

# THIESS

*means mining*



**Mining services capability statement**  
**North America**



**THIESS** means **engineering**<sup>08</sup>  
**surface mining**<sup>10</sup>  
**asset services**<sup>12</sup>  
**reclamation**<sup>14</sup>  
**enabling services**<sup>16</sup>

**Our services**



Engineering



Surface mining



Asset services

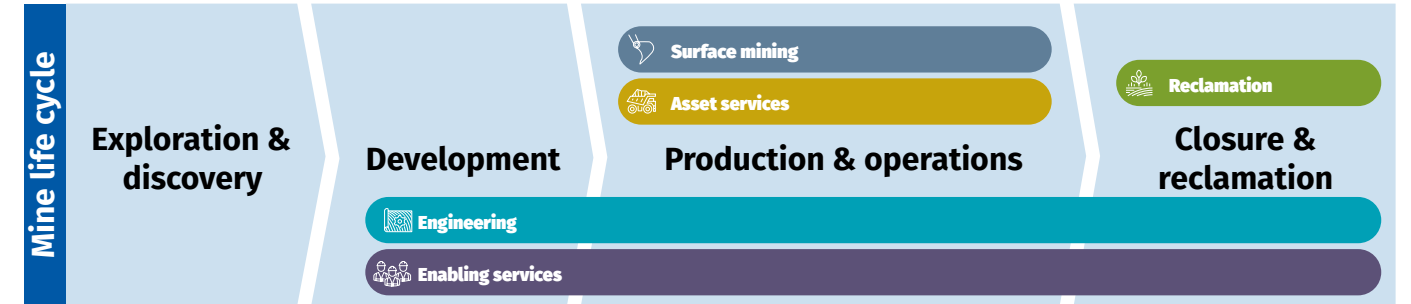


Reclamation



Enabling services

# Our North America operations



## USA & Canada

■ Nickel ■ Metal ● Office



**Thiess delivers specialized, scalable solutions across the mining life cycle in North and South America, Australia and Asia. Our experienced, skilled workforce drives superior performance in the face of any challenge – from innovative resource recovery to optimal fleet performance, to complex deep mining and technology-led reclamation.**

**As a trusted partner to our clients, communities and suppliers, Thiess delivers unmatched value for mining operations, across different commodities and geographies.**



## **THIESS** means trusted partnerships

Our success over the past 90 years is built on our commitment to understand the challenges of our clients, the needs of our communities and the advances in our industry so we can safely deliver value and certainty, underpinned by strong ESG principles.

Through collaboration with our stakeholders, we consistently deliver project success.

## **THIESS** means experience and skills

Our skilled specialists work closely with our clients, suppliers and industry experts to enable innovation and integrate new technology, to deliver effective and sustainable solutions for mining operations of all sizes across different commodities and geographies.

Our teams of qualified, experienced people enable us to tackle any project, at any stage.

## **THIESS** means specialized, scalable solutions

We understand that our clients need the agility to respond swiftly to the challenges brought on by today's rapidly changing world.

We give our clients the flexibility to leverage our expertise in end-to-end mining services, or select from a range of specialist services. And there's always the option of working together to create a unique, fit-for-purpose solution.



# Engineering

Thiess offers a range of mine engineering services for all stages of a mine's lifecycle.

## Technical studies

We leverage in-depth knowledge from decades of in-field experience across a range of commodities and mining methodologies to deliver tailored, flexible technical studies. Our study services range from high-level, early stage scoping assignments on greenfield projects, to detailed technical studies geared for immediate implementation on operational projects, to peer review of client or consultant developed studies.

## Design

Our practical, life-of-mine expertise provides the strongest foundation for operations because we design based on direct experience across the full mining lifecycle. Through mine optimization and optioneering, we further challenge every aspect of a design to ensure short and long-term goals are based on sound, fit-for-purpose economics. Our multidisciplinary specialist skill and experience provides clients with safe, certain and efficient operations.

