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#### **ABOUT MINING TRANSFORMED**

Mining Transformed 2024 promises to deliver a unique and immersive experience for exhibitors and visitors alike, offering unparalleled access to live demonstrations of groundbreaking technologies that are revolutionizing the global mining industry.

Over the course of two action-packed days, technology companies will showcase their latest innovations aimed at transforming the global mining industry. These companies will conduct live demonstrations both underground and on the surface, captivating an audience of mining officials from around the world.

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# MAP AND LIST OF TECHNOLOGY EXHIBITORS INDOOR SURFACE FACILITIES

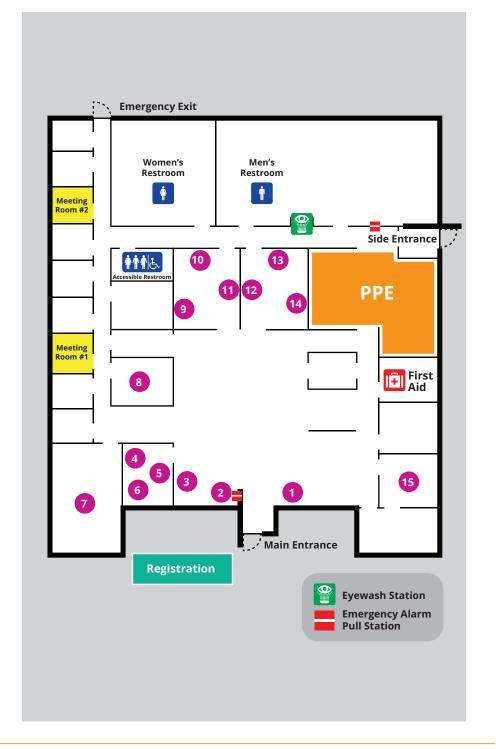
- 1 Maestro Digital Mine
- 2 Northern Ontario Angels (Capital Lounge)
- 3 Aramine
- 4 Rogers
- 5 CradlePoint
- 6 Fortinet
- Studio NORCAT
- 8 HARD-LINE | Hexagon Mining

- 9 Vektore
- 10 EarthTrack
- 11 Coolon
- 12 MS4M
- 13 Symboticware
- 14 Scient Analytics
- 15 SafeSight

#### PPE REQUIREMENTS

There are no PPE requirements while exploring the indoor facility at the Underground Centre.

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# MAP AND LIST OF TECHNOLOGY EXHIBITORS OUTDOOR SURFACE AREAS

- 16 Komatsu
- 17 Normet
- 18 SK Godelius
- 19 Veracio
- 20 Jannatec Technologies

- 21 Kovatera
- Rokion
- 23 HYGN
- 24 Sandvik
- TopVu Underground Tag Board



# PPE REQUIREMENTS for Outdoor Surface Areas

- ✓ Class 2 Level 2 as a minimum (Class 3 Level 2 is also acceptable)
- ✓ CSA-approved hard hat
- ✓ CSA-approved safety glasses
- CSA-approved work boots a minimum of 8" in height with internal metatarsal guards
- ✓ Work gloves
- ✓ High visibility vest
- ✓ Long sleeve shirt or coat

Please note that surface PPE requirements do not meet all the requirements of underground PPE.

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# MAP AND LIST OF TECHNOLOGY EXHIBITORS UNDERGROUND

- 26 HARD-LINE | Hexagon Mining
- 27 Provix
- 28 6 Harmonics
- 29 Accutron Instruments
- 30 Becker Mining Systems
- 31 Rogers/Fortinet/CradlePoint
- 32 Motorola Solutions
- 33 ET Fusion
- 34 Johnson Matthey/MineTerra
- 35 NSS Canada
- 36 G+Plastics
- 37 WipWare
- 38 Minova
- 39 LoopX

