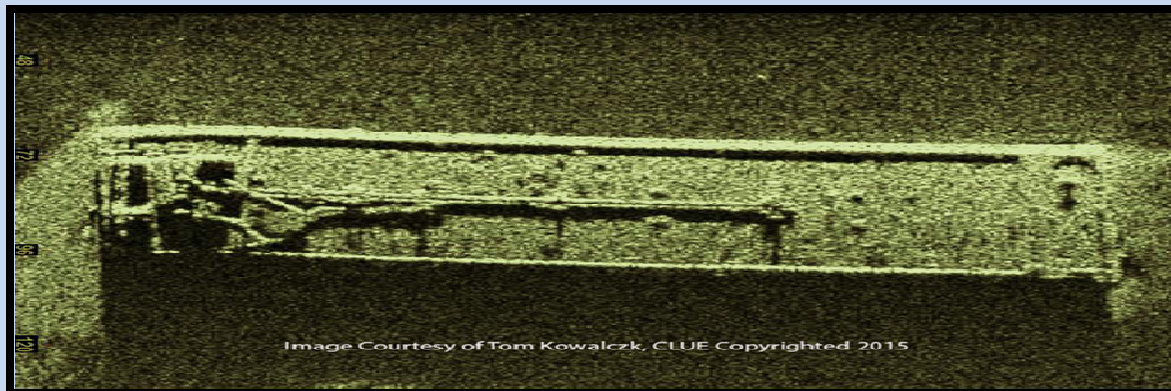




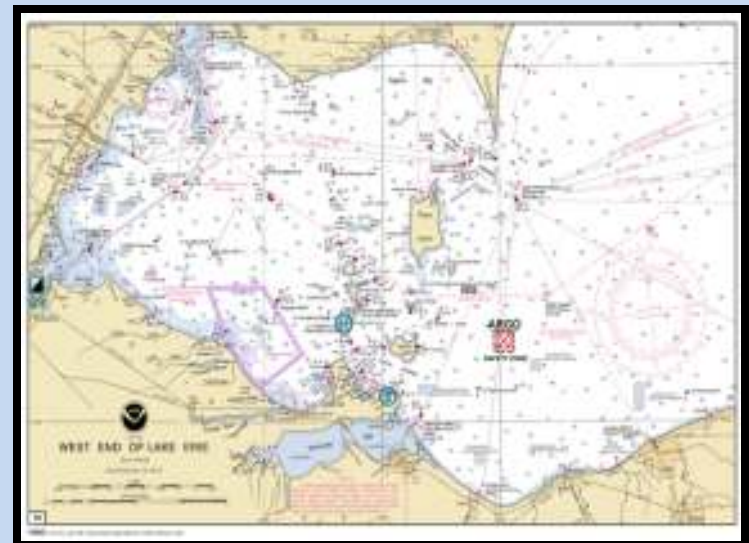
## ARGO Incident



Marine Safety Unit Toledo, OH  
U.S. Coast Guard Sector Detroit, MI  
Ohio Environmental Protection Agency



- ARGO Background: Built 1911, sunk in 1937 (78 yrs ago), 120ft x 35ft x 12ft with 4 to 5ft visible above mudline, lays in 50ft of water
  - Carrying approx 200,000 gal of product
  - Thought to be in Canadian waters off Pelee Island, discovered in U.S. waters 9 mi east of Kelly's Island
  - Subject of NOAA RULET in 2013





# Cleveland Underwater Explorers

- On Friday, August 28, 2015, while performing a historical shipwreck side scan sonar search in the waters of Lake Erie, Tom Kowalczk of the Cleveland Underwater Explorers (CLUE) detected a target of interest...Argo.
- CLUE provided their findings to the US Coast Guard 9<sup>th</sup> District Staff.



