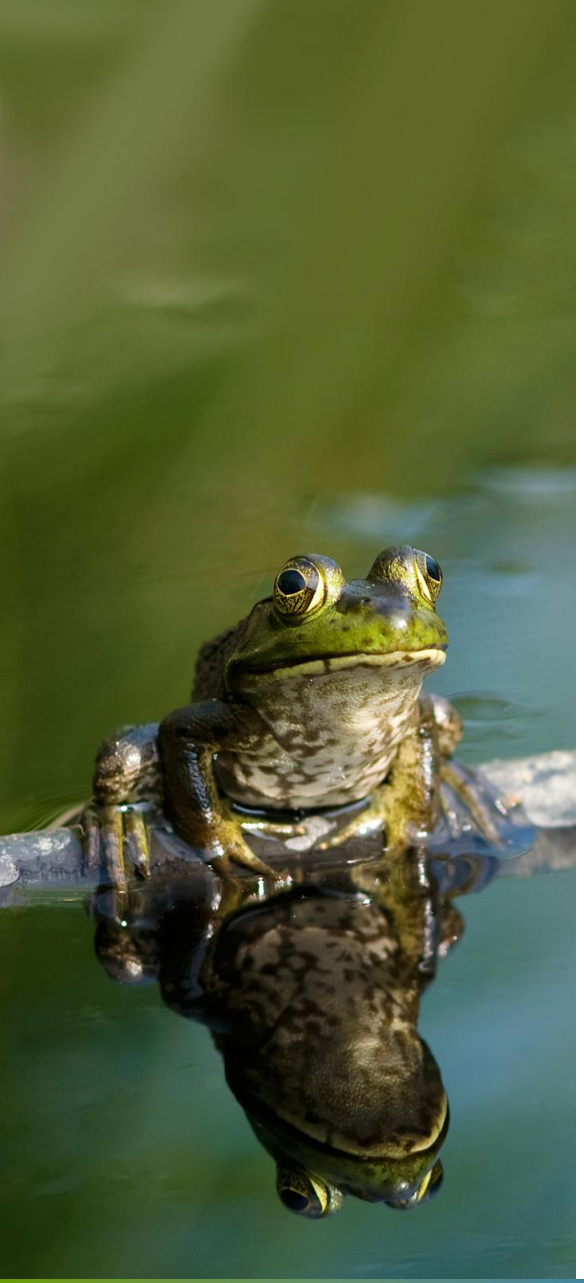

How`s Your Stormwater Quality?

Regular Inspections **Reduce the cost** of Ownership of **oil/grit separators**

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We all live downstream

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LECUYER
innovation béton

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Over
18,000
inspections

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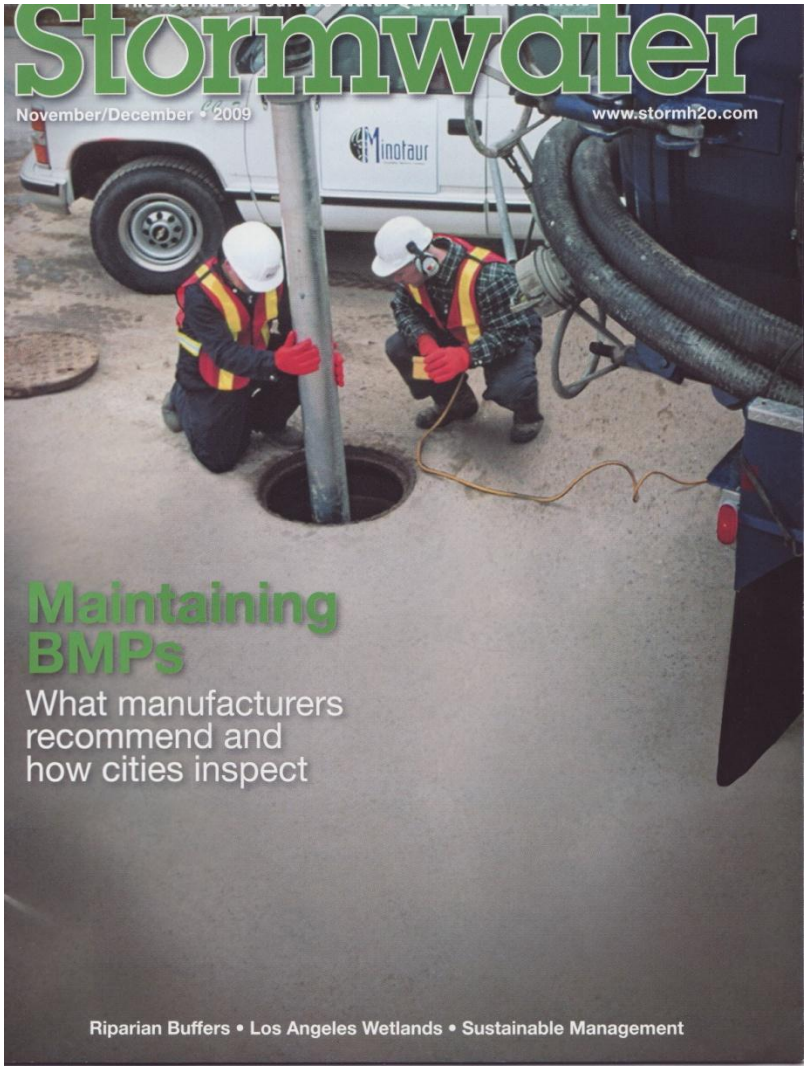

