

## PRE-SPILL SCAT TEMPERATE-ARCTIC SEGMENT SURVEY

<b>1 GENERAL INFORMATION</b>	
Area: _____ Location: _____	Segment Number: _____
Survey Date: _____ Survey Time: _____	Tide Level: _____ m
Observer Name: _____	Weather/Wind Conditions: _____
Participants: _____	
	Snow-Ice Conditions: _____

<b>2 PHYSICAL CHARACTER</b> Segment Length: _____ m Width (intertidal): _____ m Width (backshore): _____ m Nearshore Reef/Shoal: Yes ___ No ___ Shoreline Waves (normal/average breaker height): < 25 cm ___; 25-50 cm ___; 50 cm-1 m ___; > 1 m ___ <u>POTENTIAL OIL BEHAVIOUR:</u> natural alongshore movement barrier: yes / no man-made alongshore barrier: yes / no natural bay or embayment: yes / no tidal inlet or channel: yes / no tidal lagoon or estuary: yes / no sand shoreline/potential for burial: yes / no overwash into lagoon or marsh: yes / no pebble-cobble shoreline/penetration potential: yes / no riprap, boulder shoreline/penetration-remobilization potential: yes / no marsh-wetland-tundar/potential for oiling meadow area: yes / no other: _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">SUBSTRATE TYPE (from list below)</th> <th>*LITZ</th> <th>UITZ</th> <th>SU</th> </tr> <tr><td>Bedrock</td><td></td><td></td><td></td></tr> <tr><td>Man-Made Solid</td><td></td><td></td><td></td></tr> <tr><td>Ice</td><td></td><td></td><td></td></tr> <tr><td>Sand Beach</td><td></td><td></td><td></td></tr> <tr><td>Mixed Sediment Beach (Sandy Gravel)</td><td></td><td></td><td></td></tr> <tr><td>Pebble-Cobble Beach</td><td></td><td></td><td></td></tr> <tr><td>Mixed Sediment Beach (Coarse Gravel)</td><td></td><td></td><td></td></tr> <tr><td>Boulder Beach</td><td></td><td></td><td></td></tr> <tr><td>Sand Tidal Flat</td><td></td><td></td><td></td></tr> <tr><td>Salt Marsh</td><td></td><td></td><td></td></tr> <tr><td>Peat</td><td></td><td></td><td></td></tr> <tr><td>Inundated Lowlying Tundra</td><td></td><td></td><td></td></tr> </table> <p style="font-size: small;">* LITZ = lower intertidal zone; UITZ = upper intertidal; SU = supratidal zone</p> <b>COASTAL CHARACTER</b> ___ cliff      ___ tidal inlet      ___ marsh ___ platform      ___ beach      ___ overwash ___ man made      ___ delta      ___ scree/talus ___ estuary      ___ dune      ___ tundra ___ channel      ___ flats      ___ peat bog	SUBSTRATE TYPE (from list below)	*LITZ	UITZ	SU	Bedrock				Man-Made Solid				Ice				Sand Beach				Mixed Sediment Beach (Sandy Gravel)				Pebble-Cobble Beach				Mixed Sediment Beach (Coarse Gravel)				Boulder Beach				Sand Tidal Flat				Salt Marsh				Peat				Inundated Lowlying Tundra			
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3 RESOURCE ISSUES		
	Primary Resource(s) at Risk	Response Constraints
Environmental		
Cultural		
Human Use/ Economic		

<b>4 OPERATIONAL CHARACTERISTICS</b>		
Surrounding Human-Use Activities (if any): Natural / Agricultural / Commercial / Residential / Recreational		
Potential nearby access: fixed-wing _____; helo.pad/landing _____; boat landing _____; ATV _____		
Access constraints/limitations: _____		
Describe the amount of pre-impact debris pickup/relocation work? _____ (light / moderate / heavy) No. of bags? _____ (estimate # of bags)		
remote: yes / no	winter shore ice: yes / no / ?	narrow intertidal zone: yes / no
staging areas: yes / no	exposed coast: yes / no	shore zone suitable for machinery: yes / no / ?
road access: yes / no / ?	strong currents: yes / no	backshore cliff yes / no
alongshore access: yes / no / ?	nearshore shoals/reefs: yes / no / ?	high tidal range: yes / no
<b>Comments:</b>		

