

MC 252 Incident Response

Isolation Valve Installation Readiness

Trevor Smith/Mark Nichols
11 May 2010

Problem Statement



Capping of the well with the dual ram or isolation valve assembly will require:

- * stabbing into a flange opening which may be obstructed by debris and flowing oil and gas
- * aligning and bolting up a flange connection which is designed for make-up on the drill floor
- * and performing this for the first time at 5000ft water depth, suspended from a drill rig

Proposal: perform onshore and/or onshore trials to maximize probability of success

Time Keeping

Introductions – 5 mins

Safety Moment – 5 mins Trevor

Meeting Context – 10 mins Trevor

Subsea Architecture Options – 15 mins Tom

System Efficiency Calculation – 15 mins Ravi

Production Profiles – 20 mins Fulbert

CAPEX Phasing – 10 mins Shannon

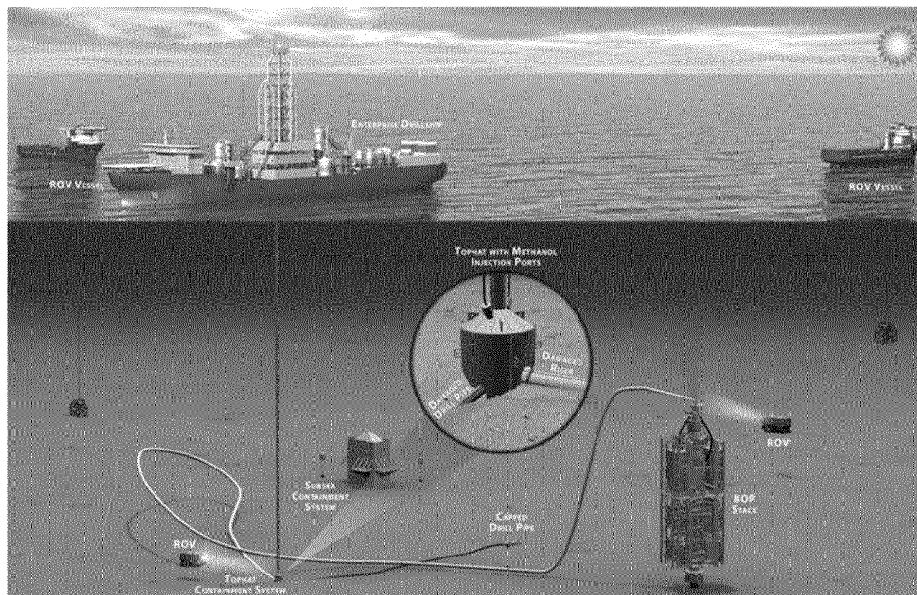
Economics – 20 mins Catriona

Summary – 20 mins Trevor

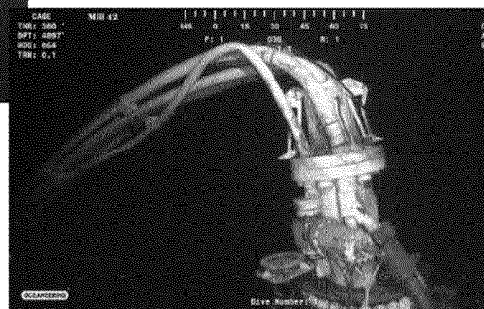
6-in vs 8-in Discussion – 10 mins Trevor