## Mine planning

Our life-of-mine planning provides the foundation and economic direction to support robust short-term delivery and long-term value. We work closely with our clients to optimize production outcomes, balancing mine life, resource recovery and unit cost targets, with client priorities, schedules and market demands. Proven systems give supervisors ready access to information to make informed, agile decisions and effectively manage change on site, with remote technical support from our in-house team of multi-disciplinary experts

## Estimation

Our robust estimating capability delivers fully costed mine plans that give clients economic certainty. Our skilled team of dedicated estimators are part of a multi-disciplinary mine planning team that tests thinking to refine strategies and identify the best options. Detailed costs are analyzed and benchmarked against our extensive knowledge bank of diverse operations, further reducing unknowns and contingencies to create a total mine planning package that positions projects for long-term performance and economic success.



CASE STUDY: FEASIBILITY AND LIFE-OF-MINE STUDY AT MOUNT PLEASANT OPERATION

Thiess delivered a critical feasibility and life-of-mine study for the Mount Pleasant Operation coal mine in New South Wales, Australia.

Our team reconfigured the design for a high-intensity mining sequence using small pits for better control over the strip ratio.

The smaller pits enabled more efficient haulage by designing a geometrically efficient and more community-friendly road network. Thiess' strategy meant operations could deliver significant short-term gains from a temporarily high-graded mine, followed by sustainable, long-term improvements as the mine's geometry reduced haulage.

# Surface mining

Decades of global mining experience inform our approach to each mine's requirements, challenges and opportunities, supported by the latest design and execution technologies.

## Drill & blast

Our capability spans technical, drilling, plant and equipment, product supply, and explosives loading. Our integrated approach between our experienced, site-based drill and blast engineers, operators and maintainers; our in-house drill and blast specialists; our wider multi-disciplinary technical team; and our strategic partners and suppliers provides the final piece in maximising resource recovery and optimising productivity and production – safely and consistently.

## Load & haul

We deliver fully resourced load and haul solutions across diverse commodities, pit sizes, complexities, methods and conditions. We optimise safe, efficient haulage through expert haul road design, fleet scheduling and management. Our experienced field teams also draw on our extensive in-house technical and functional support for faster turnaround in problem solving and service delivery.

Whether establishing a new mining operation or optimizing an existing mine, our goal is to empower cost-effective resource recovery.

## Autonomous mining services

Autonomy enables sustainable operations through enhanced safety, increased productivity and improved efficiency.

Our expertise and experience span autonomous drilling and haulage systems in Australia, and semi- autonomous tractor systems, and we are working to bring these capabilities to the North and South Americas.

## Underground mining

Thiess offers more than 30 years' underground mining experience through our acquisition of leading Australian underground specialist, PYBAR. From narrow vein to large open stope extraction, across diverse ground conditions, our team's proven skills run deep. From specific services such as shotcreting and raise boring through to expertise in development and production, we tailor our capabilities to each mine to maximize efficiency and productivity with the utmost focus on safety.

From 2026, Thiess will bring this capability to our North and South American clients.



### CASE STUDY: WORLD CLASS MINING FLEET

Load and haul is core to what Thiess does.

Every shift, every day, every week, our skilled operators move millions of tonnes

of overburden and ore on sites across our global operations in the USA, Chile, Australia, Indonesia and Mongolia.

Thiess' continued investment in the world's best equipment including ultra-class mining fleets such as Liebherr 9800 excavators, Caterpillar 797 and 794 trucks as well as Liebherr 282 trucks provides our clients with world-class load and haul capability.

Thiess partners with leading suppliers to improve component parts, like tray bodies, to enable reliable, efficient and productive removal of overburden; and transportation of ore and hard rock to processing plants.



