



The Tank Barge *DBL 152* Response: Lessons Learned











16 8:22 AM





Submerged Oil Assessment

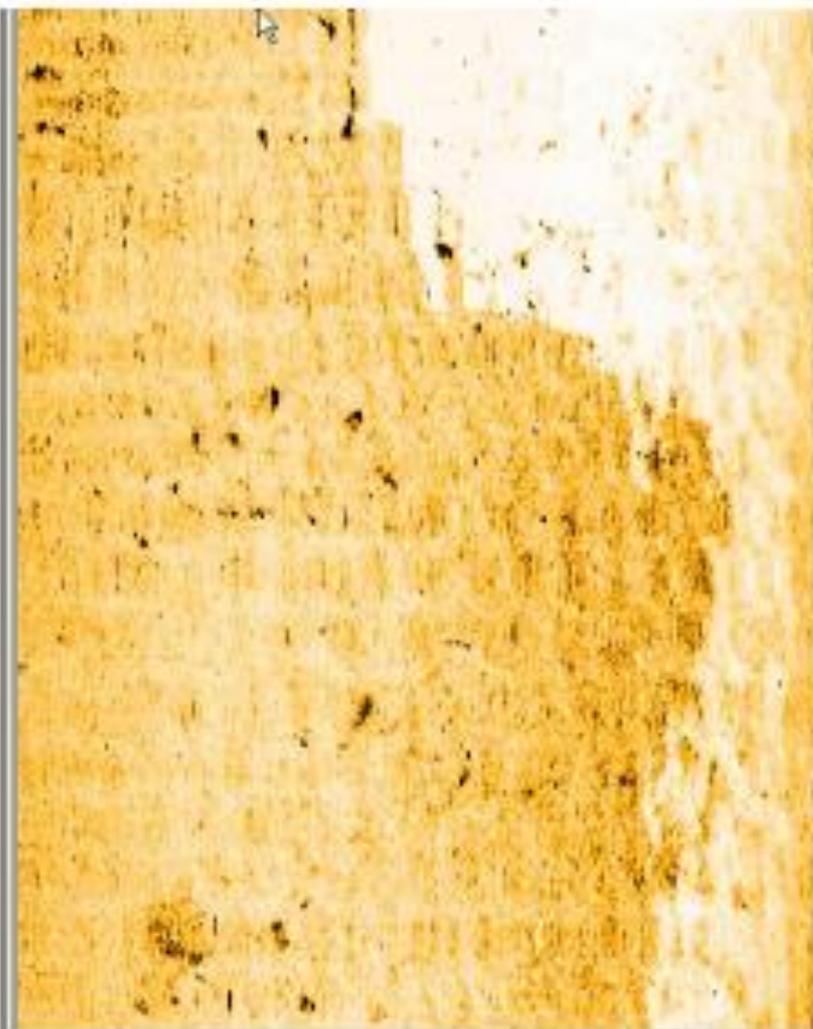
- In-Situ Visual (Divers)
- Remote Visual (VSORS/Sentinels)
- Side-Scan Sonar
- RoxAnn Bottom Classification System
- Remote Video (ROV/Towed Video)



89:1305

71-21/85



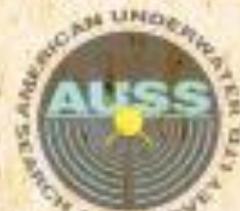


SONAR DATA
generated by

American Underwater
Search & Survey, Ltd.

Calverton, MA
5194 290 304 6108

www.auss.com info@auss.com



Ping	56941	Range	75 m	Latitude	29:12.3680 N	Fish Heading	260.3 deg	Pressure	7.5 psia
Time	13:48:52	Speed	1.5 knots	Longitude	089:28.4414 W	Pitch	3.3 deg		
Date	11:22:2005	Depth	0.0 m	Course	290.0 deg	Roll	-0.5 deg	Error	No Error