Tom Kowalczk



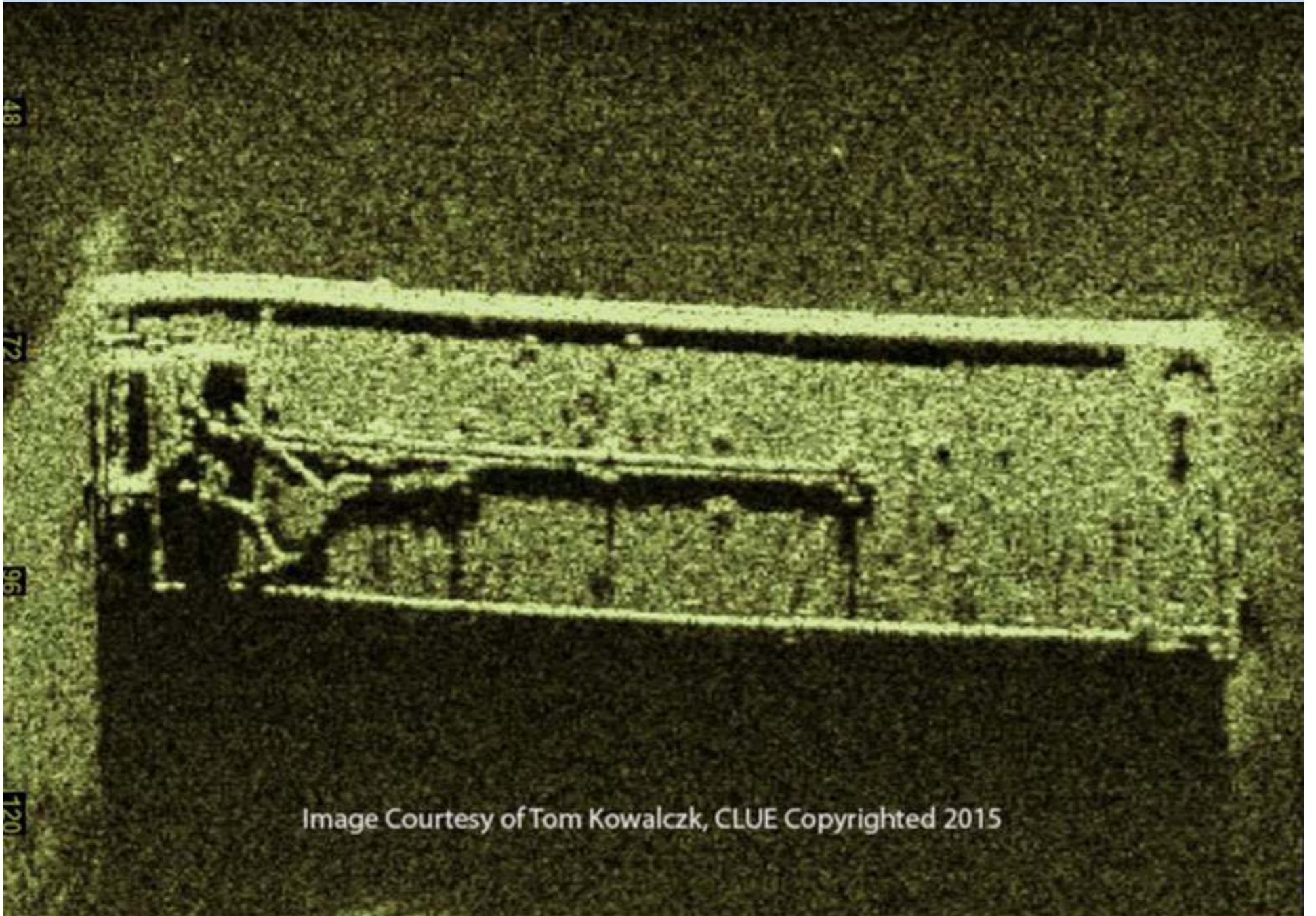


Image Courtesy of Tom Kowalczyk, CLUE Copyrighted 2015

# Challenges

- The unknowns
  - Vessel construction and stability
  - Cargo information
- Offshore operations limited by weather
- Diver-led operations with no visibility
- No Responsible Party
- Availability of temporary storage

## CUTTERS STILL IN SEARCH OF BARGE

No Trace of Argo With Cargo of Benzol Is Found In Lake Erie Near Islands; Shipping Warned.

Two coast guard cutters, the Tahoma of Cleveland and the Frederick Lee of Toledo, continued their search of the waters of western Lake Erie today for the 135-foot barge Argo loaded with explosive benzol that broke loose from the tug Syosett near Kelleps Island during the storm that swept over the lake yesterday.

The Lake Carriers Association has warned all boats plying western Lake Erie to be on the lookout for the barge which is a menace to all shipping and believed to be floating in the ship channel.

Containing 100,000 gallons of crude oil and 100,000 gallons of highly explosive benzol, the barge's cargo is valued at \$30,000.

Two crew members, Charles Warrick, 24, and Peter Boszuk, 26, both of New York, were rescued by the tug Syosett when they were thrown into the water as the barge turned over.

An investigation was to be held in Lorain today by the marine inspection department to determine the cause of the loss of the barge.



