

# Helix Well Containment Group

*GOM Subsea Well Containment*



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Ready to Respond

[www.hwcg.org](http://www.hwcg.org)



## BOEMRE - NTL No. 2010-N10

- Applies only to operators conducting operations using subsea blowout preventers (BOPs) or surface BOPs on floating facilities.
- BOEMRE will be evaluating whether each operator has submitted adequate information demonstrating that it has access to and can deploy containment resources that would be adequate to promptly respond to a blowout or other loss of well control.



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## BOEMRE – NTL 2010 – N10

- BOEMRE evaluation includes, but is not limited to the following:
  - Subsea containment and capture equipment, including containment domes and capping stacks
  - Subsea utility equipment, including hydraulic power, hydrate control and dispersant injection equipment
  - Riser systems
  - Remotely operated vehicles (ROVs)
  - Capture vessels
  - Support vessels
  - Storage facilities
- BOEMRE will also evaluate whether there is adequate information identifying personnel who will be available to respond to a blowout or other loss of well control requiring the deployment of containment resources.



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# Helix Well Containment Group

- Managing Director
  - David Coatney
- Commercial Director
  - Roger Scheuermann
- Steering Committee
  - Chairman, John Weust, Manager of Corporate Emergency Preparedness, Marathon Oil Corporation
- Deepwater Intervention Technical Committee
  - Chairman, Tim Sargent, Engineering Manager, Drlg & Compl Ops Services, DW GoM, Noble Energy, Inc.



