration activities.

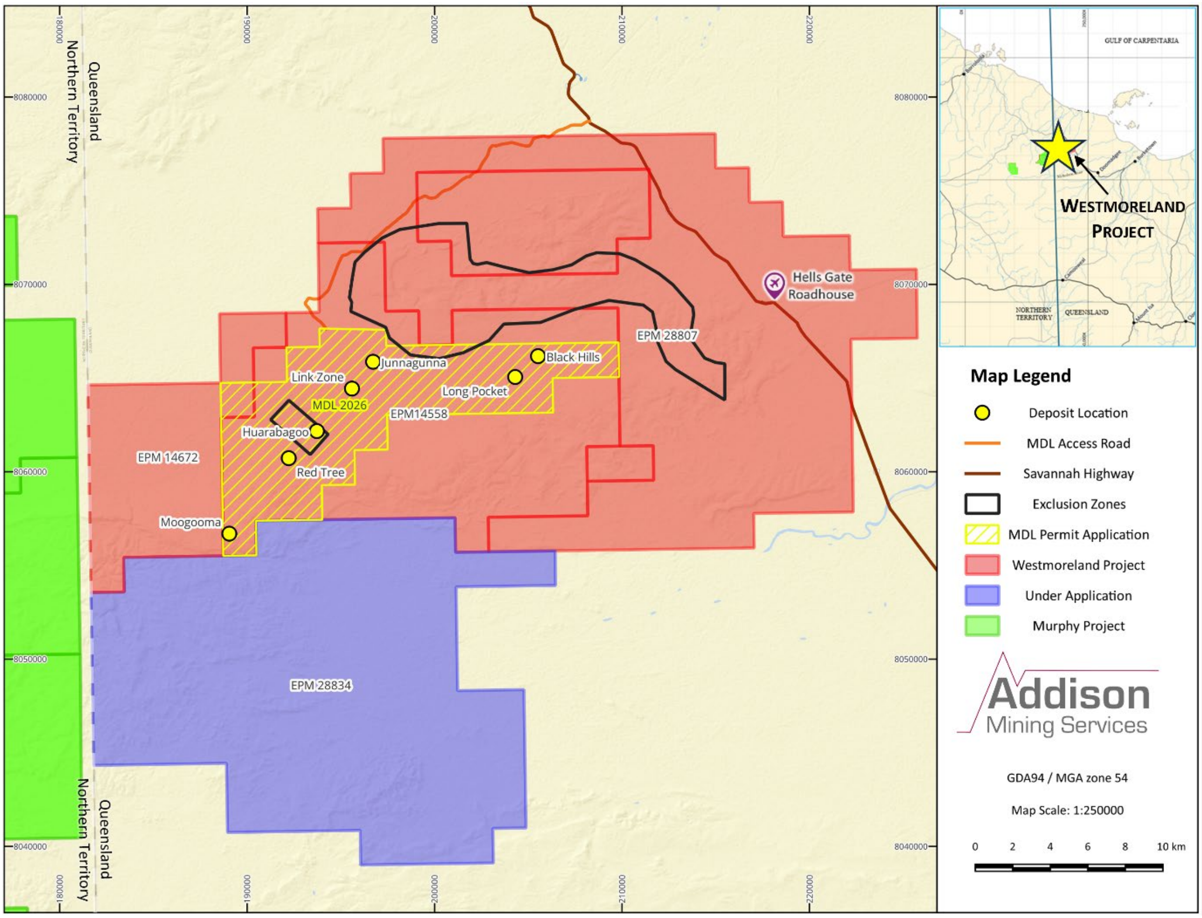


Figure 20.1 Westmoreland project outline with exclusion zones.

20.3 OH&S

20.3.1 Commitment to Health and Safety

Laramide Resources Pty is dedicated to designing, constructing, and operating a project where health and safety are paramount, ensuring a safe workplace for all.

Safety has been a fundamental consideration in the various project stages, with a focus on eliminating or minimizing risks to personnel. Comprehensive systems have been developed to support safe construction and operation, applying a risk management approach to ensure targeted controls where engineering solutions may be less effective.

