



2025 YEAR IN REVIEW

BRINGING NEW EXPLORATION TECHNOLOGY TO MARKET

KEY NUMBERS



451/469
(96%) COMPLETE

Phase 2 milestones met –
18 transferred to Phase 3



21
**PEER-REVIEWED
SCIENTIFIC
PUBLICATIONS**



50% - 50%
8 MEMBERS

Gender split on MinEx CRC
Board of Directors
(excluding CEO)



35
ACTIVE

Postgraduate
enrolments to date
(32 PhDs, 3 Masters
by Research)

20
COMPLETED

Postgraduate
completions to date
(14 PhDs, 6 Masters
by Research)



25
**PARTICIPANT
SPONSORS**



18
**AFFILIATE
SPONSORS**



6
**LICENSES EXECUTED
SINCE 2024**

Commercial license assignments
executed with Sponsor organisations



2
**MEDIA
RELEASES**

distributed showcasing
key technical outcomes



15K+
**YOUTUBE
VIEWS**

RESEARCH FOCUS

MinEx CRC remains focused on
delivering:

1. cheaper, faster, safer and cleaner mineral exploration technology,
2. in-field sensing and data science to enable informed decisions while drilling, and
3. pre-competitive geoscience data to de-risk exploration in frontier mineral provinces, delivered by the National Drilling Initiative.



TECHNICAL HIGHLIGHTS



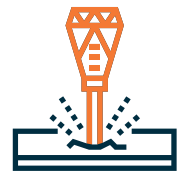
1000m
DEPTH REACH

CT1000 rig modified for
steering-while-drilling trials



3
PROTOTYPE DRILLING

automation platforms developed
(Fluid Automation, Auto Drill RC,
Auto Drill Diamond)



220m
LOGGED

with prototype downhole
LIBS tool at AARP (Perth)



5
**LOOP 3D MODELLING
SOFTWARE MODULES**

released as QGIS plugins
(map2loop, dh2loop, loopstructural,
tomofast-X, loopUI)



2
**PATENT
APPLICATIONS FILED**

(LIBS assay tool –
Oct 2024; 3 component
seismic source – 2025)



2
FIELD TRIALS
of Frequency Domain borehole
EM tool at Curtin and
Kojonup sites

ADVANCING TECHNOLOGY

Drilling Optimisation and Automation

- Researchers progressed prototype automation platforms for fluid, reverse circulation, and diamond drilling.
- Field trials demonstrated the ability to identify and maintain optimal drilling conditions through advanced sensors and automated rig control.
- Large-scale deployments are planned to quantify gains in productivity, safety, and environmental performance ahead of commercialisation.

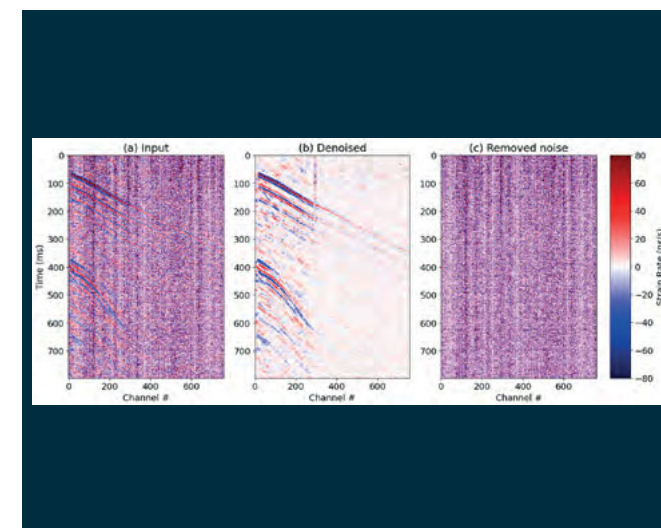


Logging-While-Drilling Petrophysics

- Four FDEM prototypes were built and tested, producing high-resolution conductivity logs consistent with conventional tools while offering richer datasets.
- Researchers are streamlining complex data processing and progressing development of slimline exploration-ready tools.
- A complementary TDEM sensor achieved promising laboratory validation, with borehole testing planned.

