

# Evolution of the Spill Investigation Program

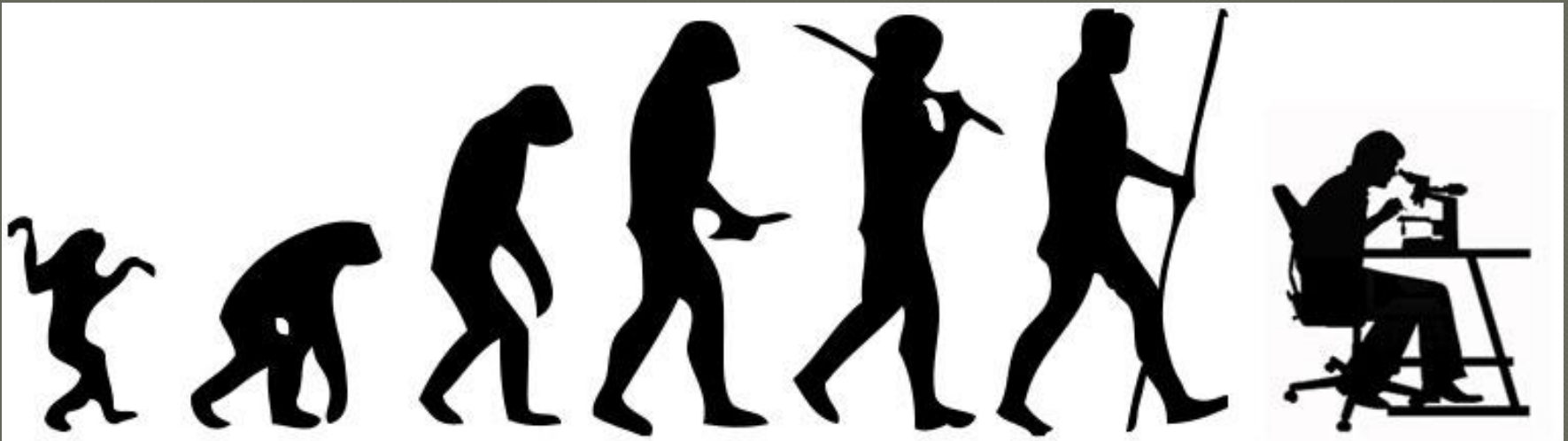
North Dakota  
Department of Health



NORTH DAKOTA  
DEPARTMENT *of* HEALTH

# Adopt , Adapt and Improve

*Prince Edward, Prince of Wales , 1927  
As told by Monty Python's Flying Circus*



# About Us

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- Primary environmental agency
  - Clean Water Act
  - Clean Air Act
  - Safe Drinking Water Act
  - Many others

# Oversight of spills

- Various agencies have responsibility for storage and transportation of materials

ND DOH  
USCG DOT NDDAC  
NDDES  
EPAFERC PHMSA  
NRC

# The Tesoro Spill

- Pipeline release of an estimated 21,000 bbls of Bakken crude oil discovered by landowner (September 2013)
- Source of release: probable lightning strike that damaged the near surface pipeline
- Release covers about 14 acres of wheat field
- Approximately 35 acres are tied up in remediation.
- This is (one of) the largest oil spills in continental U.S. history



# P.T- Post Tesoro



# Public Interest

**Los Angeles Times** | ARTICLE COLLECTIONS

[← Back to Original Article](#)

## North Dakota pipeline spill raises questions amid state's oil boom

*Tesoro Logistics and North Dakota didn't quickly tell the public about an oil pipeline spill, and the firm doesn't know when it started.*

October 23, 2013 | By Neela Banerjee

WASHINGTON — About sundown one Sunday in September, North Dakota farmer Steven Jensen noticed that his combine was running over wet, squishy earth in a wheat field he was harvesting. When he took a closer look, he saw that oil had coated the wheels and that it was bubbling up about 6 inches high in spots.

# Website

## Environmental Incident Reports

In North Dakota, both the Department of Health's Environmental Health Section and the Department of Mineral Resources' Oil and Gas Division of the North Dakota Industrial Commission receive reports of environmental incidents. Incidents reported to the Department of Health are called General Environmental Incidents while those reported to the Department of Mineral Resources are called Oilfield Environmental Incidents. [Details about reporting requirements can be found on the Submit an Environmental Incident Report page.](#)

The oilfield environmental incident data is gathered and maintained by the Oil and Gas Division. The Department of Health is allowed read-only access to a portion of this data and provides it to the public as received without modification. When Department of Health staff investigate reported incidents, they will update the information and record it in the update section of each report, producing a new version of the summary report with the next web page update cycle. The web page is updated routinely.