Tow Fish
Altitude
(meters) **10**

For Help, press F1

S Range: 35.4 meters

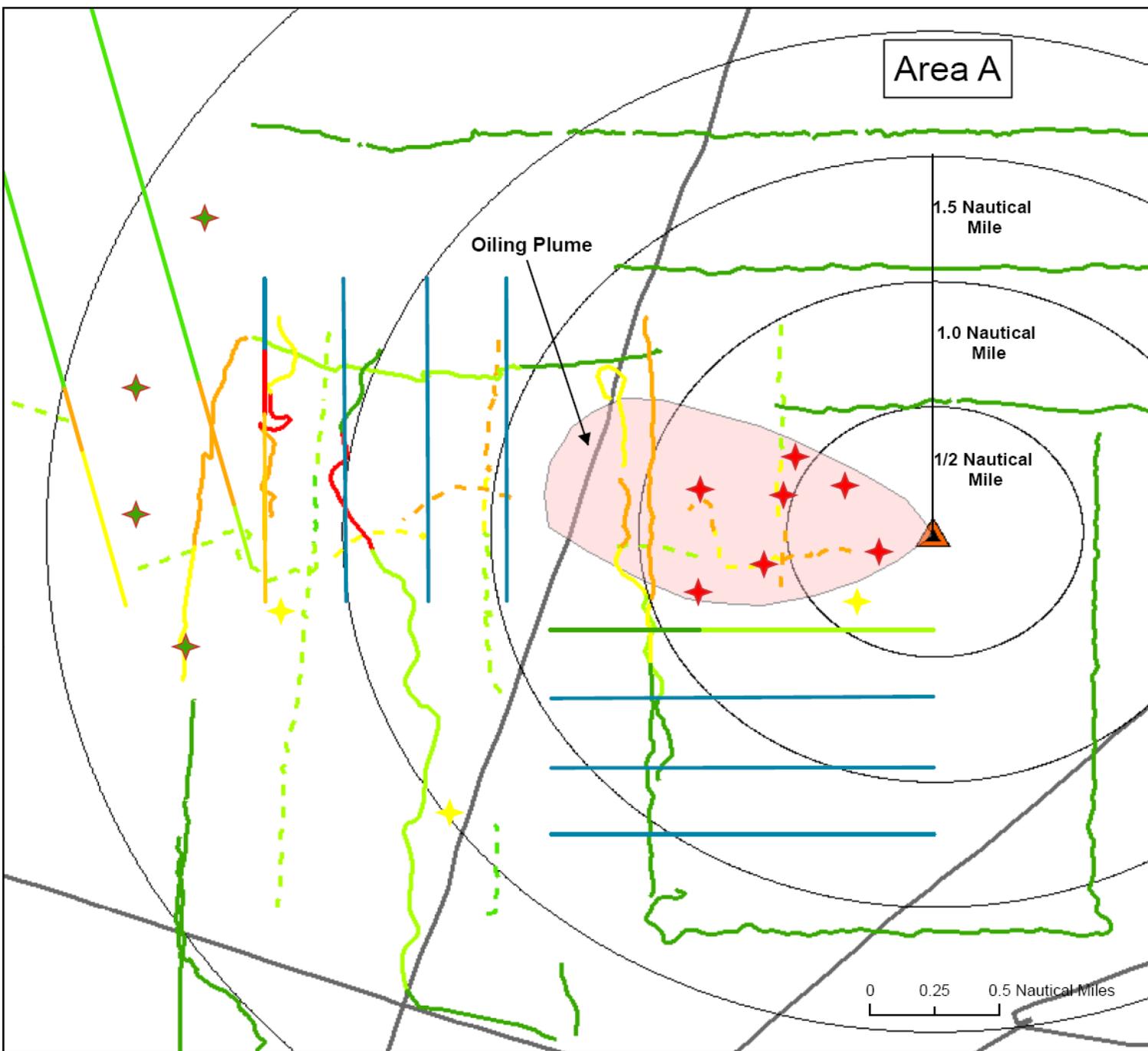
Lat: 29:12.6291 N

Long: 090:28.1612 W



30000 LBS
MAX LOAD
ON STOPS

10000 LBS
MAX LOAD
OFF STOPS



Planned V-SORS
for 12/13 and 12/14
Area A
DBL 152 Incident

V-SORS Date

— 12/11/2005
- - 12/02/2005
· · · 11/25/2005

Legend

Area A V-SOR Path Oiling

- No Oil