Laramide's health and safety systems meet or exceed the Work Health and Safety Act (2011) and Work Health and Safety Regulations (2011), which serve as the minimum standard. In alignment with ISO 45000, Laramide have implemented a Safety and Health Management System (SHMS) that identifies and controls principal mining hazards, particularly those with the potential for multiple fatalities or serious incidents.

Worker involvement is integral to Laramide's health and safety programs, ensuring collaborative design, implementation, and continuous improvement. Clear reporting mechanisms are in place to monitor performance, enhance accountability, and drive ongoing improvements.

20.3.2 Project Risk Review and Management

A comprehensive Project Risk Review will be conducted, incorporating new insights from mine planning, plant design, community consultation, and permitting progress. These assessments will follow a process map approach in compliance with AS 31000 and applied with the Likelihood and Consequence descriptors alongside a risk matrix. Risk ratings will be determined based on design outcomes, integrating risk reduction principles during the feasibility stage.

The scope of these assessments will be focused solely on the operational aspects of the project and will not include financial risks such as foreign exchange fluctuations, commodity pricing, or construction costs. As the project advances, Laramide will conduct additional risk reviews in collaboration with contracting partners and specialist consultants. The risk register is a dynamic document that will be continuously reviewed and updated throughout the study, design, and construction phases. It will also play a crucial role in informing mine and plant design, as well as overall site layout, to minimise risk and embed a culture of 'safety in design'.

During core cutting personnel near the core saw wear appropriate PPE. All staff and contractors on the project wear Personal Radiation Monitoring badges (TLD dosimeters) in accordance with Section 38 of the Queensland Radiation Safety Act 1999. Laramide uses ARPANSA-provided sealed TLDs suitable for dusty conditions. The maximum annual dose for radiation workers is 20 mSv, though actual doses are typically much lower, often below the minimum reportable dose (0.05 mSv).

21 Capital And Operating Costs

This section is not applicable to the stage of the project.

22 Economic Analysis

This section is not applicable to the stage of the project.

23 Adjacent Properties

23.1 Introduction

LAM holds an interest in a number of Northern Territory tenements immediately adjacent to the Queensland Westmoreland project tenements that have not been discussed in this report (Figure 23.1). The tenements are contiguous and cover a significant area of the Wearyan Shelf of the southern McArthur basin and the adjoining Murphy Inlier. The Murphy Project tenements extend up to 90km to the west of the Northern Territory-Queensland border and is considered a separate Project due to the geographic scale, topographical and access limitations. There are currently no Mineral Resource Estimates for the Murphy Project.

The Murphy Project has some geological similarities to the Westmoreland Project including continuation of the Westmoreland Conglomerate and Seigal volcanics units. However, it contains a variety of other mineralisation styles associated with the Cliffdale volcanic units of the Murphy Inlier and is prospective for gold, copper, tin, tungsten and other minerals.