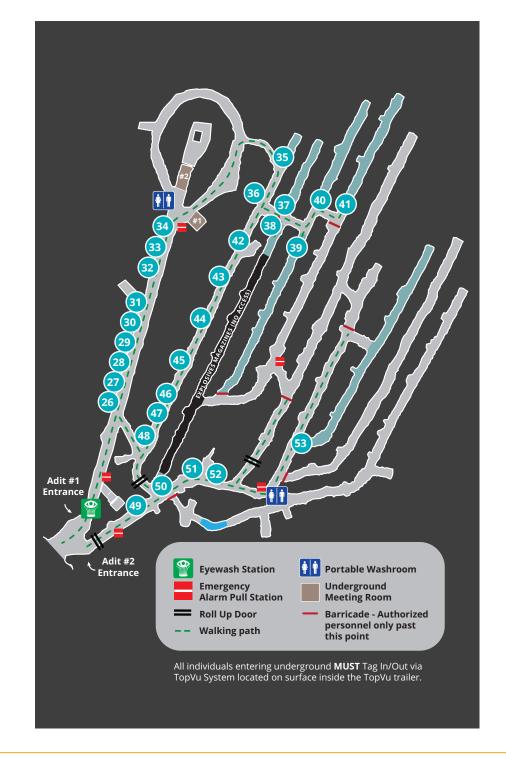
- 40 SafeSight
- 41 TesMan Inc.
- 42 RufDiamond
- 43 RockMass
- 44 SafeBox
- 45 Minax
- 46 Ideon Technologies
- 47 Hatch
- 48 Mine Vision Systems
- 49 X-Glo
- 50 PointLaz
- 51 Eaton
- 52 Groupe CLR
- 53 HARD-LINE | Hexagon Mining

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# PPE REQUIREMENTS for Underground

- Class 3 Level 2 as a minimum
- CSA-approved hard hat with retro-reflective striping, earmuffs, and a cap lamp bracket
- CSA-approved safety glasses
- CSA-approved work boots a minimum of 8" in height with internal metatarsal guards
- ✓ Work gloves
- ✓ High visibility coveralls with 2" retro-reflective striping encircling the legs, arms, and waist, and extending vertically from the waist to the shoulder, with an "X" on the back extending from the shoulders to the waist.





MAP LOCATION: UNDERGROUND 28 6harmonics.ca

hecker®

MAP LOCATION: UNDERGROUND 30 becker-mining.com

**TECHNOLOGY:** 6Harmonics will demonstrate the world's first Heavy Equipment Edge Computing/Mobile Router platform. The 6Harmonics RECC platform is a new category of solution, the ultimate rugged mobile edge computing and communications solution designed to tackle the toughest challenges in the most demanding environments. Built to withstand extreme conditions and powered by cutting-edge technology, the R-EdgeComm is the perfect platform for those industries that require reliable and efficient mobile computing in the most difficult of places. The Ontario, Canada, developed and built mining-grade platform combines Arm-based Edge computing and mobile routing with 4G/5G/WIFI6 under the control and supervision of the Cloud-based or on-prem, 6Harmonics Controller. The platform will connect to the various private and public networks around and within the mine while hosting 3rd party applications at the fixed, nomadic, or mobile network's edge.



MAP LOCATION: UNDERGROUND 29 accutroninstruments.com

**TECHNOLOGY:** Accutron Instruments will be demonstrating our mine ventilation monitoring instrumentation in a working drift. Our Pro Series Mine Air Quality Station will be monitoring the airflow, climate, heat stress, gases, dust, diesel particulate and silica. All of this information will be displayed in real time on our InfoScript industrial displays. We will also be demonstrating our personal DPM monitor and personal dust monitors, which provide the user with real-time particulate levels and alerts.



MAP LOCATION: SURFACE INDOOR aramine.com

**TECHNOLOGY:** The L140B mining loader is the first battery-powered machine designed and manufactured by Aramine since 2016. After several years of research and development, we were able to offer our customers a model specifically designed for narrow vein sections, with zero  ${\rm CO_2}$  emissions. The major innovation is the creation of a fully detachable energy module at the rear of the machine, with charging cooler and integrated charger. With the exclusive Quick Replacement System, the machine can operate without interruption: one energy module is connected to the electrical network and recharged, while the other is used by the machine. The L140B offers optimised productivity thanks to its  $0.7{\rm m}^2$  bucket and  $1.3{\rm t}$  tramming capacity. Battery-powered machines have many advantages, and offer better working conditions for operators: less noise, less maintenance, lower ventilation costs, lower ambient temperatures, etc.

**TECHNOLOGY:** The Mining Technology Innovator

exceeds all preconceived notions of industrial lighting.

Safety, productivity and efficiency in underground operations are the factors that determine competitiveness on the international resource markets. Our technology strengthens this competitive edge, because only those that use the best available technology can achieve the best results in production and profitability.

Our experienced engineers and technicians know what it takes underground. Many of them have worked underground for a period of time and seen many different types of operations. Our team is dedicated to tackle your challenges and provide the right solutions. With Becker Mining Systems, we are shaping a more sustainable future for mining - a future based on quality, efficiency and environmental responsibility. Focused on 6 key product groups – Energy Distribution (ENDIS) / Communication Solutions (SMARTCOM) / Mine Automation (MINCOS) / Haulage solutions (MINETRANS) / Infrastructure solutions (MINESUPPORT) and Digital Mine solutions (SMARTFLOW).