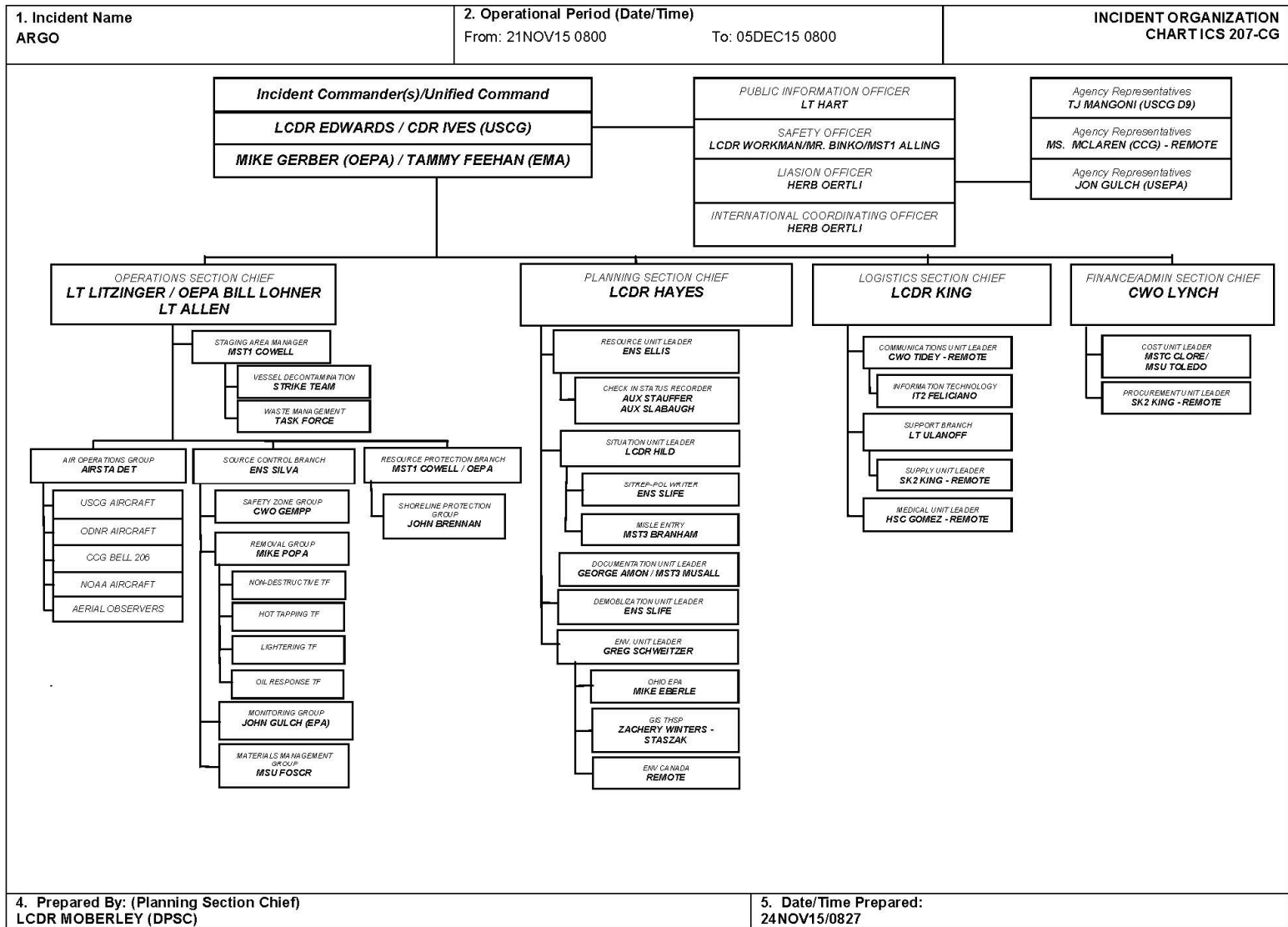
# National Contingency Plan

The federal government's blueprint for responding to both oil spills and hazardous substance releases. The National Contingency Plan is the result of the country's efforts to develop a national response capability and promote overall coordination among the hierarchy of responders and contingency plans.



# Use of NCP Special Teams

- DRAT/DRG
- NSF
- IMAT
- NOAA SSC
- SERT
- NPFC







- Operations: management of tactics in support of the primary mission
  - Current operations
  - Future operations



# International Coordinating Officer

- Activated CANUSLAK
- CCG Deployed ICO to ICP
- Provided tactical resources
- Provided planning support through Environmental Unit
- JIC representation – one voice