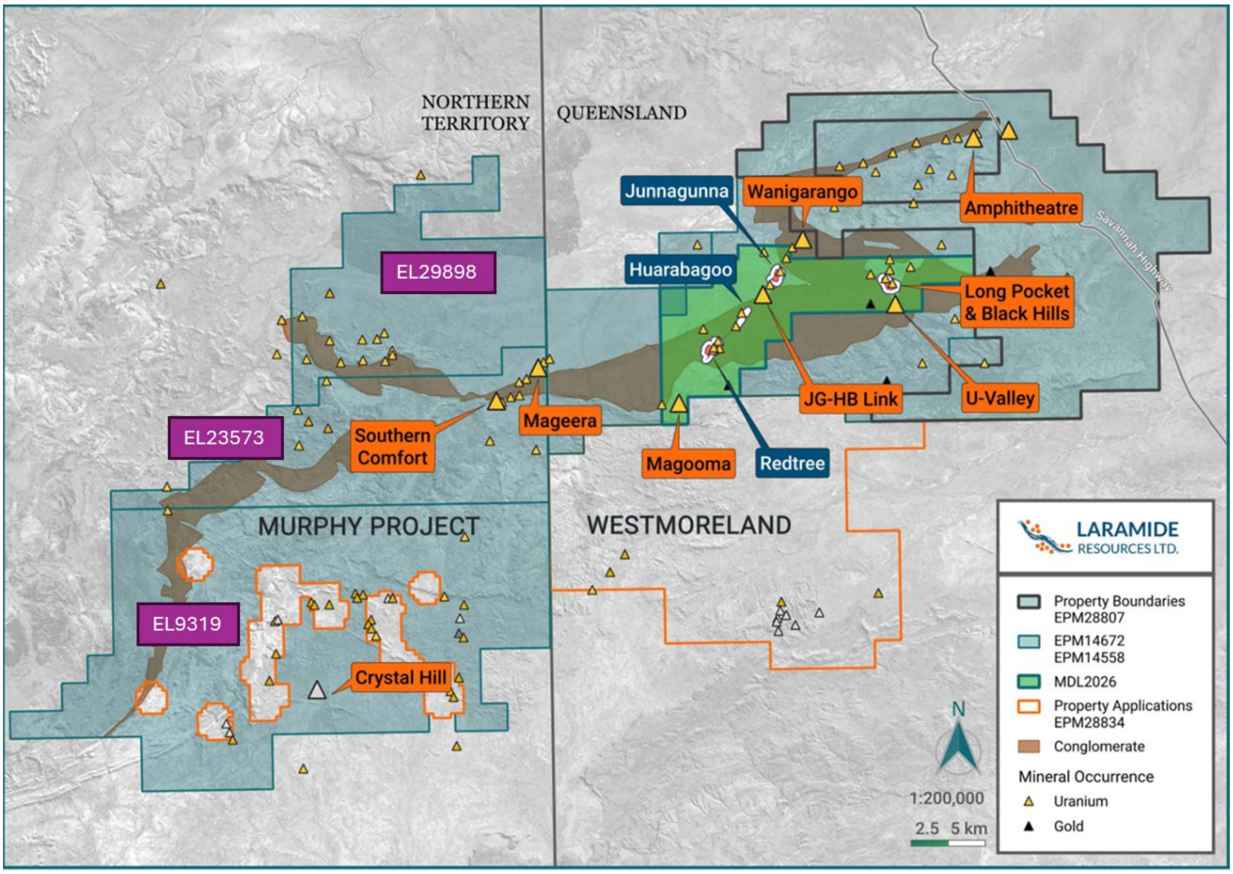


Figure 23.1 LAM's QLD & NT Tenements

24 Other Relevant Data and Information

All relevant data and information is included in other sections of this report.

25 Interpretation and Conclusions

An update to the Mineral Resource Estimate for the Westmoreland Uranium Project, Queensland, Australia (Figure 25.1 and Figure 25.2) has been prepared by Addison Mining Services of the United Kingdom on behalf of Laramide Resources Ltd. ("the issuer"). The issuer is a dual listed entity on the TSX and ASX stock exchanges of Canada and Australia respectively, as such the estimate is reported in accordance with National Instrument 43-101, *Standards of Disclosure for Mineral Projects*, ("NI 43-101") and prepared under Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") Definition Standards. CIM Definition Standards for Mineral Resources (2014) and Best Practices Guidelines outline by CIM (2019) have been followed. The estimate is also reported in accordance with The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code' 2012 edition.)

The updated Mineral Resource Estimate has an effective date of January 31st, 2025, and is reported above a cut-off grade of 200 ppm U_3O_8 and comprises of:

- Indicated Resources of 27.8 million tonnes at an average grade of 770 ppm U_3O_8 for 48.1 million contained Lbs. of U_3O_8.
- Inferred Resources of approximately 11.8 million tonnes at an average grade of 680 ppm U_3O_8 for 17.7 million contained Lbs. of U_3O_8.