AOB

MC 252 Site Overview



Top of BOP Stack

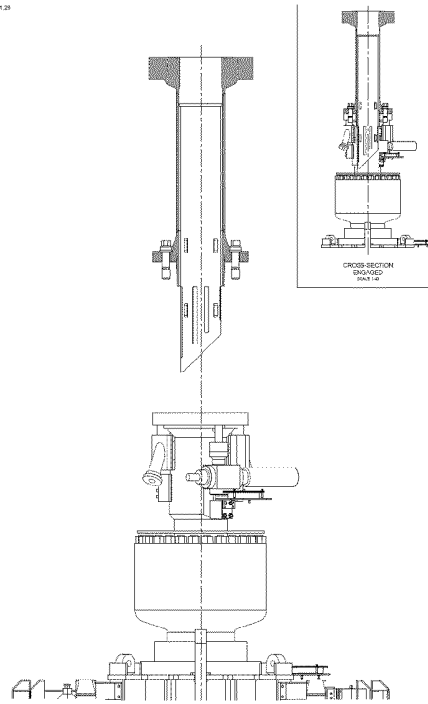
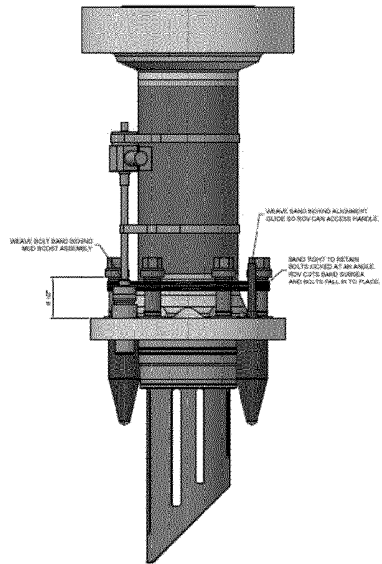


EPT

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Mule Shoe Detail

SCALE 1:25



Readiness Summary



Flex Joint Capping Method - Readiness Status

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	Isolation Valve			Dual Ram BOP		
	Item	Comment	Status	Item	Comment	Status
Equipment	Valve Assembly Running Assembly Pressure Cap ROV Tools	Issued to D&C at Berwick Being assembled Status unknown Available - location to be confirmed		Ram Assembly Running Assembly Pressure Cap ROV Tools	Assembly by D&C at Berwick Being assembled Status unknown Available - location to be confirmed	
Vessels	ROV Vessel MODU DDII	Vessel TBD - briefing required Briefing required		ROV Vessel MODU DDII	Vessel TBD	
Procedures	Riser Removal Flange Removal Valve Running Flange Make-up	Being updated by BP to Rev1 Being developed by BP Eng. Developed by BP D&C Being developed by BP Eng.		Riser Removal Flange Removal Valve Running Flange Make-up	Being updated by BP Being developed by BP Eng. Developed by BP D&C Being developed by BP Eng.	
Trials	Onshore	Not in plan Site to be selected - BP Fourchon?		Onshore	Not in plan Site to be selected - BP Fourchon?	
	Subsea	Not in plan Test Stump/Mat: build & deploy		Subsea	Not in plan Test Stump/Mat: build & deploy	
Readiness Review	Peer Review			Peer Review		

Legend

Ready for use
In progress - on track
Potential risk



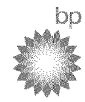
11-May-2010

Trial Objectives & Site Suitability



Issue to be checked or tested	Onshore Test Suitability	Subsea Test Suitability
Alignment pin & plug make-up risks	✓✓✓	✓✓
Risk of seal damage	✓✓✓	✓
Befit or risk from pins & plug use	✓✓✓	✓
Mule shoe engagement with pipe debris	✓✓✓	✓
Flange rotation & bolt release	✓✓	✓
ROV tool access & function/speed	✓	✓✓✓
ROV crew familiarization & training	✓	✓✓✓
Rig crew familiarization & training	✓	✓✓✓
Ability to stab with rig	X	✓✓✓
Ability to keep flange alignment during make-up	X	✓✓✓
Flow effect on seals	X	X
Stabbing under flow	X	X

Schedule



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Activities	Tue 11	Wed 12	Thu 13	Fri 14	Sat 15	Sun 16	Mon 17	Tue 18	Wed 19	Thu 20	Fri 21	Sat 22	Sun 23	Mon 24	Tue 25
Draft objectives															
Establish plan															
Fabricate Test Stump															
Onshore Trial															
Develop Trial Procedures															
Approve Trial Procedures															
Set-up Trial Site															
Perform Onshore Trials															
Modify Valve/Ram Assemblies															
Ship Assemblies to DD-II															
Offshore Trial															
Ship Test Stump & Install on Seabed															
Run DD-II Riser with Cap Assembly															
Perform Trial															
Modify Procedure															
Go/No-Go Decision															
Well Capping															
Riser Cutting															
Cap Well															

Other Issues



- * Decide if trials are necessary, if so which & when
- * Define Accountabilities
- * Confirm ROV vessel for flange unbolting
- * Confirm ROVs for flange make-up (DD2 or other support vessel)