OTM-052: Identify the cause of geological movement

Identify the cause of geological movement

Challenge

	Challenge ID	OTM:052				
1	Title	Identify the cause of geological movement				
2	Theme ID	ON 2.2: Surface Geology Mapping - Structural interpretation				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	Sasol				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	[Note link with challenge OTM:051] Identification of geological features and fault lines can enable geologists to build hypotheses regarding the cause of geological movement and give inferences as to future events. This can help protect against reservoir changes, or enable operators to use them to their advantage.				
6	Thematic information requirements	1. Obtain detailed topographic information, 13. Monitor ground movement, 14. Obtain detailed imagery of the surface,				
7	Nature of the challenge - What effect does this challenge have on operations?	If we are failing to identify geological indicators that enable potential future events to be identified, then we can be exposing ourselves to situations where we could not maximise our investment in the infrastructure. Furthermore, if we can build hypot				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	We currently rely on the outputs from seismic surveys to help identify the cause of geological movement. We also use information gathered in identifying fault lines [see challenge OTM:051], and use this information to influence our decision making proces				
9	What kind of solution do you envisage could address this challenge?					
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	EO has applicability where the structure is exposed. Forest/woodland / agricultural and most wetlands would mask the structure.				
	Challenge classification					
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	3	3	0	2	0
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Operational cost reduction				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
	Information requirements					
18	Update frequency					
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Reference data - timeliness not important				
24	Geographic Extent	district area				
25	Existing standards					

[1] Impact quantification scores: *4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology*

Relevant products

Content by label

There is no content with the specified labels