- Very Light
- Light
- Moderate
- Heavy

Crab Pot Oiling 12/10

- ★ Deploy 12/14
- ★ Light
- ★ Heavy

- Oiling Plume
- ▲ DBL-152 Location
- Pipelines

0 0.25 0.5 Nautical Miles



Area A

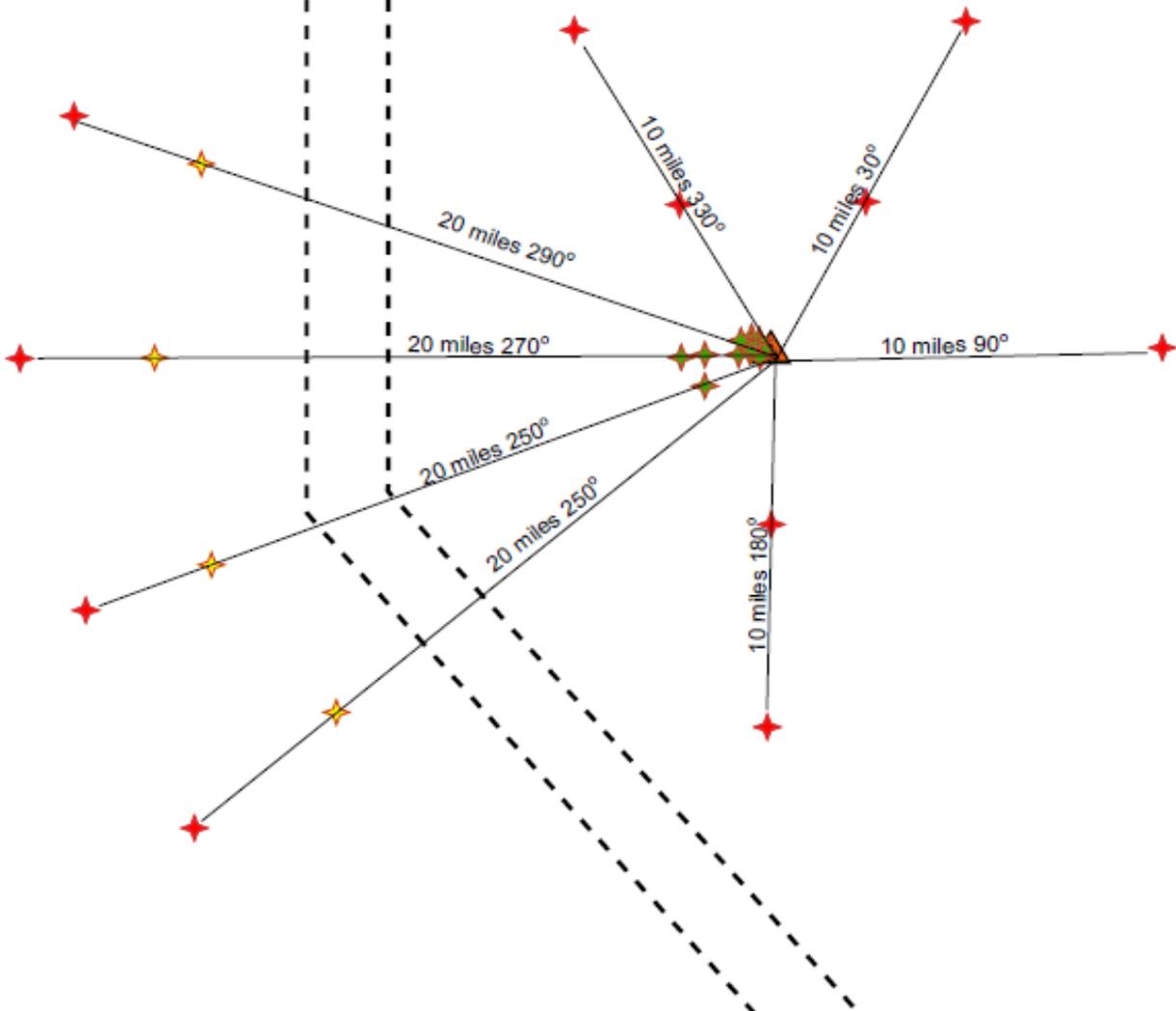


Crab Pot Deployment
DBL 152 Incident
12/10/2005

Legend

STATUS

- D: 12-04 / R: 12-10
- D: 12-10
- Proposed Redeployment
- Shipping Fairways
- DBL-152 Location