### Related Information

[Submit an Environmental Incident Report](#)

[Open Records Request](#)

### General Environmental Incidents



[General Environmental Incidents that occurred within the last 12 months](#)

[General Environmental Incidents older than 12 months](#)

Tables are updated every Tuesday and Friday at 2:00 AM CT, with updated linked summary reports available by 6:00 AM CT.

[Show Table Features](#)

### Oilfield Environmental Incidents



[Oilfield Environmental Incidents that occurred within the last 12 months which were contained within the boundaries of the production or exploration facility](#)

[Oilfield Environmental Incidents that occurred within the last 12 months which were not contained, for example, an overflow of the boundaries of the facility or a leak from a facility pipeline](#)

[Oilfield Environmental Incidents older than 12 months](#)

[www.ndhealth.gov](http://www.ndhealth.gov)



# Communications

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- Press Releases
- Media Follow-up
- Communication with DES
- Communication with Other Agencies

# Notification Process

- Environmental calls go through Emergency Services and State Radio.
- Emergency Phone 1-800-472-2121
- Phone is monitored 24/7.



# Notification Process

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- Also receive reports via website
  - NDIC
  - NDDoH
- Reports copied to DES and other agencies
- DES single point of contact for reporting spills
- DoH emergency contacts available 24/7

# Emergency Response

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- At least one staff member on call every weekend.
- At least two staff members in the field during the week.
- Respond immediately to large spills and incidents that impact or threaten water resources or public health.
- Maintain communication with the Department.
- Coordinate with other agencies as needed.

# What we do

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- Question we ask on site
  - Is there a risk to water or other resources?
  - Is there a risk to human or environmental health?
  - How do we assure these resources are protected?
  - What are the steps necessary for clean-up?
- Suggest and recommend tactics to properly clean up a location.
  - Open to new or innovative methods

# What we don't do

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- We don't direct the spill cleanup
- We will not approve plans, but will provide objections or comments.
- We will help where and when needed, but we will NOT become the consultant
- Except in rare circumstances, we don't conduct the cleanup

# Sampling

- Soil Sampling
- Water Sampling
  - Surface Water
  - Ground Water
- Fish Sampling
- Biota Sampling



# Reasons For Sampling

## RESPONSIBLE PARTY

- Source Sampling
- Spill Investigation
- Site Delineation
- Site Monitoring
- Confirmation Sampling

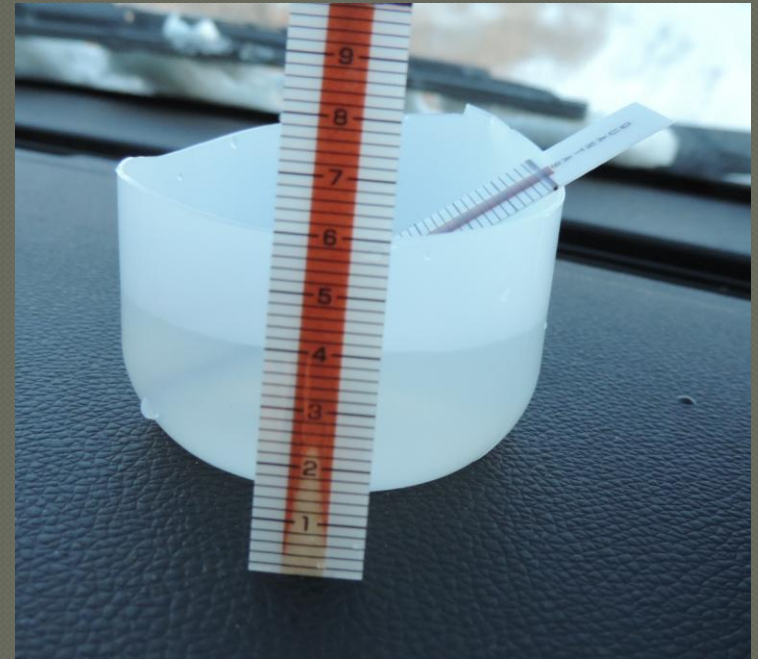
## DEPARTMENT

- Environmental Protection
- Human Health Protection
- Unknown Responsible Party
- Cleanup Verification
- Enforcement Action



