



## Project Memo - #5

<b>Operator:</b>	BP GoM Deepwater Exploration	<b>Well Name:</b>	Macondo – MC252#1
<b>Date:</b>	23 Apr 2010	<b>Time:</b>	1700 hrs
<b>To:</b>	Mark Mazzella John Shaughnessy	<b>From:</b>	K. Girlinghouse, M. Cargol, D. Barnett, D. Moody
<b>CC:</b>	Joe Dean Thompson, Dicky Robichaux, Chris Murphy, Scott Jortner, Freddy Gebhardt		
<b>Subject:</b>	Macondo – Pollution Management Options		

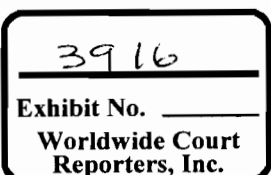
### Pollution Mitigation – Capture of Hydrocarbons

#### Drill Pipe

Summary: a joint of drill pipe is sticking from mudline approximately linear feet from well center. A flow has been detected from the drill pipe. The following plan may be implemented to mitigate the pollution.

1. Mobilize equipment to location
  - a. Subsea
    - i. 4'x4' aluminum pollution dome (located at WWCI-Fourchon dock)
      1. Equipped with rigging and buoyancy
    - ii. 2" or 3" x 7,000' hose
    - iii. Subsea booster pump or air lift
  - b. Surface
    - i. DP II vessel
    - ii. Surface separator (i.e. 100 bbl tank with gas buster)
    - iii. MPT storage or Bulk storage vessel

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**WW-MDL-00015519**



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### Riser

Summary: a section of riser approximately 500' from well center is breached and flowing. The breached pipe has created a 8-10' crater directly at the breach. The following plan may be implemented to mitigate the pollution.

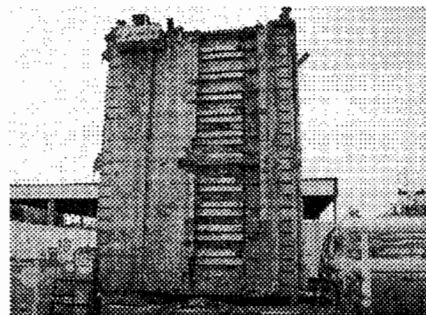
#### 1. Mobilize equipment to location

##### a. Subsea

- i. 14' x 24' x 35' steel coffer dam with enclosed top. Cofferdam has vertical doors to facilitate placement over riser section. (Located at WWCI-Fourchon dock)
- ii. 3x2"-3" x 7,000' hose
- iii. Subsea booster pump or air lift

##### b. Surface

- i. DP/II vessel
- ii. Surface separator (i.e. ??? tank with gas buster)
- iii. MPT storage or Bulk storage vessel



*Pollution Dome being deployed by Diver      14' x 24' x 35' Cofferdam*

*Pollution Domes and Cofferdam are located in Fourchon, LA*



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### 24 hr Go-Forward:

#### General Site Survey:

- Survey of impact area (rig to wellbore)
- ROV video, Side Scan Sonar and Mesotech Sonar imagery
- Site Map

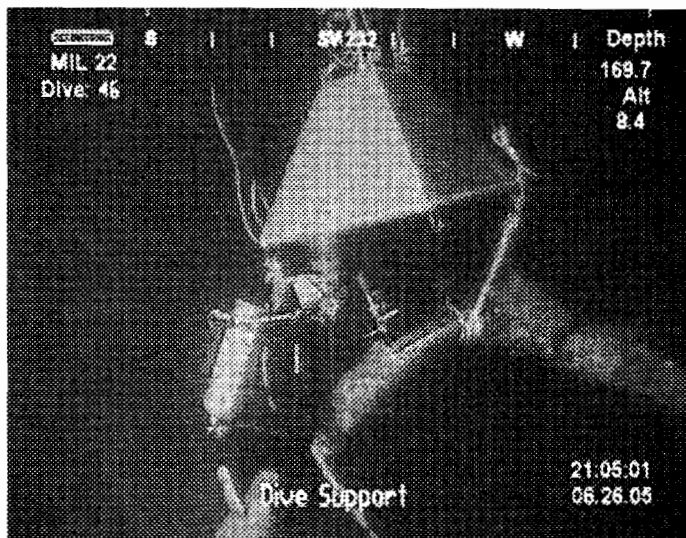
#### Primary Wellbore:

Meeting between WWCI, Cameron and Transocean to discuss survey & contingency options on primary wellbore BOP

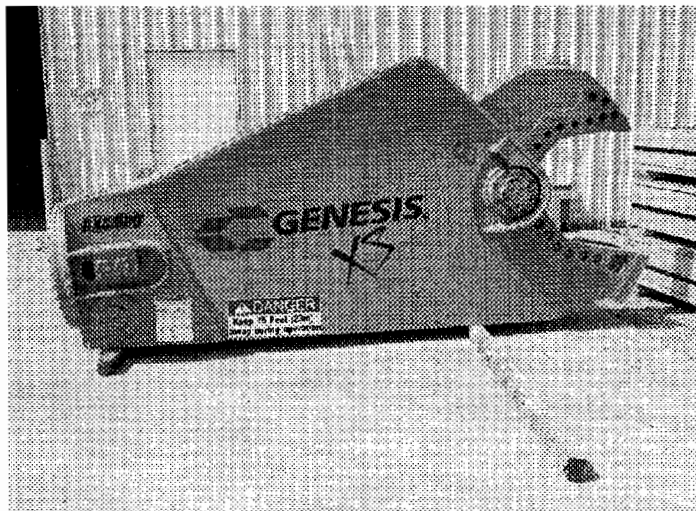
- Survey & Planning (NON-INVASIVE OPS)
  - Survey to verify position of rams and identify pressures (if possible) between each ram cavity without disturbing stack
  - Discuss options regarding contingency for primary wellbore BOP actuation
- Plan primary Wellbore Direct Intervention/Well Capping options (INVASIVE OPS)
  - ROV Intervention
  - Removal of debris & BOP access (i.e. riser and ancillary components)
  - Functionality of BOP/LMRP (i.e. ROV and/or umbilical)
  - Removal of LMRP & Installation Intervention/Capping Assembly
  - Downhole Intervention
- Conduct High Level Risk/Hazard Assessments
  - No Action on Primary wellbore
  - Capping of existing stack
  - Direction Intervention on primary wellbore
  - No action vs. Capping
  - Capping vs. Direct Intervention
  - Relief well vs. Direct Intervention



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Pollution Domes (available in Fourchon)



Shears – capable of working at 5,000' WD