The updated estimate supersedes all previous estimates. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues. It is important to note that currently, only exploration, and not mining for uranium is permitted in Queensland, Australia. However, it is reasonable to expect that the policy may change in the future as there is a historical precedent for uranium mining within the State.

Table 25.1 sets out the Indicated and Inferred Mineral Resources by deposit. Readers are encouraged to review the accompanying notes and explanatory text in support of the estimate.

Table 25.1 Mineral Resources by deposit for the Westmoreland Uranium Project, Queensland, Australia. Reported above a cut-off grade of 200 ppm U3O8. Effective 31st January 2025

Deposit	Tonnes	Density g/m^3	U_3O_8 ppm	U_3O_8 MLbs.
		Indicated		
Redtree	14,000,000	2.5	880	27
Huarabagoo	2,500,000	2.6	890	4.9
Junnagunna	10,000,000	2.5	640	15
Long Pocket	1,300,000	2.5	420	1.2
Total Indicated	***27,800,000***	***2.5***	***770***	***48.1***
		Inferred		
Redtree	3,000,000	2.5	800	5.2
Huarabagoo	3,100,000	2.6	870	6.0
Junnagunna	3,000,000	2.5	620	4.2
Long Pocket	2,700,000	2.5	380	2.3
Total Inferred	***11,800,000***	***2.5***	***680***	***17.7***

Notes To Mineral Resource Estimate

1. Numbers are rounded to reflect that an estimate of tonnage and grade has been made, as such products may have discrepancies. Tonnages are expressed in the metric system, concentrations as parts per million (ppm), equivalent to grammes per tonne, and contained metal as pounds (Lbs.).
2. The Independent Qualified Person as defined by CIM definition Standards, and the Independent Competent Persons as defined by the JORC code 2012 edition is Mr. Richard Siddle MSc, MAIG. Mr. Siddle is a Member of the Australian Institute of Geoscientist (#6802) and Director of Addsion Mining Services Ltd of the United Kingdom, Mr. Siddle has been working continuously for Addison Mining Services as a Minerals Resource Geologist since November 2014.
3. Mr. Siddle completed a site visit to the project area between the 21st and 23rd of January 2025, and inspected representative sections of drill core, visited rehabilitated drill sites and inspected selected outcrop geology. Discussions were held with the issuer's technical teams and exploration and socio-environmental considerations discussed. No items of material concern were identified which are not discussed within the accompanying documentation.
4. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The quantity and grade of reported Inferred Resources in this Mineral Resource Estimate are uncertain in nature and there has been insufficient exploration to define these Inferred Resources as Indicated or Measured, however it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. Additional drilling, bulk density determination and improved topographic surveys are required to increase the confidence in the Mineral Resources; increased levels of information brought about by further drilling may serve to either increase or decrease the Mineral Resources. No Measured Resources are reported.
5. Reasonable Prospects of Eventual Economic Extraction contemplates mining by open pit mining methods with mineral processing by conventional leaching. Mining costs are estimated at approximately US$3/t, mineral processing at US$30/t and general and administrative cost at US$5/t processed. Considering a U_3O_8 price of US$80/Lb. a breakeven cut-off grade of 200 ppm is used for reporting.
6. Pit optimization tests showed that all mineralized material above cut-off grade within the Redtree, Junnagunna and Huarabagoo deposit block models has reasonable prospect of being extracted by open pit methods. At Long Pocket an ultimate pit shell was used to constrain the estimate of reported Mineral Resources.