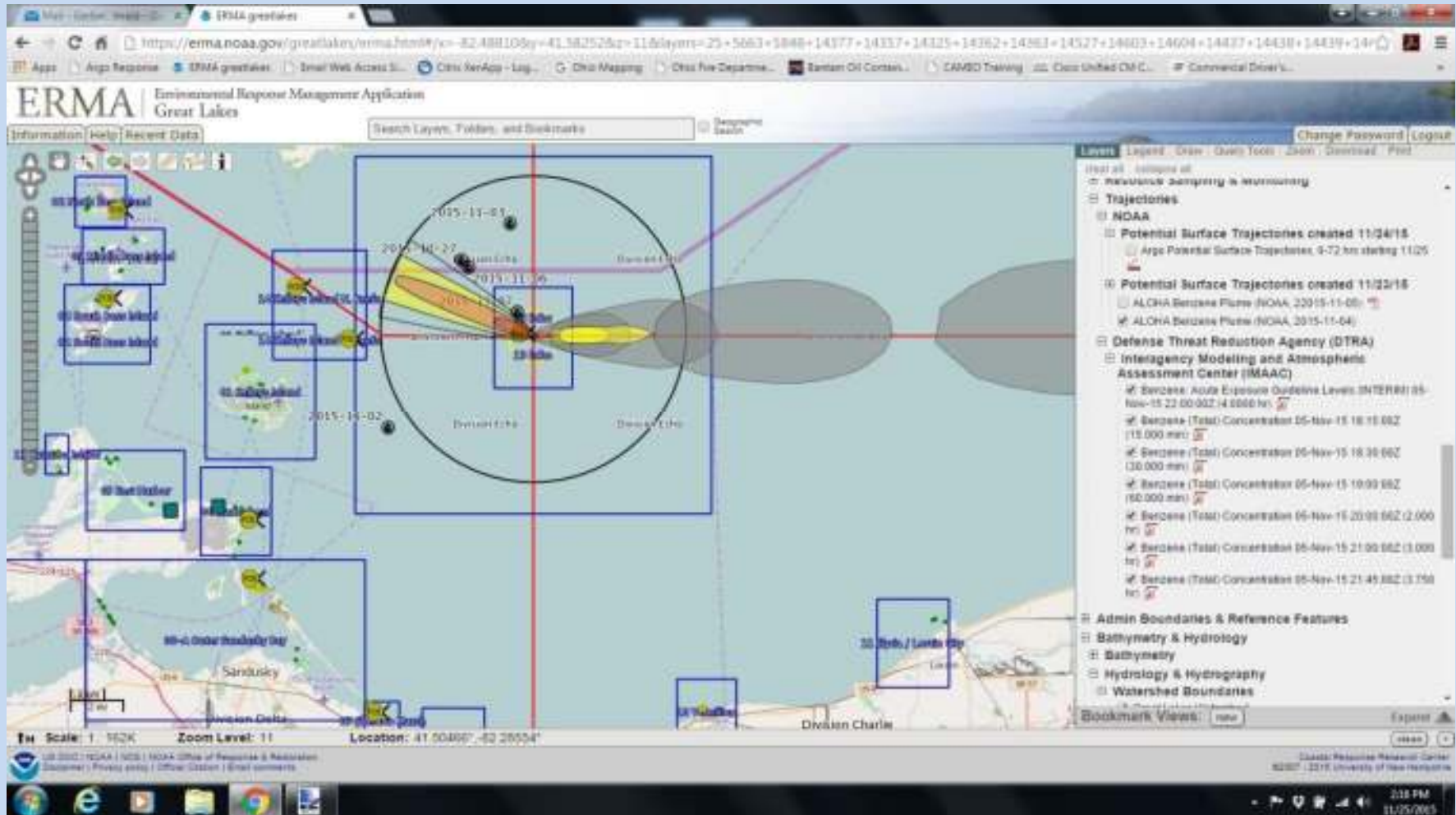


# Incident Command Post

Lucas County Emergency Operations Center

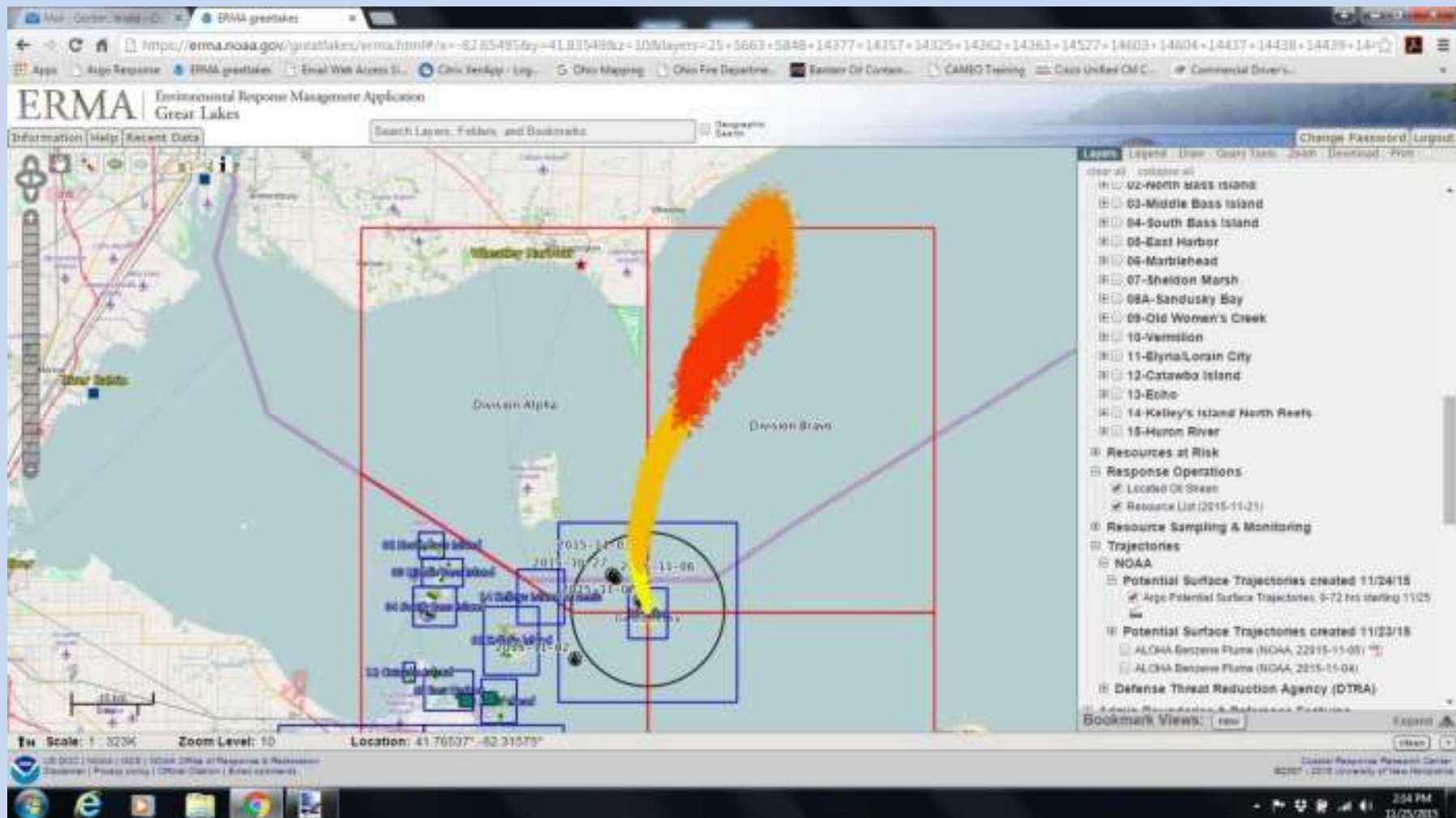


# Air Plume Modeling





# NOAA Oil Movement Modeling





# Geographical Response Plans

Tank Barge Argo, Toledo, OH

Type of Map: 54 South Bass Island GRP

Prepared by: NOAA

USE ONLY AS A GENERAL REFERENCE

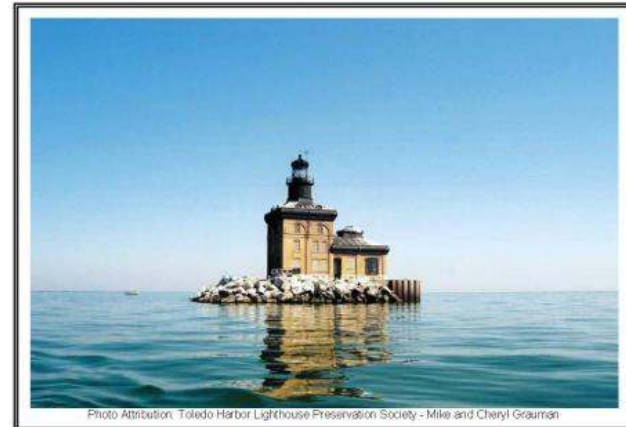
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## Western Lake Erie Area Contingency Plan Coastal/Inland

A Geographic Annex to the SE Michigan ACP

**June 2015**



Lucas, Ottawa, Erie, Sandusky, and Wood  
Counties, Ohio; Monroe County, Michigan

