Experience with Diluted Bitumen Spill

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Western Canada Marine Response Corporation (WCMRC)
WCMRC is the Response Organization certified to respond to marine oil spills along British Columbia’s 27,000 km of coastline.

Established in 1976 as an industry co-op, it became Canada’s first certified response organization in 1995.
WCMRC has its main office in Burnaby, and regional offices located in Duncan and Prince Rupert.

WCMRC’s full and part-time staff are available 24/7 for spill responses and can access equipment caches located strategically along the west coast.
WCMRC’s Member base is approximately 2200

- Oil Companies
- Tankers
- Barges
- Freighters
- Ferries
- Cruise Ships
- Oil Handling Facilities
Containment Boom

- River (River Boom)
- Shoreline (Shore Seal Boom)
- Sheltered Water (General Purpose Boom)
- Unsheltered Water (Kepner & Zoom Boom)
- Open Water (Ro-boom)
Sweep Systems

- NOFI Sweep
- NOFI Current Buster
Portable Oil Spill Response Skimmers

- Fuzzy Disk Skimmer
- RBS Multi Head Skimmer
- GT–185 Skimmer with Brush Conversion
Skimming vessels
Storage

- Barges
- Towable Bladders
- Floating Collar Tanks
2007 Westridge Response
What is Dilbit?

Dilbit (diluted bitumen) means "Blends made from heavy crudes and/or bitumens and a diluent" usually condensate.

Synbit (synthetic bitumen) a 50/50 blend of bitumen and synthetic crude oil. This was the spilled product.
The Incident

- 13:15 hrs. July 25th, 2007, call from the Burnaby Fire Department that they were responding to a crude oil pipeline rupture.

- 13:35 hrs. Calls to confirm that the oil has entered the sewer lines but nothing has been seen in water yet.

- 13:55 hrs. first sighting of oil in Burrard Inlet, volume unknown

- 14:15 hrs. first boom deployed. Support from member tug company and local oil company’s response vessel.

- 15:00 hrs. WCMRC on-scene vessels report initial containment boom in place at release point #1 – Aerial survey of area shows sheen outside primary boom

- 16:00 hrs. additional 1,000 ft. of boom brought in for secondary boom at release points
Approximately 232,000 liters; 1400 barrels of crude oil spill had been released

Approximately 100,000 liters; 100 tonnes enters storm drains and makes its way into Burrard Inlet.
1\textsuperscript{st} Priority – Scene assessment/Safety
2\textsuperscript{nd} Priority – Containment – Boom
3\textsuperscript{rd} Priority – Gross oil recovery
4\textsuperscript{th} Priority – Shoreline protection & shoreline cleanup
Two knot currents

July 27, 2007
Oil Recovery
Burrard Cleaner No. 2
12.8 Meters
8 knots
16.2 Tonne per hour
12 Tonne storage capacity

RBS Triton 10 – Portable Skimmer
2.7 Tonne per hour
6 Vacuum Trucks used
Marco Skimming belt
MARCO Belt Skimmer video
- 1200 Meters of shoreline
- Shoreline treatment using Corexit 9580A
Corexit Application
Crab Traps filled with sorbent snare were lowered into the containment area to assess for "sinking" oil.
Response Duration

- The bulk oil on-water clean up was completed within five days
- Shoreline clean up completed within two months
- On-going monitoring completed within 18 months
Key Learnings:

- Diluted Bitumen did not sink in this situation (minimal wave action and wind, warm temperatures, clear salt water)
- Response equipment worked well during both containment and recovery
- Shoreline equipment (low pressure deluge, passive recovery) worked well
- Excellent Response Network support
Questions?

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