MAP LOCATION: SURFACE INDOOR 11 coolon.com.au

**TECHNOLOGY:** Redefining the heavy-duty industrial lighting space with our high-tech, brilliant, connected luminaires that utilize the Bitcortex network. Our technology creates a robust network that can function seamlessly regardless of the site's size or complexity, even in hard-to-reach areas with no radio or Wi-Fi coverage. Where propagation, coverage, and wiring issues become irrelevant as data moves quickly and efficiently from light to light, creating an unmatched digital backbone that can effortlessly deploy hundreds of compatible IoT technologies, such as environmental monitoring, autonomous auditing, asset tracking, or access control, depending on your needs. Lighting is no longer about simple lux and lumens—the value Coolon brings to the table



PART OF ERICSSON

MAP LOCATION: SURFACE INDOOR 5 cradlepoint.com/ericsson 31

**TECHNOLOGY:** Cradlepoint, part of Ericsson, enables the freedom to securely connect people, places, and things that drive more experiences, new ways to work, and better business results — anywhere. The company is a pioneer in advanced 4G and 5G routers and adapters for Wireless WAN — controlled through Cradlepoint NetCloud™ — and offers a range of solutions for private cellular networks and application, data, and network security. Enterprises and public sector agencies rely on Cradlepoint and its Cellular Intelligence to securely connect fixed and temporary sites, vehicles, IoT devices, and remote employees. Headquartered in Boise, Idaho, Cradlepoint is a wholly owned subsidiary of Ericsson and part of its Business Area Enterprise Wireless Solutions. It has international offices in Asia Pacific, Canada, Europe, India, and Latin America.

Ericsson is a world leader in Information and Communication Technology (ICT) and 5G, enabling customers, other industries, and the society at large to capture the full value of connectivity. Ericsson supplies communication infrastructure, services and software to the telecom industry and other sectors. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world. Ericsson's broad portfolio for private networks, including the most extensive radio portfolio of any major Tier-1 vendor, can help meet mining companies' diverse wireless networking needs. Ericsson has the global experience and references to provide proven technology that can easily be deployed by mining enterprises. In addition, mining companies can test and readily utilize 5G technologies with Ericsson's cost-effective software-only, upgradable solutions.



MAP LOCATION: SURFACE INDOOR 10 earthtrack.io/en

**TECHNOLOGY:** EarthTrack uses an RFID-tagged, digital twin of spare parts inventory and a mobile scanning tablet that travels with the worker. Adoption is key. Our solution provides a user experience layer that bridges the data gap between the actions on inventory and the ERP data updates. Our solution provides an active tag experience at a passive tag price.

EarthTrack's solution consists of four modules:

- EarthTrack | Go: A mobile and powerful inventory control "on the fly" without visiting the terminal computer.
- EarthTrack | Core: Core bridges the gap between inventory actions and ERPintegrated updates.
- EarthTrack | Control: Control surfaces insights and recommendations through a data visualisation portal.
- EarthTrack | Reach: Reach tracks high value parts as they head out from the store into the field.



MAP LOCATION: UNDERGROUND 51 eaton.com

**TECHNOLOGY:** Remote Monitoring and Diagnostics of Electrical Equipment for Maintenance and Safety.



MAP LOCATION: UNDERGROUND 33 etfusion.com

**TECHNOLOGY:** We will be demonstrating the capabilities of our Sense & Protect product, incorporating various sensing technology and outputs, as well as showcasing the integration with Motorola Solutions' MC-Edge RTU and R7 Digital Portable ION Portable Smart Radio.

This rugged solution is built to withstand the harshest and most remote environments, with the ability to operate as both a centralized and decentralized system.



capabilities of Fortinet's OT technologies.

MAP LOCATION: SURFACE INDOOR

fortinet.com 31

**TECHNOLOGY:** At NORCAT, we'll highlight four crucial use cases for modern OT cybersecurity: segmentation, read/write access control, IPS signatures for virtual patching, and enhanced visibility. Through live demonstrations, a video, and interactive sessions, attendees will witness firsthand how Fortinet's solutions empower organizations to effectively isolate critical assets, manage access permissions, proactively protect against threats using IPS signatures for virtual patching, and gain unparalleled visibility into their operational technology environments. We are committed to providing a holistic understanding of these essential cybersecurity concepts and showcasing the



MAP LOCATION: UNDERGROUND 36 plasticminer.com



**TECHNOLOGY:** High efficiency plastic mine ventilation duct, a duct reshaping system and newer innovations that will be presented at the show.



MAP LOCATION: UNDERGROUND 52 groupeclr.com

**TECHNOLOGY:** Rajant Mesh Network demonstration with integrated voice over IP of Motorola Solutions products. Crossover (partnered with Groupe CLR in the booth) will demonstrate a Distributed Antenna System (DAS) for LTE or LMR systems.