**Western Lake Erie Area Committee**

# Argo Site Investigation



Open Hatch Cover



Penetration in Tank Top

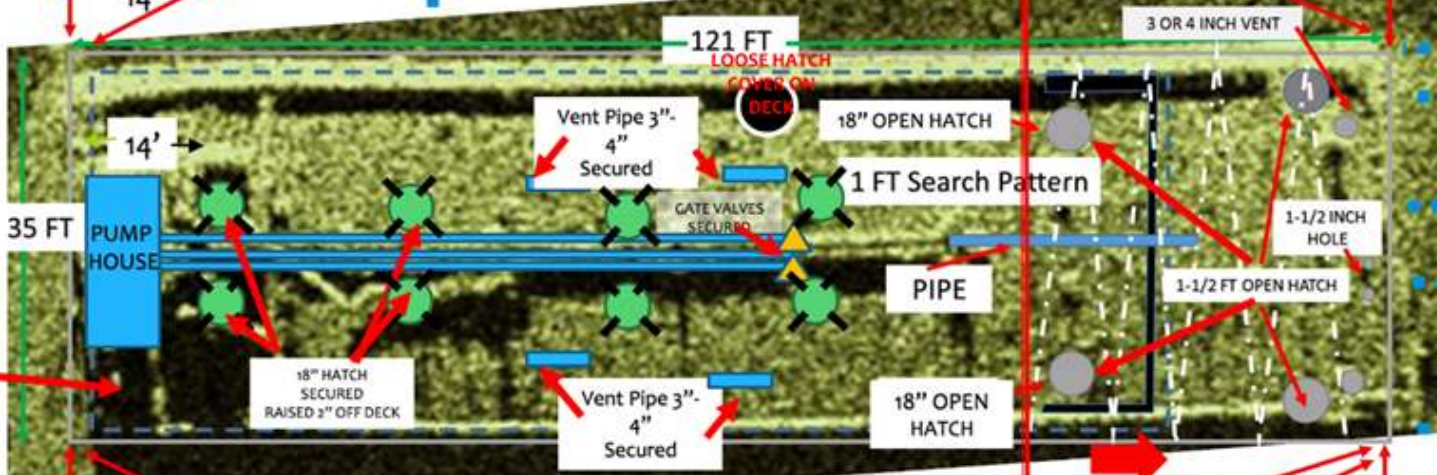


11/5/2015

\* NOTE: NOT TO SCALE

COMPLETED AREA ON 10/31/15  
COMPLETED AREA ON 10/30/15

TOP OF DECK 41 FT



COMPLETED AREA ON 11/1/15

COMPLETED AREA ON 10/27/15

# Product Release

- During preparation of the Argo for cargo offload a rivet popped free and product was released.
- Released product damaged the diver's mask and suit.



# New dive suit

- Following the release, a new dive suit was used to prevent injury
  - Positive pressure suit to repel product if suit was punctured
  - Upgraded dive helmet





# Samples Taken from Leak Site



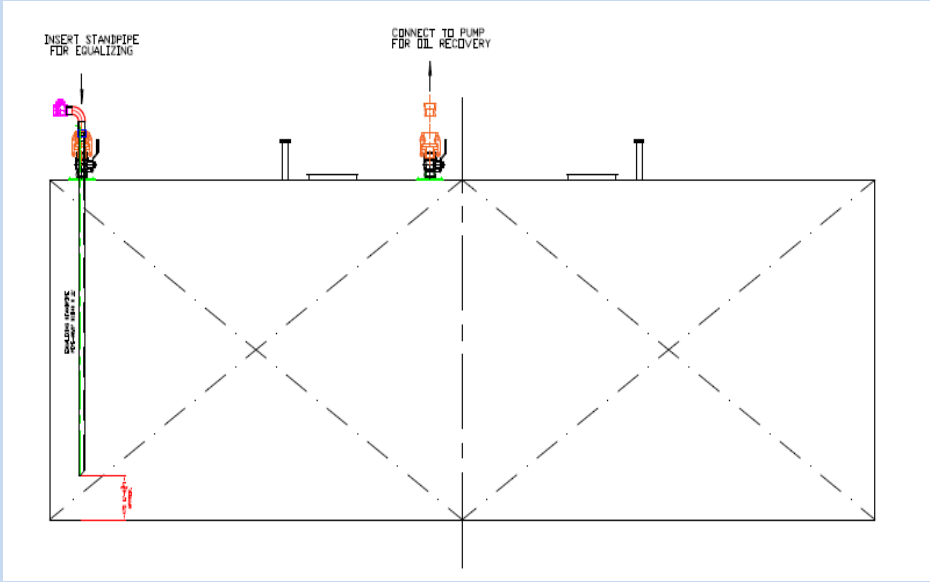
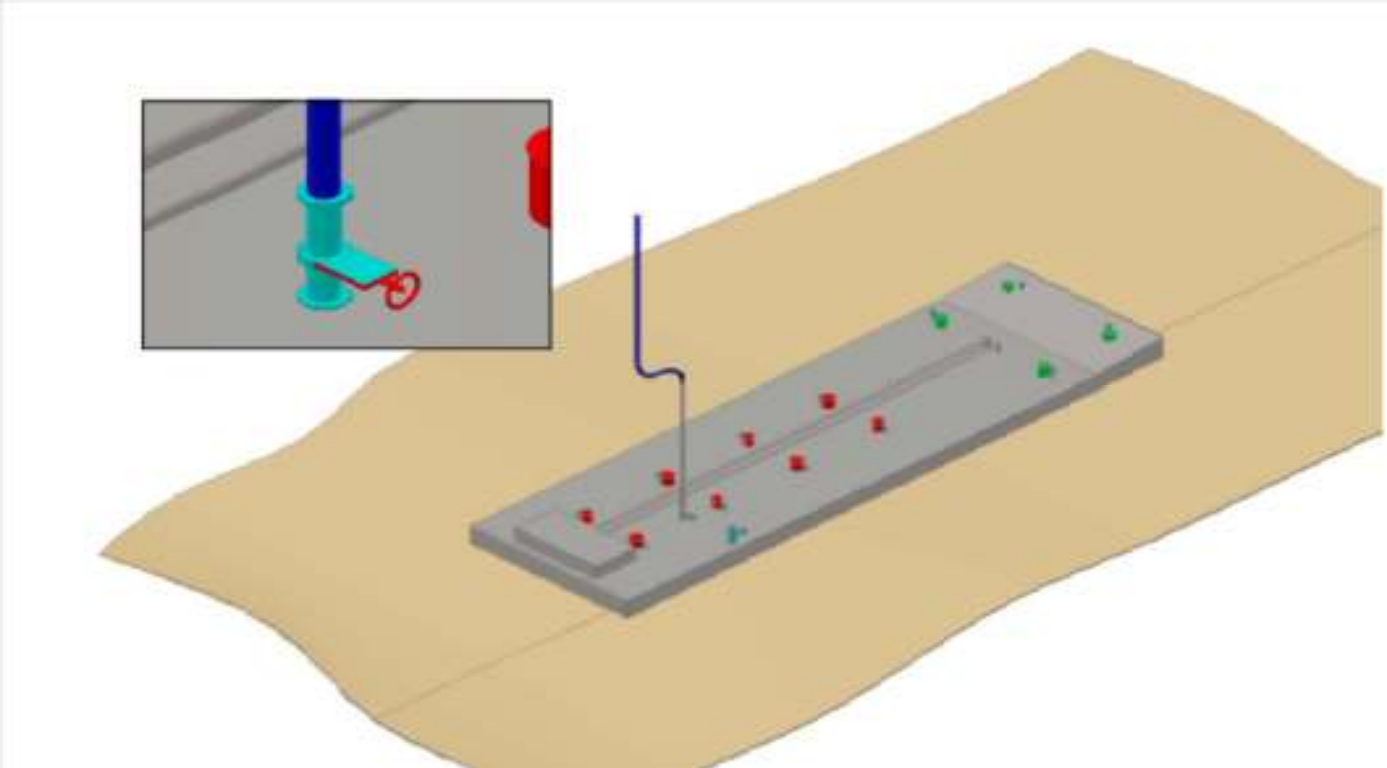
- US EPA contractors conducted all product and water sampling during the response

