



Tobago Oil Spill Incident Case Study

Caribbean Regional Response Team
(CRRT) Meeting, Puerto Rico May 19-22
Elmer Emeric
OSRL Incident Manager
1-954-292-5866



Who We Are?

Supporting the industry with expertise and readiness

OSRL is the world's largest industry-funded cooperative for oil spill preparedness and response.

For over 40 years, we have provided industry-leading expertise, resources, and rapid response capabilities, helping our members prepare for and respond to oil spills effectively.

Our role extends beyond spill response—we collaborate with industry to improve preparedness, develop response capability, and share technical insight.



Incident Overview

- Incident Date:
 - February 7, 2024
- Responsible Party:
 - Unknown
- Location:
 - South Coast of Tobago
- Cause:
 - The Gulfstream “ghost-barge” being towed by “Solo Creed” tug from Panama to Guyana. Barge was release by the crew of the tug after it began listing heavily. After drifting for three days the Gulfstream ran aground and capsized on the south coast of Tobago
- Quantity Lost:
 - Estimated 35,000bbls
- Spilt Oil Type:
 - Crude Oil
- Incident Management Team:
 - The Tobago Emergency Management Agency (TEMA)



Impacted Areas: Environmental

- Oil released as barge drifted southwest from where it was released to where it ran aground, impacting nearly 10km of coastline.
- Impacted sensitivities
 - Rip-rap
 - Sandy beaches
 - Mangroves
 - Man-made sea walls and structures
- Minimal impact on wildlife
 - Crustaceans
 - Fish
 - Reptiles
- Cross-boundary impacts
 - Grenada waters
 - Coast of Bonaire





14/02/2024 12:42:55 (-4.0 hrs) Lat=N11 09' 29.16"



0" Lon=W060 47' 23.22" Alt=368ft MSL WGS 1984







Impacted Areas: Economic

- Tourism Impacts
 - Cruise ship terminal
 - Amenity beaches
 - Hotels and resorts
- Fishing Impacts
 - Relocation of fishing village
 - Closure of fishing areas from shore
- Business Impacts
 - Air quality concerns
 - Response implications (road closures)
- Community Impacts
 - Temporary closure of schools and cancellation of other community events



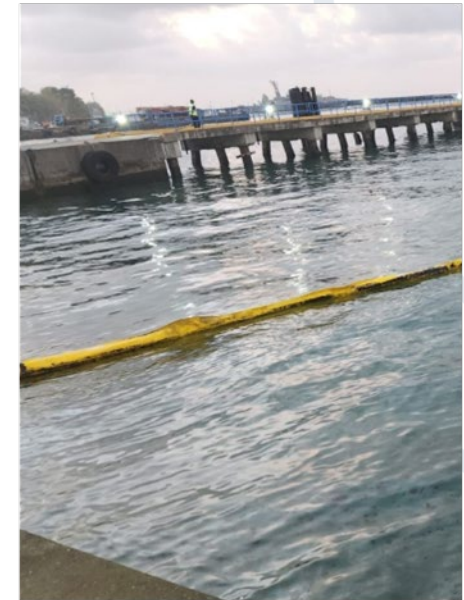
Initial Response Actions

- Wednesday 7th February 2024
 - Tobago Emergency Management Agency (TEMA) received report of overturned vessel
 - TEMA and Environmental Management Authority (EMA) completed a preliminary assessment of the shoreline, including the taking of oil samples.
 - TEMA notified key stakeholders (Trinidad & Tobago Coastguard, Department of Environment, Department of Marine Resources, Ministry of Energy and Energy Industries).
- Thursday 8th February 2024
 - Incident classified as Level 2 incident and national assistance sourced.
 - Initial Clean-up plan developed.
 - Response resources and support from The Tobago House of Assembly (THA), Kaizen International, Frontier Divers, Fisherfolk Association of Tobago, and the Port Authority of Trinidad and Tobago mobilized to Tobago.
 - Night Response Operations commenced with protection booming systems deployed at the Port.



Initial Response Strategies: Shoreline

- Shoreline Response Strategies
 - Manual Recovery
 - Mechanical Recovery
 - In-situ cleaning of sediment
 - Protection booms placed around sensitive sites.