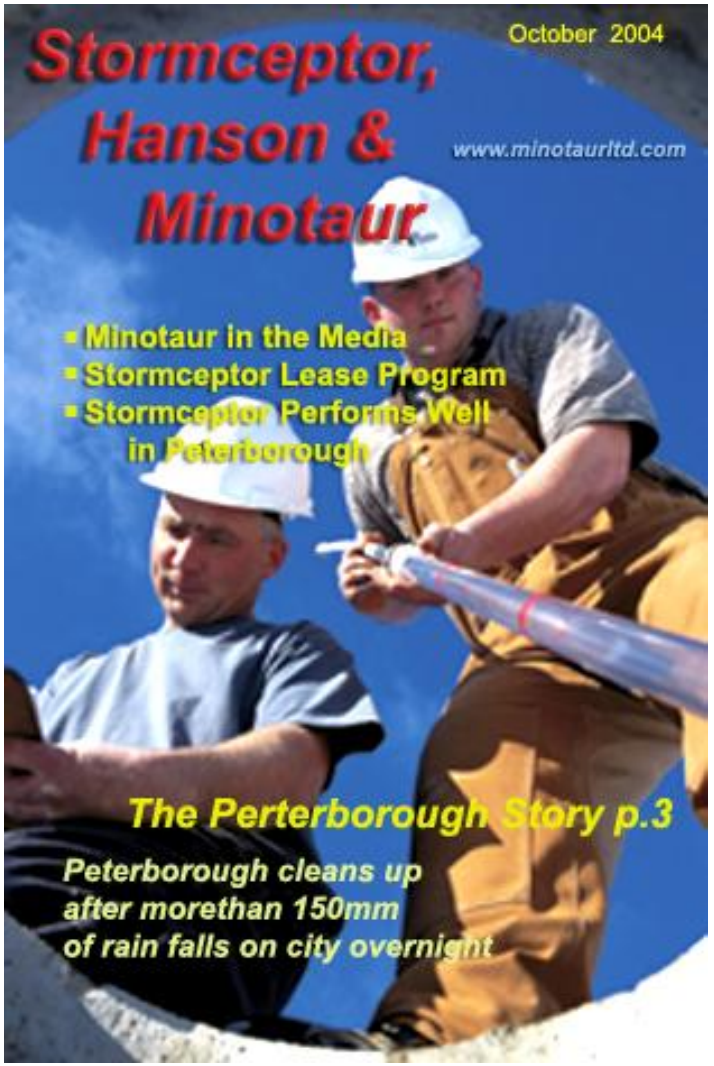

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Oil/Grit Separators

have two functions

& two phases of operation

Phase #1: site development & construction


OUTLET
Hanson

Myth #1: Oil/grit separators need expensive service often

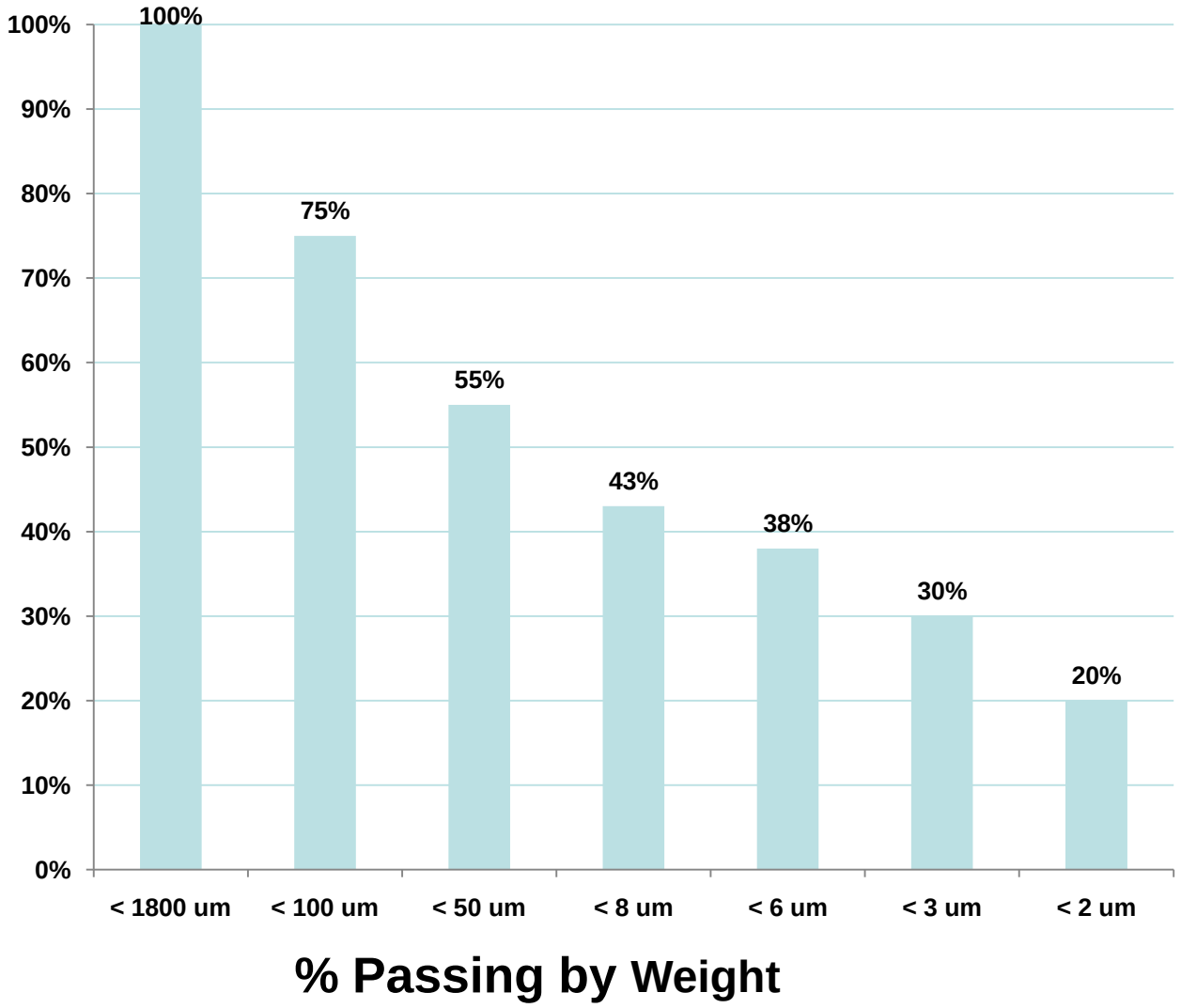
wrong

A site under construction delivers more sediment to a unit then a ``stable`` site that is landscaped and paved.

Myth #2:
Large particle size is typical

wrong

Sieve Analysis Particle Distribution



…it’s not beach sand...

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7 million pounds of pet feces left on the streets of Washington D. C. Each year.

Gunk comes from everywhere.