Coiled Tubing (CT) drilling

- Researchers advanced both CT500 and CT1000 rigs, with CT1000 upgrades completed for steerable drilling trials scheduled in 2025–26.
- The CT500 platform continued deployment in drilling campaigns, confirming operational reliability.
- Wassara BHA trials exceeded 26,000 metres, demonstrating precise curved drilling in hard rock and informing future RoXplorer™ integration.

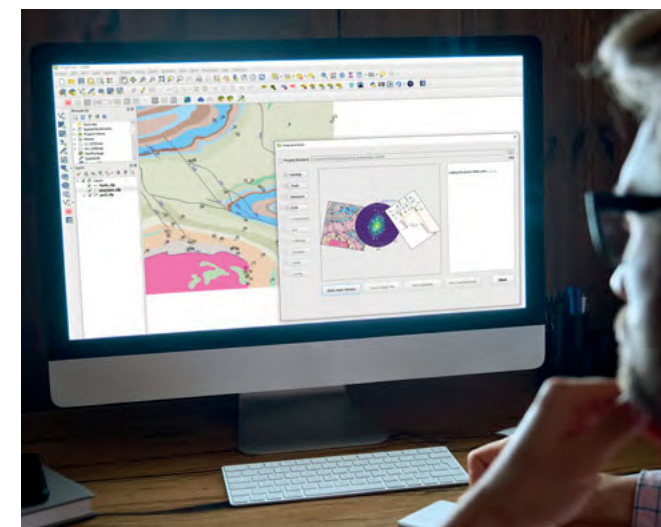


Seismic in the Drilling Workflow

- Research demonstrated that fibre optic DAS receivers, combined with a low-cost 3C source, can replicate three-component seismic acquisition (patent pending).
- Machine learning methods progressed signal processing, significantly enhancing seismic data quality across multiple datasets.
- Outcomes position fibre optic DAS as a cost-effective and scalable seismic acquisition method for mineral exploration.

Downhole Assay (LIBS Tool)

- Researchers completed a 220-metre field trial of the LIBS tool, generating reliable real-time elemental data.
- Outcomes informed design improvements to optics, connectivity, and serviceability, strengthening field-readiness.
- A provisional patent has been filed, and commercialisation pathways are being developed with Participants.



Automated 3D Modelling

- Researchers advanced the Loop suite of geological modelling tools, integrating modules into QGIS to deliver open-access workflows.
- Work progressed on unifying modules into a single, user-friendly platform to enable efficient 3D model construction.
- The Loop Foundation was established to provide sustainable delivery and long-term support for end users.

CASE STUDY: NATIONAL DRILLING INITIATIVE CAMPAIGNS

During 2024–2025, MinEx CRC partnered with DigCT Pty Ltd to conduct National Drilling Initiative campaigns in Western Australia’s Nifty deposit, in collaboration with the Geological Survey of WA, and South Australia’s northern Gawler Craton, in collaboration with the Geological Survey of South Australia.