Manual Clean-up Operations



TEMA

VOLUNTEERS NEEDED!

CERT
1000 STRONG

OIL SPILL CLEAN-UP CAMPAIGN

Be the Change: Join Us in the OIL SPILL CLEAN UP EFFORT

When: Daily at 8am (During the oil spill clean up response period)
Meeting Point: Scarborough Esplanade Rotunda

CONTACT INFORMATION

- CERT 1000 Vice Chairperson - Caroline Best (868) 296-8681
- CERT 1000 Secretary - Tamia Alfred (868) 310-5606
- CERT 1000 Assistant Secretary - Avion Jonas (868) 771-5023.

TEMA sourced 1,000 Volunteers for shoreline manual clean-up operations from various agencies such as the Civil Conservation Corps (CCC), Community-based Environmental Protection and Enhancement Programme (CEPEP), Unemployment Relief Programme (URP), Community Emergency Response Team (CERT), as well as within the Tobago Emergency Management Agency (TEMA).

Continuing Operations: OSRL Involvement

- On Sunday, February 11th, 2024, Heritage Petroleum became involved in the response operation.
- As members of OSRL, Heritage Petroleum were able to call upon OSRL who mobilized the 5x5 Technical Advisor service providing support services to the TEMA Incident Management Team which included:
 - Advise on oil spill response strategies (SCAT),
 - On-Scene Commander personnel managing teams involved in shoreline clean-up operations, especially in mangrove areas,
 - Contractor management and coordination with stakeholders,
 - Identification of endpoint criteria for shoreline response operations.
- OSRL completed three rotations of Technical Advisor Teams, finalising their involvement in the response operations with a single rotation of two personnel to manage closeout activities.

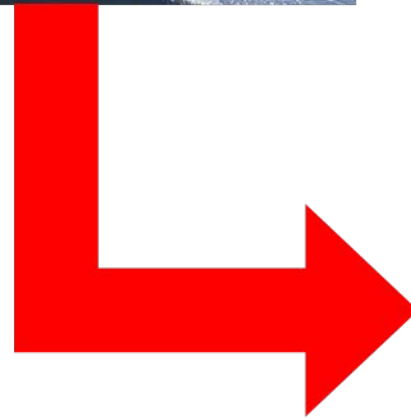


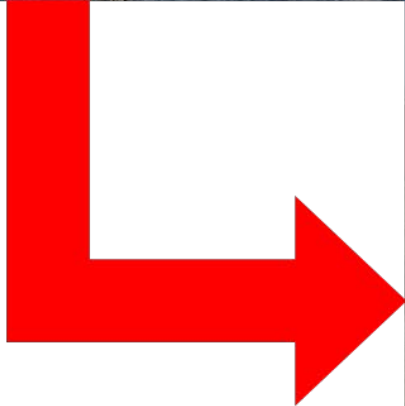
OSRL: Shoreline Cleanup Assessment Technique Operations (SCAT) Prioritizing Areas



Positive Impact







Challenges Experienced During the Response

- Limited Response Equipment
- PPE Shortages
- Inefficient Use of Resources
- Sunken Oil at sea and in waterways
- Buried Oil on Shoreline
- Oiled Sargassum increasing oiled waste volume
- Large Tidal Movement, responder safety
- Community and Volunteer Workforce Organization
- Response Coordination between agencies