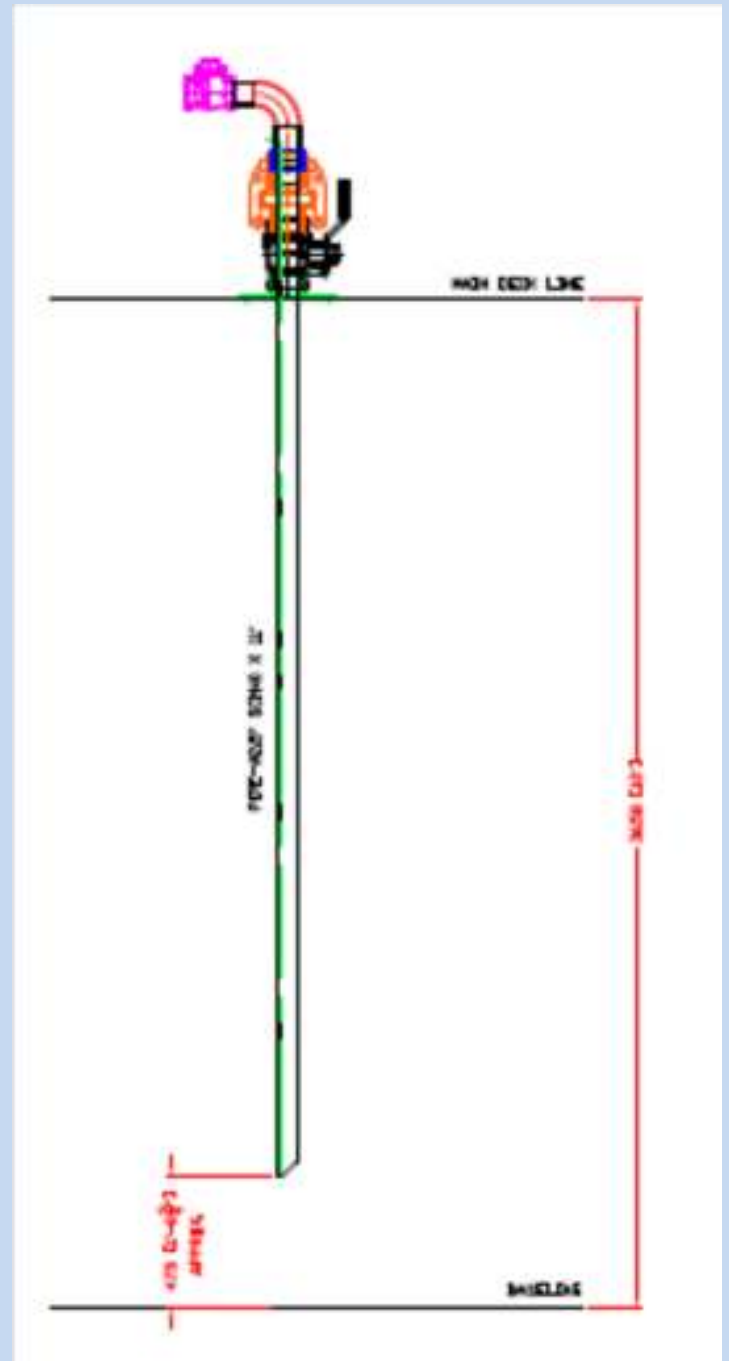
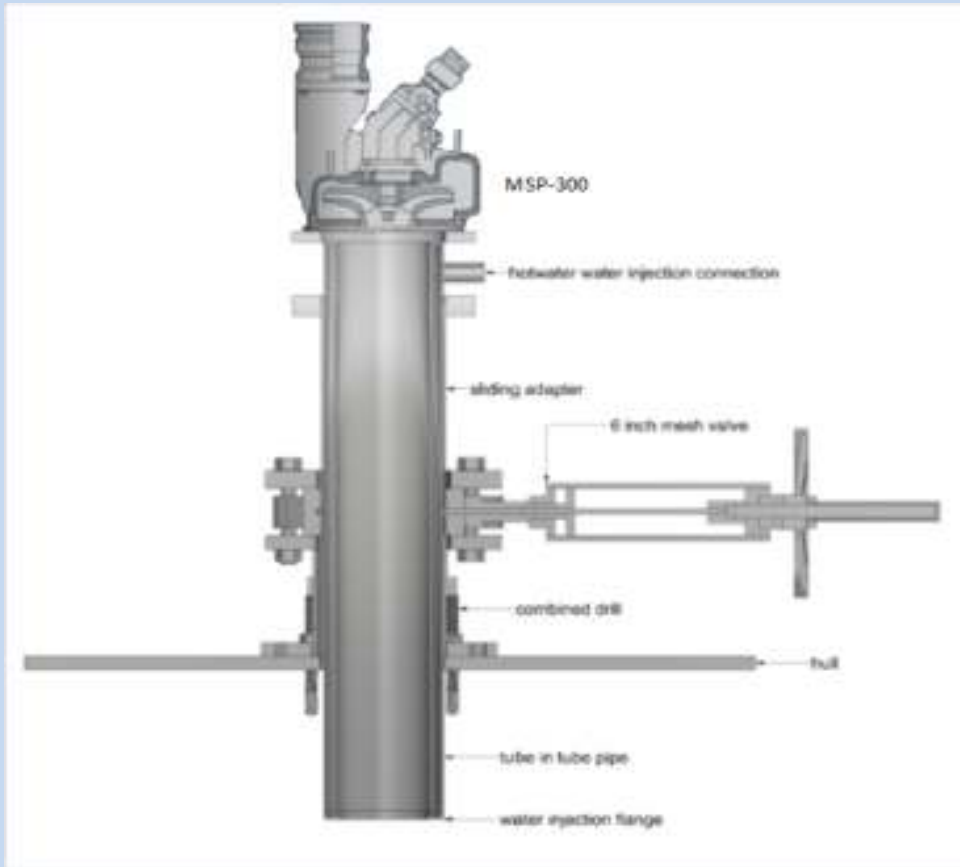




