

**February 18, 2025**



# **Regulatory Timelines for Closure**

Lessons from the International Oil & Gas Industry and  
Their Impact on Orphan and Idle Wells

**PRESENTED BY:**

**Graeme Hawkins**

Director, ARO

# Presenter Profile



## Graeme Hawkins

Director of Asset Retirement Obligations

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Graeme is the Director of Asset Retirement Obligations at 360, with 15 years of experience developing and managing large-scale projects in various industries across Canada. He has been responsible for overseeing teams of professionals and engineers working collaboratively with both internal and external stakeholders to ensure the completion of multi-million-dollar projects in several provinces across Canada. He has further developed his professional skills by engaging and collaborating with municipalities across Alberta on the development of Zoning Bylaw amendments as an expert witness working with dozens of City Councilors, Administrators, and Committee Members. With a background in accounting, he brings data and financial accuracy to the Asset Retirement Obligations team focusing on the development and standardization of ARO modeling and liability reporting.

# 360 Engineering & Environmental

Our mission is to deliver simple solutions to complex engineering and environmental projects.



## WE MAKE IT SIMPLE

**360 partners with our clients to make complex engineering and environmental projects simple. We are client obsessed, problem-solving experts and strategists.**

We believe that your project can be done effectively, efficiently, and with a measurable return on investment that allows you to continue development and build momentum towards the future. We take time to collaborate with our clients to understand their needs, unearth their value, and deliver new insights. That's how **We Make it Simple.**

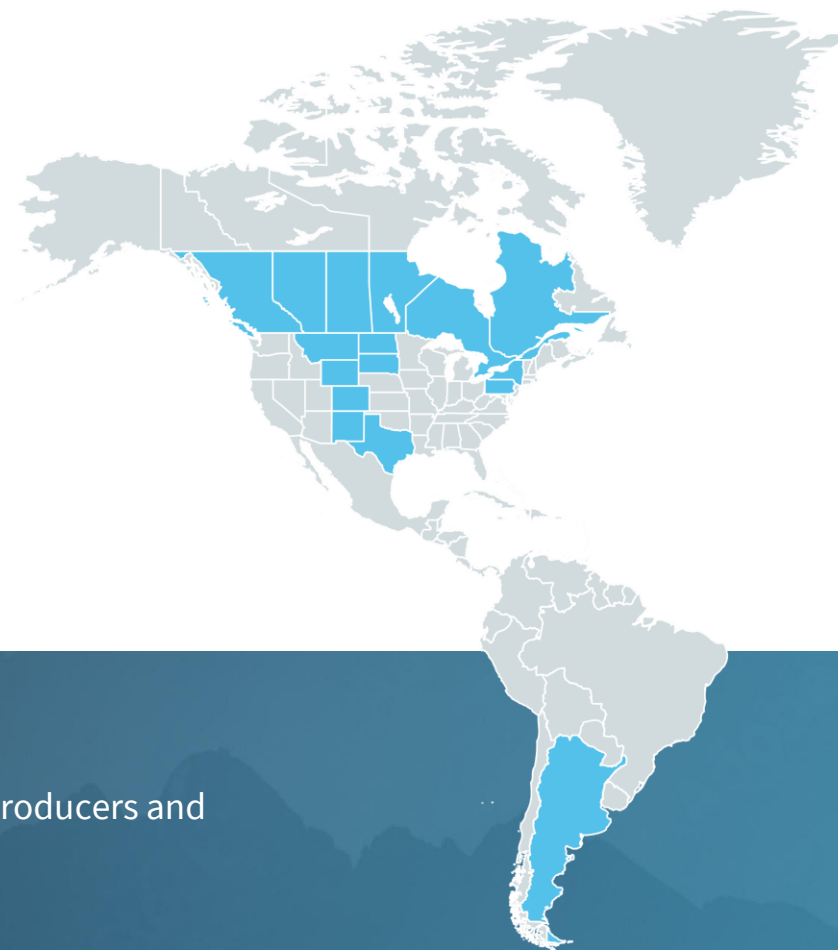
# Asset Retirement Obligations

Assessment, advisory, and audit for end-of-life assets.



## OUR SERVICES

- Corporate Asset Retirement Obligations (ARO) Assessments
- Merger & Acquisition Analysis and Assessments
- Regulatory Guidance & Submissions
- Liability License Rating/Liability Management Rating
- ABC, Dormant Site Program, and Corporate Liability
- Deemed Liability Assessments & Audits
- Analysis Forecasting & Planning
- Management Strategy Building
- Corporate ESG Support
- Municipality and County Liability and ARO Advisory
- PSAB Asset Retirement Obligation Support



## GLOBAL EXPERIENCE

The 360 Asset Retirement Obligations team has executed ARO assessments for energy producers and midstream companies across the Western Hemisphere.