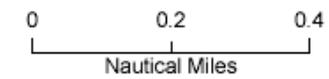
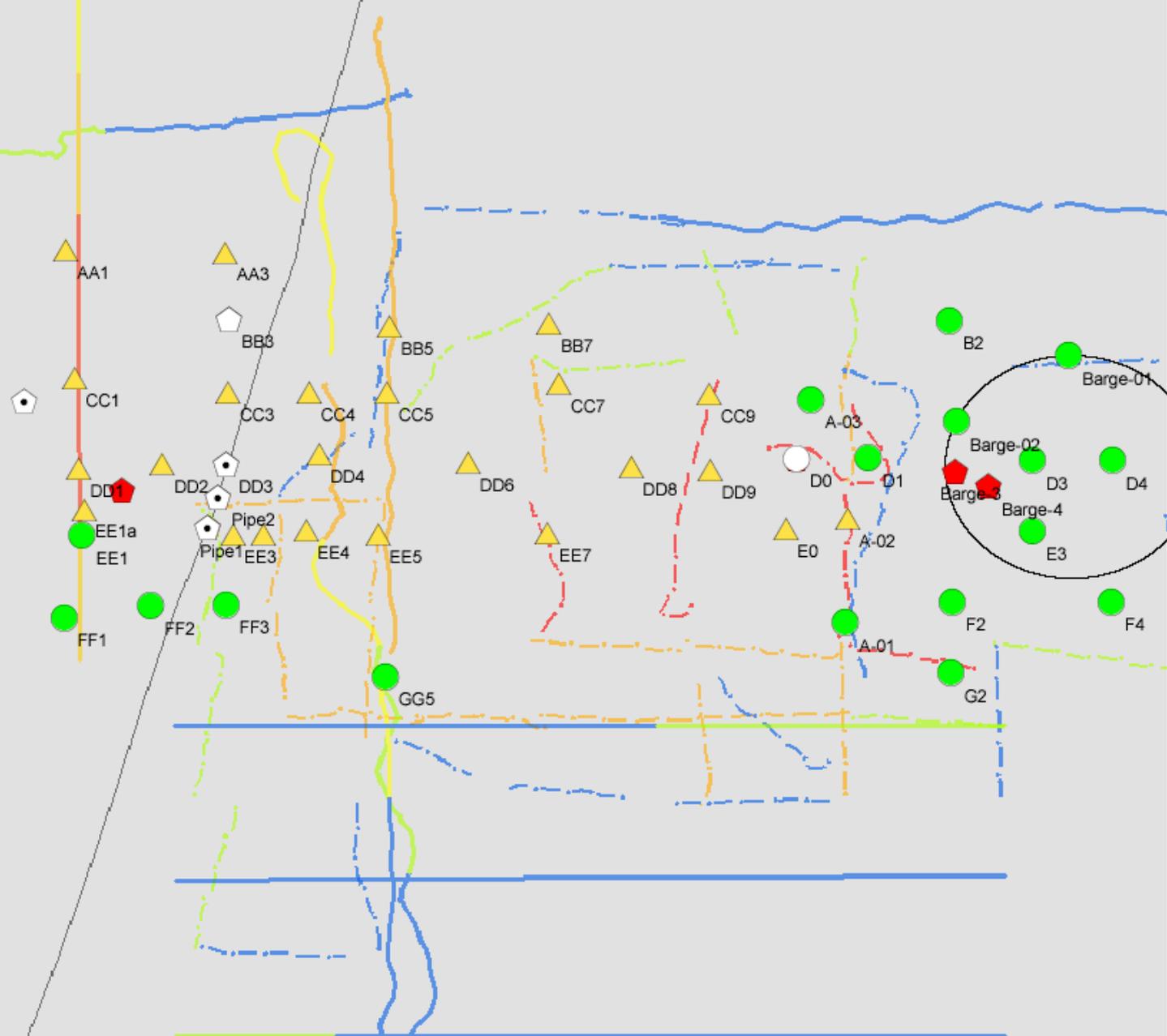
0 2 4 Nautical Miles