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# Formation of HWCG

- **Mission** is to develop a comprehensive and rapid deepwater containment response system to meet NTL 2010-N10 regulations. Members include 24 deepwater oil & gas companies that have access to specific equipment under agreements with Helix Energy Solutions Group and 30+ additional identified vendors.
- **Purpose** was to develop an effective and timely response to a deepwater well containment incident in the Gulf of Mexico. Response time reduced from several weeks to a few days.
- HWCG is **not for profit** company.
- HWCG **core equipment** under contract (HESG - Q4000, HP1) **works on a daily basis**, therefore equipment is maintained and personnel are trained & familiar with the system.



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# Helix Well Containment Group (HWCG) Members

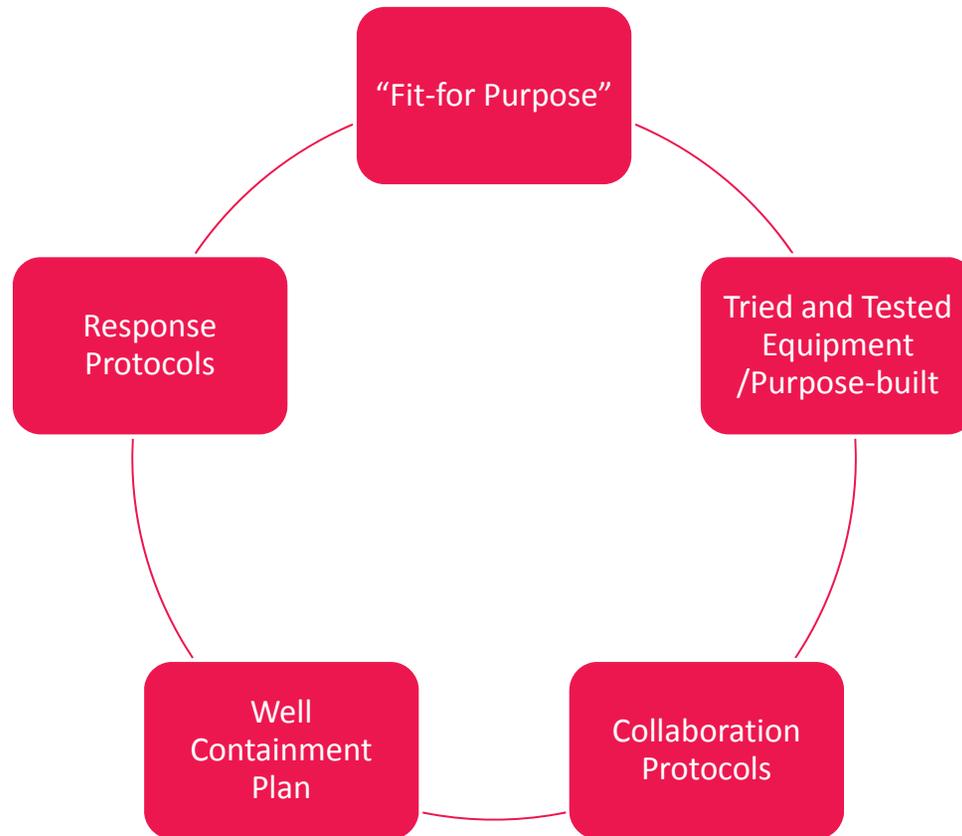
- **Anadarko Petroleum Corporation**
- **Apache Deepwater LLC**
- ATP Oil & Gas Corporation
- **BHP Billiton (Americas), Inc.**
- Century Exploration New Orleans, Inc.
- Cobalt International Energy, LP
- Deep Gulf Energy, LP; Deep Gulf Energy II LLC
- ENI U.S. Operating Company
- Energy Resource Technology GOM Inc.
- **Hess Corporation**
- LLOG Exploration Company, LLC
- Marathon Oil Company
- Marubeni Oil & Gas (USA), Inc.
- Murphy Exploration & Production Company - USA
- Newfield Exploration Company
- Nexen Petroleum USA Inc.
- Noble Energy, Inc.
- Plains Exploration & Production Company
- Repsol E&P USA Inc.
- **Statoil Gulf of Mexico LLC; Statoil USA E&P, Inc.**
- Stone Energy
- Walter Oil & Gas Corporation
- Woodside Energy (USA), Inc.
- W&T Offshore