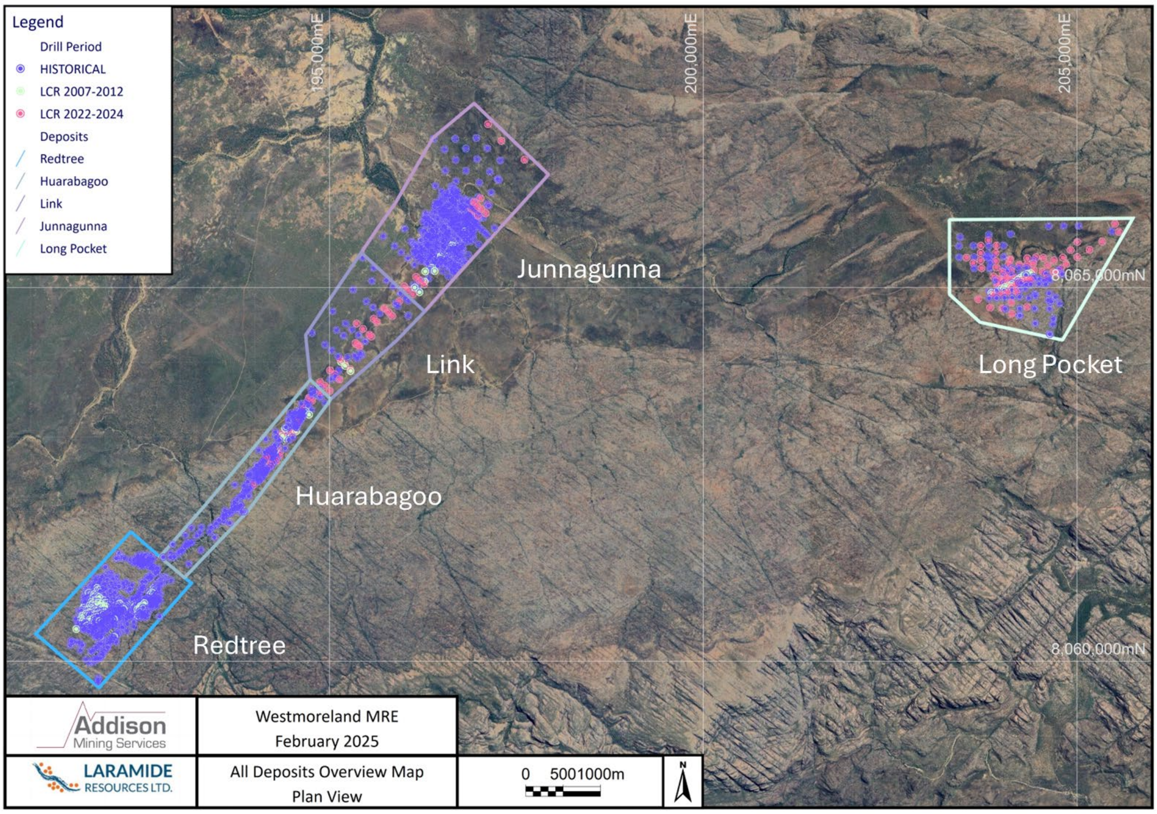


Figure 25.1: Westmoreland - Mineral Resource Estimate Areas (no Mineral Resources are reported for the Link area).