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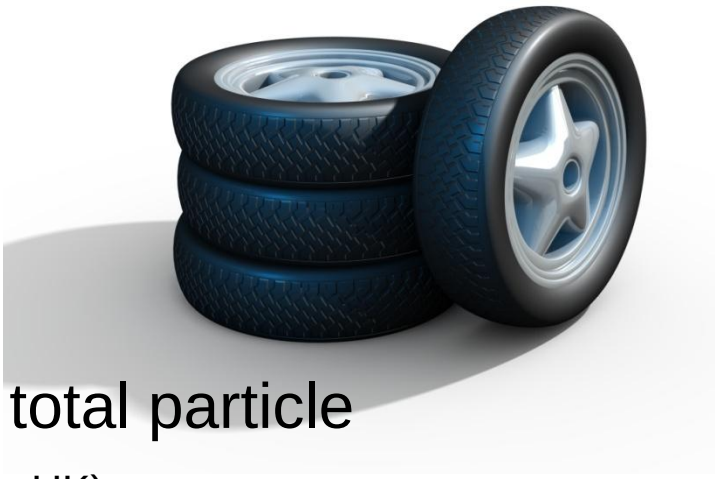
Photo by Rebecca J. Rosen

Approximately 11 million plus scrap tires are generated annually (Ontario Tire Stewardship)

Ever wondered where all the brake dust gathered on your wheel rims goes?



80% of the brake's friction material will wear off during its lifetime.

Brake wear contributes 11% to the total particle concentrations (study Hatfield, Hertfordshire, UK)

Brake materials contain heavy metals and carcinogenic compounds such as antimony.

Brake wear particles pollute soil and watercourses situated close to roads.

Common Metals in Road Runoff

Lead: tire wear, lubricating oil and grease, bearing wear

Zinc: tire wear, motor oil, grease, brake emissions, corrosion of galvanized parts

Iron: auto body rust, engine parts

Copper: bearing wear, engine parts, brake emissions

Cadmium: tire wear, fuel burning, batteries

Chromium: air conditioning coolants, engine parts, brake emissions

Nickel: diesel fuel and gasoline, lubricating oil, brake emissions

Aluminum: auto body corrosion

(Conservation Currents, Northern Virginia Soil and Water Conservation District, March 2005)

Particle Size DOES Matter

Ensure the unit you choose captures ultrafine particles.

Not all brands do.

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Myth #3: Oil/grit separators don't work.

Wrong !

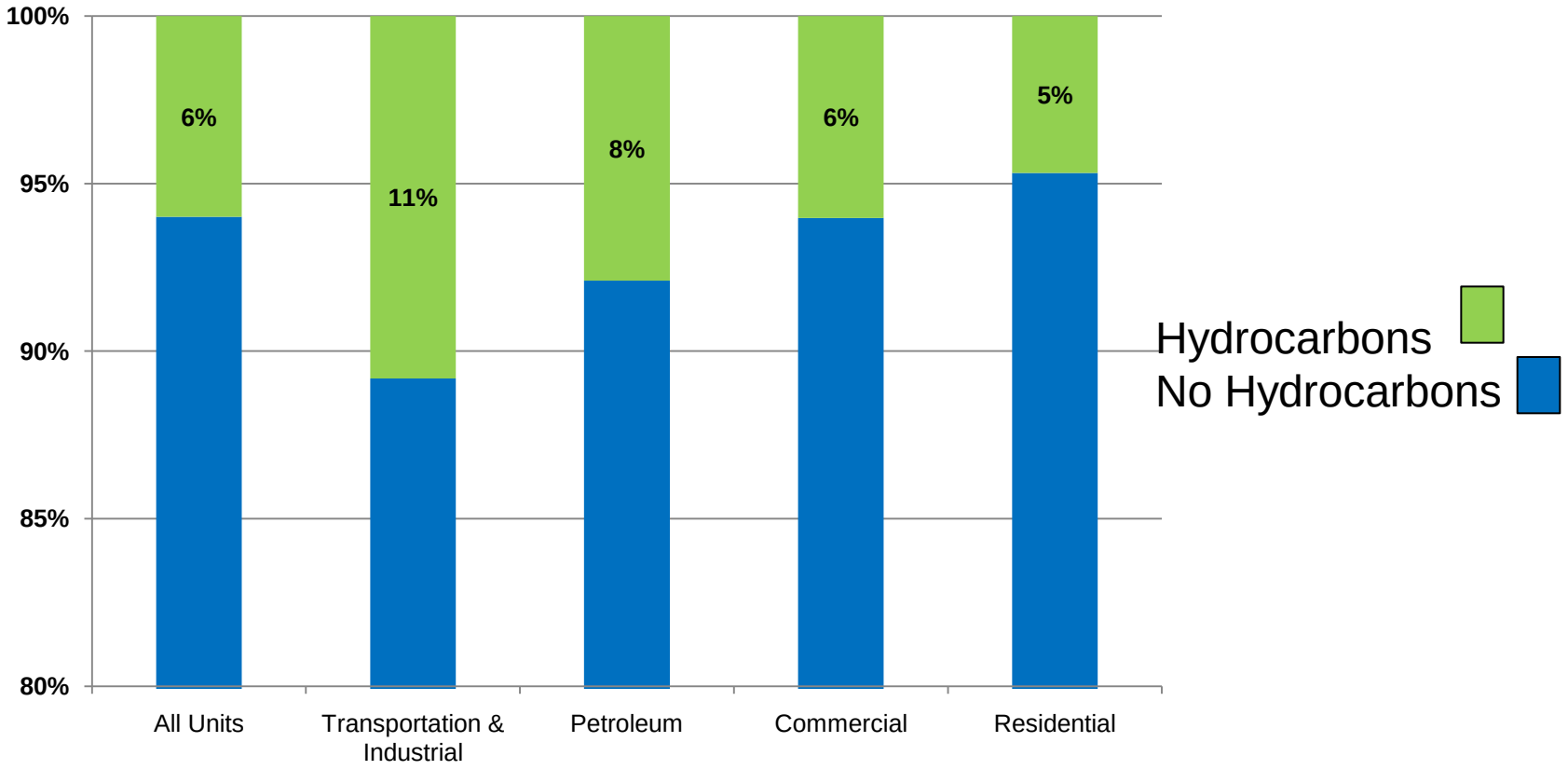
Fine particles accumulate at a much **slower rate** in terms of **volume in phase 2**.