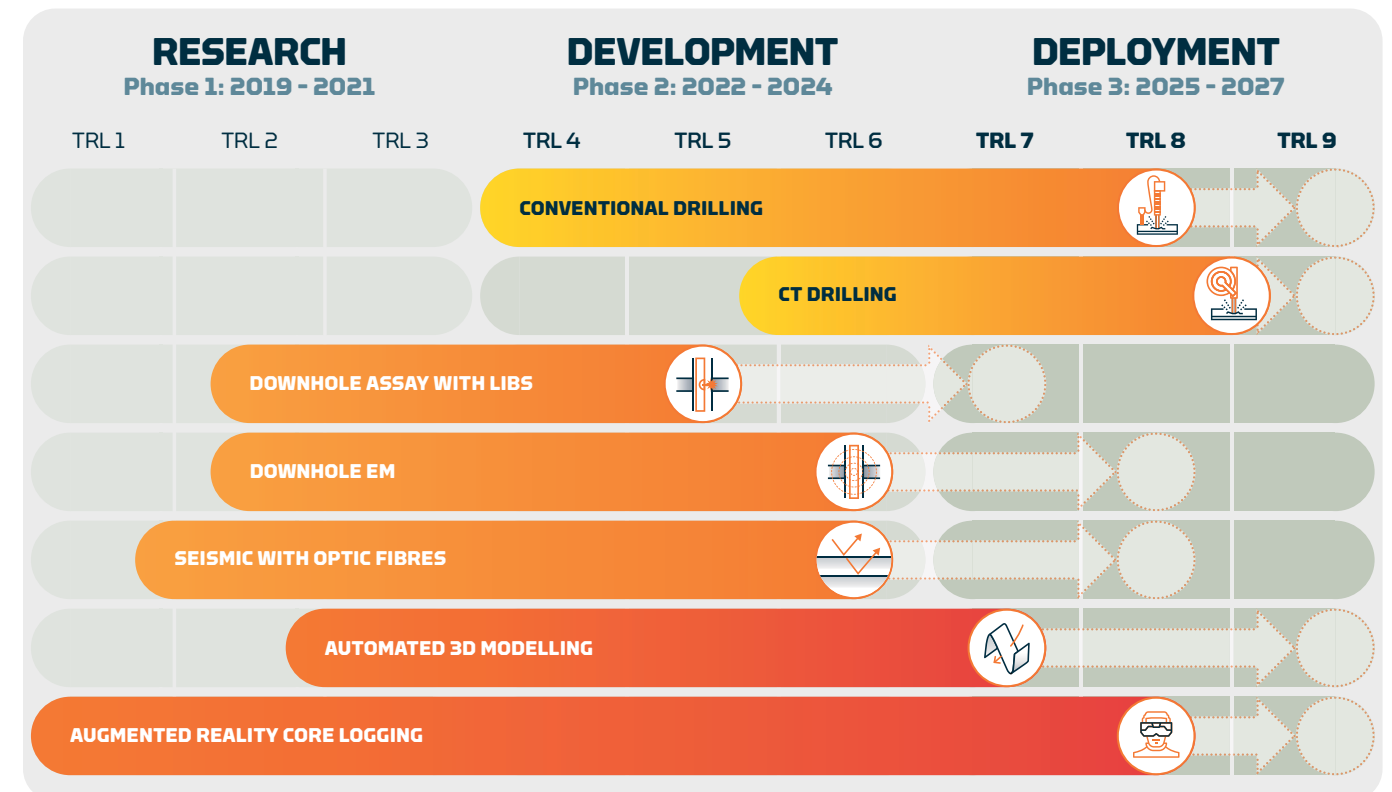
At Nifty, 3,129 meters were drilled across nine holes, supplemented by re-logging and sampling of legacy materials. Analyses revealed multiple mineralisation events, highlighted the role of distinct fluid sources, and identified remobilised chalcopyrite as a key post-basin process. Prospectivity modelling across the Yeneena Basin using both knowledge-driven and data-driven approaches pinpointed high-potential copper zones and underscored the value of integrating diverse geological datasets.

We drilled 2,309 meters in seven holes across the Gawler Craton, delivering high-quality samples and downhole, geophysical surveys. Preliminary datasets are now available via the South Australian NDI Dashboard. The samples are being further analysed by our research team, with results expected to refine understanding of tectonic history, timing of mineralisation and copper prospectivity.

Together, the NDI campaigns are delivering new insights into Australia’s mineral systems and building publicly accessible precompetitive datasets to drive future exploration.



TECHNOLOGY READINESS LEVELS | AUGUST 2025



PROJECT KEY:



CONVENTIONAL DRILLING
50% productivity improvement in conventional drilling systems



DOWNHOLE EM
Swept frequency EM tool for electrical and magnetic properties



AUTOMATED 3D MODELLING
Rapid, probabilistic geological models



COIL TUBE DRILLING
Cheaper, faster, safer drilling for mineral exploration



SEISMIC WITH OPTIC FIBRES
Low-cost rapid deployment seismic options



AUGMENTED REALITY CORE LOGGING
Multi-user interactive core logging enhanced with data overlay



DOWNHOLE ASSAY WITH LIBS
Accurate ppm assay across the periodic table

COMMERCIALISATION PROGRESS

During the past year, two licence assignments were executed and one was modified, following four assignments completed in FY24.

- The MinEx CRC CT500 drill rig licence with Epiroc was changed from an exclusive to a non-exclusive contract, allowing MinEx CRC to offer additional manufacturing licences.