MAP LOCATION: UNDERGROUND 47 hatch.com

**TECHNOLOGY:** Improving productivity in mining projects is a top priority for our clients, directly linked to ROI. Extended project timelines and budget overruns are significantly influenced by workforce productivity issues alongside operational complexities such as deeper deposits and higher temperatures. Visibility limitations may prevent timely adjustments during project execution. Adopting new technologies used in other industries (e.g., manufacturing) benefits mining productivity management.

We have developed applications to monitor and provide insights on workforce productivity and safety, in near real time, using computer vision. These ccustomized computer vision solutions are designed to:

- · Identify tasks being performed;
- · Track tasks duration and count;
- · Support identification of safety risks

They include dashboards for decision-making that provide strategic decision makers with real-time productivity insights to maintain project timelines and budget.





MAP LOCATIONS: SURFACE INDOOR 8
UNDERGROUND 26 53
www.hard-line.com

**TECHNOLOGY:** HARD-LINE TeleOp (Part of Hexagon) allows the tele-remote operation of heavy machinery from a control station in a safe area on surface or underground, regardless of distance. The offering includes by-wire control for more than 200 equipment models covering more than 50 OEMs, with more than 3,000 conversions completed to date. By deploying TeleOp, mines can realise not only significant safety benefits but also significant productivity advantages, for example by utilising the equipment over shift changes in underground mines. Integrated with Hexagon UG Collision Avoidance System to protect operators, vehicles, and assets via a network-independent, peer-to-peer system to detect the distance and direction of tagged objects.

Hexagon Development Optimiser improves drilling accuracy for optimised blasts, reduced over-break and under-break, increased rate of advance and reduced  ${\rm CO_2}$  emissions in development drilling operations. Applicable for use on all development drill rig makes and models.

Hexagon Production Optimiser increases production drilling accuracy and efficiency in underground hard rock mining operations. Through improved accuracy, mines benefit from higher stope turnover, reduced dilution, increased ore recovery and reduced  ${\rm CO_2}$  emissions.



MAP LOCATION: OUTDOOR 23 www.hygnenergy.com

**TECHNOLOGY:** HYGN's advanced alkaline electrolyzers represent a leap forward in hydrogen production technology. These electrolyzers are engineered to optimize the electrolysis process, converting water into hydrogen and oxygen with unprecedented efficiency. What sets our electrolyzers apart in the market is their ability to operate under a wide range of environmental conditions without compromising on output or efficiency. This adaptability makes them suitable for diverse applications, from remote communities to industrial settings.



MAP LOCATION: UNDERGROUND 46 ideon.ai

**TECHNOLOGY:** Ideon will be demonstrating two form-factors of subsurface muon detectors: one designed for deployment in drill holes and another designed specifically for in-mine deployment. These detectors have been actively capturing muons and imaging the space above the mine drift since February. We will be showing examples of 3D subsurface density models generated from muon tomography data, highlighting high-and low-density anomalies delineated using this non-invasive, passive imaging technique.





**TECHNOLOGY:** Jannatec will be demonstrating vehicle safety devices including proximity detection, collision avoidance, ultrasonic and radar based blind spot detection and more.



MAP LOCATION: OUTDOOR 16 komatsu.com

**TECHNOLOGY:** Komatsu is excited to introduce the new WX11 LHD, a powerful, 11-tonne machine that offers best-in-class breakout force and best-in-class payload helping to maximize productivity and provide a lower total cost of ownership. Come check out the WX11 LHD at Mining Transformed 2024! Komatsu will also have the Komatsu ZB21 Bolter and Pumpable Resin bolting unit on site during the event as well.



MAP LOCATION: OUTDOOR 21 kovatera.com

**TECHNOLOGY:** Kovatera will display and demonstrate the all new battery electric mine utility vehicle the KT300e. The KT300e is a purpose built underground light utility vehicle that is available is several different configurations depending on the application or requirement. The unit to be demonstrated at Mining Transformed 2024 will be configured as a personnel carrier.



MAP LOCATION: UNDERGROUND 39 loopx.ai

**TECHNOLOGY:** We will be showcasing our all-in-one Operator Awareness System which utilizes advanced Al and autonomous technologies to provide real-time awareness and assistance to equipment operators. Some key features include Al-powered collision detection (V2V, V2P, V2I) and PPE detection, LiDAR-based overspeed monitoring, road condition inspection, vehicle localization, navigation, and more.