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# HWCG "Model"



# Q4000



- DP3 MODU
- US Flag – ABS classed
- 600 Ton Multi Purpose Tower (Derrick)
- 360 Ton / 160 Ton Deepwater Cranes
- 2 x 150 HP ROVs
- 3,000 barrel fluid handling system
- Open deck versatile – intervention rig with moon pool
- Seven (7) Knots transit speed



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# FPU DP2 Helix Producer I



- Process Capacity:
  - 45,000 BOPD
  - 60,000 BLPD
  - 80 MMCFD (*can be expanded*)
- BOEMRE and USCG approved FPU with quick disconnect.



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# 10K Well Capping Stack



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# 15K Capping stack



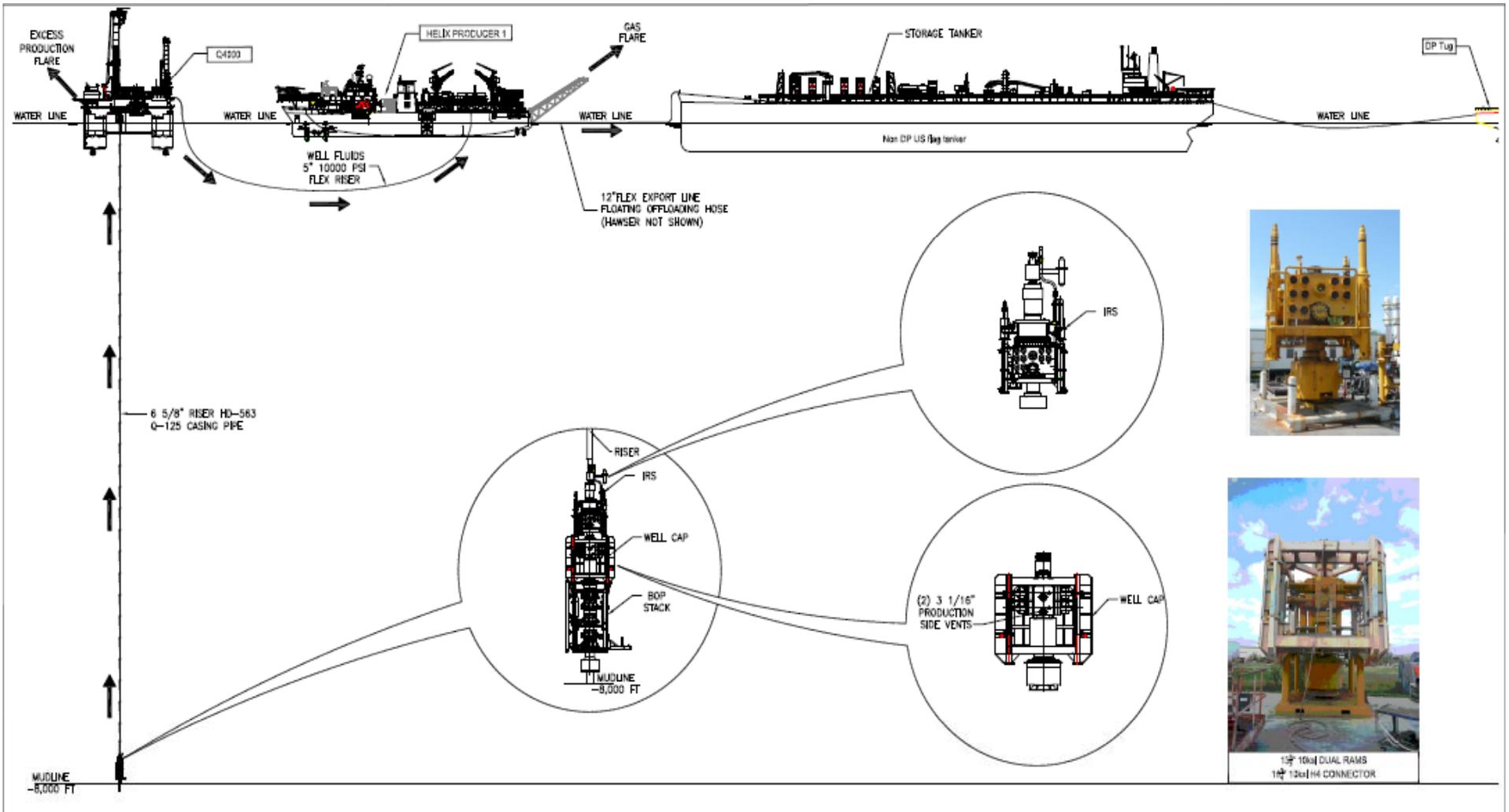
## HWCG

18 ¾" full opening 15K psig double ram capping stack with 4 – 5" 15K side outlets