**\$23.1** billion

In asset retirement obligations assessed

**152,347+**

Idle or inactive sites reviewed

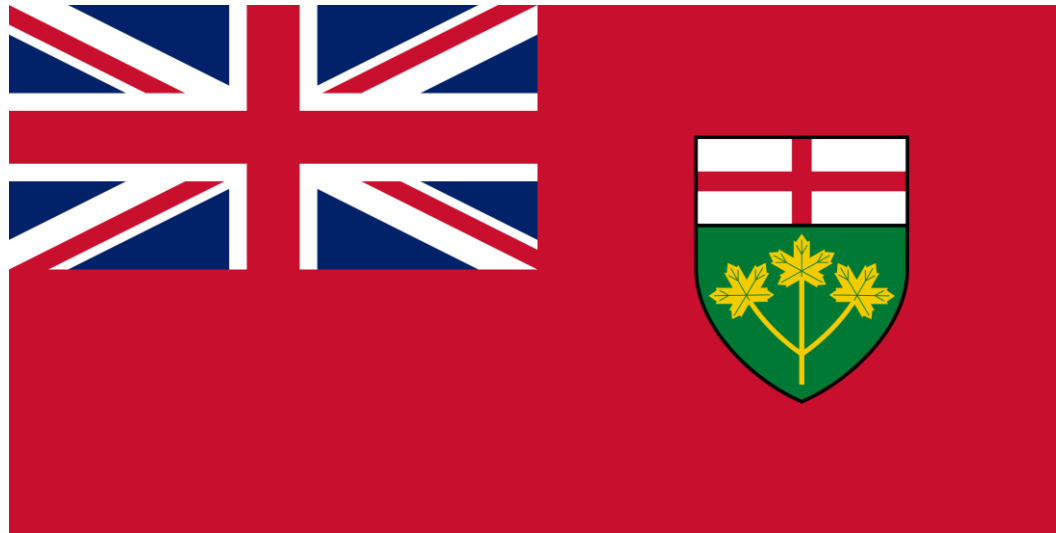


# Regulatory Changes – Dealing with Orphan & Idle Wells

Lessons from the oldest oil and gas jurisdiction in North America



The first oil & gas well was drilled in North America in **1858**

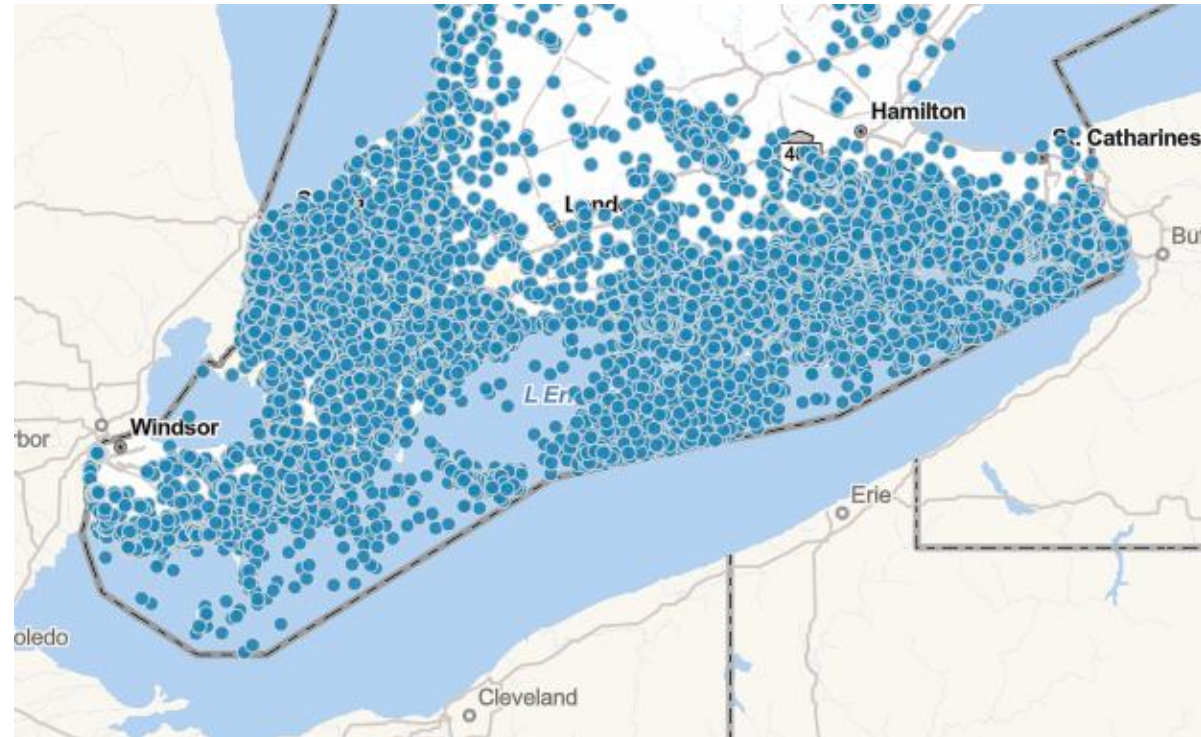


# Legacy Industry

Production declines and Western moves



- ~27,000 **known** oil and gas wells were drilled in Ontario since 1858
- Predominantly 5 major formation plays along Lake Erie
- Production peaked in the 1950's
- Historical regulations were not prepared to deal with orphan and idle wells