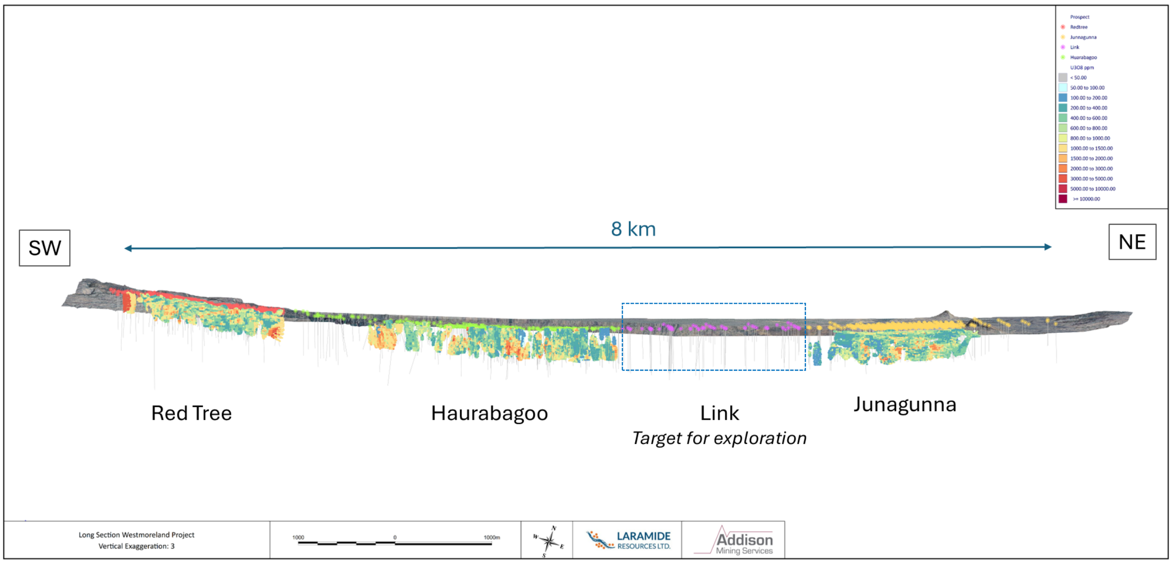


Figure 25.2: Westmoreland Long Section looking NW, displaying drillholes and block models.

In addition to the mineral resources reported herein thirteen other zones of known mineralisation have been identified on the property and are illustrated in Figure 25.3. No Mineral Resource Estimates have been completed for these prospects. The Moogooma, Black Hills & Uranium Valley, Amphitheatre, and Eagle prospects are deemed most significant and warrant immediate further exploration.

There have been sporadic gold intercepts in drilling at Huarabagoo although sampling has not been systematic by previous explorers, it was not possible to include gold in resource estimates at this time.