<b>5 OPERATIONAL SAFETY CONSIDERATIONS</b>
<i>Note Safety Constraints Beyond Normal — or N/A:</i>

## PRE-SPILL SCAT TEMPERATE-ARCTIC SEGMENT SURVEY

<b>GENERAL INFORMATION</b>	Survey Date: _____
Area: _____ Location: _____	Segment: _____

<p><b>6 RESPONSE GOALS</b></p> <p><u>SEGMENT PROTECTION OBJECTIVES:</u></p> <p><input type="checkbox"/> Prevent contact with shore or resource(s) at risk</p> <p><input type="checkbox"/> Minimize contact</p> <p><input type="checkbox"/> Prevent oil movement to adjacent segment(s)</p> <p><input type="checkbox"/> Contain stranded oil</p> <p><input type="checkbox"/> Prevent oil transport into inlet, estuary, or channel</p> <p>Other: _____</p> <p><u>SEGMENT PROTECTION STRATEGIES:</u></p> <p><input type="checkbox"/> Contain/recover oil on water</p> <p><input type="checkbox"/> Alter direction of movement of oil on water</p> <p><input type="checkbox"/> Prevent oil movement (landward) on flooding tides</p> <p><input type="checkbox"/> Trap/contain and collect oil at the shoreline</p> <p><input type="checkbox"/> Prevent remobilization of stranded oil</p> <p><input type="checkbox"/> Prevent overwash into the backshore or a lagoon</p> <p><input type="checkbox"/> Pre-impact shoreline debris removal</p> <p>Other: _____</p>	<p><u>SHORELINE CLEANUP/TREATMENT OBJECTIVES:</u></p> <p><input type="checkbox"/> Allow natural recovery</p> <p><input type="checkbox"/> Restore shore to pre-oiling condition</p> <p><input type="checkbox"/> Accelerate natural recovery</p> <p><input type="checkbox"/> Restore with minimal removal of material</p> <p><input type="checkbox"/> Minimize oil remobilization</p> <p><input type="checkbox"/> Minimize damage to dune, marsh, or peat bog</p> <p>Other: _____</p> <p><u>SHORELINE CLEANUP/TREATMENT STRATEGIES:</u></p> <p><input type="checkbox"/> Monitor</p> <p><input type="checkbox"/> Act quickly to remove stranded oil before burial</p> <p><input type="checkbox"/> Remove bulk oil only</p> <p><input type="checkbox"/> Minimize waste generation using <i>in-situ</i> treatment methods</p> <p><input type="checkbox"/> Manual techniques preferred</p> <p><input type="checkbox"/> Salt-marsh fringe/meadow treatment strategies</p> <p><input type="checkbox"/> Man-made backshore riprap treatment techniques</p> <p>Other: _____</p>
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<p><b>7 METHODS</b> ----- (check all that are appropriate and feasible) -----</p> <p>(mark "?" if possibly useful; mark "X" if not recommended or inappropriate)</p>																					
<p><u>POTENTIAL PROTECTION OPTIONS:</u></p> <p><input type="checkbox"/> 1. Nearshore containment/recovery</p> <p><input type="checkbox"/> 2. Nearshore redirection (away)</p> <p><input type="checkbox"/> 3. Nearshore redirection (towards)</p> <p><input type="checkbox"/> 4. Exclusion boom</p> <p><input type="checkbox"/> 5. Shoreline (intertidal) protection boom</p> <p><input type="checkbox"/> 6. Shoreline barrier/berm</p> <p><input type="checkbox"/> 7. Contact barrier</p> <p><input type="checkbox"/> 8. Channel boom/barrier</p>	<p><u>POTENTIAL CLEANUP/TREATMENT OPTIONS:</u></p> <table style="width: 