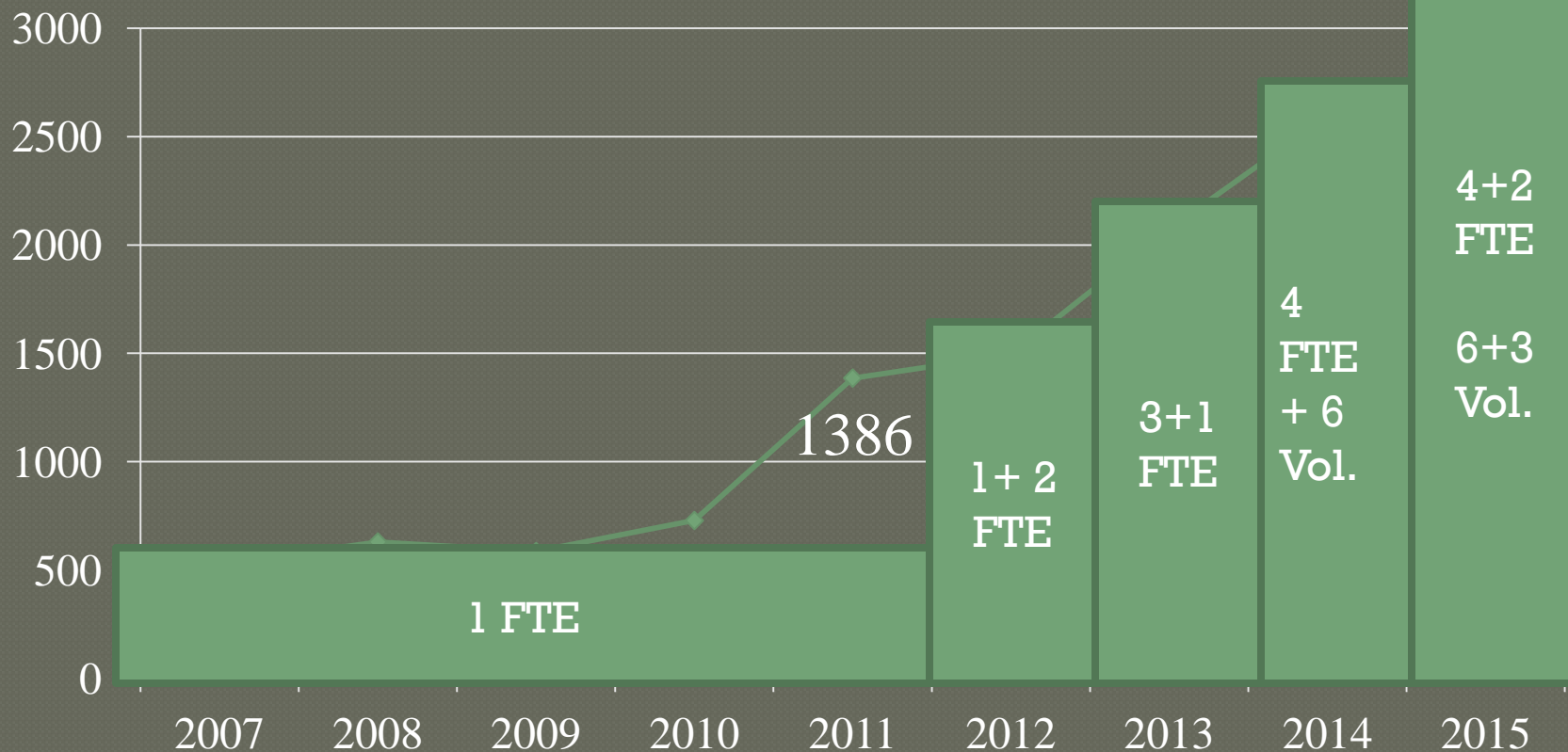
# Field Data Collection

- Electrical Conductivity
- Chloride test strip
- Air monitoring
- 4 senses

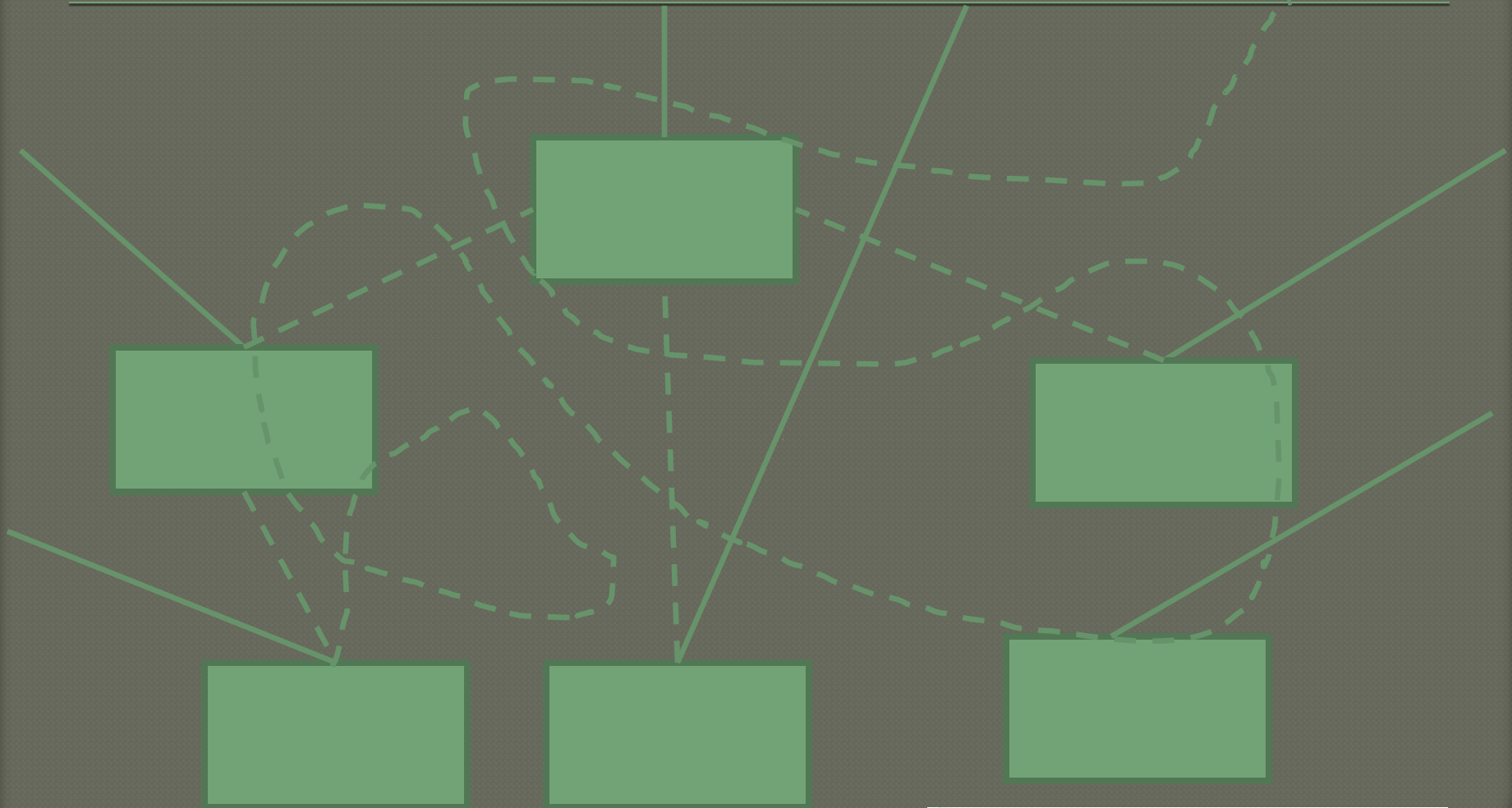


# Workload

## Number of Spills by Year



# Team Organization



Spill Investigation  
Program  
Bill

Brian

Scott

Kory

Taylor

Volunteers

Half time

Russell

TBD

Brady

# The team



# 2015 in detail

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- 2,003 Reported Spills
- 1,813 Outside MHA Nation
- 55% Remained on E&P Exempt Facility
- NDDoH Responded to 822 Spills
- 65% of 2015 NDDoH Spills Closed
- Majority of Spills are Cleaned Up to Background

# How clean is clean?

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- Water- Established Water Quality Standards
- Hydrocarbons- Guidelines from UST program
- Soil- Brine
  - Can't see contamination?
  - Can't smell contamination?
  - Grass grows?
  - Original productivity?
  - Background?

# Brine spill guidelines

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- ◉ Developing guidelines for cleanup end points to protect surface and ground water
- ◉ CL, SAR, EC, pH
- ◉ Working with task force that includes O&G industry, landowners, academia, and state agencies.