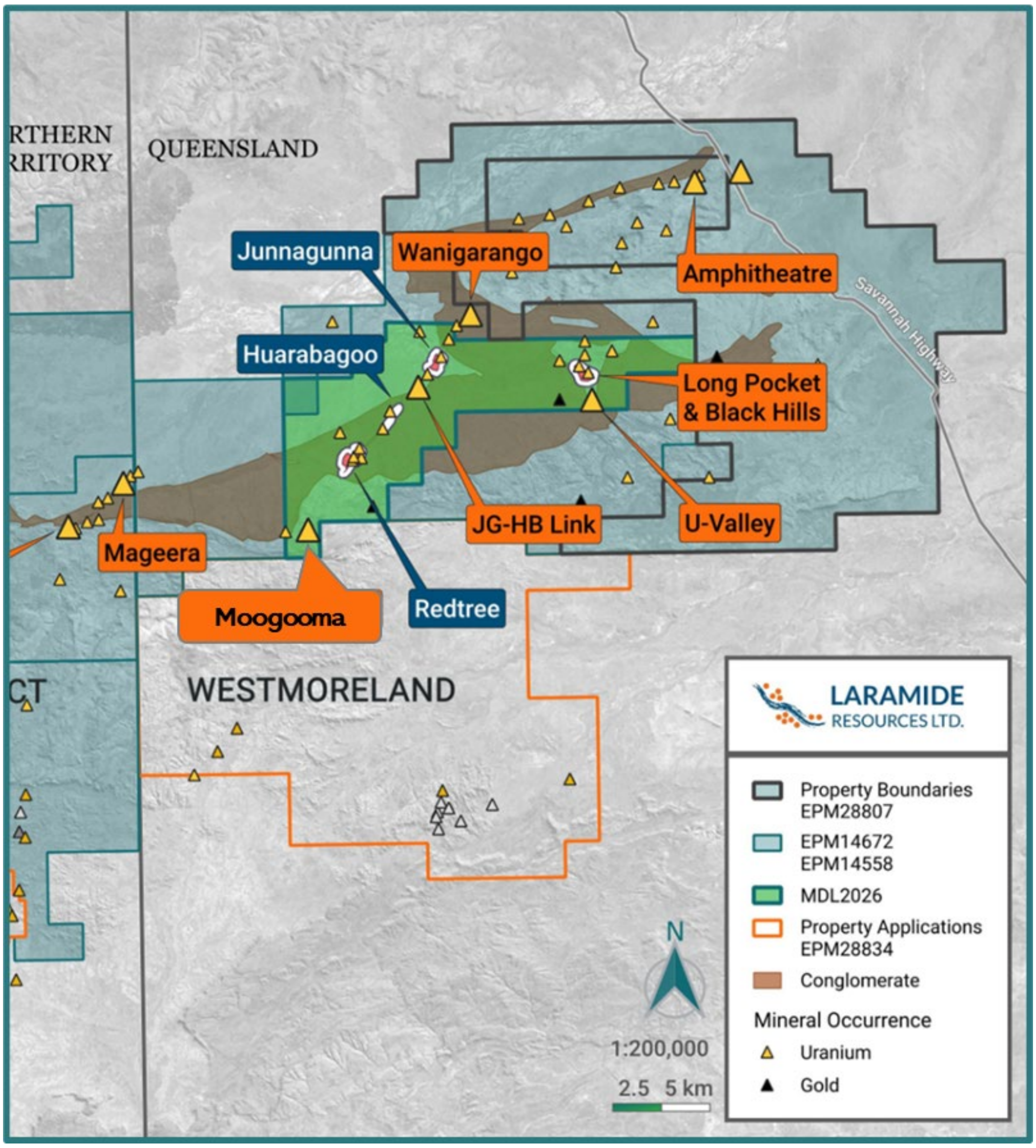


Figure 25.3 Map of Westmoreland deposits and prospects.

26 Recommendations

Recommendations to advance the project towards a Preliminary Feasibility Study (PFS) are provided over two stages, aspects of which may ultimately run in parallel. The first stage of work includes further infill and extension drilling, particularly in the Huarabagoo and Link areas though to the southwest of Junnagunna and along strike to the northeast of Junnagunna. Further drilling at Long Pocket is also warranted. Other regional targets including Moogooma and Amphitheatre also warrant further drilling. All drilling should adopt an agile approach and adapt based on results. The following budget has been proposed by the client and has been reviewed by the QP:

- Infill and Extension Drilling – AUD$7.5M
    - 18,000m DD @ $350/m ($6.5M) for Huarabagoo and HB-JG Link
    - 5,000m RC @ $200/m ($1M) for Junnagunna
- Regional exploration drilling – AUD$1M
    - 5,000 m RC @ $200/m
- Other exploration (non-drilling) activities 24 months AUD$3M
    - Geological mapping
    - Target access and reconnaissance,
    - Ground-based Geochemical surveys,
    - Ground geophysical surveys,
    - Remote sensing - LiDAR and Hyperspectral surveys
- General overheads 24 months – AUD$1M

The second phase of work includes supporting studies to advance the project toward PFS with a particular focus on reducing the environmental risk of the project.

The PEA completed in 2016 is based on outdated financial inputs which should be revised. Work should include but not be limited to a review of the project infrastructure and power supply, and potential advances in mineral processing as well as overall costs. A review of mine scheduling may also allow for an updated PEA to be prepared as a stepping stone towards PFS. An indicative budget for this work is outlined as follows:

- Environmental Studies (& Permitting) AUD$1-2M
- Conceptual Engineering Studies AUD$150,000
- Economic Factors & Cost Analysis AUD$150,000
- Updated PEA AUD$300,000

