

USCG Sector Detroit

June 21, 2011

Tug ANN MARIE

Lessons Learned



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December 13, 2010

- Background
 - On 13DEC, Sector Detroit received a call that the 65 ft Tug ANN MARIE sunk at the Bay Aggregate facility in Bay City, MI. The tug was submerged in 25 ft of water with the mooring lines still attached. Because of sub-freezing temperatures, ice enclosed the area around the vessel except for a small area above the vessel where the diesel had pooled.
- Potential Discharge
 - 5000 gallons



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December 14, 2010

- Actions Taken:
 - Divers surveyed the vessel and plugged both fuel tanks and the day fuel tank
 - Salvage plan was developed and submitted to the Salvage Engineering Response Team at the Marine Safety Center for review
 - Skimmers were deployed to recover diesel
 - Tug CARL arrived on scene to break up the ice around the Tug ANN MARIE
 - 18" hard boom was deployed around the vessel
- Diesel/water mix recovered: 1700 gallons
- Diesel recovered: 1066 gallons





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CDR Lisa Ragone Jan 10, 2011

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Dec 16, 2010

- Actions taken:
 - Divers made preparations to raise the tug
 - Tug and barge with crane and another crane, staged land side, arrived to raise the tug.
 - Salvage plan was approved by Sector Detroit (COTP)



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December 17-19, 2010

- Actions taken:
 - Divers completed preparations to raise the tug. All hatches were opened and both slings were rigged
 - Recovery operations commenced approx 1700 and concluded approx 2130
 - Salvage personnel remained on scene overnight to ensure the tug remained afloat
 - Marine survey representatives and Sector Detroit personnel were on scene to inspect the vessel.
 - No hull damage was observed
- Total diesel recovered: 1200 gallons



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December 20 – 21, 2010

- Actions taken:
 - Tug interior was cleaned/decontaminated
 - Tug inspection



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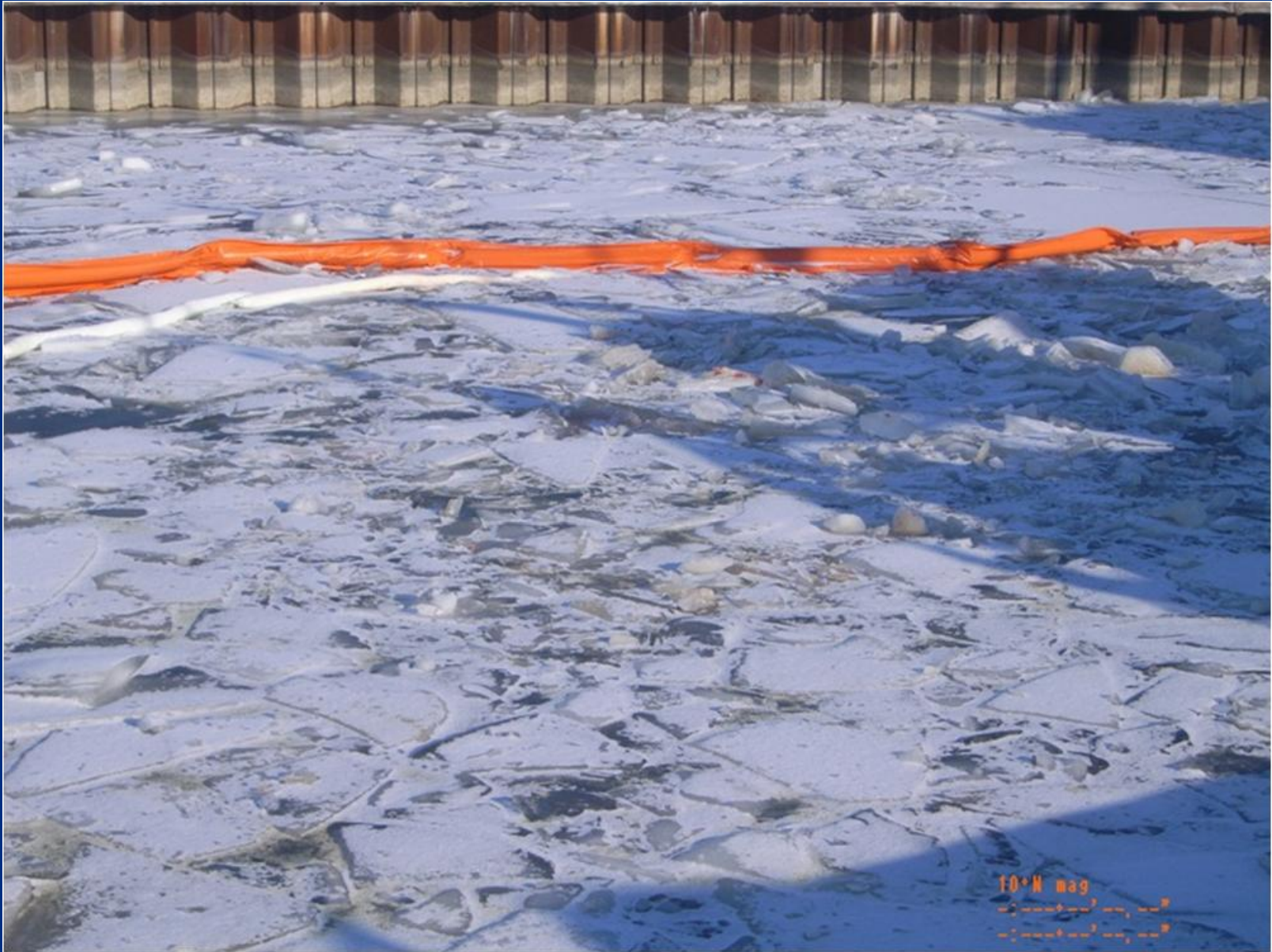
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December 22, 2010

- Actions taken
 - Crane was used to remove ice covered with diesel
 - Eight roll-off bins were filled with ice
 - Michigan DNRE was present during ice removal operations





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Follow Up

- Conducted routine harbor patrols to verify that no residual diesel remained or resurfaced during ice melt



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Lessons Learned

- Proper PPE for personnel to account for temps as low as 10° F
- Good safety plan and daily safety briefs
- Salvage plan review by SERT can take as little as 1 day
- Tug was needed to break up ice around the ANN MARIE so boom could be deployed
- Hot water needed to prevent pumps from freezing
- Crane needed to recover ice covered with diesel
- Boom may become frozen in ice if left in the water for an extended period of time
- Ice thickness increased from 4" - 6" to 8" -10" from 13DEC to 22DEC





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