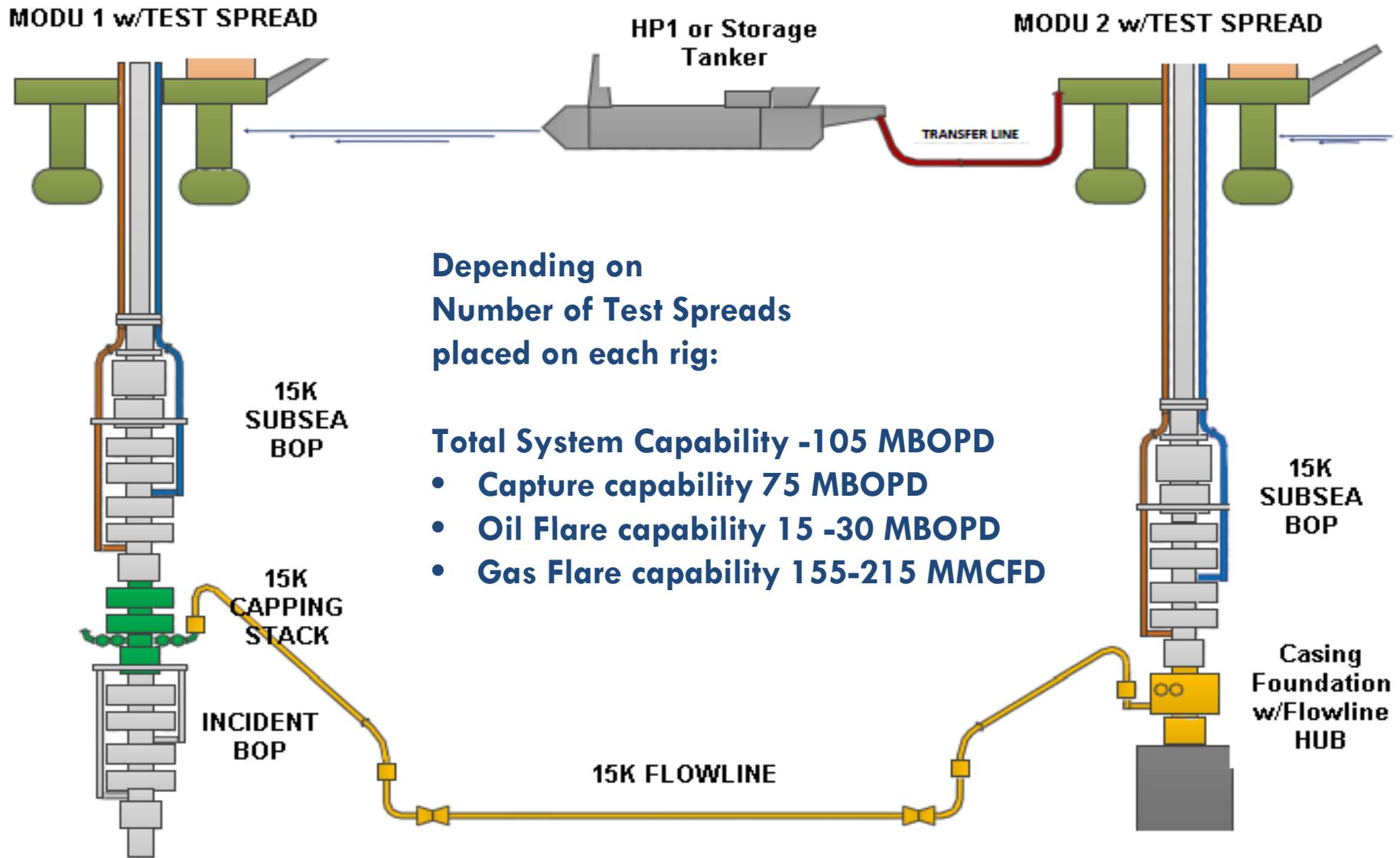
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# Fast Response System



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# HWCG – Conceptual Expanded System



Depending on  
Number of Test Spreads  
placed on each rig:

**Total System Capability -105 MBOPD**

- **Capture capability 75 MBOPD**
- **Oil Flare capability 15 -30 MBOPD**
- **Gas Flare capability 155-215 MMCFD**

# Preparedness Exercises

## Well Containment Exercises-Key to Preparedness



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## Preparedness - Training

- 24 member companies will share technical experts and critical equipment during an event.
- 2 large table-top exercises were held during March of this year to test the Well Containment Plan and the Mutual Aid agreement, that included hundreds of experts from both the participating operators and the contract vendor companies.
- Additional internal exercises continue to assure teams are prepared for the 6 primary positions on the Source Control ICS organization chart. Focus on specific area training, and continue to learn and test the plan and work each area of responsibility.



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# PetroSkills Conference Center – Command Center