27 References

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28 Glossary of Terms

Term/Symbol/Abbreviation	Meaning
$	Australian Dollar unless otherwise stated
°	Degrees
°C	Degrees Celsius
%	Percent
Advanced Property	A property that has mineral reserves or, mineral resources the potential economic viability of which is supported by a preliminary economic assessment, a pre-feasibility study or a feasibility study
AMS	Addison Mining Services Ltd
AUD $	Australian dollars
BC	British Columbia, Canada
Blank	A sample containing no mineralisation of interest to test for contamination in laboratory studies
BLEG	Bulk Leach Extractable Gold analysis method
c/s	Counts per second
CHMP	Cultural Heritage Management Plan
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
cm	Centimetres
Company (the Company)	Laramide Resources Ltd ("Laramide")
CRM	Certified Reference Material, a sample of a "known" chemical concentration to within a given standard deviation
Davis Tube	A Davis Tube is a laboratory instrument designed to separate small samples of strongly magnetic ores into strongly magnetic and weakly magnetic fractions.
DTM	Digital Terrain Model. Computerised topographic model
Diamond Drilling (DD)	Drilling using a diamond drill bit which typical returns a solid cylinder of rock subject to ground competency
DL	Detection Limit
Duplicate	A Duplicate sample or sub sample taken from the same location or parent sample to test precision
Effective Date	Means, with reference to a technical report, the date of the most recent scientific or technical information included in the technical report;
EPM	Exploration Permit for Minerals
eU_3O_8	Equivalent uranium oxide
Fe	Iron
g	Gram(s)
GPS	Global Positioning System, not differential, accuracy is typically <10m
GR	Gamma-ray logging
GT	Grade x thickness (for drill hole intercept)

HC	Hydraulic Classifier
Hematite	Heavy and relatively hard oxide mineral, ferric oxide (Fe2O3 that constitutes an important iron ore because of its high iron content (70 percent) and its abundance.
Hydraulic Classifier	Classifier for classification according to different particle sizes
Indicated Resource	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
Inferred Resource	An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration. An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed pre- feasibility or feasibility studies, or in the life of mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43- 101.
kg	Kilogram(s)
kg/t	Kilogram per tonne
km	Kilometre(s)
l	Litre(s)
ILUA	Indigenous Land Use Agreement
IDW	Inverse distance weighted
lb	pound(s)
LDL	Lower Detection Limit of an analytical procedure
LOI	Loss on ignition
m	Meter(s)
M	Million(s)
MDL	Mineral Development Licence, A licence for further economic viability evaluation of mineral resources
Measured Resource	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.
mSv	Millisievert – measure of radiation
MRE	Mineral Resource Estimate
mm	Millimetre(s)
NI 43-101	National Instrument 43-101
Over Limit	Greater than the upper detection limit of an analytical technique
OK	Ordinary Kriging
PEA	Preliminary Economic Assessment

Preliminary Economic Assessment	A study, other than a pre-feasibility or feasibility study, that includes an economic analysis of the potential viability of mineral resources
PFS	Prefeasibility study
Probable Reserve	A 'Probable Ore Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.
Project	An exploration or mining property or collection of properties under investigation
Proven Reserve	A 'Proved Ore Reserve' is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.
pXRF (Portable X-Ray Fluorescence)	A handheld device used as an analytical technique used for geochemical analysis
QAQC	Quality analysis and quality control, typically the appraisal of precision, accuracy and contamination in laboratory analytical procedures.
QEMSCAN	Quantitative Evaluation of Minerals by Scanning Electron Microscopy
Qualified Person	A person of sufficient experience and qualification to act as a Qualified Person as defined by the National Instrument 43-101, having at least 5 years relevant experience in the subject matter and a member in good standing of a recognised professional organisation.
QP	Qualified Person
REF	Radioactive equilibrium factor
Reserve	An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. The reference point at which Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported.
Resource	A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Reverse Circulation (RC) Drilling	Drilling method where compressed air is forced down between the inner and outer pipes of a dual-wall drill pipe, with the cuttings then forced up through the centre of the drill rod
RPEEE	Reasonable Potential for Eventual Economic Extraction
ROM	Run of Mine
Scintillometer	device that detects and measures radiation, particularly gamma rays, by using a scintillating material (like sodium iodide) that emits light when struck by radiation
Scoping Study	An order of magnitude mining study reported under the JORC code 2012 that may include a preliminary economic assessment. Comparable to a Preliminary Economic Assessment Study as defined by CIM
SD	Standard deviation
SOP	Standard Operating Procedures
t	Tonne(s)

U	Uranium
U_3O_8	Triuranium octoxide, a compound of uranium, commonly known as yellowcake
UDL	Upper detection limit
USD $	United States dollars
XRF	Assay method with use of X-ray fluorescence

29 Illustrations

All illustrations are contained within the relevant sections of the report.