Waste Management and Treatment Challenges



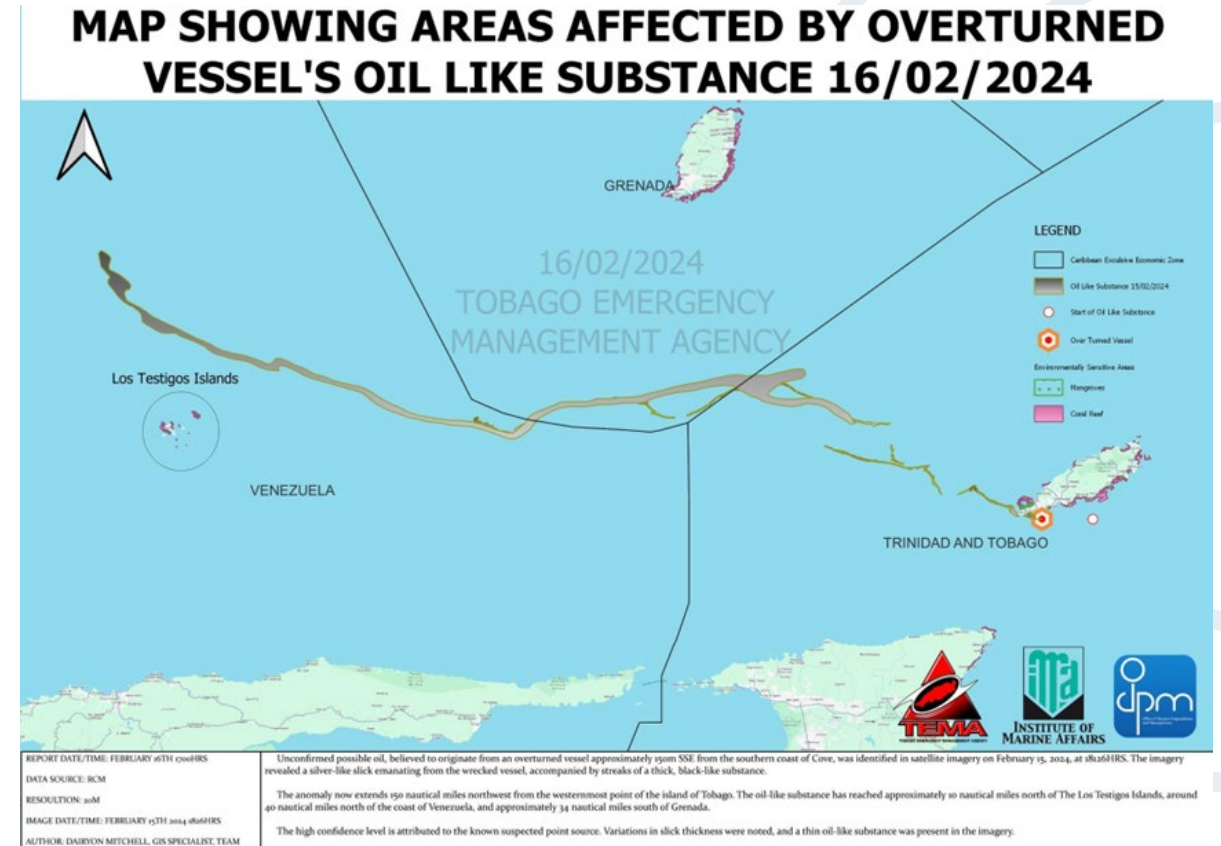
TOTAL HYDRO CARBON COLLECTED

AS AT THURSDAY APRIL 18TH 2024 - 10:30AM



Lessons Learned

- Limited expectation of a spill occurring on Tobago
 - Lack of area contingency plans
 - Limited resources available on island
- Lack of Responsible Party creates challenges in response coordination
 - Funding
 - Contracts with international OSROs
- Governance of Trinidad vs. Tobago
 - Different management authorities
- Presence of sargassum
 - Acts as natural “sorbent”
 - Utilized for identification of collection points
 - Waste implications



Key Takeaways

- This scenario could happen to any country, even without significant oil and gas infrastructure
 - Need for more comprehensive contingency planning for such scenarios
 - Development of environmental emergency funds
 - Continued training to develop capacity for managing incidents
- Significant presence of “Ghost Vessels” in many areas
 - Sanctions on Venezuela, Russia, etc.
 - Unknown products
- Changing shipping routes, new traffic patterns due to environmental changes and regional unrest
- Regional coordination would pose significant challenges
 - Languages, geopolitics, resource acquisition, etc.



Maintaining Proficiency



- Success stories are a combination of two mutually supporting factors:
 - Opportunity
 - Hard Work
- It takes 10,000hrs (approximately 5 years of full-time work) to become an “expert” but you can become skilled with just 100hrs of focused actions.
- Training Plan: Develop a customized Incident Management and Response Action training plan for your teams.
- Exercise and Drills: Regular practice to enhance proficiency.
- Collaboration: Foster partnerships with neighboring countries.

Thank You!

Question and Answer Session

<https://www.osrl.com/>