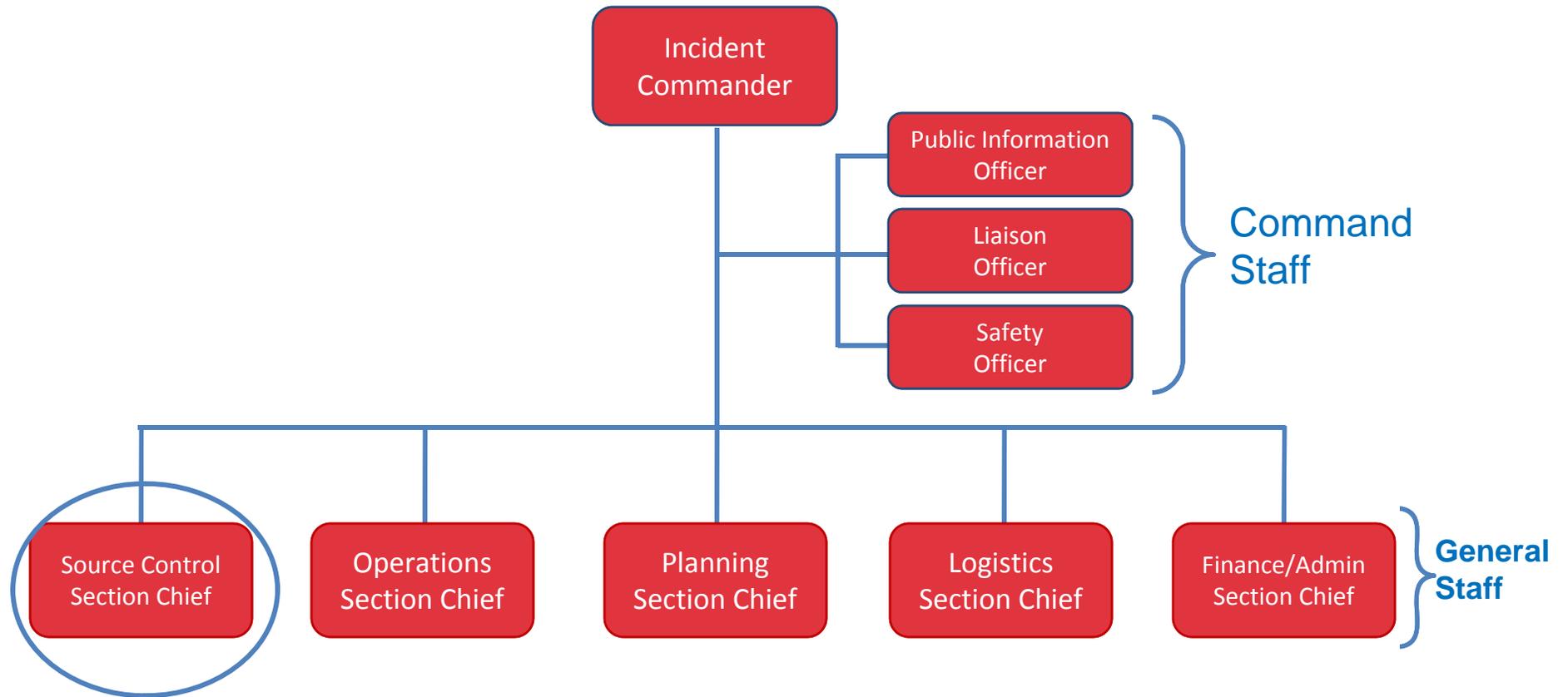
Command Center Location  
PetroSkills Conference Center  
25403 Katy Mills Parkway  
Katy, Texas 77494  
832 426 1200 Phone  
832 426 1250 Fax

- 15,000 square feet work area
- Numerous hotels in area
  - 5 within 1 mile
- Restaurants within walking distance
- Shuttle parking
- Audits – IT, Security, HS&E
- 48 hour notice before move in.