As of 05 JAN 06 - 0800



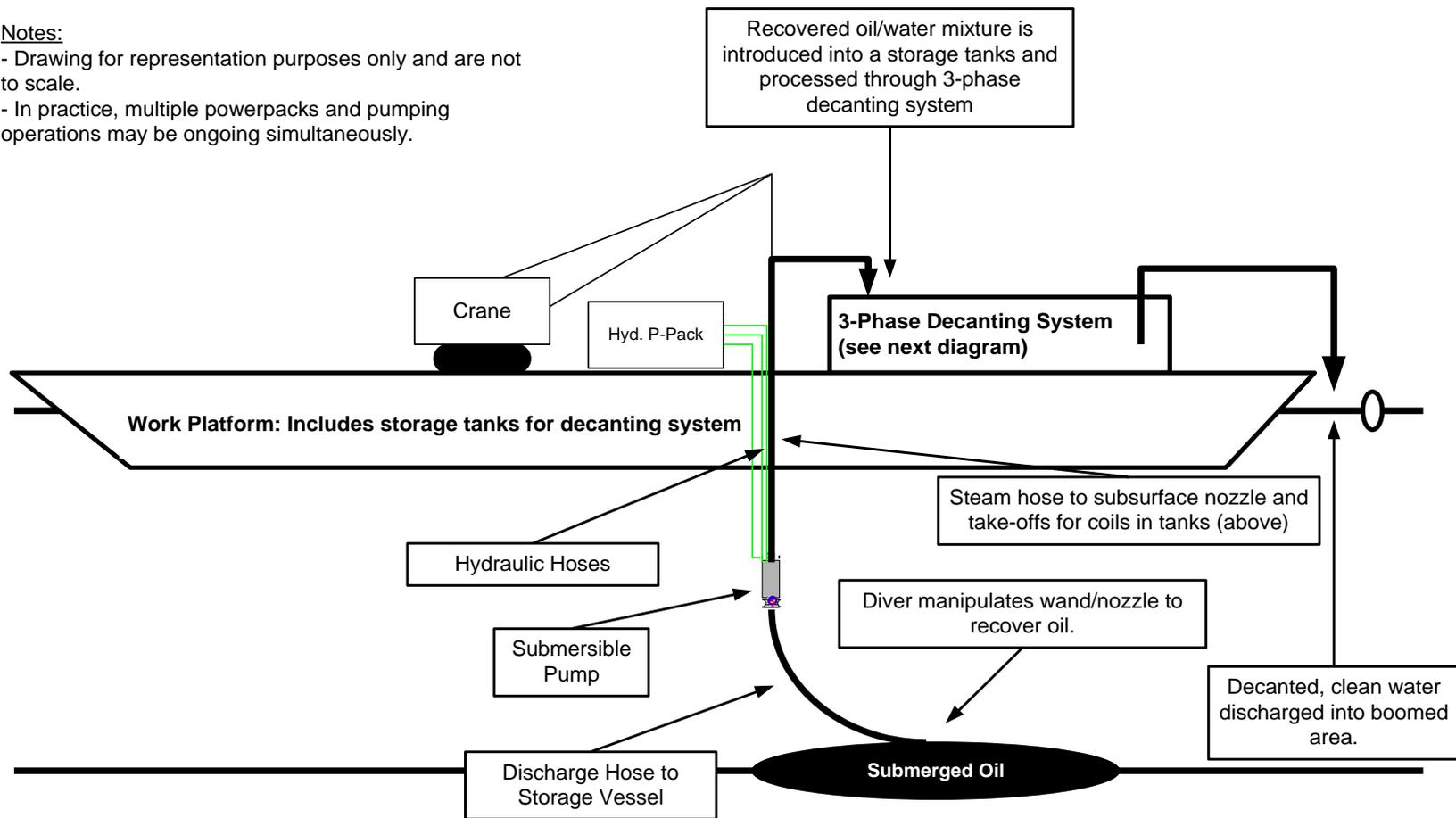
Legend

- Pipelines
- ROV Observations**
 - No Observed Oil
 - ▲ Oil - Not "Recoverable"
 - ◆ Oil - "Recoverable"
- Recovery Status**
 - ◐ Recovery Conducted
 - ◑ Recovery Ongoing
 - Recovery Complete
- Area A V-SORS Oiling**
 - No Oil
 - Very Light
 - Light
 - Moderate
 - Heavy



Notes:

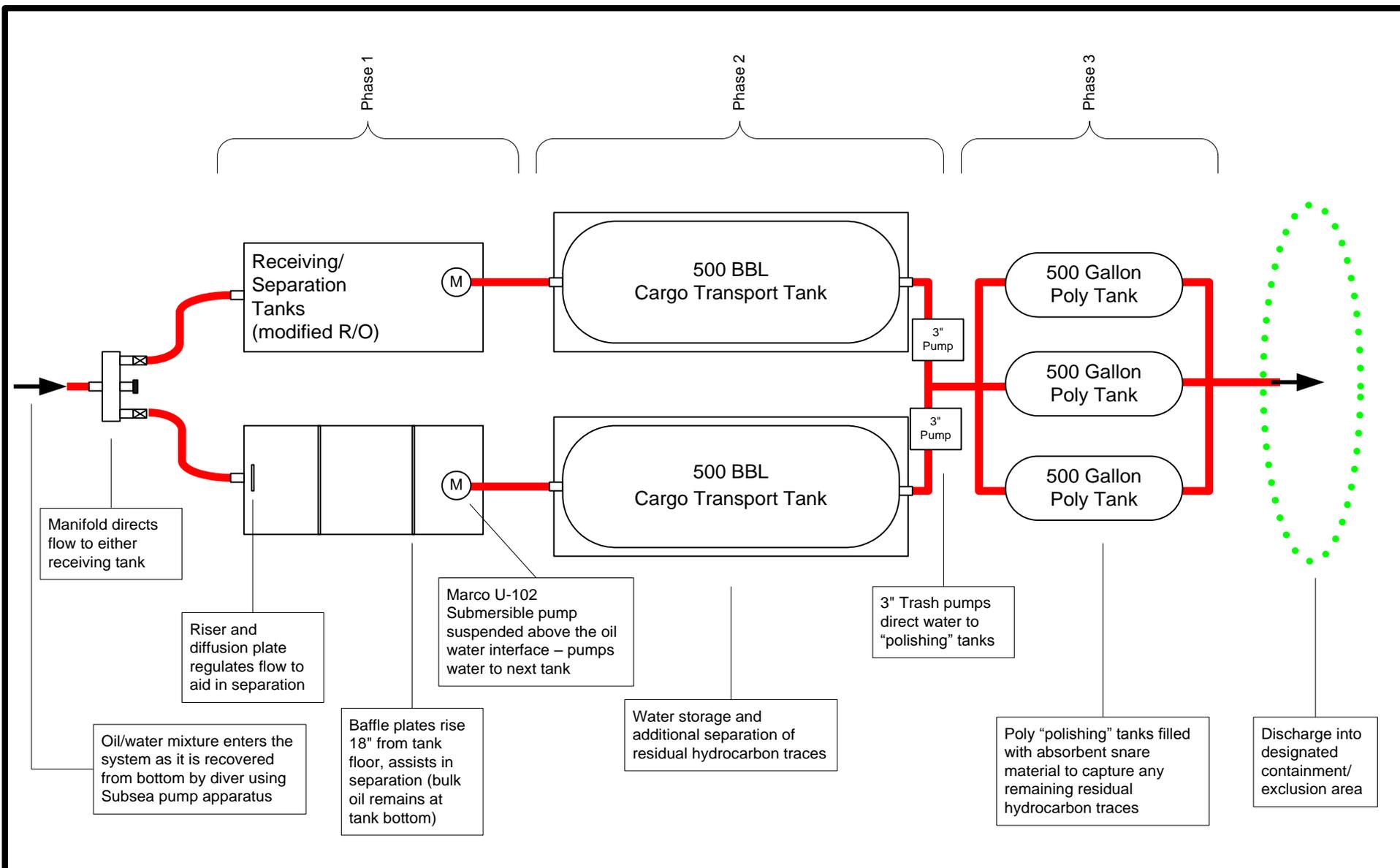
- Drawing for representation purposes only and are not to scale.
- In practice, multiple powerpacks and pumping operations may be ongoing simultaneously.



Marine Pollution Control
8631 W. Jefferson
Detroit, MI 48209
313.849.2333 (ph)
313.849.1623 (fax)

**Draft General Concept Drawing:
Submerged Oil Recovery Concept
Recovered Product Decanting Concept**

Ref: Sub Oil Recovery
Drawing: 1 of 1
Date: 11/23/05
System
Design: Mike Popa
313.215.2866 (cell)
Zygmunt Przybyl
313.363.7235