MAP LOCATION: SURFACE INDOOR maestrodigitalmine.com

**TECHNOLOGY:** Vigilante AQS™ - A multivariable air quality station designed to monitor and control air quality in underground mines that accurately measures airflow rate, direction, wet and dry bulb temperature, gas concentration, and more, enabling miners to return to the face sooner and safer.

Zephyr AQS™ - Ultra-compact, low-cost environmental air quality monitoring station for underground mines. The system is designed for any mine aiming to increase production, improve miner worker safety, and reduce energy by monitoring ventilation air in an underground operation.

MaestroFlex™ - Automated regulators, replacing manual drop board regulators, designed to exceed underground applications requiring adjustable airflow rates to match changing environmental and mobile equipment demand. The opposing blade design provides optimal flow control over large ranges allowing its use in Ventilation on Demand (VoD) applications.

ModuDrive™ - IIoT linear actuator 100% electrically operated, reliable and simple to apply. The system consists of a remote electronics controller and a fully electric linear cylinder providing real-time diagnostics, allowing troubleshooting from the surface.

SuperBrite™ Marquee Display – A fully mine-hardened, large display designed to integrate with existing PLC, HMI, or SCADA systems. As miner safety is paramount, the display includes a full fail-safe design so that only current information is displayed, preventing unsafe old data from remaining on the display when the network is offline.

Plexus PowerNet™ - Gigabit communication network providing data and power over coaxial cable. It delivers high speed and low latency, providing PoE+ to IP devices. Can be deployed by any tradesperson.



MAP LOCATION: UNDERGROUND 45 minax.ca

**TECHNOLOGY:** A mobile application that allows mine technical services personnel to plan, audit, review and share field and engineering data. The demo will showcase how a field engineer plans inspection work, conducts auditing, and communicates information within the organization.





**TECHNOLOGY:** The DPFi electrically regenerated diesel particulate filter reduces diesel particle number up to 99+% for a cleaner and healthier mining environment. Johnson Matthey developed the DPFi technology for mining vehicles and equipment within the power range of up to 150 kW where the temperature is insufficient for a standard DPF system. In addition, this system does not generate any NO<sub>2</sub> gas and can be used on vehicles with very low average exhaust temperatures (<200°C).

#### DPFi features:

- Reduces particle number by up to 99+%
- · Electronic filter monitoring ensures proper filter regeneration
- Service-friendly modular design with quick-release fasteners

#### Your Value:

- Regeneration independent of exhaust gas temperature
- Replaces OEM muffler on many light-duty vehicles
- Does not add NO<sub>3</sub> to the mine
- · Eliminates constant filter removal for cleaning.



MAP LOCATION: UNDERGROUND 48 minevisionsystems.com

**TECHNOLOGY:** At Mine Vision Systems, our mission is to spearhead the digital transformation of underground mining through advanced perception solutions. For too long, critical operational decisions have been made without real-time visibility into rock conditions. Our technology changes that. Leveraging innovations in sensors, optics and data analytics, our flagship FaceCapture™ mapping system provides accurate, highresolution 3D visualization of the mine face. This enables data-driven optimization of key activities like drilling, blasting, haulage and processing. By delivering a digital foundation, we aim to enable a step-change for the industry - supporting remote operations, automation, Al-based planning and more. Our team brings decades of interdisciplinary expertise across mining environments, robotics, geospatial analytics and complex software systems. We are passionate about collaborating with global industry leaders to drive the next evolution in safe, sustainable, productive mining.



MAP LOCATION: UNDERGROUND 38 minovaglobal.com/americas



**TECHNOLOGY:** At Mining Transformed, Minova will be exhibiting its new chemical injection and grouting platform. Designed from the ground up for the harsh mining environment, the chemical injection system is robust and easy to use. By design, the system guarantees a perfect mixing ratio, eliminating the headache of questionable installation quality commonly seen with cementitious grouts. Used with Carbothix™, Minova's industry leading fast-setting chemical grout, the platform will dramatically speed up installation time and reduce cycle times in critical areas. Come by our exhibit to see why each month, more operations are adopting Minova's chemical injection system as their grouting platform of choice.



MAP LOCATION: UNDERGROUND 32 motorolasolutions.com

**TECHNOLOGY:** No matter how large or small your Mining operations are, Motorola offers a wide range of systems specifically designed for your business – for the days ahead and the years beyond. In addition to our Video security solutions, Avtec Dispatch Consoles, Access Control and handheld radio communication devices, our Private LTE solutions and our MOTOTRBO Capacity Max trunked radio systems keep your sites and teams connected. Capacity Max blends innovation, customer feedback and Motorola Solutions' extensive real-world experience to deliver a scalable, highly secure trunked radio communications solution that's perfect for your Mining operations. Supporting up to 750 sites with up to 3,000 users per site, it's easy for you to grow and change your system and devices as your needs evolve.