Phase 2: Oil/Grit Separators capture: pollutant-laden sediment to settle and remain contained inside the treatment unit until it is physically removed during the units' next maintenance event.

Q & A
Sediment/Particle Size

Lesson Learned: A small spill, has large costs. An oil interceptor upstream would have paid for itself many times over.

Hydrocarbon Risk Potential



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Mystery on Industrial Site

We were finding accumulated hydrocarbons on a regular basis.

Why & where were they coming from?

HVACs Unit On Roof

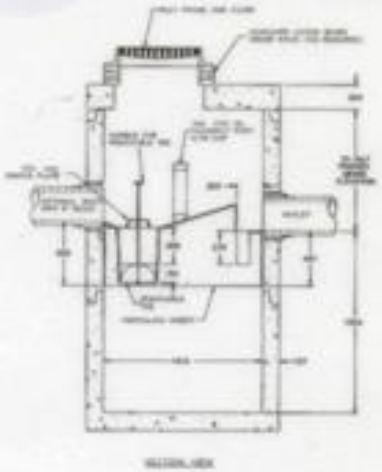
Monitoring Makes It Easy

- Provides compliance
- Reduced cost of ownership
- Peace of mind
- Protects our most precious resource

SITE AWARENESS CARD

STORMCEPTOR AWARENESS CARD

Minotaur | Hanson | Stormceptor | Shell



SHELL Station ID#

STORMCEPTOR Information:

Model STC

ID#

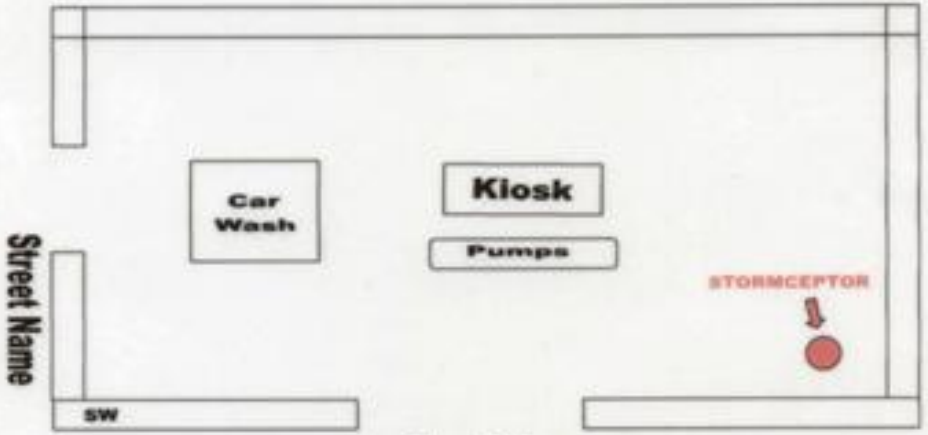
Hydrocarbon Storage: Max.