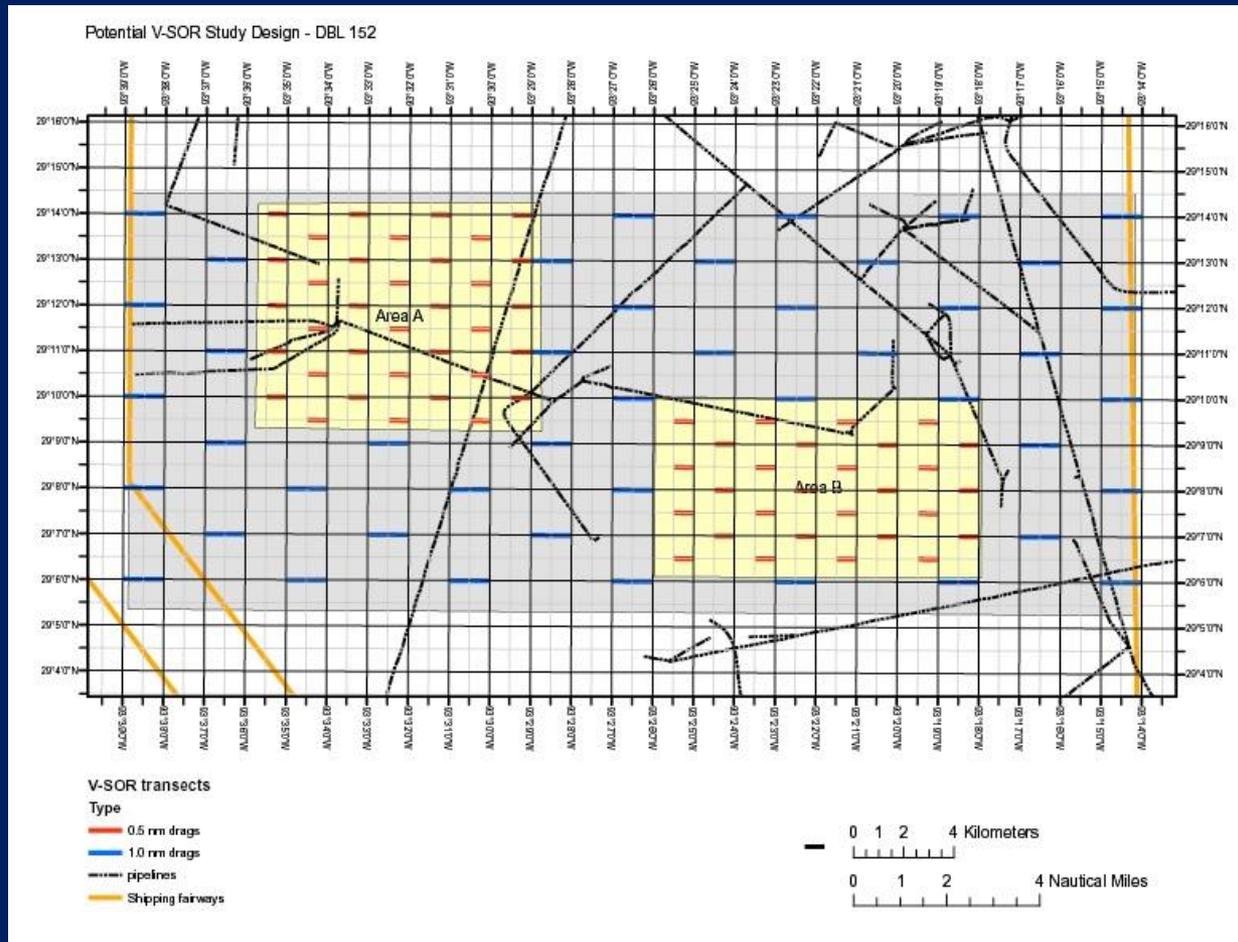


Marine Pollution Control
 8631 W. Jefferson
 Detroit, MI 48209
 313.849.2333 (ph)
 313.849.1623 (fax)

Draft General Concept Drawing:
Decanting Process for Recovered Oil/Water Mixture
 (Non-scale drawing for representational purposes only)

Ref: Decant Process
Drawing: 1 of 1
Date: 12/5/04
System Design: Mike Popa
 cell - 313.215.2866
 Ziggy Przybyl
 cell - 313.363.7235

Confirmation Plan



Lessons Learned

- National Salvage Capabilities
- Non-floating Oil Response Resources
- Limits of Liability
- Submerged Oil Assessment / Fate Prediction
- Recovery Techniques

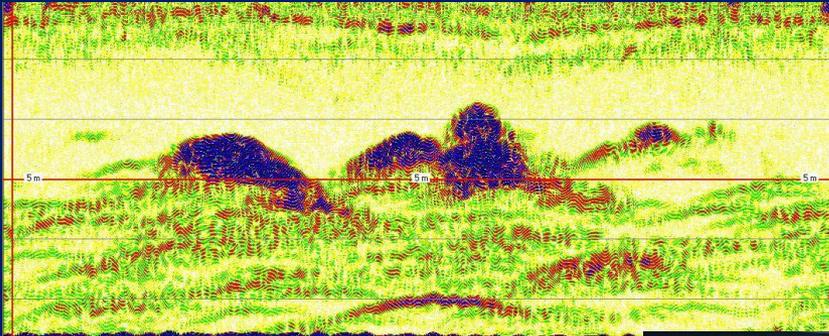
A Comparison of the U.S. Salvage and Marine Firefighting Regulatory Standards with the T/B TBL 152 Timeline

