OTM-011: Surface infrastructure movement relative to subsurface

Surface infrastructure movement relative to sub-surface

Challenge

	Challenge ID	OTM:011
1	Title	Surface infrastructure movement relative to sub-surface
2	Theme ID	ON 3.2: Subsidence monitoring - Infrastructure monitoring
3	Originator of Challenge	Onshore: OTM
4	Challenge Reviewer / initiator	BP, PEMEX, Statoil, Exxon
	General description	Overview of Challenge
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Infrastructure that has moved vertically or horizontally relative to the subsurface can lead to damage causing events. For example a well-head that moves relative to the subsurface could lead to dangerous damage or ultimate failure of the production string or the completion.
6	Thematic information requirements	1. Obtain detailed topographic information, assets,9. Obtain detailed imagery of13. Monitor ground movement,
7	Nature of the challenge - What effect does this challenge have on operations?	Lost production, avoidable interventions, environmental damage
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Physical markers at the site are used to track subsidence. However, these only track movement in specific areas, and if the wider site has moved then this will not be picked up. Furthermore, the site needs to be visited to see this activity - it can't b
9	What kind of solution do you envisage could address this challenge?	Ongoing data to highlight ground movement which could lead to failure events
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	Relative infrastructure movement on the surface can give inferred warning signals to catastrophic potential failure sub-surface.
	Challenge classification	
11	Challenge classification Lifecycle stage	Pre license Exp. Dev. Prod. Decom.
11	Challenge classification Lifecycle stage Score from impact quantification [1]	Pre licenseExp.Dev.Prod.Decom.01233
11 12	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification	Pre licenseExp.Dev.Prod.Decom.01233NOT CLIMATE SPECIFIC
11 12 13	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification Geographic context/restrictions	Pre license Exp. Dev. Prod. Decom. 0 1 2 3 3 NOT CLIMATE SPECIFIC Generic onshore (Unspecified)
11 12 13 14	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification Geographic context/restrictions Topographic classification / Offshore classification	Pre license Exp. Dev. Prod. Decom. 0 1 2 3 3 NOT CLIMATE SPECIFIC Generic onshore (Unspecified) Generic onshore (Unspecified)
11 12 13 14 15	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification Geographic context/restrictions Topographic classification / Offshore classification Seasonal variations	Pre license Exp. Dev. Prod. Decom. 0 1 2 3 3 NOT CLIMATE SPECIFIC Generic onshore (Unspecified) Generic onshore (Unspecified) Any season
11 12 13 14 15 16	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification Geographic context/restrictions Topographic classification / Offshore classification Seasonal variations Impact Area	Pre license Exp. Dev. Prod. Decom. 0 1 2 3 3 NOT CLIMATE SPECIFIC Generic onshore (Unspecified) Generic onshore (Unspecified) Any season Health and Safety and environmental impacts
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11 12 13 14 15 16 17	Challenge classification Lifecycle stage Score from impact quantification [1] Climate classification Geographic context/restrictions Topographic classification / Offshore classification Seasonal variations Impact Area Technology Urgency (How quickly does the user need the solution)	Pre licenseExp.Dev.Prod.Decom.01233NOT CLIMATE SPECIFICGeneric onshore (Unspecified)Generic onshore (Unspecified)Any seasonHealth and Safety and environmental impactsImmediately (0-2 years)
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[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