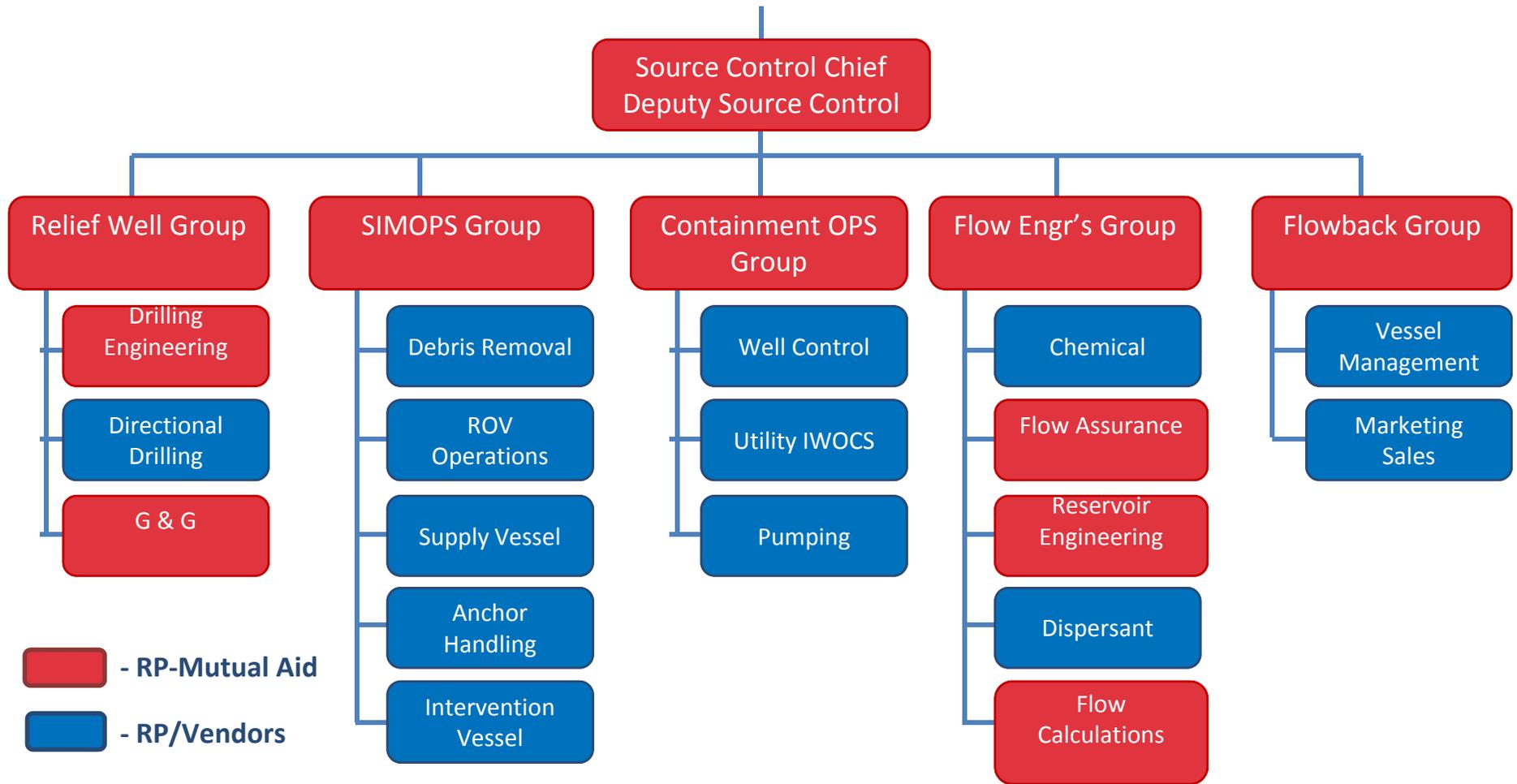


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# ICS Organization



# Source Control ICS Organization



# Well Containment Plan

- The **HWCG Deepwater Intervention Technical Committee (DITC)** worked with **BOEMRE staff** in a concerted effort to develop a comprehensive Well Containment Plan (WCP)
  - Addresses the agency requirements in **NTL 2010-N10**.
  - Over **1200 pages of detailed procedures and equipment specifications, have been streamlined** for **BOEM approval efficiency**.
  - The **approved "reduced" version** requires only operator well-specific information to be submitted for each drilling permit.
- The WCP uses well **established procedures and lessons learned** from past incidents:
  - **Comprehensive** procedures and schedules addressing multiple well control scenarios and responses
  - Pre-identified services and equipment
  - Comprehensive **call out and "rapid response" activation protocols**



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## Key Strengths

- Mutual Aid Agreement: Allows 24 deepwater companies to share resources (personnel and equipment) to withstand long-term events. Expertise in different areas of event.
- Preparedness: Extensive training with numerous source control exercises which facilitates a learning environment. Well Containment Plan is a living document and will be updated as we achieve improved processes and procedures.
- 30 + service providers bring expertise to exercises and event
- Core system equipment is maintained and operated daily in the GOM with experienced crews poised to respond.
- Expansion plans are based on achievement of capacity growth by our members' needs and requirements. Generic plan to be utilized by all members.
- 2 capping stacks – 13 5/8"; 18 3/4"
- Dedicated Command Center, Katy, TX



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