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Attendees
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Stray Gas Migration

Preparedness - Incident Response & Investigation ™

Outline (~6 hour course)

Instructor: Fred Baldassare

- Introduction
- Recent Research, Regulatory & Policy Initiatives
- Physical/chemical properties: methane & light gases
  - Gas phase
  - Dissolved phase
- Sampling for Dissolved and Gas Phase Methane
  - Protocol for dissolved phase & gas phase sampling
  - GC & general chemistry parameters
  - Collecting & evaluating field & laboratory gas chemistry data
  - Isotope sampling protocol
- Stray Gas Origin & Source Correlation – Isotope Geochemistry
  - Basis & application
  - Types of isotope analyses
    - Fundamentals for data evaluation/interpretation
    - Secondary processes
  - Case Studies – naturally occurring or anthropogenic
- Evaluation of Gas & Groundwater Geochemistry data
  - Sampling Considerations – Baseline vs. Investigation
  - Considerations for processing gas and groundwater geochemistry data
  - Case Studies
- Stray Gas Migration Response Protocol – Site Investigation/Demonstration
  - Methodology to determine threat level
    - Combustible Gas Field Screening – gas phase and dissolved phase
    - Instrumentation
    - Protocol for Active Soil Gas Surveys
    - Short & Long-term monitoring - soils & groundwater
      - Data evaluation – sampling/temporal variability
    - Subsurface gas migration: fate and transport
      - Mechanism of transport
      - Factors affecting subsurface gas migration
  - Measures to protect public health & safety
  - Interim & Long-term Remedial Measures
  - Principles and design

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