

# OTM-051: Identification of fault lines

## Identification of fault lines

### Challenge

	Challenge ID	OTM:051				
1	Title	Identification of fault lines				
2	Theme ID	ON 2.2: Surface Geology Mapping - Structural interpretation				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	PetroSA, Sasol, Exxon, Tullow, Petronas				
General description		Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Identification of geological features can give reasonable and early indications of likely reservoir locations. These are more easily seen in clear or deserted regions but areas of forested / agricultural land where the surface is covered or artificially modified, it is difficult to see these				
6	Thematic information requirements	1. Obtain detailed topographic information, 11. Determine lithology, mineralogy and structural properties of the near surface, 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 suggest the presence of a reservoir then we have missed an opportunity. If our competitors do this better than us the impact to our business could be huge.				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Online imagery can be used in clear areas. Geological maps can be used on a broader scale with inference to hills and larger structures. There is no solution that gives us the accuracy we would like				
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]	4	4	0	1	0
12	Climate classification	NOT CLIMATE SPECIFIC, but not suitable in highly vegetated areas				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Strategic decision enabler				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements						
18	Update frequency	Snap shot requirement				
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