- A licence to manufacture the CT500 and its associated IP was granted to the start-up company CoilRig. CoilRig will undertake CT drilling using equipment, methodologies, and personnel currently managed by MinEx CRC. DIG CT is working to grow demand for MinEx CRC CT drilling technology by actively deploying existing equipment and facilitating orders for new CT rigs.

- A licence to use components of MinEx CRC fluid processing technology, developed in MinEx CRC Project 1 (Drilling) and in partnership with Curtin University, was granted.

COMMUNICATIONS AND EVENTS

- Two media releases were distributed during the reporting period titled:
 - Augmented Reality Core Logging a Step Closer Under New Commercial Deal
 - CRCs Leading the Way to Net Zero Goals, Generating Billions in Value for All Australians (in collaboration with Cooperative Research Australia)
- Six research outcome videos were released on MinEx CRC TV, with YouTube views now exceeding 15,000.
- The MinEx CRC website attracted 41,000+ visitors, expanding digital reach and stakeholder engagement.
- Researchers engaged stakeholders through major events, including the sixth Annual Conference (133 delegates, 24 organisations) and the 2025 Mid-Year Science Review (112 attendees, 25 organisations).
- Research outcomes featured in prominent industry outlets such as Australia's Mining Monthly, Australasian Drilling Magazine, miningnews.net, Innovation News Network, and The Precompetitive Review.
- In partnership with Cooperative Research Australia, MinEx CRC released an ACIL Allen report demonstrating the CRC Program's contribution to CO₂ reduction, economic growth, and job creation through R&D.

EDUCATION AND TRAINING

- As of 30 June 2025, MinEx CRC had registered 20 completions in total (6 Masters by Research, 14 PhDs), 35 active students (3 Masters by Research, 32 PhDs), and four students not supported by a MinEx CRC bursary (funded via surplus allocations).
- Five postgraduate students qualified for their degree during this reporting period. Two of these students are now employed with MinEx CRC Participants or Research Participants. The completed students are now employed as follows:
 - Osama Abdullah A Alzubaidi (Masters):** Teaching Assistant, Department of Technical Training, King Abdulaziz University, Jeddah, Saudi Arabia.
 - Su Kwong Lee (Masters):** Trainee, Nuri Cerah Miri, Sarawak, Malaysia.
 - Rui Huang (PhD):** MinEx CRC Postdoctoral Researcher, Drilling Analytics Research Centre, Curtin University.
 - Alejandra Bedoya Meija (PhD):** Lecturer, Colombia.
 - Mosayeb Khademi Zahedi (PhD):** Geoscientist (Predictive Mineral Potential Mapping), Geoscience Australia.
- Seven video conference sessions were conducted during the reporting period to engage students and provide support within the CRC environment.
- Two mid-year postgraduate events were held during the reporting period. The 2024 Mid-year Postgraduate Workshop was held online over three days in mid-July 2024 and saw 30 students present technical updates on their research.
- Four students undertook 'Company Sponsored Projects' during the reporting period. These students have continued their research directly affiliated with MinEx CRC industry partners and complementary to the broader MinEx CRC research agenda. These projects are concentrated on case study areas of industry partners and include AIC Mines, Lodestone Mines, Strategic Energy Resources and Cartwheel Resources.

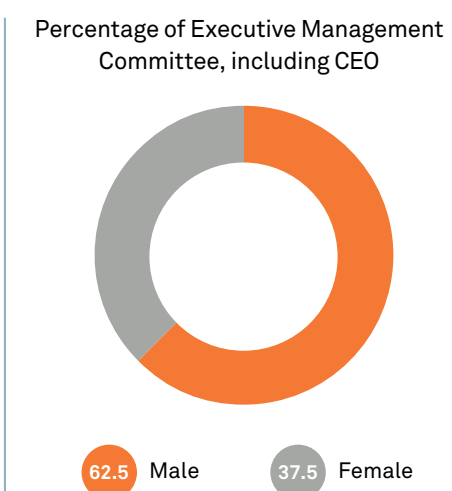


EQUITY, DIVERSITY AND INCLUSION (EDI)

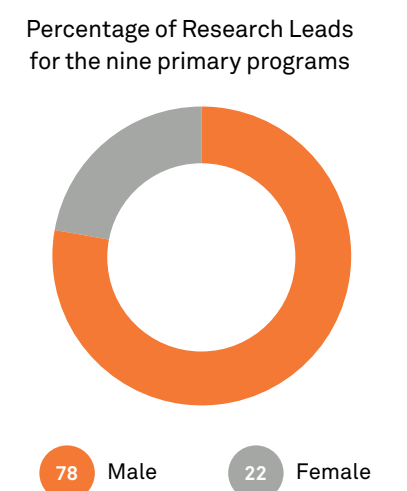
MinEx CRC is committed to growing and supporting an equitable, diverse, and inclusive environment where everyone feels safe, valued, supported, and treated fairly with dignity and respect.



