

# Hatfield-5402: Detection of oil contamination and oil seeps

## Detection of oil contamination and oil seeps

### Challenge

<b>Challenge ID:</b>	HCP-5402	Originator:	Onshore: Hatfield
<b>Title:</b>	<b>Detection of oil contamination and oil seeps.</b>		
Theme:	ON 5.4: Logistics planning and operations - Monitoring of assets		
Consortium Lead:	C-CORE	Interviewed Company:	C-CORE
Geography:	ON.REG.00 - Generic onshore		
<b>Challenge Description</b>			
What is not possible / not adequately addressed at present?			
Requirement for hydrocarbon detection and monitoring of oil weeps and seeps from underground pipelines and to assess contamination of potential acquisition areas. Would support characterization of an area for remediation. Naturally occurring hydrocarbon seepage detection would also have potential reservoir identification benefits if future higher resolution hyper spectral data streams support this.			
What effect does this challenge have on operations?			
Effects would include environmental impacts and liability issues.			
Thematic information requirements:	Land cover Terrain information Distribution and status of infrastructure Lithology, structural geology, surficial geology		
What do you currently do to address this challenge? How is this challenge conventionally addressed?			
A combination of aerial surveys and computer based modeling. Laser fluorescence has been used in offshore.			
What kind of solutions do you envisage could address this challenge?			
High-resolution hyperspectral			
What is your view on the capability of technology to meet this need? Are you currently using EO tech? If not, why not?			
Not proven. It is would be helpful to take better advantage of using vegetation stress indicators for hydrocarbon detection.			
<b>Challenge Classification</b>			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	3	Climate class:	Generic climate
Exploration:	0	Topographic class:	Not specific
Development:	0	Seasonal variations:	Any season
Production:	4	Impact area:	Environmental
Decommissioning:	0	Technology urgency:	3 - Immediately (0-2 years)
<b>Challenge Information Requirements</b>			
Update frequency:	Snapshot		
Data currently used:	Areal imagery, UAVs		
Spatial resolution:	License		
Thematic accuracy:	Not specific		
Required formats:	Not specific		
Timeliness (Vintage):	Reference data		

Geographic extents:	License
Existing standards:	None

## Relevant products

### Content by label

There is no content with the specified labels