SHELL spill action 1-800-661-7378

For STORMCEPTOR inspection
post clean up: 1-888-646-6828

Spill, clean up, information
STORMCEPTOR name cast into manhole lid

Empty oil chamber by pumping water level down approx. 1m until hydrocarbons appear. Continue pumping until removed.



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Specializing in the monitoring and servicing of STORMCEPTOR units

First Pro I.D. # 100980

STORMCEPTOR Information:

Model STC 1000

ID# 6997

Hydrocarbon Storage: Max. 915L

First Pro spill # 1-800-888-8888

For STORMCEPTOR inspection
post clean up: 1-888-646-6828

Q & A

Hydrocarbons

?

Oil/Grit Separators are versatile.

Think **“treatment train”**

Oil/grit separators used successfully in Québec to treat out flow from snow dumps.

Low Impact Development (LID)

Photo Credit: Low Impact Design Centre

"Low impact development means narrower roads and less impervious surfaces, and treating stormwater closer to where it is generated".

Q & A

LID

?

COMPLIANCE INSPECTIONS

Minotaur came into being to provide two functions for the Quality Assurance Program (QAP):

1. To determine if the Stormceptor units required post construction silt service and deliver the service if necessary. This action guarantees they will be able to provide the site protection they were designed and installed for.

2. To provide the Stormceptor owners with Compliance Inspections required by the Certificate of Approval, issued by the M.O.E. and the property owner's municipal Site Plan Agreement.


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INSPECTION

Certificate of Approval (C of A)

Oil/grit interceptors installed in storm systems must be covered by a C of A issued by the Ministry of the Environment.

C of A's require:

1)regular inspections

2)required maintenance and service

3)record keeping

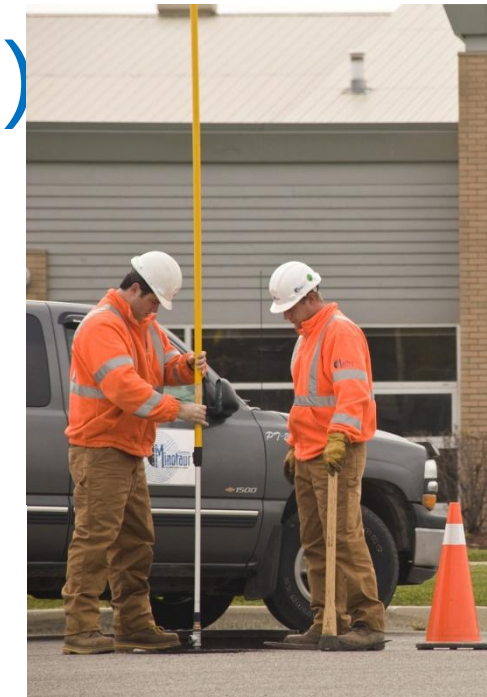
QUALITY ASSURANCE PROGRAM

- Detailed reporting
- Unit Tracking
- Installation and Service Reports
- Convenient, Ongoing Service Logs

1. We've installed an O/G separator

2. Nursed it through its childhood (construction phase)

3. Watched it mature(stable site)



4.Given it a series of checkups (compliance inspections)