- 21 autonomous haul trucks
- 9 autonomous drills
- 6 semi-autonomous dozers



# Asset services

Thiess operates and maintains one of the largest and most diversified fleets for a mining services provider globally. We can provide asset maintenance, management and fleet hire as part of mining operations, or as a specialized service.

## Maintenance & management

Our flexible asset maintenance services are focused on industry-leading and cost-effective equipment performance, availability and reliability.

We pair sophisticated systems and processes with our highly experienced maintenance teams across a range of predictive, preventive and run-to-failure maintenance techniques. Data insights help us cost-effectively increase asset efficiency and manage fleet reliability and increase asset productivity by informing decisions such as changes to operations, maintenance and capital strategies.

## Fleet hire

We can tailor a solution to meet any need – one machine or multiple; micro-excavators or ultra-class trucks; one month or ten years – helping clients manage the demands of an ever-changing, cost-competitive market. This includes access to the industry’s most comprehensive plant hire and equipment ownership packages and innovative capital replacement solutions.

## Repairs & rebuilds

Our well-equipped workshops across our global operations enable us to provide our clients with cost effective repairs and/or rebuilds, compared to traditional third-party suppliers, without sacrificing work quality or asset reliability.

Thiess rebuilds are completed to the original equipment manufacturer’s standards, through comprehensive testing and quality assurance. Maintenance activities are further bolstered by our ability to rapidly engineer-out common causes of breakdowns. Clients also enjoy availability improvements, productivity gains and innovations sooner through knowledge sharing and the replication of successful systems and processes.

Globally, Thiess component rebuild centres have delivered more than 23,000 components since 2016. We now utilise Mechatronix’s unique carbon fibre composites to repair and strengthen the components we rebuild.



- 172 excavators
- 1194 haul trucks
- 278 dozers
- 148 graders



## CASE STUDY: ENABLING ASSET AVAILABILITY THROUGH OEM NETWORKS

Longstanding global relationships with world-leading original equipment manufacturers (OEMs) support cost savings, reliability, problem solving and product improvements, and connect clients with the latest in next generation mining equipment.

Our network of major equipment suppliers and hire companies, including competitive tyre supply agreements, further guarantees parts and supply inventory availability at the best prices and highest standards.

# Reclamation

Mining is about value, and that value isn't fully realised until land is returned to a sustainable state. We offer mine reclamation services by miners who are also environmental experts.



## Construction

Our environmental specialists and operational teams use our optimised designs as the foundation for progressive rehabilitation delivery. Our rehabilitation construction services include bulk profiling and shaping of mine spoil; construction of water management, erosion and sediment control structures; final surface preparation and topsoiling; and tailored revegetation programs. Our rehabilitation works are fully integrated with wider mine plans. This provides advantages such as reduced materials movement, minimised rehandling, improved productivity, reduced construction costs, and improved environmental outcomes.

## Monitoring & maintenance

Our specialists can accurately monitor rehabilitation success, reviewing vegetation health and diversity, and identifying erosion, using drones to capture footage of rehabilitated areas. This technology cost-effectively provides a complete overview of large areas of land, delivering a more accurate picture of rehabilitation performance. Clients ultimately gain a strong body of evidence of their rehabilitation outcomes, supporting progressive certification of rehabilitated land and reducing ongoing rehabilitation liabilities.



## CASE STUDY: TECHNOLOGY DELIVERS VALUE ACROSS RECLAMATION PROJECTS

Thiess harnesses a range of technology to deliver value across the entire land reclamation lifecycle.

In 2022, our specialist reclamation team collected more than 100 hours of drone flight data across reclamation projects – delivering a more accurate dataset while saving approximately 200 days in conventional surveying time, and around 8.42t CO<sub>2</sub>e.

They completed trials using multispectral sensors to track vegetation health and water management in rehabilitation areas. They are currently trialling UAV-mounted LiDAR sensors that can penetrate vegetation to detect erosion that would otherwise not be visible; and looking at drone opportunities for species identification, seeding and weed management.