MAP LOCATION: SURFACE INDOOR 12 ms4m.com

**TECHNOLOGY:** Focus will be MS4M's C4M Underground module that includes fleet management, material tracking, equipment health monitoriing, proximity awareness and operator fatigue management. Demonstration will include a workstation with monitors and operator panels.

#### NORCAT

MAP LOCATION: SURFACE INDOOR 7
NORCAT.org/studio

**TECHNOLOGY:** Step into the cutting-edge realm of mining training with NORCAT at Mining Transformed 2024, where innovation meets industry expertise. As a globally recognized pioneering force in revolutionizing training technologies, NORCAT is proud to showcase the latest advancements in Virtual Reality (VR) and Augmented Reality (AR) training technologies. Put your skills to the test as you identify dangers and hazards, ensuring a safer workplace through our immersive training experiences.



MAP LOCATION: OUTDOOR 17 normet.com

**TECHNOLOGY:** Normet offers a complete portfolio of mining and tunnelling solutions for the entire process chain, as well as future technologies such as digitalisation, extended reality, and automation. Normet will be showcasing the following technologies at Mining Transformed.

Battery-electric Multi-functional Carrier - Normet SmartDrive® Multimec
The Multimec MF 100 SD offers an innovative and reliable interchangeable cassette
system with a powerful carrier to serve in a wide variety of different mining and
tunnelling operations. The Multimec MF 100 SD is a real underground workhorse
allowing for an extremely high carrier utilization rate with low operational costs.

SmartDrive architecture includes the latest LTO liquid cooled Li-ion battery technology and fast charging capability, including energy recovery during downhill driving and deceleration. The fully reversible 4WD ensures safe and sure movement in the most difficult underground conditions, while the high-torque electric motors reduce tramming time to reach work sites faster, thereby increasing productivity. Normet Battery Electric Vehicles provide a safer, healthier work environment and can reduce total cost of ownership with reduced operational and maintenance costs.

#### The XS Offering

Variomec XS (personnel carrying and material handling) is designed to minimize total cost of ownership and provide excellent performance with best-in-class safety and payload capacity against current competition in the market. The versatile XS carrier fits to a 3.5 m x 3.5 m envelope and can be utilized for multiple different equipment applications. The XS carrier has a FOPS/ROPS approved cabin, and it can transport up to 4 tonnes of payload, be it either personnel, goods or both together.

#### **Rock and Ground Support**

Mining ground support and rock tunnel support systems involve procedures and materials that improve stability and maintain the load-bearing capability of rock near to the edges of excavation. Our aim is to improve safety, increase productivity, reduce cost, save time and minimize risks in underground mining, tunnelling and construction of underground spaces. Normet offers bolts grouts, dynamic bolts, self-drilling anchors/bolts and cable bolts that meet any need.



MAP LOCATION: UNDERGROUND 35 nsscanada.com

TECHNOLOGY: Developer of MOSS (Miner Operated Survey System) and MOSS AR (Augmented Reality), NSS Canada is also a Leica Geosystems and Exyn Technologies reseller. At Mining Transformed, we will be demonstrating our traditional MOSS and innovative MOSS AR systems underground.



MAP LOCATION: UNDERGROUND 50 pointlaz.com

**TECHNOLOGY:** Point Laz will be demonstrating the capabilities of the LAZARUSS 3D scanner.



MAP LOCATION: UNDERGROUND 27 provix.net

TECHNOLOGY: PROVIX will be demonstrating the "IC Canada Video Wireless Transmitter" as well as the Firewatch System.



MAP LOCATION: UNDERGROUND 43 rockmasstech.com

**TECHNOLOGY:** RockMass Eon is our groundbreaking handheld mobile and mapping tool. It collects and automatically calculates joint set orientations of rock masses using flash LiDAR, an inertial measurement unit, and our software platform.



MAP LOCATION: SURFACE INDOOR **UNDERGROUND** 31 rogers.com

**TECHNOLOGY:** Our portfolio of products for businesses includes:

- · Wireless Bringing Canadian businesses and their employees the flexibility and freedom to work on the go.
- Data Centre & Cloud Empowering Canada's next generation of IT through optimized workload placement.
- · Wireline Delivering a nationwide fibre network that provides reliable uptime, powerful performance, and scalability.
- Business Productivity Solutions Helping customers collaborate seamlessly from coast to coast.
- Internet of Things (IoT) Optimizing businesses and the customer experience with real-time data to make better and faster decisions.



