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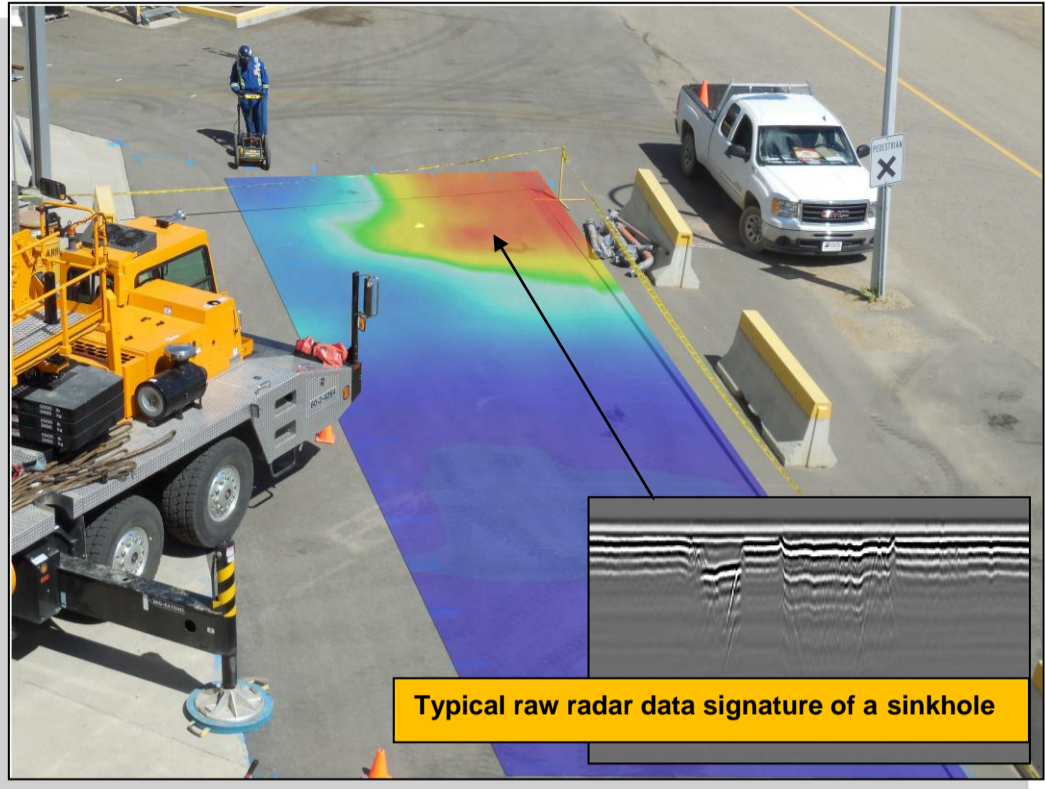
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Find us on the web



GPR Talk Spotlight: Sinkholes & Voids



Typical raw radar data signature of a sinkhole

How do we look for underground hazards? Maverick regularly performs Ground-penetrating Radar (GPR) on sites to gather data for coordinators and engineers to evaluate subsurface conditions prior to setting up for critical crane lifts, as well as ice roads, pipeline crossings, bridge components, structural slabs, and other radar applications - helps us trust the ground we walk and work on.

For many years, Maverick Inspection Ltd. has provided services for a wide variety of clients in the area of underground void detection and delineation.

Applications for this work would include planned critical crane-lifts, mud or foam jacking of floors, roadways, quality control in concrete pours and other similar projects. Our client list has included a wide range of employers in the construction, oil and gas, pulp and paper, environmental and geotechnical engineering companies and many more.

Over the years, Maverick has learned that voids can have many causes and sources, and that often they can take time to develop. Take for example a fire-hydrant leak; it is a regular occurrence that during the winter months, lines freeze, or else the ground surrounding a given line can freeze and heave, causing stress on buried utility lines. This can cause fire-hydrant lines to crack, and sometimes they can slowly leak water into the surrounding soils, sometimes not so slowly. As this newly introduced water freezes, it causes even more frost heaving. This regularly comes to light during the spring thaw, by which time water from the pressurized systems can make its way to the surface. The typical response to this is to repair the area and bring everything back into service as quickly as possible. It is at this point that Maverick often receives a call to examine the area and check for indications of underground movement, sloughing, slewing and imminent sinkhole formation. It is also quite rare, but not unheard of, to find indications of such at this point in time. In this case, the soil is typically found to be heavily saturated with water. This causes the soil to swell, and the swelling of the soil fills all of the empty space. It is over the course of the following season in which the soil de-waters, and the swelling goes down causing a reduction in the soil compaction once there is not enough soil left to fill the holes left by the water. Over time, the soil layers above this wash-out void can begin to lose cohesion and compaction, becoming soft and then sloughing into the opening below. This process continues to occur eventually leading to a sinkhole at the surface.