Source: Ontario GeoHub – Petroleum Well Map

# Catalyst for Change

Catastrophic events and high-risk wells



## Leamington, ON - 2020

- Leaking methane detected from an on property abandoned well
- Loss of life



## Wheatley, ON - 2021

- Leaking methane migrated to a water well
- Loss of public and private property



# Regulatory Action

Recent steps made by the Province to address legacy oil and gas liability



## Abandon Works Program

- Provincial funding program
- Assist with covering the costs of abandoning an orphan well on private landowner property

## Provincial Funding for High-Risk Areas

- The province announces a \$23.6 MM action plan to tackle the challenges of dealing with legacy oil & gas wells
- \$2MM was provided to 9 high risk municipalities

## Regulatory Review

- 2023 - the Province procured a Legacy oil & gas jurisdictional review of liability management frameworks
- 2024 - the Province procured a Legacy Well Financial Assessment

## Regulatory Updates

- In 2024, the Province proposed changes to its regulations to address and mitigate further high-risk wells
- Proposes broad authority to allow the Province to prevent, decrease, or eliminate the hazard of a well



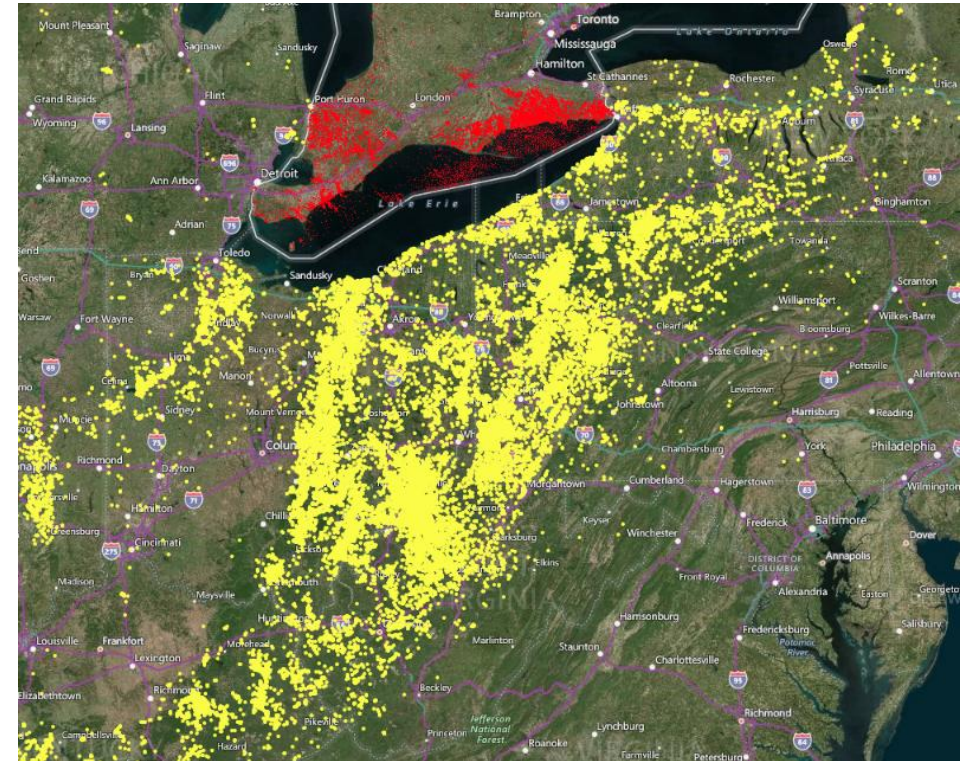
# Ontario's Legacy Well Problem

Defining lessons learned and potential proactive approaches



## Ontario as an Analog

- Aged assets
- Limited existing production and/or industry
- Historical regulations
- Lack of operator accountability
- Substantial orphan inventory
- Lack of industry funding
- Lack of liability magnitude and framework



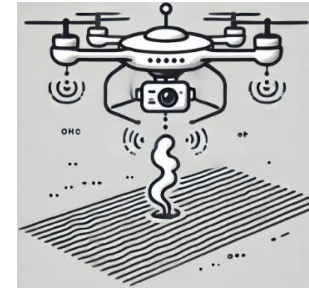
# A Proactive Approach

Potential opportunities for orphan rich oil & gas jurisdictions



## Technology

- Utilize technology to identify the location of wells in high-density, high-risk areas



## Liability Management Framework

- Develop a process to understand the full magnitude of liability and risk assess to appropriate necessary funding mechanisms



## Performance Grants

- \$20MM to strengthen plugging standards and procedures
- \$20MM for improvements to state programs





# Thank you!

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