MAP LOCATION: OUTDOOR 22 rokion.com

TECHNOLOGY: Rokion will have a Battery Electric R100 Man Carrier and Forklift on site for clientele to explore.



**TECHNOLOGY:** The Batt Pack was originally designed for mining, proving it can handle

MAP LOCATION: UNDERGROUND 42

rufdiamond.com

the toughest jobs and harshest conditions. With incredible surge capability to power the biggest of tools, our portable power packs offer the highest safety standards and are completely maintenance-free. Our Batt Packs are safe for indoor use, have no fumes, generate zero noise, are portable and versatile, are completely fuel-free, are pro-grade power and require no maintenance.



MAP LOCATION: UNDERGROUND 44 safeboxsystems.com

**TECHNOLOGY:** Safebox is a product developed by lonic Mechatronics; SafeBox is a safety-rated, automated, Lock-out / Tag-out and Try-Out (LOT) system. SafeBox allows workers to lockout multiple electric, pneumatic and hydraulic systems with a single lockout action. SafeBox is beneficial in all LOTOTO situations but is especially effective where:

- 1. Locking out from multiple locations is required, such as being able to lock out a conveyor from either the head or the tail.
- 2. Locking out multiple circuits (up to 50) with a single lockout.
- 3. Locking out at a distance is required, to distance workers from possible arc-flash, for example.



MAP LOCATION: SURFACE INDOOR 15
UNDERGROUND 40
safesightxp.com

#### **TECHNOLOGY:**

**DeepTrax**<sup>™</sup> - Ground-based data capture for underground environments.

DB4™ Underground Drone - Drone technology optimized for narrow vein environments.

Emergency Response Drone (ERD v3) SafeScout - Enhancing emergency response capabilities underground.

SafeScanner™ 5G - Real-time data capture and mapping underground.

Rail Runner™ - Autonomous rail-mounted technology for safe inspection.

**Rescue Wheel** - Rapid evacuation of injured workers to medical attention.

**DeepTraxx Fire Rescue™** - Remote fire response and suppression tool for mine rescue and emergency response.



MAP LOCATION: OUTDOOR 24 www.home.sandvik/en

**TECHNOLOGY:** Sandvik will have a DL432i and Pantera DP1600i on display at the event, along with the DL432i desktop simulator and a DP1600i simulator, built into the cab of the drill.



MAP LOCATION: SURFACE INDOOR 14 scient.ca

**TECHNOLOGY:** Scient will be demonstrating software and advanced instrumentation used for objective analysis of drill core samples. This includes the Lithoscan™ hardware and LithoScope™ software solution, covering the complete cycle of the technology from data acquisition to processing and interpretation of data using Scient's proprietary technology. Lithoscan™ is a multi-sensor imaging workstation that facilitates streamlined data capture from drill cores. LithoScope™ integrates a cloud-storage data management system with a geologist-centric software interface to form a virtual core laboratory, serving as a digital twin for core storage facilities. This platform is tailored for geologists, offering tools for mineral identification and rock classification, and provides team access to core imagery data through a centralized cloud solution.



MAP LOCATION: 18 godelius.com

**TECHNOLOGY:** SK Godelius will present a groundbreaking robotic mobile platform, emphasizing its capabilities in mapping and autonomy. This platform, originally developed for geological exploration and environmental studies, is now being highlighted for its broader potential. While it retains the ability to navigate autonomously or via teleoperation across various terrains, it spotlights its advanced mapping and autonomous navigation features. These capabilities make it exceptionally suited for a wide array of applications beyond drilling, including detailed environmental mapping, autonomous surveying, inspections of many different kinds, and exploration without the need for direct human intervention. Its sophisticated mapping technology, allied to the application of sensors, ensures accurate terrain analysis, enhancing operational efficiency in challenging environments. This adaptable platform represents a versatile tool, opening new possibilities for industries and research fields seeking innovative solutions for exploration, monitoring and inspections.



MAP LOCATION: SURFACE INDOOR 13 symboticware.com

**TECHNOLOGY:** Symboticware will be demonstrating the 4-Sight.ai is an end-to-end asset management platform that enables data capture, tracking, and analysis to avoid unscheduled downtime, minimize fuel consumption, enhance safety, and reduce carbon footprint. The platform features IIoT hardware, SpaceX-enabled connectivity, cloudbased software, and a set of proprietary AI engines purpose-built to optimize operations of mobile and stationary assets, ranging from light-duty service vehicles to heavy-duty trucks.



MAP LOCATION: UNDERGROUND 41 tesman.ca

**TECHNOLOGY:** The TesMan Remote Loader is a revolutionary technology to quickly and safely clean, inspect and load using remote control and remote monitoring.