Maverick has employed GPR to detect these subsurface delamination trends long before an opening can occur at the surface. The best time to check for this type of subsurface failure is during the planning stage of performing any type of approach or crane-lift activity. By scanning early in the planning stages, any repairs or special considerations can be taken into account saving on unplanned downtime or delays and their associated costs.

Concluding the spotlight talk on voids and sinkholes, Maverick offers GPR predictive maintenance programs on monitoring changes for subsurface activities such as re-occurring of saturation plumes, directional drilling of pipelines under roadway crossings, as well as ice road profiling and many more applications.

Please visit our website for more information on Maverick's GPR technology including case studies. Call Maverick's GPR experts today at (780)467-1606 to discuss your project needs

www.maverickinspection.com

Technology, Expertise & Solutions





RVI – Sulphur Pit Condition Analysis

Concrete sulphur pits, whether they are in live service or brought down during an outage, Maverick's RVT department can quickly deploy intrinsically safe nitrogen cooled cameras to acquire visual observations. Maverick's RVI technology to gather information on sulphur pit internals can provide integrity groups with assessments based on recorded video data. Remote video inspections on sulphur pits can detect defects from design, materials and construction. Video inspections can also provide information on deterioration of concrete including, metal corrosion, erosion and sulfate attacks. To learn more about Maverick's RVI capabilities and applications, please contact our office at 780-467-1606

Maverick Inspection 20th Anniversary – Business in Edmonton Magazine Issue

An article was placed in the September issue of the Business in Edmonton Magazine on celebrating 20 years providing safety, diligence and innovation. The article, authored by Warren Tessari, Operations Manager at Maverick, talks on key essentials on Maverick's integrity, technology and safety. To read the article on Maverick's 20th year anniversary in the Business in Edmonton Magazine, please visit our website in the News & Events section <http://www.maverickinspection.com/news-views/>

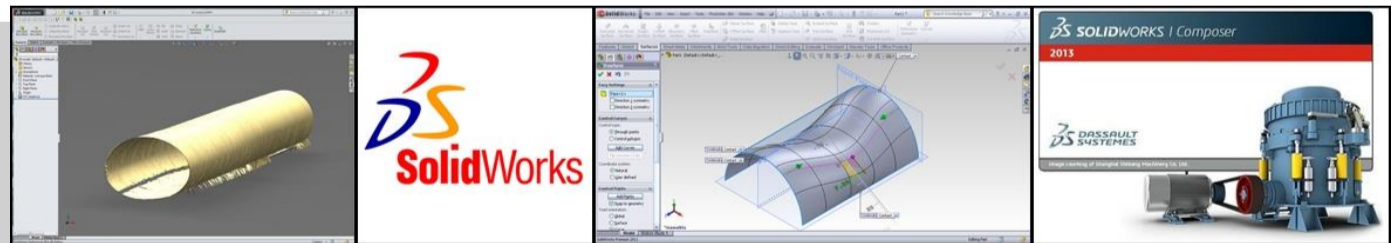


2015 IPEIA Conference

Maverick Inspection Ltd. will be exhibiting during the 19th annual IPEIA (International Pressure Equipment Integrity Association) Conference held in Banff, Alberta. The three day event starts February 18th to the 20th located inside the Kinneair Centre. We look forward to meeting you at the event. Please find our booth, and come talk to us about what's new in specialized inspection and non-destructive testing

Infrared Imaging: Building Insulation Reminder

It's that time of year again where we need to evaluate commercial and industrial building insulation during the winter season. Maverick's infrared technical team can quickly gather thermal images of the interior and exterior of buildings for insulation issues and provide complete IR assessment reports for heat loss. Maverick thermographers can also detect using infrared, wet insulation, leaking air ducts, in-floor heating blockages, building envelopes, roof scans and many more applications. Call Maverick today for an estimate, and don't get left in the cold.



SolidWorks Integrations

Maverick has a history of providing quantitative information from our qualitative inspection services. This includes non-contact measurement software, laser pipe-profiling, and GPR. When dealing with quantitative measurements, Maverick has often used computerized 3D modelling software in order to render models without the mathematical abstractions which are present in the raw data. We have moved forward with our 3D computer modelling and can now render models in Dassault Systems Solidworks Professional. The models can be used to create CAD drawings in the industry standard .dwg file type. Maverick also maintains contact with 3D printing and rapid prototyping companies and are prepared to meet your needs for small component designs and prototyping. For more information, call 780-467-1606.

Company Culture ♦ Safe Behaviour ♦ Accountability ♦ Safe Environment



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