Thies' full-service offering includes industry-leading capabilities and resources that give our clients a competitive edge in navigating the challenges of our rapidly changing world.

# Enabling services

### **Technology-led, data-driven mining solutions**

We apply advanced analytics and technology to improve data quality and accessibility; support better decision making and task optimisation; rapidly manage production changes and performance; and drive operational consistency, productivity gains and continuous improvement.

Through Thies' strong relationships with original equipment manufacturers and technology specialists, we have access to the latest mining innovations. We combine their leading-edge insight with our extensive operational experience to enable greater efficiency, flexibility and productivity with lower unit costs for our clients.

### **Health & safety**

Our goal is to keep everyone safe, every day. Strong leadership, effective industry-leading systems, total commitment from our people, and continuous improvement are key factors in our strong track record of safe production. And we work with our clients to proactively contribute to a robust safety culture across the global mining industry.

### **Environment**

We focus on identifying and proactively managing environmental risks to minimise the impact of our operations. Our environmental experts work closely with our operations and technical teams to design and deliver integrated solutions that optimize mining operations, including water, impact reduction, air quality, land and reclamation management.

### **Community**

Thies supports our clients to maintain their social license to operate, by positively engaging with local communities and building mutually beneficial relationships. We make possible significant social benefits through local employment and training, local procurement, engagement with First Nations leaders and community partnerships – tailored to each project.

# Enabling services continued...



drivetrains, allowing future retrofit or upgrade modules as new, lower emissions power sources like electric batteries and hydrogen become available. They are also equipped with Liebherr's trolley assist system, which connects the electric-drive system to an electrical network, offering increased productivity with reduced fuel consumption and fleet emissions.

In both the US and Chile, the trucks were manufactured with local suppliers, sourcing local components, and mobilizing a local workforce – demonstrating Thies' focus on enhancing social value through our supply chains.

In 2023, Thies remained an active participant in the Chile-based Hydra Consortium that is investigating the use of renewable hydrogen to power mining fleet. After construction and trial of their first hydrogen fuel cell-based powertrain prototype, Hydra is now working on phase 3 of the trial to continue to improve and test the technology.

We are also committed to continually investigating new equipment options to drive improved efficiency and emission reductions. At our USA project, Thies reduced idle time and associated fuel use and emissions by installing heaters on the engines. This prevents the engines from freezing without the need to idle, which reduces fuel use and decreases emissions, but ensures there are no issues with the engines upon restarting. .

## CASE STUDY: TOWARDS A NET ZERO MINING FLEET

Thies is working to achieve our goal of net zero Scope 1 and 2 emissions and Scope 3 emissions from fleet we operate by 2050. Part of this journey includes utilizing transitional technology while more advanced technology to significantly reduce diesel emissions from heavy mining vehicles, is developed and commercialized.

In 2022, Thies introduced five new electric-wheel drive Liebherr T264s in Chile and deployed a further six at our site in the USA. The trucks feature energy agnostic