The MinEx CRC Board (excluding the CEO) comprises eight members, 50% male and 50% female.



The MinEx CRC Executive Management Committee, including the CEO, comprises eight members, 62.5% male and 37.5% female.



Research Leads for the nine primary programs are 78% male and 22% female.

SPONSORS

Majors, METs & Survey Participants



Research Participants & Affiliates



REVENUE & EXPENDITURE

Revenue (\$'000)	FY25	FY24	FY23	FY22	FY21	FY20	FY19	Total
Commonwealth Funding	5,500.0	5,500.0	5,500.0	5,500.0	5,798.5	6,597.0	2,729.5	37,125.0
Other Government Grants	48.0	425.0	28.0	-	-	-	-	501.0
Participant Contributions	3,300.6	3,540.0	6,421.1	5,600.0	7,023.0	4,811.8	12,067.5	42,764.0
Affiliates Contributions	313.0	295.0	215.0	210.0	185.1	285.0	150.0	1,653.1
DET CRC Unspent Participant Contributions	-	-	-	-	-	-	113.6	113.6
Non-financial asset acquired for Nil Consideration	-	-	-	-	-	850.0	-	850.0
Gain on Sale of CT System to DIG CT Pty Ltd	-	1,301.0	-	-	-	-	-	1,301.0
Interest Income - Finance Lease CT System	37.3	20.5	-	-	-	-	-	57.8
Interest Income	352.1	465.8	365.3	70.1	112.9	300.5	124.0	1,790.7
Royalty Income	122.5	280.0	127.4	52.1	34.1	-	-	616.1
Other Income	97.5	123.7	18.1	79.8	9.6	122.2	30.8	481.7
Total Revenue	9,771.0	11,951.0	12,674.9	11,512.0	13,163.2	12,966.5	15,215.4	87,254.0

Expenditure (\$'000)								
Research Program Expenditure								
- Core Research Projects	5,183.6	5,419.2	5,025.7	5,236.6	6,070.5	5,355.8	1,684.4	33,975.8
- Drilling Campaigns	3,061.0	2,859.3	5,074.1	3,647.7	8,521.5	150.0	-	23,313.6
- Opportunity Fund & Other Projects	737.8	993.0	759.8	580.2	204.8	-	-	3,275.6
Total Research Program Expenditure	8,982.4	9,271.5	10,859.6	9,464.5	14,796.8	5,505.8	1,684.4	60,565.0
Education & Training	438.6	552.8	575.4	432.3	504.4	384.5	200.0	3,088.0
Management Expenses	569.3	845.7	841.3	717.2	418.2	492.3	503.8	4,387.8
Royalty Expense	75.2	104.2	85.5	28.7	22.0	-	-	315.6
Salaries & Wages - Drill Crew	92.2	1,099.2	1,372.3	987.8	97.2	-	-	3,648.7
Salaries & Wages - Head Office (incl Directors Fees)	1,627.8	1,218.1	1,167.4	1,049.8	1,046.7	996.9	1,005.3	8,112.0
Impairment Loss Allowance - Finance Lease CT System	122.0	-	-	-	-	-	-	122.0
Other Expenses	28.4	-	-	-	-	-	-	28.4
	2,953.5	3,820.0	4,041.9	3,215.8	2,088.5	1,873.7	1,709.1	19,702.5
Total Expenditure	11,935.9	13,091.5	14,901.5	12,680.3	16,885.3	7,379.5	3,393.5	80,267.5
Restricted (Deficit)/ Surplus	(2,164.9)	(1,140.5)	(2,226.6)	(1,168.3)	(3,722.1)	5,587.0	11,821.9	6,986.5

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AusIndustry
Cooperative Research
Centres Program