100%;"> <tr> <td><input type="checkbox"/> 1. Natural recovery</td> <td><input type="checkbox"/> 11. Mechanical removal</td> </tr> <tr> <td><input type="checkbox"/> 2. Flooding</td> <td><input type="checkbox"/> 12. Vegetation removal</td> </tr> <tr> <td><input type="checkbox"/> 3. Low-pressure, cold wash</td> <td><input type="checkbox"/> 13. Passive sorbent</td> </tr> <tr> <td><input type="checkbox"/> 4. Low-pressure, hot/warm wash</td> <td><input type="checkbox"/> 14. Tilling/Aeration</td> </tr> <tr> <td><input type="checkbox"/> 5. High-pressure, cold wash</td> <td><input type="checkbox"/> 15. Surf washing/Sediment reworking</td> </tr> <tr> <td><input type="checkbox"/> 6. High-pressure, hot/warm wash</td> <td><input type="checkbox"/> 16. Burning</td> </tr> <tr> <td><input type="checkbox"/> 7. Steam cleaning</td> <td><input type="checkbox"/> 17. Dispersants</td> </tr> <tr> <td><input type="checkbox"/> 8. Sandblasting</td> <td><input type="checkbox"/> 18. Shoreline cleaners</td> </tr> <tr> <td><input type="checkbox"/> 9. Manual removal</td> <td><input type="checkbox"/> 19. Solidifiers</td> </tr> <tr> <td><input type="checkbox"/> 10. Vacuums</td> <td><input type="checkbox"/> 20. Bioremediation/Nutrient enrichment</td> </tr> </table>	<input type="checkbox"/> 1. Natural recovery	<input type="checkbox"/> 11. Mechanical removal	<input type="checkbox"/> 2. Flooding	<input type="checkbox"/> 12. Vegetation removal	<input type="checkbox"/> 3. Low-pressure, cold wash	<input type="checkbox"/> 13. Passive sorbent	<input type="checkbox"/> 4. Low-pressure, hot/warm wash	<input type="checkbox"/> 14. Tilling/Aeration	<input type="checkbox"/> 5. High-pressure, cold wash	<input type="checkbox"/> 15. Surf washing/Sediment reworking	<input type="checkbox"/> 6. High-pressure, hot/warm wash	<input type="checkbox"/> 16. Burning	<input type="checkbox"/> 7. Steam cleaning	<input type="checkbox"/> 17. Dispersants	<input type="checkbox"/> 8. Sandblasting	<input type="checkbox"/> 18. Shoreline cleaners	<input type="checkbox"/> 9. Manual removal	<input type="checkbox"/> 19. Solidifiers	<input type="checkbox"/> 10. Vacuums	<input type="checkbox"/> 20. Bioremediation/Nutrient enrichment
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<b>8 OPERATIONAL ISSUES</b>							
<i>SPILL SITE ACCESS: (Enter "No" or "Yes")</i>							
To/From:	Trucks	Heavy Equip.	2X4 P/U	Backhoes	ATVs	> 50 ft. Vessel	< 15 ft. Runabouts
Staging Area/Backshore							
Intertidal							
Subtidal Water							
<i>HEAVY EQUIPMENT USE FEASIBILITY: (Enter "Good", "Fair", "Poor", or "No" based on ability to operate)</i>							
	Grader	Bulldozer	Front-end Loader	Backhoe	Bobcat	4x4 P/U	ATVs
Access Alongshore							
Bearing Capacity							
Beach Slope/Width							
Maximum Distance to Temporary Storage from Cleanup Site? _____ (metres)							

<b>9 COMMENTS</b>
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<p><b>10 VISUALS</b></p> <p>SKETCH Attached: yes _____ no _____; PHOTOS Attached: yes _____ no _____</p> <p>VIDEO: yes _____ no _____; tape # _____; Minutes _____ to _____; Storage location _____</p>
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