# Enforcement Actions

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- Informal- Letter of Apparent Non-Compliance
- Formal
  - Expedited Settlement Agreement (ESA)
  - Notice of Violation (NOV)
  - Administrative Consent Agreement (ACA)
  - Administrative Complaint

# Considerations

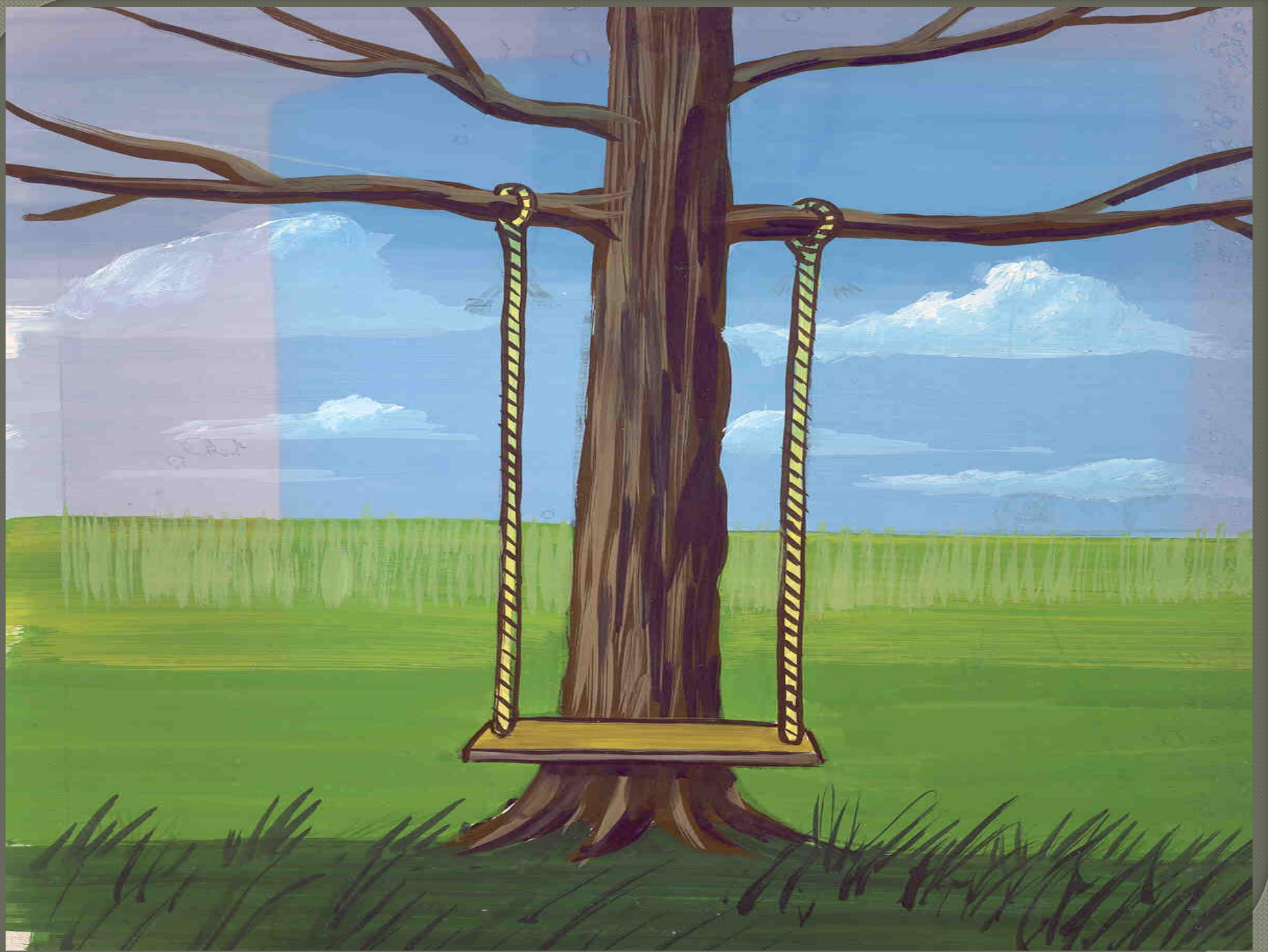
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- Speed of Response
- Severity of Spill
- Damage Caused
- Willfulness or Negligence
- Cooperation
- Previous NOVs

# Milestones

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- Release
- Failure To Report
- Not Contained
- Contained But Not Delineated
- Delineated But No Improvement
- Improvement But Still Below Standards





# Questions?

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