## CASE STUDY: LEVERAGING AUTONOMY FOR SAFE, EFFICIENT PRODUCTION

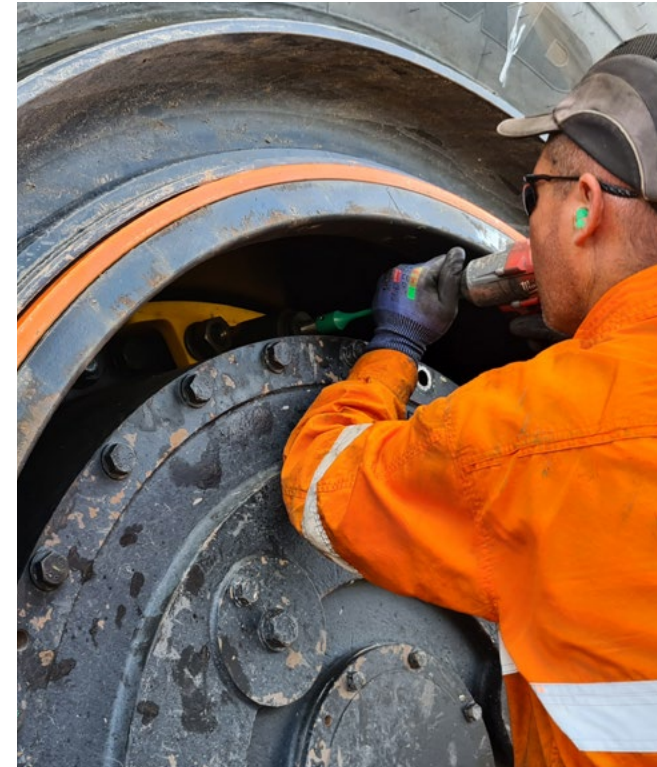
Autonomy enables sustainable operations through enhanced safety, increased productivity and improved efficiency. Our expertise and experience span autonomous drilling and haulage systems, and semi-autonomous tractor systems (SATS).

Thies has one of the world's largest active deployments of SATS technology, with six SATS-fitted dozers in our fleet. With this technology, a single operator can quickly and easily control multiple dozers from the comfort and safety of a remote operating station, significantly improving production output and reducing fatigue.

Since introducing this technology at our Lake Vermont operations in Australia in 2020, we've seen a 10% reduction in unit cost and 25% improvement in dozer utilization.

In 2024, Thies celebrated an autonomous drilling record at our Mt Arthur South operation in Australia, with our local Cat® dealer WesTrac and Caterpillar. We safely and successfully drilled one million metres autonomously using a fleet of three Cat MD-series drills running with the Cat MineStar™ Command Autonomous Drill System (ADS).

Since autonomous drilling began at Mt Arthur South in 2021, we have recorded a 20% improvement in drilling performance, up to 8% reduction in fuel use, more consistent drill hole quality, accuracy and depth, and drill utilization of up to 23 hours per day.



## CASE STUDY: THIES SAFETY EXCELLENCE RECOGNISED ACROSS GLOBAL OPERATIONS

In Australia, the team from our QCoal Northern Hub site won the Innovation Mining Equipment, Technology & Services Award at the 2022 Queensland Mining Awards, in recognition for their innovative nylon rim cleat, which they designed, engineered and trialled to significantly reduce manual handling risks for tyre fitters. Following this success, they've trialled and tested various wireless devices to allow employees to use a mobile application to test pressure, engine function and electrical conductivity on heavy equipment from a safe distance. The adoption of this new technology has improved safety processes, with up to 75% of live tests now completed remotely.

In Chile, Thies received the bronze award in the Mining Services Provider category from the 2022 Mutual de Seguridad in Chile for "working every day for the benefit of workers' safety and the safety culture of the organization".

The Indonesian Ministry of Energy and Mineral Resources named the Thies Mahakam Sumber Jaya and Sangatta sites the winners of the 2022 Good Mining Practice Award, which recognises excellence across technical, safety, sustainability and mining management.



## CASE STUDY: TRUSTED PARTNERSHIPS WITH FIRST NATIONS COMMUNITIES

In 2023, Thies was engaged by a major mining company to conduct a pre-feasibility study for their brown-fields development in Canada.

A critical component of the study submission was the development of an Indigenous Participation Plan.

To align with a mutual commitment to free, prior and informed consent, we worked with our client to consult with the First Nations communities on the plan.

Over six months, Thies engaged with the local First Nations communities and businesses, through consultation with the community administration leadership, presenting at Chief and Council meetings, and participating in on-Territory cultural (seasonal hunt gathering) experiences.

Thies worked proactively to understand the interests, expectations, risks and opportunities of the local communities, and how we could work in partnership with them to support sustainable community development through employment, procurement and social investment.



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