Safety at the Face:

- Operator stays secure at least 17ft (5m) from the face with standard boom and never has to approach the face
- Avoids repetitive strain injuries of twisting, digging and cutting
- · Clean an dload with additional round repeatable quality

Installing a TRL is like getting seven machines in one!

- Cleans 100% of plugged holes of water and broken ground
- · Auger attachment cleans lifters and lower holes
- Accurately maps 100% of short-drilled holes and location
- · Operators screen shows and records endoscopic inspection of holes with comments
- Loads bulk emulsion, ANFI, or stick products, plus electric and non-electric caps
- Communication Station and dashboard for daily delivery of operating parameters to mine staff
- Paint tool is available if marking the face is required



MAP LOCATION: OUTDOOR

topvu.ca

**TECHNOLOGY:** TopVu is an RFID Innovations company delivering tracking systems for mining. Solutions include OreTracking systems & Emergency Preparedness systems (Access Controls, Personnel Tracking, smart eTagBoards, & Emergency Muster Point monitors).



MAP LOCATION: SURFACE INDOOR 9 vektore.com

**TECHNOLOGY:** Our Ore.node® software platform encapsulates comprehensive solutions for the drilling, core logging and 3D modeling domains. It provides near to real-time 3D general and structural logging user experience, prompting spatial awareness.

More recently, we launched vSTARTM, the first Augmented Reality structural reader in the market. Here are some of its features:

- fastest structural reader, with highest accuracy and precision in the market
- 3D printed hand-held tool; no electronics
- simple to use by geologists and technicians
- · universal core digital structural reader: lines, planes, asymmetry, kinematics and coreangle cones
- real-time de-survey and viewing on Stereonet and 3D viewports
- · real-time results allow for on-the-go decision-making
- traceable workflow allows for quality control and auditing.





MAP LOCATION: OUTDOOR 19 veracio.com

**TECHNOLOGY:** Global leaders in Core Scanning

Experience the next generation of geoscientific accuracy and efficiency with Veracio's cutting-edge core scanning technology.

TruScan™ encapsulates the best of XRF core scanning technology to analyze drill core and chips for a wide range of elements, delivering exceptional performance in core scanning. Tailored to analyze drill core and chips for an extensive range of elements, TruScan™ setting new benchmarks in accuracy and detection capabilities.



MAP LOCATION: UNDERGROUND 37 wipware.com

**TECHNOLOGY:** Join us at our interactive workshop where you will master realtime fragmentation analysis, learn how to convert this data into actionable information and discover related technology that can help improve safety, productivity and reduce your environmental footprint.



MAP LOCATION: UNDERGROUND 49 x-glo.ca

**TECHNOLOGY:** x-Glo North Americas V.A.C.S. was designed to assist with traffic management, fire alert, seismic activity, and high gas, plus many more. Directional chase can direct personal to safety for any mine wide or localized emergency.



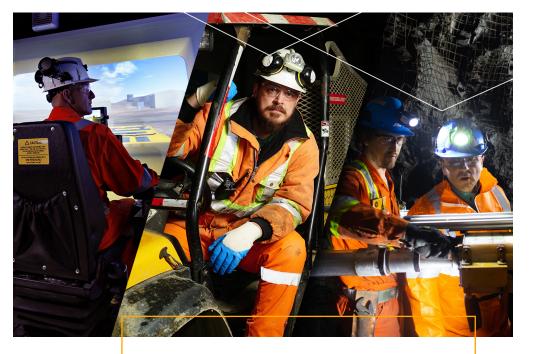


#### MEETING ROOMS

Take your conversation further in one of our four dedicated Meeting Rooms. Sign-up sheets will be posted on the doors of each Meeting Room. Refer to the maps for exact locations.

- Meeting Rooms #1 & #2: Located in the Surface Building. Suitable for 4 people.
- Underground Meeting Rooms #1 & #2: Both located at the end of Adit #1. Equipped with a TV with HDMI connection. Suitable for 10+ people.

Please limit your time in the rooms to 30 minutes.



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#### **ABOUT NORCAT**

Proudly serving as the "one-stop-shop" for all that is the future of mining technology and innovation.

NORCAT is a global leader in skilled labour training and development, focused on developing and delivering innovative programs, services, and resources that enhance productivity and safety in the global skilled labour industries.

The NORCAT Underground Centre serves as the world's only operating underground mine designed to enable the development, testing, and demonstration of emerging technologies that are poised to transform the global mining industry.

NORCAT is proud to partner with leading innovators to drive the future of mining technology. By providing a unique platform for testing and demonstrating new solutions, we play a crucial role in advancing the industry and ensuring impactful, practical innovations.

**NORCAT.org** 

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