5. Time for operation (service)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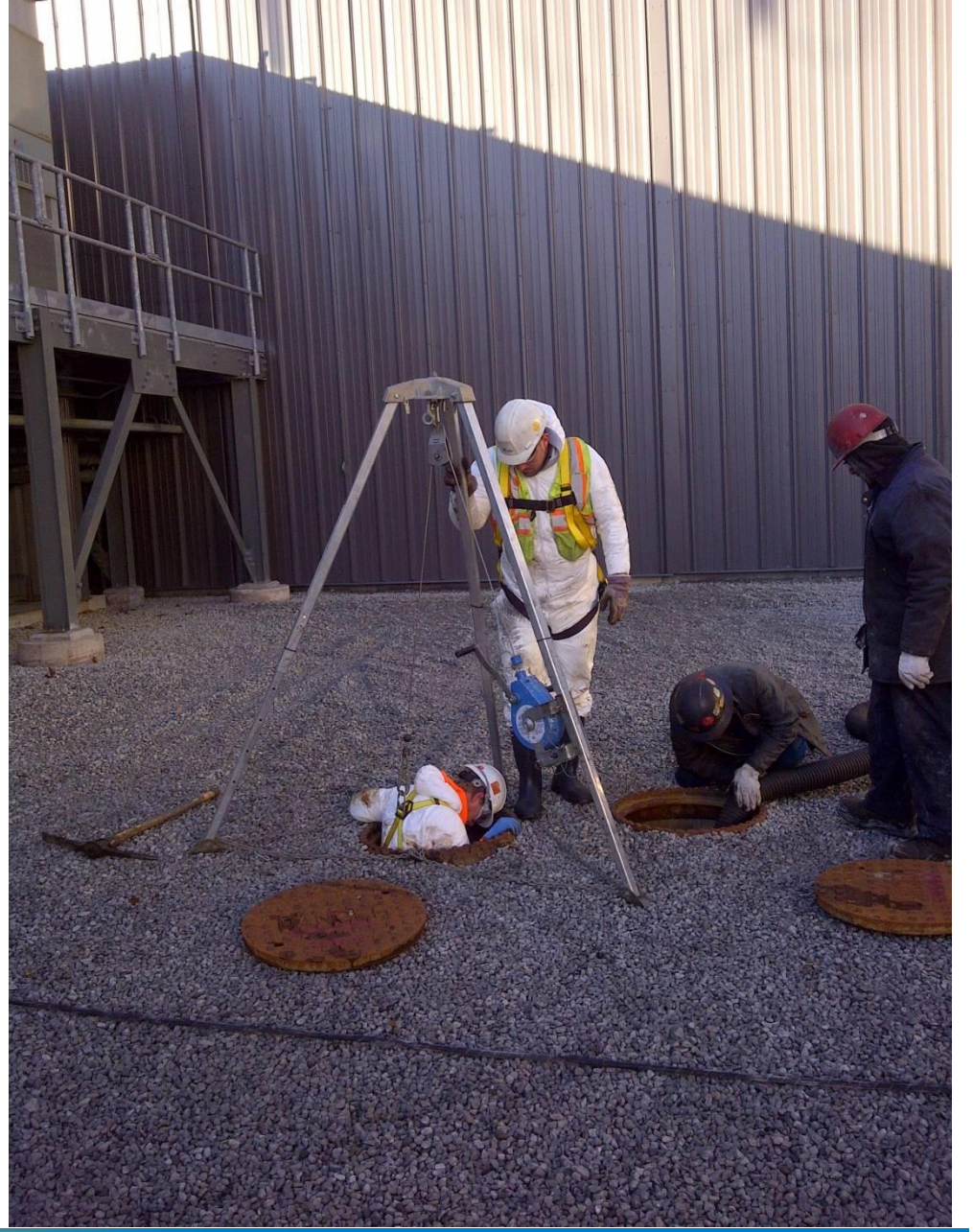
Guardian Service Limited



Confined Space Entry

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BIG 3 GUIDELINES

WHEN CHOOSING O/G SEPARATOR

1. Choose a device designed to minimize re-suspension.

2. Size the device properly for correct particle size capture.

3. Maintain the device with monitoring,record keeping, service when required.

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Compliance. Let's hop to it.

Hanson Pipe & Products & Minotaur Stormwater Services have started the clean stormwater flowing with the **Quality Assurance Program** (QAP)

Meeting Compliance standards is easy but we need your help to get everyone on board.

60% of all oil/grit separator owners will respond positively to an educational letter

99% will respond positively to an enforcement letter

The ripple effect created by one letter can produce a wave of compliance.

We all live downstream.

519-647-3729

Minotaur stormwater services

minotaurltd.com

Specialists in the Monitoring, Maintenance and Repair of Stormceptor Units

Ontario: 566 Lynden Road, Brantford, Ontario N3T 5M1
Québec: 1804, boul. Le Corbusier, Suite 154, Laval, Québec N7S 2N3

THANK YOU FOR YOUR TIME & ATTENTION