# Hot Tapping

- Hot tapping – making a connection with a vessel/pipe without releasing product
- Argo was encased in mud requiring an innovative hot tapping technique
  - Two taps were placed in the top of the tank
  - A pipe was placed in one tap to allow water to push product from the bottom of the tank to the other tap





# Staging of Equipment

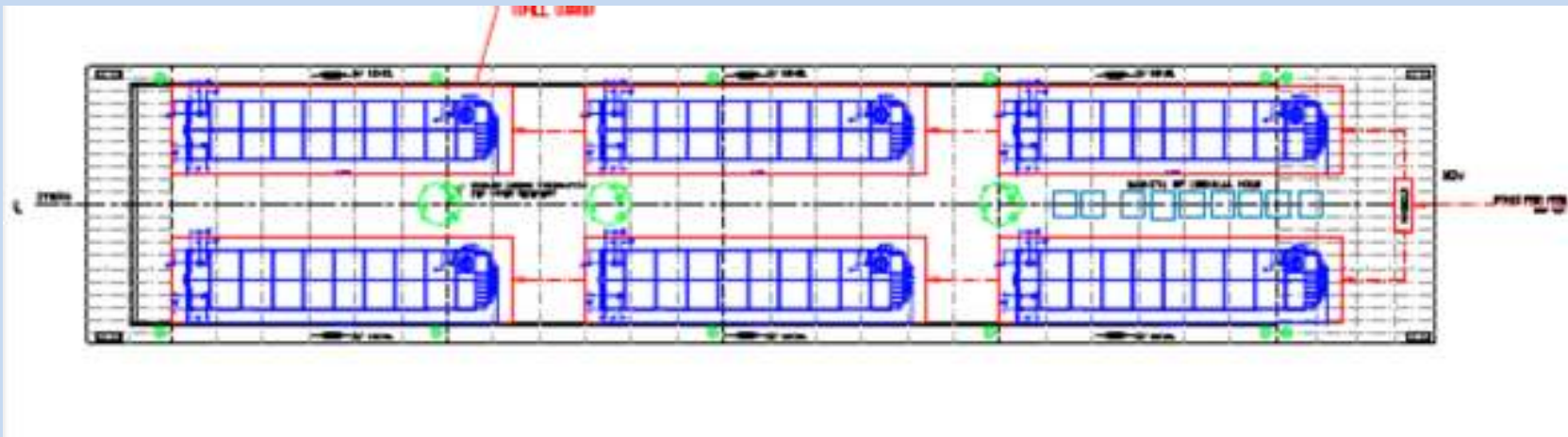




# Temporary Storage

- A suitable tank barge to receive offloaded product was not available.
- A “tank barge” was created using Frac Tanks and a vapor collection system.

# Receiving Barge



# Receiving Barge



# Air Monitoring

- USCG Atlantic Strike Team (AST) conducted air monitoring during the response
- AST provided the platform for water sampling