Salvage Service	Regulatory Response Standards	Salvage of the DBL 152
Remote Assessment and Consultation	1 hour	> 4 hours
Begin Assessment of Structural Stability	3 hours	>26.5 hours
On-Site Salvage Assessment	12 hours	48 hours
Hull and Bottom Survey	18 hours	29.5 hours
Emergency Lightering	24 hours	18 days
Subsurface Product Removal	3.5 days	25 days

Advancements

- Salvage and Marine Firefighting Regulations
- New Detection and Recovery Technology
- Proposed revisions to non-floating oil OSRO classification system
- API Workgroup

Multi-Beam Sonar Detection System



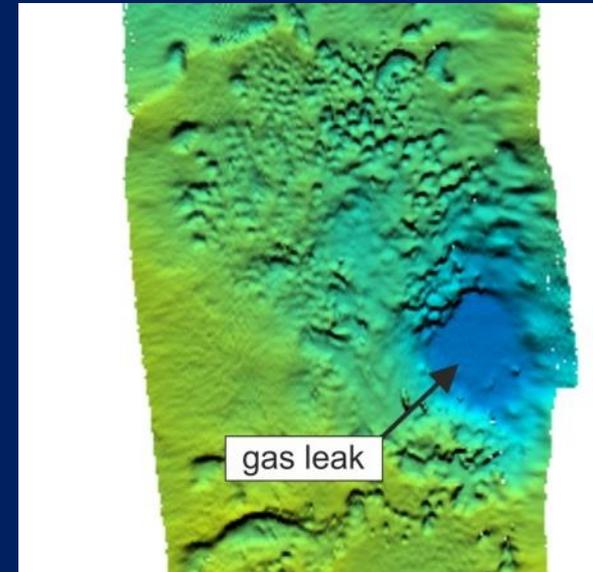
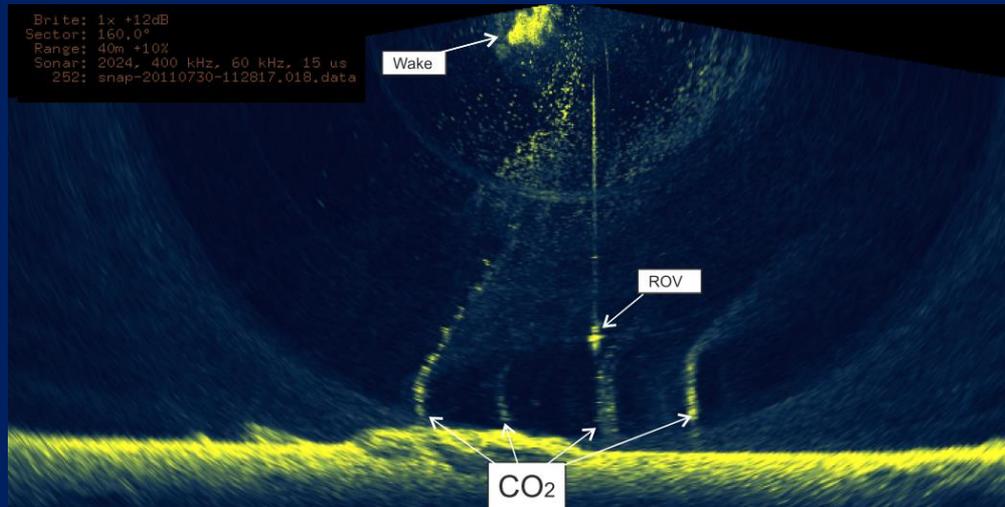
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Multi-Beam Sonar Detection System





Marine Pollution Control Submersible

AMPOL Oil Stop
Bottom Oil Recovery
System (OSBORS)



Needed Improvements

- Submerged Oil Plume Modeling Capacity
- In-Situ Monitoring Capabilities
- Decision-Making Tools
- Sunken Oil Containment Systems
- Submerged/Sunken Oil Response Capabilities
- Waste Stream Management System Innovation
- Real-world Testing of Non-floating Oil Detection Systems



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