



# Ground-Based Leak Detection Technologies

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## Topics Covered

- EnCana's goal for the DI&M Program.
- Where we are in the implementation process.
- EnCana's DI&M Process
- Lessons learned to date.
- Next steps for EnCana



# EnCana's Goal for the DI&M Program

- **Emission Reductions**
- **Return On Investment**
- **Safer Conditions**
- **Metrics are Tracked**
- **Easy to Manage for Operations**
- **Process Conforms to EnCana's EH&S Management System**



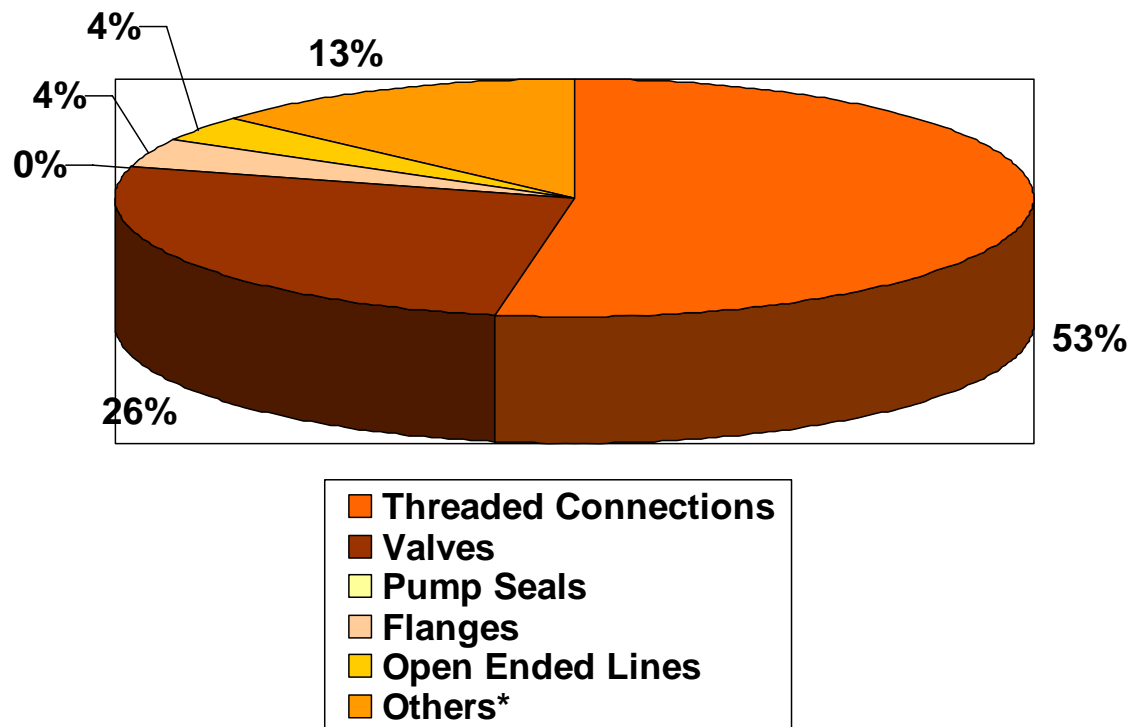
# Where we are in the implementation process.

- **Purchased the equipment;**
  - IR Cameras
  - PIDs
  - High Flow Sampler
- **Building support for the project;**
  - Completed 33 E&P sites
  - Presentations to teams on gas saved, ROI and videos
  - Meet with Field Operations Supervisors to develop process
- **EH&S Management System**
  - Requires a thoroughly defined process in writing.
  - Requires all assumptions to be eliminated.



# Leaks by Component

## Fugitive Leaks by Equipment Type





# EH&S Management System

- **DI&M Guidance Document**
  - Explains Process
  - Key Accountabilities
  - Training Needs
  - Metrics Tracking and Economic Calculations
  
- **SOP Development**
  - PID Calibration and Operation



# EnCana's DI&M Process

1. EH&S employee inspects facility.
2. Leaks are measured with a High Flow Sampler, PID and tagged. Leak = 2000 ppm.
3. Inspector logs facility into Incident Management System and generates Work Order.
4. Work Order is issued to Pumper.
5. Pumper makes repairs within 30 days. Pull the tag, if less than 2000 ppm.
6. Tag information entered into IMS to complete the Work Order by a Technician.
  - Date of repair.
  - Concentration after repair (PID Measurement).
7. Move appropriate leakers to Shutdown Log.



# Lessons Learned to Date

- **Originally thought program could function with cameras and High Flow Sampler**
  - How would the Pumper know the fix worked?
  - EH&S Inspector would have to visit post fix.
- **Gaining buy-in is a delicate process.**
- **Developing library of leakers for economics and understanding inspection rotation is a long process.**
  - Over time, library will take the place of time consuming High Flow Sampling.
- **Still working on Shutdown Log process.**





# Next Steps for EnCana

- **Hard roll-out to Leadership Team.**
  - Ensure appropriate resources are allocated.
- **Begin with training on the process and key accountabilities.**
- **Continual Improvement**

**Plan    Do    Check    Act**



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