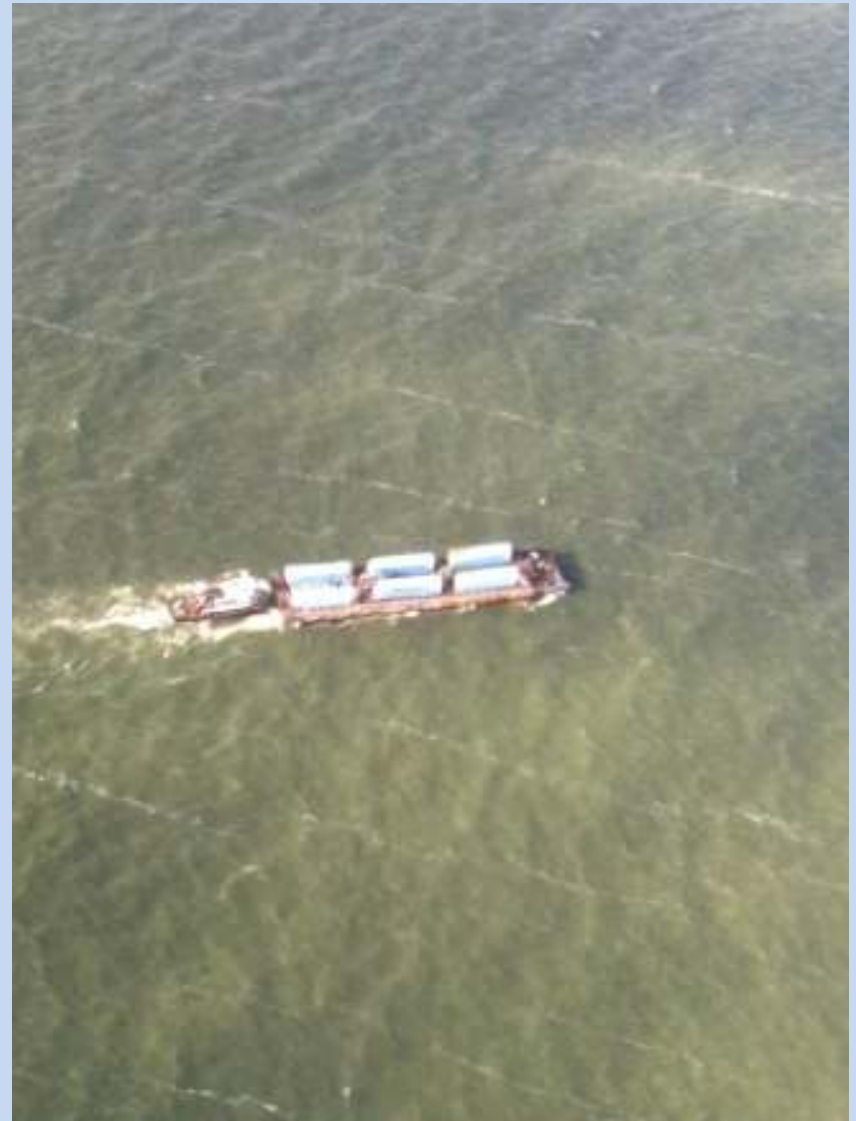




# Safety Zone Enforcement



# Positioning of the Work Platforms Offshore













# Hot Tap Prep & Hot Tapping





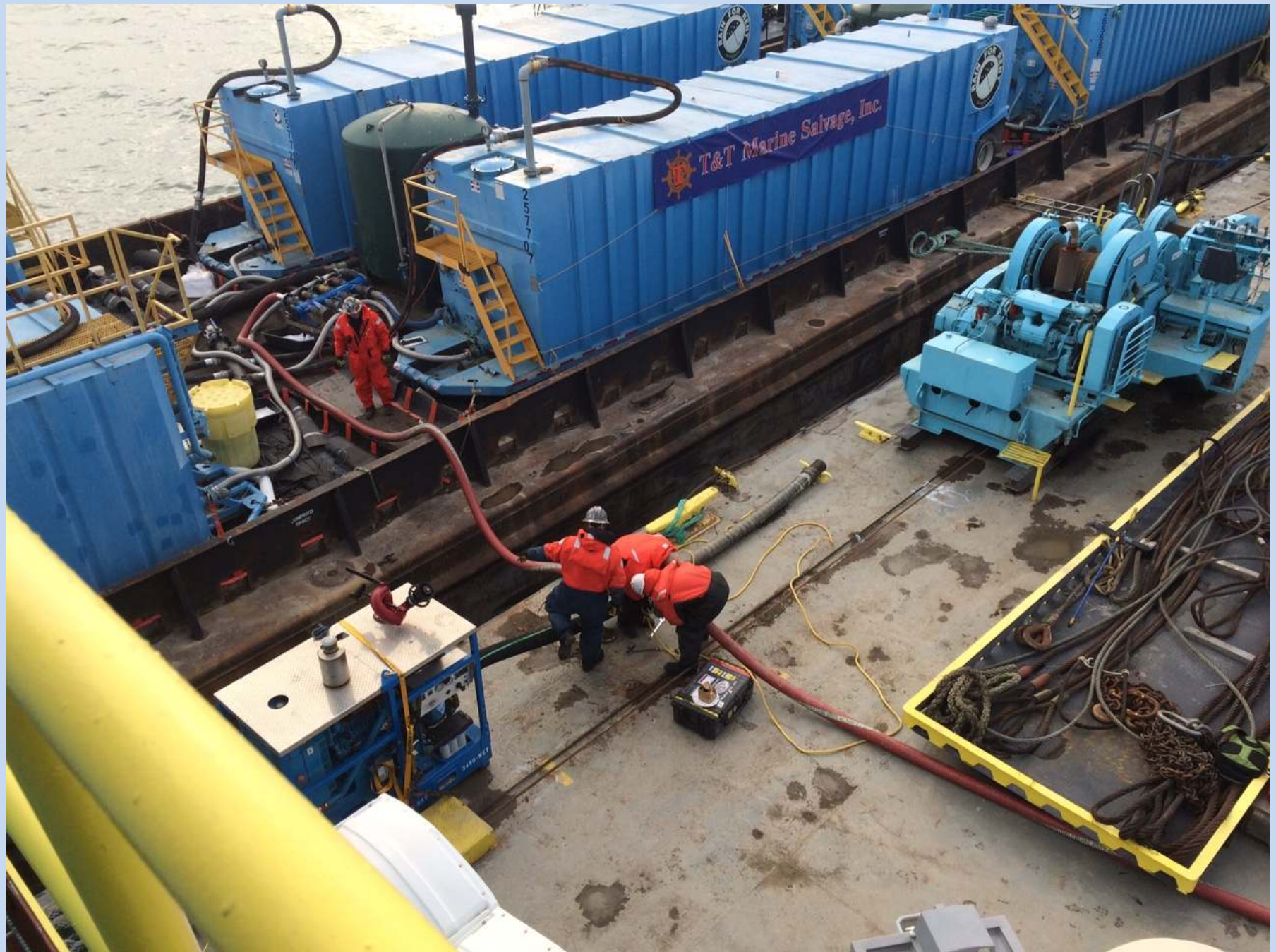
# Lightering Operations & Product Sampling





11.29.2015 13:42









# Product Sampling for final disposition



The End.